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Gallery of Ge

A Pictorial and Descriptive

TOUR OF THE WORLD

BY

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AUTHOR OF THE 'GALLERY OF NATURE.'

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P R E F A C E

This volume is intended to place in succession before the reader general and specific delineations of the natural and political features of the globe. An attempt has been faithfully made to present it as a GALLERY OF GEOGRAPHY, in which exactness in the details has been sought with care, and a popular mode of treatment, has been adopted. Though the writer is fully conscious of having fallen short of his own ideal, he yet ventures to hope that some fair estimation has been made to it; and that in the department of geographical knowledge an acceptable offering is here contributed to the middle and high-class education, while, at the same time, a convenient form is afforded to those who have the ordeal of *competitive examinations* in that respect.

In such a work there can obviously be no room for originality of discovery. Nature and public policy have indicated the course to be pursued by dividing countries and states from each other, either by the ocean, the river, the mountain-ridge, or the artificial landmark. But attention has been paid to the grouping together, for descriptive purposes, of those countries which are physically related, instead of adopting an alphabetical arrangement or a promiscuous selection, while the due appropriation of space to them has been observed in accordance with their political influence, commercial importance, or natural interest. In this introductory part, the progress of Geographical Discovery has been traced, from the limited travel and timid navigation of the ancients, to the bold enterprises of the moderns, by land and sea, in the Arctic regions and in burning zones, which have resulted in solving the mystery of the North-West Passage, disclosing Antarctic shores, penetrating the mystery from Central Africa, reaching the long-sought source of the Nile, and crossing the interior wilds of the vast continent of Asia.

In the general descriptions of the surface in various regions—mountains, valleys, plains, lakes, and rivers—special notices are given of what is prominently important or rare, grand or sublime in their scenery. Climate is not only considered in its general bearing upon interesting phenomena, but in its bearing upon the

character and habits of nations, as tending to foster either indolence, or to promote hardihood and industry, and to spontaneously place the fruits of the earth within reach, or to exact labour for their production. Vegetable forms are especially when of value as objects of commerce, or related to their peculiar properties or floral beauty. Populations are referred to their place in the family of nations and to the successive stages by which the principal states have advanced through the great epochs in their history, and the principal industries by which they are distinguished are indicated, whether commercial, manufacturing, mining, agricultural, or pastoral. Graphical details are given upon a somewhat extended scale, and discrimination has been studied in the selection of cities and towns which have claims upon public attention for ampler notice, while the manners and customs of urban and of rural life are noted where they bear any speciality, or features of interest. In the countries of antiquity as well as those of later times, the localities famous for deeds of patriotism or valour, or for events which have influenced the destinies of empires, are characterised, as well as the natural and social changes which have subsequently transpired. Prominence is given to the British Isles and to the British Dependencies in every part of the globe.

With respect to the Illustrations, the Publishers beg to state in proof of their general correctness, that they are from Photographs where these could be obtained; in other cases, from Original Sketches and in some few instances, from published authorities, British and foreign; generally with the consent of the parties to whom they belong. To the Earl of Caithness, Lord Dufferin, Dr Holden, Mr Wilson, and other amateur and professional photographers, they owe their best acknowledgments. They also take this opportunity of acknowledging the services of Messrs Skelton, Simpson, Andrew Melville, from whose portfolios they have obtained many Indian, American, and Australian sketches. Nor must they forget to notice the late Mr Sargent's large collection of original sketches of England, Spain, Portugal, and France, to which they had access, as well as Mr Bartholomew's carefully-prepared and beautifully coloured maps.

November 1864.

LIST OF
ILLUSTRATIONS

Illustrations.	Artists.	Authorities.	Page
Ship of the Desert.....	CLARK STANTON,...	<i>Original Design</i>	1
Indian Choultry of Forty Pillars.....	G. F. SARGENT,...	{ <i>Photograph, Indian</i> } ..	5
Nile Raft.....	CLARK STANTON,...	<i>Original Design</i>	6
Boats of the Ancients.....	G. F. SARGENT,...	<i>Ancient Sculptures</i>	8
Pharos of Alexandria.....	DO.	<i>Denon's Egypt</i>	9
St Michael's Mount, Cornwall.....	DO.	<i>Original Sketch</i>	10
Initial.....	CLARK STANTON,...	<i>do.</i>	10
Bactrian Camel.....	HARRISON WEIR,...	<i>do.</i>	14
Canary Islands.....	G. F. SARGENT,...	<i>Admiralty Chart</i>	18
Walrus.....	HARRISON WEIR,...	<i>Original</i>	19
Initial.....	CLARK STANTON,...	<i>do.</i>	19
A Peep into Siberia.....	T. KENNEDY,...	<i>Sir R. I. Murchison</i>	25
Orenberg.....	DO.	<i>do.</i>	27
Valley of Machico, Madeira.....	DO.	<i>Dr Zeiglar</i>	28
Initial.....	CLARK STANTON,...	<i>Original</i>	28
Quebec.....	G. F. SARGENT,...	<i>do.</i>	39
Vegetation of Falkland Islands.....	T. KENNEDY,...	<i>Dr Hooker</i>	40
Initial.....	CLARK STANTON,...	<i>Original</i>	40
Bird's-eye View of Nekouev Bay.....	T. KENNEDY,...	<i>Russian Chart</i>	52
Cape Town from Table Bay.....	G. F. SARGENT,...	<i>Original</i>	53
Initial.....	CLARK STANTON,...	<i>do.</i>	53
Astoria, Columba River.....	C. I. CRANE,...	<i>American Expedition</i>	57
Orange Harbour, Magellan's Strait.....	DO.	<i>do.</i>	58
Gorge of Pali, Honolulu.....	DO.	<i>do.</i>	60
City of Manilla.....	T. KENNEDY,...	<i>Original Sketch</i>	61
Charleston Harbour.....	G. F. SARGENT,...	<i>do.</i>	66
Reindeer Sledge-Travelling.....	HARRISON WEIR,...	<i>do.</i>	67
Initial.....	CLARK STANTON,...	<i>do.</i>	67
Danger Rocks of the Amur.....	C. I. CRANE,...	<i>Admiralty Chart</i>	68
Petropaulovski.....	G. F. SARGENT,...	<i>Sketch</i>	69
Mount Egmont, New Zealand.....	E. JENNINGS,...	<i>do.</i>	75
Dillon's Rock, Queen Charlotte's Island.....	C. I. CRANE,...	<i>American Expedition</i>	79
Christmas Harbour, Kerguelen Island.....	JESSIE ORR,...	<i>Antarctic Expedition</i>	80
Initial.....	CLARK STANTON,...	<i>Original</i>	80
Erebus and Terror in the Pack Ice.....	E. JENNINGS,...	<i>Antarctic Expedition</i>	89
Mount Erebus and Beaufort Island.....	DO.	<i>do.</i>	91
Montreal Island.....	G. F. SARGENT,...	<i>Parry's Voyages</i>	97
Esquimaux Snow Huts.....	DO.	<i>do.</i>	100
Source of the Ganges.....	E. JENNINGS,...	<i>Lieut. White's Sketch</i>	101
Bavian's Kloof, South Africa.....	G. F. SARGENT,...	<i>Indian Museum</i>	109
Sketch-Map of the Nile Countries.....	WELLER,...	<i>Compiled</i>	114
Volcanic Lake, South Australia.....	G. F. SARGENT,...	<i>Indian Museum</i>	116
Uralskaya Sopka.....	T. KENNEDY,...	<i>Sir R. I. Murchison</i>	123
Initial.....	CLARK STANTON,...	<i>Original</i>	123
Sketch-Map—Black Sea and Caucasus.....	DOWER,...	<i>Compiled</i>	124
Sketch-Map—Caspian and Ural Mountains.....	DO.	<i>do.</i>	125
Astrachan.....	T. KENNEDY,...	<i>Russian Chart</i>	126
Tarifa.....	G. F. SARGENT,...	<i>Original Sketch</i>	127
Iron Gates of the Danube.....	DO.	<i>do.</i>	132
Europa Point, Gibraltar.....	DO.	<i>do.</i>	141
Sinclair Castle, Caithness— <i>from a Photograph</i>	T. KENNEDY,...	<i>Earl of Caithness</i>	142
Old Man of Hoy—a Water Sketch.....	T. KENNEDY,...	<i>Lord Bury</i>	147
Primitive Vegetation.....	JESSIE ORR,...	<i>Original</i>	150
Primitive Vegetation.....	CLARA ORR,...	<i>do.</i>	151
British Animals.....	HARRISON WEIR,...	<i>do.</i>	152
Water Birds.....	DO.	<i>do.</i>	153
Land's End— <i>from a Photograph</i>	T. KENNEDY,...	<i>Wilson</i>	157
Coast— <i>Tolpeden, Torbay, and Tintagel—</i> Water-Colour Sketches.....	JESSIE ORR,...	<i>Sketches</i>	158

Illustrations.	Artists.	Authorities.	Page
Limestone Rocks, Dovedale,.....	G. F. SARGENT,.....	<i>Original Sketch</i> ,.....	160
High and Low Level Bridges, Newcastle,.....	E. JENNINGS,.....	<i>Photograph</i> ,.....	166
Durham Cathedral—from a Photograph,.....	THOMAS SCOTT,.....	<i>Dr Holden</i> ,.....	169
Silver How and Grassmere Lake,.....	HUNT,.....	<i>Original Sketch</i> ,.....	170
Liverpool and the Mersey,.....	G. F. SARGENT,.....	<i>do.</i>	172
Lancaster Castle,.....	DO.	<i>do.</i>	173
York Minster—from a Photograph,.....	E. JENNINGS,.....	<i>Wilson</i> ,.....	174
Scarborough from the Castle,.....	G. F. SARGENT,.....	<i>Original Sketch</i> ,.....	175
Ruins of Knaresborough Castle,.....	DO.	<i>do.</i>	176
Interiors of York Minster—from a Photograph,.....	JESSIE ORR,.....	<i>Wilson</i> ,.....	177
Derby from the Burton Road,.....	G. F. SARGENT,.....	<i>Original Sketch</i> ,.....	178
High Tor, Matlock,.....	DO.	<i>do.</i>	179
Matlock Church,.....	DO.	<i>do.</i>	180
River Dove,.....	DO.	<i>do.</i>	181
Hereford from Athelstane Hill,.....	DO.	<i>do.</i>	183
Bristol,.....	DO.	<i>do.</i>	184
Cambridge,.....	DO.	<i>do.</i>	188
City of Norwich,.....	DO.	<i>do.</i>	190
Worcester Cathedral,.....	DO.	<i>do.</i>	191
Winchester Cathedral,.....	DO.	<i>do.</i>	193
Windsor Castle,.....	DO.	<i>do.</i>	203
The Chesil Bank from Portland,.....	DO.	<i>do.</i>	205
Weymouth from the North,.....	DO.	<i>do.</i>	206
Dartmouth,.....	JESSIE ORR,.....	<i>Turner's Sketch</i> ,.....	207
Coast of Cornwall—from a Photograph,.....	DO.	<i>Wilson</i> ,.....	209
Roman Wall, Northumberland,.....	DO.	<i>Hodgson's Plate</i> ,.....	211
Moel-Siabot from the Lledrwr Valley,.....	J. C. READ,.....	<i>Original Sketch</i> ,.....	212
Manai and Tubular Bridge,.....	G. F. SARGENT,.....	<i>do.</i>	213
Llanberis Pass,.....	DO.	<i>do.</i>	215
Bangor,.....	E. JENNINGS,.....	<i>do.</i>	216
Snowdon from Capel Carig,.....	DO.	<i>do.</i>	217
Milford Haven,.....	G. F. SARGENT,.....	<i>do.</i>	218
The Stack Rocks,.....	DO.	<i>do.</i>	221
Edinburgh,.....	THOMAS SCOTT,.....	<i>Photograph</i> ,.....	222
Pass of Glencoe,.....	J. C. READ,.....	<i>Original Sketch</i> ,.....	230
Upper Fall of Foyers—from a Photograph,.....	E. JENNINGS,.....	<i>Wilson</i> ,.....	232
Dunnet Head—from a Photograph,.....	T. KENNEDY,.....	<i>Earl of Caithness</i> ,.....	236
Glasgow from the Broomielaw,.....	THOMAS SCOTT,.....	<i>Original Sketch</i> ,.....	237
Perth—from a Photograph,.....	DO.	<i>Wilson</i> ,.....	247
Basaltic Columns, Staffa—from Photographs,.....	JESSIE ORR,.....	<i>do.</i>	248
Aberdeen—from a Photograph,.....	THOMAS SCOTT,.....	<i>do.</i>	249
Pulteneytown Harbour,.....	E. JENNINGS,.....	<i>Photograph</i> ,.....	258
Tumulus or Rath,.....	G. F. SARGENT,.....	<i>Original Sketch</i> ,.....	259
Gap of Dunloe, Kerry,.....	J. C. READ,.....	<i>do.</i>	261
Muckross House, Killarney,.....	DO.	<i>do.</i>	262
Round Tower, Monasterboice,.....	G. F. SARGENT,.....	<i>do.</i>	267
Dublin from the Phoenix Park,.....	DO.	<i>do.</i>	268
Devil's Glen, Wicklow,.....	DO.	<i>do.</i>	270
Ross Castle, Killarney,.....	J. C. READ,.....	<i>do.</i>	279
Muckross Abbey,.....	DO.	<i>do.</i>	284
Bowley Bay, Jersey,.....	G. F. SARGENT,.....	<i>do.</i>	285
Algesiras from Gibraltar,.....	DO.	<i>do.</i>	290
Heligoland,.....	DO.	<i>do.</i>	292
Bird's-eye View of Paris,.....	DO.	<i>do.</i>	293
Shepherds of the Landes,.....	P. SKELTON,.....	<i>do.</i>	300
Rouen,.....	G. F. SARGENT,.....	<i>do.</i>	301
Cherbourg,.....	DO.	<i>do.</i>	307
Lyon,.....	DO.	<i>do.</i>	308
Amphitheatre at Nîmes,.....	DO.	<i>do.</i>	315
La Puy,.....	DO.	<i>do.</i>	319
Marseille,.....	DO.	<i>do.</i>	321
Toulon,.....	DO.	<i>do.</i>	322
Grenoble,.....	DO.	<i>do.</i>	323
Brussels,.....	DO.	<i>do.</i>	327
Liège,.....	DO.	<i>do.</i>	333
Antwerp Cathedral,.....	DO.	<i>do.</i>	336
Amsterdam,.....	DO.	<i>do.</i>	337
Rotterdam Cathedral,.....	DO.	<i>do.</i>	348
Market-Place, Lübeck,.....	DO.	<i>do.</i>	349
Royal Palace, Munich,.....	DO.	<i>do.</i>	365
Royal Palace, Berlin,.....	DO.	<i>do.</i>	371
Celebrated Rhine Sites,.....	DO.	<i>do.</i>	380
Railway Bridge, Cologne,.....	DO.	<i>do.</i>	383

Illustrations.	Artists.	Authorities.	Page
Durrenstein on the Danube.....	P. SKELTON.....	<i>Original Sketch</i>	384
Sketch-Map of the Danube.....	J. DOWER.....	<i>Compiled</i>	387
Ebensee on the Traan.....	P. SKELTON.....	<i>Original Sketch</i>	389
Trieste.....	DO.	do.	395
Buda-Pesth.....	DO.	do.	398
Presburg.....	DO.	do.	402
Peterwardein.....	DO.	do.	404
German Peasants at Market.....	G. F. SARGENT.....	do.	406
Falls of the Aar.....	P. SKELTON.....	do.	407
Matterhorn and Zermatt.....	DO.	do.	409
High Street, Berne.....	G. F. SARGENT.....	do.	413
Glacier of the Grindelwald.....	P. SKELTON.....	do.	414
Lausanne.....	DO.	do.	415
Fluelen in Uri.....	DO.	do.	418
Zurich.....	DO.	do.	419
St Gingough.....	DO.	do.	421
Swiss Milkman.....	E. WHYMPER.....	do.	422
Court of Lions, Alhambra.....	G. F. SARGENT.....	do.	423
Olive Gardens of Oliveras.....	DO.	do.	429
Spanish Costumes.....	DO.	do.	430
Orduna.....	P. SKELTON.....	do.	431
Bilbao.....	DO.	do.	432
Spanish Vegetation.....	G. F. SARGENT.....	do.	433
Cape Finisterre.....	DO.	do.	434
Seville.....	DO.	do.	435
Cadiz.....	DO.	do.	438
Elvas.....	DO.	do.	441
Lisbon.....	DO.	do.	443
San Joas de Foy.....	DO.	do.	447
Portuguese Peasants.....	DO.	do.	449
Lake Como.....	HARDWICK.....	do.	450
Grotto of Puzzuolè.....	P. SKELTON.....	do.	453
Tarantula Dance.....	DO.	<i>Original</i>	455
Mount Cenis Tunnel.....	E. WHYMPER.....	<i>Original Sketch</i>	456
Genoa.....	P. SKELTON.....	do.	458
Falls of Valambrossa.....	HARDWICK.....	do.	461
Florence.....	DO.	do.	462
Carrara.....	DO.	do.	463
Gaeta, from the Sea.....	P. SKELTON.....	do.	464
Street of Tombs, Pompeii.....	DO.	do.	465
Castellamare.....	DO.	do.	466
Messina.....	DO.	do.	467
Catania.....	DO.	do.	468
Bronte.....	DO.	do.	469
Castle of St Angelo and St Peter's.....	DO.	do.	471
Ponte Lugano.....	DO.	do.	472
Falls of Tivoli.....	DO.	do.	473
Grand Canal, Venice.....	E. JENNINGS.....	<i>Photograph</i>	474
Church of Santa Maria Gloriosa.....	MISS ORR.....	do.	475
Whit-Sunday Fête at Naples.....	DO.	<i>Book of Days</i>	477
Constantinople.....	P. SKELTON.....	<i>Original Sketch</i>	478
Sketch-Map—Mouths of Danube.....	J. DOWER.....	<i>Compiled</i>	480
Sulina Mouth of the Danube.....	DO.	<i>Russian War</i>	481
Sketch-Map of the Bosphorus.....	J. DOWER.....	<i>Compiled</i>	484
Gallipoli.....	DO.	<i>Russian War</i>	487
Montenegro.....	DO.	do.	491
Bukharest.....	DO.	do.	493
Giurgevo.....	E. JENNINGS.....	<i>Illustrated News</i>	494
Guard-House in the Balkan.....	DO.	<i>Original Sketch</i>	495
Sketch-Map—Mediterranean.....	WELLER.....	<i>Compiled</i>	496
Wallachian Travelling.....	P. SKELTON.....	<i>Illustrated News</i>	500
Athens.....	DO.	<i>Photograph</i>	501
Patras.....	DO.	<i>Original Sketch</i>	506
Syra.....	DO.	do.	510
Copenhagen.....	DO.	do.	511
Sketch-Map—Baltic and North Sea.....	WELLER.....	<i>Compiled</i>	516
Fredericia.....	P. SKELTON.....	<i>Original Sketch</i>	522
Christiansund.....	DO.	do.	523
A Lapp Lady.....	JESSIE ORR.....	<i>Lord Dufferin</i>	530
Stockholm.....	P. SKELTON.....	<i>Panorama</i>	531
Falls of Feigumfoss.....	DO.	<i>Original Sketch</i>	534
Tail-piece.....	DO.	do.	538
Mosony.....	P. SKELTON.....	<i>Prince Demidoff</i>	538
Sketch-Map—The White Sea.....	WELLER.....	<i>Compiled</i>	540
Sketch-Map—Caspian and Black Sea.....	DO.	do.	541

Illustrations.	Artists.	Authorities.	Page
Entrance to Sea of Azov.....		<i>Russian War</i>	545
Revel.....		do.....	546
Riga.....		do.....	549
Helsingfors.....	P. SKELTON.....	<i>Lady Eastlake</i>	550
Kola, in the White Sea.....		<i>Russian War</i>	555
Vladimir.....	P. SKELTON.....	<i>Prince Demidoff</i>	556
Fort of Kinburn.....		<i>Russian War</i>	560
Kertch.....		do.....	563
Country round Sebastopol.....		do.....	564
Port of Balaclava.....		do.....	565
Spitzbergen.....	MISS ORR.....	<i>Lord Dufferin</i>	572
Gausriankar Peak.....	HUREL.....	<i>Schlangintweit</i>	573
Section of Asia on the Meridian of Comorin.....	SHEERES.....	<i>Compiled</i>	574
Waterfalls of Asia.....	do.....	do.....	574
Sketch-Map—Red Sea.....	WELLER.....	<i>Compiled</i>	575
Mountains of Asia.....	MISS ORR.....	<i>Figuier</i>	576
Mountains of Oceana.....	do.....	do.....	578
Banyan Tree.....	W. SIMPSON.....	<i>Sketch</i>	582
Burial-place at Petropaulovski.....		<i>Russian War</i>	586
Mongolian Horsemen, Desert of Gobi.....	HUREL.....	<i>Figuier</i>	587
Kasan.....	P. SKELTON.....	<i>Prince Demidoff</i>	591
The Bureya River.....	do.....	<i>Ravenstein</i>	597
Tiflis.....	do.....	<i>Original Sketch</i>	598
Anapa.....		<i>Russian War</i>	602
Coast of Anatolia.....	P. SKELTON.....	<i>Original Sketch</i>	603
Plains of Troy.....	W. SIMPSON.....	do.....	606
Brusa.....	P. SKELTON.....	<i>Laborde</i>	608
Sinope.....		<i>Russian War</i>	609
Trebisond.....		do.....	610
Fishing Huts of the Bosphorus.....	P. SKELTON.....	<i>Original Sketch</i>	612
Erzerum.....		<i>Russian War</i>	613
Kars.....		do.....	616
Urfah.....	P. SKELTON.....	<i>Laborde</i>	620
Rebecca's Well.....	do.....	<i>Original Sketch</i>	623
Dead Sea.....	SHAND.....	<i>Figuier</i>	624
Natural Bridge of Ain-el-Lebanon.....	MISS ORR.....	<i>Laborde</i>	626
Byrount and Mount Lebanon.....	E. JENNINGS.....	<i>Photograph</i>	631
Jerusalem, from Mount of Olives.....	P. SKELTON.....	<i>Laborde</i>	634
Natural Pyramids of Koumbet.....	do.....	do.....	637
Aden.....	W. SIMPSON.....	<i>Original Sketch</i>	638
The Red Sea, from Ras Mohammed.....		<i>Pictorial Bible</i>	640
Defiles of Mount Sinai.....	W. SIMPSON.....	<i>Sketch</i>	645
Mountains of Seir.....		<i>Pictorial Bible</i>	647
Entrance to the Red Sea.....	G. F. SARGENT.....	<i>Admiralty Chart</i>	648
Plan of the Prophet's Mosque, Mecca.....	SHEERES.....	<i>Burkhardt</i>	651
Arab Tents.....		<i>Pictorial Bible</i>	653
Falls of Bund-a-Mer.....	P. SKELTON.....	<i>Flanders's Voyage en Perse</i>	654
Tower of Yezed.....	do.....	do.....	659
Bushire.....		<i>Indian Revolt</i>	662
Persepolis.....		<i>Persepolis Restored</i>	664
Madzai and Bodeen Peak.....	W. SIMPSON.....	<i>Original Sketch</i>	665
Khyber Pass.....	do.....	do.....	668
Valley of the Yarkand.....	P. SKELTON.....	<i>Schlangintweit</i>	672
Government House, Calcutta.....	W. SIMPSON.....	<i>Original Sketch</i>	673
Bridge at Biram Ghati.....	do.....	do.....	675
Pierre-pahar.....	E. JENNINGS.....	<i>Orig. Sk. by W. Jennings</i>	682
Benares.....	W. SIMPSON.....	<i>Original Sketch</i>	684
Simla.....	do.....	do.....	685
Bridge and Palace, Delhi.....	do.....	do.....	687
Chandy Chouk, Lucknow.....	do.....	do.....	688
Viaduct on the Bhoze Ghaut.....	do.....	do.....	694
Bombay.....	do.....	do.....	695
Madras.....	do.....	do.....	699
Penang.....	do.....	do.....	702
Cashmere.....	do.....	do.....	703
Kunchinjunga Peak.....	GIRARDET.....	<i>Schlangintweit</i>	705
Temple and Priest's House, Bhotan.....	W. SIMPSON.....	<i>Original Sketch</i>	706
Adam's Peak, Ceylon.....	do.....	do.....	708
Pagoda of Phrabat.....	MISS ORR.....	<i>Mourot</i>	713
Moulmein.....	W. SIMPSON.....	<i>Original Sketch</i>	718
Malacca.....	do.....	do.....	720
Canton River and Ho-nan.....	P. SKELTON.....	<i>Photograph</i>	721
Canton, from Temple of Five Genii.....	do.....	do.....	728
Tiger Island.....	E. JENNINGS.....	<i>W. Jennings</i>	729
Hong Kong.....		<i>Indian Revolt</i>	731

Illustrations.	Artists.	Authorities.	Page
Chinese Wall.....	E. JENNINGS.....	<i>Illustrated News</i>	732
Rope Bridge on the Spiti.....	W. SIMPSON.....	<i>Original Sketch</i>	735
General View of Yeddo.....	P. SKELTON.....	<i>Photograph</i>	736
Panoramic View of Nagasaki.....	DO.....	do.....	742
Small Temple at Yeddo.....	DO.....	do.....	743
Cairo and the Pyramids.....	W. FAIRHOLT.....	<i>Original Sketch</i>	744
African Mountains.....	MISS ORR.....	<i>Figurier</i>	745
Victoria Falls, Zambesi.....	MANIN.....	do.....	748
Scene on the Logier River.....	E. JENNINGS.....	<i>Bain's Sketch</i>	750
Funchial, Madeira.....	G. F. SARGENT.....	<i>Original Sketch</i>	754
Cascade on the Savanna.....	GIRARDET.....	<i>Figurier</i>	756
Peter Botte Mountain.....	GAUCHERE.....	do.....	757
Tangier.....	JUSTYN.....	<i>Justyn</i>	758
Valley of Egeri.....	P. SKELTON.....	<i>Dr Barthe</i>	765
Island of Philse.....	W. FAIRHOLT.....	<i>Original Sketch</i>	766
Street in Alexandria.....	DO.....	do.....	769
Banks of the Nile.....	LAPLANTE.....	<i>Figurier</i>	770
Lake Timah.....	G. F. SARGENT.....	<i>Photograph</i>	773
Siout.....	W. FAIRHOLT.....	<i>Original Sketch</i>	774
Horsemen in the Desert.....	GIRARDET.....	<i>Figurier</i>	777
Village of Musgu.....	P. SKELTON.....	<i>Dr Barthe</i>	778
Kano.....	DO.....	do.....	783
Falls of the Felou.....	GAUCHERE.....	<i>Figurier</i>	785
White Quartz, Awass Bogs.....	E. JENNINGS.....	<i>Bain's Sketch</i>	786
Zambesi River.....	DO.....	do.....	789
Mission Station, Blackthroat River.....	DO.....	do.....	792
Panorama of the Central Andes.....	GIRARDET.....	<i>Schlangintweit</i>	793
Comparative Height of American Mountains.....	FIGUIER.....	<i>Figurier</i>	795
Volcanic Mountain of Jorullo.....	LAPLANTE.....	do.....	796
Virgin Forest.....	DO.....	do.....	802
Glaciers of Chili.....	DO.....	do.....	805
Mount Hecla.....	DO.....	do.....	806
Floating Ice Mountains.....	DO.....	do.....	809
Reikiavik, Iceland.....		<i>Tracings of Iceland</i>	810
Horse-Shoe Fall.....	P. SKELTON.....	<i>G. H. Andrews</i>	811
A Jam on the St Francis.....	DO.....	do.....	814
Cape Race.....	DO.....	do.....	819
Harper's Ferry.....	DO.....	do.....	823
Wilderness of Maine.....	DO.....	do.....	828
White Mountain, Vermont.....	DO.....	do.....	829
Potomac at Washington.....	DO.....	do.....	834
Mammoth Cave, Kentucky.....	GIRARDET.....	<i>Figurier</i>	839
Minnehaha Falls, Minnesota.....	P. SKELTON.....	<i>G. H. Andrews</i>	841
Great Salt Lake.....	LAPLANTE.....	<i>Figurier</i>	845
Jalapa.....	DO.....	do.....	846
Harbour of Bay Islands.....	JENNINGS.....	<i>Admiralty Survey</i>	854
Nassau.....	DO.....	do.....	856
Bermudas.....	P. SKELTON.....	<i>Illustrated News</i>	860
Rope Bridge on the Magdalena.....	DO.....	<i>Universe Pittoresque</i>	861
Natural Bridges on the Icononzo.....	LAPLANTE.....	<i>Figurier</i>	862
Road to Honda.....	P. SKELTON.....	<i>Universe Pittoresque</i>	867
Gold-washing on the Itocolami.....	DO.....	do.....	868
The Alps.....		<i>C.'s Encyclopadia</i>	874
Peunte del Inca.....	P. SKELTON.....	<i>Universe Pittoresque</i>	875
Cotopaxi.....	GIRARDIN.....	<i>Figurier</i>	876
Volcano of the Pichincha.....	DO.....	do.....	876
Cape Horn.....	P. SKELTON.....	<i>Original Sketch</i>	885
Glacier of Mount Sermiento.....	DO.....	<i>Admiral Fitzroy</i>	890
Gibraltar Rocks.....	MELVILLE.....	<i>Original Sketch</i>	891
Mount Lamongan, Java.....	DO.....	do.....	892
Kini Ballu, Borneo.....	DO.....	do.....	895
Megapolis Island.....	DO.....	do.....	900
Booby Island.....	DO.....	do.....	901
Falls of Glen Stuart.....	G. F. SARGENT.....	<i>Photograph</i>	903
Coast of Australia, Illawarra.....	MELVILLE.....	<i>Original Sketch</i>	906
Mount Adolphus.....	DO.....	do.....	910
Shoalhaven Gully.....	DO.....	do.....	911
Camden Cow Pastures.....	DO.....	do.....	913
Sir Charles Hardy's Island.....	DO.....	do.....	916
Swan River.....	DO.....	do.....	922
Hobart Town.....	DO.....	do.....	924
Pumice Hills, New Zealand.....	DO.....	<i>Universe Pittoresque</i>	925
Boiling Lake of Rota Mahana.....	LAPLANTE.....	<i>Figurier</i>	928
Island of Tahiti.....	H. CRANE.....	<i>Admiral Fitzroy</i>	930
Aurora Borealis in High Latitudes.....	GIRARDET.....	<i>Figurier</i>	932

LIST OF STEEL PLATES AND MAPS.

PLATES.

	PAGE
St Paul's Cathedral, from St Ann's Church (<i>Illustrated Title</i>),	
Naples, from Monte Martino,.....	facing 463
Constantinople,.....	" 485
New York, City of,.....	" 831
Mexico, City of,.....	" 849
Sydney,.....	" 914

MAPS.

World as known to the Ancients (<i>Frontispiece</i>),	
World on Mercator's Projection, " "	
England and Wales,.....	158
Scotland,.....	227
Ireland,.....	259
Europe,.....	293
Asia,.....	573
Africa,.....	744
North America,.....	823
South America,.....	861
Australia,.....	901
New Zealand,.....	925



CONTENTS

INTRODUCTION.

Chapter I.

	PAGE
MODES OF TRAVEL AND NAVIGATION OF THE ANCIENTS,.....	1

Chapter II.

GEOGRAPHICAL KNOWLEDGE OF THE ANCIENTS,.....	10
--	----

Chapter III.

GEOGRAPHICAL KNOWLEDGE IN THE MIDDLE AGES,.....	19
---	----

Chapter IV.

PASSAGE OF THE CAPE AND THE ATLANTIC—FIRST CIRCUMNAVIGATION OF THE GLOBE,.....	23
--	----

Chapter V.

NORTH-EASTERN, NORTH-WESTERN, AND NORTH-POLAR VOYAGES,.....	40
---	----

Chapter VI.

ENGLISH AND DUTCH CIRCUMNAVIGATORS OF THE SEVENTEENTH CENTURY,.....	53
---	----

Chapter VII.

RUSSIAN DISCOVERIES—CIRCUMNAVIGATORS OF THE EIGHTEENTH CENTURY,.....	67
--	----

Chapter VIII.

ARCTIC AND ANTARCTIC EXPEDITIONS,.....	80
--	----

Chapter IX.

EXPEDITIONS IN CENTRAL ASIA, AFRICA, AND AUSTRALIA,.....	101
--	-----

PART I.

GEOGRAPHY OF EUROPE.

Introductory Chapter.

GENERAL VIEW OF EUROPE,.....	123
------------------------------	-----

SECTION I.—THE BRITISH ISLES AND EUROPEAN DEPENDENCIES.

Chapter I.

	PAGE
GENERAL VIEW OF THE BRITISH ISLES,.....	142

Chapter II.

ENGLAND AND WALES,.....	158
I. NORTHERN COUNTIES,.....	166
II. NORTH-MIDLAND COUNTIES,.....	179
III. WESTERN COUNTIES,.....	184
IV. EASTERN COUNTIES,.....	188
V. SOUTH-MIDLAND COUNTIES,.....	193
VI. SOUTHERN COUNTIES,.....	200
VII. NORTH WALES,.....	213
VIII. SOUTH WALES,.....	220
POPULATION OF THE PRINCIPAL TOWNS,.....	225

Chapter III.

SCOTLAND,.....	227
I. SOUTHERN COUNTIES,.....	237
II. MIDDLE COUNTIES,.....	243
III. NORTHERN COUNTIES,.....	249
POPULATION OF THE PRINCIPAL TOWNS,.....	258

Chapter IV.

IRELAND—THE UNITED KINGDOM,.....	259
I. LEINSTER,.....	268
II. ULSTER,.....	273
III. CONNAUGHT,.....	276
IV. MUNSTER,.....	279
POPULATION OF THE PRINCIPAL TOWNS,.....	283

Chapter V.

BRITISH EUROPEAN POSSESSIONS,.....	285
I. CHANNEL ISLANDS,.....	286
II. MALTESE ISLANDS,.....	288
III. GIBRALTAR,.....	289
IV. HELIGOLAND,.....	292

SECTION II.—CENTRAL EUROPE.

Chapter I.

FRANCE,.....	293
I. NORTHERN FRANCE,.....	301
II. MIDDLE FRANCE,.....	308
III. SOUTHERN FRANCE,.....	315

Chapter II.	
BELGIUM,.....	327
Chapter III.	
THE NETHERLANDS OR HOLLAND,.....	337
Chapter IV.	
GERMANY,.....	349
I. NORTHERN STATES,.....	353
II. CENTRAL STATES,.....	356
III. SOUTHERN STATES,.....	362
Chapter V.	
PRUSSIA,.....	371
I. EASTERN OR MARITIME PRUSSIA,.....	372
II. WESTERN OR RHENISH PRUSSIA,.....	380
Chapter VI.	
THE AUSTRIAN EMPIRE,.....	384
I. GERMANIC PROVINCES,.....	386
II. POLISH PROVINCES,.....	396
III. HUNGARIAN PROVINCES,.....	398
Chapter VII.	
SWITZERLAND,.....	407
SECTION III.—SOUTHERN EUROPE.	
Chapter I.	
SPAIN,.....	423
I. INTERIOR REGION,.....	427
II. NORTH MARITIME REGION,.....	431
III. EAST AND SOUTH MARITIME REGIONS,.....	435
Chapter II.	
PORTUGAL,.....	442
Chapter III.	
ITALY,.....	450
I. KINGDOM OF ITALY,.....	456
II. ROMAN OR PONTIFICAL TERRITORY,.....	471
III. AUSTRIAN ITALY,.....	474
Chapter IV.	
EUROPEAN TURKEY,.....	478
I. ROUMELIA,.....	483
II. THESSALY,.....	489
III. ALBANIA,.....	490
IV. MONTENEGRO,.....	490
V. BOSNIA,.....	491
VI. HERZEGOVINA,.....	491
VII. SERBIA,.....	492
VIII. WALLACHIA,.....	493
IX. MOLDAVIA,.....	493
X. BULGARIA,.....	495

Chapter V.	
GREECE,.....	501
I. NORTHERN GREECE,.....	504
II. SOUTHERN GREECE,.....	505
III. INSULAR GREECE,.....	506

SECTION IV.—NORTHERN AND EASTERN EUROPE.

Chapter I.	
DENMARK—HOLSTEIN-LAUBURG,.....	511
I. DENMARK PROPER,.....	512
II. SCHLESVIG,.....	514
III. HOLSTEIN,.....	514
IV. LAUBURG,.....	514
Chapter II.	
SWEDEN AND NORWAY,.....	523
I. SWEDEN,.....	531
II. NORWAY,.....	534
Chapter III.	
EUROPEAN RUSSIA,.....	539
I. BALTIC PROVINCES,.....	546
II. FINLAND,.....	550
III. GREAT RUSSIA,.....	552
IV. LITTLE RUSSIA,.....	556
V. WEST RUSSIA,.....	557
VI. SOUTH RUSSIA,.....	560
VII. EAST RUSSIA,.....	566
SPITZBERGEN ARCHIPELAGO,.....	569

PART II.

GEOGRAPHY OF ASIA.

Introductory Chapter.

GENERAL VIEW OF ASIA,.....	573
----------------------------	-----

Chapter I.

ASIATIC RUSSIA,.....	587
I. SIBERIA,.....	587
II. TRANS-CAUCASIAN PROVINCES,.....	598

Chapter II.

ASIATIC TURKEY,.....	603
I. ASIA MINOR,.....	604
II. TURKISH ARMENIA AND KURDISTAN,.....	613
III. AL-JEZIRAH AND IRAK-ARABI,.....	620
IV. SYRIA AND PALESTINE,.....	624

Chapter III.

	PAGE
ARABIA,.....	638
I. BAHR-EL-TOUR SINAL,.....	642
II. EL-HEJAZ,.....	648
III. YEMEN—ADEN—HADRAMAUT—OMAN— LACKSA—NEDJ,.....	652

Chapter IV.

IRAN OR PERSIA,.....	654
I. IRAK-AJEMI,.....	657
II. AZERBLIAN,.....	659
III. GHILAN AND MAZANDERAN,.....	660
V. KHUZISTAN,.....	660
V. PARS AND LARISTAN,.....	661
VI. KERMAN AND KHORASAN,.....	662

Chapter V.

BELOOCHISTAN—AFGHANISTAN—TURKESTAN,....	665
---	-----

Chapter VI.

INDIA OR HINDUSTAN,.....	673
I. PRESIDENCY OF BENGAL,.....	681
II. PRESIDENCY OF BOMBAY,.....	693
III. PRESIDENCY OF MADRAS,.....	698
IV. INDEPENDENT STATES,.....	703
V. FOREIGN SETTLEMENTS,.....	706
VI. CEYLON,.....	707
VII. MALDIVE AND LACCADIVE ISLANDS,.....	710

Chapter VII.

INDO-CHINESE PENINSULA,.....	713
I. BURMESE EMPIRE,.....	715
II. EMPIRE OF ANAM,.....	717
III. BRITISH POSSESSIONS,.....	718

Chapter VIII.

THE CHINESE EMPIRE,.....	721
I. CHINA PROPER,.....	722
NORTHERN PROVINCES,.....	726
CENTRAL PROVINCES,.....	727
SOUTHERN PROVINCES,.....	728
II. DEPENDENT TERRITORIES,.....	732

Chapter IX.

JAPANESE EMPIRE,.....	736
-----------------------	-----

PART III.

GEOGRAPHY OF AFRICA.

Introductory Chapter.

GENERAL VIEW OF AFRICA,.....	744
AFRICAN ISLANDS,.....	753

Chapter I.

NORTHERN AFRICA,.....	758
-----------------------	-----

Chapter II.

	PAGE
NORTH-EASTERN AFRICA—	
I. EGYPT,.....	766
II. NUBIA—KORDOFAN,.....	775
III. ABYSSINIA,.....	776

Chapter III.

WESTERN, CENTRAL, AND EASTERN AFRICA—	
I. WESTERN AFRICA,.....	778
II. CENTRAL AFRICA,.....	782
III. EASTERN AFRICA,.....	784

Chapter IV.

SOUTHERN AFRICA,.....	786
-----------------------	-----

PART IV.

GEOGRAPHY OF AMERICA.

Introductory Chapter.

GENERAL VIEW OF AMERICA,.....	793
-------------------------------	-----

Chapter I.

I. DANISH AMERICA,.....	806
II. GREENLAND,.....	808
III. RUSSIAN AMERICA,.....	810

Chapter II.

BRITISH AMERICA,.....	811
I. CANADA,.....	812
II. NEW BRUNSWICK,.....	816
III. NOVA SCOTIA,.....	817
IV. PRINCE EDWARD ISLAND,.....	818
V. NEWFOUNDLAND,.....	818
VI. VANCOUVER'S ISLAND,.....	820
VII. BRITISH COLUMBIA,.....	821
VIII. NEW BRITAIN,.....	821

Chapter III.

THE UNITED STATES,.....	823
I. NORTH-EASTERN STATES,.....	827
II. MIDDLE ATLANTIC STATES,.....	830
III. SOUTHERN ATLANTIC AND GULF STATES,.....	833
IV. WESTERN STATES,.....	838
V. PACIFIC STATES,.....	841
VI. TERRITORIES,.....	843

Chapter IV.

MEXICO, CENTRAL AMERICA, AND WEST INDIES—	
I. MEXICO,.....	846
II. CENTRAL AMERICAN STATES,.....	852
III. WEST INDIES AND BERMUDAS,.....	855

Chapter V.		PAGE
COLOMBIA, VENEZUELA, GUIANA—		
I. COLOMBIA,.....	861	
II. VENEZUELA,.....	863	
III. GUIANA,.....	865	

Chapter VI.		PAGE
BRAZIL, PARAGUAY, URUGUAY—		
I. BRAZIL,.....	868	
II. PARAGUAY,.....	873	
III. URUGUAY.....	873	

Chapter VII.		PAGE
ECUADOR, PERU, BOLIVIA, CHILI—		
I. ECUADOR,.....	875	
II. PERU,.....	877	
III. BOLIVIA,.....	880	
IV. CHILLI,.....	881	

Chapter VIII.		PAGE
ARGENTINE REPUBLIC, PATAGONIA, FUEGIAN ARCHIPELAGO, FALKLAND ISLANDS—		
I. ARGENTINE REPUBLIC,.....	885	
II. PATAGONIA,.....	888	
III. FUEGIAN ARCHIPELAGO,.....	888	
IV. FALKLAND ISLANDS,.....	889	

PART V. GEOGRAPHY OF OCEANIA.

Introductory Chapter.

	PAGE
GENERAL VIEW OF OCEANIA,.....	891

Chapter I.

MALAYSIA, MICRONESIA, MELANESIA—	
I. MALAYSIA,.....	892
II. MICRONESIA,.....	897
III. MELANESIA,.....	899

Chapter II.

GENERAL VIEW OF AUSTRALASIA,.....	901
-----------------------------------	-----

Chapter III.

AUSTRALASIAN COLONIES—	
I. NEW SOUTH WALES,.....	911
II. QUEENSLAND,.....	915
III. VICTORIA,.....	916
IV. SOUTH AUSTRALIA,.....	919
V. WESTERN AUSTRALIA,.....	921
VI. TASMANIA,.....	922

Chapter IV.

POLYNESIA—	
I. NEW ZEALAND,.....	925
II. MINOR ARCHIPELAGOS,.....	929

ERRATA.

- Page 115, 23d line from top, for 'First descried,' read 'Descried for the second time.'
 184, beneath engraving, for 'Hastings Hill,' read 'Athelstane Hill.'
 201, 3d line from bottom, for 'Addiscombe,' read 'Addington.'
 201, last line but one, for 'Richmond higher up,' read 'Richmond lower down.'
 237, for 'Perth from below St John's Bridge,' beneath engraving, read 'Perth from above the Bridge.'
 250, 5th line from top, for 'south bank,' read 'north bank.'
 251, 22d line from bottom, for 'at one extremity of which the Gaelic language is spoken,' read 'at one extremity of which, until recently, the Gaelic language was spoken.'
 255, Mr Cleghorn's theory is said not to be borne out by facts.
 255, 11th line from bottom, it appears that no herrings have been sent to Italy or the West Indies for many years.
 255, 12th line from bottom, for '600 miles,' read '1600 to 1800 miles,' and omit the concluding clause of the sentence.
 417, 11th line from bottom, for 'Duke of Burgundy,' read 'Duke of Austria.'
 532, description of cut, for 'Banana Tree,' read 'Banyan Tree.'





MODES of TRAVEL and NAVIGATION
of the ANCIENTS

CHAPTER I.

MODES OF TRAVEL AND NAVIGATION OF THE ANCIENTS.

THE diffusion of the human race, with extended knowledge of the surface of the earth as its consequence, was promoted in the earliest ages of the world by a variety of causes. Among the most influential may be noted, the necessity of providing means of subsistence for an increase of population, and the growing demand for luxuries grafted upon an acquaintance with them; the feuds resulting in open violence, which compel the vanquished to fly before the victor, or the dissensions which simply render it desirable for a weaker party to retire to a safe distance from the stronger; together with the desire for independence, the love of adventure, and the feeling of curiosity, an instinct of great power in almost every breast. Motives of this kind contributed in the infancy of society to induce migration on the part of its members, temporary or permanent, and thus added to the stock of information respecting the extent of the terrestrial superficies, and its features of mountain and valley, plain and forest, river, lake, and sea. But thousands of years passed away; great empires rose, flourished, and fell; splendid cities were founded and made desolate; civilisation followed states of barbarism, declined, and

repeatedly shifted its locality, while only a comparatively inconsiderable area of the globe was known to its most enlightened inhabitants.

The most ancient geographical records extant are contained in the Pentateuch of Moses. It is difficult and often impossible to identify many of the localities and communities named by the writer; but they were certainly included in the countries bordering the eastern side of the Mediterranean, and extending from thence to the Persian Gulf and Caspian Sea. Still, it is clear, from the mention made of various products with which the Jewish legislator was familiar, that intercourse subsisted in his age between the banks of the Nile and the shores of Arabia and India, though maintained by no direct chain of communication. Morning and evening, incense was burned upon the altars of Jehovah from the time when Israel encamped in the wilderness,* to the final desolation of Jerusalem. Three times a day in Egypt—as the solar glory appeared in the east, reached the zenith, and declined to the western horizon—the priests greeted the sun-god with offerings of perfume. At a later date, the disciples of Zoroaster in Persia honoured the luminary in a similar manner; and in all the temples of Greek and Roman idolatry

‘Treasured odours breathed a costly scent,’

as gifts peculiarly acceptable to the imaginary beings which the sculptured marbles coldly personified.

The gum burned upon the incense altars—frankincense—is a native production of Southern Arabia, as well as of India, where the tree yielding it grows much more luxuriantly. But the specification of cinnamon and cassia as in use is more significant. These spices were ingredients of the holy anointing oil of the tabernacle, which was employed in the act of consecration to the priesthood, at its institution in the wilderness. Both of the shrubs producing them are peculiar to Ceylon and the adjacent coasts of India. Hence it follows, that at the era of the Exodus intercourse had been opened between those regions and the Nile countries; and it can scarcely be doubted by whose agency it was carried on. The Hindus themselves are not, and have never been, a seafaring people. Enterprising individuals indeed among them may have conducted short coasting voyages, but the great body of the nation have ever recoiled from hazardous adventure, content to gaze passively upon the barrier of the ocean, without a wish to cross it. On the contrary, the Arabs of the coast, a people altogether different in their habits from those of the desert, have been from time immemorial active commercialists and mariners, in possession of ships and ports. To them the countries on the shores of the Mediterranean were in the first instance indebted for the spices and precious products of India, conveyed both by the way of the Red Sea and the Persian Gulf, and from thence overland to the markets of Egypt and of Tyre. This gave rise to a popular error prevalent through all antiquity. It was imagined that the articles of luxury obtained through the medium of Arabian traders were the produce of their own soil; and hence a region composed largely of burning sands, with a pestilential climate, and only fertile tracts of limited extent, came to be distinguished by the still extant title of Arabia the Happy, Araby the Blest.

The earliest accounts on record of travelling, whether for domestic or commercial objects, are found in the sacred document referred to. In almost all of them a company of wayfarers is mentioned, and the camel is conspicuous. The stern realities of nature in vast tracts of country dividing different communities within the tropics, or bordering on them—dry and thirsty lands where no water is, but still the same burning sun, with a soil either of sterile rock or shifting sand, disdaining to hold a footprint as a testimony of subjection—an unsettled state of society, with bands of lawless rovers

whose hand is against every man, unless overawed by numbers, or expensive contributions purchase immunity from indiscriminate pillage—these circumstances have enforced the association of individuals in traversing such regions in all subsequent ages, both for mutual protection, and the provision of resources adequate for the journey. These companies, termed caravans, are now, as they have been since primitive times, the chief means by which the internal communication of Asia and Africa is conducted.

It is a striking instance of adaptation to particular circumstances, that an invaluable beast of burden has been bestowed upon the arid wastes, without which their passage would be to a great extent impossible under existing arrangements. The camel, perhaps, more than any other creature, exhibits a marked adaptation to a peculiar position. It appears as if Nature had been economical of material in the organisation of this animal, designed to range over districts affording the scantiest supply of nourishment. 'She has not given him the fulness of form of the ox, the horse, or the elephant; but, limiting him to the purely indispensable, she has bestowed upon him a small head, almost without external ears, supported by a fleshless neck. She has stripped his thighs and legs of every muscle not essential to their movements, and has furnished his dry and meagre body with only the vessels and tendons required to knit the framework together. She has supplied him with a powerful jaw to crush the hardest aliments; but that he might not consume too much, she has narrowed his stomach, and made him a ruminant. She has cushioned his foot with a mass of muscle, which, sliding in mud, and ill adapted for climbing, unfits him for every soil but a dry, even, and sandy surface. She has condemned him to servitude by refusing him all means of defence against his enemies.' Accordingly, the camel has been the ship of the desert from the dawn of history, employed in the transit of both passengers and goods. A vegetable native of the desert, the Camel's Thorn (*Hedysarum alhagi*), a prickly plant, occurs in profusion in various districts, and affords a similar beautiful exemplification of benevolent design. The animal browses upon it in preference to other products; its lasting verdure and bright crimson flowers delight the eye of the traveller in the unfriendly wastes; and its property of collecting by deep-searching roots the scanty moisture of the plains, is made subservient to the production of nourishment for man. The Arab divides the stem of the plant in spring near the root. A seed of the water-melon is then inserted in the fissure, and the soil replaced. The seed becomes a parasite. The moisture which it could not collect for itself is supplied by the far-penetrating roots of the plant which sustains it, and thus a crop of water-melons is periodically raised from a soil incapable of other culture.

Oriental manners and customs have been remarkably permanent; and hence a modern caravan is in its principal features a picture of an ancient one. The travellers follow each other in single or double file; and form a line of procession of considerable length along the great routes, where numbers of mere wayfarers, religious pilgrims, and merchants journey together for safety and convenience. If there are horsemen, as is usually the case, the camels have to carry skins of water for the horses, as well as for the passengers, for there is frequently no other source of supply for several days together. Water is a daily want with the horse; but the camel will go three or four days without it, drinking only at the wells or reservoirs, and is capable of enduring even a ten days' thirst. The halts are made whenever practicable at watering-places, where there is some verdure, shade, and the song of birds. In many places the bleached bones of dead camels form a line of landmarks, and indicate with melancholy exactness the route to be pursued.

The chieftainship of a caravan was deemed an honourable office by the ancients, and its safe-conduct a very creditable achievement. Previous to starting, its principal members elected a leader and head, a man of experience in travelling, well acquainted

with the direction, and qualified by firmness and conciliation to deal with the wild tribes by the way. By a prosperous journey, he established a claim to gratitude; and after several, a kind of honorary title was in some instances conferred, similar to that of Emperor, with which the Roman legions greeted a successful general. Inscriptions at Palmyra supply information to this effect. Thus one commemorates Aurelius Zehida, who discharged his office of conductor with great credit while leading a company of merchants from that city to Vologesia, a town on the Euphrates, in order to attend the markets held there. Another is in honour of a certain Schalmalath, who is expressly said to have been a Jew, and whose services had procured for him a statue, as well as an inscription, erected by the senate and people of the city. The inscriptions were found in the court of the Temple of the Sun, the tutelar divinity of the place. This court is a spacious square area, capable of holding an entire encampment of Arabs, and paved throughout with marble. The temple stood in the centre, and outside are colonnades with numerous apartments. At the entrance are two large tanks, eight feet deep, furnished with steps to go down to the water. Its modern name is the Court of Camels. The name and the arrangements sanction the surmise, that as the commercial interests of the city were supposed to be under the special protection of the tutelary deity, the caravans wended their way to the temple on arriving, and started from it. Hence it had appurtenances for their accommodation, answering the purpose of a caravanserai: the apartments being for the passengers; the court and tanks for the beasts of burden, and the goods they conveyed.

The rise of a splendid city like Palmyra in the heart of the wilderness, surrounded on all sides by an inhospitable desert of rock and sand, seems an anomaly, but is susceptible of an easy and natural explanation. It was founded by Solomon under the name of Tadmor, by which its ruins are at present known to the neighbouring tribes. Both names signify the city of palm-trees. The site is an oasis, furnished with an abundant supply of wholesome water. Lying in the direct route of the caravans between Central and Western Asia, its copious fountains and shady palms rendered it peculiarly eligible for a long halt during a wearisome pilgrimage. But such a resting-place would speedily become a mart, by merchants from the east and west meeting at the spot, exchanging commodities, and thus shortening their respective journeys. In order to profit by this commerce, Solomon, who had a strong appetite for wealth, and sagacity to apprehend the means of acquiring it, founded Tadmor, furnished it with accommodation for traffic and traders; and might obtain his own remuneration both by the levy of customs' duties, and by employing factors to buy up and re-sell the wares. In a similar manner, for the mutual accommodation of merchants of different countries, shortening their journeys, marts were established at convenient points on the great commercial routes. They gradually grew up into cities, and went to decay upon commerce shifting its direction. Such we may conclude were Petra in the Edomite defile, Baalbec in Hollow Syria, Gerasa and Gadara on the margin of the desert beyond Jordan.

But regular commercial journeys were made extending three thousand miles or more, and requiring the space of three years for their accomplishment, going and returning. Thus caravans started from Barygaza in Western India, now Baroatch in the presidency of Bombay, and from Western Asia, bound to the frontiers of China, for raw and spun silk and silk stuffs. The earliest notice of the former occurs in a writer of the fourth century before the Christian era; and Greeks from Cilicia are named as taking part in the latter. The two companies of adventurers met in the high mountain region eastward of Bokhara, near the significantly called Roof of the World, the loftiest plateau of the old continent, and thence descended together into the great Mongolian desert. The rendezvous, obviously

an important station, was called the Stone Tower, from a monument of that kind at the spot. From this place to the capital of the Seres, silk, was a journey of seven months—a length of time which indicates with sufficient distinctness that the route must have reached at least to the frontier provinces of China Proper. Accommodation for rest, and other arrangements after a long journey, before starting afresh, was naturally provided at the site, particularly as it skirted the vast expanse of the desert of Cobi. There is some historical evidence that it was a caravanserai under the protection of a sanctuary, a temple of the sun. This idea is supported by present appearances, for the place still exists, and is used as a grand caravan station. The first information respecting it was obtained from a Russian, who, being taken prisoner on the frontiers of Siberia, was sold as a slave to the Usbeck Tartars. In the year 1780, he accompanied his master, a merchant, to the spot; and upon recovering his liberty, he went to India, and related his adventures to Sir Eyre Coote. The Stone Tower, in a narrow pass of the Belur-tag,



Indian Choultry or Caravanserai of Forty Pillars.—From a Drawing by Daniel.

is one of nature's erections which man has modified for his own convenience. It is a massy rock, the face of a mountain which forms one side of the defile, hewn into a regular form, with two rows, each of twenty columns, now in a ruinous condition. Hence its modern name of Chihel-Sutun, or the Forty Columns. It is a most wonderful work, venerated by the natives far and wide, who ascribe it to supernatural agents. But by the traders who rendezvous at the station, it is styled Tahkti-Saleiman, the Throne of Solomon.

Buildings for the reception of caravans, or caravanserais, in situations remote from towns, may be traced to a very early age in districts under regularly constituted government. Xenophon refers their foundation to Cyrus, who, he states, caused them to be erected at the distance of a day's journey from each other, and supplied persons to take charge of them. They are now very characteristic of Persia, and of provinces once included in the empire. However differing in detail, they are all constructed essentially on the same model; and consist of large quadrangular structures, divided into a series of naked chambers enclosing on every side an

open court. Passengers, whether traders, pilgrims, or general travellers, may occupy any of the apartments that are vacant, but all further accommodation, as well as food, must be provided by themselves. The Persians also took the lead in the formation of highways, which extended from the capital cities to the remotest parts of the empire, and were constructed at an immense cost. Though lines of military communication, intended to secure conquered frontier provinces, they were open to general use, and greatly facilitated traffic and intercourse. One of these roads, the principal, described by Herodotus, stretched from Susa, through the north of Mesopotamia, into Asia Minor, and terminated at Ephesus on the west coast. It had one hundred and eleven lodging-places or caravanserais; and as the route passed through an inhabited and safe region all the way, it might be traversed by passengers singly or in company. The same road, with few deviations, is now used by caravans between Ispahan and Smyrna. But the whole economy of overland transit in these countries is on the eve of a change, after having subsisted with but slight alterations from the patriarchal age to the present. Egypt, Asia Minor, and India, have railways in action; and a grand trunk-line has been surveyed, intended to connect the Mediterranean with the Euphrates and the Persian Gulf. The time will certainly come, and is perhaps not far distant, when to a great extent the camel's occupation will be gone; when the winds will daily bear across the desert the whistle of the steam-engine; and 'tickets,' 'tickets,' may, perchance, be heard within sight of the ruins of Babylon.

The Nile and the Euphrates, intimately associated with the great monarchies of antiquity, were applied to the purposes of transit at an early era. But flowing



The Nile Raft.—By Clark Stanton.

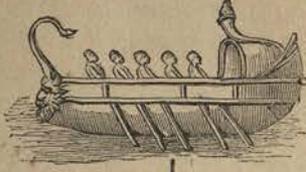
principally through level tracts of pasture or wastes, unsupplied with wood for the construction of vessels, the circumstance was unpropitious to their navigation by a people dependent upon local resources. Boats of papyrus were used upon the Nile

for the conveyance of light produce and passengers for short distances; and are perhaps the 'swift ships' to which one of the sacred writers compares the rapid passage of human life. Though swift with the current, the navigation against it, at least above Elephantina, was accomplished by the boats being hauled along with ropes from the banks. On the lower course of the river, comparatively large sailing vessels were employed. But it is probable that the produce of Ethiopia and interior Africa was brought down into Lower Egypt on rafts or rude craft which never returned, being broken up at the termination of the voyage. This we know to have been the case with reference to the navigation of the Euphrates. Descending from the highlands of Armenia to the level plains of Babylonia, the people of the former country sent their commodities by the stream, principally wine, to the latter, which they could not produce themselves. The barks were floats with only a skeleton of wood. This was covered with skins, overlaid with reeds; and an oval form was given to the whole, so that there was no difference between the stern and prow. The wine was placed in casks upon them, with other goods; and they were carried along with the current under the guidance of two oars. On arriving at their destination, the conductors sold the cargo and the skeleton of the craft, carrying back the skins by land, since the force of the stream rendered it impossible for them to return up the river. Thus in the present day, the market-boats which go down the Danube to Vienna, and the corn-rafts which drift with the Vistula to Dantzic, never return, but are sold with the cargoes they convey.

The old Egyptians, however expert in the navigation of the river, eschewed that of the sea on account of its perils, and viewed the great deep with horror as an emblem of the evil being, Typhon, the implacable enemy of their god Osiris. But the Babylonians, at the height of their power, had a direct maritime commerce, as well as a river and land trade. However impossible for barks like those described to proceed against the current of the Euphrates, it was ascended from the Persian Gulf by vessels of a different description; and the rich produce of India was not only brought to the luxurious capital, but conducted up the river to Thapsacus, and from thence transferred by caravans to the marts of Western Asia. Æschylus refers to its inhabitants as a promiscuous multitude, 'who both embark in ships, and boast of their skill in archery;' and prophecy indicates them as a people 'whose cry is in the ships.' These were probably built at the island of Tylos, a dependency in the Persian Gulf. It is expressly said to have possessed a species of timber for ship-building, possibly the teak-wood of India, an important historical notice, since Babylonia is totally destitute of trees, with the exception of the date and cypress, neither of which furnishes a suitable material.

Mankind settled upon the shores in far remote times, invited to such localities by the novelty of marine scenery, as well as by the facility for procuring food offered by the tenants of the deep, along with the cool refreshing sea-breeze, for it was beneath the hot sun towards the tropics that the primitive generations of men seem to have flourished. History has not recorded the people who first launched upon the ocean, and passed its billows to another strand. But history sufficiently intimates that the hope of plunder as well as the love of adventure was the impelling motive to the enterprise, and that the earliest sea-navigations were piratical descents upon stranger shores, as the mode of obtaining gain most obvious to unenlightened races. In this way the maritime states of modern times have generally commenced their career. But such a method of dealing speedily becomes of difficult execution, as experience of surprise and spoil in a single instance is sufficient to put a population upon its guard against a second. Necessity,

therefore, with an apprehension of the superior advantages of peaceable traffic to perilous rapine, grafted commerce upon piracy; and good gradually grew out of the original evil.



Boats from Ancient Sculptures.

The ancients had ships of passage, of merchandise, and of war. In their management, the course of invention seems to have been, first rowing, then both rowing and sailing, and ultimately sailing only. The sailing vessels had but one mast, which was usually taken down when in harbour, and put up as occasion offered, commonly alone when the wind was favourable, as the art of sailing upon a tack was an accomplishment but slowly acquired. They were not adapted for quick movement, owing to the flatness of their bottoms and clumsy construction. Distant voyages were rarely undertaken, and never directly performed. The extreme point was gained by touching at a number of intermediate points, often out of the way, for the slowness of navigation, and the small size of ships, rendered it impossible to victual them for a long distance. As a general rule, mariners were reluctant to venture out to sea beyond sight of land. Storms must of course have imposed this at times as a necessity, but when possible, shelter was sought from the rising gale in the nearest harbour. Thus Ulysses declares :

'Wide o'er the waste the rage of Boreas sweeps,
And night rushed headlong on the shaded deeps.
Now here, now there, the giddy ships are borne,
And all the rattling shrouds in fragments torn;
We furled the sail, we plied the labouring oar,
Took down our masts, and rowed our ships to shore.'

From the autumnal to the vernal equinox, the Greeks and Romans considered it unsafe to put to sea, not so much on account of storms, but because the rains prevailed, narrowing the horizon of the sailor, while mists hid the land, and clouds obscured the sky. Still, in the finest weather, some trading voyages necessarily involved the spectacle of scenery exclusively marine, while adventurous spirits sought to signalise themselves by departing from cautious and timid usages. But ordinarily the shore was kept in view for direction by day, and if anchorage at night was impracticable, seamen attended to the position of certain stars, their rise and setting, for guidance on their course.

The origin of nautical astronomy is generally ascribed to the Phœnicians, who made use of the Little Bear as indicating the true north. Hence, Aratus tells us, referring to the constellation,

'Observing this, Phœnicians plough the main.'

The Greeks, also, in their earliest ages, were accustomed to guide themselves by the stars in their navigations. Thus, Ulysses is represented sailing on his raft, sitting at the helm, and watching the heavens through the night. But from ignorance, the Greek sailors long confined themselves to the rough approximation to the north afforded by the Great Bear, the *Helicè* of classical antiquity, mentioned in the beautiful description in the *Argonautics* :

'Night on the earth poured darkness : on the sea
The wakeful sailor to Orion's star
And *Helicè* turned heedful. Sunk to rest,

The traveller forgot his toil; his charge
 The sentinel; her death devoted babe
 The mother's painless breast. The village dog
 Had ceased his troublous bay. Each busy tumult
 Was hushed at that dead hour; and darkness slept
 Locked in the arms of silence. She alone,
 Medea slept not.'

The two asterisms are appropriately described by Aratus :

'The one called Helix, soon as day retires,
 Observed with ease, lights up his radiant fires;
 The other, smaller, and with feebler beams,
 In a less circle drives its lazy teams;
 But more adapted for the sailor's guide,
 Whene'er by night he tempts the briny tide.'

The philosopher Thales is said to have improved the navigation of his countrymen by introducing the knowledge of the Little Bear, derived from the Phoenicians.

The provision of coast-lights for the guidance of the mariner in early times is attested by allusions to them. Homer beautifully describes the flash of a beacon-light in some solitary place, as seen by seamen leaving their friends. The Pharos of Alexandria, built in the reign of Ptolemy Philadelphus, about three centuries before the Christian era, seems to have been a proper light-house; and was regarded as one of the seven wonders of the world. Strabo describes it as built in an extraordinary manner, in many stories of white stone, on a rock forming the promontory of the island of Pharos, whence the tower derived its name. It bore the inscription 'Sostratus of Cnidos, the son of Dexiphanes, to the gods, the saviours, for the benefit of seamen.' The geographer mentions the neighbouring shores as low, enumbered with shoals and snares, requiring therefore the establishment of a lofty and bright beacon, as a sign for sailors arriving from the ocean to guide them into the entrance of the haven. The poet Lucan speaks of the Pharos as having indicated to Julius Cæsar his approach to Egypt on the seventh night after he set sail from the coast of Asia Minor; and Pliny, after a reference to it, states that there were light-houses also at Ostia and Ravenna.



Observatory of the Pharos of Alexandria.—From Denon's Egypt.



St Michael's Mount, Cornwall.—From a Sketch by G. F. Sargent.

CHAPTER II.

GEOGRAPHICAL KNOWLEDGE OF THE ANCIENTS.



ERTAINLY the Phœnicians were the greatest maritime people of antiquity, and—so far as we have any knowledge—the first to traverse habitually the broad highway of the deep. They were naturally directed to a seafaring life by local position, occupying an advantageous coast-line, in possession of ample supplies of material for ship-building from the forests of Lebanon, while an outlet was required for the products of Asia, continually accumulating in their cities. They explored the shores of the Mediterranean, and crept along the Atlantic coast of Europe; planted settlements in Crete, Cyprus, Sicily, Malta, Sardinia, Northern Africa, and Southern Spain; conveyed the commodities of the east, with their own manufactures, to these colonies; returned with their peculiar products; and not only commanded for ages the carrying trade of the western waters, but aspired

to wrest that of the Indian Ocean out of the hands of the Arabians. The attempt to effect this was made by Hiram, king of Tyre, in conjunction with the Hebrew monarch, Solomon; for neither party was competent to undertake it independently. The latter had command of ports in the land of Edom, communicating through the Red Sea with the Indian Ocean, but he had no seamen, ships, shipwrights, or timber. The former could furnish them in abundance, but had no access to a southern sea-board without permission from his neighbour. Both therefore confederated to fit out a Hebrew-Phœnician fleet, which made the celebrated voyages to Ophir, starting from the northern extremity of the Red Sea, and bringing back gold, ivory, ebony, precious stones, apes, and peacocks.

The situation of Ophir has given rise to much learned research and ingenious speculation. The opinion is, however, very probable, that the name denotes no particular spot, but only a certain region or part of the world, analogous to the East and West Indies of modern geography. It may therefore be understood as a general term for the rich countries of the south, lying on the African, Arabian, and Indian coasts, as far as they were at that time known. The vessels are styled ships of Tarshish, which may mean ships of a certain size and build, similar to those which traded to the Phœnician colony of Tartessus in Spain. They returned once every three years. It is not necessarily implied that they were absent the whole period, for as broken years were reckoned by the Hebrews as whole ones, the actual time of the outward and homeward voyage would not be more than eighteen months, supposing the fleet to have sailed in the autumn of one year, staying out the next, and returning in the spring of the third. But even this length of time sufficiently shews the slowness of ancient navigation, owing to seamen proceeding coast-wise, frequently landing for provisions, and seeking a harbour on the appearance of every storm. Solomon's successors lost all direct communication with the Indian Ocean, being driven from the countries of the Red Sea during the civil wars which followed his death; and the monopoly of commerce in that direction reverted to the Arabians.

It is only from scanty notices in the pages of Hebrew and Greek writers that we have any knowledge of the maritime enterprises of the Phœnicians, for commercial jealousy led to their concealment as far as possible from other nations. The circumnavigation of Africa, ascribed to them, is inherently improbable. But their colonists at Gades, near the modern Cadiz, seem to have extended their voyages to our south-western shores, as certainly their brethren, the Carthaginians, did. An expedition was despatched by that people under Himilco, which, after a four months' sail, reached the country where tin and lead were to be procured. This was distinguished by a promontory, a bay, and some islands contiguous to the coast of Albion, and within two days' sail of the sacred island, Ierne, or Ireland. Heeren supposes the Lizard Point of the present day, Mount's Bay, and the semi-island of St Michael's Mount, to represent these localities. But Carthage at the same date, conceived to be about 570 B.C., sent out a fleet in an opposite direction, which deserves notice as the first voyage of discovery of which a circumstantial record is extant. This is styled the *Periplus*, or 'Voyage of Hanno, commander of the Carthaginians,' and may be viewed as a Greek translation of the official report of the admiral in the Punic language. The original is said to have been inscribed on a tablet, and placed in the temple of Saturn at Carthage.

The fleet had colonisation in view on the north-west coast of Africa, and hence took out persons of both sexes in sixty large vessels. Two days after passing the Pillars of Hercules, or the Strait of Gibraltar, the first disembarkation took place; the settlers were left on an extensive plain, a position answering to that of the present town of Mogadore. The expedition went on following the sinuosities of the shore, and successively landed

five more detachments of the passengers. It is impossible to identify the capes doubled, and the inlets entered, by the names given. But the description of the river—large and broad, full of crocodiles and hippopotami—seems to point to the Senegal; while the highland region afterwards coasted, covered with odoriferous trees, and inhabited by timid blacks, reminds us of Senegambia. By day all was still and lifeless on the shore, but upon the approach of night, fires were observed on the hills, and cries of wild merriment were heard, with the sounds of music, according to existing negro usages. The voyagers retraced their course owing to the want of provisions, and met with their most remarkable adventure at the extreme point reached. There was a large inlet of the sea, where, on an island, strange-looking savages were encountered, the females being covered with hair. This was a band of *Gorillas*, as the interpreters called them, so notorious in our own time. The males defended themselves vigorously with stones, but three females were captured. These soon broke their bonds, and fought so furiously with their teeth and nails that they were killed. The skins were stuffed, and taken home. Thus Carthage, twenty-five centuries ago, had specimens of the fierce brutes which our museums have only very recently acquired.

During the most flourishing period of Phœnician trade and power, the Greeks gradually became formidable upon the seas, and encroached upon their commerce. Abandoning their homes in a body to avoid subjection, the Phœceans emigrated to the mouth of the Rhone, and founded Massilia, the modern Marseille; Greek settlements were likewise early planted in Southern Italy, Sicily, and Spain; and thus they were in the way of acquiring information respecting the expeditions and discoveries of the Phœnician colonists. But it is remarkable, that at a later date—namely, 484 B. C.—the age of Herodotus, who may be called the Father of Descriptive Geography as well as of History, little was known by him of Western Europe. He was well acquainted by his travels with the countries of the Nile, the Euphrates, and the Tigris, and with those around the Caspian and Black Seas. His information—obtained by report, extended to the higher regions of the Nile, the banks of the Indus, the confines of Tartary, the shores of the Sea of Aral, the line of the Ural Mountains, and towards the heart of modern Russia. But he was dubious respecting the fact of a great river in Europe flowing into the sea towards the north—an obvious reference to the Rhine; he was even equally so of there being a sea in that direction. He never mentions Rome, then beginning the fourth century of its existence; and though the Cassiterides, or tin islands, are named, it is in entire ignorance of their local position. Herodotus was strikingly correct in relation to the Caspian. It is described as a sea by itself, having no communication with any other; of oblong form, with the greatest extent north and south; and estimates of the length and breadth are given which are believed to be accurate. Four centuries later, Strabo introduced it in his pages as an arm of the Northern Ocean, connected with it by a narrow channel. A century still later, Ptolemy restored the representation of its distinctness, but made it an oblong, trending east and west. So it figured on all maps down to the middle of the sixteenth century, when an Englishman, who twice crossed its waters, Anthony Jenkinson, contributed to correct the distortion, without any idea that he was vindicating the geography of Herodotus.

The first Greek adventurer into western and northern seas, Pytheas of Marseilles, flourished soon after the first Greek historian and geographer, though his age cannot be fixed with greater precision than in the interval between Herodotus and Alexander the Great. He coasted Spain and Gaul, arrived at Britain, called Albion by the natives; and after passing along its southern and eastern shores, he estimated from their extent the circuit of the island at forty thousand stadia. Sailing further north, he reached

Thule, clothed with perpetual fogs, where earth, air, and sea seemed blended in chaotic confusion, and the sun was beheld above the horizon for twenty-four hours together at the summer solstice. It is impossible to define the particular region indicated, to which the term *Ultima* was afterwards added to indicate its remoteness. But a part of the peninsula of Jutland anciently bore the name of Thiu-land; a portion of the Norwegian coast is still called Thele-mark; and the Shetland Isles—the shattered relics of an old land, where the length of the longest day is nearly twenty hours—have been referred to as answering generally to the description. Of no locality outside the Arctic Circle is it true that the sun at midsummer is above the horizon for the entire day. But Pytheas might gather information respecting this phenomenon of higher latitudes, and suppose it applicable to those he visited, owing to the observation of the long days there. It is certain that several centuries later the Romans imagined there was constant daylight in summer in the northern parts of our island, from the fact of the nights being then so brief and bright. Tacitus expressly affirms that 'in the furthest part of Britain, the nights are so clear, you can hardly tell when daylight begins or ends; and when the sky is not overcast with clouds, you may see all night long, the light of the sun, which does not rise, or go down, but moves quite round.'

The navigator passed into the Baltic, and undoubtedly reached its amber coast, the shores of modern Prussia, between Dantzic and Memel, the grand repository of this carbonaceous mineral. He speaks of the sea throwing it up in considerable quantities, as at present; of the natives selling it to their neighbours, the Teutones; and through their hands it no doubt passed to the south. This we know to have been the case in a subsequent age; for Pliny represents the mineral coming overland into the north of Italy, where the women wore it in necklaces as an amulet. The trade might have existed for centuries, and this seems intimated by the old tradition of a sacred road across the Alps. Amber, a very costly article in early times, was known and wrought into various personal ornaments in the Homeric age. Thus a kidnapped prince speaks in the *Odyssey*:

'An artist, such he seemed, for sale produced,
Beads of bright amber, riveted in gold.'

Electrical properties were first noticed by the Greeks in amber, which it develops in a high degree on being rubbed. It is from their name for the mineral, *electron*, that we have our word *electricity*. Pytheas was not only an expert and daring seaman, but a physical inquirer in general. He originated a classification of climates according to the lengths of the days and nights; determined the latitude of his native city, Massilia, with remarkable accuracy; was aware of the influence of the moon upon the tides; and knew that the pole-star in the Lesser Bear did not mark the true polar point. His intercourse with the Gothic nations is evident from a reference being made to mead, their favourite beverage.

While various opinions were set afloat by the Greek philosophers respecting the figure of the earth, the offspring of the fancy—that of a plain, a cylinder, a cube, a drum, and a high mountain, with a base of infinite extension, around the summit of which the stars circulated—its spherical shape, taught by Thales, was placed on the basis of evidence by Pythagoras, who observed the varying attitudes of the stars occasioned by their change of place. Soon afterwards, the opinion of the earth being suspended *in equilibrio*, and supported by the air, became widely prevalent, or as Socrates says in Plato's *Phædo*, it is wrapped about and pressed equally in every direction by the universe. By Aristotle its globular form was firmly held, because some stars seen in Greece were not visible in Egypt, being lost beneath the more northerly horizon. He also inferred it from the appearance of the circular shadow projected by the earth on the disc of the moon in eclipses; and

came to the conclusion, from the same circumstance, that the globe could not be a very large one. Reasoning on the hypothesis of the earth being a ball of moderate dimensions, he conceived the coasts of Spain to be at no great distance from the shores of India—the very conclusion which eighteen centuries later led Columbus to attempt the passage of the Atlantic. Aristotle, a universal genius, was in possession of all the geographical knowledge of his day. He mentions Taprobana or Ceylon; the great river Crametes, rising from a source near that of the Nile, and flowing westward to the ocean, either the Senegal or the Niger; and the two large islands Albion and Ierne, on the north of Celtica, which are for the first time associated under a common name, that of Britannicæ.

The career of his pupil, Alexander the Great, illustrated to his countrymen the productions and people of India, of which they had only previously heard, and to a very limited extent. After the overthrow of the Persian empire, he led his troops to the banks of the Oxus, crossed the Hindu-Koosh, passed the Indus near the modern Attock, and reached the heart of the Punjaub. The Greeks now obtained personal knowledge of the multitudinous population of the country, consisting of races corresponding to the Ethiopians in colour, but without the crisp hair of the negro; of their well-watered rice-fields and finely-woven fabrics; and of their peculiar habits, as the existence of castes, devoting widows to the funeral-pile, and the austerities practised by their wandering faqueers. With astonishment the luxuriant vegetation was noticed, the fan-like palms, the trees whose summits were beyond the reach of the arrow, the leaves larger than the shield of an infantry soldier, and the vast spread of the banyan or Indian fig, which takes root by its branches, and is described as forming a leafy arbour like a tent with pillars, under which a thousand persons may assemble. Not less surprise was excited by the number of elephants, wild and domesticated; the Bactrian camel, with



Bactrian Camel.—By Harrison Weir.

two humps; the large-bearded stag, with a horse's mane; and the Indian buffalo. Constructing a fleet, 'Macedonia's madman' descended the Indus to its mouth, sent part of his army home by sea, and returned himself with the remainder, through the burning

wilds of Beloochistan. Nearchus, the admiral, occupied nearly three months, from September 21 to December 9, 325 B.C., in a coasting voyage to the Persian Gulf, which would be performed at present in little more than a fortnight.

Upon the rise of Alexandria on one of the mouths of the Nile, its position and the activity of its Greek settlers, together with the ruin of Tyre, speedily made it the first commercial mart in the world; and the city became also a great centre of information respecting all known countries, owing to the resort of strangers to it for trading purposes. This stimulated the study of geography in all its branches, the mathematical, physical, and political, by the literati connected with the celebrated library gathered by the Ptolemæan sovereigns. Under Eratosthenes, its president, who was the first to insert parallels of latitude on maps, the attempt was made to measure an arc of the meridian, the first on record, in order to ascertain the magnitude of the globe. The arc fixed upon for the purpose was that between Alexandria and Syene, now Assouan in Upper Egypt, under the Tropic of Cancer. It was known that on the day of the summer solstice the sun was vertical at the latter place. Mention is made of a deep well there, which was visited at the bottom by the direct sunbeams at high noon on the solstitial-day, while vertical bodies threw no shadow for a considerable distance around it. The two places were likewise supposed to be on the same meridian. In possession of these data, Eratosthenes, by means of a concave hemisphere, with a stile fixed in its centre, found that the meridian sun at Syene caused the stile to deflect a shadow at Alexandria, which was one-fiftieth of the whole circumference. Hence he inferred, that the arc of the heavens comprised between the two places must be the same; and that their distance must be a similar arc, or one-fiftieth part of the terrestrial circuit. On estimating their distance by the difference of latitude, it was found to be 5000 stadia, which multiplied by 50, gave 250,000 stadia for the circumference of the globe. As we are ignorant of the stadium employed, the result cannot be expressed in common measures. But several important errors were committed in the practical application of a right principle, for instead of the two places being under the same meridian, they differ nearly three degrees in longitude. Great credit, however, belongs to Eratosthenes, and he was honoured by his contemporaries as the Surveyor of the Earth, the Measurer of the Universe.

The Romans, in their career of conquest, rendered familiar various countries known before, though obscurely on the west, south, and east. Spain was traversed by the legions under the Scipios; Numidia and Mauritania were explored during the Jugurthine war; Armenia and the defiles of the Caucasus were penetrated in the contest with Mithridates. But northward, Julius Cæsar may be said to have made great discoveries. Before his campaigns in Gaul and Britain, of which he became the historian, the civilised world was completely ignorant of their interior regions. He found the maritime provinces of our island in the south, occupied by a Germanic race, the Belgæ, in the enjoyment of considerable social comfort—inhabiting towns, and possessing abundance of cattle. In the next age, the Augustan, soon after the commencement of the Christian era, Strabo produced his *Geography*, in which minute details are given, chiefly of the regions visited by the Roman arms, founded partly upon his own observation as a traveller, and partly upon report. But ample evidence is afforded in his work of the imperfect state of knowledge. Thus, he was dubious respecting the shape of Italy, whether a square or a triangle. He represented the Pyrenees as running north and south; thought the coasts of Spain and Gaul formed nearly a straight line; and connected the Caspian with the Northern Ocean. Africa, he considered, did not extend far to the south, a fortunate error, as it stimulated the Portuguese to attempt its circumnavigation. Deeming the earth a sphere, and the southern hemisphere to correspond to the northern, Strabo divided

it into five zones; one torrid, between the tropics, a region of burning heat, and consequently uninhabitable; two frigid, towards the poles, void of life from the intense cold; and two intervening temperate zones, favoured with a moderate temperature, admitting of the existence of man, animals, and plants. The remarkable speculation also occurs, that where the temperate zone crosses the Atlantic Ocean, 'there are inhabited worlds, distinct from that in which we dwell.'

Under the early emperors, Midland and Northern Europe were further disclosed by the Roman generals. Drusus led his soldiers to the river Weser in Germany; and Germanicus marched to the Ems and the Elbe. South Britain, into which Cæsar merely made a foray, was conquered in the time of Claudius, and constituted a province of the empire. North Britain, up to the foot of the Grampians, was traversed by the troops under Agricola, who sent out a fleet from the Firth of Forth on a voyage of discovery northward, which made the circuit of the shores. 'This fleet,' says Tacitus, the son-in-law of the general, 'first ascertained that Britain was an island. It discovered also and subjected the Orcades (Orkneys), a cluster of islands not known before, and saw Thule hitherto concealed by snow and winter.' But the historian had a very erroneous idea of the position of our islands, for Britain is said to have Spain on the west, and Ireland is placed midway between the two. The earliest mention of Scandinavia occurs at this time; in the pages of Pliny, it is represented as an island of unknown extent, separated by an arm of the sea from the Cimbric Peninsula, the modern Jutland, and marked by a mountain called Sevo; the existing name of a hill near Gottenburg. Norway is apparently indicated by the same writer under the name of Nerigon, the inhabitants of which are said to have customarily sailed as far as Thule. An adventurous traveller from Pannonia to the amber country made the Baltic, near the mouth of the Vistula, known to the Romans; information was acquired by them of the tribes on the coast, up to the Gulf of Finland; the Sviones, sea-men, or Swedes, are mentioned; but they were never aware that Scandinavia was an integral portion of Europe. The rumour also reached them in Spain, of islands existing in the Atlantic, off the coast of Africa—the Fortunate Isles of Pliny, believed to be the Canaries—but their knowledge of them was limited to the tidings.

In the second century of our era, during the reigns of the Antonines, the best scholar of his age flourished at Alexandria. This was Ptolemy, a discoverer, observer, and careful compiler, who, from the recorded experience of ages, and the itineraries of merchants resorting to the city, produced a *Geography*, in eight books, accompanied with maps, which remained a text-book through the middle ages, and was not superseded till the fifteenth century. He announced with certainty the existence of the Niger, flowing from west to east; described correctly the course of the Volga; but erred egregiously in many of his delineations. The north coast of Africa is made nearly a straight line; Scotland has its greatest extent east and west; the Mediterranean is stretched out to nearly double its proper length; the whole peninsula of India is suppressed; Ceylon is enormously exaggerated in its dimensions; and Asia is prolonged to the south, then brought round westward to join Africa, thus enclosing the Indian Ocean. But the descriptive department of geography was foreign to the aim of the writer. His object was to fix the astronomical position of places by means of parallels and meridians, which, though in use before, were far more largely applied by him, and indicated as measurers of latitude and longitude. Ptolemy's chief parallels are the equator; that of $16^{\circ}\frac{3}{4}$ north, through Meroë; that of 36° , through Rhodes, an old standard line; and that of 63° , through Thule, with which the latitude of the Shetlands, the supposed Thule, nearly agrees. But

he greatly erred in his longitudes, which were computed from the meridian passing through the Fortunate or Canary Islands as a starting-point. He made the length of the Mediterranean 20° more than its true measure, and placed the mouth of the Ganges 46° eastward of its real position, an error of about three thousand miles, equal to one-eighth of the circumference of the globe. This exaggerated eastern longitude had, however, the happy effect of leading the navigators of the fifteenth century, who knew nothing of the true dimensions of the globe, to imagine that India and China lay at no great distance across the waters of the western ocean, and confirmed them in their purpose to attempt its passage.

The world, as known to the ancient civilised nations, may be generally defined as extending from the extremity of Britain on the north, to the banks of the Upper Nile on the south, and from the shores of the Atlantic on the west, to the borders of China on the east. It thus embraced but a small proportion of the terrestrial surface, little more than the half of Europe, a fourth of Asia, and a fifth of Africa. But within the limits named, there was a vast area, very vaguely disclosed, while the most erroneous conceptions were entertained of the extent and configuration of long visited lands; and even such a familiar circumstance as the annual inundation of the Nile was an unsolved problem. It was commonly ascribed to the special interposition of the Deity; and though Lucretius rightly mentions periodical rains towards the equator as one cause, he gives greater prominence to the influence of the Etesian winds, which have no effect at all in arresting the current of the river, and speaks of the event as without a parallel on the face of the globe.

The connection between the flow and ebb of the sea, and the positions of the moon, was too obvious to have escaped the attention of mankind, whose geographical position brought oceanic phenomena under their notice in early ages. Accordingly, the variation of the tides with the moon was remarked by physical inquirers; and Pliny, in a striking passage of his *Natural History*, directly attributes them to lunar action, and gives an accurate description of their leading features. But in the prior age of Alexander, the Greeks, although not ignorant of the ordinary tides, beheld with surprise and dismay the *bore*, or rushing tide of the Indus, common to the mouths of most great rivers; and to Caesar, the higher tidal rise on the coast of Britain, at the period of the full moon, which damaged his fleet, was an entirely unexpected event. But it is remarkable that references occur to the phenomena of high northern latitudes, certainly never visited by any of the ancients, which must have either been deduced by reasoning from facts observed elsewhere, or supplied to northern voyagers by those with whom they communicated, who had heard of them. Thus the sea is said to be languid and nearly motionless in that direction; the sun is described as neither rising nor setting, but going round the horizon; and the figures of the gods are affirmed to appear there covered with luminous beams. These are evidently allusions to the ice-bound ocean, and the long summer day of the polar circle, with the brilliant coruscations of the aurora borealis.

The wonderful power of the magnet, by which it attracts iron, was not unknown to the ancients. In fact, from Magnesia, in Asia Minor, where the Greeks first met with a kind of iron-ore endowed with it, we have the terms 'magnet' and 'magnetism.' But they were not aware that the property could be communicated to the iron attracted, so that artificial magnets might be readily constructed; and the polarity of the magnet, or its property of pointing, when freely suspended, towards the poles of the earth, on which account our ancestors gave it the name of loadstone, leading or guiding stone, was either not discovered, or not taken advantage of. From obscure

intimations, it may be gathered that the Chinese were acquainted with this quality, as exemplified in the mariner's compass, prior to the Christian era; but as they neither learned the habitual application of it, nor acquired any proficiency in the art of navigation, it was practically useless to them. The same knowledge has been assigned to Solomon, on account of the voyages he ordered; and the Arabians are said to have used the compass at an early period to guide them through the trackless sands of the desert. But these are ill-supported assertions. The voyages directed by Solomon, though comparatively distant, were doubtless simply coasting expeditions, and the latter people were found in the sixteenth century steering wholly by the stars or by the land. It is very likely that the germs of this, as of other important applications of natural phenomena, have long been known in the world; but it is certain that the magnetic needle, as an instrument of use, belongs entirely to the modern age, and is due to the practical genius of Western Europe.



The Canary Islands.—By G. F. Sargent.



The Walrus.—By Harrison Weir.

CHAPTER III.

GEOGRAPHICAL KNOWLEDGE IN THE MIDDLE AGES.



NEW era dawns. The disorganised state of society which attended and followed the fall of the Roman empire, had the effect of obscuring the light of science kindled in past ages, repressing the spirit of inquiry, and interfering with the cultivation of all kinds of knowledge. A few solitaries pored over manuscripts and maps in monastic cells; ecclesiastics went out to proclaim a new faith to the barbarians who had overthrown the ancient civilisation, and thus changed their landscapes; enthusiasts repaired on pilgrimage to the sacred shrines of the Holy Land; but no services of moment were rendered to geography in disclosing fresh regions, or illustrating those previously known, till the ninth century, in which our own King Alfred took part. At that period a fresh race of disturbers, issuing chiefly from the archipelagoes of Denmark and Norway, made themselves formidable to the settled and gradually improving maritime communities of Europe. They are variously styled Norsemen or Northmen and Danes by our own annalists, Normans by the French, and Normanni by the Italians, for their cruises extended from the stormy rocks of the Shetlands to the balmy shores of the Mediterranean, and permanent settlements were made by them in Britain, France, and Italy. Their creed was a ferocious paganism; their standard, the ominous raven; their profession, piracy. Originally haunting inlets of the coast, bays, and estuaries,

they were called Children of the Creeks, while the chieftains had the title of Sea-kings, from the ocean being their ordinary scene of adventure, and the boldness with which its perils were encountered. Ships were the sea-horses of the marauders—their ocean-skates. 'The strength of the tempest aids the arm of the rower; the storm is our servant; it throws us where we desired to go.' Such were the maxims of the Northmen.

While information respecting foreign countries and people was eagerly sought by the inquiring mind of Alfred, his attention was directed with special interest to these wild rovers, owing to their descents upon the shores. Two of them appeared at his court, refugees compelled by civil strife to quit their homes. The king took down from their own lips an account of their voyages, and appended it to the *Geography* of Orosius, the work of a Spanish monk who flourished in the beginning of the fifth century, which he translated from the Latin into Anglo-Saxon.

One of the narrators, named Other, came from the most northerly part of Norway, where he had possessed a hundred reindeer, six decoy deer, with twenty head of cattle; and had enjoyed the distinction of a chieftain, receiving an annual tribute from the Fins of valuable furs, feathers, whalebone, and ships' cables made of the skins of seals. Anxious to know how far the country extended to the north of his own locality, and to discover new fishing or hunting-grounds, he set sail, keeping close to the shore. Having passed the bounds of the whale-fishers, three days' sail brought him to a point where the coast changed its course, and turned to the east. Continuing his voyage in the new direction for four days, he found it bend towards the south; and after five days' southerly sailing, he came to the country of the Beormians or Permians, who seemed to speak the same language as the Fins. Thus Other rounded the North Cape of Europe, and passed into the White Sea, the eastern side of which was the land of the Permians, now occupied by the Samoiedes. The voyager met with the walrus or 'horse-whale,' as Alfred appropriately styles it, in such abundance that his party killed threescore in the space of as many days. To discover the haunts of the walrus was one object he had in view, for the teeth of the animal were highly valued, supplying the ivory of the period; and the ropes used for shipping were made of the strong and pliant skin. The walrus, though driven by navigation and the havoc of centuries to more solitary waters, is still occasionally captured in the same region. The island of Morshovet, in Mezen Bay, is called after it, being derived from *morsh*, the Russian name for the animal, the original of our word *morse*, by which the walrus is often denoted. In the same neighbourhood lie the Morshowuja Koschki, or the walrus sand-banks and shoals. Alfred received some walrus teeth from the refugee mariner; and they were the first articles ever brought to England from the north of Europe.

The other stranger, Wulfsten, had explored the eastern regions of the Baltic, for the islands of Oland and Gottland are mentioned in his narrative, with the mouth of the river Wisla or Vistula, all beyond which was called by the general name of Estland or Eastland. This district, according to the voyager, had a great number of towns, in each of which there was a king. It abounded in honey, and had a plentiful supply of fish. The chiefs and great men drank mares' milk; the poor people and slaves used mead. No ale was brewed among them. It was a custom of the country, when any one died, to award the property of the deceased to the best horsemen at his funeral. For this purpose, it was divided into five or six heaps, sometimes into more, according to its amount. The heaps were placed at intervals of about a mile from each other, and regularly increased in size, so that the largest heap was at the greatest distance from the town to which the dead man belonged. All parties in the neighbourhood were

allowed to contend for the prizes, the fleetest horse winning the most distant and valuable portion. The name of Eastland survives in that of Esthonia, one of the Baltic provinces of Russia. But pilots still use the ancient form of the word. The nobles style themselves Eastländers, and are thus distinguished from the peasants, who are simply Esthes. Germans and Scandinavians of the present day term the Baltic the East Sea, *Ost See*, which discriminates it from the ocean on the west.

Piratical squadrons of the Northmen permanently occupied the Shetlands and Orkneys in the tenth century, as convenient stations from which to harass the adjoining mainland. Their power extended over the Hebrides; and to this insular dominion a considerable portion of the north of Scotland was added, as the county of Sutherland, their *southern land*. They had previously discovered accidentally the Faröe Islands; about the year 861, as one of the Sea-kings was endeavouring to reach this group, a violent tempest drove him to an unknown and more northern coast. He effected a landing, and from the summit of a hill surveyed the country. No human habitation appeared; no sound or sign of life was observed; and heavy snow descending, he called the desolate territory Snowland, a name superseded by that of Iceland. Colonists from Norway, to escape from social disturbances, afterwards sought the newly disclosed region, found it to be an island, and settled on the south-western coast, which has ever since been an inhabited site. At that time the valleys were well clothed with forests of fir and birch. These woods have now wholly disappeared from some unknown cause, rendering the drift-timber cast upon the shores of great importance to the present population.

In the course of their seafaring life, the Icelandic settlers became aware of the existence of a still more westerly land, to which adventurers proceeded. Making acquaintance with it at the south extremity, and in spring-time, when a pleasing verdure here and there met the eye, it received the name of Greenland, but was speedily found to be a region, for the most part, of naked rocks and ice-bound shores. Still colonisation followed, probably beginning about the year 982, and little settlements were planted on the west coast, between Cape Farewell and Disco Bay, which can be traced through several centuries. This isolated people contrived to maintain occasional intercourse with Norway, the mother-country; received bishops from thence; and paid their Peter's-pence to the pope in walrus teeth. But at length they perished to a man. History has no record of them after the year 1418. Yet it could scarcely be through the inhospitality of nature that they became extinct, after having braved it for upwards of four centuries. It is conceived likely, that the terrible pestilence called the 'black-death,' which largely depopulated Europe, and was specially fatal in the north, extended its ravages to the Greenland colonists, cut off the greater number, and so enfeebled the survivors, that they fell an easy prey to the Esquimaux. Runic inscriptions, ruins of buildings, fragments of church-bells, relics of utensils and implements, have been found in recent times in sheltered and now desolate spots, the memorials of life where life has ceased to be.

A much more interesting discovery was made by the Northmen, for they unquestionably reached the continent of America five centuries before any other European. The documentary evidence of the fact is universally admitted to be conclusive. About the year 1000, Biorn, an Icelander, while sailing to visit his relatives in Greenland, was driven out of his course by a storm, and met with land, covered with wood, far to the south-west. He reported its existence to his friends upon gaining his destination, and took part in an expedition equipped to examine the region deserted. After a voyage of some length, the adventurers fell in with a rocky shore, wholly without herbage, to which they gave the name of Helleland, or the land of stone. The south-eastern extremity of Newfoundland answers to the description. Writers of the present day speak of it as

consisting of 'bare and large flat rocks, without tree or shrub; the surface everywhere uneven, and covered with large stones; the mountains almost devoid of every sort of herbage.' Continuing the voyage, a low country was met with, but with many white sandy cliffs, thickly covered with trees, to which the name of Markland, or the land of wood, was given. Nova Scotia is referred to in a precisely similar manner by modern describers: 'From Port Haldimand to Cape Sable the land appears level and low, and on the shore are some cliffs of exceedingly white sand—Cape Sable is a low woody island at the south-eastern extremity of a range of sand-cliffs, which are very remarkable at a considerable distance in the offing.' After some days further sailing, the explorers came to a river, on the banks of which were trees loaded with agreeable fruits, and as the climate was genial, while the soil seemed fertile, and salmon abounded; they resolved to winter at the spot. It was noted that on the shortest day the sun remained nine hours above the horizon, from which it results that the party could not be far from the latitude of 41° —that of Nantucket on the coast of Massachusetts. The wanderers agreed to call the country Vinland, or the land of the vine, from the quantity of wild grapes at the site; and it is a curious coincidence, that centuries later the first English settlers of New England, from the same circumstance, gave the name of Martha's Vineyard to an island along the shore. Visits were subsequently paid to Vinland—one by Eric, bishop of Greenland, in 1121; and sometimes the visitors made a considerable stay, but it does not appear that permanent settlement was attempted. The old Icelandic sagas relate the circumstantial details which have been given, and while the identification of particular localities is fairly open to challenge, it is impossible to doubt the Scandinavian discovery of the American continent, at a period prior to the Norman Conquest of England. Columbus was himself well aware of it. He made a voyage to Iceland previous to his own attempt, for the purpose of inquiry; and his doing so impairs not his fame in the least, since it transpired by accident, and was fruitless of any result except so far as the great navigator derived encouragement from it.

While northerners braved the perils of the Atlantic, the southerners viewed it long as a barrier which it was hopeless to attempt to pass, and filled their imaginations with appalling pictures of its storms and dangers. The Arabs, who rapidly extended their conquests from the country of the Prophet eastward towards India, and westward into Spain, bestowed upon this ocean the epithet of 'The Sea of Darkness,' deeming it a region of impenetrable obscurity. Xerif al Edrisi, one of the most eminent of their geographers, in the middle of the twelfth century, at the court of Roger I., king of Sicily, composed a work which he styled *The Going Abroad of a Curious Man to explore all the Wonders of the World*. The Atlantic is thus noticed: 'No one has been able to verify anything concerning it, on account of its difficult and perilous navigation, its great obscurity, its profound depths, and frequent tempests; through fear of its mighty fishes and haughty winds; yet there are many islands in it, some peopled, others uninhabited. There is no mariner who dares to enter into its deep waters; or if any have done so, they have merely kept along its coasts, fearful of departing from them. The waves of this ocean, although they roll as mountains, yet maintain themselves without breaking; for if they broke, it would be impossible for a ship to plough them.' Travel was stimulated among the Arabs by the obligation to make a pilgrimage to Mecca, once at least, wherever they might be settled; and trading journeys were made by them to the more remote parts of Asia. With the same object in view, but as timid navigators following the line of the shores, they visited the islands of the Indian Archipelago, and conducted regular voyages along the east coast of Africa, as far southward as the Mozambique Channel.

The Arabs thus became familiar with the celestial phenomena of the southern

hemisphere long before Europeans caught sight of its imposing objects, and hailed the four stars which now figure in the constellation of the Cross. Hence a passage in Dante may be explained which has somewhat perplexed his commentators. In the Vision of Purgatory, the poet refers to the stars in question as symbolising the four cardinal virtues, Prudence, Justice, Fortitude, and Temperance :

‘To the right hand I turned, and fixed my mind
On the other pole attentive, where I saw
Four stars ne'er seen before save by the ken
Of our first parents. Heaven of their rays
Seemed joyous. O thou northern site! bereft
Indeed and widowed since of these deprived.’

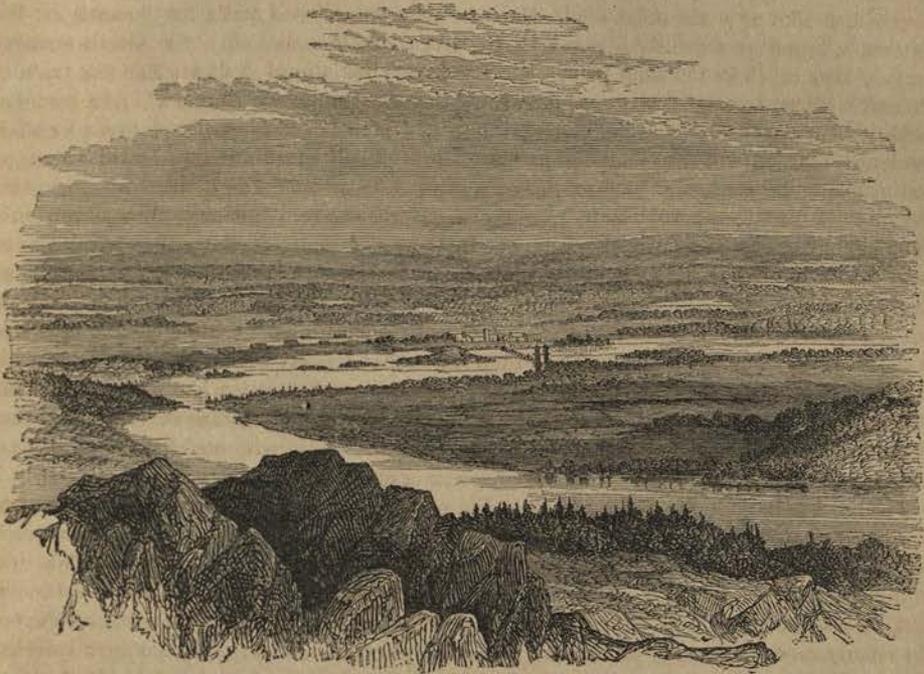
This passage, containing a clear allusion to the south pole and its quadruple stars, two of which serve as pointers, is very remarkable, since the time of Dante, 1265—1321, long antedated the maritime expeditions which made the Portuguese and Spaniards, first among the Europeans, acquainted with the skies of the opposite hemisphere. After passing within the tropics, the constellation may be seen, but is not conspicuous till the equator is approached, owing to great southerly declination. It is the finest and most interesting object in the night sky of the south, and never fails to arrest the attention of all travellers and voyagers. If Dante's lines involve simply a poetic invention, it is certainly one of the most felicitous and extraordinary on record. But very probably some accurate information respecting these southern circumpolar stars had been circulated in Europe prior to his age, through the medium of the Arabs, from which the ‘Poet-Sire’ of Italy derived his knowledge of them. Mention is made of a celestial globe, on which the stars alluded to were figured, constructed by an Arabian in Egypt, with the date of the year 622 of the Hegira upon it, corresponding to the year 1225 of our era.

In the first half of the thirteenth century, the invasion of Eastern Europe by the Mongol Tartars inspired the western powers with alarm for the safety of their own dominions. The consternation indeed extended to the common people in remote situations, for the Frieslanders did not venture to leave their homes in the herring season, lest the enemy should come in their absence, and a prime article of food rose in consequence to a famine price in the market. Under Batu Khan, a prince of the race of Zenghis Khan, the terrible Asiatics rapidly overran Russia, Poland, Hungary, and Silesia, specially directing their fury against the towns and cities, as useless to a people who wanted only space for their tents and pasture for their horses. When weary of conquest, the chief fixed his capital, commonly called the Camp of the Golden Horde, in the neighbourhood of the present Astrachan, and ruled the conquered territory as one of the lieutenants of the Grand Khan, at Karakorum, on the verge of the Mongolian desert. By this event, information was obtained respecting parts of Asia very little known in Europe, as the western sovereigns sent various embassies to the dreaded barbarians, in the hope of averting hostility, if not of conciliating friendship. One of the ambassadors, John de Plano Carpini, an Italian friar, with some companions, was despatched by Pope Innocent IV. in 1245, ‘lest there might arise some danger from their proximity to the church of God.’ He accomplished the difficult pilgrimage, saw Batu Khan in his tent, and after another long journey, gained the presence of the Grand Khan. Carpini returned safely home, having had experience of climatic extremes in the steppes he had traversed; intense heat in summer and cold in winter, with suffocating sand-storms in the former season, and the hard fate in the latter—of having to sleep on the snow exposed to the biting blast.

France participated strongly in the excitement of the time. 'This terrible irruption of the Tartars,' exclaimed Queen Blanche, 'seems to threaten us with a total ruin, and our holy church.' 'Mother,' replied Louis IX., 'let us look to heaven for consolation. If these Tartars come,' remarked he, playing upon the name, 'either we will make them return to the Tartarus whence they have issued forth, or else we ourselves will go to find in heaven the happiness of the elect.' But the king deemed it prudent to send an envoy, William de Rubruquis, a Flemish friar, who departed upon his mission in 1253. Beyond the river Ural, he found himself in 'a huge and vast desert, which was in dimensions like unto the ocean-sea.' He was soon acquainted with the koumis of the Tartars, a liquor prepared from mares' milk, and found it palatable. 'It biteth a man's tongue,' says he, 'like the wine of raspes. But it leaveth behind it a taste like the taste of almond milk, and goeth down very pleasantly, intoxicating weak braynes.' He remarks further, 'In very deede it is marvellous sweet and wholesome liquor,' but gives explicit assurance that he and his companions were 'very warie of the drinke.' At times he had occasion to state, 'of hunger, thirst, cold, and weariness, there was no end.' Our traveller reached Karakorum amid extreme wind and snow. The city, though the only considerable one in that part of Asia, he thought not equal to the village of St Denis, near Paris. It was surrounded by a mud wall, and had four gates. In this barbaric capital there were Chinese who occupied a street by themselves; and their mode of writing is accurately described. 'They write,' it is observed, 'with a pencil like that used by painters, and in a single figure they comprehend many letters, forming one word.' A description occurs for the first time in the pages of a western author of an interesting animal in the neighbourhood, the yak, or Thibetian ox, an inhabitant of the mountains. Rubruquis found the Grand Khan to be 'a flat-nosed man,' who could not comprehend the object of his mission, but dismissed him with a civil message for his master.

The most remarkable traveller by far of the middle ages was no emissary of either pope or king, but a simple citizen of Venice, who reached the remotest parts of Eastern Asia under the influence of curiosity, and the hope of personal advancement. This was Marco Polo. Accompanied by his father and uncle, who had previously visited the far east, he set out in the year 1271 for the court of Kublai Khan, who had recently effected the conquest of China, and established himself upon the throne. The younger traveller had an illness by the way, on account of which twelve months were spent in the country bordering on the table-land of Pamir, a part of Central or High Asia. Opportunities for acquiring information of that elevated region were not neglected; and the difficulty of supporting combustion there was noted as perfectly well known to the mountaineers, though all parties were ignorant of the cause. 'Fires,' it is said, 'do not burn so bright in this place, and do not so effectually boil or dress victuals as elsewhere. The fact, which is owing to the diminished pressure of the atmosphere, has been repeatedly verified in lofty situations. At the Hospice of St Bernard, water boils at about 187° of Fahrenheit, and it must be kept boiling five hours, to cook a piece of meat which would be ready for the table in three hours at the ordinary boiling-point of 212°. This costs fuel, and obliges the monks to use an inordinate quantity of wood in preparing their *bouilli*. Pamir is described as a district 'said to be the highest in the world—a plain between two vast hills, through which flows a very fine river, issuing from a large lake; and it is the best pasturage in the world, for a lean animal becomes fat here in ten days.' The river referred to is the Oxus, and the lake the Sir-i-kol, from which it emerges. No known visit was ever paid to the spot by any European for five centuries and a half, or till Lieutenant Wood reached it, on the 19th of February 1838, after grappling with great difficulties. He confirmed in every respect the accuracy of the Venetian. 'The table-

land of Pamir,' he remarks, 'is 15,600 feet high, or sixty-two feet lower than the summit of Mont Blanc. The natives name this place Bam-i-duniah, or Roof of the World; and it would indeed appear to be the highest table-land in Asia, and probably in any part of our globe. Before us lay stretched a noble sheet of water, from whose western end issued the infant river of the Oxus. According to the Kirghis, the grass is so rich, that a sorry horse is brought into good condition in less than twenty days, and its nourishing qualities are evidenced in the productiveness of their ewes, which almost invariably bring forth



A Peep into Siberia.—Reduced, by permission, from Sir R. I. Murchison's *Geology of Russia*.

two lambs at a birth.' The country of the Kirghis has been most graphically described and illustrated by Sir Roderick Murchison, in his great work on the *Geology of the Ural Mountains*; by whose permission we are enabled to give the above 'Peep into Siberia.' 'From the summit of Mount Sugomac,' says Sir Roderick, 'the panoramic view is very striking. To the west is a vast rolling surface of mountains made up of ridges separated from each other by dark depressions, and all, with the exception of the distant crest of the "Ural Tau," covered with dense forest—a primeval woodland, in short, with its graceful wavy outline. On the east lies Siberia, absolutely at your feet, all minor inequalities of outline being merged; it looks like a vast plain, lake and river mingling with rich meadows in the middle ground, the distance being composed of a woody and partially pastoral track, inhabited by Bashkirs; in the Zavod of Kishtymask alone, a hundred lakes exist.' On quitting the axis of the mountains, the view becomes flat and boundless, and the spires of Orenburg—as represented at the end of the chapter—burst on the travellers amid the burning plain at an immense distance. To return, however:

The visitors from the west were kindly received by the eastern potentate, and Kublai

Khan took special interest in the youthful Marco Polo, on account of his address and evident abilities. He was appointed to a post in the imperial household, adopted the dress and manners of his associates, acquired the four languages of the empire, and was intrusted with diplomatic missions, while the important office of governor of a province was held by him for the usual term of three years. In course of time the foreigners naturally wished to see once more their own land, and after repeated refusals, the emperor reluctantly consented to part with them. They returned home by the Indian Archipelago and Persian Gulf; and reached their native city in the year 1295, having been absent nearly a quarter of a century. Their relatives and friends, who had long thought of them as dead, were with difficulty brought to recognise them, owing to their eastern costume and habits, with the change which time and varying climates had produced in their personal appearance. It was soon afterwards the misfortune of Marco Polo to be taken captive in a naval engagement between the Genoese and Venetian fleets, and to endure an imprisonment of four years in Genoa. He beguiled the time during this term of confinement by relating some of his adventures to visitors, and then by writing a narrative of his travels, which, after being charged with both inventions and exaggerations, is now admitted to be a faithful account of what he saw himself, or heard from others.

The work of Marco Polo opened the interior of China, or as the country is styled in his pages, Cathay, for the first time to the knowledge of the western world. It depicts the gorgeous splendour of the court of Kublai Khan, the number of his guards and armies, his vast palaces and gay summer residences, with their gardens watered by beautiful streams, adorned with the fairest flowers, and stocked with the choicest fruits. The principal cities are minutely described, their extent and populousness, arts and architectural wonders, now for the most part passing under different names, as Cambalu, or the 'royal residence,' consisting of two distinct cities, the old and new towns. This is the Peking of the present day, which has its two grand divisions, respectively occupied by Tartars and Chinese. The porcelain manufacture is noticed, with silk-worms, and coal as the common fuel, which the Venetian calls 'a kind of black stone, cut from the mountains in veins, which burns like logs, and maintains the fire better than wood.' Tea is not mentioned by name, but is supposed to be included in the wine of spices repeatedly referred to. Graphic sketches are given of the great rivers, the Hoang-ho and Yang-tse-Kiang, with the multitudinous villages on their banks, the crowds of vessels carrying merchandise, and the numerous idol-temples erected on rocky eminences overhanging the water.

Intercourse subsisted between China and Northern Asia in the time of the traveller, as is evident from the accurate hearsay information reported concerning the bleak and barren region. It is said to be a series of marshes, frozen over for the greater part of the year, and covered with snow. The features of Siberia far to the north appear in the statement, that the sun is not seen in the winter months; the inhabitants use sledges drawn by dogs or reindeer instead of chariots; and the most valuable furs are brought from thence. On the homeward route, the coasts of India, Ceylon, the Nicobar and Andaman Isles, Java and Sumatra were visited. Five months were passed in the latter island, where acquaintance was made with the one-horned rhinoceros, noticed as of smaller size than the elephant, but having feet like that animal, and hair like that of the buffalo, generally carrying the head hanging down towards the ground—'filthy beasts, that love to stand and wallow in the mire.' The use by the natives of a kind of meal for bread was observed, obtained from the pith of large trees, some of which was conveyed to Venice, and thus was imported the first sago into Europe. Marco Polo also was the first to disclose to Europeans a country still further east than Cathay, equally abounding in

wealth, Zipangu, the modern Japan, inhabited by a people of fair complexion, well made, and of civilised manners. 'They have gold,' he states, 'in the greatest plenty, its sources being inexhaustible; but as the king does not allow of its being exported, few merchants visit the country, nor is it frequented by much shipping from other parts. To this circumstance we are to attribute the extraordinary richness of the sovereign's palace, according to what we were told by those who have access to the place. The entire roof is covered with a plating of gold, in the same manner as we cover houses, or more properly churches, with lead. The ceilings of the halls are of the same precious metal; many of the apartments have small tables of pure gold, considerably thick; and the windows also have golden ornaments. So vast, indeed, are the riches of the palace, that it is impossible to convey an idea of them!'

The narrative of Marco Polo, containing these glowing descriptions, as it came into circulation, made a profound impression upon inquisitive minds, and contributed largely to the maritime enterprises of the fifteenth century. Imagination ran riot in figuring the wealth and wonders of the lands which were lying beyond the sphere of communication with the western nations, and cupidity was excited to participate in their riches and luxuries. As Ptolemy, the old geographer, whose authority was undisputed, had enormously exaggerated the easterly extension of the Asia of his time, while the countries illustrated by the Venetian lay still further eastward beyond his limit, it was thought that no great breadth of ocean rolled between the east of Asia and the west of Europe. Hence Columbus launched on the waters of the Atlantic in search of an opposite coast, with his mind fully occupied with the idea that the first shores encountered would be those of Zipangu and Cathay.



The City of Orenberg from the Steppes.—Reduced, by permission, from Sir R. I. Murchison's Geology of Russia.



Valley of Machico, Madeira.

CHAPTER IV.

PASSAGE OF THE CAPE AND THE ATLANTIC—FIRST CIRCUMNAVIGATION OF THE GLOBE.



PORTUGAL, now a second-rate power, occupies a high place in the history of navigation. To the Portuguese belongs the honour of taking the lead in the career of modern maritime discovery. Their efforts, dating from the early part of the fifteenth century, had reference to the Atlantic coasts of Africa; and transpired under the auspices of Don Henry, fifth son of John I. of Portugal, who married the eldest daughter of our John of Gaunt. The prince served under his father on African soil at the capture of Ceuta from the Moors; and was appointed governor of the city in acknowledgment of his bravery. While in this position, his curiosity was roused respecting the unknown western coast of the continent, by vague intelligence concerning the rich country of Guinea, obtained from the conquered natives around him; and having already entertained the design of attempting discoveries by sea, he resolved to devote all his means, ability, and influence to the prosecution of the task. Europeans, at that time, had not followed the line of the shore beyond Cape Non, about six hundred miles south of the Strait of Gibraltar.

This was soon doubled, and the navigation extended to Cape Boyador, a hundred and eighty miles further south. The bold promontory long baffled every effort made to pass it by mariners who proceeded closely hugging the land, as shoals extend from it far to seaward, giving rise to strong conflicting currents and a dangerous surf. Two cavaliers of the prince's household volunteered to renew the enterprise in the year 1418, but when near the dreaded cape, they were driven out into the open ocean by a violent gale, and the ship's company gave themselves up for lost. Land was, however, sighted on the abatement of the tempest. It proved to be a small island, to which the name of Puerto Santo was given, from its discovery upon the feast of All Saints. A dark spot was soon observed on the distant horizon, varying in distinctness with the weather. This was found to be a larger island, of lovely appearance, wholly uninhabited, and well clothed with trees, which, from that circumstance, was called by the explorers Madeira, 'wood.' A colony was sent thither from Portugal; the vine and sugar-cane were introduced, the latter procured from Sicily; and valuable produce was obtained, at a time when sugar was an article of luxury, strictly limited to the rich. But the island had been occupied for a short time before; according to a romantic tale, the leading features of which are historically true—in the reign of Edward III., a young Englishman in the service of the Black Prince, named Markham, fled the country with the fair Anne of Dorset, in order to avoid the anger of her relations. They intended to make their way from the Bristol Channel to the coast of France. But contrary winds drove the vessel far out of its course, and after a long series of tossings to and fro, it was cast upon the Madeira shores. Here the lovers are said to have both died, while their companions succeeded in reaching Marocco, and proceeded from thence to Spain.

Upon retiring from the seat of his government, Don Henry fixed his residence at Sagres, near Cape St Vincent, where the ocean was constantly in view. He devoted himself to the study of mathematics, astronomy, geography, and navigation; established an academy for the instruction of his countrymen in these sciences; and employed the greater part of his income as Grand-master of the Order of Christ in fitting out nautical expeditions, hoping to reach the southern extremity of Africa, and open round it a maritime path to the riches of India and the east. For the long period of half a century, this object was pursued with steadiness and perseverance. During his lifetime, the Canary and Cape Verde Islands were again discovered; and the coast of the continent was examined to the extent of fifteen hundred miles. Soon after his death, which took place in 1463, Portuguese mariners gave to their sovereign the title of 'Lord of Guinea,' and advanced to the islands of Fernando Po, St Thomas, and Annabon, the latter beyond the equator. Prince's Island, immediately north of the line, received that name in honour of Don Henry. In 1484, Diego Cam sailed along the shores of Congo and Benguela nearly to the southern tropic; and the problem of the southerly extension of Africa was solved by the next adventurer. This was Bartholomew Diaz, a knight of the royal household, whose name is at present borne by a steam corvette belonging to the Portuguese navy. He set out with three vessels in 1486. Having passed the limit of his predecessor, heavy gales carried the ships out to sea, and the land was lost sight of for a considerable period. Upon regaining it, and sailing some distance, its direction was found to be due east, and, without being aware of the fact at the time, the squadron had doubled the extremity of the continent. As the voyagers returned, they speedily came within view of the grand altar-like mountain, generally capped with clouds, which now overlooks Cape Town and Table Bay. Owing to the terrible storms encountered in the neighbourhood, the commander denominated the headland *Cabo Tormentoso*,

or the Stormy Cape, for which his sovereign substituted *Cabo de Boa Esperanza*, the Cape of Good Hope, as of better augury.

Ten years elapsed before Emanuel, king of Portugal, determined to send a fleet to explore the route to India through the gate which had thus been opened. Vasco de Gama, a man of good family, great courage, and tried skill in naval affairs, was at length commissioned to undertake this office, and put in command of three vessels, carrying altogether about a hundred and sixty men. As the time for sailing approached, Lisbon was thrown into excitement by the event. On the preceding day the crews repaired to a chapel four miles from the city, close to the sea, and spent there the whole night in prayer for success. The next morning the shore was crowded with spectators to witness the embarkation, while numerous processions of priests appeared in their robes chanting litanies. Gama left the Tagus on the 8th of July 1497, encountered severe tempests off the Cape of Good Hope towards the close of November, but safely crossed the Indian Ocean, arriving at Calicut, on the Malabar coast, in the spring of the following year.

Camoens, the national poet of Portugal, in his *Lusiad*, has celebrated this expedition. In a memorable passage, while the fleet lay near the Cape, he represents an apparition rising in the night, and hovering athwart the ships—the Spirit of the stormy deep—forbidding the mariners to disturb his repose by violating the unploughed waters beyond. This is one of the grandest of poetical fictions.

‘Rising through the darkened air,
Appalled, we saw a hideous phantom glare;
High and enormous o’er the flood he towered,
And ’thwart our way with sullen aspect loured.
An earthly paleness o’er his cheeks was spread,
Erect uprose his hair of withered red—
His haggard beard flowed quivering on the wind,
Revenge and horror in his mien combined;
His clouded brow, by withering lightnings scarred,
The inward anguish of his soul declared;
His red eyes glowing from their dusky caves,
Shot livid fires :—far echoing o’er the waves
His voice resounded; as the caverned shore
With hollow groan repeats the tempest’s roar.’

Bartholemew Diaz, who perished in a tempest a few years later, is represented by the poet as having been engulfed in the abysses of the ocean, to satisfy the vengeance of the spectral guardian of the southern waters, upon whose solitude he was the first to intrude.

Gama returned by the same route, and arrived at Lisbon in September 1499, after an absence of nearly two years and two months. He was received with universal joy, obtained a patent of nobility, an annual pension, and the rank of admiral. But only fifty-five men returned with him, or little more than one-third, the rest having perished from natural causes, or by accident, or in skirmishes with natives of the shores at which they touched. Great mortality doubtless attended these early expeditions, but the statement of Father Vieyra, made in one of his sermons, is an obvious exaggeration. He says that ‘if the dead who had been thrown overboard between the coast of Guinea and the Cape of Good Hope, and between that Cape and Mozambique, could have monuments placed for them each on the spot where he sunk, the whole way would appear like one continued cemetery.’ King, court, and people now exulted in the thought of having secured a monopoly of the rich commerce of the east. The sovereign obtained from the pope the proud title of ‘Lord of the Navigation, Conquests,

and Trade of Ethiopia, Arabia, Persia, and India.' But other nations were speedily upon the track of the Portuguese, though for a time the value of the discovery of a passage to India by the Cape was little appreciated by Europeans in general, owing to a far greater achievement effected five years before. This was the Spanish discovery of utterly unknown lands across the Atlantic, at first supposed to be identical with those containing 'the wealth of Ormuz and of Ind.'

The brilliant exploit referred to, accomplished by Christopher Columbus, was long contemplated by him, and diligently prepared for. By birth a Genoese, by predilection a Spaniard, Columbus early mastered all the science of his time, directed special attention to ancient and modern geography, and firmly embraced the theory that lands lay at an accessible distance beyond the western waters of the Atlantic, forming the eastern boundary of Asia. In search of information he visited Madeira, the Azores, the Canaries, and England, proceeding from thence to Iceland; and by these voyages he became expert in all the arts of practical seamanship. Various circumstances of significant import confirmed him in his convictions. Thus, navigators had found canes and plants afloat on the ocean, which could not be recognised as the productions of any known region. At Madeira, pieces of carved wood, but evidently not cut with a knife, had been cast ashore; and at the Azores, bodies of men had been thrown on the coast, with features not at all resembling those of Europeans or Africans. These objects had been drifted from the western world by the Gulf Stream, precisely as at present, plants, seeds, and fruits, belonging to the torrid zone of America, are annually transported by that current to the coasts of Europe. The curious assertion was also made by the inhabitants of Madeira, that occasionally, in particular states of the weather, land might be seen on the horizon westward—an optical deception, analogous to that of the mirage of the desert. The same illusion is still common with the islanders along the west coast of Ireland, who call the imaginary territory St Brandon's Land.

Columbus was far from being alone in his belief concerning the existence of a great western region. Maps appeared on which lands were figured in the Atlantic entirely on speculation; and with remarkable foresight, Pulce, a Florentine poet, wrote respecting the old vulgar opinion of the Pillars of Hercules being the boundary of the world, as well as of other facts of physical science not clearly established in his day—

'Know that this theory is false; his bark
The daring mariner shall urge far o'er
The western wave, a smooth and level plain,
Albeit the earth is fashioned like a wheel.
Man was, in ancient days, of grosser mould;
And Hercules might blush to learn how far
Beyond the limits he had vainly set,
The dullest sea-boat soon shall wing her way!
Men shall descry another hemisphere.
Since to one common centre all things tend,
So earth, by curious mystery divine,
Well balanced, hangs amid the starry spheres.
At our antipodes are cities, states,
And thronged empires, ne'er divined of yore.
But see, the sun speeds on his western path,
To glad the nations with expected light!'

While intensely anxious to put his views to the test by experiment, Columbus was too poor to equip an expedition with his own means; and had a long and tedious battle to fight with disappointments arising from vain appeals to others for help. He was often dispirited, and occasionally in despair, for fruitless applications were made to the governments of Genoa, Portugal, and England. Fortune smiled upon him at last, when his

prospects seemed most gloomy, owing to the failure of a negotiation with the court of Spain. But the sovereigns, Ferdinand and Isabella, suddenly changed their minds, and placed the requisite means at his disposal.

Three vessels were fitted out at the little port of Palos, for the bold attempt to remove the mystery from the western ocean, the Sea of Darkness of the Arabian geographers. These were the *Santa Maria*, the ship of the commander; the *Pinta*, under the orders of Alonzo Pinzon; and the *Nina*, under Yanez Pinzon, the brother of the preceding. The total number of the crews is not known with exactness, accounts varying from ninety to a hundred and twenty men. Columbus sailed on Friday the 3d of August 1492, made for the Canary Islands, and left them on the 6th of September for the westward, when the navigation of unknown waters commenced. A month passed away, in which great progress was made. But nothing had been visible except sky, sea, and seaweed, with some birds towards the close of the interval, which raised hopes of a shore being nigh at hand. Upon the failure of this expectation, and a change of wind favouring a return to Europe, the sailors became clamorous to be allowed to avail themselves of it. They remonstrated with the commander for persisting in an enterprise so obviously hopeless; then reproached him with being careless of their lives; and finding him inflexible, proceeded to threaten a general mutiny. Fortunately for Columbus, at this juncture birds appeared in greater numbers; a reed quite green floated by; the branch of a tree was seen with the berries upon it; and he ventured upon the prediction, that land would be met with the next day. That very night he saw a light ahead, while sitting in the stern of his vessel, and called the attention of others to it. But it passed away, and twice returned and disappeared. The light came from the "NEW WORLD, first discovered about ten o'clock on the night of October 11, 1492, after a sail of thirty-five days from the Canaries.

With the early dawn Columbus saw before him a low island covered with trees, and a shore upon which some astonished natives were collected. At sunrise he proceeded to it in a boat, accompanied by his fellow-commanders, with the standard of Castile and Leon displayed. Immediately on landing, the party reared a rude cross, paid their devotions before it, and then took formal possession of the island on behalf of their sovereigns, giving it the name of St Salvador. This was one of the Bahamas, with which Cat Island is commonly identified, where the spot is marked, on a prominent rock overhanging the bay, upon which the cross is supposed to have been planted. But Watling Island, another of the group, best answers to the description which Columbus has given of his land-fall. After some communication with the natives, a very inoffensive race, he resumed the voyage, fell in with several small islands, sailed along part of the north coast of Cuba, made a boating excursion up one of the rivers, and was in raptures with the scenery. 'Such was the delightfulness of the place,' he observed in his report, 'that I could have been tempted to remain there for ever. The water was so clear that we could see the sand at the bottom. The finest and tallest palm-trees I had ever seen in great abundance on either shore, with an infinite number of large verdant trees of other kinds. The soil seemed exceedingly fertile, being everywhere covered with the most luxuriant verdure; and the woods abounded with vast varieties of birds of rich and variegated plumage. This country, most serene prince, is so wonderfully fine and so far excels all others in beauty and delightfulness as the day exceeds the night.' He next visited the island of Haiti or St Domingo; and having loaded his ships with specimens of the inhabitants and productions of this new country, returned to Europe, entering the port of Palos on the 15th of March 1493, seven months and a half after sailing from it.

The public enthusiasm was unbounded on the return of the voyager. Ferdinand and

Isabella, when he appeared at court, rose to receive him; he was allowed free access to the royal presence; and a coat of arms was assigned him, representing a group of islands surrounded by waves, to which the motto was subsequently added:

‘To Castile and Leon
Columbus gave a new world.’

To secure themselves in the possession of the discovered territories, and of all additions that might be made to them, the Spanish sovereigns obtained a bull from Pope Alexander VI., which made over to them all islands and mainlands, all cities, castles, places, and towns, with all their rights, jurisdictions, and appurtenances, found, or to be found, westward of an ideal line drawn from pole to pole, at the distance of a hundred leagues west of the Azores, as far as the meridian of 180°. All newly-disclosed lands, or lands hereafter to be met with, eastward of this line as far as the same meridian, were similarly vested in the Portuguese. ‘Let no person,’ said the pontiff, ‘presume with rash boldness to contravene this our donation, decree, inhibition, and will. For if any person presumes to do so, be it known to him that he will incur the indignation of Almighty God, and of the blessed apostles Peter and Paul.’ However consolatory this allotment might be to the parties named, it gave no satisfaction whatever to other princes, and the most orthodox of them were not disposed to acquiesce in it. England sent out expeditions into the region thus given away, without asking leave of the papal court; the French king shrewdly stated, that he should wish to see the will of Father Adam before he consented to such a partition of the globe; and both Spaniards and Portuguese disregarded the assignment when it suited their purpose to do so.

The impression of Columbus, that he had visited the skirts of India, was commonly adopted throughout Europe. It led to the natives being called Indians, a name applied to the aborigines of the entire continent of America; and when the error was found out, the discriminating epithet of West Indies was bestowed upon the group of islands. No difficulty was experienced in preparing a squadron for a second voyage, except what arose from the number of applicants eager to take part in it, some candidates for fame, others anxious for adventure, but most flushed with the hope of obtaining gold by the gathering. Seventeen vessels were this time assembled in the Bay of Cadiz, carrying about fifteen hundred persons of all classes, with a considerable number of horses and cattle. The admiral exulted in the prospect of speedily realising immense wealth. Yet his was no sordid ambition, for having seen the last of the Moors expelled from Spain, he proposed to expend the expected treasures in raising a vast army to rescue Jerusalem and the Holy Land from the yoke of the Saracens. He regarded this idea as suggested by divine inspiration; viewed himself as an instrument consecrated by Providence for the work of deliverance; and ventured to suppose himself the hero indicated in some passages of sacred prophecy. The fleet sailed on the 25th of September 1493. The islands of Dominica, Guadaloupe, and Jamaica were now added to the fruits of the former expedition; the coast of Cuba was further explored, with an increased belief in its continental character; a colony was planted in Haiti; the pine-apple was seen for the first time; but the anticipated gold, though often heard of, was not met with by the greedy adventurers, who vented their disappointment in quarrelling among themselves.

During the third voyage, commenced on the 30th of May 1498, the island of Trinidad, the mouth of the river Orinoco, and consequently the coast of South America, were discovered. In the fourth, last, and least successful expedition of Columbus, begun on the 9th of May 1502, he visited the coast of Honduras and the Mosquito shore. The great navigator was now an old man, in possession of ample experience of ingratitude

from coadjutors, and of the uncertainty of courtly dependence, soon to be increased. His first grand success made him an object of envy, and this laid the foundation for ill-usage when practicable from his associates, while defamatory voices succeeded in so far prejudicing the court against him, that the fulfilment of promised dignities and emoluments was evaded, when the latter were most needed. Had he died upon completing his first voyage, years of fatigue and anxiety would have been avoided, with not a little indignity, while all that he personally obtained by eight times crossing the Atlantic would have been acquired—the honour of an immortal name. Columbus returned to Spain in the year 1504, in impoverished circumstances; and even in personal want, while the crown was his debtor. ‘I receive nothing of the revenue due to me,’ he wrote to his son, ‘but live by borrowing. Little have I profited by twenty years of toils and perils, since at present I do not own a roof in Spain. I have no resort but an inn, and for the most part have not wherewithal to pay my bill.’ He died at Valladolid, on the 20th of May 1506, being about seventy years of age; and was first interred there, afterwards removed to Seville, then transported to St Domingo, and finally laid in the cathedral of Havannah. He never knew the real grandeur of his achievement, but retained to the last the firm conviction that he had but found a new path to countries known of old, instead of having opened the way to a continent containing the mightiest rivers and forests of the globe, with the longest line of towering mountains, including every variety of climate, and far surpassing in extent the world of classical geography.

An immediate and powerful impulse was given to naval adventure by the knowledge that the Atlantic might be passed in a few weeks to fair and fertile countries, apparently the portal to the long-heard-of oriental lands, teeming with wealth and wonders. The ocean seemed to have been suddenly divested of its power to harm, such was the general eagerness to traverse its waves. Many, doubtless, rushed upon death by too lightly regarding its perils, and hence embarking in fragile and ill-furnished craft. England was the first to follow the example of Spain. In the reign of Henry VII. there resided at Bristol a Venetian by birth, John Cabot, who, with his celebrated son Sebastian, sailed from that port under letters-patent from the crown, with the view of getting to Cathay and India by a passage northward of the route to the new Spanish discoveries. Though the immediate object proved a visionary one, they reached Newfoundland and the coast of Labrador in the summer of 1497, while Columbus did not see the mainland of America at the mouth of the Orinoco till the summer of 1498; and thus the first view of the actual continent was obtained by an expedition from our own shores. A local manuscript records the fact, that ‘in the year 1497, the 24th of June, on St John’s Day, was Newfoundland found by Bristol men, in a ship called the *Matthew*.’ Sebastian Cabot visited the same region in the following spring, and explored a considerable extent of coast, ‘affirming that in the month of July there was such cold and heaps of ice that he durst pass no further; also, that the days were very long, and in a manner without night.’ It is a remarkable instance of capricious fortune that *Amerigo Vespucci* had not at this time crossed the ocean, yet his name was allowed to overspread the whole continent, while no bay, cape, or headland, recalls the memory of the Cabots. The Italian went out under a Spanish commander in the year 1499, and returned to produce an account of the countries he had visited. It appeared just before the death of Columbus, and as the readers of that day were indebted to him for the first supply of information relating to the New World, they, unconscious of any practical injustice, awarded to him the honour of furnishing it with a general denominative.

The Portuguese followed in the track of the English, influenced by the same chimerical

hope of finding a north-west passage to the 'gorgeous east;' but sore misfortune attended their efforts. Gaspar Cortereal, in the year 1500, sailed from Lisbon northward as far as Greenland, ran along the coast of Labrador and Newfoundland, and entered the mouth of the St Lawrence, which seemed to be the opening he was in search of. Returning to examine it in the following year, with a companion-vessel, his ship was separated from her consort in a storm, and never heard of again. Michael Cortereal then went out with three vessels to seek for his lost brother, but he too parted company with his comrades, and no trace of him was ever found. A third brother, the eldest, connected with the court of Portugal, wished to sail in the route of his relatives, hoping to find them still alive on some friendly shore, or to ascertain their fate, but the king would not allow the peril to be encountered a third time. In memory of these disasters, the sea at the entrance of the St Lawrence was long called by the Portuguese The Gulf of the Three Brothers, and one of its sinuosities bears at present the name of Gaspar Bay. At the same period a great fleet under Cabral sailed in the path of Vasco de Gama, which, being carried westerly by the equatorial current, fell in with the coast of Brazil. Though this expedition afterwards met with a severe calamity, four ships foundering during a furious hurricane, one of which contained Bartholemew Diaz, the remainder doubled the Cape, made for the second time the voyage to India, and returned freighted with valuable cargoes.

Before the decease of Columbus, his adopted countrymen, some of whom had been his companions, enlarged the field of his discoveries; and with singular rapidity the illustration of transatlantic shores was advanced, owing to the activity of the navigators of Spain. Yanez Pinzon, one of the commanders under the great admiral in his first voyage, reached South America near Cape St Roque, sailed northward from thence to the vast mouth of the Amazon River, and conveyed to Europe the first specimen of a marsupial quadruped—a living opossum. He made known also, on a subsequent occasion, in company with De Solis, the country of Yucatan. Bastidas examined the shores of Venezuela; and interesting results were obtained by adventurers in pursuit of most fantastic objects. Thus it passed current for some time that in the midst of a region bright with gems there was a life-renovating fountain, which endowed with perpetuity of youth the happy man who should quaff its ever-flowing waters. In quest of this fairyland, said to be an island by the Indians who reported the fable, Ponce de Leon sailed from Porto Rica, in 1512, with a squadron of three ships fitted out at his own expense, and effected the discovery of Florida. But there the arrow of an Indian extinguished for ever in his breast the hope of gaining a terrestrial immortality.

The inland exploration of the new continent was commenced by Nunez de Balboa, who made his appearance as a mere soldier of fortune, and raised himself to the post of governor of the small colony of Santa Maria, established on the shore of the Gulf of Darien. He was the first European who caught sight of the Pacific Ocean. Pizarro served under him. To obtain gold was his supreme aim, as it was unhappily that of his countrymen in general. Coming into possession of a considerable quantity of the precious metal, acquired from the natives in a marauding expedition, the Spaniards eagerly divided the spoil, yet brawls arose from a suspicion of unfair proceedings. A friendly Indian stood by, the son of a cacique, and observed with surprise the anxiety relative to an object of small value in his own esteem. Striking the scales with his hand, and scattering the gold on the ground, he exclaimed: 'Why should you quarrel for such a trifle? If this gold is indeed so precious in your eyes, that for it you forsake your homes, invade the peaceful lands of strangers, and expose yourselves to such sufferings and perils, I can tell you of a province where you may gratify your wishes to the utmost. Behold

those lofty mountains!' said he, pointing to the south. 'Beyond these lies a mighty sea, which may be discerned from their summit. It is navigated by people who have vessels not much less than yours, and furnished like them with sails and oars. All the streams which flow down the southern side of those mountains into that sea abound with gold; and the kings who reign upon its borders eat and drink out of golden vessels. Gold is as plentiful and common among these people of the south as iron is among you Spaniards.' From that moment Balboa was intent upon a journey inland. Yet, well aware of hostile tribes lying in the way, he sent to St Domingo for reinforcements, and received a small contingent.

With some native guides, and a hundred and ninety soldiers and followers, Balboa set forth, and after a toilsome journey of twenty-six days across the isthmus, passing through tangled woods and over difficult heights, the party approached the base of the last ridge to be surmounted. There a halt was made for the night. In the early dawn of September 26, 1513, the ascent commenced; and by ten o'clock the summit only remained to be climbed. The leader went up alone, and beheld the wondrous scene. Immediately below, his eyes fell on rock and forest, green savannahs and rushing streams, while beyond were the waters of an ocean apparently interminable, resplendent with the light of the morning sun. Balboa fell upon his knees, stretched out his arms towards the sea, wept for joy, and returned thanks to Heaven for conducting him to such a grand discovery. Poetry has not overlooked this scene, though strangely enough, the conqueror of Mexico is associated with it:

'Then felt I like some watcher of the skies,
When a new planet swims into his ken;
Or like stout Cortez, when with eagle eyes
He stared at the Pacific, and all his men
Looked at each other with a wild surmise,
Silent, upon a peak in Darien.'

Beckoning to his followers, they ascended, and displayed the same transport. A priest among them began the chant, *Te Deum laudamus*. After this, a tall tree was felled, of which a cross was formed, and erected on the spot. On descending to the shore, the commander advanced into the water; and holding his sword in one hand, with the banner of Castile in the other, he exclaimed in a loud voice: 'Long live the high and powerful king and queen of Castile; in their name I take possession of these seas and regions; and if any other prince, either Christian or Pagan, should pretend to have any claim or right to them, I am ready to oppose him, and defend the right of their lawful possessors.' From some natives, the information respecting a gold country to the south was confirmed, referring to Peru; and the figure of one of its characteristic animals, the llama, was rudely sketched on the sand. The Spaniards mistook the form for that of the camel, a beast of burden peculiar to eastern countries, and as they were presented with some pearls, a noted oriental product, they believed themselves to be at the gates of the East Indies. Owing to the isthmus running nearly east and west at the point where it was crossed, the ocean was seen in a southerly direction. Thence it was called the South Sea, a name which was in use long after its inappropriateness to the vast Pacific was known. The particular site was styled after St Michael, on whose festival it was discovered, and his name is still attached to a great bay on the east of Panama. Though tidings of the event were received by the court of Spain with delight and triumph, no reward for the service was bestowed; but, in the spirit of favouritism, a successor was despatched, with an ample force to occupy a post which was likely to become important and profitable. The minion appointed, acted with infamous perfidy towards Balboa. Jealous of his fame and dreading

his ability, he caused him to be brought to trial on a false charge, procured his condemnation; and he was publicly executed in the scene of his late government.

In search of a passage to the great ocean which had thus been revealed, De Solis, in 1514, examined the coast of Brazil from north to south, found the mouth of the great La Plata river, and unfortunately landed on the shore. Proceeding incautiously, he was captured by the natives, with five of his companions, and they were all killed, roasted, and devoured, in the sight of those who remained on board. Had it not been for this horrible catastrophe, he would in all probability have reached the strait leading westerly out of the Atlantic, through which another navigator very soon groped his way, and with which his name is permanently associated. Ferdinand Magellan, or, according to the orthography given to Sir Joseph Banks by one of his descendants, Fernando de Magalhaens, by birth a Portuguese, had made a voyage to India and Malacca, regions with which a lucrative commerce was by this time carried on by his countrymen. Thus familiar with the south extremity of Africa, he sagaciously conjectured that most likely the southern part of America corresponded to it in being washed by an open sea. His own sovereign not encouraging an attempt to verify this idea, he turned to Spain, and laid the proposal before the emperor Charles V. at Valladolid, to explore a westerly route to the Moluccas, and thus share in the profit of direct communication with the Spice Islands. This project being approved, five ships were equipped, the *Trinidad*, carrying his own flag as admiral, the *San Antonio* commanded by Juan de Carthagena, the *Vittoria* by Luis de Mendoza, the *Conception* by Gaspar de Quesada, and the *Santiago* by Rodriguez Serrano. The total number of the men amounted to two hundred and thirty; Pigafetta, an Italian, who wrote an account of the expedition, went out as a gentleman-adventurer. To his narrative Shakspeare seems to have been indebted for his demon Setebos, said to have been revered by the Patagonians, thus mentioned in the *Tempest*:

‘I must obey: his art is of such power,
It would control my dam’s god, Setebos,
And make a vassal of him.’

The squadron sailed on the 20th or 21st of September 1519, from the port of San Lucar, steered for the Canary Islands, and then westward for the coast of Brazil.

The commander had early experience of great difficulties from the mutinous spirit of his officers, and shewed the energy of his character in repressing it, but some of his measures have left a stain upon his name. One of his captains, Luis de Mendoza, a principal malcontent, he caused to be privately assassinated, and openly executed another the next day, Gaspar de Quesada. More than a twelvemonth passed away before Magellan discovered the strait which separates the mainland of South America from the island of Tierra del Fuego. He entered it towards the close of October 1520, and gained the opposite extremity, opening into a vast sea, on the 27th of November. But before quitting the Atlantic, one of his vessels, the *Santiago*, was lost by shipwreck; while the *San Antonio* parted company, intentionally, from the commander’s cowardice, and returned to Europe. Having cleared the channel, which has since been called the Strait of Magellan, he commenced with three ships the passage of an ocean of unknown extent, wholly untried by Europeans, and gave it the misleading name of the Pacific, as delightful weather and fair breezes wafted the mariners smoothly across it. But the crews suffered fearfully owing to a strange disease, evidently the scurvy, and from the want of provisions. They had to drink putrid water, chew scraps of leather, eat saw-dust, and the mice on board were so highly prized as to sell for half a ducat apiece. For more than three months, and through a course of 2500 geographical miles, no land was

seen except two barren and solitary islets. But on the 6th of March 1521, three beautiful and apparently fertile islands were met with, which were called the Ladrões or Thieves, from the pilfering propensity of the inhabitants. Some members of the present Philippine group were subsequently visited; and here, on the 27th of April, Magellan lost his life in a rash skirmish with the natives. Though thus cut off, he may be justly considered the first circumnavigator of the globe, on account of his previous voyage by the Cape to India and Malacca, while he fell on the skirts of those regions, and gained them by a westerly route.

The squadron proceeded to Borneo, and then to the Moluccas, where the spices of the islands were noticed—nutmegs, cloves, mace, ginger, and cinnamon, growing almost spontaneously—and a bird of exquisite beauty was remarked, called by the natives the 'bird of God,' now familiar as the bird of Paradise. But the three vessels were speedily reduced to one. Sickness had so thinned the crews, that the *Conception* was burned, after guns and stores had been removed, while the *Trinidad*, not being sea-worthy, was left behind, and ultimately fell into the hands of the Portuguese. The remaining ship, the *Vittoria*, under Sebastian del Cano, elected to the command, was brought safely home by the Cape, and entered the port of San Lucar, on the 6th of September 1522, after an absence of nearly three years. Only eighteen men out of two hundred and thirty returned. 'Thus,' says Pigafetta, 'our wonderful ship, taking her departure from the Straits of Gibraltar, and sailing southwards, through the great ocean towards the Antarctic Pole, and then running west, followed that course so long that, passing round, she came into the east, and thence again into the west, not by sailing back, but proceeding constantly forward; so compassing about the globe of the world, until she marvellously regained her native country, Spain.' The ship is said to have been long preserved, and called forth many an effusion from the national poets and romancers. Her commander was liberally rewarded, obtained a patent of nobility, with a globe for a crest, and the motto *Primus me circumdedisti*, 'You first encompassed me;' and beyond the possibility of doubt, the spherical form of the earth had now been demonstrated.

While this memorable voyage was in process, and during the next twenty years, the interior of the New World was extensively made known to Europeans by their aggressions and conquests, dictated by rapacity, in which the natives largely perished by the sword, and more slowly by exhausting labour in the mines. Cortes overran Mexico, accomplished an extraordinary march of a thousand miles to Honduras, discovered the peninsula of California, and sailed within its gulf. Pizarro reduced Peru; Almagro and Valdivia effected the conquest of Chili; and Orellana traversed the breadth of South America, from the Andes to the ocean, by the Amazon and its tributaries. In 1531 the Portuguese started their first Brazilian colony at Rio Janeiro, and soon afterwards founded Buenos Ayres. Within the interval referred to, the French began to contribute to geographical discovery, surveying the whole Atlantic coast of the North American States, and ascending the river St Lawrence to the neighbourhood of the great lakes. This last enterprise was effected by Jacques Cartier, an experienced Breton mariner, who reached the shore of Gaspé Bay in the year 1534, and erected a cross thirty feet high, with a shield bearing the *fleurs de lys* of France, thus taking possession of it for his sovereign, according to the fashion of the time. During a second voyage, in the following year, he pushed his way up the stream to a bold headland frowning over it—part of a rocky wall three hundred feet high—and moored his craft hard by in a convenient haven. With the exception of his three small barks and a little Indian village, the country seemed as if freshly come from the hand of the Creator. No other trace of man or of his works appeared. From the top

of the highest eminences to the distant horizon, in every direction, down to the water's edge, the eye wandered over the dense forest; and hill and valley, mountain and plain, were covered with the deep green mantle of the summer's foliage. At this very spot there are now verdant pastures and cultivated fields, ships of war and merchandise, with a large and opulent capital—Quebec.

Leaving two of his vessels at this station, intended to serve for winter-quarters, the bold Bréton proceeded up the river, anxious to make further discoveries. He reached the native town of Hochelaga, ascended a lofty hill in the neighbourhood, overlooking a prospect of singular beauty, and called the eminence Mont Royal. The name has since been corrupted into Montreal, and extended to the fine modern city on the site of the old wigwams, and to the island on which it stands. On a subsequent occasion he attempted to advance more to the westward, but was baffled by the difficult navigation, and only heard of a great lake in the distance—the fine expanse of Lake Ontario. European eyes had now gazed for the first time on the grand rapids above Montreal, which are only to be safely passed by hardy boatmen familiar with them; on the junction of the Ottawa with the St Lawrence, at the rapids of St Anne; and on the numerous wooded islands, of every variety of size and shape, which divide the main stream into a labyrinth of tortuous channels. The natives consisted chiefly of the Iroquois, or Five Nations, on the south bank of the river, independent of each other, but usually acting in concert to resist an enemy; of the Hurons and Algonquins, their hereditary foes, on the northern shore—tribes of the Red Indian family, whose fate forms one of the saddest chapters in the history of the sons of Adam. They gradually faded away before the whites, struck down by unknown weapons of destruction, consumed by the deadly fire-water, and ravaged by small-pox, while dispossessed of their hunting-grounds by the stranger, till only a remnant now remains, few and feeble, faint and weary, 'fast travelling to the shades of their fathers, towards the setting sun!'



Quebec, from the St Lawrence.



The Falkland Islands.

CHAPTER V.

NORTH-EASTERN, NORTH-WESTERN, AND NORTH-POLAR VOYAGES.



VIEWED in the light of present knowledge, it is scarcely possible to conceive of a wilder project, than that of sailing round the northern shores of Europe and Asia, as a practicable route to India and China. Yet a scheme to this effect commended itself to the judgment of Sebastian Cabot; and the merchants of London resolved to attempt to open a north-east passage to the mysterious region of Cathay. This was in the year 1553, during the reign of Edward VI. The capture of Constantinople by the Turks, and the discovery of the passage by the Cape, had broke up the ancient channels of oriental commerce, and thrown the carrying-trade between the east and west almost entirely into the hands of the Portuguese, with whose naval strength the English did not feel themselves competent to cope. This circumstance suggested the endeavour to find out a new and perhaps an easier route in the direction stated. The obstacles to such an undertaking could not then be appreciated. Nothing was known of the northerly extension of Asia, and of the immense masses of ice with which its polar shores are encumbered through the greater part of the year. Three vessels were fitted

out for the enterprise, and licensed by the crown to 'discover strange countries.' So confident were the promoters of the expedition of its success, that the ships were sheathed with lead to defend them from the worms of the tropical waters, a practice long adopted by the Spaniards, but now for the first time mentioned in our annals. The squadron consisted of the *Bona Esperanza*, of 120 tons, on board of which was the commander, Sir Hugh Willoughby, with a master, mate, and thirty-six seamen; the *Edward Bonaventura*, of 160 tons, under Richard Chancellor, pilot-major of the fleet, with a master, mate, chaplain, surgeon, and fifty seamen; and the *Bona Confidentia*, of 90 tons, under Cornelius Durforth, with twenty-two seamen. Besides the crews, six merchants embarked with the commander, nine with the pilot-major, and three in the third vessel. The ships were victualled for fifteen months; but more than half the adventurers were cut off by a grave disaster close to the western side of the entrance to the White Sea, though some very interesting results were attained by the survivors. Sir Hugh was the third son of Sir Henry Willoughby, of Wollaton, near Nottingham, ancestor of the present Lord Middleton. He had served with distinction in several campaigns on the Scottish border, and was recommended to the mercantile community by his 'goodly personage, for he was of tall stature, and also of singular skill in the services of war.' Cabot held at that time the office of grand pilot of England, but is supposed to have been prevented by age from accompanying the expedition. But he prepared a series of instructions for the guidance of the mariners, which enjoined them to employ persons skilful in writing to record the course taken, the appearances of the land by which they passed, and of the heavenly bodies. Morning and evening prayers were to be read on board each ship. It was ordered that there should be 'no ribaldry or ungodly talk, dicing, carding, tabling, or other devilish games.' The foreigner was to be treated with gentleness and courtesy, but the hint was given, worthy of all reprobation: 'If he be made drunk by your wine or beer, you shall know the secrets of his heart.'

The vessels sailed from Deptford on the 11th of May. They fired guns on passing Greenwich, where Edward VI. was then residing; and the crews appeared in their best attire, a light blue. But the youthful sovereign was fast sinking under a mortal malady, and could not quit his couch to witness the spectacle. Contrary winds detained the squadron near the coast till towards the close of June. Off Harwich, two surgeons were taken on board the ship of the commander. By the end of July, the North Cape had been passed, which then first received that title; and soon afterwards the vessels were separated by a storm. The *Bona Esperanza* and *Bona Confidentia* again joined company; but Chancellor's ship, the *Edward Bonaventura*, finally parted from them, and safely entered the White Sea. The separation took place early in August, and from that time the only information respecting the companion-vessels, while the crews were alive, is derived from a journal purporting to be Sir Hugh Willoughby's, found on board the ill-fated *Esperanza*.

After beating about on the tempestuous ocean, the two ships entered an inlet with convenient anchorage-ground on the Lapland coast, September the 14th. This has been identified as Nekouev Bay, near the Sviätoi Noss, or Holy Point, at the mouth of the White Sea, where a whirlpool forms at intervals diurnally, and was formerly the dread of mariners. The point is a long tongue of land, projecting from the main shore in a direction diagonal to it. The inlet formed between them opens towards the flood-tide, which rushes into it with considerable velocity; but, being arrested at the extremity, the accumulated water escapes from the *cul-de-sac* by a return current along the side of the promontory. Encountering at an angle off its termination the general tide-waves of the

ocean, the collision occasions violent disturbance and a powerful eddy, which starts into activity with the flood-tide, and relaxes with the ebb. The ignorant natives of the coast, on approaching the spot in their frail craft, were long accustomed to propitiate the spirit of the waters with offerings of meal, butter, and other victuals, placed on an adjoining rock, hoping thereby to secure for themselves a safe passage. Attempting to round the Sviatoi Noss, baffling winds were encountered by Sir Hugh, which, together with the foaming billows, induced him to return to his station in Nekouev Bay. This was reached September the 18th. After waiting in vain a week for favourable weather, and seeing only the signs of winter, which commenced with severity and at an unusually early date, the commander despaired of continuing his voyage, and determined to pass the dreary season where he was. It became the harbour of death to the entire party. 'This haven,' says the journal, 'runneth into the main about two leagues, and is in breadth half a league, wherein are many seal fishes and other great fishes; and upon the main we saw bears, great deer, foxes, with divers strange beasts, as clans and such others, which were to us unknown and also wonderful. There, remaining in the haven the space of a sevendnight, seeing the year far spent, and also very evil weather, as frost, snow, and hail, as though it had been the depth of winter, we thought it best to winter there. Wherefore we sent out three men south-south-west to search if they could find people, who went three days' journey, but could find none. After that we sent other three westward four days' journey, which also returned without finding any people. Then sent we three men south-east three days' journey, who, in like sort, returned without finding of people, or any similitude of habitation.'

This desolation of the country is an annual occurrence, for the fishermen who visit the shores in summer retire into the interior to spend the winter. The month of October must have been far advanced before the last exploring-party returned from the fruitless quest of succour. The days were then rapidly shortening. Towards the close of November, the sun would cease to appear above the horizon, leaving the mariners exposed to the cold of a two months' wintry night. They were not prepared for its severity by experience, or probably by correct information, nor could they obtain the means of sustaining it, as the neighbourhood supplied no wood for fuel. To add to their misery, there is evidence that the season was unusually rigorous in the Arctic zone. Hence, in the following spring, when the native fishermen repaired to the coast, the two ships were found in Nekouev Bay, deeply covered with the snow-drift, and the stiffly-frozen corpses of the crews lay beneath the chilling pall which nature had thrown over them. How much they suffered—when their last agony came—and who survived the longest—no one knows.

'Miserable they,

Who, here entangled in the gathering ice,
Take their last look of the descending sun;
While full of death, and fierce with tenfold frost,
The long, long night, incumbent o'er their heads
Falls horrible. Such was the Briton's fate,
As with *first* prow—
He for the passage sought, attempted since
So much in vain.'

Sir Hugh Willoughby's signature to the will of his kinsman on board, Gabriel Willoughby, dated towards the end of January 1554, proves that he was alive at that period. He may have lingered to witness the sun remount the horizon, expiring as the winter was about to relax its icy grasp. At Lord Middleton's seat, Wollaton House, Nottinghamshire, a portrait of Sir Hugh was formerly shewn, with some clothes reputed to have been those in which his body was found. His remains are said to have been brought to

England, but this is very doubtful. Their disposal has escaped a chronicle, owing to the distracted state of the nation after the accession of Queen Mary, which largely diverted public attention from the fate of the unfortunate voyager.

The first English ship to enter the White Sea was thus the *Edward Bonaventura*, under Chancellor. Its commander, and his companions, Stephen Burrough the celebrated navigator, John Stafford the chaplain, Thomas Walter the surgeon, George Burton and Arthur Edwards, two merchants, with the remainder of the crew, were the first Englishmen who set foot upon its shores, and entered the Muscovite dominions. This was on the 24th of August, while Willoughby was tossing on the ocean westward of the Sviatoi Noss. The adventurers landed at Nenocksa, a small place on the main shore of the southernmost mouth of the Dwina, hard by the convent of St Nicholas, where some salt-works were carried on, and have been since continued. They proceeded up the river to Cholmogory, the head town of the district, Archangel not being then in existence; and were from thence forwarded by the authorities more than a thousand miles in sledges to Moscow, where an open letter from Edward VI., already in his grave, was presented to the czar, Ivan IV. the Terrible, written in several languages. It recited, among other particulars, as follows: 'We have permitted the honourable and brave Hugh Willoughby, and others of our dear and faithful servants who accompany him, to proceed to regions previously unknown, in order to seek such things as we stand in need of, as well as to take to them from our country such things as they require. This will be productive of advantage both to them and to us, and establish a perpetual friendship and an indissoluble league between them and us; whilst they permit us to receive such things as abound in their territories, and we furnish them with those of which they are destitute.' Ivan received his visitors graciously, sanctioned the project of trade between the two countries, and admitted them to view familiarly the barbaric splendour of his court. 'The prince called them to his table, to receive each a cup from his hand to drinke, and took into his hand Master George Killingworthe's beard, which reached over the table, and pleasantly delivered it over to the metropolitan, who, seeming to bless it, said in Russ: "This is God's gift." A most extraordinary beard it was, according to the account in Hakluyt, 'not only thick, broad, and yellow coloured, but in length five foot and two inches of assize.' Chancellor was dismissed in the following spring, with a letter from the czar to Edward IV., dated from 'our lordly house and castle,' and returned home in safety by the route he had pursued.

The merchant-adventurers deputed their agent to revisit Moscow, arrange more explicitly with reference to trade, and special instructions were given to ascertain if there was any passage through Russia, by land or sea, to Cathay. On coming back from this mission in 1556, having obtained favourable commercial terms, Chancellor was accompanied by Osep Neped as ambassador from the czar, with sixteen of his countrymen. The voyage was most disastrous. The ship was wrecked in Pitsligo Bay on the east coast of Scotland, and Chancellor perished, with most of his crew. But the ambassador escaped, and was the first Russian who ever visited our shores. He entered London amid the acclamations of the crowd, was feasted at Guildhall, appeared at the court of Queen Mary, and the English Russian Company was incorporated, occupying a house in Seething Lane. Ship after ship, and agent after agent were despatched from the Thames to the Dwina. A factory was established at the mouth of the latter river, on Rose Island, which obtained that name from the quantity of wild-roses seen on it by the commercial settlers. They covered from four to five acres, near a birch and pine wood. Beautiful pinks were also observed. Some of the roses were brought to England, and are mentioned by Parkinson, in the former part of the seventeenth century, under

the name of the 'wild bryer of Muscovie.' Other factories were established at Cholmogory, Vologda, and Moscow; and the town of Archangel arose in consequence of the opening commerce.

The produce imported by the company consisted of train-oil, tallow, flax, hemp, tarred ropes, elk hides, and hides in general for tanners. Inquiry was made after a certain kind of wool, 'very good in those parts for hats and felts, of which the Tartarians are accustomed to make their cloaks;' and upon information being obtained of the country yielding a great quantity of yew, the directors pricked up their ears, and ordered it to be examined, 'because it is a special commodity for our realm.' The age of Robin Hood and Chevy Chase, of which the line is characteristic—

'Draw, archers, draw your arrows to the head,'

was not entirely over then in England. The bow was still distinctive of our yeomen in war and foresting. But the silver fir had been mistaken for the yew, which does not flourish so far to the north. The first shipment of English goods to any amount arrived at the Dwina in 1557. It consisted chiefly of London cloth, so called from the outport; and of Hampshire kerseys, the manufactures of that county. Already the Russian taste for gay colours seems to have been known, for, of the kerseys, two pieces were yellow, fifteen green, five ginger-coloured, fifty-three red, forty-three blue, and four hundred were sky-blue. Salt, sugar, manufactured goods of various descriptions, artillery, and warlike stores followed in considerable quantities, with some musical instruments, for the tones of the organ and virginal were now for the first time heard in Moscow. 'The people wondered and delighted,' says the agent, 'at the loud and musical sound thereof, never seeing nor hearing the like before. Thousands resorted and stayed about the palace to hear the same; my man that played upon them much made of, and admitted into such presence often where myself could not come.' It is curious to find corn among the early shipments, but this was during a dreadful famine. Sharp practices on the part of the native dealers seem to have been suspected by the company, for its servants were early admonished to make their bargains plain, and set them down in writing. At the same time, some of its own representatives misconducted themselves, for they were rebuked for tippling, hound and bear keeping, and extravagant expenditure in silks and velvets.

Elizabeth, having ascended the throne, returned the compliment of the czar, by appointing a representative at his court. This was Mr Anthony Jenkinson, an intelligent and resolute man, who published the first map of Russia that was ever made. Previous to his appearance as ambassador, he had been in the country as an agent of the company, and made an extensive journey with the view of finding a commercial route into the interior of Asia, and thereby communicating with India and China. He started from Moscow in April 1558, and descended the Volga to Astrachan with some companions and goods. It was a year of famine, pestilence, and civil war; the country was largely depopulated; and so intense was the distress of the survivors, that they offered their children for sale into slavery at the price of a small loaf of bread apiece. Ramparts of earth surrounded the city; all the houses were of the meanest description, except the governor's; and fish, especially sturgeon, was the only food of the inhabitants. They were hung up in the streets and dwellings to dry, in consequence of which the air was infected; and the myriads of flies attracted to the carcasses formed an intolerable pest. Jenkinson gained the Caspian in August, and coasted it to the opposite side, exhibiting the St George's Cross at the head of his vessel. From the eastern shore he proceeded with a caravan of camels to the Oxus, and advanced as far as the city of Bokhara, where he learned that the trade with China had been suspended by wars for

upwards of three years. Thus disappointed in his principal object, he retraced his steps, and reached Moscow in September 1559. A journey of seventeen months through unknown countries and lawless tribes, conducted with safety, is in the highest degree creditable to the boldness and prudence of the traveller.

His employers at home were not discouraged by this result. They procured a letter from the queen, written in Latin, Italian, and Hebrew; placed under his care not only kerseys and scarlet, but cloth of gold, plate, sapphires, and other jewels; and Jenkinson was once more upon the Caspian in 1562, seeking to establish trade with the Persian provinces on the southern shore, and through them with the remoter East. But the scheme was marked by the ignorance not less than by the boldness of early mercantile enterprise, for it was speedily apparent that no goods could bear the cost entailed by the transport, even had no obstacle been offered to trade by the unsettled state of society. But the whole country was in extreme confusion. 'To travel,' wrote one of those employed, 'is miserable and uncomfortable, for lacke of townes and villages to harbour in when night cometh; beside the great danger we stand in for robbing by these infidels, who do account it remission of sinnes to wash their hands in the blood of one of us. Better it is, therefore, in mine opinion, to continue a beggar in England.' Of much the same opinion was Mr George Turberville, though a resident within the walls of Moscow as secretary to the embassy. He was a rhymster, and occupied his leisure in writing poetical epistles to his friends at home, one of whom had the name of Dancie. A ditty begins as follows, modernising the orthography:

'My Dancie, dear, when I recount within my breast,
My London friends and wonted mates, and thee above the rest;
I feel a thousand fits of deep and deadly woe,
To think that I from land to sea, from bliss to bale did go.
I left my native soil, full like a reckless man,
And unacquainted with the coast, among the Russies ran;
A people passing rude, to vices vile inclined,
Folk fit to be of Bacchus' train, so quaffing is their kind;
Drink is their whole desire, the pot is all their pride,
The soberest head doth once a day stand needful of a guide.
If he to banquet bid his friends, he will not shrink
On them at dinner to bestow a dozen kinds of drink.'

Failing in this direction, the English merchants turned their thoughts to another quarter, and sought to establish trading intercourse with the East by way of the Levant, Aleppo, the Euphrates, and Persian Gulf. But after the days of the Armada, confidence being felt in their own navy, as able to cope with the Spanish and Portuguese forces on the seas, the route by the Cape was adopted towards the close of the century.

In the meantime, the project of sailing round the north of Asia had not been lost sight of, for, while Chancellor was negotiating with Russia, the attempt was renewed by Stephen Burrough, who had taken part in the original expedition. He went out in the *Speedthrift* in 1556, made the island of Waigatz, and discovered the south coast of Nova Zembla across the intervening channel, where further progress was arrested by ice and easterly winds. Another effort was made in 1580 by Pet and Jackman in two vessels. Great perils were encountered and a sore disaster occurred. Dense fogs enveloped the ships, while ice-fields separated them, and they communicated by beating drums and firing muskets. They finally parted company, and Pet made good his passage home, while nothing was ever heard of Jackman till our own time, and though his fate was conjectured, it was different to the general supposition. Dr Hamel has illustrated it from Russian sources. It seems that the unfortunate navigator gained the mouth of the Obi, with the view of entering the river to pass the winter, but there his vessel was wrecked.

At that time Yermak the Cossack was engaged in the conquest of western Siberia. Mistaking the Englishmen for his confederates, or at least hostile visitors, the Samoiedes despatched the entire crew.

The Dutch now took up the question of a north-east passage. Having but recently emancipated themselves from the yoke of Spain after a terrible struggle, they were anxious to avoid the seas where the Spaniards were formidable, and therefore sought to find a route to India where there was no chance of meeting with their old oppressors. This led to the three voyages of Barentz, 1594—1597, who discovered Spitzbergen, and reached the north extremity of Nova Zembla. In that dreary and inhospitable region, on the last occasion, towards the close of August, the ice suddenly closed around the voyagers, reduced in number to seventeen persons; and they were compelled to remain through the winter, enduring the hardships of their imprisonment with admirable resignation. They were doubtless the first human beings from the civilised world to survive the rigour of the season in so high a latitude. An interesting journal remains of their sufferings from the cold, their contrivances to protect themselves from it, and their schemes to measure time, for the touch of the ice-king stopped all their time-pieces. The ship being so much damaged as to be uninhabitable, they built a cabin on the adjoining shore, for which, happily, there was drift-wood at hand. It served them as well for fuel, though the search for it exposed them to the utmost severity of the weather, and to great danger of attack from the bears. Often was Bruin heard snuffing and growling around the hut, anxious to get in, and make a meal of the inmates. On the 4th of November, the sun ceased to rise above the horizon, and at the same time the bears discontinued their visits. White foxes succeeded them in great numbers, and being readily taken in traps, furnished a supply of food and clothing. On the twelfth night after Christmas, the men were so far cheerful as to elect a gunner as king of Nova Zembla. The sun re-appeared on the 27th of January, and the bears returned to resume their prowls and growls. But the weather continued so inclement and boisterous, that it was not till June that escape became practicable. The ship was far too much disabled for the weak crew to repair the damage. They embarked therefore on the 13th, in the two small boats belonging to the vessel; but on the 26th Barentz died, overcome with hardships, to the great grief of his men. The survivors marvellously succeeded in escaping destruction from the masses of floating ice in such frail barks; and made a voyage of eleven hundred miles to a port on the White Sea; one of the most remarkable voyages on record.

We now turn from the north-east to the north-west, in which direction the hope was long cherished of finding a practicable navigable path to the eastern world. Under the patronage of Dudley, Earl of Warwick, in 1576, two vessels sailed with Martin Frobisher in quest of such an outlet. He sighted the south extremity of Greenland, steered to the coast of Labrador, entered an inlet running westward, and returned to be 'highly commended of all men for the great hope he brought of the passage to Cathaia.' The inlet, now known to be a bay, long figured on our maps as Frobisher's Strait, is one of the entrances into Hudson's Bay. But the public mind was quickly diverted to a different object. One of the sailors had brought home with him a stone picked up as a relic on a shore which had been visited. It was supposed to contain gold, and being handed to the refiners, they precipitately pronounced this to be the case. London was thrown into a ferment by the news. A wakeful avarice seized the city. Men congratulated themselves upon the road to boundless opulence thus opened, for the conclusion was embraced, without a doubt, that all the stones of the land must be golden. Capitalists bid high for leases from the crown of the auriferous

territory; and three vessels were despatched in 1577 to the gold-bearing region. Queen Elizabeth, who had only contributed a wave of her hand to the voyage of discovery, as the ships passed Greenwich, now fitted out one of the three at her own expense. More men volunteered their services than could be employed. With a 'merrie wind' the mariners arrived at the Orkneys, and crossed in safety the ocean. But Frobisher was unable to reach the particular haven from which the precious stone had been brought. Still, on some islands, large heaps of earth were found, which seemed to contain the precious product. Spiders also abounded; and it was affirmed that 'spiders be true signs of great store of gold.' So the crews set to work to freight the ships; the admiral himself toiled like a common labourer; and the fleet returned with a cargo corresponding to the refuse of a gravel-pit.

Though disappointed, the public were not in the least daunted. They had decided that there was gold to be had for the seeking, in the regions guarded by the thick-ribbed ice; and the indications of it afforded by the spiders were irresistible. Besides a great success is rarely achieved by a single effort. Thus reasoned the monied men, and the spendthrift courtiers. Hence the outrageous folly was committed of equipping a more costly expedition, consisting of not less than fifteen vessels, in which many young men of the better classes embarked; and the queen gave the name of *Meta Incognita* to the imaginary land of promise. Discreet men were despatched with the squadron to settle on shores too inhospitable to produce either tree or shrub; and some soldiers were sent out to keep order in the contemplated colony. Twelve of the ships were to return immediately with cargoes of ore; and three were to remain to aid the settlement. The general ignorance respecting arctic regions and the terrors of a polar winter, may be inferred from these arrangements. Frobisher conducted the fleet to the North American coast in 1578. Then troubles and dangers began to beset its course. Dense mists prevailed, and immense icebergs encumbered the sea. One of the ships was crushed and sunk, though the men on board were saved. With invincible courage the admiral struggled with difficulties, and led the fleet through the ice, 'getting in at one gap and out at another,' till he gained a haven in the Countess of Warwick's Sound. But by this time all the young volunteers had become terribly alarmed, and heartily wished themselves out of the adventure. The intended settlers likewise were quite as anxious to get back to their old homes; sailors and soldiers were on the verge of mutiny; and one vessel, laden with provisions for the intended colony, deserted and returned. The whole squadron was soon homeward-bound; yet not till an island had been discovered which wore an aspect of promise to the eye of credulity. Lumps of 'black ore' were scattered over the surface, enough to satisfy 'all the gold gluttons in the world;' and the folly was repeated of taking in a freight of useless dirt and shingle. Frobisher is not responsible for the visionary schemes of his employers. He did his duty as an able and dauntless seaman, as he did on a later occasion, when the honour of knighthood was conferred upon him for gallant conduct in the defeat of the Spanish Armada. The queen testified her approval of his services by conferring upon him *Altoft's Hall*, four miles from Wakefield, in Yorkshire, with the manor and grounds, which before sequestration belonged to the abbey of Newland. This estate remained in his family till the time of Cromwell, when it changed hands, but a portion of the furniture remained with the new possessors. Among other articles, a richly-carved chair, bearing the name of M. Frobisher, cut in antique characters, has been preserved to the present day, and was presented, in the year 1853, to the Royal Geographical Society of London. In 1862, some interesting relics of the navigator's arctic expeditions, consisting of fragments of iron, wood, tile, and glass, were gathered from the shore of the inlet he discovered, by Captain C. F. Hall, of the United States' navy.

At this period a patent was granted to Sir Humphrey Gilbert, empowering him to make western discoveries, and take possession of unappropriated lands. At the same time his younger brother, Adrian Gilbert, became head of a company which was incorporated under the title of 'The Colleagues of the Fellowship for the Discovery of the North-west Passage.' Sir Humphrey was the brother-in-law of Sir Walter Raleigh. He had been a soldier, a member of parliament, was a very chivalrous man, and had rational schemes of colonisation in view. In 1583, he sailed with five ships, and on the eve of departure received from the queen a golden anchor, guided by a lady, as a token of her regard. Yet the fever of the times beset him, too, for he took a 'mineral man' on board, a pious and honest Saxon, and a man of letters from Hungary. Music in good variety was provided for the amusement of the crews and the allurements of savages, not forgetting 'toys, morrice-dancers, hobby-horses, and May-like conceits,' for the delight of barbarous people. The fleet gained the harbour of St John's, Newfoundland, on the 30th of July; and a survey was made of the neighbourhood for the site of a settlement. All agreed that the 'mountains made a show of mineral substance,' and the mineralogist protested that silver ore abounded. The strictest secrecy was at once enjoined, as there were Spaniards and Portuguese at hand engaged in the fisheries, who might attempt to get a share of the spoil. Leaving the foreigners to capture cod-fish, the precious ore, as it was supposed to be, was carried on board the largest of the ships, with such mystery that the nature of the freight did not transpire.

Having started the little settlement, Sir Humphrey sailed to the south-west with three ships, leaving two behind him, intending to plant another colony on some suitable site. But a grave calamity occurred. The treasure-laden vessel, the *Delight*, was wrecked, and of more than a hundred men on board—the principal part of the force—only twelve escaped. Among the unfortunates was the mineral man, and the Hungarian scholar, who was to have been the historian of the expedition. Upon this loss, the commander deemed it expedient to return to England with the remaining vessels, two small barks—the *Squirrel* and the *Hind*. He was in the former, which was not more than twice the size of the long-boat of a modern merchantman. Terrible weather set in. Never had the oldest mariners seen more 'outrageous seas.' When the wind abated, and the vessels were near enough, the admiral was constantly seen sitting in the stern with a book in his hand. On the 9th of September, he was thus seen for the last time, and was heard by the people on board the *Hind* to say, 'Courage, my lads! we are as near Heaven by sea as by land.' In the following night the lights of the ship suddenly disappeared, and nothing more was observed of the bark by her companion.

'Eastward from Campobello,
Sir Humphrey Gilbert sailed;
Three days or more seaward he bore,
Then, alas! the land wind failed.

Alas! the land wind failed,
And ice-cold grew the night;
And never more, on sea or shore,
Should Sir Humphrey see the light.

He sat upon the deck,
The book was in his hand;
"Do not fear: Heaven is as near,"
He said, "by water as by land."

The *Hind* outrode the tempest and arrived safely at Falmouth.

Abandoning the delusive quest of gold for simple discovery, John Davis, a good seaman and excellent commander, was employed in the northern seas to resume the search for

a western passage. His principal patrons were opulent merchants of the west of England, along with Walsingham, the secretary of state. He sailed from Dartmouth on the 7th of June 1585, with the *Moonshine* and *Sunshine*, and took along with him a band of music for the recreation of his men, and the amusement of any natives who might be encountered. On approaching the arctic boundary, the crews were alarmed by hearing loud noises while the sea was calm and covered with fog. They were found to proceed from icebergs grinding against each other. The south-west coast of Greenland came in sight the next day, and was called the Land of Desolation, on account of its bleak and dreary appearance. A headland there still bears the name of Cape Desolation. Leaving it for the open sea, an opposite shore was reached, where deceptive indications of precious ore were observed, many of the cliffs being 'orient as gold.' Here a fine sound stretching to the westward was discovered, from twenty to thirty leagues wide, free from ice, with water resembling in colour and quality that of the main ocean. This is now named Cumberland Strait, and lies to the north of Frobisher's. It seemed the desired passage to the mariners, and was explored for a considerable distance, when thick fogs and contrary winds compelled them to desist, and direct their course homeward. Two voyages in the next two years were made by Davis to the same waters, sailing each time from Dartmouth. He reached the high latitude of 72°, and as this led him to the great sea now styled Baffin's Bay, his name has properly been given to the broad entrance, Davis Strait. Icebergs were seen of such vast magnitude that the navigator declined the description of them, lest his veracity should be suspected.

No advance having been made in the main object, its pursuit was abandoned for some time. In fact, while commanders continued sanguine of success, they frequently found it impossible to induce their crews to prosecute the search, after some acquaintance with the perils of ice-clad seas and shores. The firm though respectful remonstrance was addressed to Davis, on one occasion, by his sailors, that 'by his over-boldness he might cause their widows and fatherless children to give him bitter curses.' A few years later, this intrepid seaman took part in Cavendish's attempt to circumnavigate the globe a second time, and while separated from the squadron, he was the first to fall in with the group of isles now known by the designation of the Falklands. He had the rare good-fortune afterwards to make five voyages to the East Indies in the service of the Dutch, and at last lost his life in 1605 in a quarrel with the Japanese. His discoveries were traced on a globe of the time, constructed by Molyneux, and still preserved in the library of the Middle Temple.

With the commencement of the seventeenth century, the English made their first successful visit to India by the way of the Cape, under the auspices of the East India Company, incorporated on the 31st of December 1600. But the great length of time consumed by the voyage, together with the apprehension of difficulties from the Portuguese, determined the merchants to renew the search for a northerly route. Accordingly, George Weymouth was despatched in 1602, but was compelled to return by the mutinous conduct of his men; and an expedition under John Knight in 1606 was abruptly arrested by the attacks of the Esquimaux. Landing on the coast of Labrador, he left three persons in charge of the boat, while with the mate and another he repaired to some high ground to take a survey of the country. Not returning at the appointed time, guns were fired, and every imaginable signal was given by the party at the boat, but without effect. Knight and his comrades were never heard of, and as a desperate attack was speedily made upon the ship by the natives, the fate of the commander may readily be inferred. The remaining crew consisted only of eight men; assailed at night and amidst torrents of rain, they succeeded in defeating the savages, made their way to Newfoundland, and from thence to England.

A north-east and a north-west direction having been tried in vain, it was now resolved to attempt a new route, and proceed if possible directly across the pole. The execution of this daring design was intrusted to Henry Hudson, one of the bravest and most unfortunate of all navigators. He sailed in 1607 in a small bark with only ten men and a boy. But after reaching Spitzbergen, much incommoded by the ice, he deemed the sea completely barred by it further north, and brought back his little vessel in safety. In the following year, he was commissioned to resume the old north-eastern course, but met with no greater success than any of his predecessors. A singular instance of the credulity of sailors is related during this attempt: two seamen, Thomas Hilles and Robert Rayner, solemnly affirmed, that while standing on deck, they saw a mermaid; and signed their names to a certificate to that effect. They described the creature in the document as having 'breasts like a woman's; her body as big as one of us; her skin very white; and long haire hanging down behind, of colour blacke.' It is uncertain which of the cetaceous animals led to the misconception. Hudson was next sent to the north-west; and started on the voyage from which he never returned on the 17th of April 1610. Arrived on the shores of Labrador, he followed them to the north-western extremity, which received the name of Cape Wolstenholme, after one of his principal patrons, while an opposite headland, on an island, was called Cape Digges, after another. At this point, he beheld before him, apparently, a wide ocean, which must have been viewed with exultation, being probably regarded as a portion of the mighty Pacific, the object of his expedition. It was really the great inland sea which has since been called Hudson's Bay; but of his progress in it no knowledge remains except what is derived from the doubtful testimony of a conspirator against him.

Seeing the coast on the left turn to the south, Hudson seems to have followed it in the hope of gaining a milder climate, and more fertile district in which to spend the winter. But no considerable distance had been made, owing to boisterous weather, and the difficulty of doubling unknown headlands shrouded with mist, when, in a haven called Michaelmas Bay, from the day on which it was entered, the ice closed in on all sides, and the winter began its reign. It does not appear to have been a season of special severity; but having brought out only provisions for six months, the stock remaining was scanty, and hardship excited ill-feeling in the crew against the commander. Every effort was made by him to make the original store serve as long as possible, and a reward was promised to every one who should kill beast, bird, or fish. At first, the white partridges came in such numbers that twelve hundred were secured in the space of three months. As these passed away with the approach of spring, flights of geese, ducks, swans, and teal, made their appearance, migrating from south to north; and when they were gone, the breaking up of the ice allowed of fish being taken.

On leaving the bay, in June 1611, Hudson was no doubt intent upon continuing the voyage through the summer for the purpose of discovery, content with such provisions as could be procured; while most of the crew secretly resolved to sail for England as soon as a sufficient supply of food for the voyage was obtained. Their ringleader, a young man named Green, of profligate character, had been taken out by the commander as an act of humanity, being without any other resource for a livelihood. The following strange oath was taken by the mutineers: 'You shall swear truth to God, your prince, and country; you shall do nothing but to the glory of God, and the good of the action in hand, and harm to no man.' When the abominable scheme was ripe for execution, Hudson was seized, bound, and lowered into a boat; the carpenter, as his devoted adherent, was treated in the same manner; and nine persons in all, several of whom were sick, were turned adrift, with a fowling-piece, some ammunition, and a small quantity of meal. They were never heard

of again, but perished in those dreary regions, though when, or how, or what extremity of distress was previously endured, remains unknown. Green, elected captain, did not long escape punishment, being killed in an affray with natives; Ivet, another principal, died of absolute starvation on the way home; and the rest were in dreadful destitution on gaining the north coast of Ireland. Such is the substance of the relation of one of the survivors, Abacuk Pricket, of whom Purchas remarked: 'Well, Mr Pricket, I am much in doubt of thy fidelity.' The deed is, however, described by him in all its dark atrocity; but whether the describer was simply constrained to be a consenting party, or was more implicated in the tragedy, could not be ascertained.

The inland sea, discovered with such a terrible result, was entered the next year by captain, afterwards Sir Thomas Button, who, finding it open to the westward, sailed in that direction, fully expecting that it would conduct him to the shores of Japan. But soon a long range of desolate coast, running north and south, came into view, and dissipated the illusion. This was the mainland of America, forming the western boundary of Hudson's Bay, to which the name of *Hopes Checked* was given, in memory of the disappointment. Sailing to the south, Button entered the mouth of the present Nelson River, where the principal settlement of the Hudson's Bay Company was afterwards founded, and where he passed the winter of 1612-1613. The cold proved fatal to some of his men, though he endeavoured to arm them against the depressing influence of a rigorous climate and an inactive life by friendly meetings, in which instruction was blended with amusement. In the ensuing summer, the great sea was further examined; and was soon afterwards assumed to be a close sea, in which it was hopeless to look for a western passage. The next attempt of note to find the long-desired outlet, and the last that was made, with any signal result, for the space of two centuries, was conducted by Robert Bylot as master and William Baffin as pilot, two experienced mariners, the latter the most scientific nautical observer of his age. In the instructions supplied upon this occasion, it was ordered that, 'you William Baffin, as pilot, keep along the coast of Greenland, and up Davis's Strait, until you come toward the height of 80°, if the land will give you leave.' It was expected, that in that high latitude the extreme north point of America would be reached, from whence a course to the south-westward would lead to the northern part of Japan. 'Although our desires be,' say the instructions, 'if your voyage prove so prosperous that you may have the year before you, that you go so farre southerly as that you may touch the north part of Japan, from whence or from Yedzo, if you can so compass it without danger, we would have you to bring home one of the men of the country; and so, God blessing you, with all expedition to make your return home againe.'

The details of this remarkable cruise, the most extensive in its range hitherto made in the northern zone, are very meagre. It commenced on the 26th of March 1616, when a small bark, the *Discovery*, sailed from the Thames, with a complement of seventeen officers and men. Greenland was sighted on the 2d of May, within Davis's Strait, and that navigator's furthest point, Sanderson Hope, was passed on the 30th. As the ship proceeded, interviews were had with the natives on shore, who brought large quantities of the bones of sea-unicorns, or narwhals, great numbers of which animals were seen in the water. Snow fell every day towards midsummer; the weather was occasionally dreadfully cold; and the shrouds and sails were so hard frozen, that to handle them became almost impossible. In latitude 76° a fair headland was seen, and then a goodly sound, which were called Cape Digges and Wolstenholme Sound, after two main promoters of the undertaking, whose names had previously been associated with localities at the entrance of Hudson's Bay. Another sound, the widest and greatest of all, running to

the north of 78° , was named after Sir Thomas Smith. It is noted by Baffin as 'admirable in one respect, because in it is the greatest variation in the compass of any part of the world known; for, by divers good observations, I found it to be above five points, or 56° , varied to the westward.' Following the general direction of the coast, the course now lay west, south-west, and then south, by an inlet designated Alderman Jones's Sound, but which has long been clipped of its civic style, merging in a broader opening called Sir James Lancaster's Sound, the important channel leading to the Polar Ocean in which Parry acquired his renown. The discoverer did not stop to examine it, but pushed southward. Finding his crew sickly, he sailed across to Greenland, where scurvy-grass and other salads quickly restored them. He accomplished the homeward voyage by the middle of August, 'for the which,' says he, 'and all other His blessings, the Lord make us thankful.' Baffin returned from the great sea he had traversed with the full conviction that it was completely landlocked. It was therefore styled Baffin's Bay, a title which has been retained notwithstanding its inappropriateness to an ocean-like expanse; and thus the honour belongs to him of having stamped his name upon perhaps the largest sheet of water which bears the name of a human being. He did not fail, however, in pointing out the great use that might be made of it in the whale-fishery; and while all these northern voyages were disappointing in their immediate object, they were of immense service in improving seamanship, and disclosing the fishing-grounds which have given comfort, wealth, and independence to thousands.



Birds-eye View of Nekouev Bay—From a Russian Chart.



• Cape Town from Table Bay.

CHAPTER VI.

ENGLISH AND DUTCH CIRCUMNAVIGATORS OF THE SEVENTEENTH CENTURY.



IT was confidently affirmed by Pigafetta, the historian of the first voyage round the globe, that the enterprise would never more be repeated, owing to the difficulties, perils, and hardships connected with it. The opinion was also current for some time, that it was offering defiance to the will of Providence to attempt to pass the barriers placed by nature between the Atlantic and Pacific oceans; and it was even rumoured that the channel which Magellan had traversed, no longer existed, having in some mysterious manner been closed, as if intentionally to interdict communication. Many dwelt with superstitious fear upon the fate of the principal adventurers who had associated themselves in any way

with the great expanse, so long hidden from the knowledge of the civilised world, as evidence of its illustration involving a transgression of the bounds of legitimate effort. Thus Balboa, the first European to gaze upon its waters, had been put to death by his own countrymen; De Solis, while seeking access to them, had been murdered by savages at the mouth of the La Plata; and Magellan had been slain in the new region he had ventured to enter. As a still more terrible catastrophe, at least in the esteem of all good Catholics, the very mariner who first saw from the mast-head the strait through which the Pacific was reached, had survived to become a renegade, and turn Mohammedan.

Nor was this all; for the second time the strait was passed, by a well-equipped squadron, under Loyasa, bound from Spain to the Moluccas, a series of sore disasters occurred. A tempest instantly assailed the fleet, and scattered the ships never to meet again. Four commanders elected in succession died one after the other; and one of them was the celebrated Sebastian del Cano, the companion and successor of Magellan. The crews perished by wholesale, struck down by disease; and only a handful survived to return to Europe, after being held in durance for years by the Portuguese. Fortunately, there were men who defied both real and imaginary dangers; and, the way from the one ocean to the other having been discovered, the particular track of the discoverer was followed at intervals, till the easier route round Cape Horn was made known.

The first English circumnavigator, Sir Francis Drake, was a daring man by land and sea. His ship was the second vessel to trace the circuit of the earth. He rose from comparative obscurity, became a voyager in early life, acquired a small bark of his own, and made some trading ventures in it with profit, while gaining reputation for skill and courage. But he lost his all by a treacherous attack of the Spaniards, when with Sir John Hawkins in the West Indies, and thenceforth deemed it right, whenever practicable, to compensate himself by making reprisals, without caring to inquire when the precise equivalent had been exacted. According to the maritime logic, or 'sea divinity' of the age, nothing could be clearer than his case, as quaintly expounded by a contemporary: that whereas the 'king of Spain's subjects had undone Mr Drake, therefore Mr Drake was entitled to take the best satisfaction he could of the subjects of the king of Spain.' He faithfully acted upon the maxim:

'That they should take who have the power,
And they should keep who can.'

Enabled by friends to equip two vessels, Drake sailed to Darien, and having moored and concealed his ships, he marched across the isthmus with a number of his men and some Indians. It was his object to intercept Spanish treasure, which was then conveyed by mules from Panama to the Atlantic coast for shipment to Europe. During the excursion an interesting incident occurred which determined much of his future course. Upon arriving at a certain hill, the chief of the Indians took him by the hand, and led him to the summit. Here was 'a goodly and great high tree,' in which steps had been cut to ascend near the top, where a convenient bower had been constructed, capable of accommodating ten or twelve men seated. It commanded a view of two oceans, the Atlantic on the one hand, and the Pacific on the other. The trees had been felled in the neighbourhood to make the prospect clearer. 'After our captain had ascended to this bower,' says the narrator, 'and having, as it pleased God at this time by reason of the breeze, a very fair day, had seen that sea of which he had heard such golden reports, he besought of Almighty God of His goodness to give him life and leave to sail once in an English ship in that sea; and then calling up all the rest of our men, acquainted John Oxenham especially with this his petition and purpose, if it should please God to give him that happiness.'

Having relieved a file of treasure-mules of their burden, Drake returned home with large booty, and reached Plymouth on the 9th of August 1573. This was a Sunday. News of his arrival being carried to church, 'there remained few or no people with the preacher,' as the congregation broke up to welcome the seamen. His thoughts were now intently fixed upon sailing on the ocean at which he had glanced; but he was anticipated in this project by one of his own followers, the John Oxenham just mentioned, who was the first Englishman to appear upon its waters. This man, who had capacity as well as courage, set up privateering on his own account, and procured associates to sail with him

to Darien. Hiding the vessel, he led them across the isthmus, carrying two pieces of ordnance with him, he built a little pinnace on a stream falling into the South Sea, where he was soon at work capturing gold and silver bars. But the Spaniards were quickly upon his track, and being at length taken by them, he was executed at Panama as a pirate. Oxenham was the first of the bucaners, the 'sea-rovers,' or 'brethren of the coast,' as they were sometimes called, and also 'flibustiers,' a supposed French corruption of our word freebooter. The desperadoes were long a terror on sea and shore, and were pictured by excited imaginations as beings of scarcely human appearance, owing to the fear they inspired. A lady of Panama, curious to see the extraordinary animal, a bucaner, exclaimed aloud on being gratified with the sight: 'Jesu bless me! these thieves be like unto us Spaniards.' Another had her prejudices so far softened by the civilities of Morgan, a noted ringleader, who made love to her, as to admit that 'neither did she now think them to be so bad, or to have the shapes of beasts, as from the relations of several people she had heard oftentimes.'

Meanwhile Drake was actively endeavouring to interest his countrymen in his project; and five vessels were at length placed at his disposal, with which to disturb the repose of the Spaniards in the Pacific Ocean. But it was necessary to proceed with caution, as peace nominally subsisted between the two nations. The object of the expedition was of course carefully concealed. Its destination was also falsely indicated, and while Queen Elizabeth secretly approved of the scheme, she gave no open sanction to it. The squadron sailed from Plymouth on the 13th of December 1577. It consisted of the *Pelican*, with the commander on board, the *Elizabeth*, the *Swan*, the *Christopher*, and the *Marigold*. Upon reaching Port St Julian, on the coast of South America, a gibbet was seen upon the shore. This was one of Magellan's stations, where he caused one of his mutinous commanders to be put to death; and Drake signalled his stay there by the execution of an officer of great ability, Mr Thomas Doughtie, on a very vague charge of disaffection. Never did such a tragedy transpire under stranger circumstances. Having his choice of being either abandoned on the coast, taken back to England to answer before the lords of the council, or suffer death at once, the unfortunate man chose the latter, simply requesting that he might 'once more receive the holy communion with the captain-general, and that he might not die other than the death of a gentleman.' The chaplain relates that he celebrated the sacrament on the next day; and Drake received it with the condemned man. Afterwards they dined together 'at the same table, as cheerfully in sobriety as ever in their lives they had done; and taking their leaves, by drinking to each other, as if some short journey only had been in hand.' Immediately all things being in readiness, Doughtie walked out to his doom, requested the bystanders to pray for him, and submitted his neck to the axe.

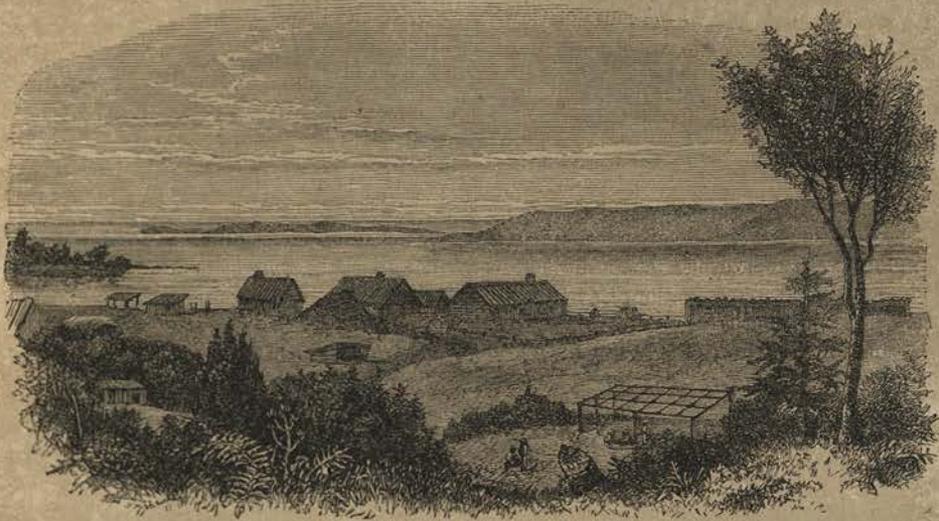
Upon passing through the Strait of Magellan, which was effected in seventeen days, a violent tempest greeted Drake on entering the Pacific, and illustrated the impropriety of its name. The *Marigold* was borne away by the gale and never heard of again. Soon afterwards the *Elizabeth* parted company, repassed the strait, and returned to England. The *Swan* had previously been broken up for firewood, as the vessel was too weak for the long voyage. The fate of the *Christopher* does not appear. But the commander was certainly left to pursue his course with his own ship, the name of which he changed from the *Pelican* to the *Golden Hind*. Eight of the seamen were now doomed to have mournful experience of the perilous and fatal incidents frequently connected with these early navigations. They were out in a shallop with only provisions for the day, when the weather separated them from the captain-general, and his vessel was speedily out of sight. They were so far fortunate as to regain the strait, where some penguins were killed and salted

for future supply. In an open boat, exposed to storms, the little party crept along the coast more than a thousand miles to the mouth of the La Plata. Here six of them went on shore, and wandered to the woods in search of food. Two only returned to their two comrades left in charge of the bark, the others having been captured and killed by the Indians. The savages soon made their appearance, and the four survivors were all wounded by their arrows before they could get out of reach in the shallop. They escaped to a small island about three leagues from the shore, where two of them soon died of their wounds; and the chance of escape was cut off from the remaining two by the shallop being dashed to pieces in a storm. On this island Peter Carver and William Pitcher remained two months, subsisting on crabs, eels, and fruit, but driven to the most horrible extremities from the want of fresh water. At last a plank ten feet long was found on the beach, and having made some paddles of the boughs of trees, they succeeded with this raft in regaining the main land. But it took them three days and two nights to accomplish the short distance. 'At our first coming on land,' says Peter Carver, 'we found a little river of sweet and pleasant water, where William Pitcher, my only comfort and companion, although I dissuaded him to the contrary, overdrank himself, being perished before with extreme thirst; and, to my unspeakable grief and discomfort, died half an hour after in my presence, whom I buried as well as I could in the sand.' Carver, strange to say, now a solitary man, mingled with the natives safely, reached a Portuguese settlement, and returned after an absence of nine years to his native country, where he had the honour of relating some of his adventures before Queen Elizabeth.

Sailing along the coasts of Chili and Peru, the settlements of the Spaniards were touched at, and keenly scrutinised by Drake with an eye to what was valuable. They were then in their infancy. Arica contained little more than twenty houses, and Valparaiso numbered about a dozen families. But near the latter port a large ship was plundered of many jars of Chili wine, jewels, and merchandise, with 60,000 pesos of gold, worth about £24,000. On landing occasionally for water and other stores, wealth was unexpectedly acquired. Thus a Spaniard was found asleep with silver bars lying beside him, equal in value to 4000 ducats; and on another occasion, eight llamas were met with in charge of a guide, each carrying a 100 pounds' weight of silver. Drake's richest prize, however, was a treasure-ship bound for Panama, from which he obtained twenty-six tons of silver bullion, thirteen chests of ryals of plate, eighty pounds' weight of gold, the whole estimated at 360,000 pesos, equal to nearly £150,000. Nothing could exceed the astonishment of the Spaniards at finding the English in waters which they regarded as peculiarly their own. To secure themselves from intrusion, they had propagated the rumour, that the Strait of Magellan had been closed by some great convulsion of nature, and would have been well pleased had that been the case, as they generally communicated with Europe across the isthmus of Darien. Not expecting an enemy, they were not prepared to meet one, and became an easy prey to the daring visitor.

Satisfied with spoil, Drake became anxious to secure it by a speedy passage home. But he did not like to retrace his route, lest the Spaniards should have prepared themselves to intercept him. To avoid this consequence, he sailed to the north on a voyage of discovery, hoping to find in that direction a channel corresponding to the Strait of Magellan in the south, by which to return to the Atlantic. He penetrated beyond the limits of former navigators, advanced along a mountainous coast to north latitude 48°, landed and had communication with natives, and named the country New Albion, which is now divided between the states of California, Oregon, and Washington territory. But having just left the tropics, the lowering temperature so affected his men, that he desisted from a northerly course. Drake now determined to steer across the Pacific Ocean to the

Moluccas, and thus return home by circumnavigating the globe, a project which was not originally contemplated. After a sail of sixty-eight days without seeing land, he fell in with the Pelew Islands, touched at the Philippines and Moluccas, refitted his ship, doubled the Cape of Good Hope, 'the most stately thing and goodliest cape seen in the circumference of the whole earth,' and arrived at Plymouth on the 26th of September 1580.



Astoria, at the Mouth of the Columba River.

The day of the week was Monday, but according to the reckoning of the voyagers, it was Sunday, and the true time of the month the 25th. This loss of a day had been noticed with great surprise, on the occasion of the first circumnavigation, for Sebastian del Cano reached San Lucar on the 5th of September, following his own reckoning, whereas it was the 6th in every calendar of Europe. Reflection soon suggested the true and easy explanation, that in sailing round the globe from east to west, or in the same direction as the sun's diurnal motion, that luminary must of course make, with respect to the vessel, one revolution less than in relation to any fixed point upon the earth's surface.

The commander and his vessel were objects of no common curiosity to his countrymen. Upon the *Golden Hind* being taken round to the Thames, and moored off Deptford, thousands hastened to see the famous bark; and after some little reserve, owing to the loud complaints of the Spanish ambassador, Queen Elizabeth herself was a visitor, dined on board, and knighted Drake. So great was the throng, that the temporary bridge leading from the bank of the river to the ship broke down, though no misadventure occurred beyond the immersion of a few hundreds in the stream. Latin epigrams were composed for the occasion, and attached to various parts of the masts and rigging, one of which has been rendered as follows :

'The stars above will make thee known,
If man were silent here ;
The Sun himself cannot forget
His fellow-traveller.'

More boisterous doings on board 'the ship of famous Draco,' as it was called, may be inferred from the old play of *Eastward Hoe!* where Sir Petronel Flash is introduced saying : 'We'll have our provided supper brought aboard Sir Francis Drake's ship, that

hath compassed the world, where, with full cups and banquets, we will do sacrifice for a prosperous voyage. My mind gives me that some good spirit of the waters should haunt the desert ribs of her, and be auspicious to all that honour her memory, and will with like orgies enter their voyages.' The *Golden Hind* was long preserved, but seems to have been eventually disposed of to one John Davis of Deptford, for a person of that name had a chair made of one of the planks, which he presented to the university of Oxford. This inspired the muse of Cowley to write the lines—

‘To this great ship, which round the globe has run,
And matched in race the chariot of the sun,
This Pythagorean ship (for it may claim
Without presumption, so deserved a name,
By knowledge once, and transformation now)
In her new shape this sacred port allow.
Drake and his ship could not have wished from fate,
A more blessed station, or more blessed estate.

The expedition under Magellan occupied three years and fourteen days, in compassing the globe; Drake's voyage was performed in a briefer period—two years and ten months; and the next circumnavigation, Cavendish's, was made in still shorter time—namely, two years and two months.

As nature refused to block up the Magellanic channel, the court of Spain resolved to close it to all foreign vessels, by fortifications at the narrows, and colonies to keep watch and ward, wholly overlooking the rigorous climate and inhospitable shores. A fleet of twenty-three ships, carrying 3500 men, sailed from Cadiz in 1581, with this object in



Orange Harbour, Straits of Magellan.

view, and proved one of the most disastrous expeditions on record. Five vessels went down with 800 souls on board in a storm at the outset, and owing to a series of misfortunes only a remnant of the force reached its destination. Two settlements were founded with high-sounding names, wooden houses, and bastions. But the mother-country seems not to have bestowed a thought upon the colonists, after sending them out, and they perished by scores of cold and famine during the first winter. It set in with uncommon severity, snow falling incessantly for fifteen days in April. When Cavendish arrived at the strait in 1587, he found many lying dead in their houses and in their clothes, the survivors not having had strength to bury them. Fifteen men and three women were alive, miserable beings, harassed by the natives while wandering along the shore

in search of shell-fish and herbs, occasionally stumbling upon the dead body of a comrade to remind them of their own approaching doom. Yet these wretched outcasts hesitated to trust themselves to the English heretics, when offered a passage to Peru, and a favourable wind bore away the vessels in which they might have been saved.

Thomas Cavendish, a gentleman of good, but perhaps encumbered, estate in the county of Suffolk, followed the track of Drake in search of fame and fortune, and became the second English circumnavigator. He sailed with three vessels bearing the queen's commission, and like his predecessor lost his companions on the voyage, returning home in his own ship, the *Desire*. Of his proceedings, a report is extant drawn up by his own hand, in which he takes no little credit to himself for indiscriminate havoc. 'It hath pleased Almighty God,' he writes, 'to suffer me to circumpass the whole globe of the world, entering in at the Strait of Magellan, and returning by the Cape de Buena Esperança; in which voyage I have either discovered or brought certain intelligence of all the rich places of the world, which were ever discovered by any Christian. I navigated along the coasts of Chili, Peru, and New Spain, where I made great spoils. I burned and sunk nineteen sails of ships, small and great. All the villages and towns that ever I landed at, I burned and spoiled. And had I not been discovered upon the coast, I had taken great quantity of treasure. The matter of most profit unto me was a great ship of the king's, which I took at California; which ship came from the Philippines, being one of the richest of merchandise that ever passed those seas. From the Cape of California, being the uttermost part of all New Spain, I navigated to the islands of the Philippines, hard upon the coast of China, of which country I have brought such intelligence as hath not been heard of in these parts: the stateliness and riches of which I fear to make report of, lest I should not be credited—I found out by the way homeward the island of Santa Helena, where the Portuguese used to relieve themselves; and from that island God hath suffered me to return into England. All which services, with myself, I humbly prostrate at her Majesty's feet, desiring the Almighty long to continue her reign among us.' St Helena was then covered with trees, but they disappeared with remarkable rapidity, upon the introduction of goats and rabbits to the island. Cavendish is said to have brought home wealth sufficient to 'buy a fair earldom;' and it was commonly reported, that when he entered Plymouth harbour, his sails were all of silk. The fact appears to be, that a storm in the Channel having swept away his sails, he either put up for a temporary purpose some damasks, or canvas made of silk-grass, which, being lustrous, originated the misconception. He attempted to repeat the voyage with a larger squadron in 1591, but was signally baffled. Meeting early with almost all the mishaps which can possibly befall the mariner, he was compelled to put back, and the combined influence of fatigue and anxiety terminated his life before the crew regained their native land.

A new enemy speedily appeared in the ocean which the Spaniards wished to keep to themselves. This was the Dutch under Oliver Van Noort, who sailed on the 13th of September 1598, and employed nearly three years in circumnavigating the globe, as he cast anchor before the city of Rotterdam, on the 26th of August 1601. This voyage added nothing to geographical discovery, nor was it attended with any incidents of interest. But while the commander was in the Magellanic strait, he encountered a party of his countrymen in great difficulties, under De Weert, being in a bad sailing vessel; and seems to have quitted them without rendering the slightest assistance. The ship had sailed from Holland, in company with three others fitted out by an opulent merchant, but had been left behind by the companion-vessels. De Weert, however, managed to retrace the Atlantic safely, while the three ships which passed on to the

Pacific were separated by a storm, never again joined company, and never returned home. In one of these was the chief pilot, an Englishman, named William Adams, born at Gillingham, in Kent, who appears to have been long in the service of the Dutch, and was a man of very considerable ability. The vessel in which he sailed reached the coast of Japan, but with the crew in such an exhausted condition from toil and want, that only five of the men were capable of any kind of duty. Though detained as prisoners by the authorities, they were kindly treated; and Adams, being brought before the emperor, conducted himself with such discretion as to become an imperial favourite. He built for him two vessels after the European model, and was allowed means of living 'like unto a lordship in England,' but could never obtain leave to return home, though desiring greatly to 'see his poore wife and children, according to conscience and nature.' He procured, however, the release of his shipmates, who made their way to Bantam, forwarded by them a letter to his friends which reached its destination, and remained in favour to the hour of his death, which took place at Firando, in Japan, in 1621.

Hitherto, little was known of the immense number of islands, with which the southern regions of the Pacific are strewed, for navigators had generally endeavoured

to follow the track of Magellan, which led him clear of them through a vast watery waste. But their illustration proceeded rapidly during the first half of the seventeenth century, in which the Spaniards took the lead, and the Dutch 'gained the most distinction. New Guinea and Australia had been sighted, while four of the superbly verdant Marquesas, were certainly discovered and named, in 1595, by an expedition from Peru, in which Quiros served as pilot-major. This officer was then sent out with a consort, in the capacity of commander, and sailed from the port of Callao, in 1605, to make further observations. During this cruise, he fell in with an island divided by a narrow isthmus, from which columns of smoke rose in various parts, shewing that it was inhabited. The natives soon made their appearance, and received their visitors in a friendly manner. They were mulattoes in colour, naked and armed, and lived in thatched houses near the margin of the sea, among groves of palms. This island, which was named Sagittaria, is generally

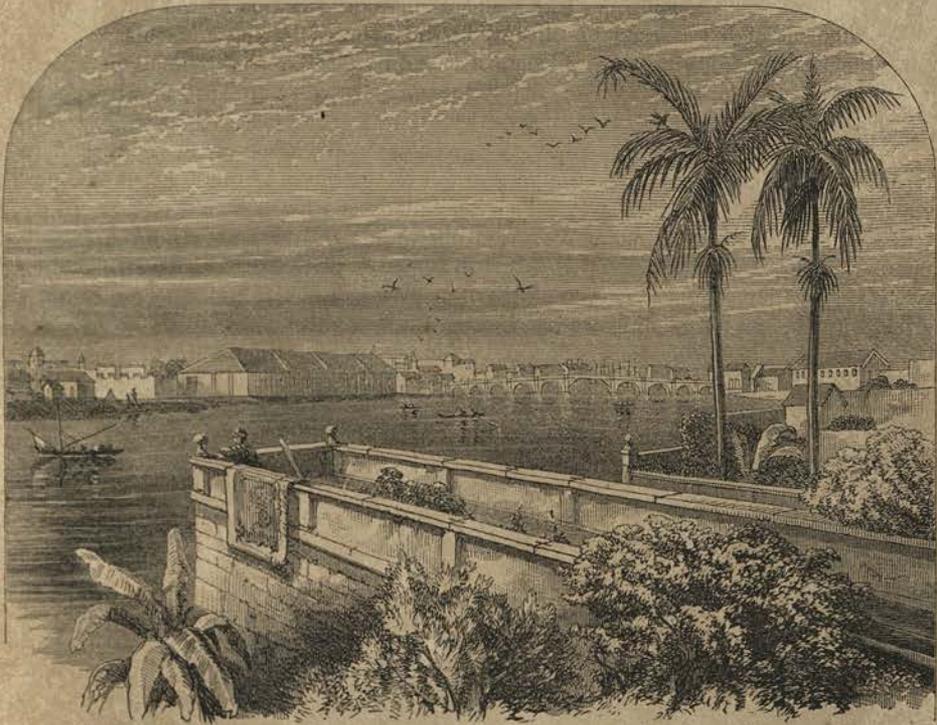


Valley of Nunanu from the Gorge of Pali, Honolulu.

believed to be the beautiful Tahiti. Pursuing his course, Quiros came at length to so many points of land of mountainous form and indefinite extent, that he conceived himself on the borders of a great southern continent, of which formal possession was taken under the name of *Australia del Espiritu Santo*. A city was designed as its capital,

to be called New Jerusalem. Two rivers were observed, one of which was of size equal to that of the Guadalquiver at Seville. The country seemed like the Garden of Eden. 'From the breaking of the dawn,' says the chronicler, 'is heard through all the neighbouring woods a very great harmony of thousands of different birds, some to appearance nightingales, black-birds, larks, and goldfinches, and infinite numbers of swallows, and besides them many other kinds of birds, even the chirping of grasshoppers and crickets. Every morning and evening were enjoyed sweet scents wafted from all kinds of flowers, amongst them that of orange flowers and sweet basil.' A storm separated Quiros from this land of promise; and being driven out to sea, he was separated likewise from his companion, and made the best of his way to Mexico, while the other vessel, under the command of Torres, prosecuted discovery.

The supposed continent was soon found, by Torres, to be an archipelago; and is usually understood to be represented by the Grandes Cyclades of the French, and the New Hebrides of Cook. Continuing the voyage, the navigator sailed through the passage, but without knowing it, which separates New Guinea from Australia. This was in the month of June 1606; and as it is distinctly said that he saw land on the south, some northerly part of the great island-continent, most probably Cape York, must have been in view. He finally arrived at Manilla, in the Philippines, and left there a copy of the letter



City of Manilla.

in which he described the expedition. Upon this city being taken by the English in 1762, the document was discovered in the archives by Dalrymple, who paid a fitting tribute to the memory of the Spaniard by calling the passage he traversed Torres Strait, a name which it has ever since retained. The Dutch had, however, been beforehand with

him by some three months in visiting the same region, in a similarly unconscious manner. It may be gathered from the course of a yacht called the *Duyfhen* or *Dove*, despatched from Bantam to explore New Guinea, that the vessel made the Australian coast about March 1606, a little to the west and south of Cape York, where the name of Cape Keer-Weer, or Turn-again, was given to the farthest point of land seen.

But very recently Mr Major of the British Museum has shewn, that the Portuguese have a prior claim to be considered the discoverers of the great region. An old map exists in the national establishment, marked with a legend inserted at the north-west corner of a country, which can be indisputably proved to be Australia: *Nuca antara foi descoberta o anno 1601 por mano el Godinho de Eredia por mandado de Vice Rey Ayves de Saldaha*—‘Nuca Antara was discovered, in the year 1601, by Manoel Godinho de Eredia, by command of the Vice Roy Ayves de Saldanha.’ The orthographic blunders of the inscription are rather evidence of integrity than otherwise. Another legend, immediately below the foregoing, shews Australia to be the country intended: ‘Land discovered by the Dutch, which they named Eendracht, or Concord.’ A considerable portion of the west coast is still called Eendracht’s Land, after the name of the Dutch discovery-ship, in 1616. The viceroy mentioned, Saldanha, held the government of the Portuguese East Indies from the year 1600 to 1604; and the discoverer specified, Eredia, was a distinguished mathematician and cosmographer, alive at Goa in the year 1615. In acknowledgment of his services in illustrating the claim of Portugal in this respect, the young king of that country, shortly before his death in 1861, conferred upon Mr Major an honorary distinction. But very probably the *first* discovery of Australia goes back to an earlier date by more than half a century than the one recorded, though still due to the Portuguese East India colonists. Various maps are extant, executed in the first half of the sixteenth century, which exhibit a vast region to the south of Java, separated from it by a narrow channel, and thence extended indefinitely southwards as far as limits allow of delineation. It may therefore be reasonably concluded, that actual knowledge was thus early acquired of the north coast, while the country received this southerly extension in harmony with the old fancy, of some immense continent being necessary in the southern hemisphere as an equipoise to the great amount of land in the northern.

The finding of a new passage into the Pacific Ocean by sailing round the islands of Tierra del Fuego, while it extinguished for ever any lingering hope which Spain might cherish of being able to guard the entrance, gave a stimulus to nautical adventure. Thereby the navigation of the Strait of Magellan, which its sinuous course and strong baffling gusts rendered in general excessively tedious, was avoidable. This was accomplished by Schouten, a practical seaman, and Le Maire, the son of a rich merchant of Amsterdam. The latter conceived it probable, if not certain, by information received from English sailors, and originally derived from Sir Francis Drake, who had been driven by rough weather far to the south, that an open sea washed the southernmost extremity of America. The event illustrated his sagacity, and justified his enterprise in despatching two vessels to make the experiment, chiefly at his own expense. Though, from boisterous winds, difficulty was experienced in rounding the islands, it was effected in the month of January 1616; and for joy of its accomplishment, an allowance of three cups of wine was dealt out to all the men. Their ordinary rations are on record, consisting of ‘a can of beere a day, foure pound of bisket, and halfe a pound of butter a weeke, besides sweet suet, and five cheeses for the whole voyage.’ Schouten called the terminating headland, which was covered with snow, Cape Hoorn or Horn, from the name of his native place, a town in West Friesland; a considerable island in the neighbourhood was styled Staten Land, in honour of the States of Holland; and the channel between it and the main shore, through

which the expedition passed, was termed Strait Le Maire, from the projector of the voyage. These names all acquired permanence. On approaching the promontory to be doubled, there was no lack of rain or mist, snow or hail. Whales were so numerous in the waters, which no ship before had cleaved, as to embarrass the pilots. Sea-birds, unused to the sight of a vessel, flew screaming around it, and, unscared by human beings, alighted upon the rigging. The scene was somewhat different a century later, as described by Captain Shelrocke, except in relation to fog, cold, and tempest. 'We had not,' says he, 'the sight of one fish of any kind since we were come to the southward of Strait Le Maire, nor one sea-bird, except a disconsolate black albatross, which accompanied us for several days, hovering about us as if it had lost itself; till Mr Hatley, observing in one of his melancholy fits that this bird was always hovering near us, imagined from its colour that it might be an ill omen; and so, after some fruitless attempts, at length shot the albatross, not doubting that we should have a fair wind after it.' This incident is supposed to have suggested Coleridge's wild *Rime of the Ancient Mariner*.

'And now there came both mist and snow,
And it grew wond'rous cold,
And ice mast-high came floating by,
As green as emerald—

At length did cross an albatross,
Thorough the fog it came—

And a good south wind sprung up behind;
The albatross did follow,
And every day, for food or play,
Came to the mariner's hollo!

With my cross-bow
I shot the albatross.

Then all aver'd I had kill'd the bird
That brought the fog and mist.
'Twas right, said they, such birds to slay,
That bring the fog and mist.'

Mariners long congratulated themselves upon getting round Cape Horn, but needlessly incurred difficulty and danger by keeping too close to the headland. Still is it notorious for tempestuous gales and mountainous billows, yet regularly passed with comparative ease and safety by the improved seamanship of our time.

It was towards the close of the same year, 1616, that the Dutch began to distinguish themselves by discovery in the waters of Australia. At that date, the ship *Eendracht*, before mentioned, made the west coast, part of which bears its name, while that of the commander, Dirk Hatichs, or, as it is commonly written, Hertoge, still denotes a cape and roadstead in one of its bays. In a very brief period afterwards, Zeachen, Edels, Leuwin, De Nultz, De Witte, and Carpenter, all Dutchmen, ran along the whole coast, north and west, with part of that on the south, and originated names which now figure in our maps. But the most important accessions to knowledge in this region were made by Tasman, who was sent out by Anthony Van Diemen, the governor of Batavia, in 1642. He proved the southerly insulation of Australia, before supposed to extend indefinitely to the pole; and reached a coast from the westward, which he called Van Diemen's Land, 'in honour of our high magistrate, the governor-general, who sent us out to make discoveries,' but which is now more generally styled Tasmania, in memory of the discoverer. A nearly-detached tract on the eastern side, to which convicts were deported, commemorates him also, as Tasman's Peninsula; and a little to the north, the name of Maria Island, where Smith

O'Brien passed his confinement, originated with the navigator in remembrance of a daughter of his patron. He subsequently came in sight of New Zealand on the north, visited several islands more fully made known by Cook, and was only occupied with the voyage for the short space of nine months and a few days. His published note-book thus commences: 'Journal or Description by me, Abel Jansz Tasman, of a Voyage from Batavia, for making Discoveries of the unknown South Land, in the year 1642. May God Almighty be pleased to give His Blessing to this Voyage! Amen.' So highly did his countrymen appreciate his services, that upon the erection of a new stadthouse at Amsterdam, they placed among its ornaments a map of the world cut in stone, marked with his discoveries. These enterprises of the Dutch led them to call the great south land New Holland, which the states-general formally imposed, and which was retained generally till the present century, when the name of Australia was adopted.

The region destined to form such an important part of our empire, and attract universal notice, owing to its auriferous wealth, was not visited by any Englishman till the time of Captain Dampier, who, while with the bucaniers, appeared on the north-west coast. After leaving the rovers, he was expressly despatched to it again by King William III, in 1689, and to him we are indebted for the first notice of its products and people. He now hit the land in the bay discovered by Dirk Hatichs, and denominated it Sharks' Bay, from the number of sharks observed in it, a name which has been retained. Dampier, one of the most faithful and graphic of all describers, having landed for water, came into contact with the natives, whose mental and physical inferiority he duly noted. 'All the signs we could make,' says he, 'were to no purpose, for they stood like statues without motion, and grinned like so many monkeys, staring upon one another.' He considered them the most miserable people in the world, in comparison with whom the Hottentots might rank as gentlemen. 'Their eyelids,' he adds, 'are always half closed, to keep the flies out of their eyes, so that they never open their eyes like other people; and therefore they cannot see far, unless they hold up their heads as if they were looking at something over them. They have no houses; lying in the open air, without covering—the earth their bed, the heaven their canopy.' When a gun was fired with a view of alarming them, they simply tossed up their arms, and after a momentary pause, said something like 'Poo, poo,' as if in mimicry of the noise. The characteristic animals of the country, the kangaroos, came under notice, and are spoken of as a kind of racoons, differing from those of the West Indies chiefly in having very short fore-legs, with which they go jumping about. Sailing to the north, a labyrinth of small islands was encountered, the Dampier Archipelago of the present day. One of them he called Rosemary Island, from a plant which seemed to be of that kind growing there in abundance. Hence Brown, the great botanist, in honour of this celebrated navigator, formed the genus *Dampiera*, consisting of thirteen species of shrubby or perennial herbaceous plants, all natives of Australia. Dampier, eulogised by Humboldt and Malte-Brun as a prince among observers, returned to his native land to sink into complete obscurity, after forty years of wandering over the world. No record exists of how he fared in his old age, or when and where he died.

The veil had by this time begun to be lifted up from the interior of the more northerly parts of America by the European colonisation of the shores. In 1607, after several abortive efforts, the English planted the first permanent settlement, fifty miles up the Powhatan, or James's river, Virginia, where James's Town still exists. In the following year, Champlain, the agent of a French trading company, who gave his name to the beautiful lake in the state of New York, founded Quebec. On the 3d of July 1608, he arrived at the high rocky wall of the St Lawrence, where his predecessor, Cartier, had moored his barks, and chose it as the site of the future capital. Experience has amply



Longitude West 20° of Greenwich

Longitude West 20° of Greenwich



shewn the wisdom of the selection, the position being nearly impregnable, while completely commanding the navigation of the river, and quite as much adapted for commerce as for war. Having felled a few trees, and uprooted the wild vines, he erected some rude huts in which to pass the winter. The first snow was seen on the 18th of November, but rapidly melted away. It fell again in December, and remained upon the ground to the end of April. From that time to the present, the climate has exhibited much the same rigour. The new settlement was very humble; for twenty years later it numbered only fifty souls, of all ages and both sexes, with a stone fort for their protection. In 1615, the Dutch established themselves on the Hudson River, and founded New York; in 1620, the second English settlement was planted by the Pilgrim Fathers at New Plymouth, near Boston; and in 1638, the Swedes commenced their colony on the Delaware.

But at the beginning of the reign of Charles II., an immense tract of country in the western world, to the south of Virginia, was an untilled wilderness, with only a few families of whites from the old settlements dotting the woods on the skirts of civilisation. Though comparatively little known, it was well reported of as a region capable of producing all the staples which thrive on the borders of the tropics; and the name of Carolina was given to it in honour of the reigning sovereign. Imagination regarded it as the 'beauty and envy of North America,' a chosen spot for the cultivation of the olive, where groves of orange-trees, and silk-worms supported by plantations of mulberries, might readily be substituted for the old forests of oak, cedar, and pine. Anthony Ashley Cooper, created Lord Ashley, and afterwards Earl of Shaftesbury, along with seven other needy and greedy courtiers, coveted this splendid territory, and it was made over to them in recognition of their services to the restored monarchy. Two of its streams—the Ashley and Cooper rivers, at the junction of which Charleston is situated—are called after him. A stroke of the royal pen constituted the proprietary sole lords of all the lands lying between the parallels of 29° and 36° 30' north latitude, from the Atlantic to the Pacific Ocean, an allotment including the present provinces of North and South Carolina, Georgia, Alabama, Tennessee, Louisiana, Mississippi, Arkansas, much of Florida and Missouri, nearly all Texas, and a large portion of Mexico. Agents were sent to spy out the country, who published flattering reports concerning it, to stimulate emigration and the purchase or rental of lands from the corporation. Bears are spoken of as in great numbers, but the more the better, since there would be no lack of bear's grease, which, it is stated, the Indians used with great effect to make the hair to grow; and if rattlesnakes abounded, there were three sorts of rattlesnake root at hand, 'all sovereign against the mortal bites of that snake.' The first batch of emigrants sailed in the year 1670, and from that period the illustration of the interior dates. They settled at Oyster Point, as the neck of land was called at the junction of the Ashley and Cooper rivers, where arose first a village, then a town, and next a city. Amidst ancient groves of pine, cedar, and cypress trees, sweeping down to the water's edge, covered with the yellow jasmine, the log-cabins of graziers antedated Charleston, with its merchants, wharfs, and shipping.

While the southern settlements were thus in progress, North America was traversed overland to its oceanic boundary towards the pole, as well as across its entire breadth from the Atlantic to the Pacific. This was effected by hardy Scotchmen in the service of the fur-trading companies. Samuel Hearne, starting from Fort Prince of Wales, in Hudson's Bay, reached the Coppermine River, and, in 1772, descended it to its mouth in the Polar Ocean, accompanied by two countrymen, and some native Indians. During this journey, which extended over sixteen months, the auroral coruscations were frequently so vivid that he could see to read very small print at midnight; and he expressly states, that these northern meteors were distinctly heard to make a crackling and rushing noise, like the

waving of a large flag in a fresh gale of wind. Other northern explorers have listened in vain for similar sounds. Hearne witnessed a scene of great horror, owing to the deadly animosity of his Indians to the Esquimaux, a common feeling between the two nations. They were constantly on the look-out for them, and finding a party at hand, nothing could restrain their fury. They crept stealthily to the neighbourhood of the unsuspecting victims; and rushed out of their concealment in the dead of night, butchering men, women, and children. The traveller likewise met with a remarkable adventure. In a desolate part of the country, the track of a snow-shoe was observed and followed. It led to a hut in which a young Indian woman was sitting alone, who told a tale of misfortune with affecting simplicity. She had been taken prisoner with her child by hostile natives, after the loss of most of her relatives. The child, too, they destroyed, upon which she contrived to effect her escape; but despairing of being able to reach any surviving friends, she had built the hut, and had lived for the last eight moons in absolute solitude. This female Crusoe had snared partridges, rabbits, squirrels, and a few beavers, for subsistence, and made clothing of their skins. Hearne describes her as one of the finest Indian women he had ever seen, and while she joined his party, it was not from any impatience of her desolate condition.

From Fort Chipewyan, at the head of the Athabasca Lake, Alexander Mackenzie, another adventurer, started in the summer of 1789, and explored the river which bears his name to the Polar Sea, where the tidal oscillation was observed, and several whales were seen sporting among the ice. Immediately afterwards he performed a more difficult undertaking; with a band of hunters and natives, he was the first to cross the continent from east to west in a northerly latitude. Setting out from Montreal for Fort Chipewyan, at that time the remotest European station westward, he passed the barrier of the Rocky Mountains, and descended to the Pacific Ocean, striking it at the head of an inlet, about latitude $52\frac{1}{2}^{\circ}$. There, on the face of a rock, beneath whose shelter the party slept, he painted the inscription with vermilion and grease, which the elements must soon have effaced: 'Alexander Mackenzie from Canada by land, the 22d of July 1793.' Under President Jefferson, in 1804, the government of the United States organised its first expeditions for interior discovery, as the result of which, the Rocky Mountains were crossed to the mouth of the Columbia River, while the Mississippi was ascended to its source. At this period, also, Humboldt brought to a close his remarkable researches in the equatorial regions of the continent, extending over four years, conducted in company with the naturalist Bonpland. During his travels, he determined astronomically the position of more than three hundred places; ascertained the bifurcation of the Orinoco, and its connection with the Amazon; studied the phenomena of earthquakes and volcanoes; marked the forms of animal and vegetable life in the great rivers and forests; crossed the icy ridges of the Andes five times; and scaled the side of Chimborazo to the height of 19,300 above the sea, the greatest altitude that had then been attained by man.



Charleston Harbour.



Reindeer Sledge-Travelling.

CHAPTER VII.

RUSSIAN DISCOVERIES—CIRCUMNAVIGATIONS OF THE EIGHTEENTH CENTURY.

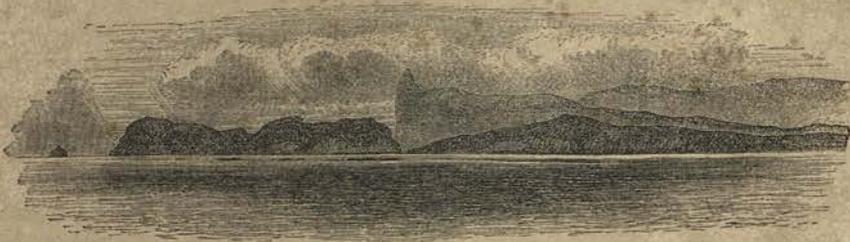


IN the path of geographical discovery thus commenced by the more advanced European nations, they were soon to be followed by the great northern people. The Russians, during this era, made acquaintance with the vast extent of northern Asia, and became its masters. Though rapidly effected, this conquest was the fruit of desultory movements, not of systematic action, and was accomplished much more by stealthy occupation than open force. Armies were not engaged in reducing this enormous tract of country, but private hunters after the fur animals, merchants, and small auxiliary bands of Cossacks. They presented themselves at first, in general, to the spare indigenous population as traders, and were received with hospitality, till, having intrenched themselves, the guests assumed the attitude of conquerors. Though some tribes submitted only to the sword, after making a brave resistance, the majority, consisting of feeble barbarians, few in number, separated by dreary distances, and ignorant of the art of war, were readily overcome by the superior address and skill of the European adventurers. It was long remembered in the local chronicles of Yakutsk, how a site was obtained for the four wooden towers and palisades of a fort, by the first settlers. Though the tale

is exactly similar to the one told respecting the foundation of Carthage, it is hardly likely to have been copied from it in the heart of Siberia, but probably refers to something which actually took place at the spot. The Yakuts granted so much land for the erection as their visitors could compass with a few cow-hides, upon which they shrewdly cut the hides into very thin thongs, and surrounded with them an area sufficient for a town, as well as a fort. However easy to overcome the natives—strangers to firearms and European modes of warfare—the task of exploring and occupying a vast region like Northern Asia, crossing immense rivers and compassing endless lakes, passing sterile mountains and barren steppes, contending with the severities of nature and encountering savage races, required indomitable energy. It strikingly illustrates the boldness, vigour, and patient endurance of the Russian colonists, with the strong temptation which valuable commercial commodities offer to perilous adventure.

It was in the year 1639, sixty years after the invasion of western Siberia, while the first Romanoff was reigning, that his subjects are said first to have caught sight of the ocean to the eastward; and when the great river Amour was first heard of. Four years later, in 1643, Pojarkof left Yakutsk, then a recent foundation on the banks of the Lena, with a party of about 130 men, in search of the southern stream. He gained the river, followed its course to the sea, then journeyed northward along the coast, and returned by a different route to his starting-point, after an absence of three years. In consequence of the favourable report made by the leader of this expedition, a stronger force was despatched to take possession of the country on the Amour. No difficulty was experienced in reducing a few Tungusian hordes; and a chain of small forts was built along the river, the principal of which were Albasin and Kamarskoi Ostrog. But eventually the Chinese interposed, and the Russians were compelled to abandon their acquisition. In 1661, Pokhabov, a Cossack, commenced a settlement upon the site of the present Irkutsk; and twenty years later, Abbot Feodosyi, with a few monks from Moscow, founded the existing monastery of the Trinity on the farther side of Lake Baikal.

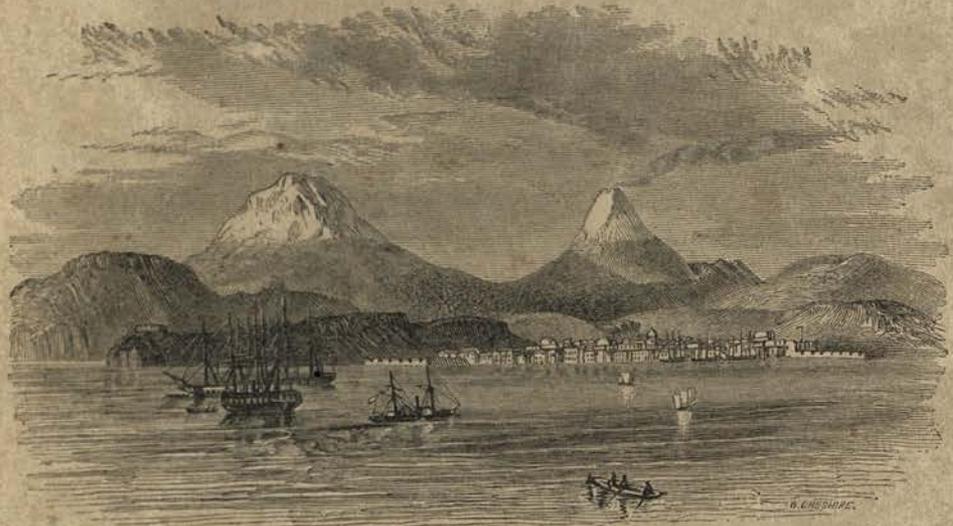
The progress of the Russians was as rapid in northern as in southern Siberia. From the banks of the Lena they passed to those of the Kolyma, and erected the first fort there in 1644. Two years later, a company of adventurers descended to the Arctic



Danger Rocks near the Mouth of the Amour.

Ocean; and followed the coast eastward to a bay of the Tchouktski, from whom a supply of walrus teeth was obtained in exchange for trifles, which tempted to another visit and further exploration. Led on by the grand attraction of furs and peltry, aptly called the 'golden fleece' of the north, the banks of the Anadir were reached in 1650, by Deshniev and Staduchin, two bold Cossacks, at the head of distinct parties, who established the fort of Anadirsk on the river, and treated the natives with great barbarity. In 1696, the first expedition to Kamtchatka started from this fort. It consisted of sixteen Cossacks, who plundered the villages under the pretence of exacting tribute; and carried

off some writings in an unknown language, afterwards ascertained to be Japanese. A larger body of invaders in the following year took possession of the river of Kamtchatka, by erecting a cross upon its banks; and soon afterwards the whole peninsula was reduced, while Bolcheresk, with the Upper and Lower Kamtchatkoi forts, were built to secure it. For some years this acquisition was of little advantage, as only a very scanty tribute of furs could be wrung from the small population. But upon the extension of the Russian fur-trade to America, the peninsula became of great importance as a point of communication between the Asiatic and the American mainland; and Petropaulovski was founded to facilitate the commerce. It is to be regretted that accounts of these



Petropaulovski.

early enterprises are meagre and obscure, for they must have involved many a romantic incident and exciting adventure, which the imagination is left to supply. It is stated that the Russians were at first treated by the more northern tribes with great veneration, and almost deified; nor did they believe it possible to hurt them by human power until the strangers quarrelled among themselves, and blood was seen to flow from the wounds they inflicted upon each other. They seem only to have encountered vigorous resistance from the Tchouktski; a warlike nation inhabiting the north-east extremity of the continent, who faced the Cossacks with intrepidity, sometimes defeated them, and when overcome themselves, killed one another to escape subjection. It was found impossible to conquer this race, though their country was repeatedly penetrated; and they have remained to the present day practically independent.

On advancing to the north-eastern extremity of Asia, a great country beyond the sea was heard of by the Russians, which might be seen in clear weather from an island in the intervening channel—a reference to America. Some men were also met with, who differed from the indigenous people; having ‘holes pierced in their lips, in which were stuck pieces of the teeth of the sea-horse’—natives of the adjoining continent. But not satisfied with vague rumours, Peter the Great determined to have the problem of the relative position of Asia and America solved. In almost his last moments he wrote instructions to Admiral Apraxin for a voyage as follows: 1. To construct at Kamtchatka,

or other commodious place on the eastern ocean, one or two vessels; 2. With them to examine the coasts towards the north and towards the east, to see whether they were not contiguous with America, since their end was not known; 3. To see whether there was any harbour belonging to Europeans in those parts; and to keep an exact journal of all that should be discovered, with which the commander was to return to St Petersburg. The execution of this mission was committed to Captain Vitus Behring, a Dane by birth, who was accompanied by Alexei Tchirikof, as his second in command.

Owing to the vast distance between St Petersburg and the nearest Siberian ports, which had to be traversed by officers, mariners, shipwrights, and other artificers, who had then to construct the vessels, more than three years elapsed after the instructions were given before the expedition was equipped. On the 14th of July 1728 it sailed from the river of Kamtchatka. The commander ascertained the separation of Asia from America on this voyage by passing up the intervening channel; and posterity has justly bestowed upon it the name of Behring's Strait. But either from unfavourable weather, or from keeping close to the Asiatic shore, he never caught sight of the American coast. This was reserved for Krupishef, a Cossack, who sailed from Kamtchatka in 1731, in order to co-operate with a land-expedition into the country of the Tchouktski. Forced by a gale of wind from the point of land where Behring's voyage had terminated, and driven to the eastward, he found, first an island, and then a country of great extent. Soon after it was seen, a man came off in a canoe resembling those of the Greenlanders. It could only be ascertained that he was an inhabitant of a large country, where there were many animals and forests. The Russians followed the coast of this region two whole days without landing, when a storm came on, and they returned to Kamtchatka. This completed the discovery of the strait by observation of both sides of the channel; and the fact of the proximity of the continents was added to that of their separation.

Ten years later, in 1741, Behring was commissioned to undertake another voyage, and sailed on the 4th of June in the *St Peter*, with a companion-vessel, the *St Paul*, under the command of Tchirikof. Being separated by a storm in the midst of a thick fog, soon after starting, they proceeded independently, and never met again. Both were successful in their immediate object, and both encountered mournful reverses. Tchirikof made the coast of America, where the shore was steep and rocky, the surf high, and remained at anchor in deep water, while the mate went in the long-boat with ten men to endeavour to effect a landing. They were seen from the ship to row into a bay. A small cape then hid them from view, and neither barge nor men ever reappeared. In search of them, the boatswain and six men were despatched. These likewise never returned, nor was any intelligence gathered of the fate of either party. But a large volume of smoke was observed ascending from the shore; and two canoes came off towards the ship, filled with natives, who, as soon as they saw the number of persons on deck, instantly ceased rowing, and remained at a cautious distance. They then stood up, shouting, 'Agai, agai!' and returned with all speed to the strand. After cruising in the neighbourhood for some days, in the hope of recovering his men, Tchirikof reluctantly took his leave, and regained Kamtchatka. Behring likewise came in sight of the continent at a point where the prospect was grand but gloomy. Mountains of great elevation were discovered covered with snow, to the highest of which, some distance inland, Steller, the German naturalist, who accompanied the expedition, gave the name of Mount St Elias, which it still bears. This is the culminating-point of North America, rising to the height of 17,860 feet above the level of the sea. A party landed, and noticed many traces of natives, but none of them were seen. Some islands were afterwards met with, part of the Aleutian chain, and communication was held with the islanders, who seem to have

made friendly advances with foul intentions, but had no opportunity to carry them into execution.

A succession of disasters now befell Behring and his crew, which have seldom been equalled in the annals of navigation. He became ill; scurvy made its appearance among the men; and the weather was frightful. A storm raged without ceasing for seventeen days, during which the vessel drifted before the wind. The most experienced seaman on board, who had been in almost all parts of the world, declared he had never witnessed such a long and terrible gale. No sun was seen by day, and no stars by night. 'The general distress and misery increased so fast,' says Steller in his journal, 'that not only the sick died, but those who still struggled to be numbered on the healthy list, when relieved from their posts, fainted and fell down dead, of which the scantiness of water, the want of biscuits and brandy, cold, wet, nakedness, vermin, fear and terror, were not the least causes.' While the commander was hopelessly disabled, the ship was cast on a desolate shore, now known as Behring's Island, where, from the advance of the season, and the damaged condition of the vessel, the crew was compelled to take up winter-quarters. There were no inhabitants, no grass or antiscorbutic plants, no trees, though drift-wood was found on the beach. Pits or caverns were excavated in some sand-hills to serve for dwellings. Behring was carried ashore by four men, on the 9th of November, and placed in one of them. 'We saw,' states Steller, 'the most dreadful and terrifying objects. The foxes mangled the dead before they could be buried, and were even not afraid to approach the living and helpless who lay scattered here and there, and smell to them like dogs. This man exclaimed that he was perishing of cold; the other complained of hunger and thirst; and their mouths were so much affected by scurvy, that their gums grew over their teeth like a sponge. The stone-foxes, which swarmed round our dwellings, became so bold and mischievous, that they carried away and destroyed different articles of provision and clothing. One took a shoe, another a boot, a third a glove, a fourth a coat; and they even stole the iron implements, while all attempts to drive them away were ineffectual.'

Behring died on the 8th of December, having been previously half-buried alive. The sand rolled down continually from the sides of the cavern in which he lay, and covered his feet. He would not allow it to be removed as it kept them warm, while the other parts of his body were cold. It thus gradually increased upon him till he was almost wholly concealed, and when he expired, it was found necessary to unearth him, before he could be interred. He displayed, according to Steller, 'the most affecting resignation to the will of the Supreme Being, and enjoyed his understanding and speech to the last. He was convinced that the crew had been driven to an unknown land; yet he would not terrify others by declaring his opinion, but cherished their hopes, and encouraged their exertions. He was buried according to the Protestant ritual, and a cross was erected over his grave to mark the spot, and to serve also as an evidence that the Russians had taken possession of the country.' A remnant survived the winter in this dreadful residence, subsisting on the flesh of the sea-otter, with the carcass of a stranded whale; and were able, in the ensuing summer, to construct a vessel out of the timbers of the wreck with which to return to Kamtchatka.

A Russian America was the result of this ill-fated voyage. Hearing from the returned crew, that the shores visited abounded with foxes, sables, ermines, and sea-otters, the Siberian merchants formed themselves into small trading companies to fit out vessels, and sail in the same track. The sea-otters, or sea-beavers, as the traders called them, from the resemblance of their fur to that of the common beaver, were eagerly sought after, as their skins always realised a high price from the Chinese. The animals were taken

in nets, surprised in caverns, speared while asleep, and hunted in boats till they were worn out. In 1745, the agents of these private companies reached the Aleutian Islands, and brought the first tribute of furs from thence to Okhotsk in 1750. To this archipelago the attention of the governor of Siberia at Tobolsk was directed, in 1750, as an imperial possession included in his government. Upon the stock of fur-animals supplied by the islands becoming exhausted, the hunters passed to the adjoining continent; and gradually established these settlements and factories, upon more than 300 leagues of coast, which now constitute the American possessions of the Russian crown, and stretch to the British territories. Great horrors were perpetrated in this Trans-Pacific extension of the empire. The proceedings of one of the first parties to visit the Aleutians, being submitted to a court of inquiry in Kamtchatka, upon information of some of the men, it appeared in evidence, that fifteen of the male islanders had been shot in order to seize their wives; and that the merchant Tsiuproff had deliberately proposed to poison the other males with a mixture of corrosive sublimate, with the same object in view. Afterwards, to secure the services of the able-bodied, it was the usual practice, upon visiting a new island, to kidnap the children, and hold them as hostages for the due performance of slave-labour, in hunting and fishing, by the unhappy parents. Under oppressions of this kind, the aborigines rapidly dwindled, and were nearly exterminated.

Soon after ports had been established on the east coast of Siberia, the attention of the Russians was directed to Japan, as a convenient mart for their furs. Shipwreck first made them personally acquainted with the people of that remarkable empire. A Japanese vessel, richly laden with silks, cotton, rice, and pepper, being driven by stress of weather out of its course, was stranded upon the coast of Kamtchatka. The crew reached the land, and saved the most valuable part of the cargo. But some Cossacks murdered the whole party except two, and seized the property. The survivors, an old man and a boy, were sent to St Petersburg, and arrived there in 1732. This called the notice of the government to their country; and in order to ascertain the exact situation of Japan with respect to Siberia, two officers, Spangberg and Walton, were directed to sail thither in 1739. They accomplished the mission, and had some intercourse with the inhabitants, till the authorities interfered, and prohibited personal communication with the ships. During this expedition, the subjects of Russia approached for the first time the tracks of other Europeans in the Pacific Ocean. Another shipwreck of a Japanese vessel on the Copper Island, off the coast of Kamtchatka, occurred in the reign of the Empress Catherine II., and led to a new attempt to establish commercial dealings. The master and sixteen sailors were saved, and conducted to Irkutsk, where they resided several years, when the former was brought by Professor Laxmann to St Petersburg. Deeming the opportunity favourable for negotiation, the empress sent the strangers back, accompanied with an envoy and presents. But only permission to trade under the same restrictions as the Dutch, by sending a vessel annually to the harbour of Nungasaky, was obtained from the Japanese government.

The illustration of the Asiatic portion of the empire was zealously prosecuted in the reign of Catherine, by both inland and maritime expeditions, at the expense of the government. The Academy of Sciences was charged with the selection of competent men to travel, and drew up instructions for their guidance. They were to examine and report upon the nature of the soil and of the waters, the means of putting the desert places into cultivation, the actual state of agriculture, the most common diseases both of men and cattle, with the methods in use for healing and preventing them, the breeding of cattle, particularly sheep, and that of bees and silk-worms, the fisheries and the chase, minerals and mineral-waters, valuable plants, and the position of places, with miscellaneous points

of geography and meteorology. The celebrated six years' journey of Pallas, from 1768 to 1774, resulted from this project, with whom Gmelin, Georgi, Falk, Rytshkof, Lepekhin, and Guldenstadt were associated, prosecuting independent inquiries. But an obscure fur-trader, named Lachow, accomplished more than the learned travellers. In 1770, having occasion to visit the shore of the Arctic Ocean, he saw while there a herd of reindeer coming from the north over the ice. Guided by the track of the deer, he travelled with sledge and dogs over the ice-fields nearly fifty miles, till he came to an island, beyond which was another. Having readily obtained the right of exclusive hunting on these islands, he proceeded further in another journey, and discovered the largest in the group, which has since borne his name, and is also called New Siberia. There are few spots geologically more remarkable on the face of the globe. Hills of fossil-wood line the shores, while immense tracts, even whole islands, are composed of the tusks and bones of mammoths, rhinoceroses, and other extinct pachyderms, rolled in sand, gravel, or alluvial earth, cemented by ice. These 'Adamic things,' or 'things of Adam's time,' as the uneducated hunters call the remains, in allusion to their antediluvian origin, mysteriously occur in the frozen soil of Siberia, though in much smaller quantity. Upon the discovery, the search for ivory was added to the quest for furs.

To define the north coast of Siberia—an object often-attempted, but not yet completely performed—Billings, an officer who accompanied Captain Cook on his last voyage, was employed by the empress in 1787. He descended the Kolyma River to its mouth, and attempted to follow the coast eastward, but soon abandoned the enterprise, owing to difficulties from the ice. Being subsequently appointed to survey the country of the Tchouktski, he was equally unsuccessful. That bold and independent people jealously watched the movements of the exploring-party; would not allow their visitors to write any observations; and took away their measuring-lines. Water and fuel for cooking they supplied, but required immediate payment, while, taking a fancy to the ornamental buttons on the coats of their guests, they cut them off without ceremony. In 1790, Billings visited the Aleutian archipelago, and has the merit of having revealed to the government the abominable cruelty with which the natives were treated by the Russian traders. But his representations had little or no effect in arresting oppression, owing to remoteness from the seat of authority. A few years afterwards, the Russian-American Company was formed, consisting of merchants chiefly at Irkutsk, who obtained from the emperor Paul the exclusive right to the peltry of the Aleutian Islands and adjacent coasts—a privilege soon extended to that of all Russian America. Under the auspices of this body, New Archangel, on the southern Sitka Island, also called Baranoff Island, was founded as the capital. Here, for a long term of years, Count Baranoff reigned as governor, answering the expectations of the Company, but otherwise consulting his own humour in the administration of affairs, encouraged by the proverb, 'God high, and the emperor afar off!'

The navigation of the Pacific Ocean, long neglected by the countrymen of Drake and Cavendish, was resumed by them towards the middle of the eighteenth century with ardour and remarkable success. In 1740, Captain, afterwards Lord Anson, sailed thither in the *Centurion*, with a considerable squadron; but as this was a warlike armament commissioned to attack the trade and possessions of Spain, nothing was effected in the way of geographical discovery. The voyage was very memorable on account of the dreadful sufferings of the crews, the fortitude they displayed, and the prudence of the commander. Off Cape Horn, the mountainous billows encountered seem to have taken them by surprise, and occasioned many severe injuries. 'Our ship,' says one on board the *Centurion*, 'was nothing to them; but, notwithstanding her large bulk and deep hold in the water, was

tossed and bandied as if she had been no more than a little pitiful wherry.' The scurvy then broke out, and took off the old men so rapidly, while enfeebling the rest, that it was not uncommon to see four or five dead bodies at a time rolling about on the decks for want of help to bury them in the sea. The wounds of veterans, received more than fifty years before, broke out afresh, as if they had never been healed. An anecdote related by Dr Beattie conveys a livelier idea of the intense misery than any description. He once asked a survivor if he had read the history of the voyage, written by the chaplain; and received the reply, that he had read the whole except the description of the run from Cape Horn to Juan Fernandez, during which the suffering was so great, that he durst not recollect or think of it. Anson, by various mishaps, lost all the ships but his own, which he brought home, after an absence of three years and nine months, laden with a vast amount of treasure taken from the Spanish galleons, having circumnavigated the earth. This, being still regarded in the light of a feat, along with the value of the cargo, caused his return to be hailed with general exultation. The *Centurion* had for her figure-head a lion carved in wood, which was long preserved in the stable-yard of a small inn at Waterbeach, in Sussex, with the following inscription :

'Stay, traveller, awhile, and view
 One who has travelled more than you.
 Quite round the globe, through each degree,
 Anson and I have ploughed the sea,
 Torrid and frigid zones have past ;
 And safe ashore arrived at last,
 In ease with dignity appear,
 He in the House of Lords, I here.'

Anson lost an anchor at Tinian, one of the Ladrone Islands, where he landed his sick. It remained submerged nearly a century, when it was hooked up by a whaler, comparatively little corroded, but with the wooden stock completely rotted off.

With discovery expressly in view, the government despatched the Hon. Captain Byron, who had been out in Anson's fleet, as a midshipman, on board the *Wager*, which was wrecked, and Byron wrote a graphic narrative of the horrors of its shipwreck. 'So terrible was the scene of the foaming breakers,' he remarks, 'that one of the bravest men we had could not help expressing his dismay at it, saying it was too shocking a sight to bear, and he would have thrown himself over the rails of the quarter-deck into the sea had he not been prevented.' Lord Byron, his grandson, is supposed to have had this passage in view in the lines :

'Then shrieked the timid, and stood still the brave—
 Then some leaped overboard with dreadful yell,
 As eager to anticipate their grave.'

Byron sailed in the *Dolphin*, in 1764, the first vessel in our navy that was sheathed with copper. He surveyed the Falkland Islands, of which only a glimpse had before been caught. Dreading Cape Horn, of which he had experience in the former voyage, he entered the Pacific by the old route of the Strait of Magellan, but was more than seven weeks in effecting the passage of the gusty channel. The *Dolphin* was commissioned a second time for enterprise, in 1766, under Captain Wallis, who was accompanied by Captain Carteret in the *Swallow*. These ships were nearly four months in getting through the strait, and immediately parted company, not to meet again. Wallis discovered Whitsunday, Egmont, and Queen Charlotte's Islands, described Tahiti for the first time, and did not see a single vessel, after separating from his comrade, till he reached Batavia. Carteret made known a spot without inhabitants, but with wood and water, destined to become famous as the place to which the mutineers of the *Bounty* repaired. He gave it

the name of Pitcairn's Island, from that of the young officer to whose eye it first appeared.

The French were at this time making their first circumnavigation of the globe under Bougainville, who returned to St Malo on the 16th of March 1769, after an absence of two years and a quarter. Some six months before, the great illustrator of the southern hemisphere, Captain Cook, had sailed from the Channel. This eminent man, born in a mud-built cottage near Stockton-upon-Tees, employed his leisure hours as a common seaman to remedy the defects of early education, and obtained the notice of his superiors by professional ability; he was selected, while a lieutenant, to go out to some suitable station south of the equator to observe the transit of Venus in 1769. Upon the recommendation of Wallis, who had just returned from his circumnavigation, Tahiti was fixed upon as the most eligible spot. The Royal Society appointed Mr Green, of the Greenwich Observatory, astronomer of the expedition; Dr Solander, a Swede, connected with the British Museum, was engaged as naturalist; and Mr, afterwards Sir Joseph Banks, with draughtsmen and other assistants, enlisted in the enterprise at his own expense. Cook sailed from Plymouth in the *Endeavour* on the 26th of August 1768, and touching at Rio Janeiro, found it impossible to convey any other idea of his mission to the Portuguese governor than that he was going to witness the north star on its passage through the south pole! Cape Horn was doubled in thirty-four days, and on the 9th of April 1769, the high mountains of Tahiti were faintly discerned. Received in a friendly manner by the islanders, and having a stay of some length in view, the commander drew up a set of rules to be observed by the men, in order to preserve a good understanding with the natives. The astronomical instruments were landed, and the observatory set up on the 1st of May. To guard as much as possible against the main object of the expedition



Mount Egmont, New Zealand.

being frustrated by transient obscurations of the heavens, two parties were detached to observe at different stations, one on the same island, the other at Eimeo, at some distance to the westward. The evening prior to the important day, June the 3d, was a beautiful

one. But solicitude did not allow the parties to take much rest during the night, one or the other rising to report the changes of the sky. All were on foot by daybreak, and saw the sun rise from the sea without a cloud. Scarcely a vapour dimmed the heavens from sunrise to sunset; and the whole passage of Venus over the disk was observed in the most satisfactory manner.

Having fulfilled the immediate object of the mission, Cook, in pursuance of his instructions, addressed himself to discovery, and visited the neighbouring islands, giving them the name of the Society Islands, by which they are still distinguished. In October a great range of land was observed on the horizon, which, from its extent, and mountainous aspect, was at first conceived to be part of the long-conjectured southern continent, *Terra Australis Incognita*. Its circumnavigation dispelled this idea. Landing at one point, the commander saw to his surprise, from the top of a lofty hill, the country divided by the sea into two large islands, since called New Zealand; he sailed through the channel thus discovered, which geographers have since recognised as Cook's Strait. He next sailed 2000 miles along the whole eastern side of Australia, previously unvisited; and originated the name of New South Wales, from some fancied resemblance of the country to the South Wales of England. The first point at which the expedition landed was a bay, on the shores of which Banks and Solander botanised, and called it Botany Bay from the number of new plants observed, afterwards a well-known name at home, as the site first selected for a penal colony. A brass-plate on the cliffs now marks the supposed landing-place. While here, one of the crew, Forbes Sutherland, a native of the Orkneys, died, and was carried on shore and interred, May 1, 1770, being the first British subject buried in Australian soil. The grave was chosen near a small fresh-water creek, and from the circumstance an adjoining tongue of land is now known as Sutherland Point. Eighteen years later, the first Frenchman was interred near the same spot, M. le Receveur, an ecclesiastic and naturalist, belonging to the expedition of the unfortunate La Perouse. Resuming the voyage northward along the coast, the *Endeavour* struck on a coral-rock; and, as was afterwards discovered, only escaped foundering by a fragment of the rock remaining in the hole made in the bottom of the vessel. A convenient harbour being found, the ship was hauled ashore to undergo repairs, when the naturalists were equally surprised and delighted by the appearance of some kangaroos. Cape Tribulation, Endeavour Reef, and Endeavour River, are memorials of the incident. Passing through Torres Strait, the navigator made the best of his way home, and came in sight of it on the 10th of June 1771, having employed two years and eleven months in his voyage round the earth.

Though it was evident that neither New Zealand nor Australia answered to the imagined southern continent, speculative geographers' clung to the idea of its existence in the higher latitudes of the southern hemisphere; and Cook was commissioned to undertake a second voyage for the express purpose of settling this long-controverted point. He took his departure in the *Resolution*, on the 13th of July 1772, accompanied by Captain Furneaux in the *Adventure*. Messrs Wales and Bayley went out as astronomers; Reinhold Forster and his son as naturalists, who were joined by Dr Sparrmann at the Cape of Good Hope; and a competent artist was engaged as draughtsman. This voyage was the greatest maritime achievement hitherto performed, and no expedition has since been conducted with greater skill and success. It exploded the notion of any habitable world existing in high southern latitudes. Three times the antarctic seas were traversed; the high latitude of $71^{\circ} 15'$ was on one occasion reached; and the entire extent of the South Pacific and Atlantic Oceans was crossed. No land was seen in the course of a run of one hundred and seventeen days over 3660 leagues. But with a sagacity

which has been justified, the navigator expressed the conviction, that 'there is a tract of land near the pole, which is the source of most of the ice that is spread over this vast southern ocean.' Besides determining the question for which he was specifically employed, Cook explored the group of the New Hebrides, and gave them that name; discovered the large island of New Caledonia, Norfolk Island, and New South Georgia; and illustrated the Marquesas and Friendly Islands. He landed at Portsmouth on the 13th of July 1775, after an absence of three years and a sail of 20,000 leagues, having lost but four men of his own vessel, and only one of them by sickness. Omai, a native of Ulitea, one of the Society Islands, came back with the voyagers at his own request, and as the first South-sea islander seen in England, naturally excited intense curiosity. George III. allowed him a pension during his stay; Dr Johnson dined by his side; Reynolds painted his portrait; and Cowper sung of his lot on returning to his countrymen.

'The dream is past; and thou hast found again
Thy cocoas and bananas, palms and yams,
And homestall thatched with leaves. But hast thou found
Their former charms? And, having seen our state,
Our palaces, our ladies, and our pomp
Of equipage, our gardens, and our sports,
And heard our music; are thy simple friends,
Thy simple fare, and all thy plain delights,
As dear to thee as once? And have thy joys
Lost nothing by comparison with ours?—
Methinks I see thee straying on the beach,
And asking of the surge that bathes thy foot,
If ever it has washed our distant shore.
I see thee weep, and thine are honest tears,
A patriot's for his country; for thou art sad
At thought of her forlorn and abject state,
From which no pow'r of thine can raise her up.
Thus Fancy paints thee, and, though apt to err,
Perhaps errs little, when she paints thee thus.
She tells me, too, that duly every morn
Thou climb'st the mountain-top, with eager eye
Exploring far and wide the wat'ry waste
For sight of ship from England.'

The imagination indulged by the poet of *The Task* was not destined to be realised, for when again among his countrymen, Omai laid aside his European dress, lapsed into the indolence and habits of former life, and soon died.

Without waiting to be solicited, Cook offered to attempt the solution of another geographical problem, which engaged the attention of the government. This was whether any water-passage existed from the north-west coast of America to Hudson's or Baffin's Bay. His services being gladly accepted, he sailed in the *Resolution*, on the 12th of July 1776, with Omai on board, and was joined by the *Discovery* under Captain Clerke at the Cape of Good Hope. Upon landing at a small island never visited before by any Europeans, it was found to contain three natives of the Society Isles, the countrymen of Omai. They were the sole survivors of about twenty persons of both sexes, who, while proceeding in a canoe from Tahiti to Ulitea, had been overtaken by a storm, and driven to the spot, a distance of at least 200 leagues from home. Before reaching it, their comrades perished through the upsetting of the canoe, to which the three who escaped had been able to cling. This incident, as the great navigator states in his journal, 'will serve to explain, better than a thousand conjectures of speculative reasoners, how the detached parts of the earth, and, in particular, how the islands of the South Sea, may have been first peopled, especially those that lie remote from any inhabited continent

or from each other.' Leaving the southern for the northern regions of the Pacific, four of the Sandwich Islands were discovered in January 1778, and received that name in honour of the First Lord of the Admiralty. New Albion was then coasted; and Cook anchored in a bay on the west side of Vancouver's Island, which he called Nootka Sound, from the name of an Indian village on the shore. After some harmless trafficking, he departed for high latitudes, in search of a passage round the continent. Sailing through Behring's Strait, in the middle of August, the latitude of $70^{\circ} 44'$ was attained, where further advance was arrested by a wall of compact ice. A headland at this point, called Icy Cape, remained the limit of discovery till the year 1816, when it was passed by Captain Beechey.

Expecting to renew the attempt in the ensuing summer, the ships returned to the Sandwich Islands to pass the winter, and employ it in completing the survey of the group. The largest of them was now met with, Hawaii. But here, in the convenient harbour of Karakaooa Bay, the illustrious commander was destined to lose his life in a collision with the natives. This tragic and mournful event took place on the 14th of February 1779. It might have been prevented but for the humanity of the victim, who would not allow the marines to fire, even when the danger was imminent, still hoping to quell the tumult by peaceful means. His remains were mutilated and partly burned by the savages; but some portions were recovered, and committed to the deep with the usual military honours. It is affirmed also, that fragments were long preserved and worshipped by the islanders. In 1828, the officers of the *Blonde* raised on the place where the body of the distinguished voyager is said to have been burned a cross of oak with an inscription; and many a pilgrimage has been paid by Europeans to the spot where he fell, not without taking away pieces of the dark lava rock of the site as memorials. The highest honours were paid to the memory of Captain Cook by his countrymen; but his noblest monument are the five Australian colonies, for it was owing to his report respecting Botany Bay that the first was commenced. After an ineffectual attempt to get further north than on the former occasion, Captain Clerke, who had succeeded to the command of the expedition, expired at sea of a decline. He was buried at Petropaulovski, while minute-guns were fired by the Russian garrison. The two ships, thus deprived of their original commanders, at once returned home, and reached the Nore on the 4th of October 1780, after an absence of four years and two months. During this long interval, only five persons had died by sickness on board the *Resolution*, while not a single death had taken place in the *Discovery*; and the vessels had never lost sight of each other for a whole day together except twice.

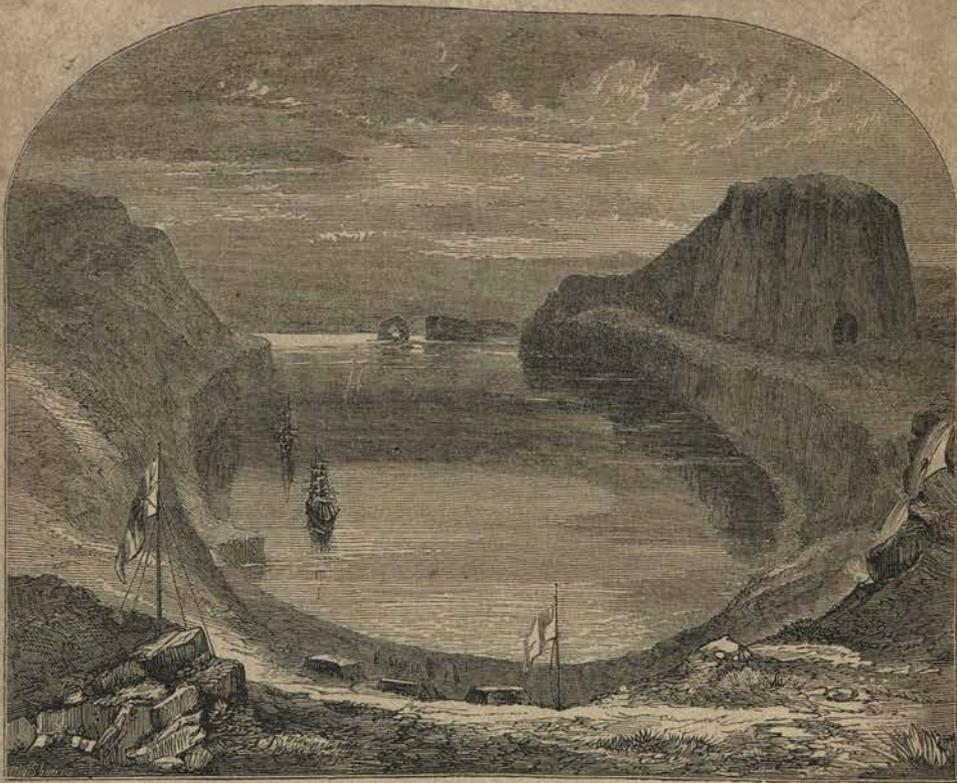
The more northerly waters of the Pacific were next visited by La Perouse, with two fine frigates, the *Boussole* and the *Astrolabe*, in the year 1786; and a considerable extent of coast was examined on both sides, in compliance with instructions received from the French government. He left his name to the strait which separates the island of Saghalien from the northerly part of the Japanese Archipelago. Touching at Petropaulovski, he repaired to the tomb of Captain Clerke, and caused the inscription to be engraved on a brass-plate the better to preserve it. From this point he sent a young officer, M. Lesseps, overland to France with dispatches, who effected the arduous journey, and was the first to cross the old world in the line of its greatest extent. Perouse was a highly-accomplished man, but most unfortunate as a navigator. On the north-west coast of America, he lost twenty-one of his men by the upsetting of two boats at the entrance of a harbour, through the violence of the surf; and while at the Navigators' Isles, his fellow-commander in the *Astrolabe*, with the naturalist of the expedition, and nineteen men, fell in an affray with the natives. The two ships were in Botany Bay in 1788, when the

English vessels were there which took out the first Australian colonists, and Perouse sent from thence his last communication to Europe. Nothing was heard of him after sailing away through nearly forty years, though diligently sought for. In 1827, Captain Dillon partly removed the mystery from his fate. From various articles of French manufacture found at one of the Queen Charlotte Islands, as well as from some information obtained at the spot, it was certainly proved that both ships were there lost on a coral-reef. What became afterwards of the crews was not clearly ascertained, but not a man ever returned to the civilised world. The relics, consisting of a sword-guard bearing the initials of La Perouse, fragments of a theodolite and of barometer tubes, several brass guns, and fragments of china, were carefully collected and conveyed to Paris.

During the second and third voyages of Captain Cook, a midshipman served under him, George Vancouver, who is mentioned as having been sent to Captain Clerke for instructions on the morning after the murder of the commander. Rising in his profession, he was despatched in 1791, with two vessels, to renew the examination of the north-western shores of America. In this service, he proved the insularity of the land which has been called after him, Vancouver's Island. Having entered the channel which separates it from the territory of Washington, before thought to be simply an inlet of the sea, he followed its course, and landed on a small islet nearly opposite the spot on which the new city of Victoria has been planted. It was a beautiful May-day morning. The landscape, upon which no white man had gazed till then, was comparable to the most elegantly-finished pleasure-grounds. There were lawns covered with luxuriant grass, diversified with an abundance of flowers, and studded with clumps of noble pines. It was difficult to conceive of being in a country which had not been subject to the softening hand of cultivation, and the explorers were reminded of 'certain delightful and beloved situations in Old England.' Strawberries, gooseberries, raspberries, currants, sweetbrier, and roses, were noticed in a state of considerable forwardness. Pushing through a labyrinth of isles and examining numerous inlets, the main ocean was regained upwards of two hundred miles north of the point where it had been left, thus proving the insularity of the intervening ground. The principal channel separating it from the continent was called the Gulf of Georgia. The region in general received the name of New Georgia, but is now known as British Columbia, of gold-bearing celebrity, constituted in our own time a distinct colony of the crown.



Dillon's Rock, Queen Charlotte's Island.



Christmas Harbour, Kerguelen Island.

CHAPTER VIII.

ARCTIC AND ANTARCTIC EXPEDITIONS.



At the close of the long continental war, when the seas were clear of an enemy, and vessels were available for peaceful pursuits, the British government determined to resume an enterprise early projected, repeatedly attempted, but now long suspended—that of passing from the Atlantic to the Pacific by the north of America. Various facts placed beyond the possibility of doubt the existence of a north-west passage, particularly the striking circumstance, that whales breaking loose after being struck in the Greenland waters had been captured in Behring's Strait with the harpoons adhering to them. It only remained, therefore, to discover and follow if possible the line of communication.

To effect this object, Captain Ross, an officer of experience and reputation, was despatched in the *Isabella*, accompanied by Lieutenant Parry in the *Alexander*. The ships left the Thames on the 18th of April 1818, and by the close of the following month, they were sailing in the midst of lofty icebergs of the most varied forms and tints. The

commander made the round of Baffin's Bay, confirmed the general accuracy of the old navigator's delineation of it, and returned home with the conviction that it afforded no entrance into any western sea, but only examined very superficially several promising inlets in that direction, especially Lancaster Sound. At one point of the voyage, the strange spectacle was observed of a range of cliffs, 600 feet high, and 8 miles in length, covered with snow of a deep red colour, which, when thawed, had the appearance of muddy port wine. A portion was brought away for the purpose of being submitted to analysis. A substance, thus tinted, with which we never fail to associate ideas of the purest whiteness, naturally excited great interest. The peculiarity was found to be occasioned by the presence of multitudes of minute cryptogamic plants, which penetrate to a great depth in the snow, and vegetate in the severest weather.

The result of this voyage was very disappointing, but it did not dishearten. Owing to lack of ardour, or precipitancy in forming opinions without waiting for decisive evidence, it was clear that the commander had made no conclusive search of the shores visited. This was the judgment of his own officers, and especially of his second in command in relation to Lancaster Sound, who affirmed that he had seen no barrier to its navigation westward. No hesitation was therefore felt in placing him at the head of a second expedition; and Lieutenant Parry fully justified the confidence reposed in him, and established the correctness of his own views. He left the *Nore* on the 11th of May 1819, with the *Hecla* and *Griper*, and made the entrance of Lancaster Sound on the 30th of July. On advancing up the great inlet, a fresh easterly breeze carried the ships rapidly to the westward; and after sailing 150 miles from the mouth, it was still found to be a noble channel at least 50 miles broad. All eyes kept an anxious look-out for obstructions, but none appeared. The mast-heads were crowded with officers and men; and reports from the crow's-nest were in constant demand below. The sea continued deep, had the colour of the ocean, and being free from ice, our navigators began to entertain the hope with confidence of effecting the North-West Passage; and though doomed to be disappointed, they had compassed more than 30° of longitude since leaving Baffin's Bay, reaching the meridian of 110° W. by the 4th of September; by which they became entitled to the reward of £5000 promised by parliament to the first ship's company who should attain it.

The ships were now on the south coast of a large island, to which the name of Melville Island was given. The winter was rapidly approaching. Young ice began to form on the surface of the waters, retarded only by winds and swells, warning the commander to select a suitable station in which to moor his vessels for the dreary season. This was found in a roadstead called, from the use made of it, the Bay of the *Hecla* and *Griper*, at the head of which, about a cable's length from the beach, they were put into winter-quarters. The spot was indicated by the name of Winter Harbour. Certain of being confined for eight or nine months, during three of which the cheering light of the sun would be absent, Parry was indefatigable and ingenious in endeavouring to render the position of his crews as tolerable as possible. When prevented by the weather from leaving the vessel, exercise was enforced upon the men, who were led in a frolicksome way to run round the decks, keeping time to the music of an organ. Two or three hours daily, when practicable, the officers took a regular walk, but never proceeding further than a mile from the ships, lest they should be overtaken by snow-drift; and other necessary precautions were taken to secure their health, and preserve them from that depression of spirits which the want of customary employment, the long interval of gloom, the monotony of the scene, and the frequent

inability to take open-air exercise from the severity of the weather, were likely to produce; for now

‘The earth is rock—the heaven
The dome of a greater palace of ice.’

—‘Dull light distils through frozen skies,
Thickened and gross. Cold fancy droops her wings,
And cannot range. In winding-sheets of snow
Lies every thought of any pleasant thing.
I have forgotten the green earth—
My heart assumes the landscape of mine eyes,
Moveless and white, chill blanched with heaviest rime.’

The vessels were roofed entirely over with thick wadding tilts, like those which are used for covering wagons; and the stores were removed to the beach, to provide more room for locomotion on the decks. As sailors are proverbially careless of themselves, the officers assembled them daily, to see that they took a quantity of lime-juice and sugar, as a preservative from scurvy. Their gums and shins were carefully examined, in order to detect the earliest symptoms of the disease. To amuse them, arrangements were made for the occasional performance of a play; and *Miss in her Teens*, with a Christmas piece composed for the occasion, was acted to the unbounded delight of the tars. For their own recreation, the officers started a manuscript publication, *The North Georgia Gazette and Winter Chronicle*, to which they contributed, and twenty-one numbers appeared, which were printed on the return of the expedition.

‘Thus passed the time
Till, through the lucid chambers of the south,
Looked out the joyous sun.’

As the winter set in with severity, most of the animal tribes left the frozen region. In the middle of October, the officers availed themselves of a fine day, though the thermometer was 47° below the freezing-point, to go out on a shooting-excursion. But not a deer, grouse, or any kind of game was met with; only a pack of wolves remained. The sun was expected to take his leave on the 6th of November, but by extraordinary refraction, the great orb was seen from the mast-head on the 11th. After the beginning of the new year, 1820, the seamen watched with pleasure the gradual brightening of the light at noon. At that hour, on the 28th of January, none of the fixed stars could be seen by the naked eye. With the commencement of February the sun was looked for, and was hailed on the 3d from the main-top of the *Hecla*. During that month the greatest cold was experienced. On the 15th, the thermometer descended to 55°, and remained for fifteen hours not higher than 54° below zero, equal to 86° below the freezing-point. On the 24th an incident occurred strangely contrasting with frozen mercury and icy scenery. A small building on shore, stored with valuable instruments, used as an observatory, was seen to be on fire, and all hands went to work to extinguish the flames, by heaping snow upon them. ‘The men’s faces at the fire presented a singular spectacle. Almost every nose and cheek was frostbitten, and became quite white in five minutes after being exposed to the weather; so that the medical men, with some others appointed to assist them, were obliged to go constantly round while the men were working at the fire, to rub with snow the parts affected, in order to restore animation. Captain Sabine’s servant, in his anxiety to save the dipping-needle from the observatory, ran out without his gloves. His fingers, in consequence, were so completely frozen that, his hands being plunged into a basin of cold water, the surface was immediately covered with a cake of ice, from the intensity of the cold thus communicated to it. But animation could not be restored in this instance, and it was found necessary to resort to amputation.’

With brightening scenery around, and active life in prospect, the North Georgian Theatre was closed in due form in the middle of March. But the temperature did not rise to the freezing-point, or, as it might be called, the thawing-point, till the close of April. This seemed like summer warmth to the crews. The first ptarmigan was seen on the 12th of May; the next morning one was shot; and soon afterwards three coveys presented themselves. The tracks of deer were likewise observed, which, from the impression left in the snow, seemed to be returning from their migration to the south. On the 24th, a shower of rain fell, and every one hastened on deck to witness the novelty. In June, pools were numerous; water flowed in streams, sometimes in torrents; cleared ground appeared; and the long dreariness of the landscape was at length relieved with patches of fine verdure, and the purple flower of a species of saxifrage. But it was not till the 2d of August that the ships effected their escape from Winter Harbour, when, after a fortnight spent in attempting to proceed to the westward, it was abandoned as impracticable, on account of the impenetrable aspect of the ice in that direction, and the lateness of the season. The furthest point reached by the expedition was in latitude $74^{\circ} 26' 25''$, and longitude $113^{\circ} 46' 43''$. After an absence of eighteen months, the vessels arrived in the Thames in November, having lost but one man during the interval, who died of a disease in no way referrible to the toils and privations of the voyage.

With great enthusiasm Parry was received by his countrymen, and being raised to the rank of captain, he undertook the command of the *Hecla* and *Fury* for renewed enterprise. His instructions were to examine the northern shores of Hudson's Bay, where there were inlets which had not been explored, in the hope of finding a passage to the northern ocean, and thus by reaching it in a more southerly latitude, diminish the risk of being baffled by ice in proceeding to the westward. He sailed on this mission on the 8th of May 1821, and was out for two winters. But the attempt to gain the Polar Sea by this route proved a failure; and the voyage only resulted in illustrating the desolate character of the lands on the north-eastern side of Hudson's Bay, and ascertaining their detachment from the American continent. A third voyage with the same vessels, in 1824-5, was still less successful. The ships now proceeded by the way of Lancaster Sound, as on the first occasion, and wintered on the eastern side of Prince Regent's Inlet, a broad opening to the south, which it was proposed to explore. But soon after the breaking-up of the ice allowed of active operations being resumed, the *Fury* was so much injured by collision with the floating masses, that she had to be abandoned; and this disaster enforced the return home of the *Hecla*. For want of room, the ship's stores were necessarily sacrificed. But a dépôt was formed on shore of the barrels of beef, beer, biscuit, sugar, and other articles of provision, with the coal, which, though then unlikely to afford aid to any human being, except the Esquimaux, escaped their notice, and proved of service thirty years afterwards to some of the searchers for Franklin.

While Parry was out upon his first voyage, a government expedition was making its way overland from the stations of the Hudson's Bay Company to the mouth of the Coppermine River, with the view of co-operating with the navigator, if opportunity offered; and of examining the coast-line of the Polar Sea. Lieutenant, afterwards the lamented Sir John Franklin, was at its head, and with him were associated Dr Richardson, as naturalist; two midshipmen, Messrs Hood and Back; two English seamen, and some Canadian hunters. But, owing to various hindrances, Parry had returned to England and departed again before the travellers arrived at their destination. In two frail canoes they traced the coast about five hundred miles eastward of the Coppermine River, when failing provisions compelled them to make the best of their way back to their last winter-quarters. This was a station formed for the occasion, named Fort Enterprise. Then commenced a journey

which has scarcely a parallel for extreme misery and horrible incidents. Some of the party died on the route of absolute famine and fatigue; while Franklin, who went with a few attendants ahead of the rest, in the hope of sending them relief, found the station, which, according to previous arrangement, ought to have been well stocked with stores, completely destitute of them. Eighteen days passed over him with no other food than the bones and skins of the deer which had been consumed the preceding winter, boiled down into a kind of soup. When the stragglers came up, a melancholy tale was told. Hood had been foully murdered by the surviving Canadian, with the view either of subsisting upon his body, or of getting rid of a burden; and Dr Richardson had to take the life of the miscreant by a pistol-shot, in order to preserve his own, and that of a comrade. Each was shocked at the emaciated appearance and hollow voice of the others. 'The doctor,' says Franklin, 'particularly remarked the sepulchral tone of our voices, which he requested us to make more cheerful if possible, not aware that his own partook of the same key.' A few hours would, in all likelihood, have terminated their existence, when the long-expected relief arrived. Instructed by dearly-bought experience to obviate the risk of such hardships by adequate previous preparation, the intrepid Franklin, with Dr Richardson, adventured to the same region in 1825. Descending the Mackenzie River to the Polar Ocean, a large extent of coast westward from its mouth was explored, and the whole space examined eastward to the Coppermine, while Captain Beechey, sailing in the *Blossom* frigate through Behring's Strait, very nearly connected himself with the overland expedition.

Information of high interest was accumulated by the parties to these enterprises in the far north illustrative of its fauna, flora, and meteorology. Unable to hunt down the moose and reindeer, the wolves were observed to have recourse to the expedient of driving them over precipices, which betrays an extraordinary degree of sagacity. While their victims were quietly grazing near the summit of some bold bluff, they formed themselves into a crescent around the herd, and cautiously lessened their distance from it, thereby approaching each other more closely. Having thus cut off retreat across the plain, they advanced with hideous yells to urge the animals to flight by the only open way, leading to the precipice, apparently knowing that when once at full speed, and panic-struck, the van must inevitably be driven over it by the pressure of the rearmost. The wolves then descended at leisure to feast upon the mangled carcasses. Dr Richardson was once waylaid in this manner. While sitting one evening on the edge of a cliff by the Coppermine River, he perceived nine white wolves creeping towards him posted like a crescent. He advanced boldly, and they allowed him to pass; but a poor deer, hemmed in at the same time, was shortly afterwards driven over the rock. During Franklin's winter residence at the hut put up by his party, called Fort Enterprise, it is remarkable that the cold was greater than that experienced by Parry in Melville Island, though it is situated nine degrees nearer to the pole. The atmosphere was generally calm during the intense colds, and the breath of a person, at a little distance, looked exactly like the smoke of a musket just fired. The trees in the neighbourhood, frozen to their very centres, became as hard as stones, and every attempt to fell them ended in the axes being broken. Fogs were of frequent occurrence, tantalising and perilous. After a long time had been spent in stealing upon some deer, while the hunters were congratulating themselves upon coming within shot, to their amazement the animals took wing and disappeared in the mist, with a scream and cackle which at once declared their genus, and seemed to deride the credulity of their pursuers. Often would the fog clear away, and permit of a point being seen in the right direction some miles distant. In a moment every hand was at work, the boats were launched, and the crews embarked; but before they could even leave the beach, the impenetrable

curtain of the mist returned, and compelled a retreat by enveloping earth and ocean in deeper gloom than before. The sun and moon were frequently seen surrounded with halos, or concentric rings of vapour, tinted with the brightest hues of the rainbow. Parhelia, or mock-suns, sometimes adorned with these accompaniments, shone at once in different quarters of the firmament, arising apparently from the refraction caused by the minute spiculæ of ice afloat in the atmosphere, in various forms and states of crystallisation. These were most brilliant at sunrise and sunset. During the winter retirement of the solar orb, the aurora borealis illumined and adorned the sky with rapid, vivid, and almost incessant coruscations. The meteor was observed to be more frequent, as well as to flash brighter, in the neighbourhood of the Arctic Circle than in higher latitudes. Its streams of light had the greatest variety and the quickest movement in stormy weather. The stars were not concealed by the display, but only obscured, as if a thin gauze veil had been drawn over them. No noises were heard, though intently listened for, as the sudden glare and explosive aspect of these wondrous showers of fire irresistibly suggested the idea of sound. But the authority of both native Indians and Siberians may be cited to prove that auroral exhibitions appeal to the ear as well as to the eye, by reports resembling the rustling of a flag in a strong breeze, or the crackling discharge of fireworks.

Abortive attempts had been made under the auspices of the government to reach the north pole of the earth in ships, first by Captain Phipps, afterwards Lord Mulgrave, in 1773, and then by Captain Buchan in 1818. A plan was now suggested to accomplish the object by another method—that of sailing to the polar ice-fields, and proceeding thence over the frozen surface of the ocean in sledges drawn by reindeer or dogs. This scheme originated with Mr Scoresby, who, while engaged in the whale-fishery, had discovered a considerable extent of the east coast of Greenland, and made the nearest approach to the pole that had as yet been fully authenticated, having, in 1806, gained the high latitude of $81^{\circ} 30'$. His views being deemed feasible, Captain Parry accepted the onerous task of conducting the bold undertaking. This was the last enterprise of the distinguished navigator. He sailed in April 1827; took on board eight reindeer from Norway, with a quantity of moss as their provender; and began an arduous journey over the ice from the north of Spitzbergen. The expeditionary party made the latitude of $82^{\circ} 40'$, the highest ever attained, only about 500 miles from the pole, when further progress was arrested by an insurmountable natural obstacle. At that point an invisible power interfered to counteract the movements of the adventurers; for after several days' laborious travelling, it was found that they had actually retrograded in relation to the north, owing to the southerly drift of the ice-fields. Great was the disappointment, but imperative the necessity, to relinquish further effort.

Two years later, with the North-west Passage in view, Captain Ross departed in the *Victory*, equipped by the munificence of Sir Felix Booth; and after enduring four successive Arctic winters, 1829—1832, emerged with his crew from the icy seas, when all hope of their return had been almost universally abandoned at home. While this voyage must be added to the catalogue of failures in relation to its immediate object, part of the northern seaboard of the American continent towards the eastern extremity was for the first time traced. Boothia Felix—a peninsula forming the most northerly portion of the mainland—was discovered, and named in honour of the patron of the expedition. Soon afterwards the exploration of the whole continental coast-line was rendered complete by the journeys of Captain Back, and Messrs Dease and Simpson, officers in the service of the Hudson's Bay Company. During an excursion made for the purpose, a nephew of the commander, afterwards Sir James Clarke Ross, very closely

approached the north magnetic pole. This was at eight o'clock in the morning of the 1st of June 1831, on the west coast of Boothia. The amount of the dip of the magnetic needle was here $89^{\circ} 59'$, being only one minute less than 90° , the vertical position, which would have precisely indicated the polar station. It was an unattractive site on a low flat shore, rising into ridges from fifty to sixty feet high, about a mile inland. The wish expressed by the discoverer, that a place so important had possessed more of mark or note, was natural; but nature had erected no monument to denote the spot which she had chosen as the centre of one of her 'great and dark powers.' A cairn of some magnitude was raised, upon which the British flag was planted, and underneath a canister was buried, containing a record of the interesting enterprise. Rather more than a quarter of a century afterwards, in February 1859, the place was visited by M'Clintock, while engaged in the search for Franklin, but no cairn was to be seen, the natives having probably displaced every stone, in the hope of finding spoil. He met with some of them in the neighbourhood, one of whom, an old man, called Ooblooria, distinctly remembered Sir James Ross, having served as his guide, and inquired after him by his Esquimaux name of Agglugga. M'Clintock asked for the man, who, having lost his leg, had been supplied with a wooden substitute by the carpenter of the *Victory*, for which his gratitude at the time was unbounded. A silence ensued. It was significant of his death, for the natives do not like to speak of a deceased acquaintance. They contented themselves with pointing out his daughter.

While British enterprise was thus enlarging our knowledge of the Arctic regions, the Antarctic Ocean was not overlooked. Though the idea of a southern continent, abounding in accessible mineral wealth, capable of sustaining vegetable life, and providing a new home for the human race, had been completely disproved by the voyages of Cook, it still remained an open question, whether an immense tract of land, or only a frozen ocean, lay between his limits and the south pole. To determine this point, if possible, separate expeditions sailed under the auspices of the French, American, and British governments. But before these national undertakings commenced, some interesting results had been attained in the field of south polar adventure, principally by merchant-seamen, pointing to the general conclusion since arrived at. In the year 1818, Captain Smith discovered the New South Shetlands, lying to the south-east of Cape Horn, consisting of twelve large islands and innumerable rocks, all bare of vegetation, but with prodigious numbers of the fur-seal, and the particular species called the sea-elephant, from the enormous size of the males. In 1821, Bellinghausen, the Russian navigator, found the island of Peter I., in latitude $68^{\circ} 57'$, the most southern land then known. In 1823, Weddell, in a small whaler, discovered the South Orkneys, a group with craggy towering peaks, resembling the mountain-tops of a sunken land; and afterwards penetrated to the latitude of $74^{\circ} 15'$, being the most southerly point then attained by man. South of the Cape of Good Hope, under the Antarctic Circle, Enderby's Land was discovered in 1831 by a whaler in the service of the Messrs Enderby; and sailing from New Zealand, in 1839, another of their agents met with a volcanic group, to which his own name, the Balleny Islands, was given, and also a coast-line called Sabrina Land, from the name of the accompanying cutter.

The first of the three government expeditions mentioned, the French, consisted of the *Astrolabe* and *Zélée*, under the command of Captain Dumont d'Urville, who was killed soon after his return home by a dreadful accident on the railway from Paris to Versailles. He sailed from Hobart Town on the 1st of January 1840, and found land on the nineteenth day, in the seas visited by Balleny, about the latitude of the Antarctic Circle. It was covered with snow, and marked with ravines, inlets, and projections, but had no

appearance of vegetation. It was coasted for 150 miles, was very obscurely seen, and named *Terre Adélie*; but the weak condition of the crews compelled a return to a milder climate. About the same period, the American expedition, under Lieutenant, now Admiral Wilkes, in the frigate *Vincennes*, made its appearance in the same seas, but entered them in a more eastern longitude. He also thought he had found a coast-line, and through a westward sail of four weeks, passed over the scene of Balleny's and D'Urville's operations, always having either land in sight or indications of it. If Balleny's Sabrina Land, D'Urville's *Terre Adélie*, and Wilkes's coast are continuous, forming the shore of an Antarctic continent, the honour of the discovery belongs to the former. The English expedition consisted of the *Erebus* and *Terror*, under the command of Sir James Clarke Ross—ships of mournful celebrity, afterwards lost in the north polar zone. Its results were more remarkable than any of the preceding, for while the French and American commanders did not reach a higher latitude than 61° , the English penetrated to 78° , or within 12° of the south pole, which is likely to remain the limit of human enterprise in that direction. The primary object was to make scientific and especially magnetic observations in the Southern Ocean, and ascertain the position of the south magnetic pole. Sir James Ross, already familiar with the icy regions of the north, and distinguished in Arctic adventure by discovering the north magnetic pole, was appropriately appointed to the command. Every suggestion of science and experience was employed in preparing the ships for arduous service, which extended over a period of nearly four years.

The vessels sailed from Margate Roads on the 30th of September 1839, and reached the Cape of Good Hope on the 17th of March 1840, long stoppages having been made at Madeira, St Paul's Rocks, Trinidad, and St Helena, for the purpose of making the required magnetic observations. While within the tropics, the planet Venus was seen near the zenith notwithstanding the brightness of the meridian sun, the sky being very clear; and a high stratum of clouds was observed to be moving in an exactly opposite direction to that of the surface-breeze, in exact accordance with the theory of the trade-winds. Captain Basil Hall witnessed the same circumstance from the summit of the Peak of Teneriffe; and Count Strelezeki, on ascending the volcano of Kirauea, in Hawaii, reached, at the height of 4000 feet, an elevation above that of the trade-wind, and experienced the influence of an opposite current of air, of a different hygrometric and thermometric condition. Crossing the equator, the Magellanic clouds and the Southern Cross marked the further prosecution of a southerly course by their increased altitude in the heavens. On approaching the magnetic equator, or the line of no dip, the gradual assumption by the needles of a perfectly horizontal position was carefully watched, and the signal for being on the exact point of no dip was hoisted from both ships at the same moment. The observation was of peculiar interest to the commander, who had, a few years previously, seen—what no human eye had seen before—the needle in a directly vertical position at the north magnetic pole; and who indulged the hope, in this expedition, of being permitted to see it again in a similar position at the south magnetic pole of the earth.

Leaving the Cape on the 6th of April, the vessels made Kerguelen Island on the 12th of May, remarkable for its rigorous climate and vegetable destitution. Though in a comparatively low latitude in the southern hemisphere, corresponding to that of midland Europe in the northern, absolute sterility seemed to reign upon its shores. Not a tree or shrub exists, and only a very few flowering-plants were observed. Yet this desolate region was once clothed with forests destroyed by successive overflowings of volcanic matter, whose remains, in fossil wood and seams of coal, are found in abundance imbedded in igneous rocks. No land animals were seen, but the footsteps of a pony or an ass were

traced in the snow till lost on reaching a space of rocky ground free from it. The animal had probably been cast ashore from some wrecked vessel. Out of a stay of sixty-eight days, it blew a gale of wind during forty-five, and there were only three days free from snow or rain. The gusts were so sudden and violent, that the seamen were obliged to throw themselves down to escape their force; and one whose duty it was to register the tide-gauge, was actually driven into the water by a squall, and nearly drowned.

The expedition reached Hobart Town on the 16th of August, then under the government of Sir John Franklin, destined in a few years to be mournfully connected with the *Erebus* and *Terror*. They sailed again towards the middle of November, the season of the falling stars, for which the instructions directed a careful look-out to be maintained, but none were seen, only some faint auroral coruscations, a phenomenon neither so common nor so brilliant as in the northern regions. Captain Cook saw the Aurora Australis for the first time on the 17th of February 1773, as a clear white light gradually spreading over the southern part of the sky, exhibiting none of the various tints and fiery terrors of the northern lights; but its first recorded observation was in the year 1745 by Don Antonio Ulloa off Cape Horn. The Auckland Isles, a group lying south of New Zealand, were reached November the 20th, the spring of the year, that month being there the equivalent of our own April. Two painted boards, erected upon poles in a conspicuous spot, immediately attracted attention. They proved to be records of the visits of the French and American expeditions. The first, a white board with black letters, stated: 'Les corvettes Françaises *L'Astrolabe* et la *Zélée* parties de Hobart Town le 25 Février 1840, mouillées ici le 11 Mars, et réparties le 20 du dit pour la New Zeland. Du 19 Janvier au 1 Février 1840, découverte de la Terre Adélie et détermination du pôle magnétique Austral!' The second, a black board with white letters, had the record: 'U.S. brig *Porpoise*, 73 days out from Sydney, New Holland, on her return from an exploring-cruise along the Antarctic Circle, all well, arrived the 7th and sailed again on the 10th March for the Bay of Islands, New Zealand.' The Auckland group was discovered by one of Messrs Enderby's agents, Captain Bristow, in 1806. It consists of one large and several small islands, divided by narrow channels, clothed with an abundant vegetation for the latitude, and well wooded, but with trees stunted by the continual heavy gales. No land animal was found; but the domestic pig, introduced by the discoverer, now occurred in great numbers in a wild state. As the station promised to be of value in the southern whale-fishery, the stock of useful animals was increased by introducing sheep, poultry, and rabbits; and several kinds of edible vegetables were sown and planted. The practice is strongly to be commended of introducing plants and animals serviceable to man, on shores which are destitute of, but capable of maintaining them. It is an easy mode of conferring a benefit of unknown importance. Perhaps some unfortunate shipwrecked crew, cast upon the Aucklands by the boisterous ocean which raves around them, may have reaped no mean advantage from the legacy left there by the British expedition. The cereals were conveyed by the Spaniards from the old to the new continent, thereby endowing it with wealth of incomparably greater value than its own silver and gold; and the earthen vessel in which the original wheat sown in its neighbourhood was brought to Quito, is still preserved as a precious relic. 'Why,' asks Humboldt, 'have not men preserved everywhere the names of those who, instead of ravaging the earth, have enriched it with plants useful to the human race?'

The next point of the expedition was Campbell Island, south of the Aucklands, about thirty miles in circumference, discovered by Captain Hazelburgh in the year 1810. The remains of some huts were found, and the graves of several seamen who had evidently been employed in the seal-fishery. Amongst them was that of a Frenchwoman, accidentally drowned by the upsetting of a boat. Here the outward voyage terminated, December the

14th, fourteen months and a half having been occupied by it, and the magnetic, tidal, and astronomical observations at the several stations visited. From this island, in latitude $52^{\circ} 33' S.$, and longitude $169^{\circ} 8' E.$, Ross determined to proceed directly southward along the meridian of $170^{\circ} E.$ Christmas-day, although the midsummer-day of the southern hemisphere, and not in a very high latitude, was passed in a strong gale, with constant snow or rain. Soon afterwards the first icebergs were seen, which, unlike those of the Arctic seas, presented little variety of form, had tabular summits, in some instances amounting to two miles in circumference, on all sides bounded by perpendicular cliffs. On the first day of the new year, 1841, the ships crossed the



Erebus and Terror in the Pack Ice.—From Ross's Antarctic Voyage.
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Antarctic Circle, and came to the edge of the pack-ice. After skirting it for some days in search of a favourable opening, it was entered, and the clear sea was lost sight of; from the mast-heads, nothing but icy masses being visible around, from which the vessels sustained some violent shocks, and were occasionally in danger. On the 5th day, the pack was passed through amid blinding snow and thick fog, which, on clearing away, revealed the cheering view of an open sea; and early in the morning of January the 11th, the officer of the watch reported land distinctly seen directly ahead of the ships.

A coast rose in lofty peaks, covered with perpetual snow, but at a great distance. The latitude was about the highest attained by Cook. More land speedily came in sight, consisting of mountainous ranges; and to the principal summits the names of eminent

individuals at home were given. Near views of the newly-discovered country are thus described: 'It was a beautifully clear evening; and we had a most enchanting view of the two magnificent ranges of mountains, whose lofty peaks, perfectly covered with eternal snow, rose to elevations varying from 7000 to 10,000 feet above the level of the ocean. The glaciers that filled their intervening valleys, and which descended from near the mountain-summits, projected in many places several miles into the sea, and terminated in lofty perpendicular cliffs. In a few places the rocks broke through their icy covering, by which alone we could be assured that land formed the nucleus of this, to appearance, enormous iceberg.' 'Early this morning [January 15th] we had a fine view of the magnificent chain of mountains that we had seen stretching away to the southward some days before, but then more imperfectly. With a moderate southerly wind, we had beautifully clear weather, and we now saw them to great advantage; and as we stood towards them, we gazed with feelings of indescribable delight upon a scene of grandeur far surpassing anything we had before seen, or could have conceived. These mountains also were completely covered to their sharply-pointed summits with snow, and the elevations that were measured roughly, varied from 12,000 to upwards of 14,000 feet. These were named after the eminent philosophers of the Royal Society and British Association, at whose recommendation the government was induced to send forth this expedition. Herschel, an imperishable name, was given to the most conspicuous.' 'New portions of land opened to our view as we proceeded to the southward. The sun shone forth with great brilliancy; and its beams were reflected from the now distant mountains in every variety of tone, and modification of light, which the different forms of their icy coverings exhibited.'

This discovery restored to Great Britain the honour of reaching the southernmost known land, which had previously belonged to Russia. Owing to the ice from the shore projecting into the sea, and the heavy surf, it was found impossible to perform the ceremony of taking possession upon the mainland. It transpired upon a small adjoining island, entirely composed of igneous rocks, which was called Possession Island. Not the slightest trace of vegetation appeared, but myriads of penguins, which densely covered the whole surface, the ledges of the precipices, and the summits of the hills, unaccustomed to human intrusion, and equal strangers to the fear and power of man, vigorously attacked the landing-party with their sharp beaks. This Antarctic region received the name of Victoria Land, in honour of the Queen. It was coasted up to latitude 78° S.; and near that point a most unexpected feature presented itself. This was a magnificent volcano, rising 12,000 feet above the level of the sea, emitting flame and smoke in splendid profusion, as represented on the opposite page, which the explorers called Mount Erebus, after the name of the leading ship, while that of the Terror was given to a lower extinct crater to the eastward. A singular incident occurred off the shore. An island seemed suddenly to have made its appearance at a spot occupied a few hours before by an iceberg. It was upwards of a hundred feet high, with the whole summit perfectly free from snow. The mystery was speedily dispelled. It seems that the berg had turned over unperceived from the ships, exposing to view a new surface covered with earth and stones, and the mass was still slightly oscillating from the effects. Icebergs of enormous extent were met with, sometimes laden with immense fragments of rock, to be deposited on their dissolution upon the floor of the ocean, far away from the original site of the transported material. This is one of the facts of common occurrence, upon which the geological theory is grounded, accounting for erratic blocks on land, which have no identity with the rocks of their immediate site, or with any to be found within perhaps hundreds of miles of them. Let but the bed of the sea, where the ice-borne fragments are strewn,

be elevated, so as to become dry land—a change which we know has taken place with reference to large tracts of the present surface of Europe—and erratic blocks would be exposed similar to those which now cover the sandy plains of Pomeranian Prussia, which are identical in mineral composition with the rocks of the Scandinavian Highlands.

The approach of the southern winter warned the party to retire to spend it in a lower latitude; and though on two successive seasons the south polar zone was re-entered, no results of public interest were obtained, owing to the unfavourable condition of the ice. Victoria Land, thus revealed, perhaps never to be seen again, seems to be entirely of modern volcanic character, while in Arctic regions the great mass of the land consists of primitive rocks and secondary sedimentary formations. Possession Island was found to be composed of volcanic conglomerate, vesicular lava, and basalt. A beautiful little recess in the prismatic columns of basalt presented a miniature picture of Fingal's Cave in Staffa. The main coast shewed nothing but jet-black lava or basalt, cropping out in its bold capes and promontories beneath a mantle of eternal frost. Aqueous formations may exist in the interior under its covering of snow, but the contour of the country, seen at a distance, exhibited the true volcanic outline. The Antarctic region, contrary to what is the case in



Mount Erebus and Beaufort Island.—From Ross's Antarctic Voyage.

(By permission.)

the opposite dark and outer boundary of the earth, appears to have no representative of the vegetable kingdom. The American trembling poplar reaches to the verge of the Arctic Circle; the birch survives to latitude 70° in Europe; shrubs and bushes linger on further north; and mosses and lichens defy the severest cold of the Arctic zone. Man has never yet gone north beyond the limits of vegetable life in this region; Captain Parry, wintering in Melville Island, found mixed with moss, under the snow, an abundance of

several kinds of sorrel, a valuable antidote against scurvy; but not the smallest trace of vegetation, so much as a lichen or piece of sea-weed growing on the rocks, was perceived in similarly high southern latitudes. The extreme south also differs from the far north in respect of animal life. The latter is inhabited by various tribes, white bears, reindeer, wolves, the polar hare, and Arctic fox, some of which seek no southerly migration to avoid the long rigorous winter. While Parry wintered at Melville Island, a pack of wolves nightly serenaded the crew, and a beautiful white fox was taken and domesticated. But no terrestrial quadrupeds of any kind appeared on the south polar shores. The oceanic birds—albatrosses, penguins, and petrels—occurred in great numbers, with seals reposing on the ice, and whales spouting in all directions in the open water. Before finally leaving the Antarctic Circle, a remarkable ray of light was seen on the evening of March 9, 1843, and entered in the log-book as a stationary beam of Aurora Australis. Its fixed character on the following nights led to a different opinion, and eventually it proved to be the tail of the great comet which shortly afterwards became visible in our own hemisphere, and occasioned so much surprise. In the September following, the expedition reached the shores of England.

The same vessels were almost immediately commissioned for another enterprise, but in an opposite direction. Though contrary to the judgment of many, who thought that sufficient hazard of life had been incurred in attempts to effect the North-West Passage of America, the government determined to make a further effort to solve if possible a geographical problem, certainly of interest, but of no practical importance. This task was intrusted to Sir John Franklin, in the *Erebus*, as commander, a veteran in polar service, who had for his second Captain Crozier, in the *Terror*, likewise an officer of great experience in the navigation of icy seas. He had charge of the same vessel under Ross in the Antarctic voyage, and had been out three times under Parry—in the *Fury* in 1821, in the *Hecla* in 1824, and in the celebrated boat-expedition to the pole in 1827. Officers and crews numbered 139. They were picked men, and included some of the choicest spirits in the royal navy, all ready to brave danger and death in the public service, and all destined to perish in attempting an object which the authorities of the kingdom deemed legitimate and praiseworthy. Fitzjames, the captain of the *Erebus*, had served in Syria and China; and thus departed to strongly-contrasting scenery and climate on sailing for the Arctic Circle. It was his first advance to the great zone of cold. He was specially commissioned to take charge of the magnetic observations. Gore, the first-lieutenant, was out in the fearful voyage of the *Terror* in 1836, under Sir George Back, to the north of Hudson's Bay, and also with Ross in the Antarctic regions. Fairholme, the third-lieutenant, was in the expedition to the Niger. Osmer, the purser, accompanied Captain Beechey to Behring's Strait. Stanley, the surgeon, had followed his vocation in China. Goodsir, the assistant-surgeon, a young Scot, had been curator of the Edinburgh Museum, and contributed several papers to the scientific journals, one of which, on the *Mode of Reproduction of Lost Parts in the Crustacea*, appeared in the year the expedition sailed. Ice-master Blenky was with Sir John Ross during his four years' imprisonment in high latitudes.

The ships left Sheerness on the 26th of May 1845, and at noon, on the 4th of June, while off the island of Rona, a western outlier of the Orkneys, the attendant steamers *Rattler* and *Blazer* parted company with them. They ranged successively alongside the discovery-vessels as closely as possible without touching; and prolonged cheers were exchanged by officers and men. In an hour or two the steamers were out of sight on their way homeward; and the rocky Rona, the sea, and sea-gulls were alone in view. On the 11th and 12th the ships were off the south of Iceland, with the sea exhibiting the most perfect

transparency, of a beautiful, delicate, cold-looking green, or ultramarine. Soon after the 22d, Davis's Strait was fairly entered, and a sensible decrease of temperature was observed. A monkey taken out was furnished by the sailors with a blanket, frock, and trousers. Icebergs were seen, and the west coast of Greenland sighted, looking rugged, but sparkling with snow, the ravines and shadows appearing as deep black marks upon it. The ice-master began now to speak of soon seeing the 'Huskimays.' On the evening of the 30th, at six o'clock, the Arctic Circle was crossed; but it was too cloudy to see the sun at midnight, just skirting the horizon. The night of July the 1st was fine, clear, and sunshiny. Splendid icebergs appeared in great numbers, and occasionally interrupted the solemn silence by toppling over with a report like thunder. The Danish settlement of Disco, on the west coast of Greenland, and the Whale Fish Islands in its bay, was now made, where the ships remained for a few days.

From this place, on the 9th, Franklin addressed a letter to Colonel Sabine, stating that the ships had on board provisions, fuel, clothing, and stores complete for three years from that date. They took out, of fresh provisions supplied by the Admiralty—preserved meat in tins, 32,018 lbs.; soup, 17,416 pints; gravy, 2176 pints; vegetables, 8076 lbs.; potatoes, 2632 lbs.; besides the usual rations of salt provisions for three years. He concluded as follows: 'I hope my dear wife and daughter will not be over-anxious if we should not return by the time they have fixed upon; and I must beg of you to give them the benefit of your advice and experience when that arrives; for you know well, that even after a second winter, without success in our object, we should wish to try some other channel, if the state of our provisions and the health of the crews justify it.' On the night of the 11th, Fitzjames wrote his last paragraph home: 'It is now eleven o'clock, and the sun shines brightly over the snowy peaks of Disco. From the top of one of the islands, the other day, I counted two hundred and eighty icebergs, and beautiful objects they are. Should you hear nothing till next June, send a letter, *via* Petersburg, to Petropaulovski, in Kamtchatka, where Osmer was in the *Blossom*, and had letters from England in three months. And now, God bless you, and everything belonging to you.' Franklin's last dispatch to the Admiralty was from the same spot, dated the 12th: 'I hope to be able to sail in the night. It is unnecessary for me to assure their lordships of the energy and zeal of Captain Crozier and Commander Fitzjames, and of the officers and men with whom I have the happiness of being employed on this service.'

The ships were spoken with on the 22d by Captain Martin of Peterhead, in the *Enterprise*, a whaler, in latitude 75° 10', longitude 66°, weather calm. They were alongside his vessel about fifteen minutes, during which he conversed with Franklin and the ice-master. Four days later, the 26th, they were seen by Captain Dannett, of the *Prince of Wales* whaler, moored to an iceberg, waiting an opening in the middle ice of Baffin's Bay, to cross through it to Lancaster Sound. The veil then dropped over the hapless *Erebus* and *Terror*, and what became of them and their crews was not known, though surmised, till fourteen anxious years had passed away. As the third winter approached without intelligence of the voyagers, uneasiness began to be felt respecting their safety, and the 'missing expedition' became an ominous and familiar phrase. It was the general impression that no time should be lost in endeavouring to discover and relieve them, if alive; and, accordingly, a series of attempts commenced with this purpose in view, or to ascertain their doom. Expedition after expedition departed on this errand of humanity and justice. The resources of government and the munificence of private individuals, both at home and abroad, were brought to bear upon the object; and the whole civilised world took interest in the task of ascertaining the fortunes of the gallant men who had disappeared from notice in the heart of the icy ocean. In the interval between the years 1848 and

1854 inclusive, twenty-four vessels sailed, and two land-journeys were made. The world never witnessed before a spectacle so exciting in its circumstances and scene as this long and arduous search, so full of wild grandeur and profound pathos. Countrymen and strangers invaded the dark depths of polar night, in the struggle to reach the lost. Friend yearned after friend, and brother strove to get at brother, amid the congealed masses of the ocean, with an ardour which no cold could chill or danger appal. The dreary solitudes of the Arctic zone were converted into a vast hunting-ground; and the voices of anxious bands roused its echoes, now cheering on each other in the endeavour to find the prison-house of the vanished crews, and now talking over their own perils, plans, hopes, fears, and hairbreadth escapes. Regions naturally desolate of human life were traversed by many a party intent upon the task of meeting with the trail of Franklin amid the bear-tracks of the north, rescuing any of the forlorn survivors, or wresting from the stern keeping of the ice-fields the secret of their fate, and honouring their remains.

Interesting and exciting incidents occurred during the quest, with some of a mournful nature. In 1849, Mr R. Goodsir went out in the *Advice* whaler, under Captain Penny, in the hope of gaining some tidings of his brother, the assistant-surgeon of the *Erebus*. The optical illusions common in the Arctic regions were on one occasion exemplified in a tantalising manner. While standing on the fore-castle in Lancaster Sound, examining with a telescope every part of the coast most anxiously, he recognised with a thrill of joy a flag-staff and ensign. He gazed earnestly at it, and so distinctly did it shew itself, that he could even make out the waving of the flag. Unwilling, however, to trust to his own vision only, he put the telescope into the hands of a man who was standing near him, that he might look at the point ahead. The man did so, and with a start exclaimed that a flag was flying. Mr Goodsir, overjoyed, snatched the glass back, and again applied it to his eye. For an instant—an instant only—he saw the wished-for signal. It then faded—was distorted into a broken and disjointed column—became changed into an inverted pyramid—till at last the image was resolved into its real form, that of a hummocky piece of ice. These illusory appearances, caused by extraordinary refraction, often perplex the Arctic explorer, and exceed the most marvellous deceptions of the desert mirage. The most mournful casualty of these voyages was the loss of Lieutenant Bellot of the French navy, a volunteer, who sailed with Mr Kennedy to Barrow's Strait, and again with Captain Inglefield to the head of Baffin's Bay, where he perished by slipping through a chasm in the ice. Just before leaving, he sent to Sir Edward Parry a parting-gift. This was a turn-screw, the handle of which was made out of the wood of his old ship, picked up by Bellot on Fury Beach twenty-seven years after the wreck. 'He sent me,' Parry observed in a speech, 'that little thing as a memento, and it will be handed down as an heir-loom to my son, who, I hope, will value it as I do.' An obelisk, in honour of the gallant Frenchman, appears appropriately in the front of Greenwich Hospital.

During the detention of the searching-ships in winter-quarters, travelling-parties scoured the surrounding country, and explored it in sledges, often to an immense distance from the locked-up vessels, while the thermometer indicated a temperature of 71° below the freezing-point; the chronometers stopped from excessive cold, though closely attached to the person; and bottles of water, carried at the breast, became bottles of ice. Over a smooth surface, large kites attached to the sledges, or sails hoisted, lessened the labour of the travellers when the wind was high. These parties were organised on an extensive scale out of Captain Austen's expedition in the winter of 1850-51, and commenced their tours as its rigour abated. Fourteen sledges, with one hundred and four officers and men, set out in different directions. They carried distinguishing flags with particular mottoes,

as: 'Onward to the rescue!' 'Persevere to the end!' 'Faithful and firm!' 'Endeavour to deserve!' 'The heart that can feel for another!' 'Our trust is in God!' and

'Gaze where some distant speck a sail implies,
With all the thirsting gaze of enterprise!'

The tourists were absent from six to eighty days, travelling from forty-four to seven hundred and sixty miles. Often a bear, a wolf, or a musk-ox attracted attention, while remarkable parhelia glittered aloft in the heavens. Mock suns—arcs concentric or inverted—arcs shewing the brightest prismatic colours—were described with mathematical precision. These phenomena were most brilliant when the cold was most intense. Hence an observant tar remarked, that 'when them sun-dogs shews themselves, we always gets double allowance from Jack Frost.' The men cheerfully faced the biting gale, and sturdily advanced against the snow-drift. But it frequently lay deep and soft, with a crusted surface, through which the entire party sank, or the route was over ice of extraordinary difficulty, resembling long waves suddenly frozen, studded with hemispherical icy mounds. Some were frostbitten; others had snow-blindness in one or both eyes, caused by the glitter of the surface in the sun; and each division underwent immense fatigue, with suffering from aching limbs. Yet no man's heart shrank from the encounter with cold, pain, blindness, and peril of life.

In drawing the sledges, the snow-blind were placed in the rear, as vision was only needed in the leaders to see the way. Wine of opium was applied to the eyes of the afflicted with good effect, but caused excruciating pain. Often in drinking, the lips adhered to the edge of the vessels owing to the cold, and severe excoriations were produced in removing them; while the accumulation of ice to the beard was continually irritating the lips. No washing being practicable, countenances rapidly acquired a darkened complexion, being begrimed with dirt and soot from the cooking, till every visage was of sable hue. Some illustrative passages may be quoted from a parliamentary blue-book:

'Sledge *Reliance*.—Wm. Dove snow-blind in both eyes; one man slightly in one eye; two with sore faces from sun and frost.

Sledge *True Blue*.—Lieutenant Osborn snow-blind in both eyes; one bad diarrhoea and debilitated; four snow-blind in left eye.

Sledge *Succour*.—Four affected with snow-blindness; one bad frostbite.

Sledge *Adventure*.—Two snow-blindness in both eyes; one frostbite.

Frostbites were cured by early application of friction to restore the circulation, rubbing the part affected with spirits, and warmth in blanket-bags. Still one case terminated fatally, that of G. Malcolm, a native of Dundee, captain of the sledge *Excellent*, who, with a frostbitten foot, kept dragging at it the whole night, and rests in a grave beneath the chilled surface of Griffith Island. Captain Ommaney thus journalises:

'Sunday, 27th April.—Calm, extremely cold. At 3 h. A.M., the mercury in thermometer was found congealed and contracted to -44° . No sleep; everything frozen in interior of tent and covered with frost. 5 h. 30 m., breakfast; read morning-service. Fearing to expose the men before the sun gained more influence, did not proceed until 8 h. A.M., when the temperature was -34° in shade, and -16° in sun; very clear weather, with a great deal of refraction.

Monday, 28th April.—3 h. A.M., therm. -24° ; 40 m. 6 h., prayers and breakfast. Intensity of cold obliged me to wait for increase of temperature before proceeding. Medical officer advised that E. C. of my sledge should immediately return to the ship, his toe having assumed the appearance of mortification.

Tuesday, 29th April.—3 h. A.M., calm; therm. -39° ; 6 h., prayers and breakfast. Cold most acute in taking sights. Very slow progress; men persevering to overcome the difficulties of our road with good-will; gained about four miles.

Friday, 2d May.—Continued gale throughout the day from S.E. with thick drift; unable to leave the tent.

Saturday, 3d May.—Gale continued with great violence, drift very thick; unable to shew out of tent; discomfort great; the limited space of tent being more confined from the side having been pressed in by an accumulation of snow. No room to move; limbs aching from lying so long cramped up.'

The journalist records being upon one occasion awoke from sleep by the barking of the dog, which was occasioned by a bear near the tent, whose growl was speedily heard. All roused up in confusion on finding such an unwelcome visitor close at hand. But brim's curiosity led him to poke his nose against the poles, which brought down the tent upon the top of the whole party. The position of the inmates was critical for the moment; but the beast paid for his temerity with his life.

The most remarkable journey was performed by Lieutenant, afterwards Captain M'Clintock, who reached one of the western points of Melville Island, distant from the winter-quarters 360 miles in a direct line, which required eighty days, going and returning, to accomplish. The indomitable spirit of his associates is well illustrated by his own statement, that the most disagreeable duty he had to perform was to enforce the return to the ships of those men who had received injuries—much greater than they themselves were aware of—and who evinced the strongest desire to proceed, even endeavouring to conceal from each other their frostbites, and the pain which labour occasioned them. He visited Winter Harbour, the spot where Parry passed the winter of 1820, and met with interesting traces of his sojourn there, after an interval of thirty-one years, during which the place had been abandoned to bears, foxes, musk-oxen, reindeer, and ptarmigans. At Bushman Cove, in the neighbourhood, the site of an encampment, everything was found as it had been left. There was a broken cart very little decayed, portions of which were brought away, and the rest used as fuel; the bones of ptarmigans, of which a sumptuous meal had been made, as recorded by Parry, which were merely bleached, and snapped like the bones of a bird recently killed; and pieces of cloth, canvas, rope, and twine were scattered about, which retained much of their original strength and colour, shewing the slow progress of decay in the climate. The most conspicuous object at Winter Harbour was a mass of sandstone at the entrance, ten feet high, twenty-two feet long, and seven or eight feet broad. It bore an inscription, still quite fresh, referring to Parry's sojourn, scarcely any of the minute black lichen which covers the rock having grown into the letters; and M'Clintock cut the date of his visit, 1851, on an adjoining part. In a hollow at the base of the mass, a hare had taken up her residence, and shewed no alarm whatever at man breaking in upon the solitude. A ptarmigan alighted on the summit and was shot, without in the least disturbing puss as she sat beneath it.

The first trace of the Franklin expedition which was discovered left its fate in complete obscurity. It was the good-fortune of Captain Ommaney, in the *Assistance*, to fall in with significant, though tantalising memorials of it. This was on the 23d of August 1850, at Cape Riley, and Beechey Island adjoining, on the eastern side of the entrance to Wellington Channel. At the former site, a high bluff headland, five tents had evidently been pitched; remains of human food were scattered about; and a piece of rope was found with the well-known Admiralty mark of a yellow strand. As no one had landed there since Parry sent an officer on shore to make observations in 1819, it was reasonably inferred that a party of Franklin's men had occupied the spot. But quite conclusive evidence of the fact was supplied by Beechey Island. There were three graves with inscriptions; hundreds of tin canisters used for containing preserved meat; a prostrate direction-post eight feet long; a smith's anvil-block; coal sacks and pieces of canvas; and many remnants of clothing. The graves were those of seamen, who, more fortunate than their comrades, died the common death of men, after experiencing humane attentions from survivors. One of the inscriptions ran as follows: 'Sacred to the memory of John Torrington, who departed this life January 1st, A. D. 1846, on board of Her Majesty's ship *Terror*, aged 20 years.' It was clear, from the dates, that Beechey Island had been the site of Franklin's first winter-quarters, while Cape Riley had probably been occupied

by a detachment as a look-out station. The sacks, canvas, and other articles of like description, were thoroughly bleached by exposure. The direction-post, doubtless one of a number erected as guides for the seamen on returning from exploring excursions, had either been intentionally upset on leaving, or overthrown by the blast. Careful search was made for some written document indicating the condition and intended course of the expedition, but none was discovered, and various circumstances led to the surmise that the place was quitted in haste, probably owing to the sudden breaking up of the ice. In the meanwhile, Winter Harbour had again become memorable. Captain M'Clure, engaged in the great quest, entered upon it from Behring's Strait, and made his way to the eastward, till his ship, the *Investigator*, was inextricably frozen up in the ice. At the head of a travelling-party, he himself reached Melville Island, and left there a record of his position in April 1852, which being found by a searching-party from the *Resolute*, under Captain Kellett, in the following year, was the means of rescuing him and his crew from an apparently hopeless position. They left their vessel to its fate, joined the *Resolute*, returned to England by Baffin's Bay; and are the only individuals who have compassed the northern shores of America, making in this instance a north-east passage.

No additional information was obtained till the year 1854, when Dr Rae learned from the Esquimaux of Boothia Felix that a party of whites had been seen some years before on the west coast of King William's Island, from whence they travelled to the mouth of the Great Fish River, where they all perished of starvation. Some relics obtained from these natives, and brought home, were proved to have belonged to Franklin and several of his associates. This led to the final search conducted by Captain M'Clintock, who sailed in the summer of 1857, in the *Fox*, a yacht purchased and equipped by private liberality. The first winter was passed in the pack-ice of Baffin's Bay, with which the vessel got entangled, was imprisoned eight months by it, and drifted back very nearly 1200 geographical miles. The second winter was spent in a snug harbour at the eastern entrance of Bellot Strait. The season was unusually cold and stormy. But scarcely had the sun begun to peep above the horizon, terminating the long darkness, when, in February 1859, in the course of a preparatory sledging tour, M'Clintock came upon the trail of the unfortunates. He was accompanied by Mr Carl Petersen, a Dane, thoroughly acquainted with the language of the Esquimaux. They proceeded in the direction of the north magnetic pole, and in its neighbourhood encountered four natives, one of whom had a naval button on his dress, which immediately attracted attention. It



Montreal Island, Mouth of the Great Fish River.

came, they were informed, from some white people who were starved upon an island where there are salmon—that is, in a river—an allusion to Montreal Island, at the mouth of the Great Fish River; and the iron of which their knives were made came from the

had fallen from the top, a small tin case was found containing a paper inscribed as follows :

'28 of May } H.M. ships *Erebus* and *Terror* wintered in the ice in lat. 70° 05' N., long. 98° 23' W.
1847.

Having wintered in 1846-7 [evidently a mistake for 1845-6] at Beechey Island, in lat. 74° 43' 28" N., long. 91° 39' 15" W., after having ascended Wellington Channel to lat. 77°, and returned by the west side of Cornwallis Island.

Sir John Franklin commanding the expedition.

All well.

Party consisting of 2 officers and 6 men left the ships on Monday 24th of May 1847.

G. M. GOBE, Lieut.

CHAS. F. DES VŒUX, Mate.'

But this document, inscribed with such words of hope and promise, had been taken up more than twelve months afterwards, to have written round the margin a very different record :

'April 25, 1848.—H.M. ships *Erebus* and *Terror* were deserted on the 22d of April, 5 leagues N.N.W. of this, having been beset since the 12th of September 1846. The officers and crews, consisting of 105 souls, under the command of Captain F. R. M. Crozier, landed here in lat. 69° 37' 42" N., long. 98° 41' W. Sir John Franklin died on the 11th of June 1847; and the total loss by deaths in the expedition has been to this date 9 officers and 15 men.

Signed.

F. R. M. CROZIER,
Captain and Senior Officer.

Signed.

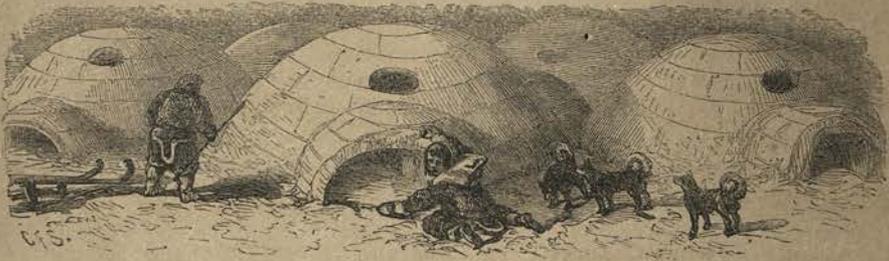
JAMES FITZJAMES,
Captain H.M.S. *Erebus*.

* And start to-morrow, 26th, for
Back's Fish River.'

It thus appears that after being beleaguered by the ice through more than nineteen months, the ships were deliberately abandoned by their crews, hopeless of being extricated; and after the desertion, according to native reports, one was crushed and sunk, while the other, being driven ashore, proved a mine of almost inexhaustible wealth to the Esquimaux. Remarkably enough, Point Victory, close to the scene of disaster, was Sir James Ross's furthest in the year 1830, where two headlands within sight were named by him Cape Franklin and Cape Jane Franklin.

Thus closes a very melancholy story, doubtless the last of the kind which will have to be recorded. As a maritime nation, we must occasionally lose highly-accomplished naval officers and experienced seamen from the perils of the deep, but it ought henceforth to be on the broad commercial highway of the ocean, rather than in the region where its waters annually solidify, and Nature offers obstacles to progress too strong for man to overcome; or where, if any advance rewards the indomitable hardihood of the navigator, there is now no purpose of science to be answered by it, much less of commerce and humanity. The features of the polar zone have been so far illustrated as to render it needless to risk a single life in attempts to thread the mazes of an inhospitable archipelago; where the many-coloured auroras may be bright and beautiful aloft, but where below no cereals can ever flourish, no civilised population be planted, and only the hardest animals can live, whose cries occasionally mingle with the report of the splitting icebergs, and the sound of the passing gale. If the same amount of energy, skill, and money, expended upon north-western expeditions to dreary solitudes, had been devoted to the task of opening intercourse with the populous regions of interior Africa, its many millions might long ago have been enfranchised with the benefits of civilisation, while its cotton would have found its way to the quays of Liverpool and the factories of Lancashire, in sufficient abundance to render its enforced slave cultivation across the Atlantic unprofitable, or deliver us at least from the terrible hazard of depending upon a single source of supply

for the product. It will be of interest to add, that from the earliest polar researches of the Cabots at the close of the fifteenth century to the voyage of M'Clintock, there have been about one hundred and thirty northern expeditions, illustrated in two hundred and fifty volumes and printed documents, of which considerably more than one half have been issued in England. The expenditure must have amounted to several millions sterling. At Spilsby, in Lincolnshire, where Franklin was born, a memorial has been raised in honour of him; and a colossal statue of Crozier surmounts a picturesque pedestal at Banbridge, in the county of Down, the place of his birth.



Esquimaux Snow Huts.



Source of the Ganges.—From a Drawing by Lieutenant White.
(By permission.)

CHAPTER IX.

CENTRAL ASIA, AFRICA, AND AUSTRALIA.



It was the earnest desire of Humboldt, after surveying the elevated regions of the New World in the Andes, to become familiar with the still loftier summits of the Old in the Himalayas. Difficulties interfered with the gratification of this wish, but though he never saw their colossal masses, in 1829, in company with Messrs Ehrenberg and Rose, he again took the pilgrim's staff in hand, and proceeded when a sexagenarian into Central Asia as far as the frontiers of Chinese Sangaria. His journeys in different hemispheres enabled him to compare the two auriferous deposits of the Ural Mountains and New Granada; the porphyry and trachyte formations of the Altai and Mexico; the steppes of Siberia and the llanos of Venezuela; the banks

of the Obi and of the Amazon. As an instance of his sagacity, it deserves mention that while at St Petersburg, before starting, he told the Empress of Russia she might expect some diamonds obtained from the dominions of the czar on his return, so convinced was he that the same district contained them which yielded platinum and gold. Accordingly, on reaching the Urals, he visited the gold-washing districts, and a diligent search for the precious gem was instituted. It was not crowned with immediate success, and the traveller pursued his course. But a few days after his departure, Paul Popoff, a boy of fourteen, one of Count Polier's serfs, found the prize in the mines of Bissersk, and obtained freedom as his reward. This was the first discovered Russian and European diamond, the mines being on the western side of the Ural Mountains. Another was soon procured at the same site, which, being forwarded to Humboldt, enabled him to fulfil his promise to the empress on returning to the capital. During the remaining thirty years of his life, geographical researches excited the liveliest interest in his mind, while the highest honours were paid him, at home and abroad, as undisputed monarch in the realm of physics. In the heyday of prosperity he did not forget, in his misfortunes, his former travelling-companion, Bonpland, with whom he had botanised on the slopes and in the valleys of the great American cordilleras. This eminent man had gone to Buenos Ayres in the year 1818 as professor of natural history, but was for some time lost to the knowledge of the civilised world, and no certain clue could be obtained as to his fate. At last, it was ascertained that in the course of a scientific expedition into Paraguay, he had been seized by a party of soldiers, under the orders of the tyrant Francia, and carried off a prisoner. He was confined chiefly in Santa Martha, but allowed to practise as a physician. Humboldt applied in vain for the liberation of his friend. It was not granted till the death of Francia in 1841, by which time Bonpland had become attached to the scene of his exile. Flowers, shrubs, and trees of his own planting had grown up, and were luxuriantly flourishing around his cabin. He resolved, therefore, to remain where he had lived so long, and survived to the summer of 1858, when Humboldt received a joyous letter from him. He died soon afterwards in his eighty-fifth year, and his old comrade, four years his senior, speedily joined him in the grave.

It was reserved for our countrymen, the masters of India, to be the first Europeans to ascend the passes, ascertain the height, and illustrate the character, of the stupendous wall of the Himalaya on its northern frontier, at first conceived to be simply a range of mountains, but really the outward face, or escarpment of a plateau-region, which occupies the whole of Central Asia, though not to an equal elevation. Early efforts were directed to trace the Ganges to its source on the southern slope, said by the natives to be inaccessible by man, as a spot where its presiding genius sits enthroned in everlasting snows. Two adventurers, Webb and Fraser, successively failed, stopping short at Gangotri, where the first work of man, a temple, appears on the banks of the sacred stream. But in 1817 Captain Hodgson, and in 1831 Lieutenant White, succeeded, after overcoming great natural difficulties, in tracing the Ganges to its real source, 13,800 feet above the level of the sea. 'It issues,' says White, 'from under a low arch, at the base of a vast mass of frozen snow, from which hoary icicles depend, whence has originated the fable of the goddess-river issuing from the hairs of Mahadee. No resemblance, however, is traceable of a cow's mouth either here or at Gungootree.' 'The height of the arch,' Captain Hodgson remarks, 'is only sufficient to let the stream flow under it. The mean breadth was twenty-seven feet, and the greatest depth at that place eighteen inches. The dazzling brilliancy of the snow was rendered more striking by its contrast with the dark-blue colour of the sky, which is caused by the thinness of the air; and at night the stars shone with a lustre which they have not in a denser atmosphere. It was curious, too,

to see them when rising appear like one sudden flash, as they emerged from behind the bright snowy summits close to us; and their disappearance, when setting behind the peaks, was as sudden as we generally observed it to be in their occultations by the moon. We were surrounded by gigantic peaks entirely cased in snow, and almost beyond the regions of animal and vegetable life; and an awful silence prevailed, except when broken by the thundering peals of falling avalanches. Nothing met our eyes resembling the scenery in the haunts of men. By moonlight all appeared cold, wild, and stupendous; and a pagan might aptly imagine the place a fit abode for demons. We did not see even bears, or musk-deer, or eagles, or any living creature, except some small birds.' The spot from which the river starts on its long and stately course, as represented in Lieutenant White's sketch at the head of this chapter, is at the elevation of 13,800 feet above the sea, between three mountains which rise 8000 feet higher.

The attention of the inquiring world was strongly directed to the Himalaya range by Mr Moorcroft's admirable narrative of his ascent of the Niti Pass—one of the great lines of communication between India and Thibet in 1812. He had the double end in view of obtaining specimens of the wool furnished by the flocks grazed on the interior tablelands, from which the celebrated shawls of Cashmere are made, as well as to survey the sacred Lake of Manasarowara, an object of the deepest veneration throughout the realm of Hindu superstition, in both of which he succeeded. The route lay through glens clothed with forests of pine, above which the mountains reared their summits covered with perpetual snow. Danger was continually encountered from the ravines and torrents crossed by bridges of ropes, the steepness of the precipices to be scaled, the abruptness of the slopes, the narrowness of the paths, and the quantities of stones and snow which occasionally descended from the heights. That difficult and quickened respiration connected with attaining a great elevation was also strongly felt, while the remarkable change of temperature in the course of twenty-four hours added to the suffering of the traveller. Before gaining the summit of the pass, 16,814 feet high, blood burst from his lips; giddiness seized him; and the party were obliged to stop at every three or four steps to take breath, and recover their strength. Yet the strange spectacle was witnessed of noble forests of pines, mingled with cypresses and cedars, clothing ridges on which human beings find it difficult to respire, while the somewhat perplexing problem was present, which all travellers have noticed, that on advancing in the Himalayas from south to north, the snow-line, and with it the vegetation, gains in altitude. The case was well stated by Captain Gerard, who visited several of the passes, accompanied by his brother, Dr Gerard, in 1821. 'It seems surprising,' he remarks, 'that the limit of vegetation should rise higher the further we proceed; but so it is. On ascending the southern slope of the snowy range, the extreme height of cultivation is 10,000 feet; and even there, the crops are frequently cut green. The highest habitation is 9500 feet; 11,800 feet may be reckoned the upper limit of forest; and 12,000 that of bushes, although, in a few sheltered situations, such as ravines, dwarf birches and small bushes are found at almost 13,000 feet. Advancing further, you find villages at 13,000 feet; cultivation at 13,600 feet; fine birch-trees at 14,000 feet; and tama-bushes, which furnish excellent firewood, at 17,000 feet.' This result, so contrary to theory and general experience, at first gave rise to the suspicion of error in the calculation of the heights. It was quite unfounded, and the anomaly is susceptible of satisfactory explanation. On the southern side, the Himalaya mountains rise suddenly and in a well-defined line to an enormous height above the plains of Bengal, while on the northern side, they are flanked by very elevated plateau-regions of immense extent; and as the atmosphere is warmed chiefly by the radiation of heat from the terrestrial

surface, it follows that the proximity of a vast mass of high ground on the north of the great peaks raises the temperature in that direction.

In a subsequent journey, in 1824, Mr Moorcroft traversed Afghanistan, crossed the Hindoo-Koosh, and descended into the plains of Turkestan, where his name was added to the long list of the victims to travel. After being robbed by a rapacious Uzbek chief, he died of fever, and his companions, Messrs Guthrie and Trebeck, were also cut off by the same malady. Their remains lie in a humble grave, under a mud wall, outside the ruined city of Balkh. Some years afterwards, every book belonging to the party was recovered, even to their daily cash-account, but no manuscript details of the journey were found. Lieutenant, afterwards the unfortunate Sir Alexander Burnes, in 1831, followed the same route, passed the Oxus, and remained some time at Bokhara, a city which soon acquired a mournful celebrity from the barbarous murder of Colonel Conolly and Captain Stoddart, who were executed there by order of the reigning Ameer. In the winter of 1837-1838, Lieutenant Wood ascended the Oxus valley, and traced the river to its source in a lake on the *Bam-i-Duniyah*, or 'Roof of the World,' at a height corresponding to that of Mont Blanc, a site which no European had visited since the days of Marco Polo and Benedict Goez. 'The aspect of the landscape was wintry in the extreme. Wherever the eye fell, one dazzling sheet of snow carpeted the ground, while the sky overhead was everywhere of a dark and angry hue. Clouds would have been a relief to the eye; but they were wanting. Not a breath moved along the surface of the lake; not a beast, not even a bird was visible. The sound of a human voice would have been music to the ear; but no one at this inhospitable season thinks of invading these gelid domains. Silence reigned around—silence so profound that it oppressed the heart; and as I contemplated the hoary summits of the everlasting mountains, where human foot had never trod, and where lay piled the snows of ages, my own dear country, and all the social blessings it contained, passed across my mind with a vividness of recollection that I had never felt before.—As early in the morning of Tuesday the 20th of February as the cold permitted we walked out upon the lake, and having cleared the snow from a portion of its surface, commenced breaking the ice to ascertain its depth. This was a matter of greater difficulty than it at first sight seemed, for the water was frozen to the depth of two feet and a half, and owing to the great rarity of the atmosphere, a few strokes of the pickaxe produced an exhaustion that stretched us upon the snow to recruit our breath. The human voice was sensibly affected, and conversation, especially if in a loud tone, could not be kept up without exhaustion. A run of fifty yards made the runner gasp for breath.' Explorers have since been numerous in Central Asia, including Dr Thomson, Dr W. Hooker, and Lord W. Hay, among our own countrymen; many Russian travellers, one of whom, M. Semiof, in 1857, was the first European to ascend the Thian-Shan, or Celestial Mountains; and the three German brothers, Adolphe, Herman, and Robert Schlagintweit. A melancholy fate befell the first of these in 1856, who, while pushing on alone, was seized by a robber-chief, and beheaded in front of Kashgar. The culminating-point of High Asia has not yet perhaps been ascertained with certainty. For some time, Dhwlagiri, or the White Mountain, 26,862 feet, was supposed to be the loftiest peak of the Himalayas; then Kunchinjinga, 28,117 feet; but in 1857 a higher mass was found, 29,000 feet, nearly due north of Calcutta, which, having no fixed name, received that of Mount Everest, in honour of a former surveyor-general in India.

We have seen, in a former chapter, that at the close of the eighteenth century, the great continent beyond the waters of the Atlantic, the very existence of which had only been known some three hundred years, was traversed from the icy borders of the Polar Ocean

to the volcanic cones of the Andes, and from the range of the buffalo, on the grassy prairies of the Mississippi, to the realm of the condor, on the snow-clad head of Chimborazo. But a vast part of the old world at this time remained to be explored. Africa—so comparatively contiguous and grand in history, with a name which has been stamped for ages upon its page—the scene of Greek and Roman prowess, under an Alexander, a Scipio, and a Cæsar—the prime emporium of oriental commerce after the fall of Tyre, and the great repository of literature under the Ptolemies—was, as to its interior regions, a land of mystery to the European, with millions of square miles of territory which his foot had never pressed, or his eye seen. Bruce, in 1770, at his own expense, reached the source of the Blue Nile in Abyssinia, the inferior branch of the great river, and a region within the bounds of ancient geographical knowledge. To endeavour to go beyond them, and solve the problem of Central Africa, a society was founded in 1778, with the name of the African Association, the mention of which revives the memory of many gallant-hearted men who lost their lives in its service, either falling victims to the climate, or to the hardships of their pilgrimage, or to the ferocity of the natives. John Ledyard, the first agent, was cut off by disease at the threshold of his journey at Cairo; Major Houghton died, or was murdered by the Moors in the basin of the Gambia; Frederick Hornemann succumbed to sickness south of the Great Desert; and Mungo Park, who made his way to the Niger, perished in the stream.

The latter, a truly admirable traveller, started from the west coast in 1795, reached the mysterious river, heard of from remote antiquity; and was the first European to gaze upon its waters. After undergoing great privations and barbarous treatment from the Moors, he was cheered by the cry from a negro companion, 'Geo affili!'—(See the water!) 'Looking forward,' says he, 'I saw with infinite pleasure the great object of my mission—the long-sought-for majestic Niger, glittering in the morning's sun, as broad as the Thames at Westminster, and flowing slowly to the eastward. I hastened to the brink, and having drank of the water, lifted up my fervent thanks in prayer to the Great Ruler of all things, for having thus far crowned my endeavours with success.' Being forbidden to cross the river, and regarded with fear and astonishment by the natives, he could get no one to entertain him; and was obliged to sit all day in the shade of a tree without food, with the prospect of spending the night in the open air, in a neighbourhood infested with wild beasts. A negro woman at last offered him shelter, supplied his hunger, provided him with a mat to sleep on, and then called to the female part of her family, who had stood gazing all the while in fixed astonishment, to resume their task of spinning cotton, in which they continued to employ themselves great part of the night. 'They lightened their labour,' he remarks, 'by songs, one of which was composed extempore, for I was myself the subject of it. It was sung by one of the young women, the rest joining in a sort of chorus. The air was sweet and plaintive, and the words, literally translated, were these:

"The winds roared, and the rains fell. The poor white man, faint and weary, came and sat under our tree. He has no mother to bring him milk, no wife to grind his corn. *Chorus.* Let us pity the white man, no mother has he, &c."

The only recompense the stranger could bestow in the morning consisted of four brass buttons from his waistcoat. Great sufferings and dangers awaited Park on making his way back to the coast. His clothes were in rags; he was often sick and weary; and from sheer exhaustion his horse fell, quite unable to proceed. 'I sat down,' he observes, 'for some time beside this worn-out associate of my adventures; but finding him still unable to rise, I took off the saddle and bridle, and placed a quantity of grass before him. I surveyed the poor animal as he lay panting on the ground, with sympathetic emotion, for I could not suppress the sad apprehension that I should myself, in a short

time, lie down and perish in the same manner, of fatigue and hunger. With this foreboding I left my poor horse.'

Being penniless, Park had to subsist upon the charity of the negroes, and was once stripped quite naked by the Moors, who, however, threw him back the worst of two shirts and his trousers. 'Whichever way I turned, nothing appeared but danger and difficulty. I saw myself in the midst of a vast wilderness, in the depths of the rainy season, naked and alone—surrounded by savage animals, and men still more savage. I was 500 miles away from the nearest European settlement. All these circumstances crowded at once on my recollection; and I confess that my spirits began to fail me. I considered my fate as certain, and that I had no alternative but to lie down and perish. The influence of religion, however, aided and supported me. I reflected that no human prudence or foresight could possibly avert my present sufferings. I was indeed a stranger in a strange land; yet I was still under the protecting eye of that Providence who has condescended to call himself the stranger's friend. At this moment, painful as my reflections were, the extraordinary beauty of a small moss, in fructification, irresistibly caught my eye. I mention this to shew from what trifling circumstances the mind will sometimes derive consolation; for though the whole plant was not larger than the top of one of my fingers, I could not contemplate the delicate conformation of its roots, leaves, and capsula, without admiration. Can that Being, thought I, who planted, watered, and brought into perfection, in this obscure part of the world, a thing which appears of so small importance, look with unconcern upon the situation and sufferings of creatures formed after his own image?—surely not! Reflections like these would not allow me to despair. I started up, and, disregarding both hunger and fatigue, travelled forwards, assured that relief was at hand; and I was not disappointed.' Park came back safely to the limits of civilisation, having accomplished the distance of 2200 miles, going and returning, between the mouth of the Gambia and Silla on the right bank of the Niger.

Nothing daunted by the hardships of his first journey, the traveller volunteered for another, and was despatched with thirty-six companions, carrying various articles to distribute as presents, and tools for the construction of boats with which to descend the river. He followed his former route, and on the 19th of August 1805, from the brow of a hill, he once more saw the Niger rolling its immense stream along the plain. But having journeyed in the rainy season, the mortality had been so great, that only seven of the party survived, and these were in an enfeebled state. He contrived, however, to construct a boat out of two old canoes, and embarked on the river. No tidings were from that time received from himself; but a negro attendant brought back his journal to the Gambia. It was ultimately ascertained, that at a difficult passage of the stream the natives on both banks were hostile; and the whites were either killed by their arrows, or drowned in attempting to effect their escape.

During the early part of the present century, numerous attempts were made to strike out paths into the interior of Africa, both from the west and north coasts, often attended with most mournful results, either from the climate or the barbarity of the inhabitants. With its commencement, Hornemann, a German, disappeared from notice on the borders of the Great Desert, but accomplished its passage, as was afterwards ascertained, and succumbed to sickness at Nyffé on the Niger. To remove the mystery respecting the embouchure of this long-known stream, an expedition was despatched under Captain Tuckey in 1816, to ascend the river Congo or Zaire, under the idea that it would prove its outlet. But after exploring it nearly 300 miles, in boats and on foot, fever assailed the party, and enforced a return, 'a terrible march,' in the words of the commander,

'worse to us than the retreat from Moscow!' Upon regaining the ship, all the scientific men perished one after another, and their leader did not long survive his comrades. Equally calamitous was a coincident attempt to reach the Niger by the old route of the Gambia, as three successive officers in command, Major Peddie, Captain Campbell, and Lieutenant Stockoe, were cut off by the fell fever of the country. The same fate befell Mr Ritchie in 1819, at Mourzouk, the capital of Fezzan, as he was about to start for the interior in company with a caravan. Many casualties of this kind might doubtless have been avoided by proper knowledge of the season of the year best adapted for travelling, with due attention to diet, clothing, and the resting-place at night.

The next adventurers in this direction were Major Denham, Captain Clapperton, and Dr Oudney, who achieved a signal success, though two of them ultimately sacrificed their lives to the love of enterprise. Proceeding from Tripoli to Mourzouk, they set out from thence on the 29th of November 1822, to cross the Sahara to the kingdom of Bornou, having heard that the route thither was as open as the road between London and Edinburgh. For days together, not a bird or insect was seen in the desert, nor a living thing apart from the kafila. After toilsome marching under a burning sun, the travellers were delighted with the silence and beauty of the night. The moon and stars shone out with peculiar brilliance; cool breezes succeeded to the heat of the day; and the movement of the blown sand seemed like the murmur of a gentle stream. The deep stillness rendered every noise doubly impressive, while the surrounding waste returned an echo to every sound. In some parts of the route from sixty to ninety human skeletons were passed each day; but the number was countless grouped around some particular wells. They were the bones of unhappy beings captured in the wars of the interior, who perished by the way, as they were dragged through the desert, destined to be fattened in Fezzan for the slave-market of Tripoli. At length, the face of the country began to improve every mile. Joyous valleys were entered clothed with herbage up to the horses' knees, gay with flowering plants diffusing aromatic odours, cheered by the melody of songsters, and enlivened by herds of large fawn-coloured antelopes, with numbers of guinea-fowl. But by far the most gratifying and inspiring sight was the great fresh-water lake Tchad, 'glowing with the golden rays of the sun in his strength,' first seen by European eyes on the 5th of February 1823. Reeds and tall grasses which overtopped the heads of the horsemen fringed the shores; birds of beautiful plumage appeared in the trees; elephants, hippopotami, and buffaloes crashed through the jungle; monkeys, the 'enchanted men' of the natives, chattered at the strangers with impudent familiarity; and multitudes of water-fowl evinced no alarm at the presence of the intruders. They visited Kouka, the chief town of Bornou, and were hospitably received by the chief and his subjects. Clapperton succeeded in reaching Soccatoo, the capital of the Fellatahs, on a tributary of the Niger, but had to mourn the death of his companion, Dr Oudney, by the way. Here provisions were regularly sent to him from the sultan's table, on pewter dishes bearing a London stamp; a piece of meat was served up in a white wash-hand basin of English manufacture; and during the journey he had purchased an English cotton umbrella. Having rejoined Denham, who had been left behind, they made good their passage northward through the desert to Tripoli.

In less than twelve months after his return home, Clapperton was equipped for a second journey, and commissioned to proceed by a shorter route to the populous regions of the interior. He chose for his starting-point the town of Badagry on the Gold Coast. During the first month, and on the same day, the deadly malaria cut off his two scientific companions, Captain Pierce and Dr Morrison. But he regained his old station at

Soccatoo, and by now reaching it from the south, as he had before done from the north, a complete itinerary was made of the continent between the shores of the Mediterranean and those of the Gulf of Guinea. This was the limit of his pilgrimage. Under the combined influence of depression from the loss of his friends, fatigue, and sickness, he wasted to a skeleton, and expired on the 13th of April 1827. A faithful servant watched over his last moments, Richard Lander, who made his way back to the coast, and brought his master's papers to England, but very nearly fell a victim to the vindictive jealousy of the Portuguese slavers at Badagry. They denounced him to the native king as a spy of the British government, and the chief men resolved to subject him to the ordeal of drinking a fetich. 'If you come to do bad,' said they, 'it will kill you; but if not, it cannot hurt you.' There was no alternative or escape. Poor Lander swallowed the contents of the bowl, and then walked hastily out of the hut, through the armed men who surrounded it, to his own lodgings, where he lost no time in getting rid of the drink by a powerful emetic. He afterwards learned that it almost always proves fatal. Finding him unharmed after five days, the natives treated him with great respect as being under the special protection of supernatural power.

About the same period, Major Laing perished by the hand of violence in the cause of African discovery. He left Tripoli with a caravan to cross the desert to Timbuctoo, a town long known by name, and of some importance, but magnified by report into a vast city of Moorish magnificence. Attacked by the banditti of the wilderness, our countryman received twenty-four wounds, and was left for dead. But he recovered to the surprise of his associates, and accomplished the main object of his mission. The last communications from him were dated from Timbuctoo, which he entered in August 1826, and where he remained upwards of a month. But upon leaving that place for the southward, he was foully murdered by a Moorish trader, for the sake, as was supposed, of gaining possession of his papers. Timbuctoo was visited shortly afterwards, in 1828, by René Caillié, a young Frenchman, who reached it from the west coast, remained about a fortnight, and returned through the Sahara into Marocco. His account of the town, as 'a heap of houses neither so large nor so well peopled as I expected,' received at first with suspicion, along with the entire narrative of his adventures, has since been verified.

To explore the lower course of the Niger, and ascertain its outlet, Richard Lander was employed in the year 1830, along with his brother John, who amply justified their selection for the undertaking. They reached the river by an overland journey at Boussa, the capital of one of the petty kingdoms on its banks, and the place near which Mungo Park met with his tragical death. Here, in September of the year named, a characteristic African scene was witnessed. 'The early part of the evening had been mild, serene, and remarkably pleasant. The moon had arisen with uncommon lustre, and, being at the full, her appearance was extremely delightful. It was the conclusion of the holidays, and many of the people were enjoying the delicious coolness of a serene night, and resting from the laborious exertions of the day. But when the moon became gradually obscured, fear overcame every one. As the eclipse increased, they became more terrified. All ran in great distress to inform their sovereign of the circumstance, for there was not a single cloud to cast so deep a shadow, and they could not comprehend the nature or meaning of an eclipse. Groups of men were blowing on trumpets, which produced a harsh and discordant sound: some were employed in beating old drums, others again were blowing on bullocks' horns. The diminished light, when the eclipse was complete, was just sufficient to enable us to distinguish the various groups of people, and contributed in no small degree to render the scene still more imposing. If an European, a stranger to Africa, had been placed on a sudden in the midst of the terror-struck people, he would have

imagined himself among a legion of demons, holding a revel over a fallen spirit.' The Landers solved a problem which had long perplexed geographers, by tracing the Niger downwards to its termination in the Bight of Benin. The river is the Quorra of the natives in the lower part of its course, and the Joliba in the upper. Ten years elapsed after the mouth of the great stream was thus opened to the knowledge of the civilised world before any attempt was made to establish commercial intercourse with the people on its banks. The first expedition for this purpose, from our own shores, was attended with a disastrous mortality which made the nation mourn. Three steamers were despatched by the government in 1841, the *Albert*, the *Wilberforce*, and the *Soudan*, in the hope of arresting the slave-trade by the introduction of legitimate traffic. But the fell malaria, engendered by the mangrove swamps, proved fatal to one-third of the crews, while the energies of the survivors were prostrated by its influence, and the design was defeated. Since that period, however, the river, along with its great affluent the Chadda, has been ascended a considerable distance by the whites, without the loss of a single life, owing to improvements in the treatment of African fever, and knowledge of the season when the banks are the least pestiferous.

Discovery made a very successful start with reference to Africa in the year 1849, since which period the veil has been lifted up from large tracts of country before unknown,



Bavian's Kloof, Genadendal, South Africa.

while others previously entered have been more fully illustrated. Entirely new ground was opened up, in the southern part of the continent, by Dr Livingstone, who went forth single handed into the wilderness, acquired a complete ascendancy over the natives with whom he associated, and displayed a courage combined with prudence which has been rarely equalled, never surpassed. This remarkable man first landed on African soil at Port Elizabeth in Algoa Bay, in the year 1840, in the service of the London Missionary Society. He had high objects in view and a brave heart, but little calculated at that time upon the perils and fatigue to be encountered in penetrating the unknown lands of a region 'whose soil is fire and wind a flame.' Suffering and danger from exposure to

intense heat, from length of way, from hostile and treacherous tribes, from wild animals and venomous snakes, from starvation, from the dire torment of thirst, from miasmatic swamps and disease in various forms, were confronted with a patient endurance which provokes admiration; the more so, as in his great journeys he had no European coadjutor, and the chief part of his track was through a country never before trod by European footsteps. Little can those who sit at ease in their homes, repose on downy beds, or move about in luxurious style upon the rail—passing rapidly over streams, marshes, and moors, without inconvenience—compassing hill and valley with no perceptible change of level—appreciate the self-sacrifice involved in exploring tours beyond the bounds of cultivated society. No home is known for months together, sometimes for years; and frequently no facilities for locomotion are enjoyed beyond pedestrianism, with now and then a canoe, an oft-jaded steed, or a bullock-wagon, though thousands of miles are accomplished over plains of untracked sand, through many a net-work of flooded streams, or wilds savage in appearance, difficult in reality, and dangerous from their inhabitants. Previous to the Cape of Good Hope becoming a permanent British possession, the country from thence to the Orange River had been explored by the Dutch, and information obtained by Lichtenstein of the southern Bechuanas beyond it. Burchell, the traveller, visited their capital, Lattakoo, in 1812, as did Campbell, the missionary, in 1813, who advanced northward to Kurrichaine in 1820. But his furthest north was exceeded by Dr Andrew Smith in 1834, and by Captain Alexander, among the Damaras, in 1837, though both fell short of the Tropic of Capricorn. Immediately on landing, Livingstone proceeded to Kuruman, the most northerly mission station, about a hundred and fifty miles beyond the frontier of the colony. This had been founded some twenty years previously by Messrs Hamilton and Moffat, and is often kindly mentioned by wayworn scientific travellers and gentleman-hunters, Dr Smith, Mr Methuen, Gordon Cumming, and others, for the hospitality of its inmates. Secluding himself from European society, he plunged for six months among the natives, in order to gain an exact knowledge of their language and habits; and after various locations, finally selected a new post in advance on the river Kolobeng, the name of which was given to the settlement. Here he erected the third house reared with his own hands. 'A native smith,' says he, 'taught me to weld iron; and having improved by scraps of information in that line from Mr Moffat, and also in carpentering and gardening, I was becoming handy at almost any trade, besides doctoring and preaching; and as my wife could make candles, soap, and clothes, we came nearly up to what may be considered indispensable in the accomplishments of a missionary family in Central Africa—namely, the husband to be a Jack-of-all-trades without doors, and the wife a maid-of-all-work within.' From this starting-point he opened a new world to the knowledge of his countrymen; but his principal object at first in travelling northward, was the discovery of a position to which the people under his care might remove, and be secure from the troublesome neighbourhood of the Dutch boers.

Leaving Kolobeng on the 1st of June 1849, and skirting the great Kalahiri Desert, Livingstone passed the Southern Tropic, and discovered Lake Ngami, a spacious but shallow expanse, in a country teeming with game of the largest size—elephants, rhinoceroses, buffaloes, hartebeests, zebras, gnus, and giraffes. After revisiting the lake region in a second journey, and penetrating northward in a third, he repaired to the Cape to prepare himself for lengthened exploration, a distance of 1300 miles going and returning, during which his home was destroyed by the boers, the settlement desolated, and the tribe scattered. He now determined to send his wife and children to England by the usual route, and find his own way through the unknown wilderness of interior Africa to the regions of civilisation. In the prosecution of this design, begun on the 15th

of January 1853, he gained the Leambye or Zambesi, in the central part of the country, ascended the river northerly for several hundred miles with an attached band of natives, then turned to the west, and emerged on the coast at the town of St Paul de Loando, in the Portuguese province of Angola, having gone through twenty-five degrees of latitude from the Cape. Retracing his steps to the Zambesi, he next followed the course of the stream, which, after flowing from the north, bends to the east; and reappeared in the summer of 1856 at its mouth on the east coast, within the Portuguese territory of Mozambique, having crossed the continent through twenty-two degrees of longitude. Great physical difficulties beset his course, especially at the outset, when he had only the assistance of a single companion. Not the least was the passage of streams lined with scarcely penetrable forests of reeds. 'It was not the reeds alone we had to pass through,' he states, in describing the crossing of the Chobe, 'a peculiar serrated grass, which at certain angles cut the hands like a razor, was mingled with the reed, and the climbing convolvulus, with stalks which felt as strong as whipcord, bound the mass together. We felt like pigmies in it, and often the only way we could get on was by both of us leaning against a part, and bending it down, till we could stand upon it. The perspiration streamed off our bodies, and as the sun rose high, there being no ventilation among the reeds, the heat was stifling, and the water, which was up to our knees, felt agreeably refreshing. After some hours' toil, we reached one of the islands. Here we met an old friend—the bramble-bush. My strong moleskins were quite worn through at the knees, and the leather trousers of my companion were torn, and his legs bleeding.'

While formidable carnivora and other animals were encountered in vast numbers, the most extraordinary living object, and one of the most dangerous, was met with in an insignificant creature—the tsetse-fly, *Glossina morsitans*. This was on approaching the tropic, though its range is chiefly beyond it, but not known as yet to extend to the equator. The insect, some specimens of which were first brought to England by Major Vardon in 1848, is not so large as our meat-fly, though with longer wings. But it is armed with a poison equal to that of the most deadly reptile, yet apparently of a very capricious nature. On man, its wound has no effect, more than that of a mosquito; but domesticated animals, in general, especially horses, oxen, and dogs, it surely kills. The strangest circumstance is, that all the wild quadrupeds, however analogous to its victims, as the zebras, buffaloes, and jackals, either bear its attack with perfect impunity, or are not assailed at all, as they feed at leisure in the localities of the insect. It is at present perfectly inexplicable what quality exists in domestication which renders domestic animals obnoxious to the poison, and why man should escape its evil influences, being the most domestic of all creatures. Travellers have lost all their draught-oxen and horses by the tsetse, and have thus not only had their journey marred, but their personal safety endangered, from the want of means of conveyance. Gordon Cumming was in this way completely stranded in the wilderness, and was indebted for his rescue to the timely arrival of assistance from Livingstone at Kolobeng, who heard of his predicament. 'One of my steeds,' says the bold hunter, 'died of the tsetse. The head and body of the poor animal swelled up in a most distressing manner; his eyes were so swollen that he could not see; and in darkness, he neighed for his comrades who stood feeding beside him.' In some instances, death takes place soon after the bite is inflicted; but more generally, it produces emaciation, loss of sight, and the animal perishes of exhaustion. The destructive pest is never or rarely found in the open country, but frequents hills, where there are bushes or reeds. It is fortunately confined to particular spots, and is never known to quit its haunts, so that cattle may graze securely on one side of a river, while

the opposite bank swarms with the insect. At the conclusion of his remarkable undertaking, Livingstone sailed from the mouth of the Zambesi for England, where he was received with universal enthusiasm; and has since returned at the head of an efficient party to the basin of the river, still further to illustrate its features. The rich cotton-growing valley of the Shire, one of its leading tributaries, has since been explored up to the Nyassa Lake, of which the stream is the outlet, an expanse trending northerly in the direction of the equator.

In Central Africa, careful and comprehensive researches, extending over an interval of six years, from February 1850 to September 1855, were conducted by Dr Barth, a German, appointed along with his countryman, Dr Overweg, as men of science, to accompany Mr Richardson, a political agent of the British government. The three travellers entered upon their mission at Tripoli, and crossed the Sahara through a remarkably stony portion of it, some distance westward of the general track, encountering great difficulty and danger on the way. They then separated to explore independently, intending to rejoin at Kouka, the capital of Bornou, but all three never met again. Fever carried off Mr Richardson in March 1851, and natives buried him in a grave well protected with thorny bushes, which the survivors visited. In the next year, after completing the survey of Lake Tchad, in a small boat which had been conveyed all the way from Malta, and was named the *Lord Palmerston*, exertion and the climate proved fatal to Dr Overweg, who had the comfort of his friend's presence in his last hours. Thus left alone in the heart of the continent, under such discouraging circumstances, Dr Barth pursued his labours with admirable perseverance and courage. He explored and mapped the central Niger; sojourned through seven weary months of duration at Timbuctoo; heard tidings there of Mungo Park and Major Laing; disclosed a region teeming with towns, villages, and tribes cursed by intestine wars to find victims for the slave-market; and returned to publish a narrative of his travels, during which he had traversed from first to last full 12,000 miles, passing over twenty-four degrees of latitude and twenty degrees of longitude. Before quitting the country, he was joined by Dr Vogel, a young Prussian astronomer, officially despatched by our government to render him assistance, who remained behind, desirous of adding his name to the list of African discoverers. He has probably perished, according to rumour, by violence; nothing certain has been heard of him since the date of his last letter, written at Kouka, December 5, 1855. After eight years of suspense, an affectionate tribute to his memory has appeared from the pen of his sister, entitled *Reminiscences of a Missing Man*.

Exploring from the west coast of equatorial Africa, where the Gaboon River enters the ocean, M. du Chaillu penetrated to a region of great interest from its fauna, not known to have been trod before by the white man's foot, and returned in 1860 to startle society by a narrative of surprising adventures. He had objects of natural history in view, and has probably done more than any single unassisted traveller to illustrate African zoology. Unfortunately for himself, not having been sufficiently exact in jotting down notes of his movements, discrepancies were detected, which roused suspicion, or provoked discredit in various quarters. But the accounts bear the impress of substantial truthfulness; and the traveller could point, in justification of them, to a large collection of huge anthropoid apes, quadrupeds, reptiles, and birds, many of which were quite novel, and are now in the British Museum. The scene of his eventful wanderings through nearly four years, extends from 2° north of the equator to the same distance on the south. It is partly mountainous and partly a plain, drenched with heavy rains through nine months of the year, and overgrown with difficult jungles and gloomy forests. This was the hunting-ground of the naturalist—ground where fever holds its court, surely assails the



Engraved by E. Radclyffe.

Naples from Monte Martino

stranger, and makes him feel its power, even if no fatal result ensues. In one part north of the equator, a race of cannibals was met with; in other districts, the symbols of Mohammedanism appeared; but southward of the line, on this side of the continent, the faith of the Crescent does not seem to have been propagated. No lions or elands were encountered. But here the gorilla, an animal of gigantic strength and terrible ferocity, is 'lord of the forests.' It may be called the 'wild man of the woods,' as the creature in which the brute kingdom culminates, making the nearest approach of all the apes to the human subject. It was seen by the old Carthaginian voyagers (see p. 12); and then completely passed away from the knowledge of the civilised world, till, at a very recent date, a few skins and skeletons obtained by traders on the coast were brought to the museums of Europe. To M. du Chaillu the merit belongs of having invaded the forests in which lurks the formidable animal, and of illustrating the aspect, nature, and habits of the living examples.

From the east coast of Africa, the most recent and interesting additions to knowledge respecting the equatorial interior have been obtained. To Messrs Krapf, Rebmann, and Echart, agents of the Church Missionary Society, the credit belongs of having initiated geographical discovery in this direction. As the result of exploring tours from their station at Mombas, commencing in 1847, they announced the existence of snow-mountains nearly under the equator, but to the southward of it, Kilimanjaro and Kenia. This intelligence excited at first the liveliest interest as likely to afford a clue to the long-sought source of the Nile. For mountains in such a latitude to rise above the snow-line, they must have an elevation closely approaching 20,000 feet, and accordingly this was the altitude assigned to them. But the appearance of perpetual snow was thought by many to be an illusion occasioned by the whiteness of the rock, and the distance of the view; and the alleged discovery of the towering highlands was either discredited by them, or considered uncertain. All doubt, however, has been removed upon the point, after twelve years of suspense, by Baron von der Decken, who, accompanied by Mr R. Thornton, was at the spot in 1861. 'Mount Kilimanjaro,' he states, 'is 21,000 feet high, and covered with permanent snow. I have not been able to reach the top, but only an elevation of 8000 feet, many difficulties being this time in my way, as heavy rains and want of provisions. I carried a line of triangles from Mombas to the mountain by which I make its height 21,000 feet, subject to slight modification, after calculating all the elements. The uppermost 3000 feet are covered with snow. I have explored this stupendous mountain from three sides during nineteen days.' At the same time, along with the snow-mountains, the existence of a great inland lake region, long heard of from Arab traders, had been more distinctly certified by the missionaries.

In search of this lacustrine district, Captains Burton and Speke were out in 1857-1859, under the auspices of the Geographical Society of London. They started from Zanzibar, traversed 2700 miles of land going and returning, and passed through a region never before visited by Europeans. Lake Tanganyika, or 'the meeting-place of waters,' the picturesque meaning of its African name, was discovered some distance south of the equator, lying in the lap of the mountains, basking in the tropical sunshine, and was partially explored in two canoes. During the illness of his companion, Speke made his way to another large expanse further to the north, now called the Victoria Nyanza; and returned from its shores with the full conviction of its being the great reservoir from which the White Nile derives its waters—an idea which has proved to be correct.

The remarkable properties of the Nile, such as the regularity of its overflow, the fertilising influence of the inundation, the sweetness and salubrity of the water, contributed to fix attention upon it in early ages, and rouse curiosity respecting its origin. The

way by its two visitors, Captains Speke and Grant. Reversing the natural order of discovery, they had struck the fountain-head from the east coast, and thence descended upon the channel. Departing from the neighbourhood of Zanzibar, these gallant Anglo-Indian officers made for the lofty and extensive lacustrine plateau of the equatorial interior, reached the Victoria Nyanza, skirted its shores to the main outlet, and followed its course to the meeting with Mr Petherick at Gondokoro, thence proceeding by Khartum, Assouan, Thebes, and Cairo to Alexandria. They left the east coast in October 1860; disappeared in the wilds of the interior in September 1861; and nothing was heard of them till the pithy telegram was received at the Foreign Office, London, in May 1863, 'The Nile is settled.' The secret of ages is thus out at last; and it is a fair subject for congratulation that its disclosure has been effected by two of our own countrymen, who have accomplished a feat which baffled Egyptian kings and Roman emperors in the plenitude of their power.

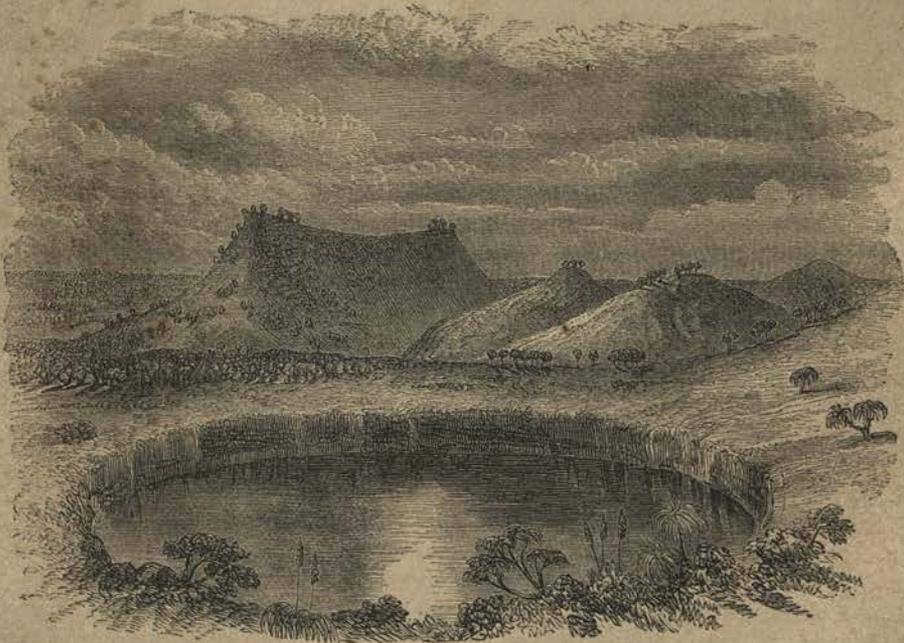
'The mystery of Old Nile is solved: brave men
Have through the lion-haunted inland passed,
Dared all the perils of desert, gorge, and glen,
Found the far source at last.'

The journey was performed on foot, and involved a walk of 1300 miles. From the middle of the northern boundary of the lake, the parent stream of the Nile issues with considerable width, and leaps over a fall of twelve feet in height. Though the main reservoir of the river, the Nyanza, has its feeders, among which the ultimate source remains to be detected.

First descried from the deck of the Dutch ship *Duyffen*, Australia was explored on its east coast by Cook in 1770. New South Wales, its first colony, from which most of the others have proceeded, was settled in 1788. After the settlement of the first English colony on its shores, Australian discovery was for some time confined to tracing out the sinuosities in its vicinity, and thus ascertaining the details of the coast-line. In this task, two young men were prominent, Messrs Bass and Flinders, the former a surgeon in the navy, the latter a midshipman, whose means were at first limited to a little boat eight feet long, which they called the *Tom Thumb*. The coves to the southward of Port Jackson were examined; the insulation of Van Diemen's Land was determined, the merit of which is chiefly due to Mr Bass, whose name was given to the separating strait; and jointly in a small schooner they circumnavigated that island, exploring its rivers and harbours. Having gained promotion, and being appointed by the home-government to the *Investigator*, a ship expressly fitted out for the service, Captain Flinders, during the years 1802 and 1803, minutely surveyed the southern and eastern coasts, with a large part of the northern, and was the first to introduce the appropriate name of Australia as a substitute for the old Dutch name of New Holland. He disclosed more fully the world-famous Port Philip, along which hosts of ships have gone up to Melbourne; discovered the great inlets of St Vincent's and Spencer's Gulfs, now included in the colony of South Australia; and landed on Kangaroo Island, which lies off the mouth of the latter, and protects it from the roll of the Southern Ocean, being probably the first human being that ever stepped upon the strand. This large island received its name from the number of the animals found there, which were at that time so tame as to allow the sailors to knock them down like sheep. 'On going towards the shore in a boat,' says Flinders, 'a number of dark-brown kangaroos were seen feeding upon a grass-plot by the side of a wood, and our landing gave them no disturbance. Never, perhaps, had the dominion possessed here by the kangaroos been invaded before this time. The seal shared equally the shores, but they seemed to dwell amicably together. It not

unfrequently happened that the report of a gun fired at a kangaroo near the beach, brought out two or three bellowing seals from under bushes considerably further from the water-side. The seal, indeed, seemed to be much the more discerning animal of the two, for its actions bespoke a knowledge of our not being kangaroos, whereas the kangaroos not unfrequently appeared to consider us to be seals.' Encounter Bay, to the eastward, was so called by the navigator as the spot where he met with M. Baudin, in command of the corvette *Géographe*, when a peaceful interview took place between the officers and crews in time of war. Surveying voyages successively prosecuted by Captains King, Wickham, Grey, Stokes, Stanley, and others, have since completed the illustration of the Australian coast-line, but down to a very recent date, portions of the north-western shores were only conjecturally delineated on our maps.

For twenty-five years after the first Australian colony, that of New South Wales, was started, nothing was known of the interior of the island-continent except at a comparatively short distance from the shores. The inhabitants of Sydney looked wistfully westward to the Blue Mountains, visible from the heights around, which long foiled every effort made by the government surveyors, as well as by enterprising settlers, to pass them, owing to their tortuous and profoundly deep defiles, bounded by vertical walls of rock, and often terminated by a similar perpendicular facing. Mr Bass succeeded in scaling several precipices by means of iron hooks fastened to his arms, and was let down by ropes



Volcanic Lakes and Mountains, South Australia.

into intervening chasms, but after fifteen days' exertion he relinquished the task as hopeless. The colonists had almost universally adopted the opinion, that the barrier was insurmountable, when a practicable passage was found in the year 1813, leading to the pastoral lands since known as the Bathurst gold-fields. This route was traversed by Governor Macquarie, with his lady, and a retinue of officers, in May 1815, and is now the great western road of the colony. In consequence of this discovery, a large extent of

country on the further side of the mountains was rapidly opened up by explorers and squatters. The Macquarie, Lachlan, and Darling Rivers were met with, and believed at first to flow into some vast inland sea, the existence of which in Central Australia was long a favourite notion with speculative geographers. Northward, in 1823, Mr Oxley surveyed the Moreton-Bay district, now Queensland, and named its principal stream the Brisbane. Southward, in 1824-5, Messrs Hovell and Hume, spirited sheep-farmers, pushed their way overland to the shores of Port Philip, and were the first Europeans to cross the greatest known Australian river, subsequently called the Murray. In 1830, this stream, which collects the western waters of New South Wales, was traced by Captain Sturt to its discharge into Lake Victoria, a shallow arm of the sea communicating by a narrow channel with the open ocean at Encounter Bay. Numbers of the aborigines were seen, who could scarcely be brought to believe that the discovering-party were of the same genus as themselves, and placed their hands against those of the strangers, in order to ascertain if the number of fingers on each corresponded. Nothing astonished them more than the act of taking off the hat, as they seem to have considered it an integral part of the bodies of their strange visitors. Sturt's representations of this region led to the first exploration of the Adelaide country, with a view to the establishment of a new colony, that of South Australia. Captain Barker, at the head of a party of eight persons, charged with this mission, perished in the execution of it. On reaching the narrow channel connecting Lake Victoria with the sea, he stripped himself, and swam across, for the purpose of looking out from a convenient site. 'Curiosity prompted me,' says a bystander, 'to time his crossing. The current was running out strong; but he accomplished the feat, at 9.58 A.M., in three minutes. On arriving at the opposite shore, he ascended the sandhill, gazed around for a few moments, and disappeared.' He was never seen afterwards. But it was ascertained that three natives speared him as he rushed into the water to escape from them, and the tide carried away his body.

Many lamentable incidents of a similar kind mark the history of adventure in Australia. In 1835, Major, afterwards Sir Thomas Mitchell, started from Bathurst on an exploring tour, with a numerous and well-equipped party, one of which was Mr Peter Cunningham, the indefatigable and accomplished botanist. Lured by his love of plants to wander from the main body, he disappeared in the interminable wilderness, and though carefully sought for, was never found. But from facts which subsequently came to light, he appears to have been murdered by the natives. An obelisk commemorates him in the Botanic Garden at Sydney. It was the custom of this estimable man to carry about with him in his excursions a bag of peach-stones, which he carefully planted in the sterile wilds for the benefit of future travellers, as well as of the aborigines. If a peach-stone is planted in the ground, in any part of this country where some supply of moisture is obtained, there will be a tree laden with fruit in three or four years, without any kind of culture. Peaches are now commonly met with wild in the woods, and yield a wholesome refreshment to the wayfarer, the more valued, as the native forests afford nothing whatever in the shape of fruit for the sustenance of man. 'I was much struck with this circumstance,' justly remarks a relator of it; 'and while I could not help commending, in my very heart, the pure and disinterested benevolence it evinced, I could not help inwardly regarding it as a lesson for myself in the future, and a reproof for the past. Alas! how many spots have we all passed unheeded in the wilderness of life, in which we might easily have sown good seed if we had so chosen. Such spots we may never revisit; and the opportunity of doing good, which was thus afforded us, but which was suffered to pass unimproved, will consequently never return.'

Early travellers in this remarkable country were sometimes embarrassed by the changed aspect of certain tracts, when revisited after no distant interval, which shewed an alteration upon a larger scale than that exhibited by the streams at different seasons of the year, which a colonial has described :

‘ Exhausted by the summer sun,
The schoolboy fords the broad Coquun ;
For then the slow meandering stream
Shrinks from the hot sun’s fiery beam,
And, like a wounded serpent, crawls
From Cumberoy to Maitland Falls ;
But when the autumnal deluge swells
Each little brook in yonder dells,
And twice ten thousand torrents pour
From cliff and rock with deafening roar
Oh ! then he rolls with manly pride,
Nor stream nor storm can stem his tide !’

Mr Oxley, in 1817, found a noble expanse near the Lachlan, which he called Regent’s Lake. When this was sought for by Sir T. Mitchell, in 1836, it was for the most part an extensive plain, covered with luxuriant grass. There was some water at one extremity scarcely a foot deep, the refuge of black swans and pelicans, the latter standing high upon their legs above the remains of the lake. That it had been a splendid expanse at no distant date, was evident from the water-line on the shores, while, within this former boundary, stood dead trees of a full-grown size, apparently killed by too much moisture. The site had thus been woodland, lake, and grassy plain. In 1828, Lake George was a fine sheet of water, seventeen miles in length by seven in breadth, extending into the counties of Argyle and Murray. But it was without fish, and surrounded by dead trees of the eucalyptus, some of them two feet in diameter, which also extended into it till they were wholly immersed. An old native female remembered the time when the whole was a forest, a statement supported by the presence of the lifeless timber. In October 1836, the entire lake was gone ; and its basin was a grassy meadow, similar to the adjoining Breadalbane plains. Alternating cycles of extreme moisture and drought, extending through considerable periods, offer perhaps the true explanation of the transitions.

Soon after the colony of South Australia was founded, its government despatched Mr Eyre from Adelaide overland to King George’s Sound. The long journey was accomplished in the year 1840, but the route only disclosed a thoroughly inhospitable region, in traversing which, all the party suffered severely from fatigue and privation, while some of its members perished by the way. The next year, the same explorer, who believed in the existence of a great central sea, was directed to strike northward into the interior, from Spencer’s Gulf, and if possible reach the Tropic of Capricorn. He failed in the latter object ; and instead of meeting with a grand inland reservoir, the singular horseshoe Lake Torrens was discovered, a huge serpentine tract of soft boggy ground or mud, covered in places with a shallow sheet of salt water, but often extensively converted by heat and drought into a desert of loose drifting sand. The next attempt to reach the heart of the country was made by Captain Sturt, in 1845, who succeeded in the object ; closely approached the southern tropic due north from Adelaide, under the meridian of 130° E. ; but narrowly escaped with life from a region wholly destitute of water, and rivalling in its sterility the worst parts of the African Sahara. The opinion was general from this date, till corrected by very recent experience, that the whole of Central Australia is a frightful wilderness, incapable of supporting life, and therefore unworthy of any hazard being encountered in the attempt to traverse

the dry and desolate waste. At the time when this adventure was in progress, an unobtrusive German naturalist, Dr Ludwig Leichardt, with seven companions, made the overland passage from Moreton Bay to Port Essington, during which he discovered and named the Burdekin, with other rivers, and returned by sea from the completion of the enterprise. Thus was an extraordinary journey of 1800 miles, through an unknown part of the country, performed in fifteen months; but as its direction did not lead him through the more interior districts, the conviction remained current that Dante's line might be applied to them,

'Abandon hope all ye who enter here.'

as consisting of a series of scorched, stony, sandy, and saline plains.

After resting a brief space in the settled districts, the intrepid Leichardt rallied a second band of adventurers around him, who had now reason to repose confidence in him as a leader, from his success in the expedition just named. His project was to proceed from east to west, or from New South Wales to the Swan River Settlement, a distance little short of 3000 miles in a direct line, hoping to find by the way a succession of oases, like those in the African or Arabian deserts, which would enable him to recruit his party on the journey. He started from the Darling Downs in the early part of the year 1848; and no certain tidings have ever transpired respecting the gallant band. One conclusion is sufficiently clear, either that they perished successively for want of provisions, or were cut off in some murderous attack of the natives. The latter melancholy fate befell the young and intelligent Mr Kennedy in the year of Leichardt's disappearance. The incidents accompanying his death strikingly illustrate the extremes of character in the Australian black, for while dogged and butchered by the natives in cold blood, he was defended to the last by a native attendant. Mr Kennedy, a government official, with his servant Jacky-Jacky, a black, and eleven whites, left Sydney on the 28th of April 1848, for the exploration of the country lying between Rockingham Bay and Cape York, the north-east extremity of Australia, a distance of not more than 500 miles. Obstructed by impassable scrubs and swamps, by disease, famine, and hostile savages, most of the travellers were completely disabled. Ultimately the leader and his man went on in advance, in order by forced marches to gain his destination, where a schooner was waiting for him, from which relief might be sent to the stragglers. The sequel may be stated in the words of the survivor. 'Now we went into a little bit of scrub, and I told Mr Kennedy to look behind always. Sometimes he would do so, and sometimes he would not look out for the blacks. Then a good many black fellows came behind in the scrub, and threw plenty of spears, and hit Mr Kennedy in the back first. He said to me: "Oh Jacky, Jacky, shoot 'em! shoot 'em!" Then I pulled out my gun, and hit one fellow over the face with buck-shot. Then I carried Mr Kennedy into the scrub. I asked him: "Are you going to leave me?" and he said: "Yes, my boy, I am going to leave you." He then said: "Give me paper, and I will write." I gave him paper and a pencil, and he tried to write, and then he fell back and died; and I caught him as he fell back, and held him. I then turned round myself, and cried. I was crying a good deal, till I got well, that was about an hour, and then I buried him. I dug up the ground with a tomahawk, and covered him over with logs, then grass, and my shirt and trousers. That night I left him near dark.' After enduring great misery, the black reached the schooner, and was the means of rescuing Mr Carron the botanist and another, when within an hour or two of inevitable death, the only survivors of the party.

At a date coincident with the African discoveries, a new era opened for Australia, by unfavourable impressions being corrected respecting its central regions, at first conceived to be a watery waste, and then a hideous wilderness. In 1858, Mr M'Douall Stuart proceeded

from South Australia into the interior under a more westerly meridian than that which had previously led Captain Sturt into an inhospitable desert, and traversed an extensive area available for sheep-pasture, with scenery pleasantly diversified by lakes and creeks of salt and fresh water. Encouraged by this success, he set out with only two followers, in March 1860, with the intention of crossing the country from sea to sea. The bold colonist very nearly succeeded in accomplishing his object, following generally the meridian of 134° E. Having gained the central region, where the name of Central Mount Stuart was bestowed upon a conspicuous hill, he proceeded thence to about latitude $18^{\circ} 40'$ S., or within 250 miles of the Gulf of Carpentaria, suffering much by the way, chiefly from the want of water. Here the country was good. All difficulties seemed to be at an end, and success certain, when an obstacle arose not experienced before, which proved insurmountable. Owing to the number and determined hostility of the natives, he was compelled to desist from the enterprise, and return to Adelaide, which he regained in the following September. In the meantime a carefully-organised and well-equipped expedition had started from Melbourne with the same object in view, which enabled the sister-colony of Victoria to snatch from South Australia the distinction of being the first to open a path through the land from the southern to the northern seas. Large subscriptions were readily raised for the attempt; the aid of the local government was liberally afforded; and the sympathies of the entire community were warmly enlisted in the adventure. An exploration-committee of experienced persons superintended the outfit of the travellers, which included the necessary amount of stores for a long absence, with all kinds of instruments for scientific observation, and the novel addition of a troop of camels, twenty-seven in number, expressly imported from Asia. The party consisted of Robert O'Hara Burke, the leader; Mr Wills, as scientific observer; Dr Herman Becker, medical attendant and botanist; Ludwig Becker, artist and naturalist; Mr Landells, in charge of the camels; and thirteen subordinates, with horses, wagons, and every provision likely to insure success—the most gigantic expedition ever fitted out in the Australian colonies. Full of high hope, they set forth on the 20th of August 1860, amid the cheers of a vast multitude assembled in the Royal Park, Melbourne, to witness their departure.

According to the plan previously arranged, Cooper's Creek was fixed upon as a place of rendezvous and final starting-point, a well-known locality, a little to the east of Sturt's track in 1845, and about one-third of the distance across the country. Here a permanent dépôt was to be established as a basis for further operations. Very slow progress was made by the heavy-laden camels, and further time being lost on the way by unfortunate altercations, the leader went on in advance to the station with a small select body, leaving the rest to follow at leisure with the weightier stores. Arrived at Cooper's Creek, he divided the reduced party, and without delay left the dépôt in charge of Brahe, a petty officer, with verbal instructions to await his return for three months or longer, if provisions and other circumstances would permit. From this point Burke pursued his journey with only three companions, consisting of Wills, the scientific assistant, two men, King and Gray, taking along six camels, one horse, and three months' provisions. These were the real explorers, destined to accomplish a hazardous enterprise, and make a great discovery, with the melancholy result of only one of them surviving its performance.

The start from Cooper's Creek was made on the 16th of December. After a week's travelling, a halt for Christmas was taken under favourable circumstances. '*Monday, 24th December 1860.*—We took a day of rest on Gray's Creek (so called because Gray, having been detached from the party, had found good water there) to celebrate Christmas. This was doubly pleasant, as we had never in our most sanguine moments anticipated finding such a delightful oasis in the desert. Our camp was really an agreeable place, for

we had all the advantages of food and water attending the position of a large creek or river, and were at the same time free of the annoyance of the numberless ants, flies, and mosquitoes, that are invariably met with amongst timber or heavy scrub.' Proceeding nearly due north, and keeping generally to the meridian of 140° E., they passed day after day well-watered plains, with numerous lines of timber, and every evidence of a good grazing country. The 11th of February 1861 brought them to the tide-water of the Gulf of Carpentaria, which seems to have been struck in an extensive marsh connected with the Albert River, ascended for some distance in boats by Captain Stokes in the year 1841. In attempting to gain a view of the open sea, they were baffled completely by a long reach of boggy ground, but had conclusive proofs of having gained the verge of the Northern Ocean. On returning by a new route, to the east of the outward track, a region of the finest character for pastoral purposes was passed through, with every appearance of possessing a permanent supply of water. Early in April, the want of provisions began to tell upon the travellers, and it became necessary to kill the horse for support. 'We found it healthy and tender,' says the journal, 'but without the slightest trace of fat in any portion of the body.' Soon afterwards Gray died of sheer exhaustion. His companions had thought rather lightly beforehand of his complaints of distress; and as their own sufferings came on, Wills took occasion to enter an expression of regret in his note-book at the circumstance: 'The exertion required to get up a slight piece of rising-ground induces an indescribable sensation of pain and helplessness, and the general lassitude makes one unfit for anything. Poor Gray must have suffered very much many times when we thought him shamming.'

Worn down with arduous travel, afflicted with scurvy, almost without clothes, their six camels reduced to two, the survivors struggled manfully on; and with half-paralysed limbs regained their old quarters at Cooper's Creek on the 21st of April, after an absence of four months and five days. It was nightfall when they arrived; and rarely has human fortitude been put to a greater test than by the disappointment which awaited them. The station was deserted. The word 'Dig,' cut on an adjoining tree, directed them to a *cache* where some provisions were buried—a welcome refreshment—with a record to the effect that the party left in charge under Brahe had quitted the spot only *seven hours before* the staggering wayfarers reached it. Severe as was this misfortune, it was bravely borne, as a note written by Burke the next day, the last he ever penned, duly deposited in the *cache*, testifies. 'The return-party, from Carpentaria, consisting of myself, Mr Wills, and King (Gray dead) arrived here last night, and found that the *dépôt*-party had only started on the same day. We proceed on to-morrow slowly down the creek towards Adelaide by Mount Hopeless, and shall endeavour to follow Gregory's track, but we are very weak. The two camels are done up, and we shall not be able to travel further than four or five miles a day. Gray died on the road from exhaustion and fatigue. We have all suffered much from hunger. The provision left here will, I think, restore our strength. We have discovered a practicable route to Carpentaria, the chief portion of which lies on the 140th meridian of east longitude. There is some good country between this and the stony desert. From there to the tropic the country is dry and stony. Between the tropic and Carpentaria a considerable portion is rangy, but it is well watered and richly grassed. We reached the shores of Carpentaria on the 11th of February 1861. Greatly disappointed at finding the party here gone.—R. O'HARA BURKE, Leader.—P.S. The camels cannot travel, and we cannot walk, or we should follow the other party. We shall move very slowly down the creek.'

Mishaps attended the steps of the wanderers. Landa, one of the camels, having sunk in a bog, could not be extricated, and was shot as he lay. Rajah, the other, was killed

for food. After proceeding some distance in the direction indicated, their exhausted condition enforced a return to the *dépôt*, to which, by a scarcely conceivable mischance, Brahe had returned in the interim, and quitted finally without discovering a trace of their visit. Thus abandoned, life was preserved for some time by the seeds of the nardoo plant, which the natives make into bread; but it was too unnutritious to have any recruiting effect. Unable to crawl, Wills insisted upon being left, while the other two went in search of the blacks, as their last chance. Burke sunk on the way, and soon expired; and King, on returning to Wills, found him a corpse, stretched on the spot where he had separated from him. The sole survivor was fortunate enough to meet with natives, who kindly entertained him with their best fare, and among whom he was discovered by a relief-party from Melbourne on the 15th of September, wasted to a skeleton, and scarcely to be distinguished as a civilised being. By this party, the bodies of the two intrepid leaders were found, and committed with solemn sadness to the grave; but they were subsequently exhumed, removed to Melbourne, and honoured with a public funeral. Seldom has a catastrophe been precipitated by such a series of perfectly avoidable disasters, for the sacrifice of valuable lives seems to have been occasioned simply by misunderstanding and mismanagement. It has not, however, been made in vain. The men accomplished the main object of their mission, crossed and recrossed the great island-continent, discovering a fine habitable country where only desolation had been surmised.

In the following year, the veteran explorer, M'Douall Stuart, having started from Adelaide, reached Van Diemen's Bay, on the north coast, at the head of the first European party actually to catch sight of the bounding waves. The exclamation of one of his men, who was in advance, 'The sea!' elicited hearty cheers from his companions, and all hastened forwards to enjoy the spectacle. The leader dipped his feet, washed his face and hands in the Indian Ocean, and suitably commemorated the accomplishment of the great object of his journey. 'I had,' he remarks, 'an open space cleared, selected one of the tallest trees, stripped it of its lower branches, and on its highest fixed my flag, the Union Jack, with my name sewn in the centre of it. At one foot south from the foot of the tree is buried, about eight inches below the ground, an air-tight tin-case, in which is a paper with the following notice: 'South Australian Great Northern Exploring Expedition. The exploring-party under the command of John M'Douall Stuart arrived at this spot on the 25th of July 1862, having crossed the entire continent of Australia from the Southern to the Indian Ocean, passing through the centre. They left the city of Adelaide on the 26th day of October 1861, and the most northern station of the colony on the 21st of January 1862. To commemorate this happy event they have raised this flag. All well. God save the Queen!' More recently, Mr M'Kinlay crossed the country from Adelaide to the Gulf of Carpentaria, travelling thence to the east coast, and Mr Landsborough has intersected it southward from the shores of the gulf to the colony of Victoria. As the result of these journeys, Central Australia, instead of being the burning desert it was once supposed, is now known to comprise vast habitable tracts, destined at no distant date to be the nursery and home of flourishing communities.





Uralskaya Sopka, copied, by permission, from Sir R. I. Murchison's great work on Russian Geology.

PART I.

DESCRIPTIVE GEOGRAPHY OF EUROPE.

INTRODUCTORY CHAPTER.—GENERAL VIEW OF EUROPE.



EUROPE, one of the principal divisions of the earth, commonly styled a continent, is more properly a north-western peninsula of the great eastern continent, or the Old World, as it is washed on three sides by the ocean and its arms, while of scanty area when compared with the mass of land more or less directly associated with it, apportioned to Asia and Africa. It has not only more contracted limits, but is far inferior to them in the magnitude of its rivers, the height of its mountains, the beauty, variety, and profusion of the forms of animal and vegetable life; and America—the western continent of the geographer, the New World of the historian—has immensely the superiority in extent, and in the development of physical features.

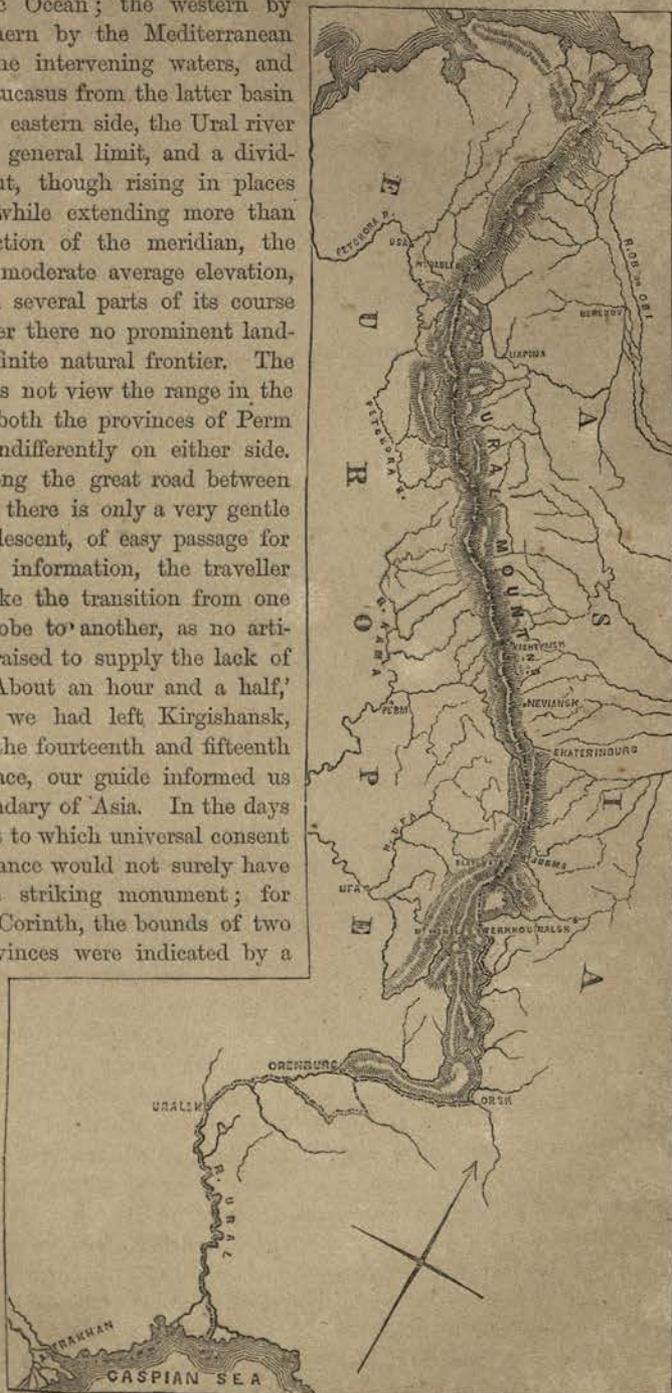


But when these prime divisions of the globe are viewed in their social, intellectual, and political aspects, the decided pre-eminence belongs to the smallest. Its nations are entitled to the first rank in industry, arts, and arms. Their influence has the widest extension and the greatest power. Their languages are the most widely diffused; and enunciate all that is valuable in philosophy, science, history, poetry, and religion. The present civilisation, predominant races, and tongues of America, are entirely of European origin; and while no inconsiderable portion of its area, with that of Asia, Africa, and Oceania, is under the direct control of European governments, whatever of improvement is exhibited by their independent coloured people and nomadic tribes, is largely due to the enterprise, intelligence, and skill of European settlers and visitors.

The name of Europe first occurs in one of the hymns attributed to Homer, addressed to Apollo. Mythology derives it from the nymph Europa, the 'broad-browed' daughter of a Phœnician king, but throws no light upon its meaning. According to some authorities, the word is from a Semitic root, and signifies 'the place of sunset.' Assuming this origin, it is supposed to have come into use as applicable to the country westward of Greece, just as that portion of the Mediterranean basin lying to the eastward is known as the Levant, the 'region of sunrise,' or the 'east,' a denomination which arose with the Italian navigators of the middle ages, and is still retained. Others refer the term to two Greek words meaning the 'broad land,' one of the ancient names of Thrace. It is descriptive of the appearance presented by that territory to the old inhabitants of Greece, to whom it had no known inland limit, and might be thence extended indefinitely to the lands continuous with it. So late as the Byzantine empire, one of the six dioceses of Thrace was called Europa, a vestige of the primitive designation of the entire country. This last explanation is the most probable.

The northern boundary

is formed by the Arctic Ocean; the western by the Atlantic; the southern by the Mediterranean and Black Seas, with the intervening waters, and the main ridge of the Caucasus from the latter basin to the Caspian. On the eastern side, the Ural river and mountains furnish a general limit, and a dividing-line from Asia. But, though rising in places upwards of 5000 feet, while extending more than 1200 miles in the direction of the meridian, the Ural chain has only a moderate average elevation, and is so interrupted in several parts of its course by depressions, as to offer there no prominent landmark to the eye, or definite natural frontier. The Russian government does not view the range in the light of a barrier, since both the provinces of Perm and Orenburg extend indifferently on either side. Proceeding across it along the great road between Perm and Ekaterinburg, there is only a very gentle and trifling ascent and descent, of easy passage for carriages; and, without information, the traveller would unconsciously make the transition from one grand division of the globe to another, as no artificial sign-post has been raised to supply the lack of a natural indication. 'About an hour and a half,' Erman observes, 'after we had left Kirgishansk, and as we were between the fourteenth and fifteenth verst-stone from that place, our guide informed us that we were on the boundary of Asia. In the days of ancient Greece, a point to which universal consent assigned so much importance would not surely have been left without some striking monument; for even on the Isthmus of Corinth, the bounds of two comparatively petty provinces were indicated by a pillar, having inscribed on one side, "This is Peloponnesus, and not Ionia;" and on the other, "This is Ionia, and not Peloponnesus." But the fact that, at the present day, the boundary between two great divisions of the earth is not thought worthy of any especial mark, may be hailed as a pleasing sign of the greater facility of movement which is



now enjoyed by mankind. Nevertheless, we left behind us, in a sportive mood, a memorial of our visit to this point, which, for the imagination of the geographer at least, is not without some interest. We enclosed in a bottle a paper containing the names of the travellers and the object of their journey, written in Latin, and buried it in the wood



Astrachan, at the Mouth of the Volga.

on the south side of the road.' In one part of the Ural Mountains, called Uralskaya Sopka, Sir R. I. Murchison tells us that the boundary-line is carried over a sharply-pointed precipitous rock, of somewhat difficult ascent, with scarcely standing-room for more than two individuals at the top. It was scaled by the present emperor of Russia, when grand-duke, who stood on the summit with one foot in Europe, the other in Asia; and this august example was followed by the learned president of the Geographical Society and his companions.

The European mainland ranges through thirty-five degrees of latitude, from the Punta da Tarifa, a headland on the Strait of Gibraltar, in $36^{\circ} 1'$ north, to the Nordkyn, a cape at the further extremity of Norway, in $71^{\circ} 6'$, the extreme southern and northern points. A slightly higher latitude is reached by the celebrated North Cape, but that is a promontory of the adjoining island of Mageroe. The extent in longitude is through nearly seventy-eight degrees, from Cape Roca, a short distance from Lisbon, in $9^{\circ} 28'$ west, to the mouth of the small River Kara, at the north-eastern extremity of Russia, in $68^{\circ} 30'$ east. This longitudinal range involves a difference of about five hours of time between the eastern and western bounds. Hence, when the morning sunbeams are brightly lighting up the tops of the Urals, it is still dark night on the shores of France and Spain; and when it is high noon at the rock of Gibraltar, the day is approaching its decline in the steppes on the borders of the Caspian. The greatest distances that can be traversed in a straight line are 2400 miles, from north to south, or between the extremities of Norway and Greece; and 3400 miles, in a diagonal direction, between the south-western angle of Portugal and the north-eastern corner of Russia. Insular

adjuncts are very important features of Europe, and extend its limits in both latitude and longitude. Candia, a Turkish island, is more southerly than any part of the continental coast; the British Isles stretch to a more westerly meridian; and the Azores are much further out in the Atlantic. Including the mainland and islands, the area is



City of Tarifa.

moderately estimated at 3,700,000 square miles, equal to rather more than one-fifth of the magnitude of Asia, but less than one-third the size of Africa, and somewhat exceeding one-fourth the extent of America. The length of the coast-line falls very little short of 20,000 miles.

The contour of the mainland is much more elaborate in proportion to its area, than that of the other principal sections of the globe, and its populations have therefore a larger measure of maritime accommodation. This appears from a glance at the world's map, and a comparison of areas and coast-line.

	Area in Square Miles.	Linear Miles of Coast.	Square Miles of Area for One Mile of Coast.
Europe,	3,700,000	19,500	190
Asia,	17,500,000	35,000	500
Africa,	12,000,000	16,000	750
North America,	8,600,000	24,500	350
South America,	7,000,000	14,500	482
Australia,	3,000,000	10,000	300

Thus, in proportion to the amount of surface, Europe has more than twice the extent of coast-line belonging to South America, nearly twice as much as North America, nearly three times as much as Asia, and about four times as much as Africa. This great amount of maritime frontier favours intercommunication and commercial traffic; contributes to render climate temperate; and has, in no slight degree, promoted the social and intellectual progress of Europeans. It arises from the number of inland seas which deeply penetrate the mainland, and fringe it with a series of large peninsulas. Of these, there are five principal basins, the White Sea on the north; the Baltic and the North Sea on the north-west; the Mediterranean, with its arms, the Adriatic and the Archipelago, on the

south; the Black Sea, with its branch the Sea of Azov, on the south-east. These expanses and the outlying ocean, give a shore to every European country, with the exception of Switzerland and some Germanic states; and bring every part of the surface, except in the heart of Russia, within 400 miles of a sea-beach.

A vast level, very slightly raised in any part above the sea, with two systems of mountains distinct from each other—a north-western or Scandinavian, and a southern or Alpine, in part central—are the prominent internal features of the continent.

The 'great plain,' as it is commonly styled, is equal in extent to two-thirds of the entire surface. It comprehends the whole of Russia, from the Black Sea and the Caucasus on the south, to the shores of the Arctic Ocean on the north, with all Poland, North Germany, Denmark, Holland, and the chief part of Belgium, terminating on the sandy coast of the North Sea, or, neglecting some minor irregularities, it may be said to sweep round the central highlands of France to the foot of the Pyrenees. The greater part of this plain may be compared to a triangle in shape, the base of which lies along the Ural Mountains, from whence it gradually diminishes in breadth westward, and reaches its apex in the Netherlands. At its western limit, the surface is depressed below high-water mark; and immense dykes or ramparts of stone and earth, raised on the coast, alone prevent destructive incursions of the sea, and the permanent submergence of extensive tracts of country. Hence the name of Holland, *hollow* or low land, with that of one of its districts, Waterland; and the general denomination of the whole region, formerly in more frequent use than at present, the Netherlands or Low Countries. By an almost imperceptible rise, the height of 1100 feet above the sea is attained in the Valdai Hills, in Russia, on the slope of which the Volga begins its course, a very trifling elevation for the source of a river which flows through more than 2000 miles. It would be possible for a traveller to leave London for Rotterdam or Hamburg, proceed by Berlin and Königsberg to Moscow, thence to the eastern frontier of Europe, without any alteration of level exceeding the height of the cross of St Paul's.

The great plain has a very varying aspect and character. Polished city populations and rude nomadic hordes appear within its limits, along with well-cultivated tracts of the highest fertility; natural forests which have not yet known the woodman's axe; and treeless landscapes not more monotonous than barren. Green meadows abound in Holland, Belgium, and Holstein. To these succeed, passing eastward, infertile sandy wastes, variously covered with heath, or interspersed with pine-woods and small lakes, strangely also bestrewn with erratic blocks of granite, varying in size from pebbles to enormous masses, which give to parts of Northern Germany the appearance of a country in ruins. Larger and denser forests clothe the surface of Poland, Lithuania, and Central Russia, with which extensive marshes and arable lands alternate. A deep stratum of dark vegetable mould, locally called 'black earth,' on which Moscow is seated, extends uniformly through a space three times larger than the area of France; and yields to cultivation, conducted with little labour and without any skill, the wheat which Russia pours into the granaries of Europe. Southward stretches the immense region of the steppes, apparently interminable, but bounded in that direction by the Black Sea and the Caucasus, yet continued easterly into the heart of Asia; of which it has been said, though with an obvious exaggeration, that a calf, beginning to graze at the base of the Carpathian Mountains, might eat its way to the wall of China, and arrive there a full-grown ox.

The word *steppe* is of Tartar origin, and strictly denotes a flat, open, and unwooded country, mantled with a rank, grassy, and herbaceous vegetation. This is the general character of the region thus denominated, but it includes extensive swamps, tracts of saline sand of the true desert description, small copses in a few favoured spots which

shelter game; and the surface is billowy or gently undulating, marvellously changing its aspect with successive seasons of the year. Yet the uniformity speedily becomes wearisome at every period, whether the ground is mantled with snow as in winter, or green with herbage and variegated with flowers as in spring, or appears a perfect desert of dust and ashes, arising from the baked and pulverised vegetation in the heat of summer. But the change from day to night in the steppes has always great effectiveness to the stranger. It transpires with a suddenness which is very impressive, and at first somewhat awful. In a country of woods and diversified levels, the shadows of the trees and hills, gradually elongating, give warning of the sun's approach to the western horizon. But on these great plains, where nothing intercepts his rays till the disk of the luminary touches their edge, there are no shadows projected premonitory of the universal gloom about to cover the face of nature. Earth and sky are in a blaze of light till the sunset actually commences. In a few minutes, the whole orb is below the line of the steppe; the bright glow is gone from the landscape; and the sombre curtains of the night are drawn. The suddenness and rapidity with which the transition is effected surprise the traveller, and invest a common incident with an air of supernatural majesty and strangeness.

Of the two mountain-systems, the north-western comprises the heights and table-lands which overspread nearly the whole of Norway, and slightly advance into Sweden. They are of moderate elevation, though rising far above the snow-line, owing to the high latitude; and, being of limited extent, confined to the western part of the Scandinavian peninsula, they have no connection with the main body of the continent. But by mineralogical composition, as well as by proximity, the erratic blocks of the great plain, which have no natural relationship to their present sites, are referrible to these northern highlands as their parent-bed, where precisely kindred rocks occur; and hence, with the increase of distance from that site, the travelled fragments gradually become less in number and of smaller dimensions.

The southern mountain-system embraces nearly the whole extent of Europe from west to east, or from Cape Finisterre on the coast of Spain to Cape Emineh on the shore of the Black Sea. It includes the grand ranges of the Alps, in the centre, winding from the Mediterranean round the north of Italy to the borders of Hungary; the line of the Balkan, eastward, running through Turkey parallel to the Danube; the chain of the Pyrenees, westward, a natural rampart between France and Spain; and the Asturian mountains, a continuation of the latter, extending along the shore of the Bay of Biscay to the open Atlantic. This series has but a single break to its continuity, of no great extent, offered by the Gulf of Lyons, between the Pyrenees and the Alps; and may be considered as a belt of gigantic highlands forming the dorsal ridge or backbone of the continent. On the northern side are the ranges of central France and Germany, with the Carpathians curving round the Hungarian plain; and on the southern side are the chains which traverse the Italian, Spanish, and Turkish peninsulas, which stand in the relation of offsets, spurs, and buttresses to the primary zone. The loftiest and most important portion of the series, the Alps, contain the highest peaks of Europe. In their bosom three of its principal rivers have their rise, the Rhine, the Rhone, and the Po, respectively flowing to widely-separate basins, the North Sea, the Mediterranean, and the Adriatic; while contributions are sent to the Black Sea by means of some of the principal affluents of the Danube which descend the eastern slopes.

Geographers divide the system of the Alps into distinct portions, to which particular names are attached. The Maritime Alps extend from the borders of the Gulf of Genoa to Mont Viso, about 100 miles; the Cottian Alps stretch from Mont Viso to Mont Cenis, about 60 miles; the Graian or Grecian include the heights between Mont Cenis and the

Col de Bonhomme, 50 miles; the Pennine proceed from the latter to Monte Rosa, 60 miles; the Helvetian continue from thence to Mont Bernardine, 50 miles; the Rhetian from thence to the Drey-Herren-Spitz, or Peak of the Three Lords, in the Tyrol, 140 miles; and the Noric Alps extend from thence to the neighbourhood of Vienna, about 200 miles. The Carnic, Julian, and Dinaric Alps denominate lower ranges spreading over the Austrian provinces of Carinthia, Carniola, and Dalmatia, where the Alpine system becomes connected with the western extremity of the Balkan. In the Pennine division there are the highest peaks, Mont Blanc, 15,750 feet, Monte Rosa, 15,152, and Mont Cervin, or the Matterhorn, 14,837, with the most extensive glaciers. The Helvetian, largely overspreading Switzerland, ranks next, containing the Dorn, or Graben-Horn, 15,440 feet; the Finster-Aar-Horn, 14,111; the Jungfrau, 13,718; and the Mönch, 13,498. No roads practicable for carriages cross the Pennine chain, but four lead over the Helvetian, and two traverse the Rhetian. One in the last division, by the Stelvio Pass, leading from the Tyrol into Lombardy, is the highest carriage-road in Europe, 9174 feet, constructed by the Austrian government chiefly for military purposes, and completed in the year 1824. The highest routes practicable for foot-passengers are the Col de Geant, 11,172 feet, and Mont Cervin, 11,096, both in the Pennine range. By far the most frequented carriage-road from France to Italy, across Mont Cenis, in the Grecian Alps, is now in process of being superseded by the construction of a tunnel for a railway through it.

Mont Blanc, the culminating-point of Europe, is somewhat singularly situated, being very nearly equidistant from the equator and the pole. Seen on the north and south, its shape is pyramidal; but from certain points of view it resembles the back of a dromedary, and hence *bosse de dromedaire* is one of its local names. From several sites, as the summit of the Flegère, in the Vale of Chamouni, of easy access, and the Val d'Aoste on the Italian side, the eye embraces the whole of its huge mass, and the mind responds to the truth of the description—

‘Mont Blanc is the monarch of mountains;
They crowned him long ago,
On a throne of rocks, in a robe of clouds,
With a diadem of snow.’

Upwards of 7000 feet of the height of the mountain are within the region of perpetual snow and ice, as the snow-line is here met with at the elevation of about 8000 feet above the sea. Its mass is almost entirely of granite, with a ridge for the summit nearly 200 feet in length. The butterfly has been seen flying over it, an involuntary migrant, doubtless, from the realms below, drifted upwards and onwards by the winds, offering a flat contradiction to the sentiment—

‘No insect’s wing
Flits o’er the herbless granite.’

Beetles are found at the height of 8500 feet; spiders at 10,000; and through the High Alps generally, the chamois ranges to the latter elevation, with the fox but little below him, and the bouquetin or wild-goat, now very rare, slightly in advance above. The eagle and the vulture soar far above the tallest pinnacle. The top was reached for the first time by Paccard and Jacques Balmat in August 1785. The latter, an adventurous chamois-hunter, perished in one of his daring excursions, half a century afterwards, at the age of seventy; and though the spot where he met his doom was known, the body could not be recovered. Saussure, the savant, made the second ascent in 1786, and remained five hours at the top conducting scientific experiments. Summer tourists now commonly stand on the hoary head of Mont Blanc, though not a little bodily vigour and self-possession are requisite for the achievement; and accidents of any kind have been rare in recent times, owing to the precautions taken by the authorities

to allow of none but efficient guides to exercise the vocation. Five ladies have accomplished the feat—Mademoiselle Paradis in 1809, Mademoiselle d'Angeville in 1838, Mrs Hamilton in 1854, Mademoiselle Formann in 1856, and Miss Walker in 1862. The second of these, when on the summit, ordered her guides to lift her as high as they could, that she might boast of having been higher than any other person in Europe.

The hydrography of Europe includes no rivers comparable in magnitude to the grand examples of the other continents. A limited area, and the deep indentations of the coast-line, forbid their development. But the streams of secondary and minor rank are extremely numerous, render every country well watered, and diffuse widely the benefits of inland navigation; while by means of canals, easily constructed and maintained, owing to the great extent of level surface, rivers running to different basins are connected, and far-distant seas are brought into communication. Thus, in Russia, the Caspian and Black Sea in the south are united to the Baltic and White Sea in the north by artificial channels between their tributaries; and similarly, in the south of France, the Atlantic and the Mediterranean are linked together. Two general slopes of the surface may be distinguished, the one inclined north-north-west, the other south-south-east, in which directions the main mass of the superficial drainage is conducted. The line of the water-parting, styled the great water-shed of Europe, is variously a ridge high as the Alps, and a very slight elevation of the ground, in places scarcely distinguishable. It runs from the Strait of Gibraltar through the Spanish peninsula, crosses the south-east of France, follows a very tortuous course through Switzerland and Germany, cuts the western part of the Carpathian Mountains, and proceeds through Russia to its north-eastern extremity. The southern slope is the most extensive, and considerably more than one-half of the total amount of flowing water is conveyed to southerly basins.

Representing the whole river-discharge of Europe by 100, the White Sea and Arctic Ocean are estimated to receive 6 parts; the North Sea, 11; the Baltic, 13; the Atlantic, 13; the Mediterranean, 14; the Caspian, 16; and the Black Sea, 27. The elements of the more important rivers are given in the table:

Rivers.	Length in Miles.	Area of Basin. Sq. Miles.	Embouchure.	Principal Places from Mouth to Source on the Main Channels.
Dwina (Northern),	760	144,000	White Sea.	Archangel, Vologda.
Neva,	40	91,000	Baltic.	St Petersburg.
Dwina (Southern),	550	45,000	"	Riga, Vitebsk.
Niemen,	400	43,000	"	Tilsit.
Vistula,	630	76,000	"	Dantzic, Thorn, Warsaw, Cracow.
Oder,	550	53,000	"	Stettin, Frankfort, Breslau.
Elbe,	690	57,000	North Sea.	Hamburg, Altona, Magdeburg, Meissen, Dresden.
Weser,	380	17,000	"	Bremen, Minden.
Rhine,	760	88,000	"	Leyden, Cologne, Bonn, Coblantz, Mayence, Strasbourg, Basle.
Meuse,	550			
Thames,	215	6,160	"	London, Windsor, Reading, Oxford.
Seine,	430	30,000	Atlantic.	Havre, Rouen, Paris.
Loire,	570	48,000	"	Nantes, Orleans, Nevers.
Garonne,	350	33,000	"	Bordeaux, Toulouse.
Douro,	460	39,000	"	Oporto, Zamora.
Tagus,	510	34,000	"	Lisbon, Abrantes, Talavera, Toledo.
Guadiana,	450	26,000	"	Badajoz, Merida.
Guadalquivir,	290	20,000	"	San Lucar, Seville, Cordova, Villafranca.
Ebro,	420	34,000	Mediterranean.	Tortosa, Saragossa, Tudela.
Rhone,	490	38,000	"	Arles, Avignon, Lyon, Geneva.
Po,	450	40,000	"	Ferrara, Cremona, Piacenza, Turin.
Danube,	1630	310,000	Black Sea.	Silistria, Rustchuk, Widdin, Belgrade, Buda, Pesth, Presburg, Vienna, Ratisbon.
Dniester,	700	31,000	"	Ovidiopol, Bender.
Dnieper,	1200	200,000	"	Kherson, Kiev.
Don,	1100	205,000	"	Azov, Tcherkask.
Volga,	2200	520,000	Caspian.	Astrachan, Sarepta, Saratov, Kasan, Nijni-Novgorod, Tver.

In parts of their course, the Loire and the Seine flow through scenery of the most lovely and picturesque description. The Elbe, above Dresden, is also remarkable for striking landscapes; while the Rhine and Rhone, both born among the glaciers, are connected in their earlier stages with the grandest features of the Swiss highlands. But



Iron Gates of the Danube.

the former river, after quitting its mountain-cradle, in the middle portion of its course, between Bonn and Mayence, is a special point of attraction to tourists. There pleasant towns and villages appear nestling at the foot of vine-clad hills, while romantic valleys open out on either hand, and steep towering rocks at intervals closely hem in the channel, each with a mouldering fastness of feudal times, or a modern stronghold at the summit, presenting—

‘A blending of all beauties; streams and dells,
Fruit, foliage, crag, wood, cornfield, mountain, vine;
And chiefless castles, breathing stern farewells,
From gray but leafy walls where ruin grimly dwells.’

The banks of the Danube, which have only become widely known since the introduction of steam navigation, are fully equal to those of the Rhine in natural scenery, vineyard cultivation, and monuments of feudalism, with the additional features of huge palace-like monasteries, and vast forests sweeping down from the top of bold heights to the water's edge. Steamers began to ply upon a portion of its surface in the year 1830. The first to take its departure from Vienna to Pesth, the *Nador*, started in 1836, with half the population of the Austrian capital in motion to witness the sight; and in the same year, the *Pannonia* made for the first time the passage of the Iron Gate, on the borders of Hungary and Wallachia, where rocks in the bed of the river, and encroaching mountains on either hand, give rise to a succession of rapids. Both the Danube and the Rhine are rife with historic memories of the Roman wars with the barbarians, the arms of Charlemagne and Gustavus Adolphus, the campaigns of Marlborough and Napoleon, while the former stream has been the scene of many a bloody struggle between the soldiers of the Crescent and the Cross.

Lakes accompany the great mountain-systems of Europe, but are not confined to them.

They may be arranged in two groups—northern and southern. The examples are the most numerous and of the largest class in the former, occupying depressions on the southern and eastern sides of the Scandinavian highlands, and in the closely-adjointing districts, while many of small size are at a high elevation on the table-lands. The Wener Lake, in Sweden, extends over more than 2000 square miles; the Saima, in Finland, has nearly equal dimensions; those of the Onega, in the government of Olonetz, considerably exceed them; and the Ladoga, in the neighbourhood of St Petersburg, the largest lake in Europe, spreads through upwards of 6000 square miles, an area greater than that of the whole kingdom of Saxony. Owing to their prodigious number and occasional magnitude, lacustrine formations are characteristic features of all the countries around the Baltic, especially of Finland, and hence its name of Suomemna, 'the region of lakes and swamps.' Fine scenery surrounds some of the Swedish expanses, but the Finnish and the Russian have commonly low rocky shores, void of picturesqueness, often very dreary. In summer they interfere with land travelling, by rendering it circuitous; but in winter, covered with ice, they form an easy pavement for the sledge. Hence the annual fairs of Finland are held in the latter season, when journeys are performed in one-horse sledges to exchange a few wares for household commodities, equal in extent to the distance between the Land's End and the Orkneys. The winter passage of some of these lakes is not always free from danger, for they are liable to violent underground swells, even in the calmest weather, and when the surface is coincidentally frozen, the ice cracks or parts asunder with a tremendous noise.

The lakes of the southern group are comparatively small, but are placed in the midst of some of nature's most charming or grandest scenes, occasionally exhibiting an aspect of savage sublimity. They include those of Geneva, Constance, Neufchatel, Lucerne, Zurich, and others, on the Swiss side of the Alps, with Lago Maggiore, the lakes of Como and Garda, on the opposite Italian slope. The latter are expanses smiling in a warm climate under a bright sky, have bold shores richly clothed with the vegetation of the south—thickets of orange-trees, olives, and myrtles—studded, too, with villas and palaces, of great classical interest. The former have also their bland features, but not far apart are the rugged; and the blue waters that wash a strand of simple beauty alternate with billows dark with the shadows of the rocks they chafe, which rise above them to a stupendous height, and with a steepness that is even terrible, as in the little bay of Uri, on Lake Lucerne, consecrated to a patriot's memory.

'That sacred lake withdrawn among the hills,
Its depth of waters flanked, as with a wall
Built by the giant race before the flood;
Where not a cross or chapel but inspires
Holy delight, lifting our thoughts to God
From godlike men—
That in the desert sowed the seeds of life,
Training a band of small republics there,
Which still exist, the envy of the world;
Who would not land in each and tread the ground—
Land where Tell leaped ashore?'

Mountain-lakes, generally of very small dimensions, occur in connection with the Pyrenees, the Apennines, the Balkan, and the range of Pindus. In addition to such fresh-water formations, there is the Platten See, a brackish expanse of considerable extent on the plain of Hungary; and the shallow but extremely salt Neusiedler See in the same region, on the shores of which large quantities of the sulphate, muriate, and carbonate of soda crystallise in summer. But of all salt water, not only in Europe, but in the world,

that of Lake Elton, in Russia, in the steppe east of the Volga, has the largest amount of saline impregnation. This remarkable sheet of brine is an oval, about eleven miles long by nearly nine broad, but nowhere exceeds fifteen inches in depth. In the height of summer, it appears as if covered with ice and snow, owing to the illusion produced by the crystallised salt along the banks and over the whole surface, vast quantities of which are annually collected for consumption in different parts of the empire. The lake is the Elton-Nor, or the 'Golden Elton' of the Mongols.

Primitive ungainly craft appear upon many of these inland waters, devoted chiefly to the transport of produce, as the old Noah's arks for passenger traffic have been largely superseded by steamers or railways. The Rhine is famous for its immense rafts of timber from the remote German forests, composed of logs drifted down the mountain-streams from the sites where the trees have grown. They are lashed together at some convenient station, and finally formed into a single fabric on the recipient river, which, with the wooden huts upon it for the accommodation of the boatmen, and its vast size, has the appearance of a floating village. On reaching Dortrecht, in Holland, the rafts are broken up, and the timber sold for ship-building and other purposes. The Danube has also its timber-floats, but of smaller dimensions; and it is not uncommon to see the peasantry descending the Drave, one of its largest tributaries, on rafts of barrels. Large quantities of wheat are brought down to Dantzic by the Vistula, from the upper parts of its basin, in open flats rudely constructed of fir, and covered with as rudely-made mats of straw. The grain is heaped upon them, and left exposed to the accidents of showers and sunshine. Owing to the tedious mode of navigation, and the length of the voyage—from four to five hundred miles, it lasts for several weeks, and even months. Upon rain falling, it soon causes the wheat to sprout, and the craft becomes like a little floating meadow. But the shooting fibres speedily form a thick mat, which prevents the moisture from penetrating to any depth, and protects the main bulk. Upon reaching the outport, the barges are broken up, and the crews return home on foot. A far longer river-voyage is performed in the transport westward of the mineral produce of the Urals. It commences towards the close of April, when the streams have lost their ice, but are swollen by the melting of the snow; and is carried on in flat-bottomed vessels terminating at both ends in a kind of obtuse triangle. From the town of Slatoust—the starting-point, the Ai is descended to its confluence with the Oufa, and that river is followed to its junction with the Bielaia, which takes the fleet into the Kama, an affluent of the Volga. Here the boats are properly fitted to toil against the current of the great stream up to Nijni-Novgorod, passing thence to St Petersburg aided by a very short artificial cutting which connects a tributary of the Volga with the basin of Lake Ladoga. The total length of the winding river-line is not less than 3000 miles.

With the exception of a small northerly section which passes within the polar circle, the whole of Europe enjoys the great climatic advantage of being in the temperate zone, while its most southerly point is somewhat more than twelve degrees removed from the torrid zone. But over a wide area of the surface, the climate is so favourably modified by various causes as to be rendered much milder than what is to be accounted for by latitude, the temperature being higher and more equable than in Asiatic and Trans-Atlantic districts under corresponding parallels. These causes, which specially affect the western countries, are the proximity of an immense expanse of the ocean in which the warm waters of the Gulf Stream circulate, the prevalence of south-west winds sweeping up from a tropical direction, with the frequent and deep intrusions of the sea consequent on a broken coastline, tending to diffuse over the land the comparatively uniform temperature of the waters. Hence in western Europe, exposed to these influences, the summers and winters

are not in such violent contrast as in the same latitudes in the heart of the continent, while the mean annual temperature is considerably higher. Edinburgh and Moscow are under nearly the same parallel, but while the Scotch capital has a cooler summer than the Russian, it has a much milder winter, and its annual amount of heat is much greater. The climate of Christiania and St Petersburg, of Geneva and Odessa, or any other places in western and eastern Europe, similarly situated as to latitude, not differing to any considerable extent in elevation above the sea, may be compared with the like result. In the southern countries the climate is affected, and rendered occasionally oppressive in summer, by exposure to the winds which sweep over the Mediterranean from the burning deserts of Africa; while the north-eastern regions, unprotected by a sufficiently high range of mountains, are chilled by the blasts which visit them from the Polar Ocean and the Siberian plain. Four principal climatic zones or regions may be distinguished—a southern, central, northern, and Arctic; which may be styled respectively, warm, temperate, cool, and cold.

The southern or warm zone lies to the south of the parallel of 45° , which runs between the mouths of the Garonne and the Danube, and therefore embraces the Spanish peninsula, the south of France, and the greater part of Italy, with Turkey and Greece. On the low grounds the winter is short; the frosts are slight; snow rarely falls, and rapidly disappears from the surface; and vegetation suffers but little interruption; while the summer heat is very great, especially when the southerly wind blows, called the solano in Spain, the sirocco in Italy and Sicily. The central or temperate region may be considered as extending generally between the parallels of 45° and 55° . It includes three-fourths of France, all Germany, Hungary, and the south of Russia, with England and Ireland. The four seasons are distinct in this district; but the winter is longer than the summer; snow is common over the whole area, with sharp frosts, occasionally of some duration; and proceeding from west to east, the reign of winter becomes more rigorous and protracted, while the heat of summer is more excessive. The northern or cool zone stretches from the preceding to the polar circle, and comprises nearly the whole of Sweden and Norway, with the north of Russia. Here the winter is constantly severe and lengthened; the ground is mantled with deep snow for months; the rivers and lakes are firmly frozen; the ports are blocked up with ice, which extends over entire bays and gulfs; and the thermometer frequently descends to 28° below zero at Stockholm, sometimes to 54° at St Petersburg. There is, however, a very warm though brief summer, which so rapidly follows the winter as almost to obliterate spring from the calendar of the seasons. Vegetation advances with astonishing rapidity during the change, as if the grasses, shrubs, and trees, had been suddenly enfranchised with independent life, instead of simply obeying the influence of warmth and moisture. In the neighbourhood of Uleaborg, towards the head of the Gulf of Bothnia, grain has been sown and reaped in the space of six weeks. Within the Arctic circle, which embraces the northern part of the Scandinavian peninsula, the year is made up of one long winter night and summer day, during which there is intense cold in the former, and considerable warmth in the latter, owing to the accumulation of heat from the continued presence of the sun above the horizon.

In relation to the rain-fall, it decreases in amount from west to east, or as the ocean is receded from. The annual precipitation is upwards of 100 inches on the coast of Portugal; 47 inches on the west coast of Ireland; 24 at London; and only 15 in the far east of Europe. Coimbra, in the valley of the Mondego, in Portugal, has a greater annual quantity than any other locality of the continent, said to exceed 200 inches. The number of rainy days in the year likewise diminishes from west to east.

Ireland has 208 days of rain in the year; the Netherlands 170; North Germany 152; and the plains of the Volga 90 days. In the most southerly districts, the rain falls chiefly in winter; in the western and north-western, in autumn; and in the central and eastern countries, in summer. Proceeding from south to north, the annual quantity of rain decreases, while that of snow increases. Malta is never touched by a snow-flake; Venice has an average of 5 days in the year on which snow falls; Paris of 12; Copenhagen of 30; and St Petersburg of 170 days.

In the European flora, there is probably not a single product peculiar to the surface, for while a direct prolongation of Asia, its southern peninsulas are in close proximity to Africa. But the vegetation is remarkably characterised by the prevalence of cruciferous and umbelliferous plants, which appear in greater abundance in the temperate and cool zones discriminated than in any other part of the globe. To the former class, the wallflower, stock, turnip, cabbage, and radish belong; to the latter, the lettuce, carrot, artichoke, hemlock, dandelion, and thistle. In this region the cornfields are the richest, and the meadows the most verdant, while the predominant trees are of the coniferous and amentaceous, or the cone and catkin-bearing families, as the various species of fir, the willow, poplar, hazel, lime, birch, alder, elm, oak, and beech. Of these, the beech is the first to pass away in a northerly direction, advancing to the parallel of 60° , in favourable situations, in Sweden; the oak, elm, and lime, reach to that of 61° ; the ash to 62° ; the hazel to 64° ; beyond which, firs, willows, and birches, enter the Arctic region, becoming of very diminutive size, till a few trailing shrubs, herbaceous and flowering plants, with mosses, lichens, and saxifrages, alone occupy the surface. In the extreme south, the warmer part of the warm zone, sub-tropical forêts occur in limited areas, as the dwarf-palm, cactus, banana, and sugar-cane; evergreens are largely blended in the woods with trees which periodically lose their foliage; a winter flora exists; extensive spaces are clothed with the orange, lemon, citron, fig, pomegranate, olive, and vine; but the pastures are not so luxuriant and freshly green as in the more temperate latitudes. Among the cereals, wheat is grown to the parallel of 64° in Norway; oats reach to 65° ; barley and rye pass within the polar circle; but none of these products are cultivable to so high a latitude in the east of Europe. Rice, which requires great heat and moisture, is confined to limited tracts in Greece, Italy, and Spain.

Two orders of the animal kingdom are entirely unrepresented in the zoology of Europe, the Marsupialia and Edentata, or pouched and toothless quadrupeds. A single species of the quadrumanous family occurs, the Barbary ape, which is restricted to the rock of Gibraltar; and one species of the pachydermatous tribe, the wild-boar, inhabits the central and southern forests. The white polar bear is limited to the far north; the common brown bear, in the wooded districts of the Alps and Pyrenees, as well as in Scandinavia and Russia, with the wolf, more numerous and widely diffused, are the only formidable animals, in process of reduction as to number by the spread of population and the habits of civilised life. Ruminants of many varieties and great interest occupy the plains, mountains, and woods: the reindeer and elk, in the extreme north; the stag, roebuck, and fallow-deer, in the central temperate zone; the ibex and chamois, scaling the snow-clad ridges of the grander highlands; the moufflon, in Corsica and Sardinia, formerly common in Spain, supposed by some to be the original stock of our domestic sheep; the auroch or bison, protected in imperial domains in Lithuania; and the Bactrian camel, on the steppes towards the Caspian and in the Crimea. Among the rodents, colonies of the beaver linger on the banks of some of the more solitary rivers, but will probably disappear as completely as they have vanished from the streams of Britain, where they were formerly well known. Birds are numerous both as to species and individuals, some of

which are summer visitors to very northerly regions, as the swallow, cuckoo, nightingale, and stork, retiring to the warm south to spend the winter, passing out of the limits of Europe into Africa or Asia. Aquatic birds, both waders and swimmers, are very abundant, owing to the profusion of lakes and streams. Reptiles are all of insignificant size, and none are formidable to man.

The native mineralogy of Europe is poor in relation to gold, silver, and precious stones, when compared with that of other sections of the globe. But it is just as rich in the possession of the metals and minerals which hourly appeal to the senses in the implements and machinery of civilised life, which exercise an influence the most important upon the comfort of human beings, and are essential to the prosperity of nations. These are found within its limits in apparently inexhaustible stores, and frequently occur in very convenient juxtaposition. The countries mentioned in connection with the economic minerals named, are in order distinguished for the amount of their produce.

Quicksilver,	Idria in Austria, Almaden in Spain, Wolfstein in Bavaria.
Iron,	British Isles, Belgium, France, Russia, Germany, Sweden and Norway, Italy, Spain.
Copper,	British Isles, Russia, Hungary, Sweden and Norway, Turkey, Germany, Spain.
Lead,	Spain, British Isles, Illyria, Hungary, Bohemia, Germany, France, Norway.
Tin,	England, Saxony, Spain.
Zinc,	Great Britain, Belgium, Germany.
Coal,	British Isles, Belgium, France, Germany, Sweden, Hungary.
Salt,	Russia, Austrian Poland (Galicia), France, Spain, British Isles, Portugal, Germany, Italy, Sweden and Norway, Greece.

In the three great coal-producing countries, the area of their carboniferous beds, its proportion to the whole area, and the actual annual production, are as follows :

	Coal Area in Square Miles.	Proportion to whole Area of Country.	Annual Production.
British Isles,	12,000	1—10	80,000,000 tons.
Belgium,	4,000	1—22	5,000,000 "
France,	2,000	1—100	4,150,000 "

The deepest of the European mines are in Bohemia.

Mines.	Depth. Feet.	Mines.	Depth. Feet.
Monkwearmouth coal-mine, Durham,	1584	Joachimsthal mine, Bohemia,	2120
Shafts in the Newcastle coal-field, sometimes	1800	Apendale coal-mine, Staffordshire,	2175
Dolcoath copper-mine, Cornwall,	1800	Samson mine, in the Harz,	2197
Tresavean copper-mine, Cornwall, upwards of	1800	Kongsberg silver-mine, Norway,	2250
Honenbirker mines, Saxony,	1827	Kitzpuhl mine, in the Tyrol,	2764
Consolidated copper-mines, Cornwall,	1920	Röserbühel mines, Bohemia, now abandoned,	3107
Thurmhofer mines, Saxony,	1944	Kuttenberg mine, Bohemia, abandoned,	3778

Mining, in districts where it is still carried on, is probably of older date in England than in any other part of Europe. Tin was undoubtedly wrought by the ancient Britons in Cornwall, where their excavations are at present known by old British names; and lead by the Romans in Derbyshire. Saxony is entitled to rank as the cradle of scientific mining, and is still one of its principal schools.

Europe, in proportion to space, is the most populous of the great divisions of the globe, containing more than one-fourth of its entire estimated population, or upwards of 270,000,000. The aborigines are quite unknown. But the main mass of its people belong to that ethnological division of mankind called the Caucasian or Aryan, sometimes the Indo-European, distinguished by the features being symmetrical, the forehead high, the hair soft, and the form of the skull elliptical. They are chiefly referrible also to three branches of this great group of nations—the Celtic, Teutonic,

and Slavonian, who successively poured in from the parent hive in Asia, variously conquering, displacing, and intermingling. The immigrants who formed the Celtic races are believed to have come first, and to have been spread at one time extensively over the surface, but were afterwards overcome, reduced in numbers, and driven westward by fresh advancing colonies, permanently occupying the extreme west, where pure Celtic blood is found at present, as in Brittany, Wales, Ireland, and the Scottish Highlands. At a much later date the ancestors of the Teutonic nations arrived, and established the two principal divisions of the stock, or the Germanic, in the central parts of the continent, and the Scandinavian, in the countries around the Baltic, both extended eventually to Great Britain, but chiefly the former. The founders of the Slavonic tribes, or as they were originally called, the Scythians and Sarmatians, settled principally in the eastern and south-eastern countries, seem never to have passed the river Oder in their westerly migrations, and are now represented by the great body of the Russians, the Poles, and the people immediately south of the Lower Danube. By alliances of these three principal families with each other, and with aborigines of whom we know nothing beyond the probable fact of their existence, the nations of mixed blood were formed, or the Greco-Latins, of whom the important sections are the Greeks, Italians, French, Spanish, Portuguese, and Moldo-Wallachians. The proof of the common origin of all these peoples, whether purely Celtic, Teutonic, and Slavonic, or variously crossed, and of their claim to be considered *Indo-European*, rests mainly upon the radical conformity of their languages to the Sanscrit, the ancient, classical, and sacred tongue of India. In addition, there are races of the same type generally diffused, as the Jews and Gipsies, both late comers, especially the latter, whose appearance in western countries dates only from the fifteenth century, and are generally supposed to have migrated from the plains of the Ganges to escape the sword of the terrible Tamerlane. Europe also contains both tribes and nations distinct from the Caucasian group, belonging to the Mongolian division of mankind, similarly derived from Asia, but from its Altaic regions. They are natively distinguished by inferior stature, a broad flat face, lank hair, and the pyramidal form of the skull. To this variety belong the Lapps, Finns, and Samoiedes, in the northern countries; the Turks in the south-eastern peninsula; the Tartars and Kalmucks in the south and east of Russia; and the Magyars in Hungary and Transylvania. But since their arrival west of the Bosphorus, the Turks, owing to alliance with Georgian and Circassian females, and many of the Magyars, from intermarriage with Germans, and other causes, have deviated from the type of their ancestors, and correspond in conformation to the great body of Europeans. Dr Kombst makes the following estimate

OF PURE BLOOD IN EUROPE :

Celtic,	12,000,000	Finns and Samoiedes,	3,000,000
Teutonic,	52,000,000	Tartar,	2,000,000
Slavonic,	50,000,000	Jews,	2,000,000
Magyar,	9,000,000	Gipsies,	600,000

A rather higher number will represent the people of mixed blood, Celtic in its various crosses, Teutonic-Celtic, Teutonic-Slavonian, Finnic-Slavonian, and other diversities.

The vast majority of the languages of Europe may be classified under the names of the four great races of people found within its limits. They consist of the Celtic dialects, vernacular in the west; the Teutonic, in the north, north-west, and centre; the Greco-Latin, in the south and south-west; the Slavonic, in eastern and midland districts. These groups have a common parent in the Sanscrit, and form part of the *Indo-European* linguistic family, which geographically ranges from the banks of the Ganges to the

western coasts of the Spanish peninsula. The first-named group, or the Celtic, though perhaps the most ancient, and once widely diffused, now occupies a very limited area, being restricted to the Erse or native Irish spoken in Ireland, the Gaelic in the north and west of Scotland, the Manx in the Isle of Man, the Welsh in the principality of Wales, and the Breton, or Armoric, in the old French province of Bretagne. These dialects have no important literature, and are everywhere in process of being gradually expunged from the list of living tongues by the encroachment of forms of speech more generally current, hence more convenient for the practical purposes of life, while richly freighted with stores of knowledge. The Teutonic languages, which include the English, German, Dutch, Flemish, Danish, and Swedish; and the Greco-Latin stock, comprising the modern Greek, the Italian, French, Spanish, and Portuguese, are eminently the exponents of literature, science, art, and public policy, several of which are extensively cultivated on that account in Europe, beyond the bounds of their native seat, while conveyed to far-distant regions, and firmly planted in them by commerce, conquest, and colonisation. The Italian is widely used on the eastern shores of the Mediterranean; the French is current in all European courts, in Algeria, and Lower Canada; the English, Dutch, and German have hold upon Southern Africa; English, Spanish, and Portuguese predominate in America; English is the prevailing speech of Australia, though, in a few villages, the German occupies that place. The Slavonic languages, which comprehend the Russian, Lithuanian, Polish, Bohemian, Servian, Bulgarian, and others, are spread over a vast area, but remain confined to the sites they originally occupied, except the Russian, which conquest has extended to the north of Asia.

Of the languages not belonging to the Indo-European class, as the Finnic, and other Tshoudic dialects, with the Magyar, Turkish, Tartar, and Basque, the last is the most remarkable. It is spoken by the peasant population of the valleys on both sides of the Pyrenees, but chiefly on the Spanish, and has no relations at present positively known to any linguistic family. The people believe that it was not only the original language of Spain, but also of the world, from which all other tongues have been derived. So exceedingly difficult is its acquirement, that, according to a popular tradition, the devil once tried to learn Basque, and shut himself up for the purpose through seven years, but had to abandon the task in despair. The author of the first guide to it, gave to his work the title of *El Imposible Vencido*, 'The Impossible Conquered;' and so far has this now been effected, that under the eye of Prince Louis-Lucien Bonaparte, a translation of the Bible into this all but impracticable tongue has been executed in London. It is curious to remark, that our conglomerate language has a vulgar phrase used to strengthen an asseveration, once more current than at present, 'By Jingo,' or 'By the living Jingo,' which seems to have come to us from the Pyrenees, where *Jainko* is the Basque name for the Supreme Being. It will be remembered, that provinces immediately north of the mountains were under the rule of England in the time of the Plantagenet kings, and, while the Black Prince, son of Edward III., carried his arms to the southern side of the range, his great-grandfather, Edward I., had Basque mountaineers conveyed to England to take part in the reduction of Wales.

Though the primitive Europeans are wholly unknown, abundant remains have been found of a people who appear to have antedated the oldest of the existing races. Some of them were lake-dwellers, who occupied platform habitations sustained by piles driven into the beds of the waters. Upon drought or drainage exposing the bottom, memorials of these singular villages have appeared, consisting of the piles, with bones, rude pottery, implements, and other traces of human inhabitants. The implements are of stone, chiefly of flint, many specimens of which have likewise been gathered from sepulchral barrows, and refer to a period prior to the knowledge of metals.

The map of Europe comprises forty-eight independent states, varying in extent from more than half its area to less than the smallest of the English counties.

States.	Description.	Area in Sq. Miles.	Population.	Capitals.
Anhalt-Dessau-Koethen and Bernburg,	Duchy,	914	182,024	{ Dessau, Koethen, Bernburg.
Austria,	Empire,	249,408	35,019,058	Vienna.
Baden,	Grand Duchy,	5,904	1,369,291	Carlsruhe.
Bavaria,	Kingdom,	29,637	4,689,837	Munich.
Belgium,	"	11,313	4,731,957	Brussels.
Bremen,	Free City,	97	98,575	Bremen.
Brunswick,	Duchy,	1,427	282,389	Brunswick.
Denmark,	Kingdom,	21,856	2,605,024	Copenhagen.
France,	Empire,	210,732	37,472,732	Paris.
Frankfort,	Free City,	39	83,380	Frankfort.
Great Britain and Ireland,	United Kingdom,	121,518	29,307,199	{ London, Edinburgh, Dublin.
Greece and Ionian Islands,	Kingdom,	16,230	1,343,393	Athens, Corfu.
Hamburg,	Free City,	135	229,941	Hamburg.
Hanover,	Kingdom,	14,846	1,888,070	Hanover.
Hesse-Cassel,	Electorate,	3,740	738,454	Cassel.
Hesse-Darmstadt,	Grand Duchy,	3,245	856,250	Darmstadt.
Hesse-Homburg,	Landgraviate,	106	26,817	Homburg.
Holland,	Kingdom,	12,600	3,372,652	Amsterdam.
Holstein, and Lauenburg,	Duchy,	3,980	573,000	Gluckstadt, Lauenburg.
Italy,	Kingdom,	95,861	21,920,269	Turin.
Lichtenstein,	Principality,	60	7,150	Lichtenstein.
Lippe-Detmold,	"	437	108,503	Detmold.
Lippe-Schaumburg,	"	171	30,774	Buckeburg.
Lubeck,	Free City,	125	55,423	Lubeck.
Luxemburg,	Grand Duchy,	990	196,804	Luxemburg.
Mecklenburg-Schwerin,	"	5,126	548,449	Schwerin.
Mecklenburg-Strelitz,	"	1,051	99,060	New Strelitz.
Nassau,	Duchy,	1,795	456,567	Wiesbaden.
Oldenburg,	Grand Duchy,	2,421	295,242	Oldenburg.
Portugal,	Kingdom,	35,260	3,584,677	Lisbon.
Prussia,	"	108,410	18,500,446	Berlin.
Reuss (elder),	Principality,	145	42,130	Greiz.
Reuss (younger),	"	448	83,360	Gera.
Russia,	Empire,	2,041,950	65,810,752	St Petersburg.
Saxe-Altenburg,	Duchy,	510	137,162	Altenburg.
Saxe-Coburg-Gotha,	"	761	159,431	Coburg, Gotha.
Saxe-Meiningen-Hilburghausen,	"	972	172,341	Meiningen.
Saxe-Weimar-Eisenach,	Grand Duchy,	1,405	273,252	Weimar.
Saxony,	Kingdom,	5,770	2,225,240	Dresden.
Schwarzburg-Rudolstadt,	Principality,	370	71,913	Rudolstadt.
Schwarzburg-Sondershausen,	"	328	64,895	Sondershausen.
Spain,	Kingdom,	179,500	15,454,514	Madrid.
States of the Church,	Ecclesiastical Monarchy,	4,502	690,000	Rome.
Sweden and Norway,	Kingdom,	292,700	5,290,622	Stockholm, Christiana.
Switzerland,	Federal Republic,	15,529	2,510,494	Berne.
Turkey and Principalities,	Empire,	208,160	15,500,000	Constantinople.
Waldeck,	Principality,	464	58,604	Arolsen.
Wurtemberg,	Kingdom,	7,439	1,720,708	Stuttgart.

Population returns from the *Almanach de Gotha*, 1863.

There are thus four empires, fourteen kingdoms, one electorate, seven grand duchies, seven duchies, eight principalities, one landgraviate, one ecclesiastical monarchy, and five republics, including the free cities.

Of the empires, the oldest is the Turkish or Ottoman, which dates from the fall of the Greek dominion by the Moslem capture of Constantinople, in the year 1453. The Russian was founded by Peter the Great, in the early part of the last century; the Austrian and French are of recent origin. The more ancient kingdoms are England, Spain, Denmark, and Sweden; the youngest are Belgium, Greece, Hanover, and Italy. States of the first rank are Great Britain, France, Prussia, Austria, and Russia, commonly

called the five great powers, whose concurrent voice is conclusive in the settlement of continental affairs, and whose separate influence is never overlooked. In the second rank are Spain, Turkey, Sweden, Holland, and Italy; and in the third, Belgium, Denmark, Switzerland, Bavaria, and Portugal. Population is the densest in Belgium, England, and Holland; and the thinnest in Norway, Sweden, and Russia. Hereditary monarchy is the universal form of government, except in Switzerland, the papal states, and the free cities; but in France, Belgium, Prussia, and Turkey, the succession is limited to the male line. In Russia, the papal states, and Turkey, the monarchy is perfectly absolute. In France and Austria it is so practically, though popular representation is nominally admitted. In Great Britain, and all other European countries, except those named, the supreme power is more or less vested in the sovereign and the estates of the realm, and the monarchies are constitutional. Each government has a standing army, varying in number, from the mere handful of men which the petty German powers are bound to furnish for federal purposes, to vast hosts of from 400,000 to 600,000, which is the usual complement maintained, or the peace establishment, in France, Austria, and Russia.

All the European nations profess Christianity, with the exception of a few millions, chiefly of Mohammedans and Jews. Though belonging to an endless number of religious sects, they may be reduced to three grand denominations: the Roman Catholic, Greek, and Protestant churches, each of which has a specific geographical distribution. As another general rule, the Celtic and Greco-Latin races are Roman Catholics, while the Slavonic tribes belong to the Greek communion, and the Teutonic nations are mostly Protestants. Romanism has the greatest number of adherents, amounting to more than the other two confessions taken together. But in point of general intelligence, the arts of civilised life, civil liberty, a comparatively satisfactory social and moral condition, the Protestant communities are eminently the advanced nations of Europe, owing their superiority mainly to that freedom of thought and speech, with an unfettered press, which their religious principles directly favour and enjoin.



Europa Point, Gibraltar.



Sinclair Castle, Caithness—From a Photograph by the Earl of Caithness.

SECTION I.—THE BRITISH ISLES AND EUROPEAN DEPENDENCIES.

CHAPTER I.

GENERAL VIEW OF THE BRITISH ISLES.



THE large island of Great Britain, of which England and Wales form the southern division and Scotland the northern, with the smaller insular mass of Ireland, and very numerous adjuncts closely investing their shores, constitute the United Kingdom, subject to the British crown, the home-territory and head-quarters of the most extensive and influential empire of the globe. The archipelago is situated to the westward of the European mainland, from which it is separated by the English Channel on the south, and the North Sea on the east. These are arms of the Atlantic Ocean, which directly

enclose it in other directions, where the power of the magnificent billows is strikingly proclaimed by the shattered and invaded aspect of the coasts. The most southerly point, one of the Scilly group, is in $49^{\circ} 53'$ north latitude; and the most northerly, one of

the Shetland cluster, in $60^{\circ} 49'$. This range of latitude, amounting to $10^{\circ} 56'$, gives a resulting distance of rather more than 750 miles in the direction of the meridian, which is the entire extent of the insular series, north and south. But the great proportion of the territory, and the vast majority of the population, have a much smaller latitudinal range. Taking the parallel of 55° for a dividing-line, there are nearly equal portions of latitude to the north and south of it. The northern portion includes the main mass of Scotland, with its neighbouring isles, and very small sections of England and Ireland, while the southern embraces nearly the whole of Ireland and England, with Wales, and their adjacent islands. In the south division, the proportion of territory is more than two and a half to one, as compared with that in the north, while the amount of population is in the ratio of nearly eight to one. Lowestoft Ness, on the coast of Suffolk, $1^{\circ} 46'$ east of Greenwich, and the Blasquet Isles off the coast of Kerry, $10^{\circ} 30'$ west, define the extent of the archipelago in longitude. This amounts to $12^{\circ} 16'$, equivalent to a linear distance of 500 miles.

Sunrise and sunset visit the most easterly coasts full three-quarters of an hour before they are witnessed on the more westerly, owing to difference of longitude; and at the southern and northern extremities of the kingdom, there is a marked variation in the length of the days and nights at the solstices, occasioned by the range of latitude. In the south, the midsummer day extends to sixteen hours, eight minutes; and in the north, to eighteen hours, forty-eight minutes, leaving an interval varying from somewhat less than eight hours to rather more than five for the length of the night. But at both extremities, the sun then dips to such a small extent below the horizon, that his rays continue to reach the higher regions of the atmosphere, and the interval is one of twilight only. This is specially the case in the northern localities where the solar declension is the least, and hence, with a sky clear of clouds, there the midsummer night is day-like. In the Orkneys and Shetlands, reading, writing, and other delicate operations may be performed without artificial light, when the time-piece is marking the close of one day and the beginning of another. 'At midnight,' says a correspondent at Balta Sound, 'on the 21st of June, I have often read such print as *Chambers's Edinburgh Journal*.' The note of life from the animal creation, though less frequent than by day, is far from being interrupted. In their respective haunts may be heard the merry tune of the sedge-warbler, the bleating cry of the snipe, the whistle of widgeon and teal, the quack of the mallard, with a clamorous outburst at intervals from varieties of waders and water-fowl.

The geographical position of the British Isles is peculiar, interesting, and influential. They are so closely sea-girt, that no portion of territory is more than 120 miles from a shore; and there is only a very small area at this inconsiderable distance. The greater part of England, with the whole of Wales, Scotland, and Ireland, is within fifty miles of the salt-water line. Yet the central point of the hemisphere, which contains the greatest amount of the land-surface of the globe, falls within the limits of the archipelago, and is only a few miles from the port of Falmouth, in Cornwall. This land-hemisphere embraces the whole of Europe and Africa, all Asia and America, except the narrow peninsula of Malacca, and the tapering extremity of South America. A vast oceanic surface distinguishes the opposite hemisphere, in which, with the exceptions named, the land is wholly insular, and its collective area is quite insignificant in comparison with that of the great continents.

Great Britain is the largest of the European islands, the most important in the world, and the seventh in point of magnitude, ranking after Australia, Borneo, New Guinea, Nippon, Sumatra, and Madagascar. The nearest approach to the continent is made by the south-east corner of England, where the distance is little more than twenty miles to

the opposite shores of France. From the correspondence of the rocks on both sides of the intervening strait, and the existence of the same animals in historic times, as the bear, wolf, and beaver, with the comparatively shallow depth of the water, it is inferred that an isthmus here once connected the island with the continent as a peninsular projection, which the constant gnawing of the waves or some sudden irruption removed. This idea was current long before attention had been paid to the geology of the shores, and is mentioned by Sir Thomas More in his *Utopia*. To the westward, the separating English Channel gradually increases in breadth till the extremities of England and France in that direction are upwards of 100 miles asunder, while to the northward the North Sea expands to 400 miles between Scotland and Denmark.

The extreme points of the island are Dunnet Head, on the north, a high promontory in Caithness overlooking the Pentland Firth; the Lizard Point, on the south, a headland chiefly of serpentine in Cornwall, commonly the last land seen and the first observed by ships entering the Atlantic, and returning from it; Lowestoft Ness, on the east, a low cape adjoining that port in Suffolk; and Ardnamurchan Point, on the west, a projection of the county of Argyle. No line can be drawn intersecting the whole surface due north and south, owing to the general inclination of the land in the direction of the meridian being north by west. But a straight line, extended from Cape Wrath, in Sutherlandshire, to the coast of Sussex, or north-west and south-east, will measure about 600 miles, without cutting any portion of the sea. The greatest breadth, due east and west, is from St David's Head, in Pembrokeshire, to the Naze in Essex, and amounts to nearly 300 miles. But the contractions are numerous and marked, owing to the occurrence of far-penetrating inlets and firths. Generally, the island narrows from south to north, and hence its form is often described as rudely triangular. The idea originated with Julius Cæsar, who estimated the entire circuit at 2000 miles. But the actual extent of the coast-line, measuring inlets and estuaries up to the termination of their broader parts, is upwards of 3000 miles, distributed as follows:

	Miles.
East Coast—from the South Foreland in Kent, to Duncansby Head in Caithness,	1010
North Coast—from Duncansby Head to Cape Wrath in Sutherlandshire,	103
West Coast—from Cape Wrath to the Land's End in Cornwall,	1546
South Coast—from the Land's End to the South Foreland,	448
	3112

England has an area of 50,922 square miles; Wales, 7398; and Scotland, inclusive of islands, 30,685—making a total of 89,005 square miles. The respective proportions have been ingeniously illustrated by the Registrar-general. Adopting the figure of a perfect square, the area of England is equal to one of 226 miles to the side; Wales, to one of 86 miles; Scotland, to one of 177 miles; and the whole of Great Britain, to a square of 299 miles to the side. Or adopting the figure of a circle, the area of England is equal to one with a radius of 127 miles; Wales, to one of 49 miles; Scotland, to one of 100 miles; and the whole of Great Britain, to a circle with a radius of 169 miles. The surface varies in its level from below high-water mark in the fens of Lincolnshire, to the height of 4406 feet above the sea, in Ben Nevis, Inverness-shire.

Ireland, smaller, less important, and more compact, lies to the west of Great Britain, from which it is separated by the Irish Sea, and the straits by which that confined expanse communicates with the ocean, St George's Channel in the south, and the North Channel in the opposite direction. The two islands make their closest approach at the outlet of the northern channel, where the shores on either hand are within thirteen miles of each other, at Fairhead, in the county of Antrim, and the Mull of Cantire in Scotland.

Across the southern channel, the shortest distance is rather more than fifty miles, between Carnsore Point in Wexford, and St David's Head in Wales. The island extends in a northerly direction to about the latitude of the centre of Ayrshire in Scotland, and the town of Alnwick in England. Its southern extremity corresponds in latitude very nearly to that of Bristol and London. It rudely resembles in shape an oblique parallelogram, the longest diagonal of which runs from north-east to south-west, and measures somewhat more than 300 miles. But due north and south, the greatest extent is not more than 230 miles, from Horn Head in Donegal to near Poole Head in Cork; and due east and west, the greatest breadth is 180 miles, from Achris Point in Galway to the coast between Dublin and Drogheda. The breadth is contracted to little more than 100 miles, between the opposite Bays of Galway and Dublin; and to less than 90 miles between those of Donegal and Belfast. The extreme points of the mainland are the coast of Down on the east; Dunmore Head, in Kerry, on the west; Malin Head, in Donegal, on the north; and Mizen Head, in Cork, on the south. Cape Clear, more southerly, is a high promontory at the extremity of a small, wild, and romantic islet. Ireland has a coast-line estimated at upwards of 2000 miles, measuring the inlets, which are numerous and deep on the northern and western shores. The surface rises to 3404 feet above the sea in Carn Tual, one of the mountains of Kerry. Its superficial extent amounts to 32,513 square miles, which, added to that of Great Britain, gives a total of 121,518 square miles for the area of the United Kingdom.

The minor islands associated with the two larger sometimes occur singly, but are more generally arranged in groups, and are situated chiefly along the northern and western shores. Great Britain, for important examples, has the Orkneys and Shetlands on the north; the Inner and Outer Hebrides, Bute and Arran, the Isle of Man, Anglesea, and the Scilly Isles, on the west; the Isle of Wight on the south. Ireland has Rathlin and Tory Islands on the north, with those of Achill, Clare, Arran, the Blasquets, and Valentia on the west. The east coasts, in both instances, correspond in having very few and only insignificant insular tracts. The total number of small size has not been ascertained with exactness. But it must be very considerable, if those are included which, though not permanently inhabited by man, have patches of verdure, are visited by fowlers and fishermen in their boats, by shepherds in summer, and are the breeding-stations of vast flights of aquatic birds. Defining an island to be any piece of solid land surrounded by water, which affords sufficient vegetation to support one or more sheep, or which is occupied by man, the Census Commissioners, in 1861, found 787 such sites in connection with Scotland alone, of which 186 were inhabited on the census day. Some of these are of great extent, and supply pasturage to flocks of from 300 to 400 sheep, though without regular human tenants, while others are so small as to admit of only one sheep being left at once, which is removed when fattened, and its place supplied by another. The most isolated inhabited spot is the precipitous St Kilda, the outermost of the Outer Hebrides, with a village of bird-catchers and fishermen, 45 miles from the nearest neighbour. More solitary is Rockall; but it is simply a block of granite peering up above the waves, 184 miles from the last mentioned, the nearest land, and 260 miles from the north coast of Ireland. The rock is now a convenient guide-post to an important cod-fishery.

The enclosing seas,

'Which God hath given for a fence impregnable,'

vary greatly in their depth. The North Sea is comparatively shallow, except towards the Norwegian shores, for its mean depth for the whole basin does not exceed thirty-one fathoms. The depth in the centre is generally less than on the eastern and western sides,

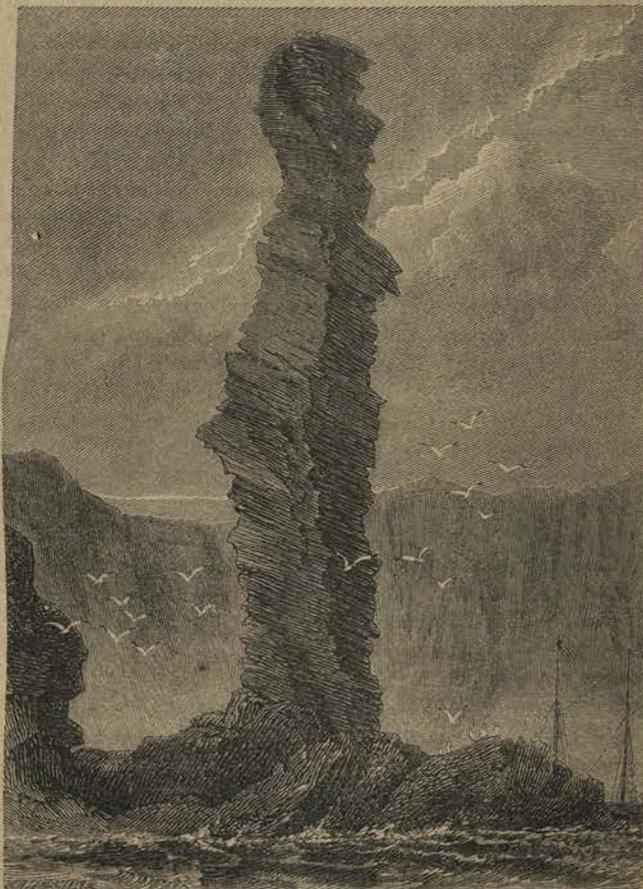
except close to the coasts, owing to the accumulations of debris which encumber that part of its bed. One of these, the Dogger Bank, a well-known station for cod-fishing, but now greatly exhausted, extends upwards of 300 miles from off Flamborough Head towards the coast of Denmark, where it terminates almost in a point, though in various places not less than sixty miles broad. Another enormous bank, known to mariners as the Long Forties, trends more than 100 miles in a north-easterly direction from the Firth of Forth. It has been calculated that the solid contents of these shoals, with the minor ones, if evenly distributed over the surface of Great Britain, supposing it to be a level plain, would cover it with a stratum of soil twenty-eight feet in thickness. The shallowest part of the English Channel, about twenty-five fathoms, is at the narrow eastern extremity, between Romney Marsh and the opposite coast of France. From thence westward, the soundings increase to sixty-three fathoms at the oceanic entrance. In general, there is greater depth of water on the English than on the French shores, and the ports and harbours are better. The Irish Sea has considerable depth throughout, except towards the north-east corner, amounting to sixty-six fathoms between Holyhead and Dublin. But these depths are trifling in relation to that of the outlying ocean. The Atlantic, to the distance of about sixty miles from the west coasts of Ireland and Scotland, has a depth of 100 fathoms. It increases rapidly with a further distance, till, at under 200 miles, the plummet suddenly plunges to 1750 fathoms, or 10,500 feet, and the deep bed of the ocean begins. Hence it follows, that the comparatively shallow British seas occupy and conceal the gentle depressions and deeper dells of a plateau, of which the British Islands are the elevated and exposed portions.

The tides are very conspicuous on most of the shores, affect many of the rivers in a marked manner to a considerable distance inland, and give rise to some striking phenomena. On reaching our narrow seas, the ridge of the great oceanic tide-wave extends diagonally from the south-west coast of Ireland to the north-west projection of France, and sends off two branches owing to the interruption offered by the masses of land. An eastern branch enters the English Channel, and carries high-water to the opposite shores; a central branch runs up the Bristol Channel, and passes through St George's into the Irish Sea; while the main or oceanic wave continues its course with immense velocity along the western coasts of Ireland and Scotland. This last, after rounding the Orkneys and Shetlands, becomes a great wave from the north, traverses the whole extent of the North Sea, and determines high-water along the coast to the mouth of the Thames. The tidal rise varies in its height at different points owing to the varying configuration of the shores, the form of the bottom, and the direction of incidence of the wave, attaining its maximum where bays and estuaries have their openings turned towards its advance, and rapidly contract in their breadth. This condition is best fulfilled by the Bristol Channel, and accordingly there the ordinary rise of the tide is the greatest. It amounts to 30 feet in Swansea Bay, 38 feet at Cardiff, 40 feet at the mouth of the Bristol Avon, and occasionally to 60 feet at Chepstow on the Wye. In other places under similar circumstances, though not so marked, the tides rise as high as 22 feet at the entrance of Milford Haven, 26 feet at the mouth of the Mersey, 21 feet at the entrance of the Solway Firth, and 23 feet at the mouth of the Wash. Spring-tides, with coincident westerly gales, produce an immense accumulation of water in the upper part of the Bristol Channel, the estuary of the Severn. The flood remains pent up for a time by the narrowness of the river channel, till, having acquired sufficient power for disengagement, it violently breaks bounds, and rushes up the stream as a wall of water, with a crest of foam. Boatmen are warned of its approach, and thus enabled to secure

their craft, by hearing the distant roar. Precisely similar to this 'bore' of the Severn, and produced in the same manner, is the 'heygre' of the Trent.

Bold projecting cliffs, and narrow channels between islets or shoals and the main shores, by obstructing the tide-wave, originate impetuous currents on many points of the coasts, justly dreaded in the days of timid and unskilful seamanship. Around the peninsula of Portland in Dorsetshire, and between it and a shoal on the south bearing the ominous name of the Shambles, with Deadman's Bay in the neighbourhood; the tide rushes with extreme violence, raising furious eddies and a dangerous surf. This has obtained the name of the Race of Portland; and has the turbulence of its waters typified on old charts by a fierce-looking monster or sea-dragon lashing them into foam. The Roost of Sumburgh designates the strong and tumultuous tidal flow between the Orkneys and the Shetlands, so called from Sumburgh Head, at the southern extremity of the latter group, and the Scandinavian *roost*, the term applied to agitated and powerful sea-streams.

In the contracted Pentland Firth, between the Orkneys and the mainland of Caithness, the force of the tides and currents have, in many places, undermined the rocks, producing most fantastic shapes in the old red conglomerate—the prevailing formation of Pentland Firth. One of these fantastic forms, off the island of Hoy, is exhibited in the accompanying engraving, copied from a drawing made by Lord Bury, kindly lent to the publishers by the Earl of Caithness. All the softer portions of the headland have been washed away by the erosive action of the waves, leaving the harder conglomerate of gneiss and sandstone a beautiful example of stratification. In those narrow seas the navigation is dangerous throughout to small craft, from the force of the tide, and the strong eddies formed by currents on either side which run counter to the main stream. Vessels seldom venture to bring up,



The 'Old Man' of Hoy.

or if an anchor is let go, it is generally left at the bottom. The little isle of Stroma, on the southern side of the channel, has its Scylla and Charybdis: the one a whirlpool

called the Swalchie; the other, an expanse of broken water, boiling like a witch's caldron, termed the 'Merry Men of Mey;' the word *men* being here a corruption of *main*. Between the islands of Jura and Scarba, two of the Southern Hebrides, the remarkable intermittent whirlpool of Corrivreckin is formed by the collision of opposite tidal currents. It attains its maximum of disturbance at the fourth hour of the flood—boils, foams, and rolls away in successive whirls—throwing up everything from the bottom with strong ebullition. The name is said to be derived from a Danish prince who perished at the spot.

'Where the wave is tinged with red,
And the russet sea-leaves grow,
Mariners, with prudent dread,
Shun the shelving rocks below.

As you pass through Jura's sound,
Bend your course by Scarba's shore;
Shun, O shun, the gulf profound,
Where Corrivreckin's surges roar.'

On the low coasts, the tidal oscillations diurnally abridge and extend the area of the shore by submerging and leaving dry extensive tracts. This is specially observed around the Wash, where the permanent reclamation of 200,000 acres from the sea is contemplated, in the Solway, and in Morecambe Bay. The latter estuary interposes between the towns of Lancaster and Ulverstone. They are about twenty miles apart in a direct line, but twice that distance passing around the head of the bay. By the ebbing of the tide, the intervening space is left perfectly dry, except in the narrow channels of two small streams, the Kent and the Leven; and it is then traversed by travellers on horseback, and by vehicles. But the route of the 'Sands' has occasionally its perils, when dense fogs arise, or driving snow-storms come on, or when a strong westerly wind springs up, which accelerates the return of the waters, and gives great violence to their flow.

Both formidable and interesting animals, the bear, beaver, wolf, and wild-boar have become extinct within the limits of the kingdom since the dawn of authentic history. The bear was common in the Roman times, and conveyed to Rome for the sports of the amphitheatre. It existed in Scotland in the eleventh century, for in the year 1057 one of the Gordons was allowed to carry three bears' heads on his banner in honour of his valour in killing one. Several places in Wales retain the name of Pennarth, or the bear's head, indicating its presence in the principality. The wolf so infested the homesteads of the Anglo-Saxons in winter, that the month of January was called *Wolf-monat*. It was extirpated in England by systematic measures taken for its destruction by Edward I.; but remained in Scotland four centuries later, the last having been killed by Cameron of Lochiel in 1680. In Ireland, the last is said to have perished about the year 1710, in the county of Cork. A few examples of the wild-boar, once stringently protected for purposes of the chase, were in the New Forest down to the reign of Charles I. Wilberfel, or Wild-boar Fell, denominates a district in Westmoreland. The urus or wild-ox, a gigantic creature, roamed in the forests near London in the time of the first Plantagenet, and is mentioned at a much later date in other parts of the country. The beaver, the broad-tailed animal of the Welsh, was in the principality at the commencement of the thirteenth century, inhabiting the Teify. A few pools there bearing the name of *Llyn yr afangc*, 'the beaver lake,' preserve its memory, as does the name of Beverley in Yorkshire, 'the place of beavers.' Some birds have likewise disappeared, as the capercaillie, or cock of the wood, a splendid member of the grouse tribe, not uncommon in Scotland at the beginning of the last century; the great bustard, last seen in the eastern counties of England, in the early part of the present century; and the stork,

once a regular summer visitor from a warmer climate to the fenny districts, and still a migrant to Holland.

Fully exposed to the influence of those causes which elevate the temperature generally in Western Europe, mentioned in the preceding chapter, the climate of the kingdom is remarkably mild, considering its position in the northern half of the temperate zone. Those great extremes of winter cold and summer heat, which are experienced in corresponding continental latitudes, both eastward in Northern Germany and Central Russia, and westward in Trans-Atlantic regions, are unknown; while the average of temperature throughout the year is much higher. This absence of violent seasonal alternations is favourable alike to comfort and health. It specially applies to the southern and south-western shores of England, where the winters are so mild, that in sheltered bays, myrtles, citrons, camellias, hydrangeas, magnolias, cactuses, and other exotics, bear unharmed the open air without any protection but what is afforded by the neighbouring hills. The coldest district is an easterly section, extending from the Naze, in Essex, to the Firth of Forth, and stretching some distance inland. The warmest embraces the Isle of Wight, with parts of the counties of Hants, Dorset, Devon, Cornwall, Somerset, Gloucester, and Glamorgan. The hottest month in general is July, and the coldest January. Ireland has a milder winter than England, especially on the western side, but the summer is cooler, owing to the greater humidity of the atmosphere. While the rain-fall is abundant over the whole surface, it is more copious in western than in eastern localities—an obvious consequence of more immediate exposure to the vapours raised from the Atlantic, and the westerly position of the high lands and mountain-ranges. But though more westerly, Ireland is distinguished from Great Britain not so much by a larger amount of precipitation, as by its more equable distribution throughout the year, rendering the number of the rainy days greater. Hence, from this prevalent humidity, the face of the country has that freshly verdant aspect for which it is renowned. The pastures are never parched; the trees remain long in leaf—characteristics which have won for it the title of the 'Emerald Isle,' 'the green isle of Erin.' But the same circumstance limits the growth of the more important cereals, as well as the ripening of various kinds of fruits. Mists and frequent weather changes, with cold easterly winds in spring, are the principal defects of the British climate; but the measure of health enjoyed by the people, with the average duration of life, is not surpassed, if equalled, in any other country.

The vegetation of the British Isles varies with the several localities: in many respects the mountain vegetation differs widely from the vegetation of the plains and valleys. The flowers which deck the woods and fields have no representatives in mountain regions. Where a few hardy kinds do succeed in climbing to the summits of the Highland hills, a recent anonymous writer says, 'they assume strange forms which puzzle the eye, and become dwarfed and stunted by the severer climate and ungenial soil. All alpine plants found in the Highlands,' the same writer adds, 'are universally admitted to be of arctic or Scandinavian origin. Their primitive centres of distribution lie within the arctic circle, where they are found in profusion, constituting the sole flora of very extensive regions. From these northern centres they were gradually distributed southwards over the British hills during the glacial epoch, when the summits of these hills were low islands, or chains of islands, extending to the area of Norway through a glacial sea. This floral migration may be traced from the arctic regions to the higher ranges of the Alps.'



The mass of the vegetation is identical with that of the neighbouring continent. But a wanderer from afar appears on the west coast of Ireland and in the Hebrides, which has established itself from transatlantic regions, owing doubtless to seeds having been drifted thither by the Gulf-Stream, still retaining the power of germination. This is the jointed pipewort, a grass-like plant, growing in lakes which have a muddy bottom, and exhibiting small globular heads of flowers. But it bears little resemblance with us to its congeners in their more congenial natural habitation, which are shrubby, from four to six feet high, with leafy branches on their stems, and are prominent features of the vegetation in parts of South America. Another migrant, the three-toothed cinque-foil, abundant in the Rocky Mountains and Arctic America, occurs on a Forfarshire hill in Scotland, to which it is limited. A third intruder, of recent date, the water weed, *Anacharsis alsinastrum*, first observed in the year 1842, and now well known in the rivers, canals, and drains of the midland counties of England, is supposed to have sprung from seeds brought with timber from Canada during the construction of the railways.

The native flora may be divided into four groups—Germanic; Scandinavian; Asturian; and Armorican, so called from the continental localities where the same species are now found, and whence, in the opinion of Professor Forbes and other geologists, they originally came to our shores. I. The Germanic group comprise the principal components of vegetation, such as *Sibaldia procumbens* (a), *Arenaria rubella* (b), *Gentiana nivalis* (c), and all the widely diffused species—trees, shrubs, weeds, and wild-flowers—which belong equally, to the middle latitudes of Europe. II. The Scandinavian group is chiefly represented in the Highlands of Scotland, to a smaller extent on the loftier mountains and bleak moorlands of England and Wales, and very sparingly in Ireland. It consists of mosses, lichens, and grasses, some highly beautiful flowering plants, and prized berry-bearing shrubs, as the cranberry, bilberry, and cloudberry, which are abundant in Scandinavia, on alpine heights in general, and also in the arctic lowlands. Among those selected for illustration are, *Verbascum lychnides* (d), *Linum perenne*, common flax (e), *Rubus chamaemæus*, the cloudberry (f), *Gentiana pneumonanthe* (g), *Thlaspi*



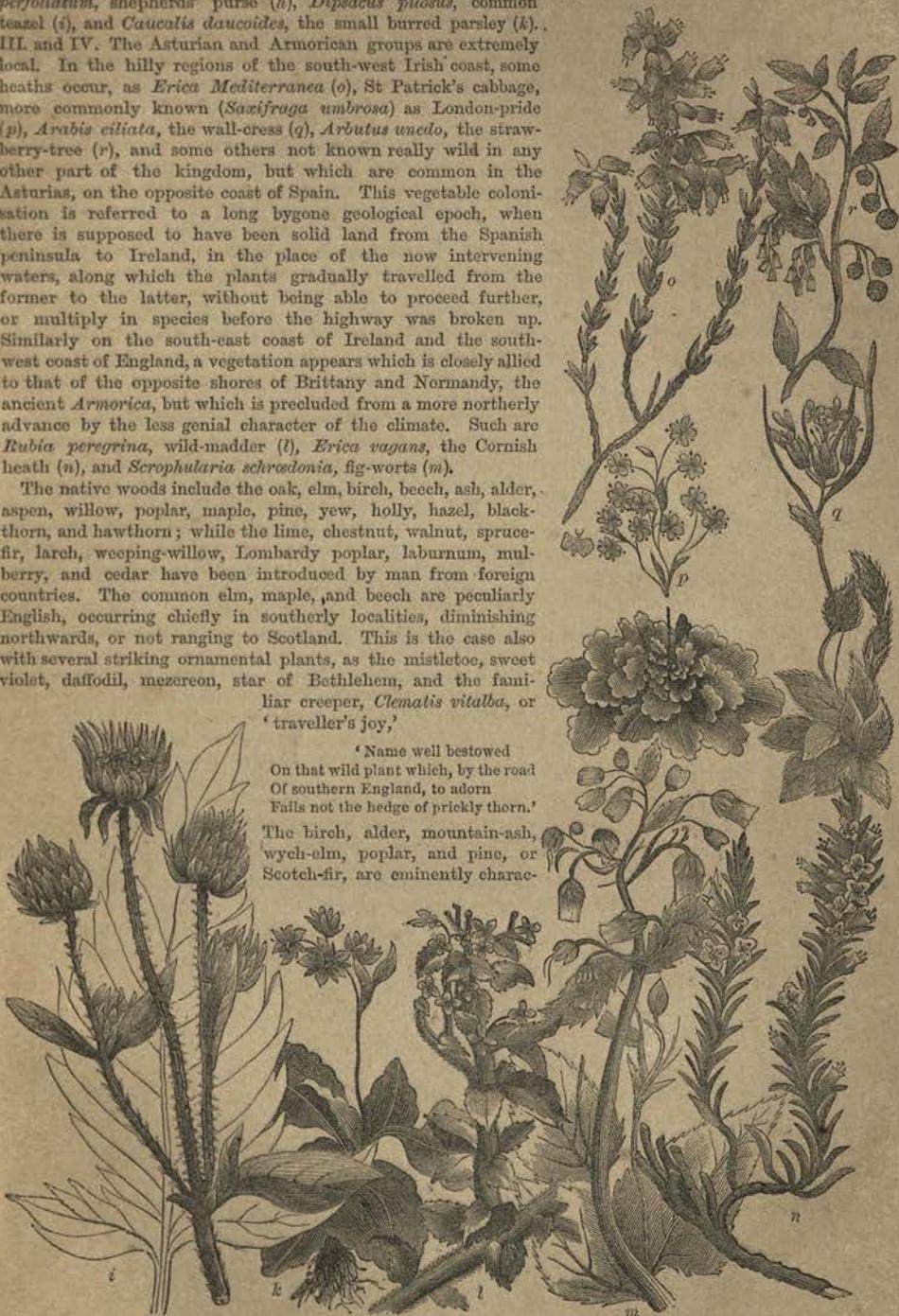
perfoliatum, shepherd's purse (*h*), *Dipsacus pilosus*, common teasel (*i*), and *Caucalis daucoides*, the small burred parsley (*k*). III and IV. The Asturian and Armoric groups are extremely local. In the hilly regions of the south-west Irish coast, some heaths occur, as *Erica Mediterranea* (*o*), St Patrick's cabbage, more commonly known (*Saxifraga umbrosa*) as London-pride (*p*), *Arabis ciliata*, the wall-ress (*q*), *Arbutus unedo*, the strawberry-tree (*r*), and some others not known really wild in any other part of the kingdom, but which are common in the Asturias, on the opposite coast of Spain. This vegetable colonisation is referred to a long bygone geological epoch, when there is supposed to have been solid land from the Spanish peninsula to Ireland, in the place of the now intervening waters, along which the plants gradually travelled from the former to the latter, without being able to proceed further, or multiply in species before the highway was broken up. Similarly on the south-east coast of Ireland and the south-west coast of England, a vegetation appears which is closely allied to that of the opposite shores of Brittany and Normandy, the ancient *Armorica*, but which is precluded from a more northerly advance by the less genial character of the climate. Such are *Rubia peregrina*, wild-madder (*l*), *Erica vagans*, the Cornish heath (*n*), and *Scrophularia sclerosonia*, fig-worts (*m*).

The native woods include the oak, elm, birch, beech, ash, alder, aspen, willow, poplar, maple, pine, yew, holly, hazel, black-thorn, and hawthorn; while the lime, chestnut, walnut, spruce-fir, larch, weeping-willow, Lombardy poplar, laburnum, mulberry, and cedar have been introduced by man from foreign countries. The common elm, maple, and beech are peculiarly English, occurring chiefly in southerly localities, diminishing northwards, or not ranging to Scotland. This is the case also with several striking ornamental plants, as the mistletoe, sweet violet, daffodil, mezeoreon, star of Bethlehem, and the familiar creeper, *Clematis vitalba*, or 'traveller's joy.'

'Name well bestowed

On that wild plant which, by the road
Of southern England, to adorn
Falls not the hedge of prickly thorn.'

The birch, alder, mountain-ash,
wych-elm, poplar, and pine, or
Scotch-fir, are eminently charac-



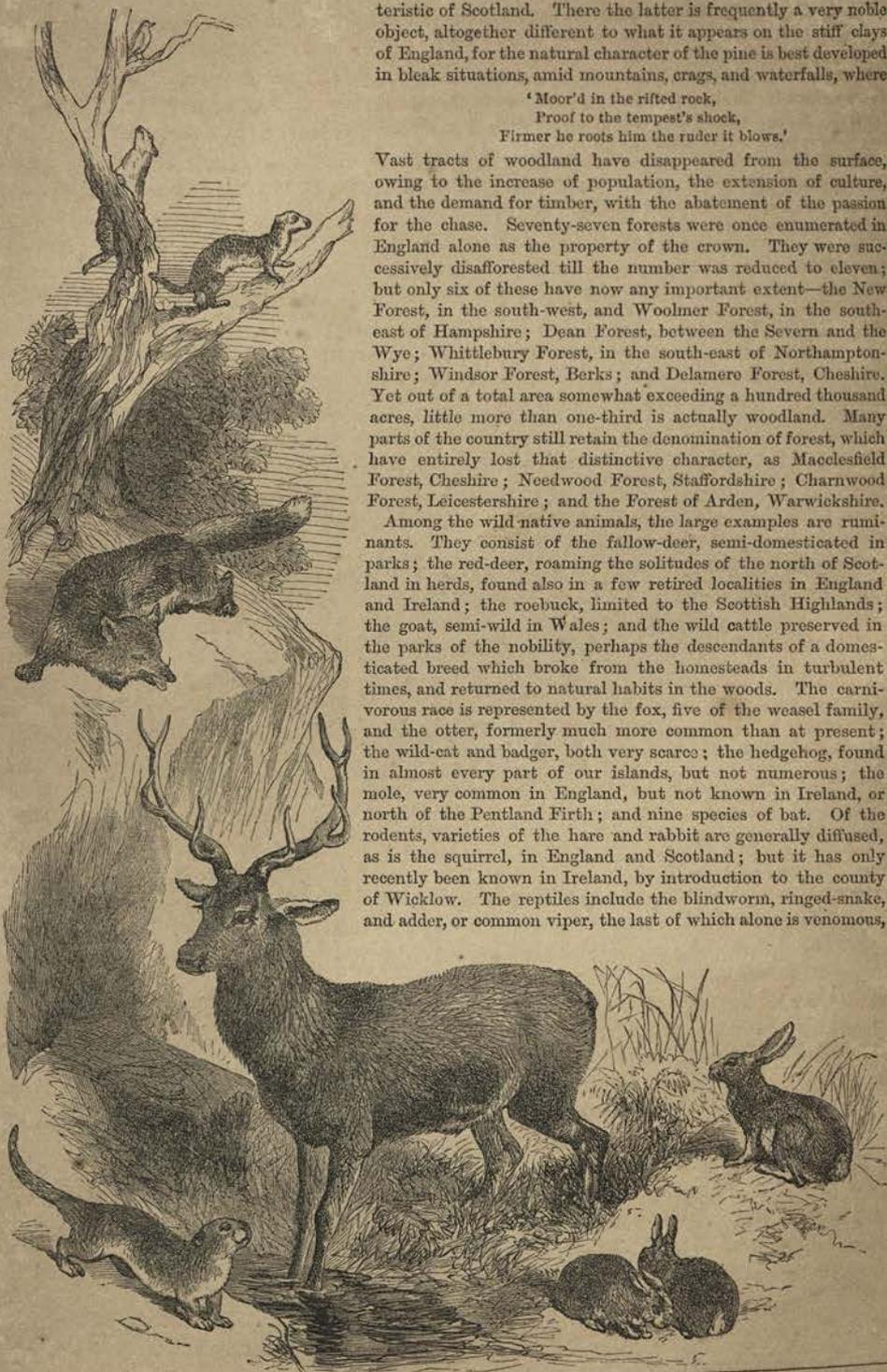
teristic of Scotland. There the latter is frequently a very noble object, altogether different to what it appears on the stiff clays of England, for the natural character of the pine is best developed in bleak situations, amid mountains, crags, and waterfalls, where

'Moor'd in the rifted rock,
Proof to the tempest's shock,

Firmer he roots him the ruder it blows.'

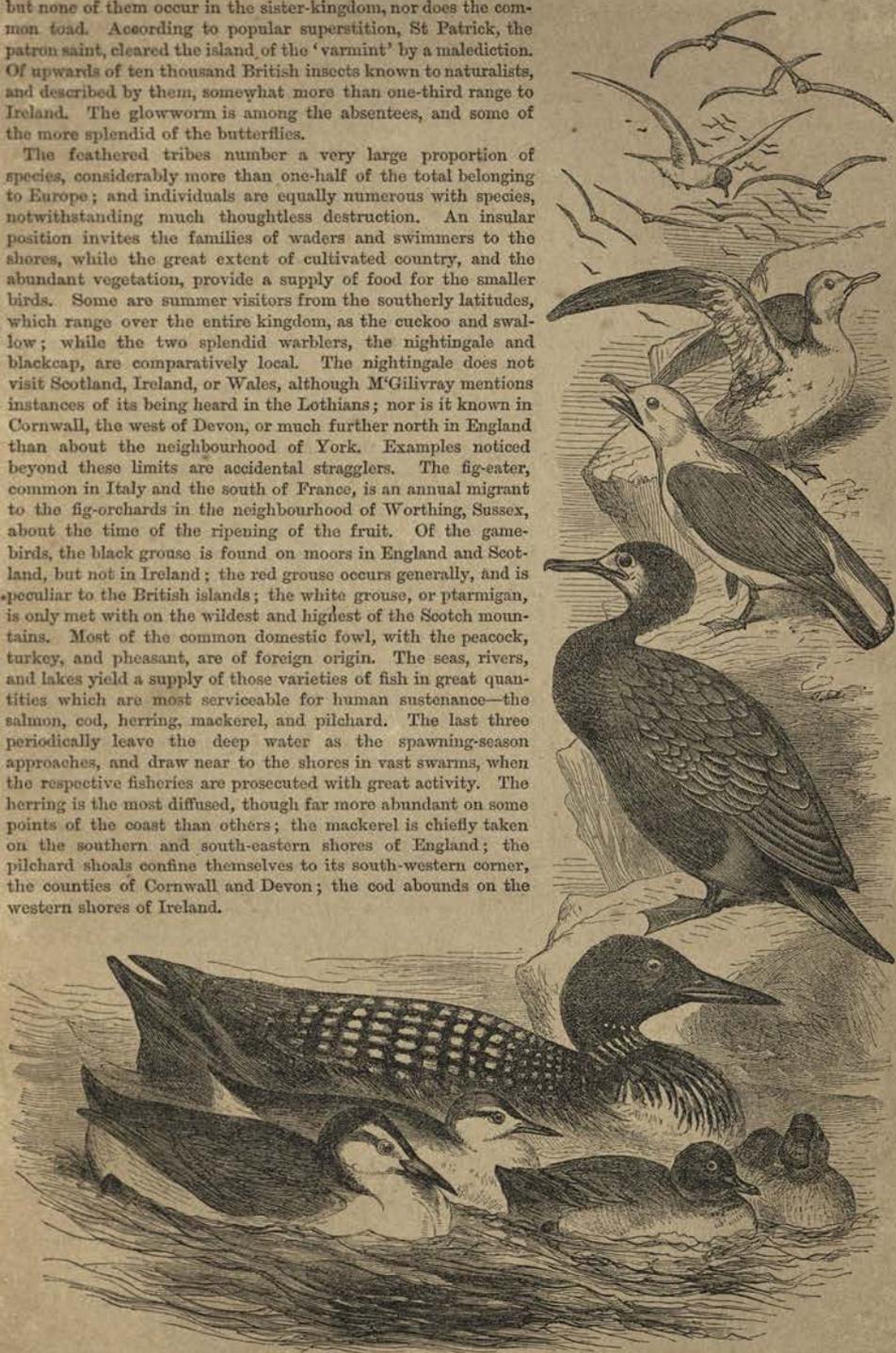
Vast tracts of woodland have disappeared from the surface, owing to the increase of population, the extension of culture, and the demand for timber, with the abatement of the passion for the chase. Seventy-seven forests were once enumerated in England alone as the property of the crown. They were successively disafforested till the number was reduced to eleven; but only six of these have now any important extent—the New Forest, in the south-west, and Woolmer Forest, in the south-east of Hampshire; Dean Forest, between the Severn and the Wye; Whittlebury Forest, in the south-east of Northamptonshire; Windsor Forest, Berks; and Delamere Forest, Cheshire. Yet out of a total area somewhat exceeding a hundred thousand acres, little more than one-third is actually woodland. Many parts of the country still retain the denomination of forest, which have entirely lost that distinctive character, as Macclesfield Forest, Cheshire; Needwood Forest, Staffordshire; Charnwood Forest, Leicestershire; and the Forest of Arden, Warwickshire.

Among the wild native animals, the large examples are ruminants. They consist of the fallow-deer, semi-domesticated in parks; the red-deer, roaming the solitudes of the north of Scotland in herds, found also in a few retired localities in England and Ireland; the roebuck, limited to the Scottish Highlands; the goat, semi-wild in Wales; and the wild cattle preserved in the parks of the nobility, perhaps the descendants of a domesticated breed which broke from the homesteads in turbulent times, and returned to natural habits in the woods. The carnivorous race is represented by the fox, five of the weasel family, and the otter, formerly much more common than at present; the wild-cat and badger, both very scarce; the hedgehog, found in almost every part of our islands, but not numerous; the mole, very common in England, but not known in Ireland, or north of the Pentland Firth; and nine species of bat. Of the rodents, varieties of the hare and rabbit are generally diffused, as is the squirrel, in England and Scotland; but it has only recently been known in Ireland, by introduction to the county of Wicklow. The reptiles include the blindworm, ringed-snake, and adder, or common viper, the last of which alone is venomous,



but none of them occur in the sister-kingdom, nor does the common toad. According to popular superstition, St Patrick, the patron saint, cleared the island of the 'varmint' by a malediction. Of upwards of ten thousand British insects known to naturalists, and described by them, somewhat more than one-third range to Ireland. The glowworm is among the absentees, and some of the more splendid of the butterflies.

The feathered tribes number a very large proportion of species, considerably more than one-half of the total belonging to Europe; and individuals are equally numerous with species, notwithstanding much thoughtless destruction. An insular position invites the families of waders and swimmers to the shores, while the great extent of cultivated country, and the abundant vegetation, provide a supply of food for the smaller birds. Some are summer visitors from the southerly latitudes, which range over the entire kingdom, as the cuckoo and swallow; while the two splendid warblers, the nightingale and blackcap, are comparatively local. The nightingale does not visit Scotland, Ireland, or Wales, although M'Gilivray mentions instances of its being heard in the Lothians; nor is it known in Cornwall, the west of Devon, or much further north in England than about the neighbourhood of York. Examples noticed beyond these limits are accidental stragglers. The fig-eater, common in Italy and the south of France, is an annual migrant to the fig-orchards in the neighbourhood of Worthing, Sussex, about the time of the ripening of the fruit. Of the game-birds, the black grouse is found on moors in England and Scotland, but not in Ireland; the red grouse occurs generally, and is peculiar to the British islands; the white grouse, or ptarmigan, is only met with on the wildest and highest of the Scotch mountains. Most of the common domestic fowl, with the peacock, turkey, and pheasant, are of foreign origin. The seas, rivers, and lakes yield a supply of those varieties of fish in great quantities which are most serviceable for human sustenance—the salmon, cod, herring, mackerel, and pilchard. The last three periodically leave the deep water as the spawning-season approaches, and draw near to the shores in vast swarms, when the respective fisheries are prosecuted with great activity. The herring is the most diffused, though far more abundant on some points of the coast than others; the mackerel is chiefly taken on the southern and south-eastern shores of England; the pilchard shoals confine themselves to its south-western corner, the counties of Cornwall and Devon; the cod abounds on the western shores of Ireland.



In no part of the world is there known to be an amount of mineral wealth within the same area equal to that of the United Kingdom. Gold occurs; and the Romans conducted regular mining operations for it in Caermarthenshire, Wales. Stream-gold was found on the southern borders of Lanarkshire, Scotland, about the commencement of the sixteenth century; and towards the close of the eighteenth, in the rivers of Wicklow, Ireland. Both discoveries excited considerable expectation, but the search eventually proved unremunerative. Silver is also met with in a native or pure state, and it accompanies galena, a sulphuret of lead, frequently in sufficient quantity to render the extraction profitable. But the mineral stores of inestimable importance are those which are the prime producers of wealth and comfort in the hands of an instructed and industrious people; and these are possessed in vast abundance and convenient juxtaposition. They include iron, copper, lead, tin, zinc, coal, and salt, with other varieties of less consequence, as antimony, manganese, graphite, alum, and fuller's-earth, besides ample supplies of building stone, roofing-slate, marbles, and the clays which are suitable for the commonest ware and the finest porcelain. Tin and lead works are of the oldest date. The tin of Devon and Cornwall was wrought by the ancient Britons, whose mining labours in the latter county, at the extreme angle, are commemorated by the singular excavations, called the 'Pit,' the 'Land's End Hole,' and the 'Devil's Frying Pan.' Lead was certainly wrought by the Romans, as blocks of the metal bearing Latin inscriptions have been found on the moors of Derbyshire. Mineral waters, or springs impregnated with saline, chalybeate, and sulphureous compounds, variously cold, tepid, and warm, are numerous. But no warm springs occur in Scotland, nor are they known in England further north than the Derbyshire Peak.

The earliest record of the existence of the British Isles at a known date occurs in the writings of Aristotle, who, writing about 340 B. C., refers to them under the names of Albion and Ierne, which are described as the principal members of a group. The former name is supposed to signify the 'fair or white land,' in allusion to the appearance of the chalk-cliffs prominent on the southern coast of England; and the latter applied to Ireland, is commonly regarded as a relative designation, meaning the 'western island.' Rather more than half a century before the Christian era, Julius Cæsar landed on the shores intent on conquest, but made no stay, and accomplished no important result, with the exception of becoming acquainted to some extent with the inhabitants, character and resources of the region, and imparting his knowledge to the civilised world. About a century later, his enterprise was followed up by other leaders, and the larger part of Britain was gradually reduced to the condition of a Roman province. Four centuries later, the declining power of the empire enforced the retirement of the legions, and the aborigines were left independent. They consisted of numerous Celtic tribes belonging to two main branches of the family, the Gaelic and the Cymric, who migrated from the continent prior to the dawn of history, and spoke widely distinct languages, though offshoots of a common stock. The Gael seem to have come first, and to have been driven northward to the Scottish Highlands, and westward into Ireland by the intruding Cymri. With these last-named natives the Romans came chiefly in contact. After the departure of their masters, having largely lost the spirit of freedom by long subjection to them, they fell a prey to Teutonic invaders of the Germanic race, and numbers were reduced to servitude, finally coalescing with them; while others withdrew to the mountain fastnesses of Devon, Cornwall, Cumberland, and Wales, to preserve their liberty, and remained a distinct body. This expatriated class received the name of *Wilisc-men*, 'strangers' or 'foreigners,' expressive of their relation to the new-comers, while their territory was called *Wilisc-land*, terms from which *Welshman* and *Wales* have been formed. But the

Welsh proper have continued to the present day to distinguish themselves by the name of Cymri.

The conquering immigrants are historically known as Jutes, Angles, and Saxons. They came from the river-basins of the Eyder, Elbe, Weser, Ems, and Rhine. With the second of these tribes the denomination of England arose, which is only an abbreviation of *Angle-land*. After several separate states had co-existed, the larger and more powerful absorbed the small and weak, till all were included in a single Anglo-Saxon monarchy, about the year 823, which had an uninterrupted succession of sovereigns for very nearly two centuries. But during almost the whole of this term, the Danes and other Scandinavians, a different branch of the Teutonic family, infested the coasts. They seized the Orkneys, Shetlands, and Hebrides; occupied a considerable portion of the north of Scotland; acquired possession of the eastern and midland districts of England, which had the name of the *Danelagh*, or 'Dane-law,' from being formally ceded to them; and finally founded a short-lived Danish dynasty for the whole kingdom. Soon after its close, the Normans effected its conquest in 1066. A considerable number of that race continued to come over for a century and a half afterwards, or while Normandy and England were politically united; and during the period a broad distinction subsisted between the Norman and the Saxon part of the population. It was gradually effaced upon the separation of the two countries by association and alliances, till victors and vanquished were fused into one homogeneous people. Some leading epochs in the subsequent history of the British Isles are, the establishment of the English power in Ireland, during the reign of Henry II.; the conquest of Wales by Edward I.; the union of the kingdoms of England and Scotland under one crown in the person of James I.; their legislative union in one kingdom in 1707; and the similar incorporation of Ireland in 1799.

Existing nomenclature commemorates the Celt, the Roman, the Saxon, and the Dane. Commonly the enduring objects of nature, as rivers, lakes, mountains, and valleys, have names which are significant only in a Celtic dialect. Thus *afon* or *awan*, a running stream, appears as the denominative of numerous rivers, the Avons, five of which are in England, two in Wales, and three in Scotland, the latter sometimes called Aven. The Ouses and Esks, the Axe, Exe, Usk, and Wiske, are related to *uisge*, water, or to *isca*, the Latinised form of the word. As a prefix, *beinn*, *ben*, or *pen*, a mountain, hill, or promontory, is widely diffused. The examples are Ben Lomond, and numerous others in the Scotch Highlands; Penygent in Yorkshire; Pendle-hill in Lancashire; and Pen-maen-mawr, mountain of the great stones, one of the Snowdonian heights in Wales. The term *glen* or *glyn*, a narrow valley, with various affixes, is equally general, and the instances repeatedly occur, Glencoe in Scotland, Glendalough in Ireland, Glendon in England, and Glyntaf in Wales. Among ancient monuments, the grassy mounds or barrows common on downy heath-clad plains, in which no coins are found, but only human bones, with articles of the rudest description, may be regarded as belonging to the purely Celtic age.

Many names of inhabited sites are derived wholly or in part from the Latin, and bear witness to the presence of the Romans. Thus *coln*, the abbreviated form of *colonia*, a colony, appears in Lincoln; and *wich*, a derivative from *vicius*, a village, in Norwich, Greenwich. The word *strata*, a street or paved way, is a component in the many Stratfords, and occurs with slight alteration in Streatham, Stretton, and the names of many villages, even some solitary houses, on the line of the great Roman roads. From *castrum*, a camp, we have *chester*, *cester*, *caster*, and *caistor*, occurring alone, and in various combinations, forming both prefixes and terminals, as Chester, Chesterfield, Manchester, Cirencester, Tadcaster, and Caistor-St-Edmunds. The association of the word with the name of some adjoining river is frequent, as Lancaster, the camp on the Lune; Doncaster, the camp on the Don; Colchester, the camp on the Colne. Material memorials of the Roman age embrace coins and medals of the empire, inscribed blocks of tin and lead, tessellated pavements, and bronze statues; remains of highways, baths, villas, temples, amphitheatres, fortresses, and the great northern wall; with altars, urns, vases, weapons, domestic implements, and tombs.

Traces of the Danes and Northmen remain in the districts principally visited or occupied by them, where a nomenclature of Scandinavian origin is prevalent. Among the maritime examples are, *firth*, an estuary—Dornoch Firth, Solway Firth; and *ness*, a promontory—Tarbet Ness, Winterton Ness, of which the Naze, in Essex, is only an altered form. Inland sites have *dale*, a valley, frequent in the south of Scotland and north of England, ranging towards the midland counties—Tweeddale, Teesdale, Dovedale, and Dale Abbey; *fell*, a

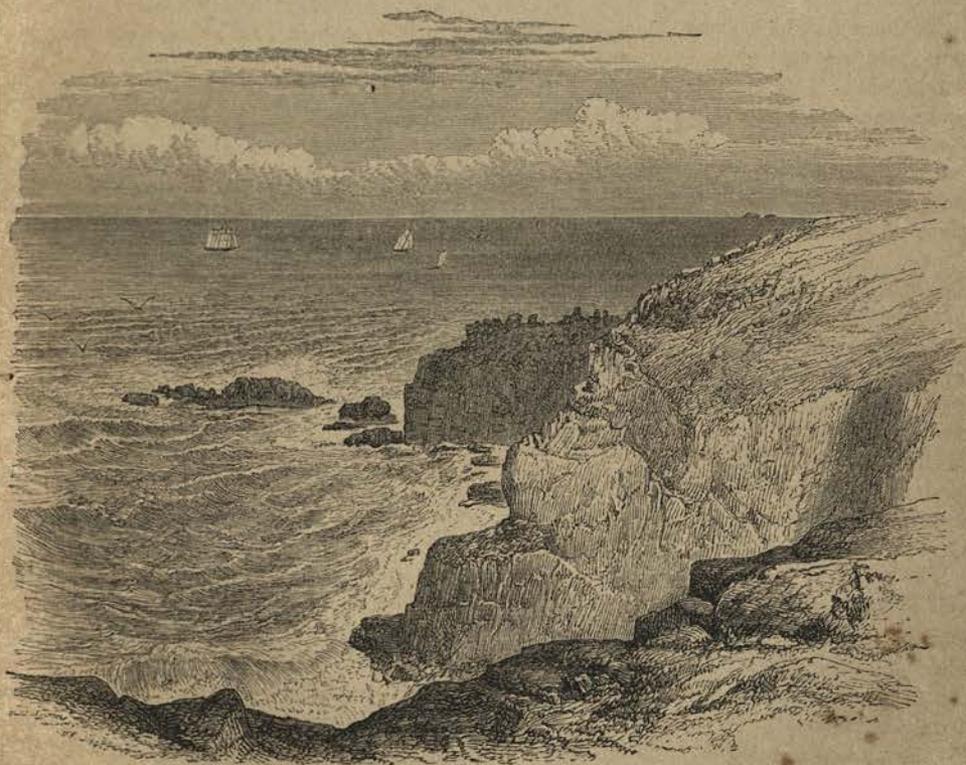
mountain—Sea Fell, Cross Fell, Fountain's Fell; and *force*, a waterfall—Mickle Force on the Tees, Scale Force on a small Cumbrian stream. In the names of inhabited places, the occurrence of *toft*, a field, as Lowestoft, points to a Danish origin; but the instances of its use are limited, amounting to only twenty-two times in England, while absent entirely from Wales. A far more general terminal is *by* or *bigg*, signifying originally a single farm or dwelling, and then extended to a town, as Whitby, Derby, Denbigh. It occurs 195 times in Lincolnshire, 160 in Yorkshire, 63 in Leicestershire, and 42 in Cumberland, or altogether 570 times in England, and 8 in Wales, but not once in the counties of Middlesex, Berks, Oxford, Buckingham, Herts, Hants, Surrey, Sussex, Wilts, Dorset, Devon, Hereford, Worcester, Salop, Bedford, Huntingdon, Cambridge.

In the designation of inhabited places, names of Anglo-Saxon birth vastly predominate, and are most widely diffused, but are rare in Cornwall, Wales, the west and extreme north of Scotland. They include *hurst*, a wood—Chiselhurst, Peshurst; *ford*, the point of passage over a stream—Oxford, Brentford; *stead*, a station—Grimstead, Wanstead; *lea* or *ley*, a plain—Finchley, Bromley; *worth*, a manor—Isleworth, Handsworth; *burgh*, *burgh*, or *borough*, a regularly constituted or fortified town—Edinburgh, Gainsborough. Far more common is *ham*, a home—Waltham, Farnham. It thus occurs as a terminal 678 times in England, chiefly in the eastern and south-eastern counties, and only three times in Wales, besides being met with as a prefix, as in Hampstead, Hampshire. But *ton*, originally used to denote any enclosed space, or single farm-house, and thence extended to a collection of dwellings, village, or town, has an immense numerical majority of examples. The instances of its occurrence as a terminal, as in Stockton, Burton, Clifton, number 2798 in England, and 78 in Wales. It is most frequent in Yorkshire, and then successively in Cheshire, Somersetshire, Lancashire, the counties of Lincoln, Gloucester, and Wilts. In addition, the word *ham* forms a compound with *ing*, son of, or descendant, as in Rockingham, 'the home of the family of the Rock,' instances of which are not included in the above enumeration. Nor are those reckoned in which *ton* enters into the same combination, as in Bridlington, Islington. The information upon which the preceding statements are founded is derived from an unattractive but instructive table appended to the Census Returns of the year 1851, entitled 'Common Terminations of the Names of Places in England and Wales.'

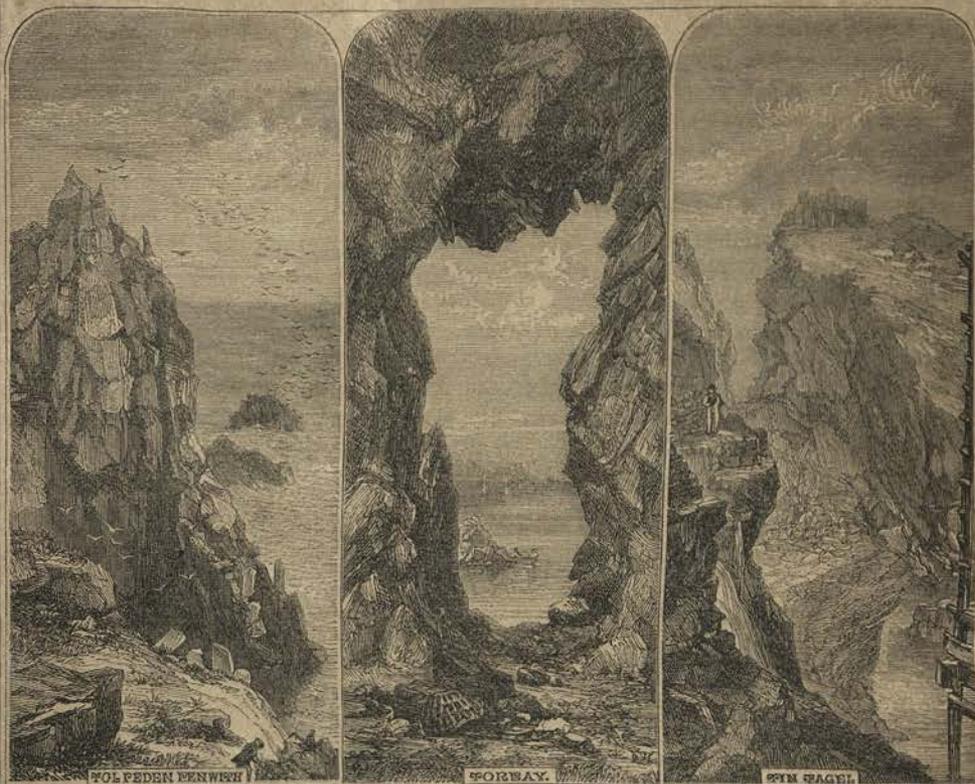
The area in which Celtic blood at present prevails to a greater or less extent, though only comparatively pure in general, embraces Wales, Cornwall, the Isle of Man, the Highlands of Scotland, its Western Isles, and great part of Ireland, especially the west and south. In this region, the extant dialects of the Celtic stock are the Welsh, the Manx, the Gaelic, the Erse or Irish, but all declining rapidly as vernacular modes of speech; and a comparatively slender form, a volatile temperament, a quick perception, with a want of caution, providence, and perseverance, distinguish the purest representatives of the race. Another dialect, the Cornish, closely allied to the Welsh, formerly spoken in Cornwall and the adjoining part of Devon, stood its ground till the period of the Reformation, when the service of the church in English being introduced, the old language began gradually to give way before it. Carew, writing at the commencement of the seventeenth century, states, that though English was then generally understood, some of the people would affect ignorance of it, and reply to the question of a stranger, *Mee a navidra couza Sawzneck*, 'I can speak no Saxonage.' In villages towards the south-western extremity of the county, the Cornish was spoken in the reign of Queen Anne. It lingered longest in the neighbourhood of Mousehole, between Penzance and the Land's End, and was not finally blotted from the list of living languages till the middle of the last century. Specimens remain both in manuscript and print. The inhabitants of Cornwall now speak a remarkably pure English.

The region of Teutonic blood, more or less pure, derived from the immigrant Germanic and Scandinavian tribes, includes England generally, the Lowlands of Scotland, the maritime portion of its northern counties on the eastern side, the Orkneys and the Shetlands, with the north-east and east of Ireland. Great bodily strength distinguishes the people of the purest blood, with a disposition more inclined to the grave than the gay, a reserved manner to strangers, a slow but accurate perception, a preference of the useful to the brilliant, a strong desire for personal and political independence, a love of enterprise, and a common predilection for maritime occupations. The languages are the English, based upon the Anglo-Saxon; and the Lowland Scotch, a parallel and sister-dialect, derived from the same source, but marked with Norse or Scandinavian features,

now rapidly giving way to pure modern English. The Anglo-Saxon is believed to have been formed out of the respective dialects of the Jutes, Angles, and Saxons, when they became consolidated as one people in a common monarchy. It was spoken in its purity from the age of Alfred to the Norman Conquest, and was one of the earliest cultivated languages of modern Europe, made the vehicle of written laws, poetry, and history, before a single line had been penned in Italian, French, or Spanish. After the Conquest, it underwent a change to Semi-Saxon, influenced by that event, with various other causes; and subsequently passed through the successive stages of Early English and Middle English, into the beautiful and copious, but composite mother-tongue of the great mass of the population, which has gathered its vocabulary from almost every nation under heaven, and is now spoken in different countries by more than 50,000,000 of the human race. 'Not one hour of the twenty-four,' remarks an exponent, 'not one round of the minute-hand of the dial is allowed to pass, in which, on some portion of the surface of the globe, the air is not filled with accents that are ours. They are heard in the ordinary transactions of life; or in the administration of law—in the deliberations of the senate-house or council-chamber—in the offices of private devotion, or in the public observance of the rites and duties of a common faith.'



The Land's End, Cornwall.



Cornwall and Devonshire Coasts.

CHAPTER II.

ENGLAND AND WALES.



OUTH BRITAIN, comprehending England and Wales, by far the largest and most populous division of the island, is separated from the northern part, or Scotland, mainly by the lower course of the Tweed, the line of the Cheviot Hills, and some small streams which fall into the Solway Firth. In other directions the frontier is formed by the North Sea on the east, the English Channel on the south, the Irish Sea on the west, and the Atlantic on the southwest. While the coast-line is not so minutely varied as that of the northerly portion, it presents an almost uninterrupted series of curves, bays, estuaries, and headlands, but is the most irregular, and at the same time the boldest, on the western side. The more considerable inlets and projections on the east are the Wash, the estuaries of the Thames, the Humber, and the Tees, with the rounded protuberance formed by the county of Norfolk, the tapering Spurn Point, and the far-advancing promontory of Flamborough Head in Yorkshire. The shore is generally high and rocky to the

northward, but through the greater part of its extent southerly, low walls of chalk or clay form the strand, with flat marshy lands, and occasional sandy downs, where the spires or towers of churches are frequently the only distinguishable landmarks to the seaman. Its prime defect is the want of really good harbours, and the occurrence of shoals and sandbanks, which have often been the scenes of grave maritime disasters. On the south coast, the lowest and highest points are within the limits of Kent and Sussex, where Romney marsh, reclaimed from the sea, is preserved from submergence by an artificial embankment, and Beachy Head, nearly midway between Hastings and Brighton, formed of chalk-cliffs which overhang the beach, and are occasionally dislodged, rises upwards of 550 feet. The shore becomes extremely sinuous towards Hampshire, and forms the inlets of Portsmouth Harbour, Southampton Water, Studland, and Weymouth Bays, with the three broad openings of West Bay, Plymouth Sound, and Mount's Bay, each of which has minor indentations, and exhibits prominent headlands. The west coast, besides the deep and expanded Bristol Channel and Cardigan Bay, has the most extensive inlet of the sea within the circuit of the kingdom, formed between North Wales and South Scotland, containing the estuaries of the Dee, the Mersey, and the Ribble, with Morecambe Bay and the Solway. The finest shore scenery belongs to the north of Devon and Cornwall, and to Caernarvonshire, where the Snowdonian mountains advance to the water's edge, and rise almost perpendicularly from it to the height of 1500 feet.

The greatest extent of England, north and south, coincides with the meridian of 2° west, which intersects the country centrally from Berwick-upon-Tweed to St Alban's Head in Dorsetshire. The distance between these places measures 363 miles. This meridian, in its northerly extension, only touches the mainland of Scotland at its angular eastern extremity, and passes between the Orkneys and the Shetlands, Norway and the Farøe Isles. In the opposite direction, it intersects the peninsular part of Western France, the east of Spain, Western Africa, and passes eastward of the island of St Helena. A direct line drawn from south-west to north-east, connecting the Land's End in Cornwall with Winterton Ness in Norfolk, closely corresponds in length to the measurement north and south. The breadth, due east and west, attains its maximum near the parallel of 52° , and amounts to 280 miles, between the coast of Essex and that of Pembrokeshire. But owing to the deep estuaries on the eastern and western shores being frequently opposite to each other, or nearly so, as those of the Thames and the Severn, and the Humber and the Ribble, the contraction is very considerable at these points, and dwindles to little more than sixty miles between the outlets of the Northumbrian rivers and the head of the Solway. Further north, the width narrows till it finally becomes almost a point at Berwick.

Bold and rugged features are conspicuous on the western side of the country, and appear through its whole extent from north to south, subject only to a few interruptions, and making a close approach towards the central districts. They consist of elevated heathy moors, with rounded masses rising above the general level, where stone walls often take the place of hedgerows; and of properly mountainous tracts in the form of ranges and groups. Four distinct regions are thus constituted—the Pennine chain, the Cumbrian or Lake group, the Cambrian or Welsh ranges, and the south-western highlands.

The Pennine chain starts from the Scottish border, and is a continuation of the Cheviot Hills, the highest point of which, distinctively called the Cheviot, 2668 feet in elevation, is within the limits of Northumberland. From the western extremity of these hills, the range has a southerly course of upwards of 200 miles. It terminates in the central part of Derbyshire, thus advancing through the northern counties towards the

midland; and is locally styled, from its longitudinal extent, the 'backbone' of England. There is no well-defined continuous ridge, but a succession of high moors, from ten to thirty miles broad, upon which mountainous masses are irregularly interspersed. One material depression occurs, formerly traversed by the Roman Wall, now available for the passage of the Newcastle and Carlisle Railway. Several heights in the west of Yorkshire are considerably above 2000 feet; but the loftiest is in Cumberland, near its



Limestone Rocks, Dovedale.

convergence with the counties of Westmoreland and Durham. This is Cross Fell, the summit of which rises to 2927 feet above the sea, and long retains the winter's snow, feeding the South Tyne and the Tees, both of which have their sources on the eastern slope. The Pennine chain forms the great water-shed of the north of England, dividing the rivers which flow westerly to the Irish and easterly to the North Sea. It is entirely composed of rocks belonging to the carboniferous system, the mountain limestone, and millstone grit; and is remarkable for its picturesque dales, with numerous and extensive cavern formations.

The Cumbrian mountain group, though connected with the preceding range, is geologically distinct, rises higher, and has an entirely different and much grander character. It overspreads the south of Cumberland, a portion of Westmoreland, and a small part of the north of Lancashire, having an extent of about thirty-five miles from east to west, and the same from north to south, where the expansion is the greatest. Slate, rocks are the main constituents, steep, bold, and angular, well clothed with wood, and with the finest greensward on the lower slopes, associated with clear lakes in the long narrow valleys, and with numerous waterfalls, forming a combination of scenery which annually attracts a crowd of summer visitors. Sca Fell, in Cumberland, the principal elevation, has two summits separated from each other by a deep chasm, and differing but little in their height. The loftiest, styled the High Man, 3229 feet above the sea, is the highest point of England, from which the whole western coast may be seen stretching



from the island of Anglesey to the Mull of Galloway. Not a blade of grass appears at the top, but there are tufts of crisp brown moss, and splendidly-coloured lichens. Helvellyn, but little lower, 3055 feet, is much larger in bulk, yet is so closely invested with huge neighbours that there is scarcely a point of view from which the eye can embrace its full proportions. Skiddaw, the third in elevation, 3022 feet, is the most imposing member of the group, as it is so far isolated that the entire mass can be seen at once from base to summit.

The Cambrian Mountains, so called from the ancient name of Wales, consist of several ranges which occupy a large area of the principality, and are more or less connected, composed chiefly of rocks belonging to the Upper and Lower Silurian series. The principal chain is the Snowdonian in the north-west, which runs about twenty-four miles across Caernarvonshire, by an average breadth of eight miles, and contains the culminating-point of Britain south of the isthmus between the friths of the Clyde and the Forth. This is Snowdon proper, the 'snow-clad hill,' forty miles in circuit at the base, with three summits, the loftiest of which, called Wyddfa, the 'conspicuous summit,' attains the height of 3590 feet. There are several subject heights near, which, though giants of lesser growth, are not much inferior to the monarch. Cader Idris, to the southward, in Merionethshire, belonging to another range, has an altitude of 2959 feet. Plinlimmon, further south, at the head of a third, 2481 feet, is distinguished by its vast size, being also a remarkable hydrographical point, giving birth to five rivers, the Severn, the Wye, the Rheidol, the Llyffnant, and the Clevedoc. In South Wales, the principal range, in one part of its course, has the name of the Black Mountain, or Forest Fawr, from the dark appearance of the heather, when out of blossom, with which extensive tracts are clothed. The greatest height here is attained by the Beacons of Brecknock, which rise to 2862 feet, near the town of Brecon, formerly used as a station for fire-signals in the event of an enemy appearing. Outliers of the Welsh mountain-system appear in the English border districts, as the Wrekin, the Clee and Caradoc Hills, in Shropshire, with the Malvern Hills on the dividing-line between the counties of Hereford and Worcester. The latter are a short narrow ridge of moderate elevation, with a beautiful outline, and a rich appearance, forming one of the finest boundaries of the valley of the Severn on the western side.

The south-western highlands consist of a series of ranges and plateaus bordering on the estuary of the Severn and the Bristol Channel, and extending through the counties of Devon and Cornwall. They include the oolitic Cotswold Hills, in Gloucestershire, on the eastern slope of which the Thames has its principal source, named after the numerous sheep-cots upon them in former times; the Mendips, in the north-east of Somerset, chiefly of mountain limestone, with a flat summit, and rapidly sloping sides; the Quantock Hills and the Blackdowns, in the same county, forming the northern and southern boundaries of the vale of Taunton; the high tracts of Dartmoor and Exmoor in Devon; and some granitic heights irregularly distributed through Cornwall. Several points closely approach the altitude of 2000 feet, but only one exceeds it, Yes Tor on Dartmoor, 2050 feet, an elevation which no other part of England attains to the south of Yorkshire. Dartmoor is an extensive plateau, more than twenty miles across, lying between Exeter and Plymouth, bleak, woodless, and extremely wild, broken into numerous knolls, on many of which are blocks of granite of enormous dimensions, provincially termed *tors*, while intersected with rapid streams, torrent-like after heavy rains. Exmoor, in the north of the county, extending into Somersetshire, has similar features, and culminates in Dunkerry Beacon, 1688 feet. The Brown Willy, the loftiest of the Cornish heights, does not reach that altitude.

High grounds, not included in the preceding regions, are the eastern moorlands of Yorkshire, chiefly of oolite, which terminate on the shore in bold headlands; and the two chalk-ranges which diverge eastwardly from Wiltshire, and traverse the southern counties. The South Downs run through Hampshire into Sussex, gradually nearing the coast, and protecting it from cold north winds, extending to Beachy Head, where they meet the waters of the Channel. They are cut by transverse valleys into separate masses, have a remarkably smooth rounded outline, exhibit great bay-like openings, and are clothed with the short sweet herbage which renders them famed as a sheep-walk. The North Downs stretch through the north of Hampshire, intersect Surrey and Kent, terminating in the cliffs beyond Dover. The Inkpen Beacon, near the converging points of Wilts, Hants, and Berks, rises 1011 feet, and is the highest mass of chalk in the kingdom. A third chalk-range runs from the Thames, through Oxfordshire, Bucks, and Herts, under the name of the Chiltern Hills, and proceeds north-east to the coast of Norfolk, but with a greatly declining elevation.

The whole of the central and eastern districts of England, with large tracts in the northern, western, and southern counties, and portions of the Welsh principality, have a surface diversified occasionally with bluff hills, but more generally exhibiting gentle knolls and broad river-valleys, in connection with some entirely level lands. These form the country of the hawthorn-hedge, the daisied mead, and shaded homestead, in which

‘Corn-waving fields, and pasture green, and slope
And swell alternate.’

The greatest extent of level land lies around the shores of the Wash. This is the district of the Fens, so called from the meres and marshes with which it was formerly overspread, now one of the most productive parts of the country, though unfortunately held by a somewhat precarious tenure. It comprehends portions of the counties of Lincoln, Norfolk, Cambridge, Huntingdon, and Northampton, but chiefly belongs to Lincolnshire; extends about fifty miles from north to south, by from twenty to thirty in the opposite direction; and embraces an area of 700,000 acres, where hedges are scarce, trees rare, the roads straight, drains and embankments multitudinous, while steam-engines for the movement of hydraulic machinery abound. By such means a vast area has been recovered from submergence; and their continued action is necessary to prevent the return of the flooding, owing to the region being below the high-water level of the Wash, while its flatness is opposed to a sufficient outfall for the numerous rivers.

From the principal highlands running north and south, while occupying a westerly position, it follows that the general slope of the country is from west to east, in which direction the more important rivers are formed, flowing to the North Sea, with the exception of the Severn. In the order of magnitude of their basins, they rank as follows:

Rivers.	Area of Basin in Sq. Miles.	Length. Miles.	Termination.	Rivers.	Area of Basin in Sq. Miles.	Length. Miles.	Termination.
Humber, .	9550	171	North Sea.	Eden, . .	991	72	Irish Sea.
Severn, . .	8580	239	Bristol Channel.	Dee, . . .	862	80	"
Thames, . .	6160	220	North Sea.	Tees, . . .	744	80	North Sea.
Great Ouse, .	2960	150	"	Ribble, . .	720	60	Irish Sea.
Mersey, . .	1748	70	Irish Sea.	Welland, .	708	60	North Sea.
Avon, Wilts, .	1210	70	English Channel.	Parret, . .	653	45	Bristol Channel.
Yare, . . .	1180	60	North Sea.	Exe, . . .	643	55	English Channel.
Nen,	1132	100	"	Tamar, . .	603	55	"
Tyne,	1100	80	"	Towy, . . .	506	70	Bristol Channel.
Witham, . .	1050	70	"				

The Humber includes the minor basins of the Trent and Yorkshire Ouse; the Severn comprises those of the Wye, Bristol Avon, and Usk; and the Thames that of the Medway.

The Humber is the largest not only of English but of British rivers in the area of its basin, though the name has a very restricted application, being confined to the estuary in which the Trent and Ouse unite their waters, thirty-five miles long, and from two to five miles broad, narrowed at its confluence with the sea by the projection of Spurn Point. The Severn has the greatest length, following a very circuitous route from its head-spring on Plinlimmon, which renders the distance by the channel about twice the direct distance from source to mouth. But the Thames is commercially the most important river on the face of the globe, and surpasses all others in the amount of wealth on its surface and banks. Its source is at Seven Springs, on the south-eastern side of the Cotswolds, in Gloucestershire, where there are seven separate outbursts of doubtless the same fountain, in a secluded dell overhung with a luxuriant canopy of foliage. 'The water gushes clear and pure as crystal out of the grassy fountain, and after whirling round a few times, starts off swiftly down the narrow stony channel it has scooped out for itself.' Under the name of the Churn, the stream flows to Cricklade, where it receives an affluent, and becomes the Thames, a border river through the remainder of its course, dividing the counties of Oxford and Bucks from Berkshire, next Middlesex from Surrey, then Essex from Kent. At London Bridge the river is 290 yards wide; at Woolwich, 490; at Gravesend, 800; at Coal House Point, three miles below, 1290 yards; and at the Nore, six miles. Between Greenwich and London, the depth in the fairway is upwards of twelve feet, while the tides have a mean range of seventeen feet, and an extreme rise of twenty-two feet. In the middle part of its course, the stream is rendered picturesque by little islands, locally called *aits*, occurring singly and in clusters, sheltering the water-hen and some tame swans. The general character of the current is accurately described in the couplet:

'Though deep, yet clear; though gentle, yet not dull;
Strong without rage; without o'erflowing, full.'

Of all our rivers, the Thames has been historically known the longest. It was crossed by Julius Cæsar, at a point commonly believed to be near Chertsey, in Surrey, where the name of Conway Stakes is supposed to commemorate the stakes which the Britons drove into its bed to prevent the passage of the legions. One of its affluents, the Lea, which joins it in the neighbourhood of the East India Docks, was, in the time of Alfred, made part of the boundary between his dominions and the Danelagh, or the territory occupied by the Danes.

The Mersey, though of inconsiderable length, expands into a fine estuary, and ranks the second as a commercial water-way, forming the port of Liverpool. It receives the Irwell from Manchester, and the two have been aptly styled the 'hardest-worked rivers in the world,' flowing through the cotton manufacturing districts. The Tyne, Wear, and Tees are of vast importance in the lower part of their course as coal-shipping rivers, while connected with very striking scenery in their upper parts. The streams remarkable for their flow through wild, picturesque, and beautiful landscapes, include the rapid Wharfe, an affluent of the Yorkshire Ouse; the Dove, in Derbyshire, associated with Izaak Walton, his disciple Cotton, and Sir Humphrey Davy; the Welsh Dee, in its passage through the vale of Llangollen; the Wye, from its mouth into Herefordshire; the Towy, in South Wales; the Tamar, belonging equally to Devon and Cornwall; and the Duddon, celebrated by Wordsworth, with the Eden, Lune, and Derwent, during their passage through the Cumbrian Mountains. The latter district is the only part of England in which lakes, properly so called, are formed, all comparatively small, but numerous, occupying glens in the highlands, and possessing great scenic attractions. Windermere,

the largest, is nearly eleven miles long, and from one to two broad. Next in extent are Ullswater, Coniston-water, Derwentwater, and Bassenthwaite-water, mostly long and narrow, or oval-shaped expanses. Wales has only examples of any size in Bala Pool, on the course of the Dee, and the shallow Brecknock Mere, near the town of that name.

The superficial area of England amounts to 50,922 square miles, and that of Wales to 7398, making a total of 58,320 square miles. With the exception of a few tracts, the whole country consists geologically of sedimentary rocks, generally rich in organic remains, animal and vegetable, but of various ages, different mineral character, and diverse fossils. Passing from east to west, or from the coast of Suffolk to that of Pembrokeshire, and from south-east to north-west, or from the shores of Kent to those of the Solway Firth, all the great fossiliferous systems known to geologists are encountered in regular succession, with nearly all the subordinate members belonging to each group, containing those mineral masses which are best adapted to supply the wants and stimulate the energies of mankind. A line drawn from the mouth of the Exe in South Devon to Bath, and thence continued with moderate curvatures by Gloucester, Leicester, Nottingham, and Tadcaster to Stockton-upon-Tees, divides the surface into two principal sections differing in their natural aspect, geology, and social features. East of the line is an undulating region of the more recent secondary formations, largely oolitic and cretaceous, with tertiary strata; and on the western side is a district of hills and mountains, composed of the older secondary, transition, and primitive rocks. The same line separates generally the mining and specially manufacturing districts from the eminently agricultural, for all the coal deposits, with the metalliferous ores, except iron, lie to the westward of it. Including small detached tracts, seventeen distinct coal areas may be enumerated, five of which are of great national importance. These are the fields of Northumberland and Durham, the longest worked, that of Yorkshire and Derbyshire, of South Lancashire, South Staffordshire, and South Wales, the latter the least worked and the largest, embracing an area of 900 square miles. There are 1880 collieries in England and 310 in Wales, yielding a total produce exceeding 60,000,000 tons annually, in connection with which vast quantities of iron ore are raised from the coal-bearing strata, and smelted at the surface. Oxides and silicates of iron are also very abundant in the greensand of the cretaceous system, in the Weald of Kent, Surrey, and Sussex. This district, now a region of quiet sylvan scenes, was the great seat of the iron manufacture in the age of the Plantagenets, Tudors, and Stuarts, while wood converted into charcoal was alone used in the process of smelting. The first cannons cast in England were made at Buxted in Sussex, in the reign of Henry VIII.; and the balustrades around St Paul's Cathedral came from Lamberhurst furnace in the same county. Upon mineral fuel being substituted for wood, the manufacture was transferred to those localities where pit-coal and iron ore are in close proximity. Tin is almost exclusively found in Cornwall, where it occurs both as vein-tin traversing the granite and slaty rocks, and is obtained by regular mining, and as stream-tin in the superficial deposits of valleys and low grounds, from which the metallic particles are separated by washing, or stream-works. Cornwall also yields the largest supply of copper, but it is wrought in Devonshire, Staffordshire, Glamorganshire, and the Isle of Anglesey. Lead is procured in Devonshire, North Wales, and Derbyshire, but the most productive mines are in the high moorlands towards the convergence of the northern counties, Northumberland, Cumberland, and Durham. Owing to the immense amount of mineral wealth annually extracted from the soil, especially of coal, which is constantly and rapidly increasing, it becomes a highly-important and interesting question, How long will the supply last? Only a very dubious answer can be returned; yet it is satisfactory to know in general, that the time for nervous apprehension respecting its

failure is yet far distant, though it may become a costly article at a much earlier date, owing to the great waste which occurs at the pit's mouth, and to the enhanced price of production caused by the necessity of going to greater depths, and of opening more extensive workings.

In the variety, extent, and value of its manufactures, England surpasses every other country, while the products have a high character for excellence in all the markets of the world. This eminence is the joint result of moral, political, and physical causes. Much is undoubtedly due to the practical temperament and energy of the people, along with the mechanical genius of individuals. But the security attending the accumulation of property under a government which respects its rights, enters into the solution of the problem, as well as that immunity from foreign invasion which is the consequence of an insular position. At various times, skilled artisans have flocked to these shores in great numbers from the Netherlands and France, to escape from civil or religious oppression, and have introduced new industrial pursuits, or given the benefit of their experience and knowledge to existing handicrafts. But one of the main causes of the superiority is the possession of the vast mineral stores referred to—the natural implements of manufactures—with a convenient highway in the surrounding ocean along which to receive the raw material of other nations, and return the products of industry in their manufactured form.

England is divided into forty counties or shires of very varying dimensions, and Wales into twelve. With the exception of eight formed by Henry VIII., the other English counties were familiarly known in the Saxon age; but the date and circumstances of their origin are quite uncertain, though some very probably arose out of older divisions of the country, without precisely corresponding to their limits. Thus, Kent in general represents the first founded of the small Saxon kingdoms, as well as the old British principality of the Cantii. The word 'shire' is of Saxon origin, and denotes a share or division; while 'county' is derived from the counts or earls by whom the government of certain districts was originally administered, who had the Latin title of *Comes*. In the later Roman age, there was a Count of the Saxon shore in Britain, *Comes littoris Saxonici per Britanniam*, whose duty it was to superintend the eastern and south-eastern coasts, upon which some of the Germanic tribes had already then settled.

Most of the counties are distributed into *hundreds*, a minor division of long standing, being mentioned in Domesday Book. The name is supposed to refer originally to a hundred heads of families, and to have acquired a fixed territorial meaning owing to population being a fluctuating element. In the four northern counties, Northumberland, Cumberland, Westmoreland, and Durham, the subdivision is into *wards*, in allusion doubtless to the obligation of the inhabitants of the border districts to keep 'watch and ward' against the incursions of their northern neighbours. In Yorkshire, Lincolnshire, and Nottinghamshire, the corresponding subdivisions are styled *wapentakes*, a term said to be derived from the usage observed by the followers of a chieftain at his installation, who touched his *weapon* planted in the soil as a token of allegiance. Yorkshire has, besides, a special distribution into three large portions, called *ridings*, or more properly *thriflings*. Kent and Sussex have also similar intermediate sections, of five *lathes* in the former, and six *rapes* in the latter, both with subordinate hundreds. For ecclesiastical purposes, the division of the country is into two archiepiscopal provinces, that of Canterbury with twenty bishoprics, and that of York with six. The parochial distribution is into upwards of 18,000 parishes, and is as old as the tenth century. Large tracts of the surface still retain particular denominations, some of which allude to a physical condition which has wholly or for the most part passed away, and others to ancient

feudal divisions, as the Weald or woodland of Kent, Surrey, and Sussex; the Isle of Ely, in the north of Cambridgeshire; the Isle of Axholme, in the north-west of Lincolnshire; the peninsular district called Holderness in Yorkshire; Cleveland and Craven in the same county, with Hallamshire, which includes Sheffield and a portion of the neighbourhood.



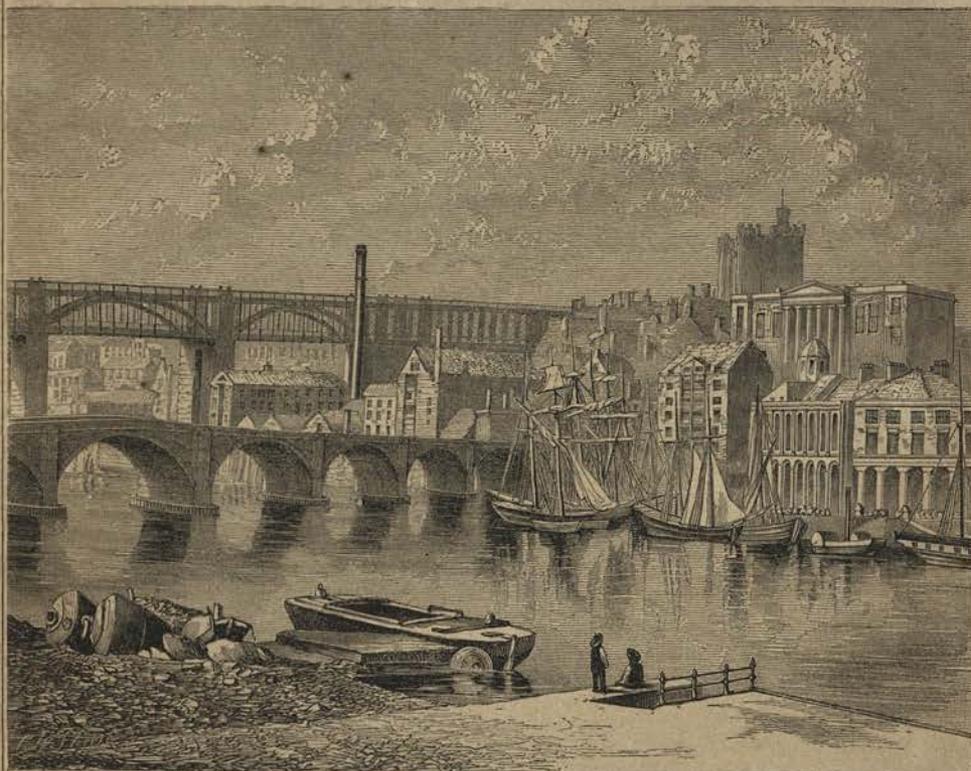
High and Low Level Bridges,

For the purpose of detailed description, the counties may be conveniently arranged in groups, consisting of six northern, five north-midland, five western, five eastern, nine south-midland, ten southern, and twelve Welsh. In each of the lists given, the names of the county towns are placed first.

I. NORTHERN COUNTIES.

Counties.	Area in Sq. Miles.	Principal Towns.
Northumberland, . . .	1952	Newcastle, Tynemouth, North Shields, Morpeth, Alnwick, Berwick.
Durham,	973	Durham, Sunderland, Gateshead, South Shields, Stockton, Darlington, Hartlepool.
Cumberland,	1564	Carlisle, Whitehaven, Cockermouth.
Westmoreland, . . .	758	Appleby, Kendal.
Lancashire,	1905	Lancaster, Liverpool, Manchester and Salford, Preston, Bolton, Oldham, Blackburn.
Yorkshire, North Riding, }	5983	York, Scarborough, Whitby, Middlesborough, Richmond.
" East Riding, }		Hull, Beverley, Bridlington.
" West Riding, }		Leeds, Bradford, Huddersfield, Halifax, Sheffield, Wakefield.

This portion of the country, with the exception of the larger part of Northumberland, formed in the time of the Romans the sub-province of *Maxima Caesariensis*. Along its northern border, from the Tyne to the Solway Firth, ran the Roman Wall, nearly seventy miles in length, fortified with military stations, castles, and watch-towers, of which numerous and massive remains are extant. The village of Wallsend, just below



Newcastle-on-Tyne.

Newcastle, so well known by name from the vast quantity of 'Wallsend coal' sent to London, commemorates the rampart, and marks the site of its eastern terminus. In a later age, Northumberland, Durham, and Yorkshire formed two of the original Saxon kingdoms, *Bernicia* and *Deira*, till both merged in the single state of *Northumbria*, which extended along the eastern side of Scotland, up to the Firth of Forth, and preserved an independent existence to the commencement of the ninth century. The other three counties, Cumberland, Westmoreland, and Lancashire, formed the contemporary British kingdom of *Cumbria*, sometimes united with *Strath-Clyde*, or the west of Scotland up to the Firth of Clyde; and they were not incorporated fully in the monarchy of England till some time after the Norman Conquest.

NORTHUMBERLAND, the most northerly county, extends along the coast from the mouth of the Tyne to a little beyond that of the Tweed, so as to include the town of Berwick, which was formerly considered a neutral spot, not belonging to either England or Scotland. The round-topped Cheviot Hills appear on the north-west, clothed with beautiful green verdure, affording pasture for an excellent breed of sheep. But other high

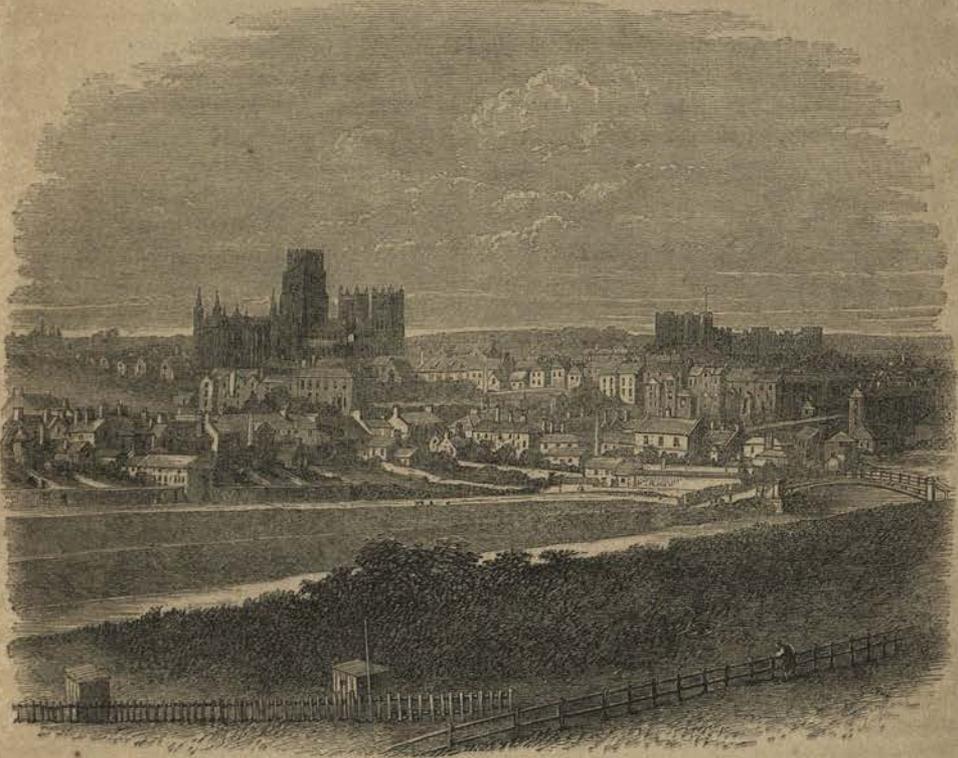
grounds on the western side are dreary moorlands, covered with heath, peat, and morasses, some of which are the seat of important lead-mines. In the lowland districts, towards the coast and on the south, arable husbandry is prosecuted with success; but the prime industrial features of the county are connected with the great coal-field, continuous with that of Durham, which stretches twenty-five miles northward from the Tyne, has a breadth of eighteen miles from the sea, and dips to an unknown extent beneath its waves. The small streams are the Blythe, Wansbeck, Coquet, Aln, and Till, the latter an affluent of the Tweed. Off the mouth of the Coquet, is the little isle of that name, a tract of rich pasture, once the site of a fortress, now of a light-house. The river has Warkworth hermitage on the north bank, a secluded and highly-picturesque spot, founded at an uncertain date for a single hermit, the subject of a well-known ballad by Dr Percy. Holy Island, on the north part of the coast, two miles distant, but accessible by vehicles at low water, obtained its name from being a celebrated ecclesiastical site at an early period, the seat of a bishopric, finally transferred to Durham. It has a circuit of about nine miles, is occupied by fishermen, and contains imposing ruins of a priory church—

‘A solemn, huge, and dark-red pile,
Placed on the margin of the isle.’

On the south-east, nearly opposite the basaltic headland of Bamborough Castle, are the Farne and Staples islets, seventeen in number, forming two groups, inner and outer. The largest contains about twelve acres. The down of the eider-duck, a winter-visitor, is obtained here in considerable quantities.

The town of *Newcastle*, ten miles from the mouth of the Tyne, extends upwards of two miles along the north bank; and has *Gateshead* opposite, a separate borough in Durham, but really a suburb, with which communication is maintained by a magnificent double bridge, for the accommodation of foot-passengers, ordinary vehicles, and railway transit. Few places have undergone such a complete change in appearance during the last half-century, amounting to a total reconstruction of a large portion of it in a very superior style. Though coal-shipping is the principal industry, sent coastwise and overseas, there are glass, earthenware, oil, lead, and chemical works, with engineering establishments, carried on upon a vast scale. The coal-trade has been in existence upwards of six centuries, as a grant relative to the right of digging for coal is dated in the year 1239, the reign of Henry III. *Newcastle* has its name from a castle built upon the site of an old fortress by Robert, son of William the Conqueror, the massive square keep of which still remains, and is a striking object in every point of view, being on rising-ground. The list of natives contains the names of Lords Eldon and Stowell, brothers and jurists, Admiral Lord Collingwood, Akenside the poet, and Hutton the mathematician. *Bewick*, the reviver of wood-engraving, was born in the neighbourhood, and long a resident, with the two Stephensons, father and son, in whose locomotive factory here the Rocket engine was constructed, which afforded the first example of great speed being attained with a heavy railway train. *Tynemouth*, as the name imports, is at the mouth of the river, frequented as a watering-place, and has a striking appearance on being approached by sea, owing to the numerous shipping outward and homeward bound, with its peninsula of stupendous rocks, crowned by a light-house and fine remains of an ancient priory. It forms a single town with *North Shields* by proximity, and for parliamentary purposes. At *Morpeth*, inland on the Wansbeck, the largest cattle-market in the north of England is held weekly, chiefly supplied with stock from the southern districts of Scotland. Further north, *Alnwick*, on the Aln, claims attention from its castle on the opposite bank of the stream, one of the seats of the Dukes of Northumberland, completely renovated at a recent date, and now exhibiting a model of a baronial residence in the days of border chivalry. *Berwick*, near the mouth of the Tweed, on the north bank, surrounded by walls, is the frontier town of England in this direction towards Scotland, and was of great military importance when the two kingdoms were separate. The river is here crossed by the Royal Border Bridge, a viaduct of twenty-eight noble arches, one of the finest structures of the railway age, opened by the Queen on her way to the Highlands in 1850. The principal trade of the town is the export of salmon caught in the Tweed, sent chiefly to London packed in ice. *Hexham*, near the junction of the north and south branches of the Tyne, the seat of an episcopate in early times, retains a memorial of its former ecclesiastical distinction, in a large abbey-church, used as the parish church, with other relics of monastic buildings. On the high western moors, where the winter's snow drifts deep and lies long, the hamlet of *Allenheads* is the centre of the populous lead-mining district of *Allendale*, where the residence of the overseer, 1400 feet above the sea, is said to be the highest inhabited house of its magnitude in Great Britain. In Northumberland, near the foot of the Cheviots, the fatal battle-field of *Flodden* is indicated, with that of *Otterburn*, which is commonly identified with the *Chevy Chase* of border minstrelsy.

DURHAM is the county immediately to the south. It extends from the Tyne to the Tees, and from the sea to the mountains and moorlands of the Pennine range. It has a large proportion of high, rugged, and heathy surface, but the valleys are fertile, and the great northern coal-field stretches through nearly its whole extent along the coast. Besides the border-rivers, the Wear intersects it somewhat centrally from west to east, and separates in the middle and upper part of its course the district of Weardale Forest on the north, from that of Teesdale Forest on the south, both of which are now bare of trees. The latter district is celebrated for its breed of short-horned cattle; but the prevailing occupations are connected with the subterranean products, coal and iron. *Durham*, a small episcopal city, occupies a series of rocky eminences, nearly surrounded

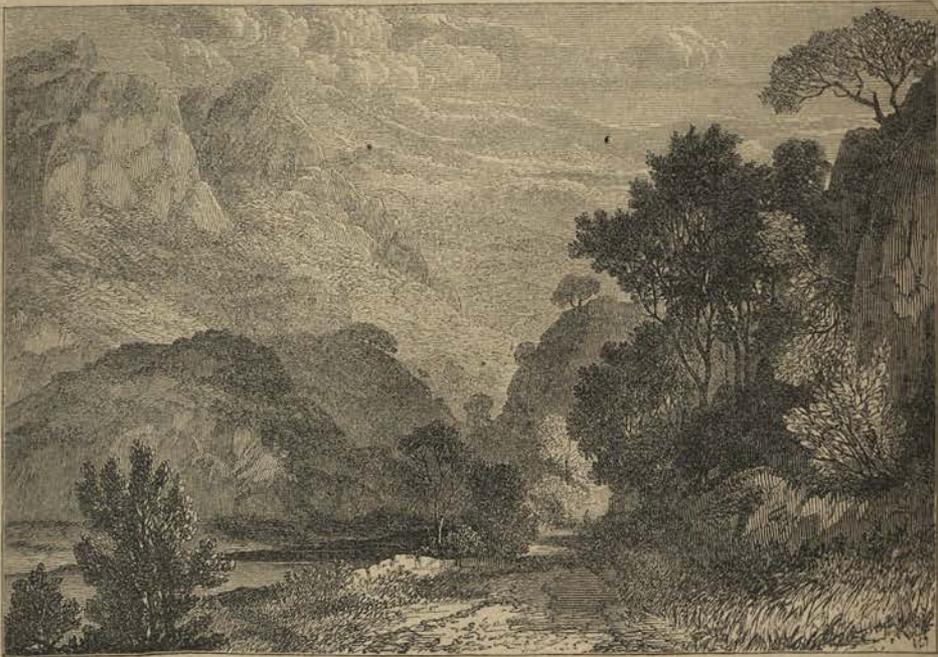


Durham Cathedral and Castle, from a Photograph by Dr Holden.

by the Wear, towards the heart of the county. It is distinguished by an ancient cathedral and a modern university. The cathedral, in the Norman style, with Early English insertions, is a singularly grand and massive edifice; and, standing on the loftiest of the summits on which the city is built, it is seen from a great distance, rising high above the horizon. The west front surmounts a steep declivity clothed with trees and gardens, at the foot of which flows the river. From the opposite bank of the stream, the façade and its battlemented towers, with the foliage below, descending to the water's edge, form a very striking picture. Neville's Cross, at a very short distance from the suburbs, on the west, marks the site of a decisive battle in which the Scots were defeated, and their king taken prisoner, while Edward III. was absent on the continent.

Sunderland, at the mouth of the Wear, Bishop-Wearmouth adjoining, and Monk-Wearmouth on the opposite bank, form a vast town, where ship-building, the export of coal, and various manufactures are extensively pursued. The river is crossed by a remarkable iron bridge, with a single arch of 237 feet span, and nearly a hundred feet above the surface of the water. Southward of Sunderland lies the largest colliery property in the world in the hands of one individual, a district of 12,000 acres, with an average annual produce of nearly 1,000,000 tons of coal, which the Marchioness of Londonderry brought to her husband as the heiress of the Vane-Tempest family. *Gateshead*, on the Tyne, opposite to Newcastle, corresponds to it generally, but is much smaller, while *South Shields* bears the same relation to North Shields, but is much larger. Between the two is the village of Jarrow, in the parish of which Venerable Bede was born, lived, and died. The southern part of the county contains *Stockton* and *Darlington*, the first places united by a railway for the conveyance of passengers. *Hartlepool*, on the coast, a fishing-port, is the provincial resort for sea-bathing. *Barnard Castle*, an inland town on the Tees, adjoins very striking scenery, extending some miles up the valley of the river, especially at the High or Mickle Force, where, surrounded with steeps and woods, the stream dashes down a perpendicular precipice of seventy feet, forming one of the noblest water-falls in the country.

CUMBERLAND, the most northerly of the English counties on the western side, lies along the Solway Firth and the Irish Sea, extending inland to the Pennine range, the highest point of which, Cross Fell, is comprised within its limits. It includes two principal natural divisions, an extensive plain on the north and north-west, with the rugged tract



Silver How and the Rothay, Grassmere.

mentioned on the east, and the mountains of the Lake district on the south. Sea Fell and Skiddaw are in the county, and the mighty Helvellyn on the border towards Westmoreland, whose heights have been given. The other principal elevations are, Great Gavel, 2925 feet; Pillar, 2893; Saddleback, 2787; Grassmere, 2756; Red Pike, 2750; and Grisedale Pike, 2680 feet. The lakes are Derwentwater, Bassenthwaite, Thirlmere, Buttermere, Crummock Water, Ennerdale, and Wast Water, with Ulleswater,

larger than any of the preceding, but equally shared by Westmoreland. The chief river is the Eden, which, after winding through the highlands, intersects the great plain, and discharges in the Solway. It affords one of the very few examples in England of an important river flowing mainly in a northerly direction. Next is the Derwent, remarkable for its limpid water and beautiful scenery, which carries to the sea the drainage of several lakes. But with the Duddon, which forms the border from Lancashire, it has no navigable value, both being almost entirely mountain-streams. The climate is extremely humid, the Lake region being one of the rainiest districts in Europe. At Whitehaven, on the coast, the average annual rainfall amounts to 52 inches; at Keswick, in the heart of the mountains, to 70 inches; and at Seathwaite, on Derwentwater, the extraordinary quantity of 140 inches has been registered. In consequence of this excessive moisture, the farmers attend chiefly to stock-husbandry, green crops, and dairy produce. The minerals are lead, coal, iron, plumbago, and slates. The principal lead-mines are towards the Northumberland border, in the district of Alston Moor, and were part of the estates of the Earl of Derwentwater, confiscated for his share in the Rebellion of 1715, and transferred to Greenwich Hospital.

The episcopal city of *Carlisle*, the 'bonny Carlisle' of border song, occupies a gentle eminence on the south bank of the Eden, and is the seat of considerable manufactures of cottons, woollens, and hardwares. But situated only a few miles from the Scottish frontier, its aspect was in former times that of an important military post, possessing a strong fortress, with embattled walls and gates. Part of the old castle remains, and the whole restored is now a conspicuous object. The names of English Street on the south and Scotch Street on the north, connected thoroughfares, indicate the position of the place, bordering the two countries. Equally prominent is the cathedral, standing on the highest ground within the city, a venerable edifice, containing the remains of the celebrated Paley. Carlisle sustained one of the most memorable sieges in our history, when held by the Royalists during the great civil war, an interesting narrative of which is among the Harleian manuscripts in the British Museum, written by a citizen. It commenced in October 1644, and lasted till June 25th of the following year, when famine enforced a surrender. *Whitehaven*, *Workington*, and *Maryport* are seaport towns, from which large quantities of coal are shipped to Ireland, and iron ore to South Wales. Around Whitehaven the coal is obtained from mines excavated under the town, and at other points they extend to a considerable distance beneath the sea. Fatal accidents have occurred from the irruption of the superincumbent water. *Cockermouth*, an inland town, at the junction of the Cocker with the Derwent, is distinguished as the birthplace of the poet Wordsworth. *Keswick*, the head-quarters of many Lake tourists, is beautifully situated in a fertile vale near the foot of Skiddaw, and on the margin of Derwentwater. The manufacture of the so-called black-lead pencils is one of its prevailing industries. The peculiar mineral employed, provincially termed 'wad,' a carburet of iron, of which fine specimens are very rare, is obtained from a mine a few miles to the southward, on the side of a mountain at the head of Borrowdale, but now in an exhausted condition.

WESTMORELAND, with the exception of a small south-western section which reaches the head of Morecambe Bay, is an inland region. It is generally elevated, rugged, and bleak; and contains the lowest average of population of any of the English counties. The mountains of the Cumbrian group appear on the western side, and those of the Pennine chain on the eastern, where the surface is either in natural pasture or under wood, except in the narrow romantic dales which have fertile soil. The Eden, the Kent, and the Lune, have their upper courses in the county; Hawes Water is wholly within its limits; Ulleswater and Windermere are on the western border.

Appleby, the smallest county town in England, consists of a single street, with the population of a moderate-sized village. *Kendal*, in the pleasant valley of the Kent, from which the name is derived, is the only place of importance, having a woollen manufacture founded by a colony of Flemish weavers in the reign of Edward III. Its green druggets were for several centuries the ordinary clothing of the lower classes, and became widely known under the name of Kendal-green. *Ambleside*, near the head of Windermere, and *Bowness*, on the eastern shore, depend upon summer excursionists and the neighbouring villas. The lake, about eleven miles long by one broad, is daily traversed by small steamers in the visiting-season, and has quiet beauty for the distinctive features of its scenery. The greater part of its margin belongs to Lancashire. A medicinal spring on the high moorland tract of Shap Fell has rendered one of the dreariest regions in the kingdom a place of considerable resort. Shap Abbey, the remains of which are in a lonely vale, belonged after the dissolution to the ancestors of Hogarth the painter.

LANCASHIRE, the chief seat of the cotton manufacture, extends along the coast of the Irish Sea, and consists of two portions, a small northerly section being detached by the intervention of Morecambe Bay. This isolated tract is the hundred of Furness, also termed 'North of the Sands,' an integral part of the Cumbrian mountain-region. It contains Coniston Water, the third of the lakes in size, with Coniston Old Man, 2577 feet in height, and the small port of Ulverstone. Walney Island, ten miles long, and nowhere more than a mile broad, being very narrow and low, lies off the shore, stretching south-south-east from the estuary of the Duddon. It contains a considerable extent of moss, the remains of an ancient forest. The remainder of the county has a coast-line broken with inlets, through which the Lune, Wyre, Ribble, and Mersey reach the sea; and a surface consisting of sandy maritime flats, numerous peat-mosses, and high grounds towards the



Panoramic View of Liverpool,

Yorkshire border. The prime natural feature of the county is the great coal-field, which ranges in the form of a crescent, from the central to the southern districts, wrought upon an extensive scale for the supply of the manufacturing establishments upon its surface, and the domestic use of the vast population congregated in the locality. Though now more densely peopled than any other part of the realm after Middlesex, and a wonderful theatre of invention and activity, nearly the whole region was once very desolate, where scarcely penetrable forests alternated with moors, either clothed with heather and brush-wood, or presenting a series of marshes and shaking bogs. In the time of James I., the antiquary Camden approached its frontier with dread, and commended himself to the Divine protection on entering its tangled wilds. In the early stages of parliamentary representation, through six successive reigns, the sheriffs made the return that there were no cities or boroughs within its bounds, from which 'any citizens or burgesses ought, or have been accustomed to come to parliament, by reason of their poverty.' Its many great towns and crowded parishes have been formed during the cotton-manufacturing era, and chiefly since the application of machinery and steam-power to production.

Liverpool, on the right bank of the Mersey, near the mouth of the river, which forms the harbour, is now second only to the metropolis in point of population. It is the chief port of entry for raw cotton, and of export for cotton fabrics, while carrying on a vast miscellaneous commerce with all parts of the kingdom, and every country of the globe. The public buildings are remarkable for magnitude and architectural execution, while the docks form a chain of basins extending from four to five miles along the river, with a total quay space fourteen miles in length. Seen from the bosom of the broad stream, the view of the forest of shipping, with the flags of all nations flying, with warehouses, churches, and other edifices, is in the highest degree imposing. It might be mistaken by a stranger for the capital of a powerful state, and is indeed excelled by few continental capitals, not merely in size and wealth, but in institutions as well for social and educational improvement, for the promotion of science, literature, and art. A Free Public Library, of recent foundation by one of its 'merchant princes,' has reached an average daily issue of several thousands of volumes. Few things are more surprising than the quick yet solid growth of its commercial greatness, with the increase of its inhabitants. According to the best accounts that can be obtained, the population somewhat exceeded five thousand at the commencement of the last century, and is now rapidly advancing



and the Mersey from Birkenhead.

to half a million. Liverpool shares with Manchester the distinction of having originated the First Grand British Experimental Railway, connecting the two places, opened September 15, 1830. The scheme was contemplated principally to facilitate the transit of raw produce and goods, which was so enormous, amounting to 1200 tons daily, that the canals and road wagons had long been utterly inadequate to accommodate manufacturers and merchants in reasonable time. Passenger traffic was a very subordinate consideration. In the execution of this work, Chat Moss, one of the most extensive and dangerous of the Lancashire bogs, deemed utterly irreclaimable, was drained. It consisted of a covering of long, coarse, sedgy grass and heath, overlying a spongy moss, in some places thirty feet deep, nearly the whole of which has now been turned to profitable account.

In the south-east quarter of the county, *Manchester* and *Salford*, though separate boroughs, form one continuous city, simply divided by the narrow stream of the Irwell, over which numerous bridges are thrown. The population falls slightly below that of Liverpool. Though of ancient date, having been a Roman station, if not an old British settlement, Manchester has no venerable structures, except a collegiate church, which became a cathedral by the constitution of the bishopric in 1847. But it is amply supplied with spacious streets, commodious commercial buildings, literary and benevolent institutes, and public parks, suitable to its character as a great industrial centre, the capital of the cotton-manufacturing district. Factories and warehouses are everywhere prominent. The latter are occasionally superb palatial structures, while the former are simply huge piles of brick studded with multitudinous windows, yet remarkable generally in the interior for cleanliness, ventilation, regulated temperature, and orderly economy. There are upwards of two hundred of the first-class, from five to eight stories in height. Besides cotton-mills; silk, flax, print, and

chemical works are numerous, with brass and iron foundries, and almost every branch of industry is represented. A recent experiment, that of Public Dining Rooms for artisans, promises to be a great social improvement. Manchester has not been connected with many events of historical importance; but the first blood that stained its streets was shed in the contest between Charles I. and the parliament. At the beginning of the Georgian era, it was described by Dr Stukeley as 'the largest, most rich, populous, and busy village in England.' There were then four cumbersome private carriages in the place. Its prosperity is mainly due to the introduction of machinery, and the proximity of a rich coal-field. The first steam-engine was set up in 1790. Dalton, the great chemist, was a native. In the immediate vicinity *Oldham* and *Ashton-under-Lyne* are remarkable for the rapidity with which they have advanced from small hamlets to great municipalities.

The other cotton towns have similar general features; but in a few instances, points of particular interest are attached to them. *Preston*, on the north bank of the Ribble, near the head of its estuary, is of great antiquity, said to have its name, originally *Priests Town*, from the number of religious houses which it once



Lancaster Castle.

contained. Guilds are celebrated every twenty years, when the trades meet, and hold a jubilee. Arkwright, the successful constructor of the water-frame, was a native, and made here his first attempt to improve the machinery. *Blackburn*, to the eastward, produced Hargreaves, the inventor of the spinning-jenny. *Bolton*, is similarly associated with Crompton, a poor weaver, who contrived the mule-jenny, after devoting every spare moment through five years to the task. He then occupied a garret at the Hall-in-the-Wood, an old manor-house, in a retired and beautiful spot, close to the town. During the great civil war Bolton suffered severely, especially when it was taken by storm by the Royalists under Prince Rupert and the Earl of Derby. In remembrance of this, the earl, when captured at the battle of Worcester, was removed to the town, and publicly beheaded. The production of woollen goods is largely combined with the staple manufacture of the county at *Bury* and *Rochdale*, with that of glass and small hardwares at *Warrington*. In connection with the former town, the first Sir Robert Peel made his fortune, and at Chamber Hall, in the neighbourhood, his son, the great statesman, was born. On a lofty adjoining height, commanding an extensive view, a monument to the memory of the latter has been erected. *Wigan*, *Burnley*

and *Staley Bridge* have large artizan populations. *Blackpool*, *Southport*, *Lytham*, and *Fleetwood* are watering-places on the coast, the latter of very recent date, its site having been a rabbit-warren when the age of railways commenced.

Lancaster, the county town, towards the north extremity of the county, on the south bank of the Lune, is of little importance in comparison with the hives of industry in the centre and south, but retains a fine feudal castle on a commanding site, which renders it a striking feature in the general view of the town.

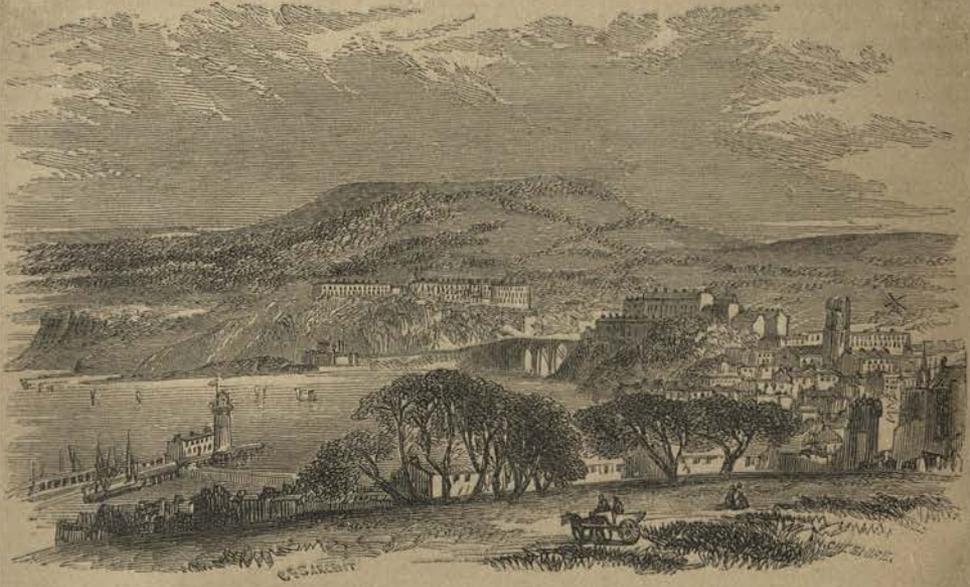
YORKSHIRE, the largest county of England, and the third in point of population, lies on the North Sea, between the estuaries of the Tees and the Humber; and has an area exceeding that of the continental kingdom of Saxony. It consists generally of a long



York Minster, from a Photograph by Wilson.

central valley, stretching south-south-east from the northern frontier, and gradually widening till it terminates in a series of extensive and somewhat swampy levels. This valley is bounded by tracts of considerable elevation. Eastward are the York Moors and Yorkshire Wolds, separated by the vale of Pickering; and westward are the Pennine highlands, which rise in Wharfedale, Ingleborough, and Pennine, to the respective heights of 2384, 2361, and 2270 feet above the sea. Nearly the whole drainage of the surface is conducted by the Ouse through the central valley to the Humber. The river has its remotest and principal source at Swalehead, on the mountain of Shunnor Fell, near the border-line towards Westmoreland. It is formed by the junction of the Swale

and Yore below the town of Boroughbridge, and receives on its flow the Nidd from Knaresborough, the Wharfe from Tadcaster, the Aire from Leeds, the Derwent from Malton, and the Don from Sheffield. Tidal water ascends the channel to a lock about four miles below York. Several of the affluents are connected with scenes of great natural magnificence in the upper parts of their course. The county consists of three principal divisions, the North, East, and West Ridings. Agriculture is chiefly pursued in the two former. Manufactures and collieries distinguish the latter. Its coal-field



Scarborough from the Castle.

ranges from the north-east of Leeds southward into the counties of Derby and Nottingham, a distance of more than sixty miles. Iron ore in vast abundance is extracted from it, smelted at the spot, and worked up in great foundry establishments into massive hardwares. In addition to the large local consumption of the coal for this purpose, and for household use, it competes by means of the railways with sea-borne coal in the metropolitan market.

The city of *York*, on the banks of the Ouse, is centrally seated in the great river-valley, at the convergence of the three ridings, but is associated with the northern for electoral purposes. Founded in the earliest historic times of Britain, it was a metropolis under the Romans, where died the Emperors Severus and Constantius Chlorus, and where the son of the latter, Constantine the Great, was born. In the primitive Saxon age, it was the capital of Northumbria, became an archiepiscopal see, acquired continental fame as a seat of learning, possessed a library which had few rivals abroad at the period, and produced Alcuin, the best scholar of his day, the pupil of Bede and the counsellor of Charlemagne. It has since been conspicuous in most of the great epochs and events of the nation's annals, and is now the second city of the kingdom in point of ecclesiastical rank, as the seat of the northern archbishopric. The walls to a considerable extent remain, forming an agreeable promenade; and four principal gates, with a few of the posterns, are extant. The castle, a restoration on the site of the old fortress, used as a prison, contains 'Clifford's Tower' within its enclosure, a memento of the past preserved with the most scrupulous care. But the object of special interest is the minster or cathedral, commenced in its present form in the twelfth century, and completed in the fifteenth, the finest ecclesiastical edifice in the empire. Five miles to the south-west of the city is Marston Moor, where the Royalists were disastrously defeated by Cromwell at the close of a summer day in 1644. A few miles further on, in the same direction, lies the battle-field of Towton, the scene of a murderous conflict during the Wars of the Roses, fought in a snow-storm on Palm Sunday 1461. Small

agricultural towns are numerous in this division of the county, some of which, as *Richmond*, are surrounded with very striking scenery. On the coast, *Scarborough*, seated on an amphitheatre-like shore, combines the advantages of mineral springs with sea-bathing, a beach of the finest sand, and high rocks, one of which has remains of the historic castle. Further north, *Whitby*, the native place of Captain Cook, has an interesting natural history museum, and a long line of precipitous cliffs in its vicinity, abounding with aluminate, from which several thousands of tons of alum are annually manufactured. At the mouth of the Tees, *Middlesborough* is almost wholly of modern erection, called into existence to serve as an outlet for the mineral produce of the neighbourhood.

In the eastern and smallest division, *Hull* is the only town of importance, occupying low ground on the north bank of the Humber, about twenty miles above its mouth, from which there is a main channel available for ships of the largest size. It is one of the principal ports of the kingdom in relation to foreign commerce, ranking next after London, Liverpool, and Bristol, while remarkable for its inland trade, conducted by means of the far-spreading arms of the Ouse and Trent. The incorruptible patriot, Andrew Marvel, and also Wilberforce, were natives, both of whom received part of their education in the free grammar-school, and represented the town in parliament. A few miles to the north is *Beverley*, greatly



Ruins of Knaresborough Castle.

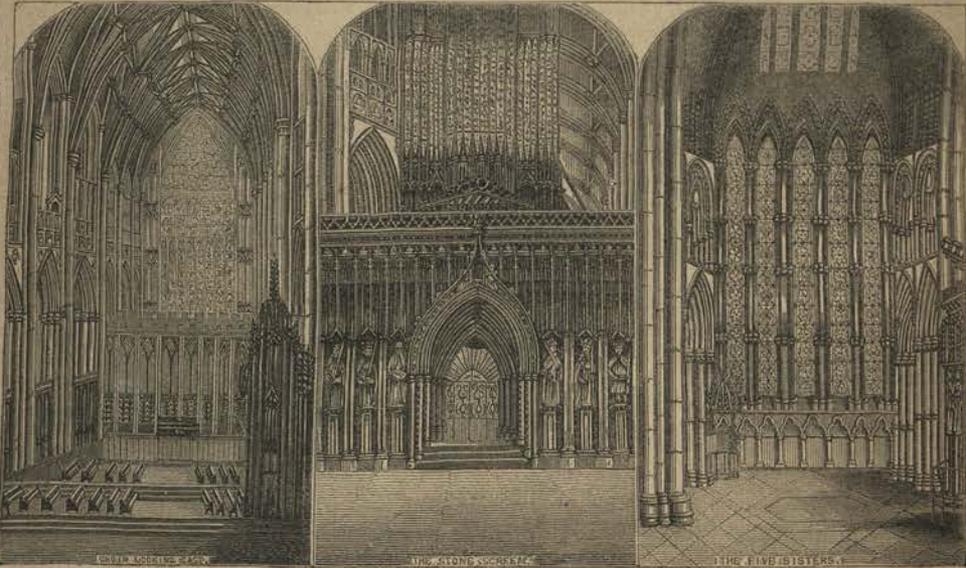
inferior, but of much older date, with a superb minster in the Perpendicular and Decorated styles. On the coast, *Bridlington*, frequented for sea-bathing, is in an interesting neighbourhood. At a short distance northward are the bold cliffs and dark caves of Flamborough Head, with the broad sands of Filey beyond, its noble bay and so-called Bridge, but recently a mere fishing-hamlet, it is now a favourite summer resort. The bridge is a ledge of rock which acts the part of a natural breakwater to the bay, runs out about half a mile into the main deep, covered by the tide, but to be explored to its extremity at low-water.

'On that wild causeway nature strews
Rare shells, and plants of brilliant hues.'

From *Bridlington* southward to *Spurn Point*, a distance of thirty miles, the coast consists of low soft cliffs, upon which the sea is constantly encroaching, a process which has effected great changes in the lapse of centuries. Towns and villages have been swept away by the action of the waves in storms, and the regular grinding of the tidal currents. *Ravenspur*, a borough which sent members to parliament through several reigns, and a port at which *Bolingbroke* and after him *Edward IV.* landed, to contend for the crown, perished gradually and utterly from this cause. Much of the material of the wasted coast is carried by the flood-tide into the Humber, where it is deposited, forms shoals and mudbanks, extensive tracts of which along-shore have been reclaimed from the waters by human industry, and converted into cultivable land.

The western and largest division has an area greater than that of any of the counties except *Lincolnshire*, and a population next in number to *Lancashire* and *Middlesex*, devoted chiefly to woollen manufactures and hardwares.

Leeds, on the Aire, is the fourth of the provincial towns in extent, being only exceeded by Liverpool, Manchester, and Birmingham. It had formerly an uninviting appearance, but several elegant public buildings have been erected of late years, besides a magnificent town-hall, and many handsome streets have been laid out. While principally a cloth mart, flax and worsted spinning are extensively carried on, with the production of glass, earthenware, and machinery. One of the flax-mills consists of a single story, and a single room, but this extends over nearly two acres of ground, or includes five times as much space as Westminster Hall. Two weekly cloth-markets are held in two large and plain buildings or halls, one of which is for white or undyed cloths, and the other for coloured, where the goods are disposed of by manufacturers to merchants. The cloth-factories are immense piles, in which every process is conducted connected with the reduction of crude wool to finished cloth. But in the rural districts the domestic system of manufacture is extensively followed by persons of small means, who possess from one to three or four looms in their own dwellings, and are at the same time small farmers, or engaged in other avocations. Worsteds-spinning has its main seat at *Bradford*, nine miles distant, a borough which has made extraordinary progress during the last half-century, and is extending its buildings in all directions. It has very picturesque environs naturally, blurred with collieries and foundries. Some of the finest warehouses in the world may be seen in the town; and upon commercial prosperity social improvement has been grafted, of which evidence appears in the provision of the Peel Park for the people, and the erection of the noble St George's Hall. About four miles distant is 'Saltaire,' a kind of model manufacturing establishment upon a vast scale, opened in 1853. Already the nucleus of a rising town. The name is compounded of the founders, Mr Salt, and that of the river Aire on which it is situated. Between Bradford and Leeds are the splendid ruins of



Interior Views of York Minster.

Kirkstall Abbey, which offer a striking contrast to closely-adjointing industrial sites. Cloths, worsted and mixed party-coloured fabrics are made at *Halifax* and *Huddersfield*, blankets at *Dewsbury*, and linens at *Barnsley*, employments which large surrounding villages and townships share in common with them. In the parish of Halifax, one of the largest in the kingdom, of greater extent than the whole county of Rutland, some refugee Flemings settled at an early date, and stimulated the woollen manufacture in the district, if it did not originate with them. To a recent period, the dialect of the working-classes strikingly resembled that of the operatives in the Low Countries, especially in Friesland; and hence the rude commemorative distich:

'Goid brade, botter, and sheese,
Is gooid Halifax, and gooid Fries.'

Magnificent scenery renders the site of the town scarcely inferior to that of any other in the kingdom, while it is second to none in the public gifts conferred by the munificence of its manufacturers, as the Crossley Park, the Ackroyd Almshouses, and All Souls' Church, a gem of Gothic architecture. The Town Hall, opened in 1863, a noble building, was designed by the late Sir C. Barry, his last work, carried into execution by his son. *Wakefield*, on the Calder, though smaller than many of the other towns, is the electoral head of the

West Riding. Besides sharing in the general industry of the district, it has become an emporium for corn and a mart for cattle. *Pontefract*, a few miles to the east, is one of the historic sites, with some remains of its ancient castle, the scene of many tragic events, especially of the murder of Richard II. Nurseries and gardens now surround the town, in which a considerable quantity of liquorice is raised. Northward of Leeds, the country is chiefly agricultural, and contains *Harrowgate*, widely famed for its chalybeate, sulphureous, and saline waters; *Knaresborough*, beautifully situated on the Nidd, on the bank of which, opposite the ruins of the castle, is the Dropping Well, a curious petrifying spring; and *Ripon*, in an interesting neighbourhood, on the Yore, with an ancient cathedral, was made a bishop's see in 1836. Within a few miles are the highly-attractive grounds of Studley, the grand remains of Fountain's Abbey, the deep-wooded glen of Hackfall, and the Brimham Rocks—perpendicular masses of grit on an elevated moorland, with tumuli dispersed among them.

Fifth on the list of the great towns is *Sheffield*, very finely situated towards the southern border of Yorkshire, being enclosed and overlooked on all sides except the north-east by an amphitheatre of hills, while five manageable streams converge towards it, and finally blend, the Rivelen, Loxley, Porter, Sheaf, and Don.

'Five rivers, like the fingers of a hand,
Flung from black mountains, mingle, and are one
Where sweetest valleys quit the wild and grand.'

Its industry is wholly distinct from that of the other places mentioned, consisting of cutlery in all its branches, plated goods, brassfounding, and metal wares in general, to which that of armour plates for ships of war has recently been added. The cutlery manufacture was in being here in the fourteenth century. Chaucer mentions in one of his poetical tales a 'Sheffield whittle,' or large knife, usually carried about the person for convenience and defence. The natural advantages of the site led to its establishment, and have contributed to its extension, abundance of iron ore and coal in the vicinity, suitable clay for firebricks, excellent grindstones, and the five rapid streams supplying water-power. Ironworks and collieries are prominent at *Rotherham*, lower down the Don; and on the same river, as its name implies, is *Doncaster*, well-known in the annals of horse-racing, and an important corn-market.



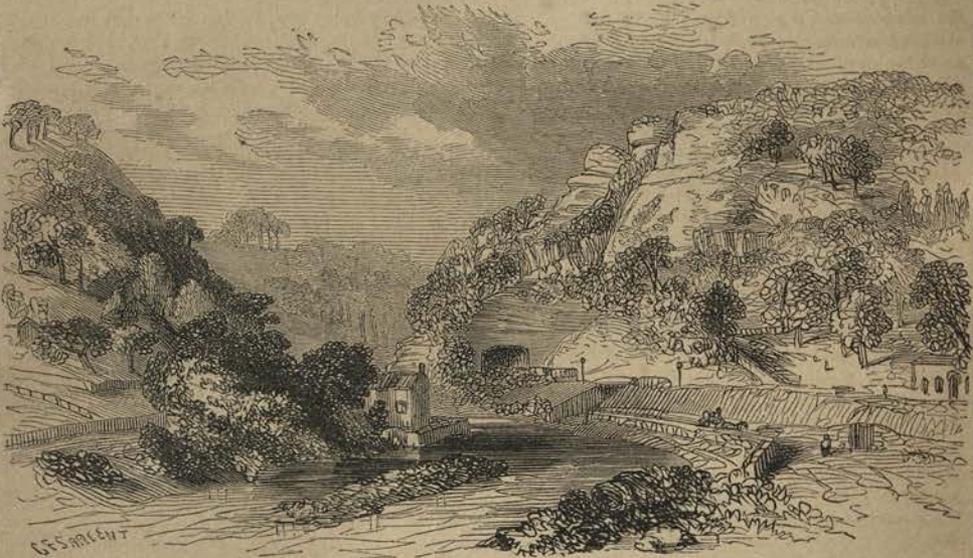
Derby from the Burton Road.

II. NORTH-MIDLAND COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
Derbyshire,	1029	Derby, Belper, Chesterfield, Buxton, Ashbourne, Glossop.
Staffordshire,	1138	Stafford, Stoke, Wolverhampton, Walsall, West Bromwich.
Nottinghamshire,	822	Nottingham, Newark, Mansfield, Worksop.
Leicestershire,	804	Leicester, Loughborough, Hinckley, Ashby.
Rutland,	150	Oakham, Uppingham.

DERBYSHIRE consists of a hilly region in the north, termed the High Peak; a less elevated tract in the centre, or the Low Peak; and a gently undulating level in the south. There is no single point answering to the name of Peak, but a series of high lands, with a few prominences, among which Kinder Scout, the loftiest, closely approaches the height of 2000 feet. Some of the village churches occupy more elevated ground than any others in the kingdom. Dales of an extremely romantic character are numerous, generally with streams flowing through them, and occasionally with grand caverns opening on their sides. The county has great mineral wealth, consisting of coal, iron, lead, zinc, and marbles. Nearly all the drainage is conducted into the Trent, which intersects the southern portion from west to east.

Derby, on both banks of the Derwent, one of its principal affluents—a great railway centre—has the silk-manufacture for its staple industry, with hosiery and lace. The first silk-mill in the kingdom was erected here on an island in the river in 1720; and the first cotton-mill which exhibited anything like a development of the factory system, appeared on the same stream, thirteen miles higher up, at Cromford, in 1771. Both buildings still exist, and are still devoted to their original purpose. At Derby, also, the first English calicoes

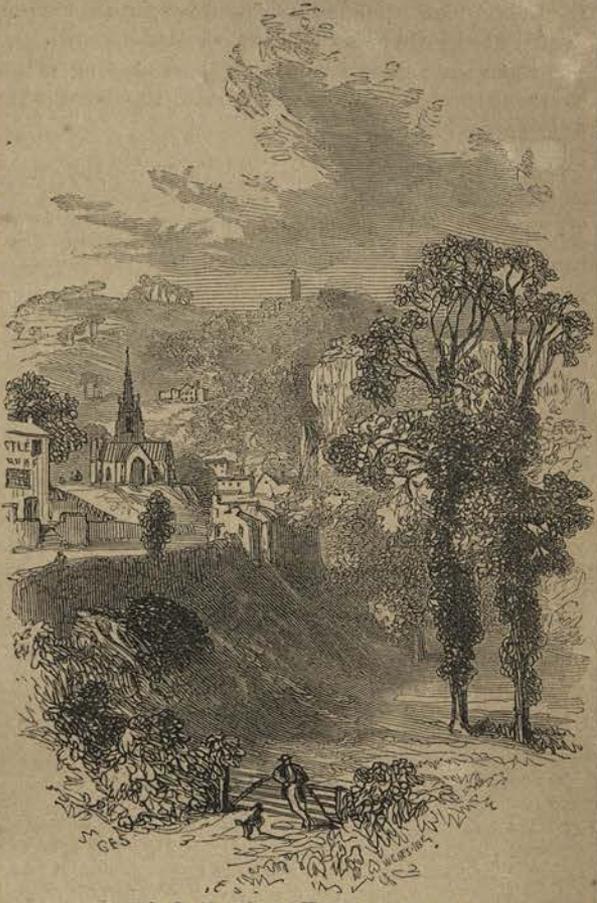


High Tor, Matlock.

were made, the first fireproof mill was built, and the first public park, called the Arboretum, was provided by an opulent manufacturer for the recreation of the working-classes. Linacre, founder of the Royal College of Physicians, was a native, with Flamstead the first astronomer-royal, Hutton the topographer, Richardson the novelist, and Wright the painter. The southerly advance of the Pretender in 1746 terminated here, though some scouts of the army pushed on to the Trent. *Belper*, on the Derwent, eight miles north, is a new, thriving, stone-built town, with extensive cotton-mills, and gives the title of Lord Belper to the present head of the firm to whom they belong. *Chesterfield*, towards the centre of the county, is connected with iron-works, collieries, and potteries. Its church-spire at once arrests the attention of a stranger, having a twisted appearance, and really deviating considerably from the perpendicular. Various places in Derbyshire annually attract visitors from a distance by their beautiful scenery, natural curiosities, and mineral springs, of which Matlock and Buxton are the principal centres.

Matlock Bath, in the district of the Low Peak, occupies a deep ravine about two miles long, lined on one side with high perpendicular limestone cliffs, while on the other are the richly-wooded slopes of loftier elevations, between which the Derwent winds its way with a placid and anon a fretful flow. The most striking natural object, the High Tor, at the north extremity, rises 400 feet above the river, with a slanting base covered with foliage, and a superstructure of bold, naked, precipitous rock. In Derbyshire, as well

as Devon and Cornwall, isolated rocks are commonly called 'tors,' a Saxon term, from which some derive the word 'tower.' Mineral springs, three in number, containing much carbonic acid gas, have planted a pleasing village in the glen, with first-class hotels, bathing establishments, and villa-like lodging-houses, some of which are picturesquely seated on the heights. Chatsworth, the stately seat of the Dukes of Devonshire, is within easy distance, as well as Haddon Hall, one of the most perfect examples remaining of an old baronial residence, the delight of antiquaries and artists. *Buxton*, surrounded by bleak hills and extensive moors, has long been celebrated for the medicinal value of its waters, which were visited occasionally by Mary Queen of Scots, during her long imprisonment at Sheffield. St Anne's Well rises at a temperature of 33° above that of the vicinity, and has a cold spring in very close contact with it. Objects of interest are numerous in the neighbourhood: Poole's Hole, a stalactital cavern; Axe Edge, from the summit of which the heights of North Wales may be seen on a favourable day; Chee Tor, a limestone cliff overhanging the valley of the Wye; Mam Tor, the shivering mountain, on the road to Castleton; and at the latter place, the Blue John Mine, the Speedwell Mine, and the Peak Cavern, one of the grandest formations of the kind in the kingdom. But the most charming scene in the county, Dovedale, is on the western side, where the Dove pours its waters between abrupt and vast rocks, now still, now murmuring, and anon dashing over the blocks and stones that have fallen from the heights into its bed, while miniature islands further diversify its course. The valley is nearly three miles long, but nowhere more than a quarter of a mile wide, and in some places the opposite cliffs approach so closely as scarcely to leave room for a pathway by the stream. The bounding walls are perforated with caves, and largely clothed with copses of hazel and the mountain-ash, while huge and lofty detached masses of rock occasionally appear in front of them. This dale is approached from the north through a narrower one, where a few cottagers dwell, who never see the sun in winter unless they go out of it; and when his beams begin to reach them as the spring advances, it is only at first for a brief interval after mid-day. Hence arose the phrase of the Narrow-dale noon, formerly in local use as a proverb for anything delayed. *Ashbourne*, in a fertile valley by the Dove, possesses an exquisite sculpture by Chantrey, that of the Sleeping Child, in the parish church. The sound of the bells suggested the lines 'Those evening bells' by Moore during his residence at Mayfield, an adjoining village, where much of *Lalla Rookh* was composed.



Matlock Church and Heights of Abraham.

STAFFORDSHIRE, one of the decidedly mining and manufacturing parts of the country, has high dreary moors in the north, a generally level surface in the centre, and some bold, bluff hills in the south. On the northern moorlands, the Trent commences its changing course. It flows thence southerly to Trentham Park, where the river expands into a noble pool, then bends gradually to the east, and turns to the north-east on the Derbyshire border, finally proceeding due north to its estuary. There are two distinct and very valuable coal-fields at opposite extremities of the county, one called, from the

locality, the North Staffordshire or Pottery Field, and the other the South Staffordshire or Dudley Field. The last is the most important, remarkable for its stores both of coal and iron, though of limited extent, having only a superficial area of about sixty square miles. One bed, distinguished as the Main or ten-yard coal, consists of thirteen distinct seams, so close together as to form almost a single stratum. These subterranean treasures have stimulated manufactures, and given to the county the largest average of population after the metropolitan and Lancashire.

Stafford, a centre of the shoe-trade, the native place of Izaak Walton, is situated intermediate to much more considerable northern and southern towns. *Stoke-upon-Trent* comprehends various townships and hamlets within its borough limits, or the region known by the name of the 'Potteries,' from the distinctive handicraft. This district, extending about ten miles in one direction by from two to three in the other, has nothing antique or ornamental in its appearance. The prominent features are huge cones of brick, forming the kilns or baking-ovens, with tall chimneys, volumes of smoke, and humbly-attired artisans, who produce wares varying from the ordinary and useful to the decorative and artistic. A statue of Josiah Wedgwood, the Father of the Potteries, who diffused the manufacture by rendering it ornamental, has recently been placed in the scene of his labours. In the opposite direction, *Wolverhampton*, *Walsall*, *West Bromwich*, and other closely-contiguous towns, compose the iron region or the black country, where foundries and collieries meet the eye on every hand. Its aspect is equally definite, and not a little striking to the stranger. Trees and hedges are rare, and the few are poverty stricken, apparently maintaining an almost hopeless struggle for existence by the side of dingy patches of grass and bits of garden. Houses are many where streets are wanting, being scattered around forges and steam-engines, amid piles of coke, and heaps of ore. Sinkings of the surface are continually met with, and dwellings declining from the perpendicular, either deserted as too dangerous to be occupied, or propped up to prevent their fall, owing to the subterranean excavations. By night, the tongues of flame from the chimneys of the ever-burning furnaces light up the sky, with startling effect to the visitor, and suggest the idea of a grand centre of volcanic action. Staffordshire, apart from these two districts, includes on the eastern side *Tamworth*, a capital of the Mercian kings in the Saxon age; *Lichfield*, the birthplace of Dr Johnson, with a beautiful cathedral; and *Burton*, with extensive breweries at the head of the Trent navigation, where the river is crossed by an old stone bridge of thirty-four arches, one of the longest in the kingdom. *Leek*, a silk-manufacturing town, and *Newcastle-under-Lyne*, are in the north. The appended phrase, 'under Lyne,' similarly attached to Ashton, on the southern border of Lancashire, refers to an ancient forest so called in the intervening county of Cheshire.

NOTTINGHAMSHIRE, without any prominent natural features, has a pleasingly varied surface, and a remarkably dry climate, probably owing to the moist westerly winds being intercepted by the hills of Derbyshire. It is intersected by the Trent from south-west to north-east, which is navigable throughout by barges, and by larger vessels up to Gainsborough, where the first bridge is met with on ascending the stream.

The town of *Nottingham*, populous and flourishing, occupies a hilly site a short distance from the northern bank, with cotton-hose and machine-lace for the principal manufactures. Its castle, entirely modern, and without a castellated appearance, stands on a perforated sandstone rock, the site of the old fortress in which Mortimer was seized by the friends of Edward III, who gained admission to it by a subterranean passage, still indicated under the name of 'Mortimer's Hole.' On an eminence within the grounds, Charles I. set up his standard at the commencement of the civil war, and Standard Hill is now the name of a street or terrace at the spot. The place was speedily in the hands of the parliament, and the famous Colonel Hutchinson became the governor. Beautiful and extensive views are obtained of the Trent valley from various points, in which the meadow crocus abounds, the violet colour of which in spring finely contrasts with the fresh green of the early grass. *Newark*, on the eastern side of the county, a principal mart for agricultural produce, was formerly an important military stronghold, in which the wretched King John ended his days. Warmly adhering to the fortunes of Charles I., the inhabitants and garrison successfully resisted two sieges, and the place was only given up on his voluntary surrender to the investing Scotch army in a neighbouring field. Extensive ruins of the castle remain, but are rendered unpicturesque by the proximity of inferior erections. Its enlargement at an early date, the 'New Work,' originated the name of the town. *Mansfield*, on the western side, is on the border of Sherwood Forest, in which Henry II. had a hunting-lodge, and met with the adventure commemorated in the old ballad of the *Miller of Mansfield*. The tract is now mostly bare of trees, but here and there huge gnarled and mossed oaks, battered and solitary, represent the ancient woodland in which Robin Hood disported with his men, and administered the Forest laws. *Newstead Abbey*, the fine inheritance of Lord Byron, and the scene of his early days, is in the neighbourhood. *Worksop*, on the north verge of the Forest region, had formerly four ducal residences in its vicinity, which procured for the district the name of the Dukery. There are at present two, Clumber Park and Welbeck Abbey, occupied by the Dukes of Newcastle and Portland.

LEICESTERSHIRE, a central county, contains the district of Chamwood Forest, which has lost its wooded aspect, but is still conspicuous from afar owing to its craggy pinnacles of sienitic granite. Though of no great height, they arrest attention by abruptly rising from a widely-extended level, with a very sharp and distinct outline. Bardon Hill, the loftiest point, has only a positive elevation of 853 feet; but from the great range of surrounding lowland, the view from the summit probably embraces as wide a sweep of landscape as can be observed from any other spot in the kingdom. The eye looks down upon Bradgate Park at the base, the birthplace of Lady Jane Grey; and may discern in clear weather Lincoln Cathedral and the Derbyshire Peak in one direction, the hills about Dunstable in another, with the Malverns in Worcestershire, the Wrekin in Shropshire, and even some eminences in Wales.

Through the greater part of the county grazing husbandry prevails, and a large amount of dairy produce is raised; but on the western side there is a small coal-field worked to a considerable extent. The central position of Leicestershire is indicated by its drainage being carried by the Soar through the Trent to the Humber, while minor portions are taken by the Welland to the Wash, and by the Avon to the Severn and the Bristol Channel. The Swift, a little affluent of the Avon, is connected with the memory of Wickliffe, rector of Lutterworth on its banks, whose bones were exhumed, burned, and the ashes cast into the stream. On a spacious plain close to Market Bosworth, the decisive battle was fought which changed the dynasty by the death of Richard III. The site of King Richard's Well, so called from a tradition that he drank of it during the heat of the action, is indicated by a monument with an inscription by Dr Parr. *Leicester*, on the banks of the Soar, is memorably associated with the fallen Cardinal Wolsey, who died soon after reaching the adjoining abbey of St Mary, and was buried in an unknown grave. It is the centre of the worsted hosiery district, and has a large population, but to some extent engaged in kindred and miscellaneous industries. The district includes the town of Loughborough, ten miles on the north, where also machine-lace is made; and that of Hinckley in the opposite direction, with a number of contiguous villages. *Ashby-de-la-Zouch*, in the centre of the coal-field, is of ancient date, and derives its distinctive name from an old Norman family, once lords of the manor. It was made widely known by Scott's brilliant novel of *Ivanhoe*, as the scene where he laid the famous passage of arms described, and has the ruins of a castle, with *Ivanhoe Baths*, plentifully supplied with strongly saline waters. *Melton Mowbray*, on the north-east, is one of the chief marts for *Stilton cheese*, first made at a village in the neighbourhood, and still largely produced. Owing to the openness of the country, and other circumstances, it has long been the head-quarters of a large number of sportsmen during the hunting season.



River Dove.

RUTLANDSHIRE, the smallest of the English counties, is a district of rich vales divided by gently swelling hills, entirely agricultural. With a single exception, it has the smallest of the county towns, *Oakham*, which numbers one of the most diminutive of men in the list of its natives, Jeffrey Hudson, the court dwarf in the reign of Charles II.

The town is pleasantly situated, has a fine old church, and a hall used for county business, one of the most beautiful specimens of the domestic architecture of the twelfth century. In this hall a number of horseshoes are suspended, to which the names of noble personages are attached, some of the blood-royal. By a curious custom of ancient date, the authorities exact a horseshoe from every peer of the realm on his first passing through the manor. This tribute is still strictly enforced, and was complied with by Lord Chief-Justice Campbell in March 1858. During the Wars of the Roses, a battle was fought at the village of Empingham, in which Edward IV. defeated some insurgents. A spot near the scene of the action still retains the name of Lose-Coat Field, where the fugitives threw away their coats-of-mail to facilitate their flight. Remains of the slain were turned up in the year 1851.



Hereford from Hastings Hill.

III. WESTERN COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
Cheshire,	1105	Chester, Stockport, Macclesfield, Birkenhead.
Shropshire,	1291	Shrewsbury, Madeley, Bridgenorth, Ludlow.
Herefordshire,	836	Hereford, Leominster, Ross.
Monmouthshire,	576	Monmouth, Newport, Tredegar, Chepstow.
Gloucestershire,	1258	Gloucester, Bristol, Cheltenham, Stroud.

CHESHIRE, chiefly inland, has a small maritime portion on the Irish Sea, forming a long, narrow peninsula between the estuaries of the Dee and the Mersey. These rivers are boundary-lines in relation to the county, but an important affluent of the latter, the Weaver, is wholly within its limits. On the eastern side are high grounds, and elevations occur in other parts, but the surface is generally level, studded with many small pools. The South Lancashire coal-field passes the north-eastern border; lead, copper, and cobalt occur; but the important mineral produce is fossil or rock-salt, the supply of which seems

to be inexhaustible. It was discovered two centuries ago near Northwich, at the depth of from thirty to forty yards below the surface, and is reached by shafts in various parts of the surrounding country. There are two beds, one upper, the other lower, separated by a stratum of indurated marl. In the upper, the salt is of a dull reddish or brown sugar-candy colour, and has to be boiled down and purified to be fit for use. In the lower bed, which is chiefly excavated, and extends to an unknown depth, the pure, white, serviceable mineral occurs. The mines are agreeable places to enter, being clean, dry, and free from noxious gases, while their snowy walls and pillars present a remarkable appearance when lit up by a multitude of torches. They are hence often visited by picnic-parties. Canning, the statesman, was present at a ball given in the Marston mine, the principal vista of which has the name of Regent Street. The county, partly mining and manufacturing, is much more extensively agricultural; and dairy husbandry is the primary object, as the moist climate and rich soil favour the production of a luxuriant green-sward. Its cheese, long in high repute, is sent by thousands of tons annually into the market for export to foreign countries as well as for home consumption.

Chester, an episcopal city and port on the Dee, is a place of great antiquity and interest. It was a principal station of the Roman legions, and an important military stronghold in later times, from being proximate to the Welsh border. Much of its early aspect is still retained. The old wall remains entire, and forms the only perfect specimen of ancient fortification extant in the kingdom. It is from five to six feet broad, and nearly two miles in circuit, passed by four gates facing the cardinal points of the compass. This serves as a convenient promenade for the citizens, from which extensive and beautiful views are obtained. The interior of the city contains many examples of old domestic architecture, especially the elevated and covered footways, piazzas or 'rows' as they are called, let into the houses on the second story, with several very picturesque timber dwellings, now fast disappearing. Chester has little commerce as a port, and no important manufactures, but is the seat of considerable trade in the produce of the county, and the scene of great passenger and goods traffic, as the central terminus of several lines of railway. *Stockport*, the largest town, a few miles to the south of Manchester, shares its industry and features. A magnificent railway viaduct here spans the bed of the Mersey and the adjoining valley. The general Sunday school is remarkable for its magnitude, being regularly attended by upwards of 3000 children, who are accommodated in a single building erected by subscription for the purpose, with which district schools are connected. *Macclesfield*, second in population, has silk-throwing and the production of broad silks for its leading pursuits, which are also carried on at Congleton, and their respective neighbourhoods. *Birkenhead*, on the Mersey, opposite to Liverpool, with spacious docks, ship-building yards, squares, abattoirs, houses with special conveniences for the working-classes, and a public park, is one of the new towns, and has risen to importance with extraordinary rapidity. It occupies ground on which the fox has been hunted within memory of the living.

SHROPSHIRE, intersected by the Severn from west to south-east, is divided by the river into two nearly equal portions. It has an extremely varied surface, level in the north, but marked southerly both with detached masses, steep craggy ridges, and some round topped hills, between which are fertile pasture lands. There are several coal-fields, but only one of importance, that of Coalbrookdale, a district prolific in iron ore, containing many populous townships and hamlets, Madeley, Broseley, and Wellington, connected with collieries and ironworks. The dale itself is a beautiful valley winding between steep hills covered with trees towards their summits, and studded with cottages below. Here the Severn is crossed by an iron bridge, erected in 1779, the first that was ever constructed.

Shrewsbury, pleasantly situated on an elevated peninsula formed by a horseshoe bend of the river, has suburbs across the stream, one reached by the English Bridge, and another by the Welsh, so called from their respective directions. This fine old town is rendered picturesque by timber houses with antique gables and overhanging stories, with which many handsome modern erections are intermingled. While the centre of considerable inland trade, it is widely known for its royal free grammar-school, richly endowed, and raised to celebrity by distinguished masters. Few places have been more conspicuous in our history, partly owing to its position near the frontier of Wales. Edward I. made it his temporary residence, removed hither the public courts of justice, and held a parliament, at which the barons sat in judgment upon the Welsh prince David, while the commons met at Acton Burnel, a village seven miles distant, the

seat of the Chancellor Burnel. Farm-buildings occupy the site of the manor-house, but two ends of a barn are traditionally regarded as remnants of the hall in which the knights and burgesses assembled, and passed the Act for the Recovery of Debts which mainly governed proceedings till the present reign. The battle of Shrewsbury between the forces of Hotspur and Henry IV. was fought about three miles eastward of the walls, where the site is now called Battle-field, and has a ruined church built on behalf of the slain. In the vicinity is the village of Wroxeter, on the site of the Roman city of Uriconium, interesting remains of which have in our own day been discovered. *Bridgenorth*, a seat of the carpet manufacture, is divided into two portions by the Severn, the high and low towns, connected by a bridge. *Ludlow*, towards the southern verge of the county, is of interest from the remains of its castle, in which Milton's masque of *Comus* was first performed, and Butler wrote part of *Hudibras*. *Oswestry*, near the frontier of Wales, has its name from the Saxon king Oswald, who fell in battle at the spot, and is commemorated by a spring in the neighbourhood called Oswald's Well. Close to the Staffordshire border is Boscobel House, in the woods of which Charles II. was concealed, when a fugitive after the battle of Worcester. The oak he ascended for the purpose has passed away, but another reared from one of its acorns occupies the site.

HEREFORDSHIRE, traversed by the Wye in a very winding manner, with lovely scenery on its banks, exhibits a constant succession of hill and dale, in many parts richly wooded, especially with oak timber. While ordinary agriculture prevails, it is one of the chief districts in which hops are cultivated, and apple-orchards for cider. The latter give a remarkably beautiful appearance to the landscapes in spring when the trees are in blossom, and in summer when laden with fruit. They sometimes occupy fifty, sixty, and even a hundred acres, but the ground between the trees is occasionally ploughed and tilled. The orchards began to be planted with care, as to the quality of the fruit, in the reign of Charles I.; and cider was somewhat common in the time of Charles II. Its general use was strongly urged in order to exclude the wines of France during the subsequent wars with that country. But while a universal beverage with the rural population of the producing districts, the home consumption elsewhere has always been limited, though exported in considerable quantities to hot countries.

The county is famed for a breed of middle-horned dark-red cattle, inferior as milkers, but susceptible of being rapidly fattened, and of great strength. Hence oxen are commonly employed at the plough, and in general team-work, instead of horses. *Hereford*, centrally situated, on the north bank of the Wye, surrounded with garden-like scenery, has a cathedral remarkable for its extremely massive tower, profusely ornamented with bulb-work, and a much-admired Lady Chapel. The beautiful river meanders southerly by swelling hills, hop-grounds, orchards, and woods, to the small, quiet, cheerful-looking town of *Ross*, on an eminence of the left bank, immortalised by Pope's poetical commemoration of the 'Man of Ross.' This was John Kyrle, a resident during the reigns of William III., Anne, and George I., who planted the elms in the churchyard, laid out an adjoining avenue which overlooks a lovely prospect, and devoted a small fortune to objects of public utility. After visiting the house in which he lived, Coleridge wrote the lines beginning

'Richer than misers o'er their countless hoards,
Nobler than kings, or king-polluted lords,
Here dwelt the Man of Ross! O traveller, hear!
Departed merit claims a reverent tear.'

Leominster, a mart for wool, hops, cider, and wheat, is in the north part of the county, where at the distance of a few miles a modern column marks the site of the battle of Mortimer's Cross, fought during the Wars of the Roses, which raised the Yorkist leader to the throne with the title of Edward IV.

MONMOUTHSHIRE, southerly on the Bristol Channel, has the Wye for its eastern boundary, and is centrally traversed by the Usk. The maritime portion is low, flat, and marshy, but the general surface is highly diversified, and becomes mountainous on the western side, which forms part of the coal-field of South Wales. Its mineral produce, coal and iron, is very considerable, while the soil in many parts is fertile, and large cereal crops are raised. Previous to the time of Henry VIII., the county was considered to be an integral part of Wales, and though it was then united to England, the administration of English law was not fully established till the year 1689, the first of William and Mary. Down to the present day, the habits and characteristics of the people in the rural districts, especially on the western side, are Welsh; the language

is extensively that of the principality; and old British prejudices relative to everything English or Saxon are not wholly extinct.

Many Roman relics are found at Caerleon and Caerwent, inconsiderable places at present, but once important cities, with the names of *Isca Silurum* and *Venta Silurum*. The remains of castles and abbeys are among the most extensive and picturesque in the kingdom; and holy wells are numerous, or springs formerly held sacred, believed to be endowed with supernatural virtue for the cure of diseases. *Monmouth*, the 'delightsome,' as Shakspeare calls it, still answers to the description, having an attractive aspect, a charming situation, and beautiful environs. But it is now simply a small, quiet, romantic place, with very few traces of its historic celebrity. The position on rising-ground by the Wye at its junction with the Munnow originated the name, a contraction of Monnow-mouth. Only inconsiderable fragments remain of the castle in which Henry V. was born, popularly known as Harry of Monmouth, and of the priory with which another native was long connected, the romancing chronicler, Geoffrey of Monmouth. *Newport*, much the largest town, but not long ago a mean village, is seated on the banks of the Usk, which is navigable for large vessels, and has risen to great commercial prosperity as the shipping port for the mineral and agricultural produce of the county. Principal ironworks are at Tredegar, Pontypool, and near Abergavenny. The latter town, close to the Welsh border, is finely surrounded with an amphitheatre of mountains of contrasted shape, the even ridge of the Blorunge, the broken summit of the Skirrid, and the conical form of the Sugar Loaf, the highest point, 1682 feet above the sea. *Chepstow*, a considerable trading port, below which the Wye terminates its course, has a striking object in extensive remains of its castle on a cliff overhanging the stream, clasped by the ivy, and adorned with patches of wild-flowers. A few miles above, the river passes the glorious ruins of Tintern Abbey, and pursues its sinuous way to the Wyndcliff, a lofty mass of almost perpendicular rock bestrewn with thickets, but easily ascended by zigzag paths cut on its face. The view from the summit embraces the greater part of nine counties, with the Severn estuary, and the broad Bristol Channel expanding towards the ocean. A bridge of remarkable construction carries the South Wales Railway over the Wye at Chepstow, combining the suspension and tubular principles. The Taff Vale Extension line is conveyed across the valley of the Ebwy, a scene of picturesque beauty, by a lofty viaduct composed of open ironwork, of such magical lightness, as to seem a spider-like production upon a gigantic scale in the distant view.

GLOUCESTERSHIRE, a maritime county, intersected by the Severn from north to south, and divided by it into two unequal portions, consists of three naturally distinct regions—the chain of the Cotswold Hills, parallel to the river, on the eastern side; the elevated tract of the Forest of Dean on the western,

'The queen of forests all, that west of Severn lie;'

and the intervening river-valley, with luxuriant meadows on either hand, called the Vale of Gloucester above the city, and the Vale of Berkeley below. The forest district, once an extensive woodland, has still a considerable area devoted to the growth of timber for the navy, and a valuable coal-field, yielding also iron ore of superior quality. Another field is in the south of the county, supplying the wants of Bristol and its neighbourhood, and extending into Somersetshire. The cloth manufacture, particularly of the finer kinds, is a prominent industry; but agriculture is most general, and dairy produce the special object.

The city of *Gloucester*, a river-port on the east bank of the Severn, in command of considerable trade, shares a bishop's see with Bristol, and is distinguished by a cathedral of majestic proportions, with many splendid features. The tomb of Edward II., murdered in Berkeley Castle in the county, with his effigy, is one of the attractions of the interior. Near the pile, a monument has recently been erected in honour of the martyred prelate, Hooper, on the spot where he was consigned to the flames. The eloquent Whitfield was a native, and the benevolent Raikes, who originated Sunday-school instruction, commencing it in the place of his birth. *Bristol*, on the Avon, one of the most ancient cities of the west, and by far the largest as well as the most important seaport after London and Liverpool, is provided with docks for the reception of the largest vessels. Besides the foreign, coasting, and Irish shipping trade, the manufactures of glass, earthenware, sugar, leather, and other articles, are very extensive. It has an unusual proportion of public buildings, schools, hospitals, almshouses, and other charities, with a cathedral, and perhaps the finest parish church in the kingdom in that of St Mary Redcliffe. Sebastian Cabot, Chatterton, and Southey were natives. The city has a circuit of nearly ten miles including the suburbs, the most important of which, Clifton, seated on high rocky ground, as the name imports, forms a delightful retreat for the wealthy inhabitants, and attracts many visitors owing to its thermal waters, genial climate, and romantic situation. A chasm in the

rocks, 250 feet deep, 600 feet wide, through which the Avon flows on its way from Bristol to the Channel, is a very striking natural gorge, whether viewed from above or below, now in process of being spanned by the Hungerford Suspension-bridge, removed from London. *Cheltenham*, styled the 'Queen of Watering Places,' combines many advantages to vindicate the distinction. Seated at the base of the Cotswold Hills, it is sheltered from the cold winds, possesses highly-valued medicinal springs, has lovely environs, and intermingles the charms of rural scenery with elegant town architecture, noble trees being promiscuously distributed, or arranged in fine avenues, in connection with the streets, squares, and villas. *Stroud*, among



Bristol.

the declivities of the Cotswolds, is a central seat of the fine cloth manufacture, originally planted there owing to the excellent fleeces obtained from the local breeds of sheep, and the numerous streams of pure water available for purifying and dyeing purposes. *Tewkesbury*, at the confluence of the Upper Avon with the Severn, was the scene of a decisive battle in 1471, which firmly placed Edward IV. upon the throne, and has several monuments in memory of persons slain in the action in its parish church, a remarkably fine old structure.

IV. EASTERN COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
Lincolnshire,	2776	Lincoln, Boston, Louth, Grimsby, Stamford.
Cambridgeshire,	819	Cambridge, Wisbeach, Ely, Newmarket.
Norfolk,	2116	Norwich, Yarmouth, Lynn, Wymondham.
Suffolk,	1481	Ipswich, Bury St Edmonds, Lowestoft.
Essex,	1657	Chelmsford, Colchester, Harwich.

LINCOLNSHIRE, the second of the English counties in point of size, is a maritime district extending from the Humber to the Wash, and stretching inland to the Trent, which, after serving as a border-line, enters within its limits to terminate its course. But the Witham is locally the most important river, as nearly the whole of its flow of seventy

miles is in the county, while the navigation is connected with that of the Trent by the Foss Dyke, a work begun by the Romans, intended to answer the purpose of a canal and drain. With the exception of some chalk-downs on the north-eastern side, or the Wolds, and a ridge interior to them running north and south, known in one part of its course as Lincoln Heath, the surface is an uninterrupted plain, naturally exposed to inundation from the sea, being below its level, and to flooding from the streams, owing to the want of a sufficient outfall. The southerly portion of this tract once consisted of 'melancholy fens,' where shallow waters abounded in every direction, loading the air with fog, and afflicting the inhabitants with ague; but by scientific engineering at an immense cost, pools, marshes, and quagmires have been converted into dry and solid land, clothed with luxuriant grasses, or waving with golden harvests. The richness of the pastures renders grazing husbandry prominent.

Lincoln, on the banks of the Witham, occupies the base, slope, and summit of an eminence, on which stands the cathedral, one of the noblest in the kingdom, visible from afar over the level of the fen-country. Fuller remarks that the floor of this church is higher than the tops of most other churches. The west front is superb, and the stained glass and sculptured figures are among the very best examples of Early English art. As a place of importance under the Romans, the city retains a monument of their urban architecture in the semicircular arch of Newport Gate, which forms the entrance to it by the old north road. There are also very interesting mediæval remains. Various manufactures are now carried on, and horse, sheep, and cattle fairs of great magnitude are held. *Boston*, a considerable port on the same stream, a little above its outlet in the Wash, is distinguished by a very lofty and finely-proportioned church-steeple, which serves as a landmark to seamen on the adjoining waters, and is surmounted by an elegant octagonal lantern, apparently intended to be lighted up at night. Some of the early settlers in America, having belonged to this town, gave its name to the place founded near the point of their landing, now Boston, the large and opulent capital of Massachusetts. *Grimsbly*, an old port at the mouth of the Humber, after long decay, has been revived by the construction of convenient docks, and the extension of railway communication to it, by which means cargoes of fish from the North Sea are quickly conveyed to metropolitan and other distant markets. *Louth*, *Stanford*, *Spalding*, *Grantham*, and *Gainsborough*, are inland towns of local trade, with the exception of the latter, which shares in the important navigation of the Trent. Lincolnshire produced Sir Isaac Newton, born at Woolsthorpe manor-house, near Grantham—a cottage-like tenement, preserved as a venerated relic by the present owner. In the town the great philosopher is commemorated by a monument inaugurated by Lord Brougham. The two Wesleys were natives of Epworth, a small unimportant place to the north-west of Gainsborough. On Lincoln Heath, now a highly-cultivated district, a singular memorial remains of a by-gone condition, in Dunston Pillar. It was erected to serve the purpose of a light-house to guide the traveller at night through the sloughs of the trackless waste—the only land light-house that was ever raised.

CAMBRIDGESHIRE, wholly inland, but closely approaching the shores of the Wash, is crossed by the Ouse near its centre, running from west to north-east, and is divided by it generally into two naturally distinct districts. North of the river, the country belongs to the fen-region, and retains its old name, that of the Isle of Ely, where the few rising-grounds were once completely insulated by tracts of water, nearly the whole of which have been reclaimed for cultivation by artificial draining. The southern division is cretaceous, and has some grassy chalk-downs occasionally swelling into hills.

Cambridge, the seat of one of the two ancient universities of England, derives its name from the Cam, an affluent of the Ouse, on which it is placed. Occupying a very level site, with tall trees surrounding the principal buildings, its importance is not indicated by external appearances to the approaching visitor. Seventeen colleges compose the illustrious academical institution, with which the names of Erasmus, Bacon, Coke, Milton, Cowley, Newton, Barrow, Dryden, are imperishably associated. St Peter's, the oldest, dates from the year 1257. King's College possesses the distinguishing architectural feature in its glorious chapel. Trinity College, the largest and most eminent, entertains the sovereign during a royal visit. An observatory of recent origin occupies a gentle eminence out of the town, commanding a good north and south horizon. It boasts the great telescope of nearly twelve inches aperture, and twenty feet focal length, executed by M. Canchoix of Paris, and presented by the Duke of Northumberland. The Fitzwilliam Museum, equally modern, owes its origin to the noble whose name it bears, and is one of the most classical structures in the country. *Ely*, a small episcopal city on the Ouse, is of early date as an ecclesiastical site. Some lines attributed to Canute, but probably composed about him, and not older in their present form than the

thirteenth century, mention the delight with which he listened to the chanting of the monks while on the adjoining river :

‘Merrily (sweetly) sung the monks in Ely,
When Canute the king rowed thereby;
“Row, ye knights, near the land,
And let us hear these monks’ song.”’

The cathedral is the longest Gothic church not only in England but in Europe, 535 feet, though several cover much more ground. It is of special interest and value to architectural students, from presenting an



Cambridge.

unbroken series of the various styles prevalent from the Early Norman to the Late Perpendicular, so nicely blended as to form a singularly noble whole. *Wisbeach*, a well-built old town on the *Nen*, possesses a museum of natural history and antiquities, in which are many objects found in the peat of the fens, as canoes, hatchets, and bronze swords, relics of the ancient Britons, with Roman remains.

NORFOLK, a maritime county, the fourth in point of extent, has a coast-line running eastward from the Wash, and then gradually curving to the south till it meets the Suffolk border. The two districts originally formed northern and southern divisions of the kingdom of the East Angles, who were called the North-folk and the South-folk, whence the present names. The *Ouse*, which has its lower course on the western side of the county, and the *Yare*, flowing from the centre to the east coast, are the principal rivers. Except some slight swells and depressions in limited spaces, the surface is flat, in many parts a dead level, without any prepossessing natural features, but exhibits on every hand that careful cultivation which has rendered it celebrated for successful agriculture. Besides the cereals, chiefly barley and green crops, vast quantities of turkeys and other poultry are reared for the markets of the metropolis.

Norwich, the capital of the eastern counties, and a bishop's see, stands on the *Wensum*, immediately above its junction with the *Yare*, and has an agreeable appearance from being interspersed with large spaces planted with trees, or cultivated as gardens. Its cathedral, outwardly meagre of embellishment, is of huge size, with a very lofty tower and spire. In the centre of the city, on a considerable eminence, the massive keep of the old castle remains externally entire, and is an impressive object both in the near and distant view. The manufactures are very extensive, consisting of shawls, crapes, bombazines, damasks, and



City of Norwich.

imitations of French fabrics, to which that of shoes has recently been added. The staple industry was established by immigrant Flemings, some of whom settled at *Worstead*, a neighbouring village, and hence the name of 'worsted' goods, first applied to their products. *Yarmouth*, on a slip of land between the *Yare* and the sea, has the river for its harbour, along which the quay stretches upwards of a mile in length. It is the principal seat of the English herring-fishery, which it formerly almost entirely monopolised. The fishing-ground extends upwards of forty miles to seaward, in from fifteen to twenty fathoms water, along a considerable range of the east coast. In the early part of the season, which commences in September, large quantities of herrings are disposed of fresh, and are sent far inland by the railways. But the main object is to obtain a supply for curing. The full-grown fish, which have not been injured by the nets, are selected from a cargo to form the well-known 'bloaters,' which are simply salted, while the rest are cured as red herrings by being salted and smoked. Off the town, parallel to the shore, extensive sand-banks form *Yarmouth Roads* in the intervening channel, which offer a natural harbour of refuge to vessels in distress. *Lynn*, on the *Ouse*, a few miles from its outlet, besides a general shipping trade, exports the fine siliceous sand suitable for glass-making, obtained from a district of some extent in the vicinity. *Sandringham Hall*, the hunting-seat of the Prince of Wales, is eight miles distant on the east. *Wymondham*, *Thetford*, and *East Dereham*, are the other chief market-towns, the latter containing the grave of *Cowper*. *Cromer*, the principal sea-bathing place, picturesquely situated, is without a harbour, and overlooks a bay so dangerous as to have acquired the name of the *Devil's Throat*. The village of *Burnham Thorpe* is distinguished as the native place of *Lord Nelson*, who is commemorated by a beautiful and lofty column at *Yarmouth*.

SUFFOLK extends southward from the Yare on the Norfolk border to the Stour, which defines the boundary from Essex, intermediate to which are the Deben and the Orwell, the latter forming a broad estuary navigable by vessels of considerable burden. The coast-line is remarkable at various points for the rapid manner in which the sea undermines the low cliffs, consisting of alternations of clay, sand, and gravel, and makes havoc with the shores. No high grounds anywhere mark the surface, and varied features are only occasionally met with, but the tameness of the landscape is generally relieved by skillful cultivation and luxuriant verdure. Tillage husbandry is most extensively pursued, and very rich crops are obtained.

The county possesses a valuable breed of horses for farm-service, short, active, and strong, adapted for heavy as well as light work; and its cows are famed for the extraordinary quantity of milk they yield. Suffolk, according to ancient local proverbs, is renowned for its milk, its maids, and its stiles. But of one product of the former made for domestic use, it has been said that, by having a hole bored through the centre, a cheese would become a good grindstone. The rural poet, Bloomfield, a native, attributes to this article the common properties of a post—

‘Too big to swallow, and too hard to bite.’

Ipswich, the site of a very extensive manufacture of agricultural implements, is on a gentle elevation rising up from the Orwell, the banks of which are well wooded, and abound with pleasing views. Cardinal Wolsey, born here in the parish of St Nicholas, commenced a college in the place of his nativity, but it fell with its founder. *Bury St Edmunds*, in the western division of the county, a very agreeable and interesting town, with excellent free schools, was once an ecclesiastical shrine of great celebrity, the site of one of the largest and wealthiest abbeys in the country, fine remains of which are extant. It was founded in honour of Edmund the Martyr, one of the kings of East Anglia, who was crowned at the spot. Before the high-altar, the confederate barons singly bound themselves by oath to compel King John to grant the Great Charter. *Lowestoft*, on the coast towards the northern border, the most easterly town in England, has become by modern improvements a bathing-place, and has trading communication with the opposite continental ports of Holland and Denmark. The herring-fishery is a principal pursuit, with that of mackerel, large quantities of which are sent to London. *Aldborough*, further south, the birthplace of Crabbe, the poetical painter of real life, is at one of those points of the shore which suffer from the encroachments of the sea. The old borough stood some distance eastward of its present representative, and twenty-four feet of water roll over its site. This is the case also with ancient Dunwich adjoining, once a parliamentary borough, with twelve churches, the seat of the first East Anglian bishopric. Almost every remnant of it has been engulfed; and but for the inhabitants retreating inland, and forming a village, the name itself would not now represent a single dwelling.

ESSEX, a continuation of the great eastern level to the Thames, is low and marshy in its maritime districts, but more inland, a pleasant alternation of gentle hill and dale is general. Several islands lie close off-shore, among which Canvey, Mersea, and Foulness are fertile and of some extent. Besides the Thames, Stour, and Lea, which are boundary rivers, the county contains the Colne, Blackwater, and Chelmer, forming considerable estuaries. The marsh-lands are excellent grazing-grounds; heavy crops of corn of the finest quality are yielded in the other districts; caraway and coriander seeds are raised; the teasle, or fuller's thistle, is also cultivated for the woollen cloth manufacture, though not to the same extent as formerly; and the saffron-yielding crocus is grown, the culture of which near the town of Saffron-Walden originated the name. Fine woodland scenery distinguishes the south-western division, the locality of Epping and Hainault forests, towards which the suburbs of the metropolis are rapidly advancing.

Chelmsford, in a beautiful valley between the Chelmer and the Cann, which here unite, has only local consequence as the county-town and an agricultural mart. *Colchester*, far larger, a few miles above the mouth of the Colne, has a coasting trade, and an oyster fishery in which a considerable number of the inhabitants are engaged. The oysters are bred in the estuaries of the rivers, and in the creeks between the islands and the main shore. The town is supposed to occupy the site of the Roman colony of *Camelodunum*, and very numerous antiquities have been gleaned from it. It was taken after a long siege by Fairfax in 1648, when one of the most melancholy episodes of the Civil War occurred—the military execution of the two royalist commanders, Sir Charles Lucas and Sir George Lisle. *Harwich*, on the coast, at the mouth of the

Stour, has one of the best harbours on the whole eastern sea-board, and is the only place between Yarmouth Roads and the Thames capable of affording refuge to vessels in easterly gales. It is now chiefly visited for sea-bathing, but was formerly a flourishing port, and the ordinary point of passage between England and the Netherlands. *Walton-on-the-Naze*, near the headland after which it is distinguished, and *Southend*, at the mouth of the Thames, are favourite summer resorts with metropolitans and provincials. Small towns are very numerous inland, and there are several villages of great interest. The little secluded hamlet of Greenstead, near Ongar, has a church the nave of which is of wood, worn by time and black with age, believed to be the genuine relic of an Anglo-Saxon wooden chapel. One of the very few round churches in England, after the model of that of the Holy Sepulchre at Jerusalem, is at Little Maplestead, built by the Knights-Hospitallers, the same as when it was erected, except the addition of a porch. Tilbury Fort, now a regular fortification, on the Thames opposite Gravesend, marks the site where Queen Elizabeth reviewed her troops in expectation of the arrival of the Spanish Armada.

V. SOUTH-MIDLAND COUNTIES.

	Area in Square Miles.	Principal Towns.
Worcestershire,	738	Worcester, Dudley, Kidderminster.
Warwickshire,	881	Warwick, Birmingham, Coventry, Leamington.
Northamptonshire,	985	Northampton, Peterborough, Wellingborough.
Huntingdonshire,	361	Huntingdon, St Ives, St Neots.
Bedfordshire,	462	Bedford, Luton, Leighton.
Oxfordshire,	739	Oxford, Banbury, Woodstock.
Buckinghamshire,	730	Aylesbury, Wycombe, Great Marlow.
Hertfordshire,	611	Hertford, St Albans, Hemel-Hempstead.
Middlesex,	282	LONDON, Brentford, Enfield.

WORCESTERSHIRE, an inland district, belongs entirely to the basin of the Severn, by which it is traversed from north to south, nearly in the centre. It abounds with smiling



Worcester Cathedral.

valleys, and richly-wooded landscapes, overlooked on the western side by the fine eminences of the Malvern Hills. The county contains coal in the extreme north; and salt is made extensively from brine-springs at Droitwich, where the salt-pans have sent up their clouds of white vapour from the time of the Romans, who extracted heaps of the snowy mineral from the saliferous waters. In addition to the ordinary products of tillage, hops are largely cultivated, with apples and pears for cider and perry.

Worcester, an episcopal city, on the eastern side of the Severn, is the chief mart for the agricultural produce, and has manufactures of gloves and porcelain. The cathedral, externally a plain building, makes nevertheless a pleasing impression, being spacious and of light architecture, crowned at almost every angle with spire-like pinnacles. It contains the tomb of the inglorious King John. The battle of Worcester, in which Cromwell defeated the forces of Charles II., was fought partly in the south-eastern meadows, and in the streets of the city. Previous to the action, the king stood upon the roof of the cathedral to view the hostile preparations. *Dudley*, the largest town, occupies a detached portion of the county, wholly within the limits of South Staffordshire, and is prominent in that wonderful scene of activity, a principal centre of coal-mines and ironworks. But it possesses a very striking feature. Close to the town rises a somewhat lofty limestone hill, crowned by the remains of a feudal fortress, consisting of the keep, with fragments of walls, doors, and windows, partly surrounding a green, once the great courtyard, while clumps of trees clothe the hillside. The whole is enclosed for a protective purpose, but admission is granted to all visitors; and the contrast is striking in the extreme, turning from the smoking furnaces without to the sylvan solitude and the feudal relics within. *Kidderminster*, a principal seat of Brussels carpet-weaving, with tapestry and other fabrics, is in the northern section of the county, which includes *Bromsgrove* and *Stourbridge*, where various hardwares are produced. The large village of *Redditch* and its vicinity chiefly supply the domestic demand for needles, with an immense quantity for export, a manufacture in which young women are extensively employed. The total production in the district of these minute articles of convenience is estimated at 70,000,000 per week. *Evesham*, in the opposite section of the county, on the south-eastern border, is seated in a fertile valley, nearly encircled by the Avon, and surrounded by gardens, from which fruit and vegetables are sent to the great centres of population. The bell-tower remains of a once famous abbey, in possession of princely revenues, with some of the outbuildings. On the adjoining plain the battle was fought in 1265, which restored Henry III. to the throne, and proved fatal to his opponent, Simon de Montfort, the 'Sir Simon the Righteous' of the common people, and the real founder of popular representation. *Great Malvern*, on the south-western side, the head-quarters of hydropathy, is beautifully situated at the foot of the Worcestershire Beacon, the summit of which rises to the height of 1300 feet, overlooks a magnificent prospect, and is daily ascended by the summer visitors to the place. Two springs, *St Anne's* and the *Holy Well*, are distinguished by the extreme purity of their waters.

WARWICKSHIRE, to the eastward, while without any marked inequality of the surface, is diversified in almost all parts, and picturesque in some, watered by affluents of the Trent in the north, but chiefly by the Avon and its tributaries flowing to the Severn. In ancient times, it was comprehended in the great forest of Arden, and still retains abundance of fine timber both in hedgerows and plantations. A small but valuable coal-field lies within its limits, passing into Staffordshire. On the south-eastern side, where the Edge Hills form the border from Oxfordshire, the first battle between the king and the parliament was fought in the reign of Charles I. A plain, then known as the Vale of the Red Horse, on the Warwickshire side of the range, was the scene of the indecisive action, October 23, 1642. During the previous march of both armies through the county, the artisans of Birmingham refused to supply the royal troops with swords, but readily furnished them to the opposite party, while the blacksmiths left their homes to avoid shoeing the horses.

The town of *Warwick*, ancient and quiet, is seated on the right bank of the Avon. It has a striking feature in its old baronial castle, close to the river, still in perfect preservation, and the residence of the Earls of Warwick. The towers, the stream, the bridge, and fine trees around, form a very picturesque scene. *Leamington*, in the immediate vicinity, larger, fashionably arranged, and almost entirely modern, has been raised from obscurity by its mineral springs, twelve in number, consisting of the three varieties of saline, chalybeate, and sulphureous waters. A short excursion northward from both places leads to two memorable spots—the wooden knoll of Blacklow Hill, with its monumental stone, scene of the summary execution of Piers Gaveston by the barons in the time of Edward II.; and to Kenilworth, where splendid ivy-clad remains of castellated strength revive the memory of Queen Elizabeth, entertained within its walls, then standing in their pride, by her minion the Earl of Leicester. Further on in the same direction is *Coventry*, a city which shares a bishop's see with Lichfield, and was of high importance in the middle ages, long familiar with royal progresses and sacred pageants. Many narrow streets and overhanging timber houses remain as memorials of the past, with *St Mary's Hall*, now the town hall, of the time of Henry VI., and *St Michael's Church*, a master-piece of the lighter Gothic style. Few places have more frequently changed their industry. Under the Plantagenets, it was famous for caps and bonnets; under the Tudors, for woollen broadcloths, and a blue thread so celebrated for its permanent dye, that 'true as Coventry blue' became a proverbial expression; next followed the production of tammies, camlets, shalloons, and

calimancoes; then succeeded broad silks and ribbons, which last remains, in connection with watch-making. The county contains *Rugby*, a centre of railways, the seat of a popular and richly-endowed school; and *Stratford-upon-Avon*, revered as the birthplace of Shakspeare. But its consequence is mainly derived from *Birmingham*, the third of the provincial towns in population. This capital of the midlands is situated near the north-western border, towards the centre of England, on an insignificant stream, a sub-tributary of the Trent. It is the greatest seat of hardware production in the world, embracing articles remarkable for their diversity and discordance, the massive and the minute, the costly and the cheap, the domestic and the warlike, the ornamental and the useful, made of gold, silver, iron, copper, or a compound of metals, with plated and japanned wares. The premises of the largest firms are like villages for extent; their workmen are of the superior class as to habits and intelligence; and their show-rooms are wondrous repositories of beautiful objects. The manufacture of firearms was first introduced in the reign of William III., for whom some infantry muskets were made. During the Crimean war, three thousand Minié rifles were supplied to the government weekly, with the same number of bayonets. Priestley the philosopher, Hutton the historian, and Watt the improver of the steam-engine, were long associated with the town. Birmingham has no advantages of position and few attractive features, but it was one of the first places in the provinces to erect a civic building worthy of its own wealth and enterprise, adapted for corporate purposes, and the holding of large assemblies. This is essentially in the form of a classical temple, with ranges of majestic Corinthian columns along the sides and fronts; and being well placed, it is a very striking object. The free grammar-school, in the Tudor style, is also a beautiful structure; and a public park is a modern addition.

NORTHAMPTONSHIRE borders on the preceding county, and also on eight others, owing to its extent and irregular shape, which is narrow and elongated. It contains a succession of smooth waving hills and vales, amply watered, with the remnants of three ancient forests, Whittlebury, Salcey, and Rockingham. But the ground generally is elevated, and hence while streams are sent out into adjoining districts, none whatever are received from them. The highest land is on the north-western side, and forms the line of water-shed between the basins of opposite seas. Here, in the parish of Naseby, rises one branch of the Nen, the principal river, flowing to the Wash; and in the garden of the little inn opposite the village church is the source of the Avon, which descends to the Bristol Channel.

The field of Naseby, once a moor, now distributed into farms, was the scene of the decisive battle in which the royalists were defeated by Fairfax and Cromwell, and the cause of Charles I. received a blow from which it never recovered. He was soon afterwards a captive at Holdenby House in the county. While under tillage to a considerable extent, the greater part of the surface consists of luxuriant grass-lands. *Northampton*, pleasantly situated on the north bank of the Nen, has the boot and shoe manufacture for its staple, an industry shared to some extent by Wellingborough, Kettering, Daventry, and contiguous villages, giving employment to not less than 30,000 persons. Large orders are executed for the government and foreign export. The trade has here been localised for many centuries. When Cromwell's soldiers marched through the place nearly barefoot, the citizens were able to furnish them with fifteen hundred pairs of shoes. Further back, King John here bought his boots at a shilling a pair, and his slippers for sixpence. Fuller remarks, that 'the town of Northampton may be said to stand chiefly on other men's legs, where, if not the best, the most and cheapest boots and stockings are bought in England.' The stocking manufacture has ceased. Northampton contains an interesting example of the Norman style in St Peter's Church, and one of the round churches in St Sepulchre's, built by the Knights-Templars, with a few vestiges of the castle. There are large open grounds for recreation, and an extensive promenade between rows of lime-trees. The town was long the residence of Dr Doddridge, and for a brief period of Akenside and Colonel Gardiner. It is historically known as the scene of Thomas-à-Becket's final breach with the first Plantagenet, and has a spring called Becket's Well, from a tradition that he there knelt down to pray on escaping by night from the walls. A mile to the south, stands one of the beautiful crosses, the most perfect remaining, erected by Edward I. in honour of his queen Eleanor. In the meadows along the river, the Yorkists triumphed over the Lancastrians, in a battle fatal to numbers of the nobility. *Peterborough*, a small episcopal city, towards the north extremity of the county, possesses a noble object in its cathedral, charmingly secluded in a green close, with garden-flowers and shrubberies around it. The structure is remarkable for its massiveness, and has a west front unlike any other in the kingdom, and unequalled for simple grandeur and majestic beauty. It contains the tomb of Catherine of Aragon, and afforded a grave to Mary Queen, of Scots prior to the removal of her remains to Westminster. The same sexton officiated at the funerals of these two queens, though half a century intervened between them. His portrait hangs near the western entrance of the cathedral, representing him with the emblems of his vocation—a bunch of keys, a spade, a pickaxe, and a skull. In the southern division of the county are two costly and difficult works, a cutting and a tunnel, on the line of the London and North-Western Railway. The Blisworth cutting passes through limestone nearly as hard

as flint, with soft strata above and below. Where the excavation is confined to the limestone, the rock forms complete natural walls on both sides; but where it descends to the underlying blue shale, a portion of this had to be scooped out and replaced with artificial walls, continuing the natural ones to the required depth. Upwards of 800 labourers, aided by horse and steam power, were employed upon this work; more than 1,000,000 cubic yards of material were removed; 3000 barrels of gunpowder were used in blasting; and about £250,000 expended. The Kilsby tunnel, upwards of a mile and a quarter long, passes through shale of the lower oolite. But in the process of excavation, an extensive quicksand was tapped, practically a subterranean lake, from which the water poured out in apparently exhaustless quantities. Thirteen steam-engines, 200 horses, 1250 men, were engaged in carrying it off, which required eight months to be effected, though the drainage was conducted night and day, at the rate of 1800 gallons per minute. Two years and a half were occupied in completing the tunnel, at the cost of about £300,000. Thirty-six millions of bricks were consumed in the lining, which would nearly make a footpath a yard wide from London to Aberdeen.

HUNTINGDONSHIRE, of very limited extent, wholly agricultural, belongs partly to the level of the fens, and was the scene of the last great-work of drainage in that district in 1851, when the bed of Whittlesea-mere was laid dry. This was the largest English sheet of water apart from the lake district, two miles and a quarter long by one and a quarter broad, abounding with fish and aquatic fowl, much frequented by sporting-parties. It is now a succession of cornfields and pastures, intersected with hedges, and occupied with farm-buildings. Throughout the whole region of the Fens, both the flora and fauna have been largely affected by the removal of the surface-waters, and the reduction of spongy lands to firm ground. While reeds and sedge have given place to crops of corn, the wild-fowl they sheltered have been compelled to seek fresh nestling-places and feeding haunts. Curious birds found in solitary swamps are no longer met with. The edible frog, rare in England, but once common in this district, locally known as the 'Cambridgeshire nightingale' and the 'Whaddon organ,' from its musical croak, has become scarce; and the beautiful swallow-tailed butterfly, delighting in marshes, is a somewhat rare object.

Huntingdon, on the Ouse, and the line of the Great Northern Railway, consists of a single principal street, and is distinguished as the birthplace of Oliver Cromwell. At *St Ives*, equally small, lower down on the same river, he was a resident farmer, and acquired the popular title of Lord of the Fens from some displays of public spirit relative to their improvement. *St Neots*, higher up the stream, has a considerable paper manufacture. The best, richest, and highest-priced cheese in the market, called *Stilton*, has the name from a village in this county. It was not originally made at the place, nor is it at present. But it acquired the name from travellers on the great north road becoming acquainted with its quality at the village inn, the landlord of which obtained it from a relative in North Leicestershire, the first and still the chief site of production.

BEDFORDSHIRE; but little more extensive, belongs mostly to the basin of the Ouse, which runs through it from west to east in a very tortuous manner, answering to the descriptive touches of Cowper, long a resident by its banks—'Ouse's silent tide,'

'Slow winding through a level plain
Of spacious meads with cattle sprinkled o'er.'

and fringed with flags and reeds. Chalk-hills vary the southern part of the county, and oolitic strata compose the surface in the northern. Between the two, there is a belt of iron-sand interposed, running from south-west to north-east, varying from one to five miles in breadth. This sandy tract is specially adapted for horticultural purposes, and on it, as well as the adjacent chalky soils, culinary vegetables are raised for the metropolitan and other markets.

Bedford occupies both banks of the Ouse, and attracts residents of moderate means for the educational term and permanently, owing to the advantages offered by excellent free-schools, with which other important benefactions are connected. The original endowment by Sir William Harpur, about three centuries ago, now yields a very large annual income, as it consists of land in the very heart of London. The schools, preparatory, commercial, and others, are included in a building in the Tudor style, and have exhibitions to the universities. The other charities comprise donations on going out to service, at the commencement and close of apprenticeship, with marriage-portions, almshouses, a hospital for poor children, and

miscellaneous distributions. Two imperishable names are associated with the town, John Bunyan—the author of the *Pilgrim's Progress*, who here lived, preached, and was imprisoned, many relics of whom are preserved—and John Howard, the philanthropist, whose seat was in the immediate neighbourhood. The Bedford Catalogue is a valuable and bulky record of observations of the stars made by Admiral Smyth at his private observatory while a resident. *Luton*, on the river Lea, near its source, is the principal seat of the straw-plait manufacture, in which a large number of females are engaged, both preparing the material and working it up into hats and bonnets. Besides the native wheat-straw and other grasses, confined to inferior articles for the humbler classes, Italian straw is imported, and Italian modes of treating it are adopted. *Dunstable*, in the centre of the chalk-hills, shares this branch of industry, and is noted also for the great quantities of larks taken in the vicinity, of large size, which are sent to the London market. The production of straw-plait, requiring no machinery, prevails extensively among the rural population of the county, and can be pursued in fine weather out of doors, while the younger members of families are competent to the work.

OXFORDSHIRE has the Thames for its frontier on the south, to which the general drainage of the surface is conducted by the Cherwell, the Isis, and other streams. The chalk-range of the Chiltern Hills, richly wooded, diversifies the south-eastern portion of the county, while on the north-western border rise the Edge Hills, belonging to the lias formation. Passing from the one to the other, different members of the oolitic series appear, several of which have local names, as characteristic simply of the sites referred to, and not confined to them. The Oxford clay, prominent in the valley of the Isis, generally of a deep-blue colour, is met with in the fenny districts of Lincolnshire, where it is known as the fen-clay, and has been bored through to the depth of 500 feet at Boston in sinking for water. Stonesfield slate, used for roofing, forms the hilly sides of a valley, near a village of the name in the county, and is of singular interest on account of its fossils, comprising land plants, insects, reptiles, and marsupial animals. From Wychwood Forest on the western side, still a wooded tract of some extent, the forest marble is obtained, a fissile limestone, often a congeries of dark-coloured shells susceptible of being polished. The great oolite or Bath stone is quarried near Burford, and the small old town is entirely built of it.

Oxford, a cathedral city, and the seat of one of the most celebrated universities in the world, is situated on an acclivity between the Cherwell and Isis, at the confluence of the streams, and but a short distance from the Thames. Towers, spires, turrets, and domes, intermingled with masses of foliage, render its appearance in the highest degree attractive from the surrounding meadows; and its principal thoroughfare, the High Street, long, broad, and gently curving, fronted by noble structures, with several quaint old houses and modern shops between them, is one of the finest in Europe. The university consists of nineteen colleges and five halls, many of them very magnificent buildings, in possession of charming seclusions. Merton College, the oldest, dates from the year 1267. Christ-church, the most extensive and splendid, furnishes the see with a cathedral in its private chapel; but St Mary's, in the High Street, is the university church, conspicuous from its richly-decorated tower and graceful spire. The establishments belonging to the general body of the university are important features of the city. They include the Bodleian Library, rich in books and manuscripts; the Radcliffe Library, a noble edifice; the Radcliffe Observatory, in the northern suburb; the Theatre, in which great meetings of the gowmsmen are held; the Clarendon, used for offices and lecture-rooms; the Public Schools, devoted to the examination of candidates for degrees; the Taylor and Randolph Institutes, founded for the exhibition of works of art and the teaching of modern languages, associated in a stately pile; the Botanic Garden, one of the oldest of the kind; and the Museum, containing the specimens of geology and mineralogy collected by Dr Buckland during his professorship. The Martyrs' Memorial, an elegant monument, erected close to the church of St Mary Magdalene, and near the spot where Cranmer, Latimer, and Ridley perished in the flames, is a recent and interesting addition. Oxford has been the scene of many stirring incidents and important historical events, repeatedly the residence of the court and the seat of parliaments. *Woodstock*, seven miles distant, of ancient date, was the residence of Chaucer during a considerable portion of his life, and his house remained till the beginning of the last century. The town is often visited on account of the adjacent palace and grounds of Blenheim, the present of the nation to the first Duke of Marlborough, and the inheritance of his descendants. The town has a manufacture of gloves. *Banbury*, for more than two centuries, has given its name to a well-known article of confectionary. *Chipping Norton* and *Winey* produce flannels and coarse woollens.

BUCKINGHAMSHIRE, of very irregular shape, extends from the Thames on the south to

the Ouse in the north, and has the Chilterns running through it in the direction of north-east and south-west, with the rich and spacious vale of Aylesbury in the centre. The metropolis is largely supplied with dairy produce from its homesteads, to the extent of from four to five millions of pounds of butter annually, with a vast amount of poultry, especially ducks, which are bred in greater quantities than in any other part of the kingdom.

Though chiefly an agricultural district, various branches of manufacture are carried on. Wooden wares of different kinds are made of the fine timber of the hills, beeches and elms; paper-mills are numerous upon the streams; straw-plait is produced; and hand-made lace is an industry, but has become limited, since the composition of machine-lace reduced earnings to a miserable pittance. The county does not contain a single town of any considerable size, and is barren of monuments of antiquity. *Buckingham* simply gives its name to the shire, as all public business is transacted at *Aylesbury*, while the largest group of population is at *High Wycombe*. But there are many sites of great general and literary interest. At *Hampden House*, eight miles south of *Aylesbury*, in a beautiful seclusion, lived the patriot of that name, who was buried in the parish-church, but in a grave which has not been positively identified. The 'Queen's Gap' is the name of an avenue on one of the adjoining hills, which was cut through the woods to facilitate the progress of Queen Elizabeth, while on a visit to one of *Hampden's* ancestors. At *Chalfont St Giles* the *Paradise Lost* of Milton was finished and the *Paradise Regained* begun. *Beaconsfield* possesses the remains of Waller the poet and Burke the statesman. The churchyard of Gray's *Elegy*, with the 'ivy-mantled tower,' the 'rugged elms,' and the 'yew-trees' shade,' where

'The rude forefathers of the hamlet sleep,'

is at *Stoke Pogis*, towards the southern verge of the county, where the poet also has his resting-place. At *Olney*, on the northern border, Cowper spent the greater part of his days, and versified for all generations. *Wolverton*, in this part of the county, on a site desolate within the memory of the living, has become a considerable township, and is in process of rapid extension, owing to the factories of the North-Western Railway Company. *Eton*, on the Thames, opposite Windsor, is celebrated for its college, founded by Henry VI., the highest in rank of the great public schools, where many of the upper classes receive their education before proceeding to the universities.

HERTFORDSHIRE, one of the smaller counties, immediately north of Middlesex, is chiefly a chalk district, well watered and timbered, with a great number of private mansions and ornamental plantations distributed over the surface. It contributes to the water-supply of the metropolis by means of the New River, constructed in the time of Charles I., the head springs of which are within its bounds. The principal stream, the Lea, after flowing through the centre from west to east, forms the boundary from Essex, and discharges into the Thames near the East India Docks. Paper-making has long been a distinguishing feature of its industry, and was certainly established in the county by the close of the fifteenth century. In a book of the date of 1495, by Wynkyn de Worde, mention is made of a paper-mill near Stevenage belonging to John Tate the younger. Both the mill and the person are named in Henry VII.'s *Household Book*. About the commencement of the present century, the machine for the manufacture of continuous paper was brought to perfection by the brothers Fourdrinier at their mill at Two Waters.

Hertford, a small, neat, and clean-looking town, on the banks of the Lea, is the county town, contains a blue-coat school, a branch of Christ's Hospital, and once possessed a castle in which two sovereigns were held in durance together, John of France and David of Scotland, in the reign of Edward III. *St Albans*, much more ancient, occupies an interesting site, close to that of the Roman Verulam, out of the ruins of which it arose. Its abbey church, part of a celebrated monastery made parochial at the Reformation, being on elevated ground, is an imposing object, with all the appearance of a cathedral. The tomb of Lord Bacon, who resided near the town, and derived his title from it, is in the church of St Michael. *St Albans* was the scene of the first battle fought during the Wars of the Roses, in 1455, in which the Lancastrians were defeated, and Henry VI., found concealed in the house of a tanner, was taken prisoner. A second battle at the same place in 1461, terminated to the disadvantage of the Yorkists. The town, a seat of the straw-plait trade, derives its name from St Alban, said to have been a native and a martyr in the Roman times, but on very doubtful authority. *Hemel Hempstead*, with a similar industry, has the manufacture of paper for its staple, and some of the largest paper-mills in the country are in the neighbourhood. At *Tring*, on the North-Western Railway, the largest cutting on the line occurs, passing through chalk strata. It extends

nearly two miles and a half; has an average depth of forty feet, but in some places amounting to sixty; and 1,400,000 cubic yards of chalk were removed in forming it. Three bridges, each of three arches, with a smaller one, are thrown across the gap. *Cheshunt* was the retreat of Richard Cromwell under a feigned name, and the scene of his death in the reign of Queen Anne. The *Rye House* remains by the Lea, now an inn and fishing-place, but once connected with a real or pretended plot for the assassination of Charles II.

MIDDLESEX, of very inferior extent, but distinguished as the metropolitan site, extends along the Thames between the counties of Essex and Bucks, with a gently-varied surface—in some places it is a dead level; the exception being the heights at Hampstead, Highgate, and Harrow, which, however, have only a moderate elevation. Its prominent features are meadows and pastures, nurseries and market-gardens, some extensive commons, with the seats and grounds of resident gentry, a few small towns, besides the capital of England and of the British Empire.

London, the largest, wealthiest, and most populous city in the world, is seated in the south-eastern quarter of Middlesex, on the north bank of the Thames, about forty miles above its mouth. The centre of the dome of St Paul's is in latitude 51° 30' 48" north, and longitude 0° 5' 38" west of Greenwich. That portion to which the phrase, 'the city,' properly belongs, is only a fractional part of the area occupied by the metropolis, which extends on the same side of the river in every direction around it, and over sections of the counties of Surrey and Kent on the opposite bank. The space, densely packed with dwellings, warehouses, churches, edifices of various kinds, streets and squares, stretches more than seven miles east and west, by nearly six in the opposite direction, including a superficial extent of fifty square miles. But the London of the census commissioners, which embraces the suburbs from Hampstead to Norwood, from Hammersmith to Woolwich, with only trifling breaks in the lines of houses, occupies an area of more than 115 square miles, and contains a population now closely approaching to 3,000,000 in number. The name is derived from the Londinium of the Romans, mentioned by Tacitus about 61 A.D., as a chief mart of commerce, which is probably the Latinised form of *Llyn dun*, 'city or town by the waters,' belonging to an old British settlement on the spot. It did not become the capital during the Saxon age, a distinction enjoyed by Winchester, nor did it rise to the rank of being the undisputed metropolis of the realm till the dynasty of the Plantagenets ascended the throne. Its vast magnitude is entirely modern, for down to the seventeenth century it lagged behind Lisbon and Paris in population. London and Westminster long remained distinct cities, separated by the open country. In the reign of James II., Red Lion Square was a field, and the site of the British Museum was occupied by a suburban mansion.

The Tower, a foundation of the Norman conqueror, may be regarded as the original nucleus of the modern city, and is one of the principal memorials of the past. It occupies an area of twelve acres, near the centre of which rises the keep of the ancient fortress, a conspicuous object from the river, but so altered by repairs that scarcely a feature can be approximately called primitive. Besides its military purpose, it has been used as a palace and a prison, has possessed a mint and a menagerie, and is now an arsenal containing the regalia. Westminster Hall, built by William Rufus, and rebuilt of the same dimensions by Richard II., is one of the largest enclosed rooms in Europe without pillars. Westminster Abbey, a noble Gothic structure, dating from the time of Henry III., is a chief point of historical interest, as the scene of coronations and the mausoleum of kings, containing the honorary monuments of illustrious subjects, many of whom lie interred within its walls. Whitehall, of the time of James I., is the beautiful fragment of an unfinished palace, the first example of the purely Italian style of architecture introduced into the country. St Paul's Cathedral, erected after the great fire of 1666, is a grand temple in the Grecian style, rises to the height of 404 feet from the ground, and is hence a prime feature in the view from various suburban elevations. Among other edifices worthy of notice may be mentioned, Somerset House, the Royal Exchange, the Bank, Mint, and Custom House, the British Museum, the Treasury, and the Houses of Parliament. The latter, a vast and magnificent pile in the Tudor Gothic, has a loftier square tower than any other structure, so elaborately embellished with chiseled kings and heraldic designs, as to be appropriately called a sculptured history of the nation—the 'monarchy in stone.'

While architecturally inferior to several continental capitals, having been built mainly to answer the purposes of commerce, London has the pre-eminence in many features. Its social conveniences are more complete, and involve substructions upon a gigantic scale for water-supply, gas-lighting, and sewerage, to which an underground railway is a recent addition, at present unique. The wealth in the shops is unparalleled, with the throng of passengers and vehicles in the streets, unceasing from the early dawn to late at night, and exhibiting a wonderful exemplification of orderly activity. The parks, numerous, extensive, and conveniently at hand, favoured by the climate, are freshly green through the summer, when the pastures of the continent are brown or ashy, parched with heat and drought; they excite the admiration of every foreigner. No city can present kindred places of agreeable suburban resort equal to the Zoological Gardens, Regent's Park, the Botanic Garden at Kew, and the Crystal Palace, while the highways across the river, Waterloo, Westminster, Southwark, and London bridges, are confessedly the finest structures of their

kind. The first named, with its level roadway, is deemed by many the most perfect bridge in the world, worth a journey from Rome to see it in the judgment of Canova, the great sculptor. But the highway under the river, or the Thames Tunnel, is commonly one of the first objects to which foreign visitors repair, as entirely unexampled. The Port of London, extending to Blackwall, with ranges of spacious docks and files of shipping on either hand, lines of wharfs and warehouses, in connection with intermediate traffic, exhibits a spectacle not to be witnessed elsewhere. In this part of its course, the Thames still retains the Saxon name of 'the Pool.' This was descriptive of its aspect in former times, that of a shallow expanse, spreading languidly without restraint to the hills which bound its basin, till changed by embankments into a deep and rapid stream. The charities of the metropolis are specially worthy of remark, as without precedent in their number, variety, and revenue. In 1861, they amounted to no less than 640 institutions, founded or supported by private benevolence, and enjoying an income of nearly £2,500,000 per annum. Estimated by three recent sales of sites in different districts, the value of land in central London may be reckoned at above £100,000 per acre. The roar of the metropolis, as heard by aeronauts in a balloon a mile above it, is a rich, deep, unceasing hum.

Brentford, the nominal capital of Middlesex, at the junction of the Brent with the Thames, is the place where the parliamentary elections for the county are held. *Staines*, lower down the river, marks the limit in that direction of the jurisdiction exercised over it by the corporation of London, and is supposed to derive its name from an ancient stone which defined the boundary. *Uxbridge*, towards the western border, is a considerable corn mart. *Enfield*, on the northern side, gives its name to rifles made at a great government factory in the vicinity. *Harrow*, on high ground rising out of a rich vale, is the seat of a public school, originally founded by a yeoman of the place for the poor, now chiefly a classical school for the sons of the nobility and gentry, the rival of Eton.

VI. SOUTHERN COUNTIES.

Area in Square Miles.	Principal Towns.
Kent, . . . 1,627 . . .	Maidstone, Canterbury, Rochester, Chatham, Greenwich, Dover.
Surrey, . . . 748 . . .	Guildford, Croydon, Richmond.
Sussex, . . . 1,458 . . .	Lewes, Brighton, Hastings, Chichester.
Hampshire, . . . 1,672 . . .	Winchester, Portsmouth, Southampton, Newport.
Berkshire, . . . 705 . . .	Reading, Windsor, Newbury.
Wiltshire, . . . 1,352 . . .	Salisbury, Trowbridge, Bradford, Devizes.
Dorsetshire, . . . 988 . . .	Dorchester, Weymouth, Poole, Bridport.
Somersetshire, . . . 1,636 . . .	Taunton, Bath, Bridgewater, Frome.
Devonshire, . . . 2,589 . . .	Exeter, Plymouth, Devonport, Tiverton, Barnstaple.
Cornwall, . . . 1,365 . . .	Bodmin, Truro, Penzance, Falmouth.

KENT, the south-east angle of England, has a northern, eastern, and southern coast-line, marked by the two high promontories of the North and South Forelands, with the flat projection of Dungeness. Off the east coast lie the Goodwin Sands, forming with the shore the well-known roadstead of the Downs. These sands are accumulated on blue clay and subjacent chalk. Left dry to a considerable extent at low water, they then become quite firm, so as to admit of a landing being made, but immediately loosen on the return of the tide. On the north coast, the Isle of Sheppey is separated from the mainland by a narrow branch of the Medway. But the Isle of Thanet, on the north-east, has entirely lost all appearance of insulation, though once detached by a ship channel, which is still traversed by the small stream of the Stour in one part, and reduced to a mere ditch in others. In the interior of the county, the surface has almost everywhere a very pleasing aspect, owing to the natural scenery originated by the chalk-range of the North Downs, which runs through it from west to east, added to its advanced agriculture. The principal river, the Medway, winds from the Sussex border to the north coast, and falls into the estuary of the Thames. Hops, linseed, canary-seed, cherries, filberts, and other fruits, are extensively cultivated.

Maidstone, the county town, centrally situated, is the chief seat of the hop trade, in which *Canterbury* also shares, while best known as the ecclesiastical capital of England, with an archbishop who ranks as the first peer of the realm after the blood-royal. The city, seated in the fertile vale of the Stour, surrounded with sylvan scenery, dates from ancient times, and has a cathedral with a very grand interior. It contains the tomb of the Black Prince in wonderful preservation, and is historically memorable as the scene of

Thomas-à-Becket's murder, whose shrine, still indicated, was annually visited by thousands of pilgrims previous to the Reformation, as Chaucer sings :

‘ And specially from every shire's end
Of Engle-land to Canterbury they wend.’

The more ancient buildings include the ruined monastery of St Augustine, and the church of St Martin, still used, built of Roman brick, one of the oldest in the country. *Rochester*, an episcopal city, and *Chatham*, a modern continuation of it, are on the east bank of the Medway, at the head of its estuary. The latter is an important military depôt and naval establishment, with which *Sheerness* corresponds, on the adjoining island of Sheppey, commanding the mouth both of the Medway and the Thames, and the station of a port-admiral. *Greenwich*, a metropolitan suburb, is distinguished by its palatial hospital for the reception of seamen, and the Royal Observatory, the astronomical capital of the kingdom, on an eminence in the park; with its neighbours, *Deptford*, on the one hand, the site of a dock-yard, and *Woolwich*, on the other, the greatest warlike establishment of the nation, it forms a single borough for parliamentary purposes. Gravesend, a river-port, Margate, Ramsgate, Deal, Dover, and Folkstone, seaports, are resorted to as bathing-places. *Dover*, a considerable town, and a place of great antiquity, is of importance as the advanced post of England towards the continent, to and from which there is constant passenger-traffic. The celebrated castle, on a lofty chalk-cliff which has been hollowed out for barracks and stores, is a very picturesque and striking object, consisting of extensive buildings which spread over nearly thirty acres, of various ages and styles, now tending to ruin. ‘Shakspeare's Cliff,’ a short distance from the town, scarcely answers to the description of the one in the tragedy of *Lear*, which suggested the name, but it has suffered from immense landslips, some of recent occurrence, sufficient to account for the discrepancy. The summit no longer ‘looks fearfully in the confined deep,’ but rather recedes, though still a ‘dizzy height,’ commanding a magnificent view. Dover has naturally very defective maritime accommodation, but operations are in progress by the government to run out a gigantic pier, in order to protect the present harbour from the shingle which accumulates at the mouth during westerly gales, as well as provide a port of refuge. *Folkstone*, six miles distant, is another point of regular communication with the continent. Between the two towns runs the South-Eastern Railway, by and through the magnificent range of chalk, which there forms a bold escarpment on the coast from 200 to 400 feet in height. The large headlands are tunnelled, the smaller were blown down, while the line is carried by cuttings through chaotic masses of undercliff, and on sea-walls over pebbly beaches in the little bays formed by the landward recession of the rocks. *Tunbridge Wells*, on the Sussex border, visited for its strongly chalybeate springs, to which the town owes its origin and prosperity, occupies a site once supposed to resemble that of Jerusalem, which led to the application of the names Mounts Ephriam and Zion to two of the hills.

SURREY, wholly inland, lies on the south bank of the Thames, and contributes to it the Wey and the Mole. The latter river has been honoured by the notice of Milton, but is somewhat misrepresented by him, as ‘the sullen Mole, that runneth underneath,’ as well as by Pope, ‘the sullen Mole, that hides his diving flood.’ In very dry summers the stream is simply absorbed in places by its porous bed, and becomes a series of detached ponds. The North Downs are the main diversities of the surface, and form the wild region on the western side, called the Hog's Back, where they contract to a single narrow ridge.

Owing to the vicinity of the metropolis, mansions and parks occupy a considerable area, with market-gardens and orchards, but there are extensive tracts of almost barren heath, where the lower green-sand of the cretaceous formation comes to the surface. This sand, though commonly loose, is occasionally formed into sandstone by a calcareous cement, and appears at the elevation of nearly a thousand feet, in Leith Hill, in the neighbourhood of Dorking. Hops are objects of cultivation, with a great variety of medicinal and aromatic plants, as chamomile, poppy, horehound, wormwood, anise-seed, peppermint, and lavender. The common box-tree flourishes vigorously, and originated the name of Boxhill. Fuller's-earth, in request in all the clothing districts, has been dug up for centuries near the village of Nutfield, which is still the principal source of supply. The county contains the metropolitan boroughs of Southwark and Lambeth, with several populous suburban districts, but the separate towns are of small extent, though numerous and of ancient date. *Guildford*, seated on the Wey, ranks as the county town, but shares the assizes with Croydon and Kingston. It has a striking appearance from hill and valley combining in the site, which is overlooked by the keep of the old castle. *Croydon*, much enlarged by railway-connection, and its convenient distance from the metropolis, contains, in its parish-church, many interesting monuments of the archbishops of Canterbury, who once occupied a palace in connection with it. The archiepiscopal provincial residence is now at Addiscombe in the vicinity. *Kingston*, on the Thames, frequently in association with royalty in the Saxon times, as the name imports, has increased from the like cause. *Richmond*, higher up the river, offers one of the finest views in the kingdom from the brow of its hill, and is a thoroughfare for excursionists to the

palace and grounds of Hampton Court. Ascending the stream, within the parish of Egham, the Thames flows by a justly-famous site, that of Runnymede, where the barons compelled King John to sign the Great Charter. A little isle in its channel bears the name of Magna Charta Island, but an adjacent meadow was the real scene of the transaction. *Epsom*, a few miles from Croydon, of horse-racing celebrity, has a mineral spring from which the well-known Epsom salts were at one time manufactured. *Dorking*, in the pleasant valley of the Mole, has a peculiar breed of highly-prized poultry, with five claws to each foot, believed to have been brought over by the Romans. *Reigate*, higher up on the same stream, stands on a bed of fine white sand, much used in the manufacture of glass. *Farnham*, towards the Hampshire border, is widely known for the superior quality of its hops. Some picturesque ruins of the castle remain, with which the principal official residence of the bishops of Winchester is connected. The proper orthography of the name is *Fernham*, in allusion to the adjoining fern-growing heathy districts.

SUSSEX, on the south coast, is varied by the chain of the South Downs, which runs westward from Beachy Head for some distance along the shore, then diverges inland, passing into Hampshire, interior to which is the Forest Ridge, scarcely less elevated, but more broken. Both ranges originate a repeated succession of hill and dale. The county belongs chiefly to the old district of the Weald, or woodland, which embraced the adjacent parts of Surrey and Kent, was once an almost unbroken forest, and still possesses sylvan glades for a distinctive feature. The chief rivers are the Rother, the Ouse, the Adur, and the Arun, all falling into the English Channel.

Pastoral husbandry prevails over tillage; argillaceous iron-ore abounds; and a limestone, largely composed of fresh-water shells, susceptible of high polish, is quarried, and was extensively employed in the middle ages for ornamental purposes. *Lewes*, on the Ouse, navigable for river-craft, has Newhaven, at the mouth, for its port, a starting-point for steamers across the Channel. Its name occurs in history as the scene of the battle in the reign of Henry III., which transferred all power for a time from the crown to the barons, and led to the first parliament on record, consisting of the three estates. *Brighton*, on the coast, an insignificant fishing-place in the last century, has rapidly become an important municipality, and a splendidly-built town, under the patronage of fashion—in fact, a miniature representation of the west end of London. A chain-pier, stretching nearly a quarter of a mile into the sea, of light construction, passes over the site of houses belonging to the old town, now covered by the waves. A carriage-road and promenade, one of the finest in existence, runs a mile and a half along the cliffs, with noble houses on the one hand, open to the sea-breeze on the other, supported by a magnificent marine wall. The visiting season is the autumn and early winter. *Hastings*, a trading port, but chiefly a watering-place, on the eastern part of the coast-line, occupies a picturesque locality in an interesting neighbourhood. Westward is Pevensey Bay, the landing-point of the Norman conqueror, and northward the small town of Battle, which has its name from the contest which placed the crown of England upon his head, commonly called the battle of Hastings. This town, with Winchelsea and Rye, in the county, and Romney, Hythe, Dover, and Sandwich, in Kent, have the name of the Cinque Ports, and were formerly of great maritime importance, invested by the crown with peculiar privileges, but under obligation to render certain services in time of war. Some of them have suffered from natural causes. Old Winchelsea was destroyed by an influx of the sea, and its successor has been changed into an inland town by the encroachment of the land upon the sea. The harbour of Rye, in which a sixty-four gun ship could once ride in safety, will now scarcely admit a vessel of 200 tons. Westward in succession from Brighton are several places more or less frequented for sea-bathing, as *Shoreham*, a port of some commercial consequence, near the outfall of the Adur; *Worthing*, protected from bleak winds by the adjoining hills, where figs are grown and ripen properly; *Littlehampton*, at the mouth of the Arun, with Arundel Castle a short distance inland, the residence of the Dukes of Norfolk; and *Bognor*, the site of complete memorials of an extensive Roman villa, with rich mosaic pavements and painted walls, the colours of which are identical in composition with those employed in the houses of Herculaneum and Pompeii. *Chichester*, a few miles from the shore, towards the western border, possesses a cathedral distinguished by five aisles in the interior, and a campanile or lofty detached bell-tower, features shared by no other structure of the kind in the kingdom. It was also the only cathedral in England visible from the sea, and a noted landmark to mariners, till tower and spire fell, February 21, 1861, after a night of terrific tempests. Collins, bard of the *Passions*, a native of the place, lies buried in St Andrew's Church. At Eartham, a neighbouring village, Hayley long resided, and gathered the notables of his day to his charming villa—Gibbon the historian, Romney the painter, Flaxman the sculptor, Howard the philanthropist, Charlotte Smith, Miss Seward, Hurdis, Warton, Cowper, and Mrs Unwin. The property passed from him by sale to Huskisson the statesman.

HAMPSHIRE embraces a central part of the coast of the channel, marked by the inlets of Langston Harbour, Portsmouth Harbour, and Southampton Water; and has an insular

adjunct in the beautiful Isle of Wight. The mainland, watered by the Itchin, Anton, and Avon, is traversed by both ranges of the North and South Downs, which are connected by a transverse ridge, and both have their highest points within its limits. Though fertile in many parts, there is a considerable extent of heathy and wild woodland surface. The New Forest, an interesting tract of about twelve square miles, lies between the shore of the Channel, of Southampton Water, and the banks of the Avon, in which the supposed spot where the Red King, William Rufus, met his death from a chance arrow while hunting, is marked by a monumental stone. This district, which still produces a large quantity of oak and beech timber for the navy, presents landscapes combining woody scenes with vast sweeps of wild country, and distant marine views. The ancient practice of feeding swine in the forest is allowed to the borderers during the 'pannage' month, which commences towards the close of September, and lasts for six weeks. Besides these seasonal visitors, there is a semi-wild race in the more solitary parts, with half-wild horses of shaggy exterior and small dimensions, fallow and red-deer.

Winchester, in a valley between chalk-hills on the Itchin, is an episcopal city of very early origin and historic note, where sovereigns have been born, crowned, and buried. But its consequence belongs almost entirely to the past. The cathedral is spacious and singularly interesting. An old collegiate institution, connected with Winchester College, Oxford, furnishes preparatory training for the university, and is



Winchester Cathedral.

celebrated for its *Dulce Domum*, a vacation chant, at least two centuries old. Romsey, Petersfield, Andover, and Basingstoke, are other inland towns. The important places are maritime. *Portsmouth*, the grand naval arsenal of the kingdom, strongly fortified, is on the eastern shore of an inlet, which furnishes a safe, deep, and capacious harbour. The town, and its suburb *Portsea*, included within the same lines of defence, *Southsea* adjoining, and *Gosport* on the opposite side of the inlet, form one cluster of population, arranged in four divisions. The dock-yard, covering the great space of 120 acres; the gun-wharf, devoted to the accumulation of naval ordnance; the Royal Clarence victualling-yard, an immense provision storehouse and biscuit manufactory; Haslar Hospital, for the reception of sick and disabled seamen and marines; Nelson's old ship the *Victory*, moored in the harbour and carefully preserved; and the *Excellent*, with its gunnery-practice, are the sights of interest. New batteries and fortifications are in progress to meet the requirements of modern warfare. Numerous vessels always at anchor at Spithead, or going in and out of harbour, with military parades, bands, and salutes, render Portsmouth a scene of great animation.

Southampton, near the head of the estuary which bears its name, consists of a new town grafted on the old, in consequence of its extended commerce. Though perfectly blended, the line of division is marked by one of the ancient gates, which is now nearly central, and crosses the principal street. The position of the town in relation to the metropolis and the Atlantic, with docks capable of receiving the largest vessels, has made it the chief packet station for the West Indies and the Mediterranean. It contains a branch of the ordnance department, at which the maps of the national survey are executed. A public park, called the Watts Park, in honour of Dr Isaac Watts, a native, with a statue of him, is a recent addition. *Lymington* and *Christchurch* are watering-places near the south coast, along with *Bournemouth*, in a valley directly on the shore, distinguished as 'the evergreen valley,' 'the winter-garden of England,' from its tall firs and pines overshadowing a rich growth of the arbutus and rhododendron.

The insular part of the county, the Isle of Wight, is separated from the mainland by the channel of the Solent and the roadstead of Spithead, about four miles in average width, but contracted to a very narrow passage on the western side, by the projection of Hurst Castle shingle-bar. The greatest extent of the island is twenty-three miles from east to west, by fourteen from north to south, with a circuit of nearly sixty miles. The name occurs as *Wecht* or *Wiht* in *Domesday-Book*, a corrupt contraction of the *Vectis* of the Romans. High cliffs haunted by sea-fowl; caves hollowed out in them by the dash of the ocean; detached rocks, some arched, others needle-shaped or fantastically moulded; narrow chasms, locally called 'chines,' descended by streams, and clothed with copse-wood, are features of the coast scenery, with the 'undercliff' region, a long strip of the shore remarkable for its widely-broken surface, evidently formed by subsidence from heights in the background. Towards the narrow western extremity, the cliffs are among the loftiest on the English shores, from many of which samphire is gathered. In this direction are the well-known Needles, isolated rocks projecting above the waves, with Alum Bay, which presents a very extraordinary spectacle of variegated colours, from the strata on its side being impregnated with oxide of iron. The island is well watered, chiefly by the Medina, which divides it into eastern and western portions. It is also cut into two nearly equal parts, northern and southern, by a chain of hills and downs. *Newport*, the principal town, occupies a central position in the pleasant valley of the Medina, encircled with fertile hills, and has an interesting object adjoining in the ruins of Carisbrook Castle, in which Charles I. was confined. Part of the chamber he occupied remains, with a grated window through which he made an unsuccessful attempt to escape. *Cowes*, at the mouth of the river, on both shores of the estuary, is distinguished as the head-quarters of the Royal Yacht Club. Eastward on the coast is Osborne House, the marine residence of the Queen, with strictly-secluded grounds, and *Ryde*, offering animated sea-views to its crowds of summer visitors. *Ventnor*, on the south-eastern coast-line, the capital of the Undercliff, mostly modern, is famed for the mildness of its winter climate, exquisite scenery, and rich vegetation, which embraces myrtles and hydrangeas of large size, with tree-like fuchsias and geraniums.

BERKSHIRE, an inland district, with the Thames for its northern border, belongs entirely to the basin of that river, to which it contributes the Kennet, the Ock, and the Loddon. The valleys traversed by these affluents are renowned for their fertility; but on the eastern side of the county there is a considerable extent of waste surface, combined with woodlands. This is the locality of Windsor Forest and the Bagshot Sands. One of the most productive tracts, the spacious vale of the White Horse, has its name from a colossal figure of the animal, the emblem of the Saxon race, carved on the side of a bordering chalk-hill by incision of the material. This rude memorial was a well-known object soon after the Norman Conquest, and is supposed to have been formed to commemorate King Alfred's victory over the Danes, fought in the neighbourhood. The inhabitants of the vale have an ancient custom of assembling to 'scour the horse,' by removing the grass which tends to obliterate the figure.

Reading, on the Kennet, has a few manufactures, but is chiefly a mart for the agricultural products of the county. The burial-place of Henry I. and his queen is within the precincts of an abbey now in ruins. *Windsor*, on an acclivity rising up from the Thames opposite to Eton, has only interest derived from its palatial castle, the principal residence of British royalty, immediately east from the town. This magnificent structure occupies a commanding position, which renders it visible from afar, while from its battlements the eye ranges over a richly-varied and extensive prospect, embracing portions of twelve counties. The buildings and courts cover more than twelve acres, and are surrounded by a terrace, except on one side, nearly half a mile in length, said to be the finest walk of its kind in Europe. William the Conqueror planted a stronghold and hunting-lodge at the spot. Edward III., born at Windsor, raised a palace. Queen Elizabeth caused the north terrace to be constructed. But in its present state the castle is recent, having been rescued from dilapidation, thoroughly renovated, and provided with new accommodations since the year 1824. St George's Chapel, of Edward IV.'s time, within the precincts, is the largest, most varied, and elegant of the three chapels-royal. Henry VIII. and Charles I. slumber in the vaults without

monument or inscription, while in the tomb-house on the eastern side, constructed by George III., his remains repose, with those of his crowned sons, George IV. and William IV. Woodland scenes of exceeding beauty are in the Great Park, which is eighteen miles round; and Windsor Forest, fifty-six miles in circuit,



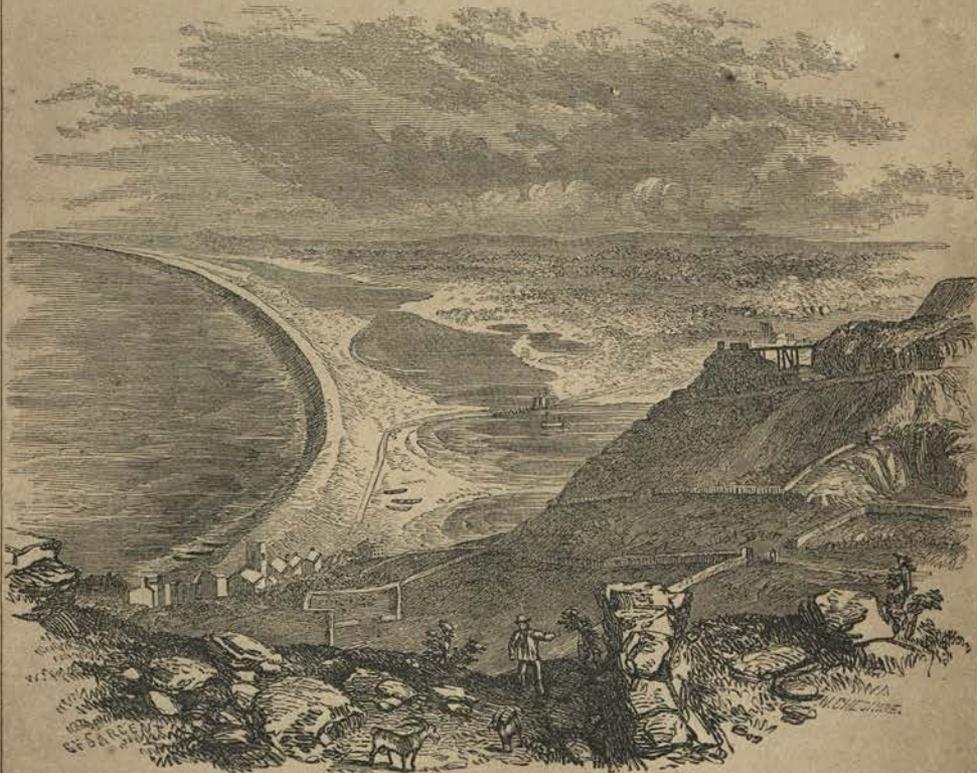
Windsor Castle.

abounds with glades which retain their primitive wildness and seclusion. *Newbury*, one of the historic towns, was the scene of two indecisive battles during the Civil War, 1643-44, in the first of which Lord Falkland fell. *Wantage*, is distinguished as the birthplace of Alfred the Great, where the event was commemorated by a gathering of people from various parts of the realm, October 25, 1849, a thousand years afterwards.

WILTSHIRE, to the westward, of a compact quadrangular shape, consists largely of upland tracts, which present the appearance of levels at a distance, but are traversed with downs, and furrowed with valleys. Thus Salisbury Plain, in the immediate neighbourhood of that city, is only properly so called with reference to the distant view, as it has almost everywhere a billowy surface, while intersected with numerous and extensive depressions. This remarkable region, about twenty miles long by fourteen broad, is an elevated, woodless, oval-shaped tract of chalk, clothed with a fine green-sward, in the midst of which, and on one of its most level sites, rises Stonehenge, a circle of enormous upright blocks, some of which must weigh thirty, and two at least seventy tons. Though commonly referred to the Druids, the monument remains a mystery as to its purpose. The county has for its principal rivers, the Kennet, flowing through Berks to the Thames; the Lower or Bristol Avon, descending to the estuary of the Severn; and the Salisbury Avon, travelling through Hants to the English Channel. Its general

superficial elevation may be inferred from the fact, that while there are no inflowing streams, the drainage is thus carried off in three different directions. A very considerable portion of the surface is in natural pasture, has never been touched by the plough, and is quite unenclosed. Hence the industry is chiefly pastoral, upon which manufactures in wool were early grafted.

Salisbury, an episcopal city, the offspring of the adjacent Old Sarum, which is now a deserted site, is situated near the confluence of two streams with the Avon. This copious water-supply led to the transference to a new position. Its cathedral, one of the purest specimens of the Early Gothic, has a spire rising 404 feet from the ground, the loftiest in the kingdom, remarkable for its lightness and rich ornamentation, 'a poem graved in stone.' The neighbourhood is associated with many names of eminence—as Addison, born at Millston, George Herbert, rector of Bemerton, and Sir Philip Sidney, who wrote his *Arcadia* at Wilton House. *Wilton*, from which the county derives its name, has long been a seat of the carpet manufacture. *Devizes*, centrally situated, produces silks, but is principally connected with agricultural products, and was celebrated for its market in the time of Henry VIII. *Trowbridge*, on the western side, with *Bradford*, *Melksham*, and adjacent places, have fine broad-cloths and other woollen goods for their staple. *Malmesbury*, in the same district, was at a very early date the seat of a celebrated monastery, and the birthplace of one of the best of English chroniclers, hence called William of Malmesbury. The nave of the church belonging to the ancient establishment is now one of the parish churches. *Marlborough*, on the north-east, in the midst of chalk-downs, has a supposed Druidical monument at Abury in the vicinity, similar to Stonehenge, with barrows or tumuli in the neighbourhood, one of which, Silbury Hill, evidently artificial, is the most enormous tumulus in Europe. If the barrows are funereal monuments, Wiltshire may be regarded as a vast grave-yard, as it is studded with them, of varying form and size, from low hillocks to colossal mounds.



The Chesil Bank from Portland.

DORSETSHIRE, a maritime county, has an interesting coast-line, marked by the indentations of Poole Harbour and Weymouth Bay, with the promontory of St Alban's Head,

and the so-called Isle of Portland, really a peninsula attached to the main shore by the Chesil Bank. This bond of union is the most extraordinary formation of the kind in Europe. It extends upwards of ten miles, running parallel with the mainland, and has a narrow arm of the sea on the eastern side, with the open deep on the other. It is generally about two hundred yards broad, occasionally a quarter of a mile, and rises with a slope about forty feet above high-water mark. The bank consists of shingle or pebbles loosely resting upon blue clay. These from south to north diminish from three or four inches in diameter to the size of horse-beans; and so regular is this diminution, that, on the darkest nights, the smugglers who used to land could tell precisely their position by examining the stones. On the coast westward, the cliffs are remarkable as a grand repository of the fossil saurians, which were here first exhumed. The interior of the county presents a succession of downs, some of which are crowned with small round clumps of hazel and other woods, locally called 'a hat of trees.' Its principal rivers are the Stour and the Frome.

Dorchester, on the latter stream, a few miles from the coast of the Channel, is of very ancient date and great interest, as the site of many British and Roman works, the most remarkable of which is an amphitheatre of vast dimensions in the immediate vicinity, the most perfect in the kingdom. *Shaftesbury*, the largest inland town, is towards the border of Wilts. *Poole*, a seaport, in command of one of the safest harbours on the Channel, an inlet of some extent, near its mouth, and *Wareham*, at the further extremity, are largely engaged in transmitting potter's clay to the seats of earthenware production. The clay, of very pure quality, is obtained from the adjoining isle or peninsula of Purbeck, which forms the south-eastern section of the county. *Weymouth*, on the western side of its semicircular bay, is chiefly a bathing-place, brought into



Weymouth from the North.

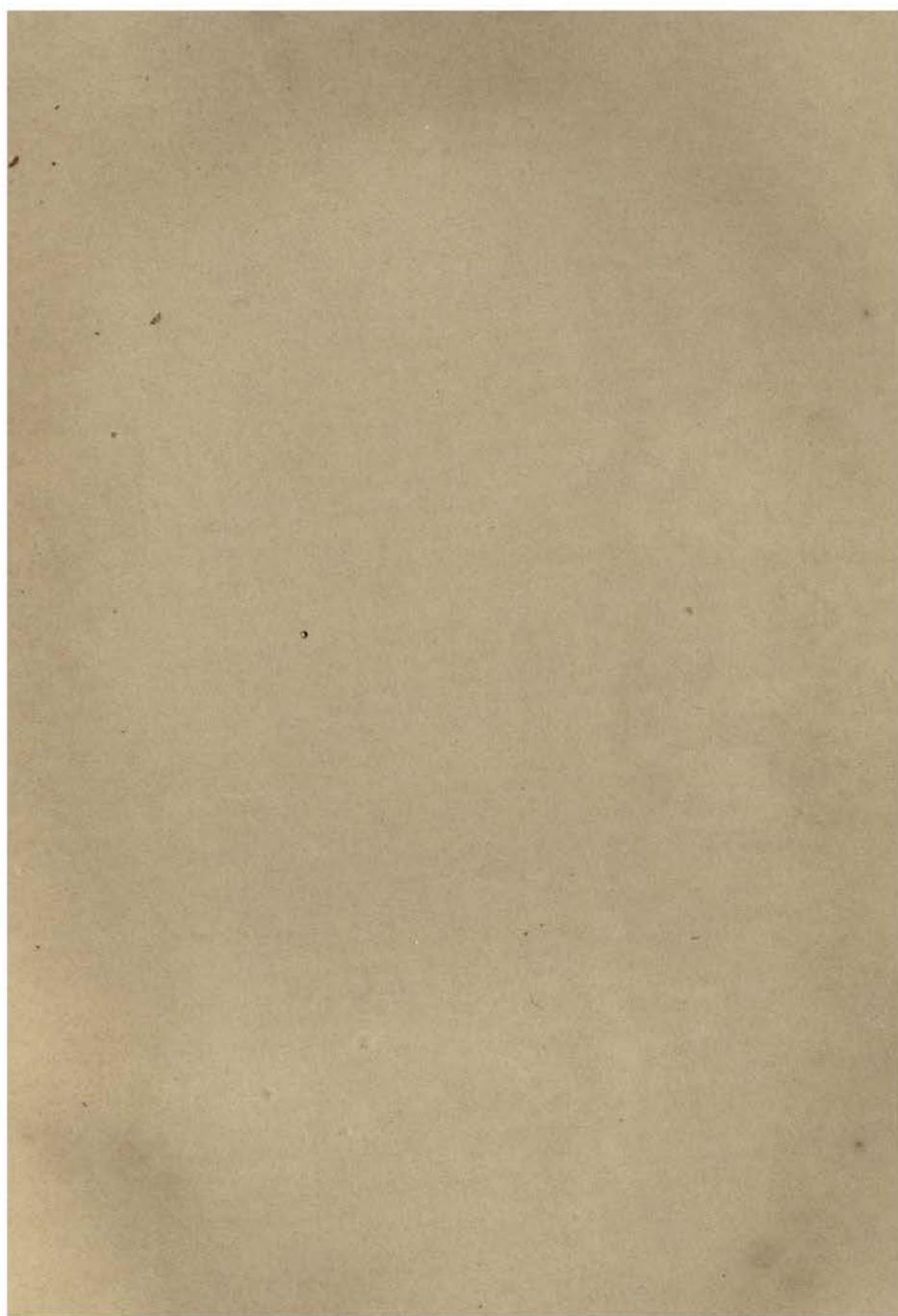
notoriety by the visits of royalty to it at the close of the last century. The beach consists of a long stretch of gently-sloping sand, smooth and firm at low water; the climate is mild and equable; and hence winter is the visiting season nearly as much as summer. Portland Island, as it is styled, in view from the esplanade, is a remarkable district, about nine miles in circuit, with steep rugged shores, consisting mainly of a mass of freestone, thrown up in the Verne Hill, at the north extremity, to the height of 458 feet. This stone has been extensively quarried for two centuries and a half, and used for many public buildings in the metropolis, Whitehall, St Paul's, and Somerset House. The island is now the seat of a great convict

establishment, with an immense breakwater projecting from the eastern side, recently completed by convict labour, and forming a harbour of refuge on the exposed coast, intended to be a principal naval station protected by formidable batteries on the Verne heights. There are several villages, all of stone, the largest of which, on the slope of the hill, has the name of Fortune's Well, from a copious spring. *Bridport* and *Lyme Regis* are trading ports on the western part of the coast-line. The latter, with striking environs, has become a fashionable watering-place, and is celebrated for its defence by Blake on behalf of the Parliament in 1644, and the landing of Monmouth in 1685. By Miss Anning, a native of the town, the fossil saurians were discovered in the lias cliffs of the neighbourhood.

SOMERSETSHIRE, extending along the southern shore of the Bristol Channel, embraces a large proportion of hilly and of lowland surface. The Mendips, a very definite ridge, rich in zinc and calamine, rise on the north-east; the Quantock Hills are western and more elevated; but the wild region of Exmoor, in the extreme west, contains the highest point of the county in the superb brown mountain of Dunkerry Beacon, 1706 feet above the sea-level. The hilly ranges are separated by spacious valleys, and there are also dividing tracts of very low flat land, marshes and fens in their natural condition, which is to some extent retained. One of these districts, where a piece of rising-ground covered with wood was insulated by flood-waters and a morass all but impassable, is memorable as the place to which King Alfred retreated in his misfortunes. It afterwards received the name of Athelney, or the Prince's Island. The spot can be identified in the parish of East Ling, though the natural features have mostly disappeared, and Athelney now names a station on the railway between Bridgewater and Yeovil. Nearly all the drainage of the county is carried to the Bristol Channel, chiefly by the Parret, and its affluent the Tone.

Taunton, the county town, on the latter stream, is situated in a beautiful valley, surrounded with orchards, gardens, and rich meadows, overlooked by the noble church of St Mary Magdalen, in the decorated and later English styles. The town has manufactures of silk and lace, but its business relates chiefly to agricultural produce. It suffered severely from the 'bloody assize' held by the notorious Jeffreys on account of Monmouth's insurrection. *Bath*, a large and splendid city, is situated in the deep valley of the Lower Avon, and on surrounding acclivities which display to great advantage its ranges of elegant houses, built of the white oolitic freestone of the vicinity. It owes its origin and importance to its thermal waters, and the beauty of the site, though not so popular at present with the fashionable world as in the last century, when it was the gayest place in the kingdom. The springs, three in number, differ slightly in their temperature, that of the Hot Bath being 117°, the King's Bath 114°, and the Cross Bath 109°. They were known in the time of the Romans, and the place is mentioned under the name of *Aque Solis* in the Antonine Itinerary. In the early Saxon period it was called *Achamunnum*, 'the city of the sick.' Bath is at the head of a diocese jointly with *Wells*, small, neat, and unpretending, but with a magnificent cathedral, situated at the southern base of the Mendip Hills. *Glastonbury*, a few miles distant, now a seat of the shoe trade, is one of the most ancient ecclesiastical sites in Britain, with interesting ruins of its famous abbey, the abbots of which lived in almost regal state, till the last was hanged in his robes for contumacy by order of Henry VIII. *Frome*, towards the Wiltshire border, has considerable woollen manufactures, and gloves are extensively made at *Yeovil*, on the verge of Dorset. *Bridgewater*, a shipping port on the Parret, near its mouth, produces the peculiar kind of red brick, sold under the name of Bath brick, and used for scouring purposes, composed of a mixture of clay and sand obtained from the river. To the eastward lies the field of Sedgemoor where Monmouth was defeated in the reign of James II, the last important battle fought on English soil. Northward on the coast from Bridgewater Bay are the small watering-places of *Weston-super-Mare* and *Clevedon*. The last was once the residence of Coleridge, and contains the graves of Hallam, the historian, and his family. The dialect of the county, passing into Devon and Dorset, now much modified and confined chiefly to the rural districts, is very peculiar. Its distinctive features are the use of obsolete Saxon or Danish terms, and of obsolete forms of speech, with a deep intonation, and a vicious mode of pronouncing some of the consonants. The *s* and *f* are converted into *z* and *v*, as in *Zummerzet* for 'Somerset' and *vather* for 'father.' The sound of *d* is frequently given to *th*—thread being pronounced *dread* or *dird*, and thrash *drash*. It is common to meet with *we'm*, *you'm*, *they'm*, for we are, you are, they are; *Iec* is substituted for *I*, *er* for *he*, *her* for *she*; and *war* always takes the place of *was* and *were*. In the *Exmoor Courtship*, a production of the last century intended to illustrate the dialect, Margery, having dismissed her suitor with disdain, calls him back with an ulterior object in view, but ostensibly to 'zup a zip o' zider.'

DEVONSHIRE, the third largest county, lying between the English Channel on the south



Engraving by J. G. Thompson

CITY OF MEXICO

Drawn by G. E. Sargent



and the Bristol on the north, has generally steep rocky shores on both sides, abounding with extremely picturesque and impressive scenery. The southern coast-line is by far the most extensive, owing to the numerous inlets and projections. In the interior, the features of the surface are very varied, the soft and the stern, the fertile and the sterile, being equally prominent in its aspect. The high regions of Dartmoor and Exmoor, previously noticed, with their masses of granite, tracts of bog, and piercing winds, remarkably contrast with the luxuriant vale of Exeter, and with the bays of the south coast, where the winter climate is so mild that invalids, to whom a genial air is essential, are attracted to them from distant parts of the country. Rivers are numerous, chiefly flowing to the southward, as the Exe, Dart, Plym, Tavy, Teign, Sid, and Axe, which give their names to towns on their course, or at their mouths, *Exeter, Dartmouth, Plymouth, Tavistock, Teignmouth, Sidmouth, and Axminster*. The streams flowing to the opposite basin, or the Bristol Channel, are the Tawe and Torridge. Tin, copper, lead, and manganese, occur among the minerals, with granite quarried for building purposes, and potter's clay forwarded to the pottery districts. Rich dairy produce is extensively sent to the metropolis, and cider is produced from the apple-orchards, chiefly for the consumption of farm-labourers.

Exeter, the head of a diocese, is a large and handsome city, on the east bank of the Exe, some miles above its outlet. Though of great antiquity, it has a modern appearance, the old houses being chiefly in the by-streets. The cathedral, built at different periods, is yet of uniform architecture, and of an intermediate character, not being either ornate or plain, light or heavy, belonging to the Middle Gothic. Exeter College, Oxford, was founded by one of the prelates in the former part of the fourteenth century; and Sir Thomas Bodley, the founder of the Bodleian Library, was a native of the city. *Tiverton*, twelve miles higher up the



Dartmouth.

river, with lace manufactures; *Honiton*, in the eastern portion of the county, a centre of the same industry to a considerable district; and *Tavistock*, on the western side, the birthplace of Sir Francis Drake, producing woollen goods, are among the more important of the inland towns. The great group of population is at *Plymouth*, on the south-western coast, which, with *Devonport*, its neighbour, formerly called Plymouth Dock, forms one of the principal naval arsenals, strongly fortified. To the old dock-yard, scarcely less extensive than the one at Portsmouth, steam-docks have recently been added, extending over an area of seventy-three acres, at an adjoining site, for the outfit and repair of war-steamers. Three miles out in Plymouth Bay is

the breakwater, constructed for the protection of the harbour, nearly a mile long, which consumed upwards of 3,000,000 tons of stone in its formation, and yet seems only a thin dark line on the surface of the water, as seen from the shore. Fourteen miles distant, in the broad opening of the bay, is the Eddystone Light-house, fixed on a rock submerged by the waves at high water, which has withstood the shock of storms for more than a century. The South Devon coast is studded with small towns and large villages, some of which are beautifully situated in romantic bays, well protected by high lands from ungenial winds, where myrtles clothe the shores, lemon and orange trees bear flower and fruit in the gardens, and the mean winter temperature is as mild as in far more southerly latitudes. They are sought as watering-places in summer, and are the retreats of the delicate in winter. Passing from east to west, Sidmouth, Exmouth, Dawlish, Teignmouth, Torquay, Dartmouth, and Salcombe, answer generally to this description. *Torquay*, the largest, is interestingly seated on the northern shore of Torbay, a considerable inlet, celebrated as the landing-place of the Prince of Orange in 1688, and a point of the coast to which Napoleon was brought by an English man-of-war, prior to his final exile to St Helena. 'What a beautiful country!' he exclaimed, 'how much it resembles Porto Ferrajo in Elba!' North Devon has *Barnstaple*, on the river Tawe, for its principal port, with *Ilfracombe*, *Lynmouth*, and *Linton*, associated with very striking scenery, and rare forms of marine life, the summer resorts of many inland dwellers. Lundy Island, less than three miles long by one broad, and twelve miles off shore, at the mouth of the Bristol Channel, where it opens as if to receive the rolling billows and clearer waters of the Atlantic, belongs to the county. It is a sombre mass of granite with a few inhabitants, so guarded by steep or overhanging cliffs, and girded with insulated rocks, that according to a popular saying, 'there is no entrance but for friends.' The French effected a landing by stratagem in the reign of William and Mary, and remained for a few days the lords of the islanders and their rabbit-warrens.

CORNWALL, the south-west extremity of Britain, is a peninsula surrounded by the sea on all sides except the east, where it is bounded by Devon. The shores of the county are generally rocky and high, occasionally wild and stern, broken by bays, especially on the southern side, and marked with far advancing headlands. Among the latter, the Lizard, chiefly a mass of serpentine, is the most southerly point of the entire island, and the Land's End, a projection of granite, is the most westerly part of England. The former, lofty and precipitous, overlooks a long stretch of noble coast, with the ocean grandly in view, and is interesting to the botanist from the splendid heaths which flourish on the serpentine formation. The latter, with a name which at once excites the imagination, is not distinguished by any peculiarity from several neighbouring promontories; and the stranger reaches the particular ridge of rocks as the result of inquiry. But less than a mile distant, the district is indicated by a house bearing the inscription on one side, 'This is the first Inn in England,' and on the other, 'This is the last Inn in England,' a curious instance of the exclusive view taken by the inmates of the attributes of their locality. The country between the two remarkable headlands is indented by the beautiful expanse of Mount's Bay, the largest of the inlets, which derives its name from St Michael's Mount, an isolated conical rock, 250 feet high, on the northern side. It forms a semi-island, being completely insulated at high-water, but connected with the main shore by a causeway, which is left dry on the recession of the tide. From the summit, crowned by a castellated ecclesiastical structure fitted up as a private residence, the view is magnificent. In the interior of the county, the surface consists generally of slaty rocks, with a substratum of granite, which has burst through the covering at intervals, and appears in large detached masses. From the decomposition of the granite, beds of porcelain-clay have been formed, which is extensively shipped to the seats of porcelain production. The many singularly-shaped detached rocks, called 'hurlers,' 'rocking-stones,' and the fantastic 'Cheesewring,' have probably been fashioned by the decomposing process, assisted by the rains, which have removed the softer parts of their material, and left the hard skeletons remaining. Tin and copper are the important mineral products, but lead, silver, zinc, manganese, antimony, and cobalt, are also obtained, workings for which are occasionally conducted in very extraordinary sites.

The Botallack copper-mine is entered on the very verge of cliffs of the boldest character, which rise abruptly from a boisterous ocean; and, as the excavations are carried beneath its floor, the thunder of the

waves overhead is distinctly heard by the miners. The pilchard-fishery is also a leading industry, the value of which is indicated by the common toast of 'tin and pilchards.' *Bodmin*, conveniently situated in the centre of the county, ranks as the capital, but is of very moderate size, as are all the Cornish towns. *St Austell*, near a bay of the south coast, has a large tract of kaolin in its vicinity, and several stream-tin works, one of which, called the Happy Union, in the valley of Pentuan, has yielded for generations a considerable quantity of the metal. The valley contains an accumulation of gravel, sand, and clay, extending in places to the depth of sixty feet, below which is the tin-ground, resting on the solid rock. The ore occurs in the form of coarse sand, and of pebbles up to ten pounds' weight. *Truro* and *Redruth*, on the south-west, besides being among the most important towns, are the centres of a large but scattered population, being in the principal copper-mining district. In this neighbourhood, the natural aspect of the landscape is unattractive, consisting of moors enlivened only by the furze and heath, or of granite protuberances, bare of vegetation. But the transforming effects of industry appear on every hand, in cottages of stone with white-washed fronts, two or three together, or arranged in hamlet-like groups, possessing gardens in which vegetables are raised for use, and flowers for ornament. These are occupied by the miners. At the same time, tall engine-houses and still taller chimneys are prominent in the scenery. At the Consolidated Copper-mines, in the parish of Gwennap, the excavations have a total extent of sixty-three miles. *Falmouth*, on the shore of a south-western bay, often mentioned as the rendezvous of the fleet in time of war, and once a principal mail-packet station, has lost much of its importance in the last respect, having been superseded by other places, and is now chiefly a trading port. *St Ives*, on the north coast, and *Penzance* on the south, are the head-quarters of the pilchard-fishery. Millions are annually taken. A small proportion is sold fresh on the beach at a very cheap rate, but the greater part is cured, packed in hogsheads, and exported to Italy. *Penzance*, beautifully situated on the western side of Mount's Bay, is the most westerly English town, famed for the mildness of its climate. Sir Humphry Davy, born in the parish, served his apprenticeship in the town. On the opposite shore of the bay, *Marazion*, the 'Bitter Zion,' received its name from the Jews, who occupied the place, and farmed the tin-mines, till Edward I. banished the race from the kingdom. Between *Penzance* and the Land's End, a slight divergence from the road leads to the celebrated Loggan Stone. This is a mass of granite, estimated to weigh upwards of eighty tons, so delicately poised on the top of another rock that the strength of one man will suffice to set it in motion. It was once vulgarly supposed only to respond in this way to the touch of the innocent.

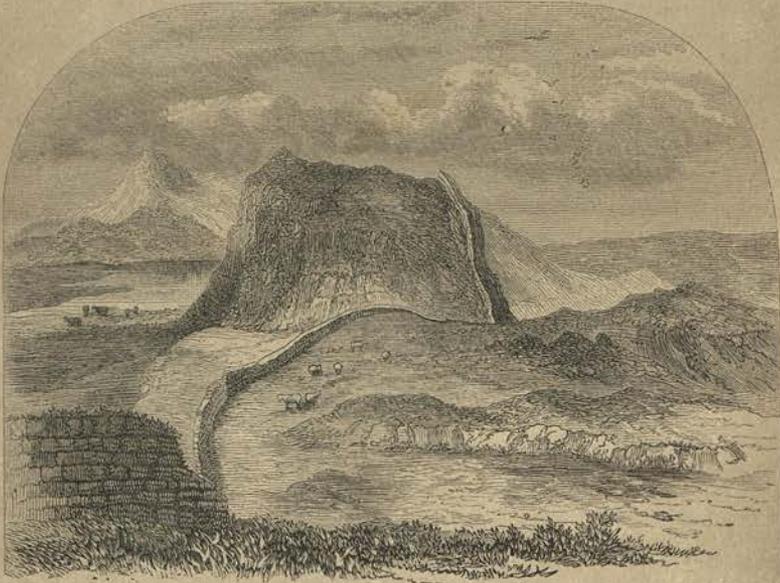


Coast near Teen, Cornwall.

' Firm as it seems,
Such is its strange and virtuous property,
It moves obsequious to the gentlest touch
Of him whose breast is pure; but to a traitor,
Though o'en a giant's prowess nerved his arm,
It stands as fixed as Snowdon.'

On the extreme western horizon, looking out from the Land's End in ordinarily clear weather, the Scilly Islands may be seen, about thirty miles distant. They form a compact group of from one to two hundred islets and rocks, rise out of a deep sea, and with little exception are composed of granite, which the tempests have worn at various points into strange and striking shapes. So stormy is the climate that there are said to

be, on an average, not more than six really calm days in the year. Forty of the islands bear herbage, consisting of thin short grass intermixed with heath, dwarf-furze, fern, and moss. Twenty-seven have an area of an acre and upwards. Six are inhabited—St Mary, Treseo, St Martin, St Agnes, Bryher, and Samson. St Mary, the largest, has a circuit of from nine to ten miles. It contains *Hugh Town*, the little capital, on the western side, and has some timber and fruit-trees in a few sheltered spots. The names of the Piper's Hole, the Cow and Calf, the Hellwethers, Buzza Hill, the Dutchman's Carn, the Kettle and Pans, the Monk's Cowl, the Tooth, the Pulpit, the Hangman's Isle, and the Old Man cutting Turf, designate caves, reefs, and rocks. Groups of cabins may be occasionally met with, ambitiously styled Bristol and London. The inhabitants are fishermen, sailors, and pilots. In the year 1707, a fleet under Sir Cloudesley Shovel was driven in thick tempestuous weather upon the south-western members of the group, and totally wrecked, with the loss of 2000 lives. The body of the admiral was cast ashore on Porth Hellick, the 'cove of willows,' in Isle St Mary, and buried, but was subsequently removed to Westminster Abbey for interment.



Roman Wall, Northumberland.



Moel-Siabot from the Lleddwr Valley.

VII. NORTH WALES.

Counties.	Area in Square Miles.	Principal Towns.
Anglesey,	302	Beaumaris, Amlwch, Aberffraw, Holyhead.
Caernarvonshire,	579	Caernarvon, Bangor, Conway, Llandudno.
Denbighshire,	603	Ruthin, Denbigh, Wrexham, Abergely, Llangollen.
Flintshire,	289	Flint, Mold, Holywell, St Asaph, Rhyl.
Merionethshire,	602	Dolgelly, Barmouth, Harlech, Bala.
Montgomeryshire,	755	Montgomery, Welshpool, Newtown, Llanidloes.

Wales, once an independent territory, was gradually encroached upon under the Norman sovereigns of England, by powerful nobles who were placed in charge of the border districts, or the Marches, with the title of Lords Warden, for the purpose of securing them from attack. But these aspiring barons soon added the work of incursion to the task of guardianship. With their own retainers, they sought aggrandisement from the Welsh; and, as their private enterprises added to the dominions of the crown, they were allowed to keep possession of the conquered lands, securing them with forts and castles. In this way, the whole maritime district of South Wales was wrested from its ancient occupiers, and formed a convenient highway to Ireland in the time of the first Plantagenet, who embarked at Milford Haven for the conquest of the sister-island. North Wales, or the principedom of Aberffraw, remained independent to the reign of Edward I, who effected its reduction; and began the division into counties and hundreds, in order to assimilate the

acquisition to his English dominions. Eight only of the counties were constituted by him. The remaining four, Radnor, Brecknock, Montgomery, and Denbigh, were created by Henry VIII., in whose reign the principality was fully incorporated with the kingdom.

ANGLESEY is separated from the mainland of Wales by the Menai Strait, but is connected with it by a suspension and a tubular bridge across the channel, both of which are justly classed with the most remarkable monuments of engineering skill. The insular county, about twenty miles long by seventeen broad, and upwards of eighty miles in circuit, is of great public importance as the nearest and most convenient point of communication with Dublin, traversed by the railway from Chester to Holyhead. Its general aspect is unattractive, being comparatively flat, and deficient in woodland scenery, but it possesses considerable mineral wealth. A gray marble is extensively quarried for building purposes, and a vast amount of copper has been obtained from the Parys mines. The island, a chief sanctuary of the Druids and their last stronghold, is rich in antiquities and memorials of their time. It was originally distinguished by the old British name of *Món*, signifying 'remote,' whence the *Mona* of the Romans, and received from the Saxons the present denomination, *Angles ey*, 'the isle of the Angles or English.' Priestholm or Puffin Island, close in shore at the north-east extremity, has the former name from a religious recluse of the sixth century, who made it his retreat, and the latter from vast swarms of the puffin- auk, which resort to it as a breeding-station. It was the scene of the melancholy wreck of the *Rothsay Castle* in 1831, since which period a light-house has been erected on the southern point. On the western side of Anglesey, lies the semi-island of Holyhead, detached by a sandy channel fordable at low water, and connected by an artificial embankment, with a bridge near the centre, through which the tide rushes with extreme violence. The northern coast scenery of this appendage is wild and rocky, marked with precipices and caverns, haunted by innumerable sea-fowl, while the falcon eagle wheels round the highest crags.

The insular capital, *Beaumaris*, a port with some coasting-trade, but chiefly dependent upon summer visitors, is pleasantly situated on the shore of a spacious bay, at the northern opening of the Menai, and commands fine views of the Caernarvonshire Mountains, overtopped by the majestic Snowdon. Ruins remain of a castle, the parent of the town, erected by Edward I., now ornamented with walks, shrubberies, and plantations, for public recreation. *Amlwch*, on the north coast, is indebted to the copper-mines in its vicinity, for its rise from a petty hamlet to a thriving town, and has a harbour excavated out of the solid rock as an outlet for their produce. The metallic wealth of the Parys slate-mountain was discovered March 2, 1768, a day which has ever since been observed as a festival. The site speedily became renowned for its productiveness, and the little expense involved in profiting by it. No shafts were necessary, but an immense mass of ore had simply to be quarried on the summit of a hill of moderate elevation. It added vast wealth to the family of the Marquis of Anglesey, and raised to opulence that of Mr Hughes, a Welsh curate, who was in part proprietor of the ground. The yield has long declined, but the mines are still worked, and are estimated to have furnished a grand total of 85,000 tons of pure copper, valued at the enormous sum of £7,650,000. *Aberffraw*, near the south coast, now a small village, was once the seat of the native princes of North Wales, in memory of whom the little inn, resorted to by anglers, has the name of Prince Llewellyn. *Holyhead*, on the northern side of its semi-island, the largest town, has become so by being made the government steam-packet station for Dublin, while brought into direct communication with London by railway. At great national cost, the harbour has been improved, and by the construction of a huge pier or breakwater, the exposed bay has been converted into a secure roadstead, available for vessels of the largest class, in all winds and all states of the tide. For the execution of this last work, material was at hand in the adjoining rocks, which were dislodged by means of gunpowder and the voltaic battery. On one of these blasting occasions in the year 1857, which attracted visitors from afar, a charge of 16,000 pounds of powder brought down not less than 120,000 tons of the hardest quartz, in masses of various sizes, not one of which was propelled a hundred yards from the face of the rock, while a goat browsing on the verge at the time, descended with the débris, but sustained no harm beyond the fright.

The Menai Strait is about twelve miles long, by from one-third to half a mile in average breadth, but has a contraction to less than 200 yards at one point, through which the tide flows with such violence as to resemble the rapids of a great river. It was crossed by the Roman general Suetonius, who passed his

infantry over in flat-bottomed boats, while the cavalry swam their horses. Previous to the erection of the first bridge, connection between the opposite shores was maintained by six ferries, while the herds of Anglesey cattle were compelled to effect the passage by swimming. The Suspension Bridge, a beautiful and durable specimen of engineering, towards the north extremity of the strait, has a total length of about one-third of a mile; a height of a hundred feet above high water; a weight, as to the iron-work, of upwards of 2000 tons; and for more than thirty years it has borne uninjured the crossing of heavy vehicles, and the strain of storms. It was completed in the early part of the year 1826, and on the morning of Monday, January 30, the London mail passed over it. About a mile to the southward, the channel is spanned by a bolder and more novel highway—the Britannia Tubular Bridge—constructed for carrying the Chester and



The Menai and Tubular Bridge.

Holyhead Railway. It consists of two lines of iron tubes, or hollow girders, each more than a quarter of a mile in length, which rest on three towers, besides the abutments on the shore, and are at the bottom rather more than a hundred feet above high water. These enormous corridors were put together on the land, conveyed by pontoons to the base of the towers, and raised to their final resting-place by means of hydraulic presses, considered to be the most gigantic mechanical operation ever performed. The first train passed through this extraordinary structure on March 6, 1850. Not only are the tubes strong enough to bear their own weight through the vast span between the towers, but a line-of-battle-ship might be suspended from them without danger. The most furious gales that sweep the strait cause only a trifling oscillation; but, like a huge snake, the iron bridge creeps backward and forward, dilates and contracts during the twenty-four hours, from half an inch to one or more, as the effect of change of temperature.

CAERNARVONSHIRE, part of the adjoining mainland and its north-western extremity, is the most elevated portion of Wales and of South Britain, largely overspread by the Snowdonian mountains. The rocks are of majestic proportions and sharp outline, disposed in the wildest manner, but are mostly bare of vegetation, except in hollows filled with peat or clay, where a coarse herbage grows, sustaining a hardy race of sheep and small black-cattle, with a number of goats. The principal heights are Carnedd Dafydd, Carnedd Llewellyn, and Snowdon, respectively 3429, 3469, and 3590 feet above the sea. Level and fertile tracts occur to a limited extent, especially in the vale of the Conway River, which forms for some distance the eastern border, and flows to the north coast, expanding into a considerable estuary. The Seiont and the Ogwen descend westward to the Menai, and the Glasslyn southward to Cardigan Bay. These and other

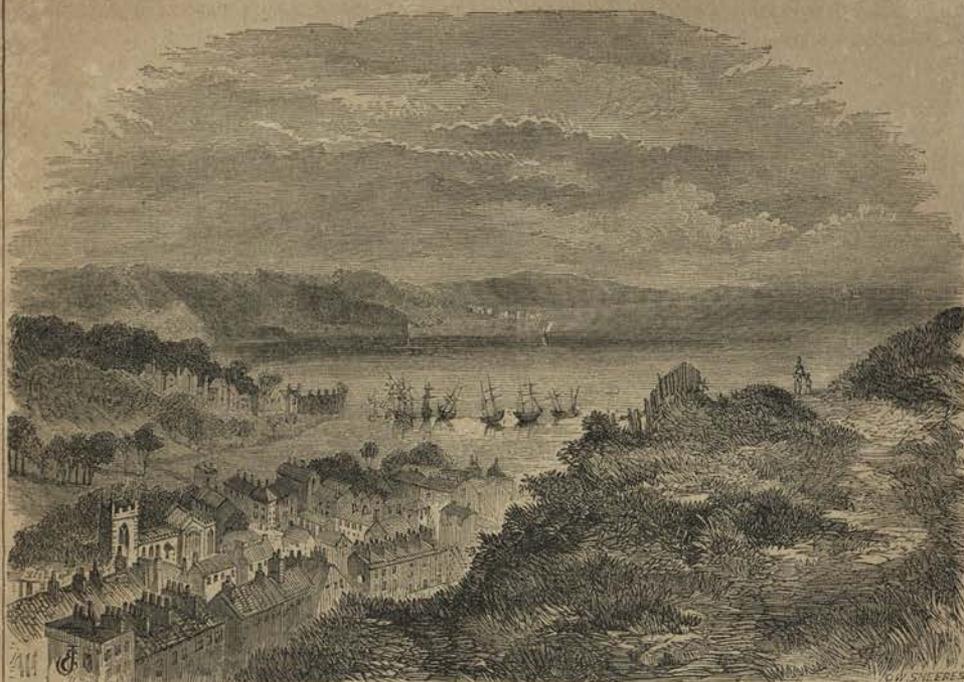
streams are connected with small but very charming highland lakes. Slates of the finest quality are wrought at Penrhyn and Nantle, where the quarries are of unsurpassed magnitude, give employment to thousands of workmen, and have transformed mountain-wastes into scenes of industry and prosperity.



Pass of Llanberis.

Caernarvon, at the mouth of the Seiont, near the southern entrance of the Menai, is a well-built town and considerable shipping port. It is also a place of great antiquarian and historical interest. The ancient walls remain, but the houses and streets pass far beyond their limits; and the stately castle is still externally entire, one of the most formidable fortresses of the middle ages. Edward II., commonly called Edward of Caernarvon, was born here, and became the first English Prince of Wales, a title which has ever since been bestowed upon the eldest son of the reigning sovereign. *Bangor*, at the northern opening of the strait, a small episcopal city, occupies a romantic valley between two rocky ridges, within easy distance of very fine scenery, and is a favourite place of summer resort. The cathedral, a plain but pleasing building, contains the graves of several Welsh princes and bishops. *Conway*, at the mouth of the river of that name, exhibits the ancient and the modern in close contact. The old fortifications, consisting of a wall, with towers, battlements, and gateways, are in a good state of preservation; the remains of the castle, once a noble stronghold, are extensive; while hard by, the river is crossed by a suspension and a tubular bridge, side by side. The pearl-muscle is found in the stream, and was abundant there in the time of the Romans. Coracles are in common use with the Conway fishermen, as in several other parts of Wales, identically the same in construction as the craft which floated the ancient Britons. They are made of wicker-work or laths, covered with skins or strong canvas coated with pitch, and are so small and light as to be readily carried upon the backs of their owners. *Llandudno*, a modern and elegant watering-place, is seated near the base of the Great Orme's Head, in a detached portion of the county, which forms its north-eastern extremity. In the opposite south-western direction several islands fringe the shore, the largest of which, Bardsey, was a favourite retreat of the bards, and hence obtained from the Saxons the name of *Bards-ey*, 'the isle of the

bards.' It was called by the Britons, *Ynys Erilli*, 'the island of the current,' from the strong tidal flow between it and the mainland, which often renders communication difficult and perilous.



Bangor.

DENBIGHSHIRE, the border county on the east, and the most populous division of North Wales, has a short northern coast-line, but considerable extension inland, with an extremely irregular shape. Though generally hilly and occasionally rugged, the elevations are not important, and there are many finely-contrasted scenes of quiet beauty, particularly in the lovely vales of Clwyd and Llangollen. The latter is traversed by the Dee, which passes through the county from west to east. The Conway flows along the western border, and the Clwyd along the eastern. Two noble aqueducts by Telford carry the Ellesmere Canal across the valley of the Dee and that of its affluent the Ceriog, but are now surpassed in extent and massive grandeur by two viaducts over the same streams for the Shrewsbury and Chester Railway. Coal-pits, ironworks, lead-mines, and slate-quarries are numerous, indicating the chief mineral produce of the district.

Ruthin, the assize town, occupies the slope and summit of a hill rising up from the right bank of the Clwyd, not far from the southern termination of its vale, in the midst of very pleasing scenery. Its Welsh name, *Rhudd-ddyn*, signifies the 'Red Fortress,' in allusion to a castle built by Edward I., so called from the colour of the stone of which it was constructed, now replaced by a corresponding modern edifice. *Denbigh*, a genteel town, is likewise on a steep hillside, about the centre of the vale, but some distance from the western bank of the river. Speaking of the valleys of Wales, Burke has remarked, that 'the Clwyd is the most rich; Llangollen, the most picturesque; Ffestiniog, the most abounding in beautiful and sublime combinations; the Glamorgan, the most rural; the Usk, the most graceful; and the Towy, by far the most adapted for a quiet and elegant retirement.' Fine ruins of Denbigh Castle crown the summit of the hill, once under the government of Richard Myddelton, father of Sir Hugh, the enterprising projector of the New River, London. *Wrexham*, the largest town, and *Ruabon*, a populous parish, are the principal centres of mining industry. In the neighbourhood of *Abergele*, a small seaport and bathing-place, Mrs Hemans spent many of her early years, and formed that attachment to Welsh scenery, music, and traditions, which

appears in her poems. *Llangollen*, a lively village in the excursion season, as a station for tourists and anglers, gives its name to the charming valley in which it is situated, through which the Dee flows with a rapid current. The high conical hill of Dinas Brân, crowned with the remains of a fortress, rises directly opposite, and Valle Crucis Abbey, is a striking ecclesiastical ruin in the immediate vicinity.



Snowdon from Capel Carig.

FLINTSHIRE, the smallest of the Welsh counties, but with a denser population than any other except Glamorganshire, consists of a narrow maritime tract between the mouth of the Clwyd and the estuary of the Dee, with a detached portion wholly inland. It corresponds to the preceding district in superficial features and mineral produce, has numerous antiquities, interesting historical relations, and a mixed race of inhabitants, partly Welsh and partly English, owing to its position on the frontier of England. Offa's Dyke, a ditch and rampart constructed in the eighth century by the powerful Saxon king of that name, to protect his territory against the Welsh, had here its northern termination, and extended thence southward to the outlet of the Wye. Some portions of it remain, and the line may be generally traced.

Flint, a small shipping port on the Dee estuary, simply gives its name to the county, having been superseded by *Mold*, on the Alyn, as the assize town. But *Holywell* is the chief manufacturing and mining centre. This place has its name from a spring early consecrated to St Winifred, the most copious in the kingdom. It is estimated to discharge upwards of twenty tons of water per minute, is very little affected by long droughts or excessive rains, varies but slightly in its temperature, and is so clear that the minutest object at the bottom of the basin may be readily perceived. In former times, afflicted pilgrims came from afar both to bathe in the well and drink of the water, which was believed to possess supernatural efficacy in

the removal of disease. It is now more usefully employed in driving the machinery of several factories. *St Asaph*, with the rank of a city, being the seat of an episcopate, has only village dimensions, but exhibits a picturesque appearance, occupying an eminence near the confluence of the Clwyd and Elwy. The see is of very ancient date, and numbers the distinguished prelates, Beveridge and Horsley, in the list of those who have presided over it. The name is derived from that of a pious scholar of the sixth century, *Asa* or *Asaph*, who became the first bishop. *Rhuddlan*, three miles to the northward, now an obscure town, was formerly a place of great importance, and retains memorials of it in massive fragments of a strong fortress. It was the grand military post of Edward I., and his magazine of provisions during the conquest of the principality. Here he held a parliament in 1283, which enacted the Statute of Rhuddlan, declaring formally the annexation of Wales to England, while charters of incorporation were granted to various towns, and old customs deemed detrimental were abolished in favour of others more advantageous. Part of the wall of the building in which the council sat is still standing, and is distinguished by a tablet bearing an appropriate inscription. *Morfa Rhuddlan*, or the marsh of Rhuddlan, denominates the lowland between the town and the sea, and is also the name of a sweetly-plaintive air composed on the occasion of a great slaughter of the Welsh in the district in the Saxon times. *Rhyl*, on the coast near the outlet of the Clwyd, with smooth firm sands adjoining, is a bathing-place wholly modern, having been called into existence by the Chester and Holyhead Railway, which affords easy access to it from the populous districts.

MERIONETHSHIRE, on the west coast, extends along the shore of Cardigan Bay, from the mouth of the Glasslyn on the north to that of the Dovey on the south. Besides these border rivers, it is watered by the Mawddach, the Dwyrid, the Disinwy, and the upper course of the Dee, with many torrents and cascades; contains Lake Bala, and a great number of pools dispersed among the hills; and is throughout a region of mountains and deep valleys, which present a constant succession of magnificent landscapes. The highest summits are Cader Berwyn, 2563 feet; Arrenig, 2816 feet; Arran Fowddy, 2955 feet; and Cader Idris, 2959 feet. Some of the valleys are remarkably fine, especially those of Ffestiniog and Dolgelly, and contain fertile tracts, but the soil is in general poor and only fit for pasturage. Cattle and sheep are fed upon the hills, and the small native ponies are reared, called Merlins, sure-footed and hardy, though not so common as formerly. Slates are quarried in various places; several lead-mines are worked; and some gold is obtained by crushing the auriferous veins which traverse the primary rocks.

This county is the only division of the principality which retains its old British name, *Merionydd*. It is very thinly peopled, contains but few antiquities, and has little historical interest, owing to its remoteness from the scene of action during the struggles of the Welsh with the Saxons, Normans, and early English. At the present date, there is no person of title resident within its limits—no borough, mayor, or corporation; and it is not uncommon for the county jail to be without a single tenant. *Dolgelly*, the principal town, has its name, which signifies 'the dale or vale of hazels,' from the wide and wooded valley in which it is situated, through which an affluent flows to the Mawddach. Mountains, lakes, and waterfalls distinguish the neighbourhood. Southward rises the majestic mass of Cader Idris, with its steep and frowning precipices, the summit of which is six miles distant. The view from it embraces Snowdon, with its dependent heights, on the northern horizon, and Plinlimmon on the southern, with the whole semicircular sweep of Cardigan Bay, while eastward the eye catches indistinctly the Wrekin, rising up dimly from the plain of Salop. The town has a manufacture of coarse woollens, and is a frequented station for tourists. It was for some time the head-quarters of Owen Glendower, during his unsuccessful rebellion in the reign of Henry IV., who survived to die a natural death, hid in various retreats, one of which still bears the name of *Og Owain*, or *Owen's Cave*. *Barmouth*, the only port, ten miles westward, a summer resort for sea-bathing, is beautifully situated on the northern shore of the Mawddach estuary, at the foot and on the side of a steep rocky acclivity. The route between the two places presents at every point the most splendid scenery. Nearly midway is the *Vigra* gold-mine, with its crushing mill, romantically seated on a mountain-stream. *Harlech*, near the coast northward, once an important borough, has dwindled to an insignificant village by the side of its ruined castle. *Bala*, at the lower extremity of the lake to which its name is given, clean and neat, is the assize town alternately with Dolgelly, while Harlech remains the head of the county for parliamentary purposes. The lake, often called *Pimble-mere*, is about four miles in length by half a mile in average breadth, has great depth, very pure water, and abounds with fish.

MONTGOMERYSHIRE, wholly inland, and of compact form, belongs almost entirely to the basin of the upper Severn, which descends from the side of Plinlimmon, on the south-western border. This mountain, 2481 feet in height, consists of three huge masses, the loftiest of which is further divided into two heads, each marked by a *carnedd*, or pile of stones. Natives of the principality rarely visit the summits without adding a stone to the

heaps. The general surface is rugged, yet well wooded, occupied with sheep-walks, except in the great river-valley, where the soil is fertile and under tillage, and the Welsh flannel manufacture has its principal seat.

Montgomery, a small borough close to the English border, has its name, and likewise the county, from Roger de Montgomery, Earl of Shrewsbury, in the time of William Rufus, who founded the castle, the remains of which crown an adjoining eminence. In the vicinity, the line of Offa's Dyke may be traced for a considerable distance. The famous Lord Herbert was born here, and also Dr Rees, the editor of the well-known cyclopædia which bears his name. *Welshpool*, *Newtown*, and *Llanidloes*, all on the Severn, are the populous towns, where woollen goods are produced, chiefly flannels, and extensively disposed of at fortnightly markets. Abundance of pure water, and the numerous sheep reared on the hilly tracts, led to the establishment of the manufacture. *Welshpool* has its name, properly *Pool*, from a small lake in the vicinity, to which the prefix is added to distinguish it from the English *Poole* in Dorsetshire.

VIII. SOUTH WALES.

Counties.	Area in Square Miles.	Principal Towns.
Cardiganshire,	693	Cardigan, Aberystwith, Lampeter.
Pembrokeshire,	628	Haverford-west, Pembroke, Tenby, St Davids.
Caermarthenshire,	947	Caermarthen, Llandeilo, Llanelli.
Glamorganshire,	855	Cardiff, Merthyr-Tydvil, Swansea, Llandaff.
Brecknockshire,	719	Brecon, Crickehowell, Builth.
Radnorshire,	425	New Radnor, Presteign.

CARDIGANSHIRE, on the curving shore of the spacious bay to which its name is given, extends from the outlet of the Dovey River on the north, to that of the Teify on the south; and is also watered by the Rheidol and Ystwith, with numerous streams often swollen into furious torrents. The greater part of the maritime region is level and fertile, but highlands largely overspread the interior, which being generally destitute of natural woods, clothed with peat and heather, have a bleak and dreary aspect. The population is spare; the manufactures insignificant; but the mineral wealth is very considerable, consisting of lead, copper, zinc, and slate, with a proportion of silver extracted from the lead ores. Hardy cereals are grown, with wheat of fine quality on the coast levels, and great numbers of sheep and black-cattle are reared on the uplands.

Cardigan, a small port on the Teify, a little above its mouth, engaged with the herring-fishery, derives its name, and also the county, from that of a native prince, *Caredig*, of which it is a slightly-corrupted form. *Aberystwith*, near the outfall of the conjoined Ystwith and Rheidol, is the principal town, with a good harbour, considerable coasting-trade, excellent accommodation for summer visitors, and pleasant adjoining heights, where the advantages of the mountain-air and the sea-breeze are combined. One of the chief points of attraction in Wales, the Devil's Bridge, is some eleven miles distant, the whole route to which is replete with interest. Two arches, one above the other, are here thrown across a tremendous chasm, the sides of which are well clothed with coppice-wood. Through this passage the Mynach rushes to join the Rheidol immediately below, while the latter stream hurries through a similar ravine to the junction, both leaping in a series of cascades. It is 'a scene to be feasted on, trembled at, and dreamed of, sleeping and waking; but not to be preconceived, painted, or described.' The lower arch is of ancient but uncertain date, traditionally referred to the monks of Strata Florida Abbey. The upper, of thirty feet span, with an improved roadway, was constructed in the middle of the last century. *Lampeter*, 'the Church of St Peter,' a town on the Teify, is the seat of St David's College, opened in 1827, for the training of candidates for holy orders, who are unable to meet the expenses of education at the old universities.

PEMBROKESHIRE, a peninsular district, enclosed on all sides by the sea except the east, forms the south-west extremity of the principality, and is indebted to this position for its more humid and genial climate, being fully exposed to the south-west winds of the Atlantic. Hence milder winters, cooler summers, and the greater rainfall. The coast is indented by the extensive inlets of Milford Haven and St Bride's Bay, with several others of minor dimensions; and presents romantic scenery and majestic headlands at various points. Agricultural produce is raised for export to the English markets, and the fisheries are of great value. The population is only partly Welsh. In the reign of Henry I., a number of Flemings applied to him for permission to settle in his dominions; and were planted

in the southern part of this county to secure possession of it for his crown. These colonists and their descendants, being viewed with dislike by the natives, did not amalgamate with them, but adopted the language and customs of the English; and the district they occupied received the name of Little England beyond Wales. The two classes are still to some extent distinct in speech and habits.



Milford Haven.

Haverford-west, on a small affluent flowing into the northern head of Milford Haven, is a flourishing town and river-port, anciently the principal station of the Flemish settlers. *Pembroke*, at the head of a creek on the southern side of the same great inlet, has a conspicuous feature in its dilapidated historic castle, the birthplace of Henry VII.; and acquires importance from the royal dockyard at a short distance, seated directly on the main shore. This is the youngest of the naval arsenals, having been formed within the present century. It occupies an area of eighty acres, and has sent out some of the finest ships of the navy. *Milford Haven*, so called after the small town of that name on the northern bank, is the grandest natural harbour of Great Britain, and was pronounced by Lord Nelson to be the finest in the world. It runs inland from west to east about ten miles, branches into a number of bays, creeks, and roadsteads, is in many parts two miles wide, has sufficient sea-room for the largest fleets, can be entered at all times of the tide without a pilot, and has sheltering-places from every wind that blows. *Tenby*, on the south-east coast, a popular watering-place, occupies a very picturesque locality, specially interesting to the lovers of natural history, from the various forms of marine life with which the rocks and sands abound. Oysters are taken in great quantities, with other sea-fish, and sent chiefly to the Bristol market. *Caldy Island*, two miles from the harbour, containing about 600 acres, abounding with sea-fowl, is often visited by boating-excursions. *St Margaret's Island*, only detached from it at high water, is celebrated for its caverns. *St Davids*, near the west coast, the seat of an episcopate, is a completely decayed place, containing farm-labourers and a few clergy for the performance of service in the old cathedral. Off the shore are seven remarkable rocks called the Bishop and his Clerks, with Ramsey Island, occupied by two or three families.

CAERMARTHENSHIRE, the largest division of Wales, lies on the northern shore of Caermarthen Bay, extends to a considerable distance inland, acquires proportionate expansion, and has the Tawe and Towy for its principal rivers, the latter being by far the most important. The valley in which it flows, through nearly fifty miles with an average breadth of two miles, is renowned for its fertility and beauty. Though generally hilly, embracing rugged tracts of moorland, long narrow valleys are more characteristic of the surface, sometimes contracting to deep wooded glens. A south-eastern section of the

county falls within the area of the great coal-field, in which both coal and ironstone are obtained. There are also some valuable lead-mines. But while ironworks and manufactures of other metal wares are carried on, the general industry is agricultural.

Caermarthen, pleasantly situated on the north bank of the Towy, nine miles above its outlet, has a flourishing shipping trade in the export of agricultural produce, and the import of articles for domestic consumption through an extensive district. An obelisk at the western entrance commemorates Sir Thomas Picton, who fell at Waterloo, a native of the town, and its representative in parliament. Sir Richard Steele, the chief founder of periodical literature, lies in the chancel of the church. The dwelling in which he died is now the principal inn; and that in which he resided in the immediate vicinity is a farmhouse. *Llandeilo*, higher up the river, is in one of the most attractive parts of its valley, with sites of special interest in the neighbourhood; the ruins of Dynevor Castle, long the residence of the native princes of South Wales; Golden Grove, the retreat of Jeremy Taylor in troubled times, where he wrote his *Liberty of Prophecy*; and Grongar Hill, the subject of a poem by Dyer, who was born on the estate. *Llanelli*, within the area of the great mineral district, occupies a creek of the coast, and is provided with a convenient harbour and docks for the export of coal, and the import of copper ore from Cornwall for smelting, while in connection by lines of railway with the centres of mining industry.

GLAMORGANSHIRE, the most populous of the Welsh counties, commercially also the most important, has an extensive coast-line on the Bristol Channel, marked by the fine opening of Swansea Bay, and by conspicuous headlands, some of which are fringed with detached rocks at the base. The interior has richly-varied natural features. The northern and especially the middle portion of the surface rises in bold hills, separated by river-valleys, while the southern division, ranging from the foot of the hills to the sea, is an undulating plain, popularly styled the 'Garden of South Wales,' from the richness and early development of its horticultural produce, consequent on the fertility of the soil and the mildness of the climate. But though tillage husbandry is pursued to a considerable extent, the main industry is mining and manufacturing, embracing the smelting of copper and other ores, with the production of various kinds of hardware. The county may be regarded as the greatest depôt of coal and ironstone in the empire, the working of which is conducted on a great scale, but has only hitherto contributed to illustrate the vastness of the store. Its principal rivers are the Taff, the Tawe, and the Neath.

Cardiff, near the outfall of the Taff, one of the chief shipping-ports of the mineral produce, is of ancient date, and combines much of the venerable in its aspect with the expressions of modern commercial enterprise, a ship-canal and docks, the Glamorgan Canal, the Taff Vale and South Wales railways. In its castle, superseded by a mansion of recent date, with the exception of the keep, Robert, Duke of Normandy, eldest son of the Conqueror, underwent a long imprisonment. *Llandaff*, two miles distant, the seat of a bishopric, is simply a hamlet with a cathedral, but without the service peculiar to such buildings, being used only as the church of a small rural parish. *Merthyr-Tydvil*, by far the largest town in Wales, situated in the wild northern part of the county, has advanced to consequence with extraordinary rapidity. It was a mere village at the commencement of the century, and now contains upwards of 60,000 inhabitants, with ironworks which rank with the largest in the kingdom. This prosperity dates from the development of the coal and iron mines in the neighbourhood, and is shared to some extent by Aberdare and other places in the circumjacent district. The name of the town is a corruption of *Martyr St Tydfil*, a native princess, traditionally said to have suffered death for her religion. *Swansea*, next in importance, at the mouth of the Tawe, is centrally seated on the shore of a spacious and beautiful bay, flatteringly compared by some to the Bay of Naples. It is a great steam-packet station, and has a vast traffic in minerals, as the chief locality for the smelting of copper ores, embracing not only those of Cornwall and other home-districts, but freights from distant parts of the world, as Chili and Australia. *Neath*, on the river of that name, a few miles above its outlet, is likewise distinguished by metal-works. The valley of the river abounds with highly-picturesque scenery, more especially in the upper part of its course. The south-western extremity of Glamorganshire forms a peninsula, called Gower, originally Gwyr, signifying 'crooked' or the 'crooked country,' in allusion to its irregular shape, containing ten or twelve parishes. Here some of the Flemings settled who came over in the time of Henry I.; and after the lapse of seven centuries and a half, their posterity are a distinct race, in dress, dialect, and even personal appearance. Their language, radically Saxon, includes a number of obsolete English words, sometimes Flemish, and the pure Welsh is very rarely heard. In the frontier parish of Llanrhyddian the distinction is curiously illustrated, the people being Welsh in one portion of it, and of foreign extraction in the other, with little intercourse subsisting between them.

BRECKNOCKSHIRE, an inland district to the northward, lying on the English border, is

occupied with several mountainous ranges and groups, some of which spread out into barren moors, and embrace a large proportion of the surface. The most definite chain is in the southern part of the county, runs west and east, is wild and rugged in the extreme, and has the name of the Forest Fawr in the central portion of its course, and that of the Black Mountains westwardly, from the dark appearance of the heather, when out of blossom, with which they are clothed. It contains the highest summits of South Wales. The greatest elevations are—Capellante, 2394 feet; Pen-y-Cader Fawr, or the Cradle Mountain, 2545 feet; and the Beacons of Brecon, 2862 feet. The latter are two peaks majestically seen from the town named. Fertile river-valleys are, however, numerous, the most extensive of which is that of the Usk. It intersects the county from west to east, and, with the valleys of its affluents, embraces most of the cultivable land. A few woollen manufactures are carried on; ironworks are conducted on the southern confines; but agriculture is the chief employment of the people, who have generally very neat farm-houses and buildings.

Brecon, centrally seated on the Usk, is one of the most attractive towns of the principality, rendered so by good streets and dwellings, interesting architectural remains, luxuriant groves, agreeable public-walks, and magnificent mountain scenery for a southern background. It was the birthplace of Mrs Siddons. *Crickhowel*, lower down the river, with vestiges of a castle of the time of Edward I., is in an equally beautiful locality, and forms a favourite station for sportsmen, fish being abundant in the stream, and game upon the hills. *Builth*, on the Wye, is at the point where its much-admired scenery commences on descending the river, and adjoins the Park Wells, three powerful mineral springs, respectively saline, sulphureous, and chalybeate. In a neighbouring dell, called Cwm Llewellyn, the unfortunate Welsh prince of that name, the last holder of the regal power, perished in a skirmish during the winter of 1282.

RADNORSHIRE, divided from the preceding county by the Wye, is traversed by several of its tributaries, and belongs almost entirely to its basin. Lofty uplands are prominent features of the surface, not forming ranges, or rising in peaks, but spreading out in broad moors, studded with bogs. Several of these tracts, though now bare, were once clothed with woods; and hence the name of Radnor Forest, still applied to a treeless district, the most elevated of all, 2163 feet above the sea. But artificial planting has been largely adopted by the proprietors of estates. Distinct traces remain of both British and Roman encampments; medicinal mineral springs are numerous; natural curiosities and striking landscapes might be indicated; but in every respect this division of Wales is of comparatively inferior interest, and is the least populous part of the whole country south of the Tweed. Pastoral husbandry is the chief occupation. The English language is prevalent, except among the few scattered peasantry on the western side who are wholly unacquainted with it.

The towns are extremely small. *New Radnor*, once fortified, consists of a mere handful of houses. *Presteign*, where the assizes are held, is pleasantly situated on the Lug, on the verge of Herefordshire, from which it is separated by the river. The graves of two distinguished statesmen of the present century are in the neighbourhood—Sir S. Romilly at Knill Court, and Sir G. C. Lewis at Harpton Court.

THE ISLE OF MAN, in the broader part of the Irish Sea, generally noticed in connection with England, occupies a singularly anomalous position. It is nearly equidistant from Wales, England, Ireland, and Scotland, though most proximate to the latter. It is in view from the nearer points of each of these sections of the kingdom in clear weather, and has portions of their shores in sight from the summit of its own highland range. Yet it forms no part of any of their counties, nor a county of itself; and while on the sea-road between Liverpool, Dublin, Belfast, and Glasgow, with upwards of 50,000 inhabitants, it has judicial institutions and revenue laws peculiar to itself, and is without representation in the imperial parliament. The island extends thirty miles from north to south, and has an average breadth of ten miles, except at the two extremities, where it narrows considerably. A chain of slate-mountains runs through it, in the direction of its length, the highest point of which, Sneafell, is nearly central, and rises to the height of

2004 feet above the sea. Lead, copper, iron, and zinc are the mineral products, but only the former is extensively obtained. Mines, fisheries, and agriculture furnish the chief employments. The natives are a Celtic race, speak the Manx language, but it is rapidly becoming obsolete, English being generally understood.

Douglas, the largest town, occupies the shore of a crescent-shaped bay of the east coast, and has a striking object in the ruins of Castle Mona. But *Castletown*, on the southern coast-line, ranks as the capital, being the residence of the governor, and the seat of the law-courts. King William's College, in the neighbourhood, opened in 1833, is for the training of candidates for holy orders. Towards the south-west extremity, a bold sea-cliff has the name of the Spanish Head, in memory of the destruction of part of the Spanish Armada in the vicinity. Off the main shore is the Calf of Man, a small rocky islet. *Peel*, with a dilapidated fortress, is on the west coast, made familiar by Sir Walter Scott's novel of *Peveril of the Peak*, as the scene of many of its incidents. The Isle of Man, after being successively subject to the Northmen and the Scotch, came into the hands of the English, and was held by the Earls of Derby from 1406 to 1736. It passed from them to the Dukes of Athol, who eventually disposed of their rights and patrimony to the crown. The government is now administered by a lieutenant, appointed by the sovereign, who is assisted by a local body of twenty-four principal landholders; but no enactment is law till it has received the royal assent.

Throughout England and Wales, except the central portion of the latter, the means of intercommunication are developed to an astonishing extent, and are conveniently within reach of the smaller groups of the population, both for their own transit, and that of commodities of every description. In this respect, the country is without a rival. The turnpike-roads have a total length of nearly 30,000 miles, and the cross-roads of 100,000, which, together, would form a line sufficient to describe five times the equatorial circumference of the globe. Improved by artificial means, the rivers have been rendered navigable to the united extent of about 2000 miles beyond that for which they are naturally adapted. Canals link together their respective basins, connect through them the opposite seas, or diverge into streamless districts, which have involved not less than 3000 miles of excavation. Railway communication stretches over a total of at least 7000 miles, permeating all the English counties, most of them in a very complete manner. It is extended also to most of the divisions of Wales, leaving only a central tract as yet untouched, or portions of the counties of Cardigan, Merioneth, Brecknock, and Radnor, where the surface is mountainous, and inhabitants are very sparingly distributed.

The country has considerably more than doubled its population in the course of the present century. At the date of the census of 1861, it amounted to 20,061,725, which, supposing equable distribution, will give an average of 344 persons to each square mile of the surface. No other part of Europe can shew so high a ratio, with the exception of Belgium. But the actual allotment to the square mile in the different counties strikingly varies, from 59 persons in Radnorshire, and 80 in Westmoreland, to 1275 in Lancashire, and 7822 in Middlesex. The vast and dense groups of population are found in the metropolitan area, the district which includes Liverpool and Manchester, the tract embracing Leeds and Bradford, the region around Birmingham, and the banks of the Tyne and Wear along their lower courses. In one of these sites, occupied by a crowd of cotton-manufacturing operatives, it has been exemplified, and for the first time in all history, that great aggregations of people, high-spirited and comparatively independent, can bear the trial of a bitter destitution, knowing it to be inevitable, and receiving under it the practical sympathy of the affluent, not only without senseless clamour and political insubordination, but with patience and dignity. Amid much ignorance and vice, appertaining to large communities, this fact decisively proves the co-existence of a preponderating amount of sound intelligence and healthy moral feeling.

POPULATION OF THE PRINCIPAL TOWNS ACCORDING TO THE CENSUS OF 1861.

Abdramon,	2,916	Bromsgrove,	5,262	Droydsden,	5,980	Horsham,	6,747	Market Rasen,	2,468
Abegavenny,	4,621	Buckingham,	3,849	Dudley,	44,975	Houghton-le- Spring,	3,824	Market Weighton,	2,178
Abertwilly,	5,641	Bungay,	3,805	Dukinfield,	15,024	Hounslow,	5,760	Marlow (Great),	6,496
Abingdon,	5,680	Bursley,	28,700	Dunstable,	4,470	Howden,	2,376	Marylebone,	436,262
Acerington,	13,872	Burton-upon- Trent,	13,671	Durham,	14,088	Huddersfield,	34,877	Maryport,	6,037
Adpar,	1,473	Bury,	37,563	Dursley,	2,477	Hull,	37,661	Melbourne,	2,194
Alford,	2,658	Bury St Edmonds,	13,318	Eastbourne,	5,795	Hungerford,	2,031	Melcombe Regis and Weymouth,	11,383
Alfreton,	4,090	Caermarthen,	3,995	Egremont,	2,511	Huntingdon,	3,816	Melksbam,	2,452
Alnwick,	5,670	Caernarvon,	8,512	Eiland,	3,643	Hyde,	13,722	Melton Mowbray,	4,047
Alton,	3,286	Calne,	2,494	Ellesmere,	2,114	Hythe,	3,001	Merthyr Tydville,	83,875
Altrincham,	6,628	Camborne,	7,208	Ely,	7,428	Ilfracombe,	3,034	Middlesborough,	18,992
Amble,	3,207	Cambridge,	26,361	Epsom,	4,890	Ilkeston,	3,350	Midleton,	3,876
Ampthill,	2,011	Canterbury,	21,324	Eton,	2,840	Ilminster,	2,194	Midwich,	3,146
Andover,	5,221	Cardiff,	32,954	Evesham,	4,680	Ipswich,	67,934	Midhurst,	6,405
Arundel,	2,498	Cardigan,	3,543	Exeter,	33,738	Ironbridge,	3,095	Milford,	8,007
Ashbourne,	3,501	Carlisle,	29,417	Exmouth,	5,228	Keighley,	15,005	Milton-next-Sitting- bourne,	2,731
Ashburton,	3,062	Castle Donington,	2,201	Eye,	2,430	Kendal,	12,029	Mold,	3,735
Ashby de la Zouch,	3,772	Castleford,	2,376	Fakenham,	2,182	Kenilworth,	3,013	Monmouth,	5,783
Ashford,	5,522	Chard,	2,976	Falmouth,	5,709	Keswick,	2,610	Mongomery,	1,276
Ashton-under- Lyne,	34,886	Chatham,	38,177	Farnham,	4,011	Kettering,	5,498	Morpeth,	4,296
Atherstone,	3,857	Chester,	3,101	Farnham,	3,926	Kidderminster,	15,390	Much Woolton,	3,296
Atherton,	2,692	Chester-le-Street,	5,513	Farnworth,	8,720	Kinfares,	2,163	Nantwich,	6,925
Aylesbury,	27,090	Chesham,	39,693	Farrington (Grt.),	2,943	King's Lynn,	16,170	Narberth,	1,209
Aylsham,	2,388	Cheltenham,	3,964	Faversham,	5,858	Kingston-upon- Hull,	97,661	Neath,	6,810
Bacup,	10,935	Chertsey,	2,410	Finsbury,	337,278	Kingston-upon- Thames,	9,790	Nevin,	1,818
Bakewell,	2,704	Chesham,	2,208	Fishguard,	1,593	Kirkham,	3,350	Newark,	11,515
Banbury,	4,059	Chester,	31,110	Fleetwood-on- Wyre,	3,834	Knareborough,	5,402	New Brighton,	2,404
Bangor,	6,738	Chesterfield,	8,836	Flint,	3,428	Knightsford,	1,655	Newbury,	6,161
Barking,	5,076	Chichester,	8,059	Folkstone,	8,507	Knutsford,	3,575	Newcastle-under- Lyne,	12,938
Barnard Castle,	4,178	Chipping-Norton,	3,137	Frome,	9,522	Gainsborough,	6,320	Newcastle-upon- Tyne,	109,108
Barnsley,	17,890	Chipping-Wy- combe,	4,921	Gateshead,	33,587	Glastonbury,	3,499	Newchurch,	3,115
Barnstaple,	10,743	Chorley,	15,018	Glossop,	19,126	Gloucester,	16,512	Newmarket,	4,069
Barton-upon- Humber,	3,797	Christchurch,	9,368	Godalming,	2,321	Godalming,	2,321	Newport (Hants),	7,934
Basingstoke,	4,654	Church,	3,000	Godalming,	2,321	Godmanchester,	2,438	Newport (Mon.),	23,249
Bath,	52,528	Cirencester,	6,336	Goole,	5,850	Gosport,	7,789	Newport (Salop),	2,856
Batley,	7,206	Clay Cross,	3,501	Gosport,	7,789	Grantham,	4,964	Newport Pagnell,	3,676
Beaumaris,	2,558	Cleckheaton,	4,721	Grantham,	4,964	Gravesend,	18,782	Newton Abbot,	5,221
Beccles,	4,266	Clitheroe,	7,000	Gravesend,	18,782	Great Harwood,	3,294	Newton-in-Macker- field,	5,909
Bedford,	13,413	Cockermouth,	7,057	Great Harwood,	3,294	Greenwich,	139,436	Newtown,	5,916
Bedworth,	3,968	Coggeshall,	3,166	Greenwich (Great),	11,067	Grimsby,	11,067	Northallerton,	4,755
Belper,	9,509	Colchester,	23,809	Guildford,	8,020	Guisborough,	3,794	Northampton,	32,813
Berkhamstead (Great),	3,631	Colne,	6,315	Guisborough,	3,794	Guiseley,	2,226	Norwich,	74,891
Berwick-upon- Tweed,	13,265	Congleton,	12,344	Hadleigh,	2,779	Halesowen,	3,557	Nottingham,	74,093
Beverley,	3,654	Conway,	2,523	Halesowen,	3,557	Halesworth,	2,382	Nuneaton,	4,645
Bewdley,	2,905	Coventry,	40,936	Halesworth,	2,382	Halifax,	37,014	Oakham,	2,948
Bicester,	2,798	Cowbridge,	1,094	Halifax,	37,014	Halstead,	5,707	Oldham,	72,333
Bideford,	5,742	Cowes (West),	5,482	Hanley,	31,953	Hartford,	31,953	Oleney,	2,258
Biggleswade,	4,027	Credon,	4,048	Harrigate,	4,737	Hartlepool,	12,245	Ormskirk,	6,426
Bingley,	5,238	Crewke,	8,159	Hartlepool (West),	12,603	Harwich,	6,029	Oswestry,	5,414
Birkenhead,	51,649	Crewkerne,	3,586	Hastings,	22,837	Haslingden,	6,929	Otley,	4,453
Birmingham,	296,076	Cricklade,	36,893	Haverfordwest,	7,019	Hastings,	22,837	Ottery St Mary,	2,429
Bishop-Auckland,	6,480	Croydon,	20,325	Heaton,	3,843	Haverfordwest,	7,019	Oxford,	27,560
Bishop-Stortford,	4,673	Cullompton,	2,205	Hemel-Hemp- stead,	2,974	Heaton,	3,843	Padstow,	5,675
Blackburn,	63,126	Dalton,	2,812	Henley-on- Thames,	3,419	Hereford,	15,585	Paignton,	2,628
Blackpool,	3,506	Darlington,	15,781	Hereford,	15,585	Hertford,	6,769	Paisley,	15,071
Blandford,	1,521	Dartford,	5,314	Hertford,	6,769	Heworth,	4,655	Penryn,	3,547
Bodmin,	4,466	Dartmouth,	4,444	Heworth,	4,655	Hilary,	13,824	Penzance,	3,414
Bognor,	2,523	Darwen (Over),	14,327	Hilary,	13,824	Hilkey,	6,344	Pershore,	2,905
Bollington,	3,845	Daventry,	4,124	Hilkey,	6,344	Hilkey,	6,344	Peterborough,	11,735
Bolton,	70,395	Dawley (Magna),	6,365	Hilkey,	6,344	Hilkey,	6,344	Petersfield,	5,655
Boston,	14,712	Dawlish,	3,505	Hilkey,	6,344	Hilkey,	6,344	Petworth,	2,326
Bourn,	3,066	Deal,	7,531	Hilkey,	6,344	Hilkey,	6,344	Pickering,	2,940
Brackley,	2,239	Denbigh,	5,946	Hilkey,	6,344	Hilkey,	6,344	Plymouth,	62,599
Bradford-on-Avon,	4,291	Derby,	43,091	Hilkey,	6,344	Hilkey,	6,344	Pocklington,	2,671
Bradford,	106,218	Dereham,	3,070	Hilkey,	6,344	Hilkey,	6,344	Pontefract,	5,346
Braintree,	4,305	Devizes,	6,638	Hilkey,	6,344	Hilkey,	6,344	Pool,	4,661
Brampton,	2,379	Devonport,	50,440	Hilkey,	6,344	Hilkey,	6,344	Portsmouth,	94,799
Brecknock,	5,235	Dewsbury,	18,148	Hilkey,	6,344	Hilkey,	6,344	Prescot,	6,066
Brenford,	9,521	Dis,	2,164	Hilkey,	6,344	Hilkey,	6,344	Preston,	1,743
Brentwood,	2,811	Dolcelly,	2,217	Hilkey,	6,344	Hilkey,	6,344	Pwllheli,	2,818
Bridgenorth,	6,240	Doncaster,	16,406	Hilkey,	6,344	Hilkey,	6,344		
Bridgewater,	11,320	Dorchester,	6,823	Hilkey,	6,344	Hilkey,	6,344		
Bridlington and Quay,	5,775	Dorking,	4,061	Hilkey,	6,344	Hilkey,	6,344		
Brigg,	3,138	Dover,	25,325	Hilkey,	6,344	Hilkey,	6,344		
Brighton,	77,693	Downham,	2,458	Hilkey,	6,344	Hilkey,	6,344		
Bristol,	154,093	Driffild (Great),	4,244	Hilkey,	6,344	Hilkey,	6,344		
Brixham,	4,390	Droitwich,	3,124	Hilkey,	6,344	Hilkey,	6,344		

Radnor (New), . . . 2,262	Sandwich, . . . 2,944	Stourbridge, . . . 8,166	Tunbridge, . . . 5,919	Westbury, . . . 6,495
Ramsey, . . . 2,354	Scarborough, . . . 18,377	Stowmarket, . . . 3,531	Tunbridge Wells, 13,807	Westminster, 251,623
Ramsgate, . . . 11,865	Seaham Harbour, 6,137	Stratford, . . . 15,994	Tyldesley, . . . 3,950	Weymouth and Mel-
Reading, . . . 25,045	Selby, . . . 5,271	Stratford-upon-	Tynemouth, . . . 34,021	combe Regis, 11,363
Redditch, . . . 5,571	Shaftesbury, . . . 2,497	Avon, . . . 3,672	Ulverston, . . . 6,630	Whitby, . . . 12,051
Redruth, . . . 7,919	Sheerness, . . . 12,015	Stroud, . . . 33,517	Uppingham, . . . 2,176	Whitehaven, . . . 18,842
Reigate, . . . 9,975	Sheffield, . . . 185,172	Sudbury, . . . 6,579	Usk, . . . 1,545	Whitstable, . . . 4,133
Retford (East), . . . 2,982	Shepton Mallet, 4,868	Sunderland, . . . 78,211	Uttoxeter, . . . 3,645	Whittlesey, . . . 4,496
Rhayader, . . . 1,030	Sherborne, . . . 5,523	Swaffnam, . . . 2,974	Uxbridge, . . . 3,815	Widnes, . . . 4,803
Rhuddlan, . . . 1,406	Shiffnal, . . . 2,046	Swansea, . . . 41,606	Ventnor, . . . 3,208	Wigan, . . . 37,538
Richmond (Surrey), 7,423	Shoreham (New), 32,522	Swindon (New), 4,167	Wakefield, . . . 23,350	Wigton, . . . 4,011
Richmond (York), 4,290	Shrewsbury, . . . 22,163	Tadcaster, . . . 2,327	Wallingford, . . . 2,793	Wilton, . . . 8,657
Ripon, . . . 6,172	Sidmouth, . . . 2,572	Tamworth, . . . 4,326	Walsall, . . . 37,760	Wimborne, . . . 2,271
Rochdale, . . . 38,114	Skipton, . . . 4,533	Taunton, . . . 14,667	Walsham (North), 2,896	Winchester, . . . 14,776
Rochester, . . . 16,862	Sleaford, . . . 3,745	Tavistock, . . . 8,857	Waltham Abbey, 2,873	Windsor, . . . 9,520
Romford, . . . 4,361	Slough, . . . 3,425	Teignmouth, . . . 6,022	Wantage, . . . 3,064	Wirksworth, . . . 2,522
Romsey, . . . 2,116	Southampton, 46,960	Tenby, . . . 2,982	Ware, . . . 5,002	Wisbeach, . . . 9,275
Ross, . . . 3,715	South Petherton, 2,031	Tenterden, . . . 3,762	Wareham, . . . 6,694	Witney, . . . 3,458
Rotherham, . . . 7,598	Southport, . . . 8,340	Tetbury, . . . 2,285	Warmminster, . . . 3,675	Wokingham, . . . 2,494
Rugby, . . . 7,818	South Shields, . . . 35,239	Tewkesbury, . . . 5,876	Warrington, . . . 26,431	Wolverhampton, 60,860
Rugeley, . . . 4,362	Southwark, . . . 193,593	Thame, . . . 2,917	Warwick, . . . 10,570	Woodbridge, . . . 4,513
Runcorn, . . . 10,434	Southwell, . . . 3,095	Thetford, . . . 4,208	Watford, . . . 4,385	Woodstock, . . . 7,827
Ruthin, . . . 3,372	Southwold, . . . 2,032	Thirsk, . . . 5,350	Wednesbury, . . . 15,298	Worcester, . . . 31,237
Ryde, . . . 9,253	Sowerby Bridge, 5,382	Thorne, . . . 2,591	Wellingborough, 6,067	Workington, . . . 6,467
Rye, . . . 3,738	Spalding, . . . 7,032	Tiverton, . . . 10,447	Wellington, . . . 5,576	Worksop, . . . 7,112
Saffron Walden, 5,474	Stafford, . . . 12,532	Todmorden, . . . 11,797	Wellington (Salop), . . . 5,576	Worthing, . . . 5,805
St Albans, . . . 7,675	Staines, . . . 2,584	Topsham, . . . 2,772	Wellington (Som.), . . . 3,689	Wotton-under-
St Asaph, . . . 2,063	Staley Bridge, 24,321	Torquay, . . . 16,419	Wells, . . . 4,643	Edge, . . . 2,784
St Austell, . . . 3,825	Stamford, . . . 3,047	Torrington, . . . 3,238	Wells-next-the-	Wrexham, . . . 7,563
St Helens, . . . 18,396	Staveley, . . . 2,400	Totness, . . . 4,001	Sea, . . . 3,098	Wymondham, . . . 2,152
St Ives (Cornwall), 7,027	Stockport, . . . 54,681	Towcester, . . . 2,417	Welshpool, . . . 7,304	
St Ives (Hunts), 3,321	Stockton, . . . 13,357	Tower Hamlets, 647,845	Wenlock, . . . 19,699	Yarmouth, . . . 31,910
St Neots, . . . 3,090	Stoke-upon-	Tredegar, . . . 9,333	West Bromwich, 17,024	Yeadon, . . . 4,109
Salford, . . . 102,449	Trent, . . . 101,207	Tring, . . . 3,130		Yeovil, . . . 7,957
Salisbury, . . . 12,278	Stone, . . . 4,509	Trowbridge, . . . 9,626		York, . . . 40,433
Sandbach, . . . 3,252	Stony Stratford, 2,005	Truro, . . . 11,337		



The Stack Rocks.



Edinburgh from the Calton Hill.

CHAPTER III.

SCOTLAND.



COTLAND, the northern and smaller division of Great Britain, is bounded on the east by the North Sea, on the west and north by the Atlantic Ocean, on the south by England and the Irish Sea. It formerly constituted a separate kingdom, and is naturally, in various respects, a distinct district. The shores are much more broken than those of the southern portion of the island, present grander headlands, are in general more rocky, and have a distinguishing feature in the immense number of insular masses adjacent to them. Few of the broad open valleys and spacious undulating plains, distinctive of the English landscape, mark the interior; but in most parts, ranges of bold hills or mountains limit the view of the observer in one or several directions, often at no great distance.

The highlands of Scotland are not only more extensive but also loftier than those of England, and contain a far larger number of lakes. The two sections of the island also widely differ in their geology. Non-fossiliferous rocks, igneous or metamorphic, prevail

north of the Tweed, with scarcely any examples of secondary formations of late date, except in patches; and on the southern border, highly fossiliferous sedimentary strata predominate. Not only is the proportion of unproductive land in the former division vastly greater, but the soil and climate in the cultivable area are much less favourable to the progress of vegetation. The eastern coast of Scotland, however, bears a general resemblance to that of England, being more regular than the western, while the shores of both countries on the easterly side are remarkably free from islands, except a few of very small dimensions. Most of the important rivers likewise flow eastwardly to the basin of the North Sea.

The greatest extent of the mainland is north and south; and amounts to 287 miles, following a slightly diagonal line drawn from Dunnet Head to the Mull of Galloway, the northern and southern extremities. The breadth is extremely various, owing to the far-advancing inlets on the eastern and western sides, which produce contractions so remarkable as to suggest the idea of the country being about to fall into fragments. Where the maximum expansion occurs under the parallel of $57^{\circ} 30'$, between Buchan Ness, the most easterly point, and the west coast of Ross-shire, the distance measures about 140 miles. But on the south, under the parallel of 56° , the opposite salt waters of the Forth and the Clyde are not more than 32 miles apart, and further north, between the head of Loch Broom and the mouth of the Oykel River, the width is diminished to 24 miles. On the east coast, all the principal indentations are river-estuaries, termed 'firths' (from the Scandinavian 'fjord'), and include those of the Forth, Tay, Moray, Cromarty, and Dornoch, passing from south to north. The west coast has only the estuary of the Clyde, which, however, surpasses all the rest in commercial importance. But to the northward of it, there is a continued series of long winding inlets which the waves of the Atlantic have contributed to scoop out, somewhat unfortunately called lochs, as the same term is applied to the inland lakes, and is apt to create confusion. These sea-lochs, together with the firths, increase enormously the coast-line of Scotland, the entire length of which is not less than 2500 miles. They place also every part of the surface, even where it is most solid, within little more than forty miles of the salt water.

The interior of the country is commonly stated to consist of two distinct regions—the Highlands, generally in the north and west; and the Lowlands, in the south and east. The line of division between them is marked by a valley or plain, which extends across the entire island from north-east to south-west, or from the foot of the Grampians, where the range touches the shore of the North Sea, to the Clyde estuary, varying in width, and subject to hilly interruptions in its more southerly prolongation. This dividing-line is known in a principal part of its course as Strathmore, the 'great strath' or valley. The distinction of the surface into highland and lowland regions is of old historical date, and true to nature; but for descriptive purposes, it is more convenient to consider Scotland as distributed into three divisions, equally well marked by nature—southern, middle, and northern.

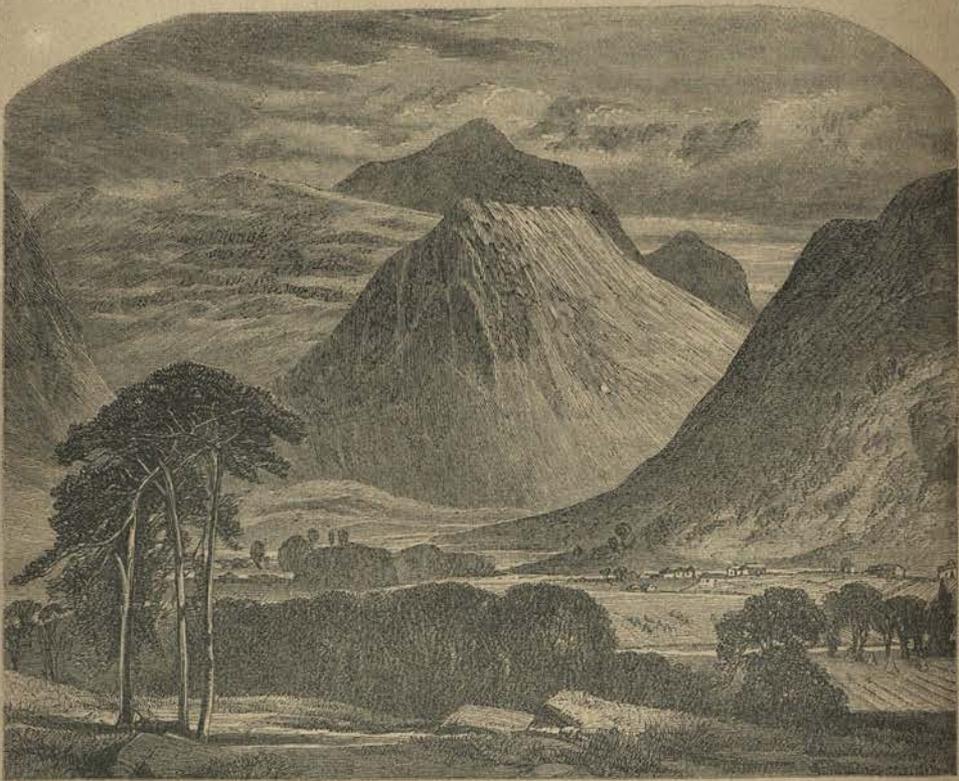
Southern Scotland comprehends the country extending from the narrow isthmus between the Clyde and Forth to the Irish Sea and the English border. It contains various tracts of gently undulating surface, cultivated with the highest degree of skill, but is also to some extent a hilly region, studded with isolated elevations, and traversed by continuous ranges, to which the name of the Southern Highlands is often applied. These ranges are distinguished generally by rounded or flat summits, gradual slopes, and a grassy clothing, features wholly distinct from the naked, precipitous, and frequently savage aspect of the Highlands proper. Towards the centre of the district rise the Lowther Hills, from which branches run north into Peeblesshire and Selkirkshire, and south through

Dumfriesshire and Kirkcudbrightshire, the Pentland, Moorfoot, and Lammermuir Hills, on the north and north-east, the Cheviots, forming in part the boundary between Scotland and England. The dales that lie between these ranges have their names from the streams flowing through them, as Tweeddale, Clydesdale, Nithsdale, and Annandale. They are celebrated in pastoral life and border song. The highest points are around the head waters of the Tweed and Clyde, where Queensberry Hill rises 2260 feet; Tinto Hill, 2316; Hart Fell, 2636; and Broadlaw, the loftiest summit, 2761 feet above the sea. In fine weather, from the green flat summit of Hart Fell, the view embraces Skiddaw in Cumberland on the south, and Ben Lomond on the north, at a direct distance of full seventy miles. The neighbourhood is remarkable for the Deil's Beef Tub, a wide hollow of great depth from which the infant stream of the Annan emerges. The mining village of Leadhills, where lead-mines have long been worked, and the native place of Allan Ramsay the poet, is said to be the highest inhabited spot in Great Britain, with exception of the huts of shepherds and gamekeepers in the Highlands, only occasionally occupied. Silurian rocks are extensively developed in the centre of this division, running too from coast to coast, with granite in the south-west, and the carboniferous formation on the north, in the basins of the Forth and Clyde, through which trap rocks have been variously erupted.

Middle Scotland, the main mass of the country, extends from the preceding district to Glenmore, or the 'great glen,' which stretches diagonally across the island from Fort William to Inverness, and is occupied by several lakes connected together by the Caledonian Canal, forming with it a bond of union between the Atlantic and the North Sea. In this region, the Sidlaw and Ochill Hills, ranges of moderate elevation, form the southern boundary of Strathmore; while on its northern and western sides tower the majestic Grampians, apparently an impassable barrier, in the recesses of which the old Caledonians found a secure asylum from the Roman legions. Formations of the old red sandstone and carboniferous series occupy the south and east, while the mountains in the opposite directions are composed chiefly of crystalline schists, with granite in the higher parts. The Grampians have a stern and desolate aspect, a broken and serrated outline, and seem solitudes of nature into which man and his labours may not intrude. In fact, it is only by following some of the streams which break through the rampart, that admission to its wilds is gained. Naked rocks, or rocks scantily clothed with brown heath and lichens; frowning precipices unsoftened by the hand of time, as if just rifted from equally angular masses; narrow glens where the dark-brown streams foam over a craggy bed; broad straths, where the torrent slumbers for a while in some deep black lake; and bleak moors only diversified by moss-grown stones and solitary tarns, with the scarlet crest and bright eye of the moorcock, are the leading features of the scenery. The Central Grampians, the highest elevations in the United Kingdom, stretch east and west from shore to shore, a length of nearly a hundred miles, and have a breadth varying from twelve to twenty-five miles, with an average height of from 2000 to 3000 feet. But many summits attain a much greater altitude. At the western extremity, Ben Nevis, the culminating-point of the Britannie system, rises to 4406 feet above the sea. From the western side of the central chain, the mountain masses are prolonged from north to south, reaching to the estuary of the Clyde, and are conveniently called the Southern Grampians, of which Ben Lomond (3192 feet) is the most southerly important member, well known from being contiguous to the great centres of population.

The monarch-mountain of the kingdom, Ben Nevis, has the advantage of being detached, and hence its entire outline is exhibited in a single view. On one side the base is almost washed by the tides of Loch Eil, while in other directions, river-valleys separate it from all the neighbouring highlands. It shoots up from the level of a moor,

has a circuit of more than twenty-four miles, and consists of two hills, geologically distinct, placed one upon the other. The lower, nearly 3000 feet high, is an oblong mass of granite, forming a generally flat plateau, on which lies a mossy tarn, plentifully fed by the mists from the western ocean, and the source of a torrent. The upper hill, or true vertex, is a naked irregular four-sided prism of black or dark-gray porphyry, with a zone of the subjacent granite completely surrounding its base. It forms a terrific precipice on the north-east, with a sheer descent of not less than 1500 feet from the summit. Though the line of perpetual congelation is not reached, it is very closely approached.



Entrance to the Pass of Glencoe.

Hence the higher portions of the Grampians long retain the winter's snow, and it often remains throughout the summer in beds and patches in the sheltered ravines. A northern offset of the main range consists of a group of mountains remarkable for huge proportions and great general altitude—Ben Avon, 3826 feet; Cairngorm, 4090; Cairntoul, 4245; Braeriach, 4280; and Ben Macdhui, 4295 feet. These are

'The grisly champions that guard
The infant rills of Highland Dee.'

lying around the sources of the river. Ben Macdhui was ascended by the Queen in October 1857.

Northern Scotland includes the remainder of the country up to the Pentland Firth, and is a region of high moorlands, wild, barren, and desolate, covered with heath and bog, the platform of mountain-ranges, with some extent of productive soil on the eastern

shores. The great general elevation of the surface detracts from the apparent height of the summits, but Ben Wyvis, near Dingwall, attains 3422 feet, and Ben Attow 4000, on the borders of Ross and Inverness. In the two northern counties, the surface lowers from west to east, and the greater part of Caithness is a plain, largely clothed with stunted heath, properly belonging to the Scottish lowlands.

All the rivers of importance in Scotland carry their waters to the North Sea, with the exception of the Clyde. Arranged according to the magnitude of their basins, they rank in the following order :

Rivers.	Area of Basin. Square Miles.	Length. Miles.	Principal Places from Source to Mouth.
Tay,	2750	130	Kenmore, Dunkeld, Perth, Dundee.
Tweed,	1870	96	Peebles, Melrose, Kelso, Coldstream, Berwick.
Clyde,	1580	98	Lanark, Glasgow, Dumbarton, Greenock.
Spey,	1190	110	Fochabers, Garmouth.
Dee,	705	90	Braemar, Balmoral, Ballater, Aberdeen.
Forth,	645	60	Stirling, Alloa, Queensferry.
Don,	530	62	Alford, Inverary, Old Aberdeen.

The Tay, the most considerable river in the length of its course and its area of drainage, descends from the mountains on the western side of Perthshire, forms the beautiful, long, narrow expanse of Loch Tay, flows very circuitously through the county, receiving many feeders, and passes through an extensive estuary to the sea, ten miles below Dundee. Sands obstruct the mouth, and increase the difficulties of navigation by their shifting nature. The upper part of its course lies through a wild and highly-romantic country, and its basin is geologically interesting as supplying examples of everything connected with the action of running water, the erosion of rocks, the transport of soil, and the changes to which lakes and valleys are subject. In point of value the Tay stands at the head of the salmon rivers. Shoals of porpoises, numbering hundreds of individuals, haunt the mouth during the fishing-season on the look-out for their prey, and droves of watchful seals never leave the estuary. The stream is remarkable for the quantity of water it brings down, not owing to the depth or width of the channel, but the rapidity of the current, and the numerous feeders connected with cloudy mountain regions and long snow-clad heights. It exceeds in this respect every other river in the kingdom. The mean discharge, according to careful estimates, amounts to 273,117 cubic feet of water per minute, while that of the Thames is stated to be only 80,220, or less than one-third that of the Tay.

The historic Tweed and the commercial Clyde descend from the highland centre of Southern Scotland, and offer an example of streams having closely contiguous sources, and flowing off to opposite basins. The Tweed, pure and limpid, once famous for its strong square towers erected to keep the English borderers in check, on the top of which beacon-fires blazed as signals of alarm, travels eastward to the North Sea, which it enters at Berwick; while the Clyde, after some feeders have run at first towards the east, turns to the north-west, and joins the Atlantic through one of the great indentations of the western coast. This river remarkably changes its character, being an impetuous mountain-torrent in the upper part of its course, and having a calmly-flowing current covered with ships in the lower, on the surface of which the first steamer built in the United Kingdom was launched. It forms celebrated falls in the neighbourhood of Lanark, two above and two below the town. The uppermost, Bonnington Linn, is a perpendicular descent of thirty feet; the second and grandest, Corra Linn, is a fall of eighty-four feet, in three leaps; the third, Dundaff Linn, is small; the fourth, Stonebyres, is a descent of seventy-six feet, broken into three distinct falls by two projecting rocks. To the Spey, the

distinction belongs of being the wildest, most capricious, and rapid of all British rivers, with the peculiarity of the rapidity distinguishing the lower portions of its course. It issues from a small pool within a few miles of a western sea-loch, and after slumbering in dark mossy lakes, rushes on with headlong speed to an opposite north-eastern shore. The



Upper Fall of Foyers.

stream passes through the strath of the same name, Strathspey, one of the best wooded parts of the Highlands, and affords water-carriage for the timber, large quantities of which are floated down to the sea, entered below Fochabers. A peculiar feature also belongs to the Dee, that of descending from the highest spring in the British Islands. The Wells of-Dee are near the top of Braeriach, one of the Cairngorm group of mountains, at the height of 4060 feet above the sea. Dr Skene Keith, in the middle of July, the hottest month of the year, found the main source still running under an arch of snow.

The Forth is formed by the junction of two streams, both of which descend from the north-eastern slope of Ben Lomond, and come to a confluence at Aberfoyle. The river flows from thence through low alluvial plains to the magnificent firth on which Leith and Edinburgh are situated. It is

‘A lairdship in the bonnie Links o’ Forth
Is better than an earldom o’ the North.’

The Firth of Forth is about fifty miles long by four to five miles broad from Leith to Burntisland, and has the small islands of Inchgarvie, Inchcolm, Inchkeith, and May in its basin.

The great superficial irregularities of the country render most of the rivers unnavigable, and originate numerous waterfalls, some of which form very effective scenery, with their accompaniments of wood and rock. Besides those of the Clyde, already noticed, the Grey Mare’s Tail, in the county of Dumfries, denominates a lofty cascade of the Moffat

Water, soon after its emergence from the small, dark, and lonesome Loch Skene, where the stream descends nearly 200 feet, and

'White as the snowy charger's tail,
Drives down the pass of Moffatdale.'

The Falls of Foyers, adjoining the eastern margin of Loch Ness, form one of the grandest exhibitions of the kind in the kingdom after heavy rains; and steamers traversing the lake generally stop to afford passengers an opportunity of viewing them. They are situated in a ravine profusely clothed with birch, ash, and copsewood, nursed by the perpetual spray, which hangs like dew on every leaf in pearly drops, glittering in the sunbeams. The upper fall is a descent in three leaps of nearly seventy feet into a fearful gulf; and when the river is full, the lower and principal fall is a single leap of more than 200 feet. On the Beauly River, a few miles from Inverness, there are fine falls, but not so much remarkable for height as for breadth and quantity of water, with the long reach of the stream boiling and tumbling in its rocky bed, the banks of which are crowned with birch and pine. The falls of the Glomak, in Ross-shire, are said to be the highest in Scotland, falling upwards of 300 feet, in a gully, desolate and frightful beyond description, and of very difficult access. A good view can only be obtained from the bottom, which may be reached by wading when the water is low, but not without danger. The falls of the Moness, in a glen near Aberfeldy, so narrow that the trees on the opposite sides almost blend their branches, answer to the description of Burns:

'The braes ascend like lofty wa's,
The foaming stream deep-roaring, fa's,
O'erhung wi' fragrant spreading shaws,
The Birks of Aberfeldy.'

The rivers which descend from the higher Grampians, or are fed by affluents from them, as the Dee, Don, Deveron, Findhorn, and Spey, besides being unnavigable, are liable to sudden and destructive inundations from the descent of rains on the highlands. The overflow of these streams occasioned the local deluge (known as the 'Moray Floods') which visited the counties of Aberdeen, Banff, Elgin, and Nairn in the summer of the year 1829, when roads, bridges, crops, stock, and buildings were swept away, while the features of the natural landscape were very strikingly altered. New ravines were cut out on the sides of the mountains, vast masses of rock were transferred to fresh sites by the transporting power of the currents, deep pools were converted into shallows by the amount of debris left in them on the subsidence of the waters, the sloping banks of streams and brooks were turned into vertical walls by the rush of the floods, and some of them were permanently diverted into freshly-excavated channels.

Inland lochs or lakes form a characteristic feature of the surface, and are estimated to cover an area of 500 square miles. They are almost all long and narrow, associated with the Highlands, and occupy glens closely pressed upon by the bordering heights. While many present fine combinations of beautiful and grand scenery, the shores of others are scarcely to be surpassed for wild and severe features. Loch Lomond, belonging to the counties of Dumbarton and Stirling, but chiefly to the former, is the largest example. It is twenty-one miles long, by five broad at the south extremity, from which it gradually narrows to less than one mile at the northern end. The lake is studded with islands, about thirty in number, ten of which are of some extent, and well clothed with wood. It is regularly traversed by steamers in the summer season, and has crowds of visitors, being only twenty miles from Glasgow. The fine mass of Ben Lomond, on the eastern side, is often scaled, being of easy ascent, and overlooking a wide panorama of sea and shore, winding river and smiling valley, bounded northwards by rival or loftier heights. Loch Ness, in the line of the Caledonian Canal, is distinguished by its great depth, amounting

in many places to 800 feet, and hence never freezes in the severest winters. Loch Avon, in the bosom of the Cairngorm group, is remarkable for its loneliness, difficult access, and the frightful steeps around it. The lake, a crystal sheet of water, nearly two miles long, and upwards of 1750 feet above the sea, is the most elevated expanse of any extent in the kingdom. Closely bordered by rugged and precipitous heights, the surface has no sunshine through several of the winter months; the banks have no tree or shrub; and few living creatures are ever seen except the eagle and the ptarmigan, or some straggling red deer from the forest of Mar. Loch Leven, in the county of Kinross, is the largest lake connected with the Lowlands, and contrasts with those in the Highlands, in not being elongated, but of rounded shape.

Owing to the rugged and mountainous character of Scotland, only a comparatively inconsiderable portion of the surface is or can be devoted to arable husbandry, chiefly in Berwickshire and the Lothians, in Perthshire and Forfarshire, which contain the rich alluvial carse or plain of Gowrie, and the fertile valleys of Strathmore and Strathearn. In no part of the country north of the Firth of Forth is the climate favourable to the growth of wheat, being subject to long intervals of bleak weather. It will not ripen except at the level of the sea in the latitude of Aberdeen; and the Dornoch Firth marks the northern limit of its growth under the most advantageous circumstances. Hence a coarse kind of barley, called here or big, and oats, the hardiest of the cereals, are the principal crops. Pastoral industry is extensively pursued in the upland districts, where some of the breeds of sheep, as the Cheviots, remarkably display the strange instinct of apprehending the coming snow-storm, and marching off to a known and approved shelter, even when the shepherd has not been able to recognise the slightest indication of a tempest. Of the mineral products, coal and iron are the most important. The great coal-field stretches with little interruption from the east to the west coast, on both sides of the Forth, and yields abundance of iron-ore. Lead is obtained from the Lanarkshire hills. Granite, of a fleshy colour, making a near approach to the red granite of the Egyptian obelisks, is extensively quarried for export on the precipitous coast of Aberdeenshire; noble serpentine for ornamental purposes is supplied by the adjoining county of Banff; and various precious stones are frequently found in the Highlands. Fisheries of salmon, herring, ling, cod, and haddock, give employment and subsistence to numbers of the maritime population. The great staple manufactures consist of cottons and silks at Glasgow and Paisley; linens at Dunfermline and Dundee; woollens at Galashiels, Hawick, Aberdeen, and Kilmarnock; hardwares at the Carron Ironworks near Falkirk, and other places; ships, steamers, steam-engines, and machinery of every description, on the banks of the Clyde.

Natural forests of pine, oak, birch, elm, ash, mountain-ash, hazel, and poplar, in which the red and roe deer freely roam, are still extensive in the Highland districts, though they were much reduced for building purposes during the long wars which marked the close of the last century and the commencement of the present, owing to the difficulty of procuring timber from abroad. Whole woodlands were then obliterated, as Glenmore, famed for the age and size of its trees, which clothed one of those romantic glens or passes intervening between the Cairngorm group of mountains and the river Spey, and formed a continuation of the forest of Rothiemurchus. This tract of timber was sold by the Duke of Gordon, the proprietor, to a merchant of Hull, who felled the trees, floated the logs down the river, and built a number of vessels at its mouth. Among the rest was a magnificent pine, long the pride of the forester, called the Lady of the Glen, supposed to be the largest ever cut down in Scotland, of which there is a plank in the entrance-hall of Gordon Castle, measuring six feet two inches in length, and five feet five inches in

breadth. It bears the inscription on a brass plate: 'In the year 1783, William Osbourne, Esq., purchased of the Duke of Gordon the forest of Glenmore, the whole of which he cut down in the space of twenty-two years, and built, during that time, at the mouth of the river Spey, where never vessel was built before, forty-seven sail of ships of upwards of 19,000 tons burden. This undertaking was completed at the expense (for labour only) of above £70,000. To his Grace the Duke of Gordon this plank is offered as a specimen of the growth of one of the trees.' During this process of reduction, landholders unwisely neglected planting timber, principally actuated by the consideration that a somewhat lengthened period must elapse before any income of moment can be derived from the growth. A more modern race, abandoning this narrow policy, and having in view at once the ornamentation of their estates, and the most profitable mode of occupying districts incapable of being grazed or cultivated, covered waste places with timber-trees, a rural improvement believed to have been stimulated by the advice of the dying laird to his son, as recorded in one of Scott's novels: 'Be aye sticking in a tree, Jock; it will be growing while ye are sleeping.' Thousands of statute acres in Perthshire have thus been covered with larch, spruce-fir, silver-fir, beech, and plane, the larches in particular attaining stately dimension. The frequent alternation of hill and dale in that county, with the opening of the glens and the exposure of the general surface to the south, supply that tree with a site similar to that of its native locality, the Tyrolese and Dalmatian Alps; and it now overtops all the other woods of the same age, rising over the dark pines, in the summer luxuriance of its bright-green leaves, like an obelisk of beryl.

The area of the mainland amounts to upwards of 26,000 square miles; and adding that of the adjoining islands, the total area of Scotland contains about 30,685 square miles. Of these islands, the Orkneys and Shetlands, on the north, have been thought of sufficient importance to form separate counties, and are hereafter noticed. This is the case also with Bute and Arran, on the south-west, in the Firth of Clyde. But the principal series, the Hebrides, or Western Isles, are distributed between three counties of the mainland, and hence a collective view of them may here be conveniently introduced.

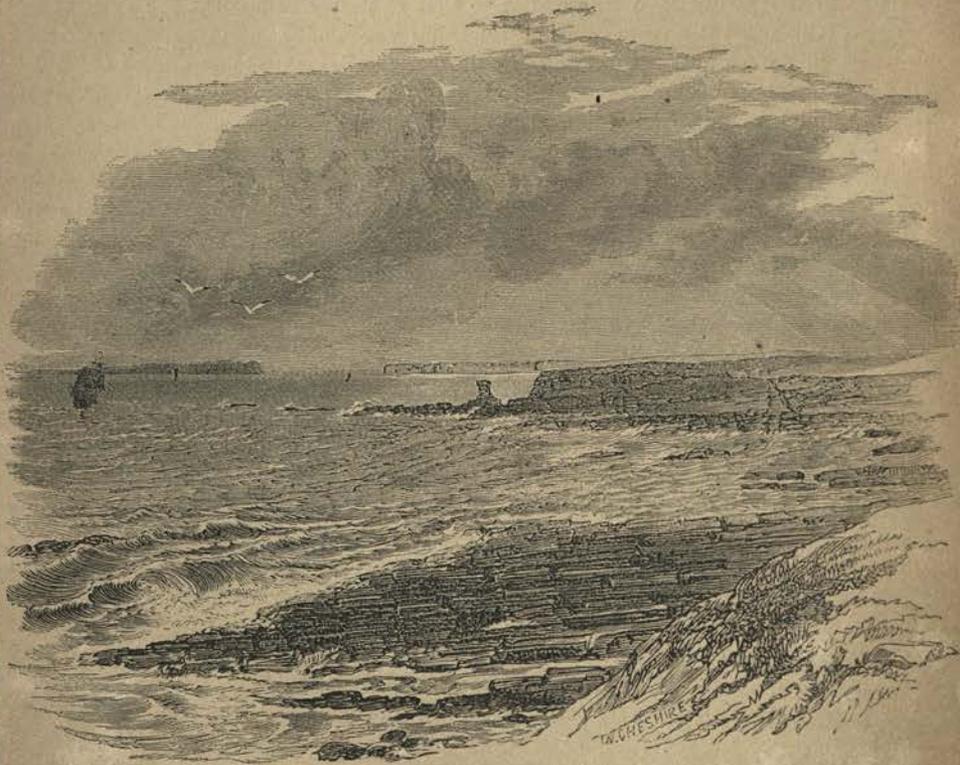
The Hebrides, on the west coast, form two extensive ranges of islands denominated Inner and Outer, descriptive of their position in relation to the main shore, separated from each other by the channel of the Little Minch, which is about twelve miles wide in the narrowest part. Upwards of a hundred of the number are of sufficient size to be marked on an ordinary map, and about eighty are inhabited, chiefly on the coasts, houses being rarely met with more than a mile from the sea-mark. The Inner range immediately adjoins the mainland, and has scenes of incomparable magnificence. It includes the large island of Skye, forty-six miles long by from four and a half to twenty-three broad, belonging to the county of Inverness; Mull, Islay, Jura, Colonsay, and Tiree, of important size, portions of Argyle; Eig, Rum, Canna, Staffa, and Iona, of smaller dimensions, distinguished by natural curiosities and historical associations. These are the trap islands of the geologist, being composed chiefly of basaltic or trap rocks, frequently assuming the columnar structure, and rising to grand elevations. Ben More, in Mull, attains the height of 3185 feet, and is the culminating-point of insular Scotland. The Outer range forms a continued series, extending through upwards of 120 miles, so close together as to be considered one, popularly called the Long Island. Its largest and most northerly component, Lewis, is really united by a narrow isthmus to Harris, but the former belongs to the county of Ross, and the latter to that of Inverness, to which also the other principal members of the chain are attached, North and South Uist, Benbecula, and Barra. They are almost wholly formed of gneiss, and have a much less striking aspect than the sister-range, as gneissic districts have in general little variety of feature or strength of outline. But they are very

remarkable for tortuous sea-lochs, one of which, Loch Namaddy, on the eastern side of North Uist, with an entire area of only nine square miles, has a coast-line of more than 200 miles. One of the parishes of Lewis has a direct length of eighteen miles, but it measures eighty miles following the sinuosities of the shore. Upwards of fifty miles west from Harris is St Kilda, the outermost of the Outer Hebrides, the westernmost of the Western Isles, and the most solitary inhabited spot in the United Kingdom,

'Whose lonely race

Resign the setting sun to Indian wilds.'

It has a circuit of about six miles, and rises 1500 feet above the stormy ocean, with a margin of precipices so impracticable, that there are only two points at which a landing is possible. The few inhabitants are chiefly fowlers, occupying a cluster of beehive-looking cabins at the Village Bay, in possession of little plots of cultivable ground on which some garden vegetables are with difficulty raised. The Hebrides in remote times were subject to the kings of Norway. They subsequently formed the patrimony of a race of powerful chieftains, with the title of Lord of the Isles, who were at times practically independent, and the last of whom died without heirs in 1536. The heads of clans next exercised nearly sovereign rights till the abolition of all hereditary jurisdictions in the middle of the last century.



Dunnet Head.



Glasgow from the Broomielaw.

Scotland is divided into thirty-four counties, but practically the number is only thirty-two, owing to the Orkneys and Shetlands being associated in parliamentary representation, while Ross and Cromarty are so intermixed, that they are generally dealt with as a single district. There are no subdivisions corresponding to the English hundreds, but a distribution into parishes for civil and ecclesiastical purposes. In several instances, entire counties, with portions of one or more, retain denominations of long standing in common use, descriptive of physical features, or of their character as feudal holdings. Thus Tweeddale is the equivalent for Peeblesshire; East, West, and Mid Lothian similarly represent the counties of Haddington, Linlithgow, and Edinburgh. An extensive district in Inverness-shire bears the name of Badenoch, derived from a word signifying 'bushy,' in allusion to the ancient natural forests. Of the counties, fourteen are southern, nine middle, and nine northern.

I. SOUTHERN COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
Edinburgh,	397	Edinburgh, Leith, Musselburgh, Portobello, Dalkeith.
Linlithgow,	127	Linlithgow, Bathgate, Bo'ness, Queensferry.
Haddington,	280	Haddington, Dunbar, Tranent, Prestonpans, North Berwick.
Berwick,	450	Greenlaw, Dunse, Coldstream, Lauder.
Roxburgh,	670	Jedburgh, Hawick, Kelso, Melrose.
Selkirk,	260	Selkirk, Galashiels.
Peebles,	356	Peebles, Innerleithen, Linton.
Dumfries,	1129	Dumfries, Annan, Moffat, Sanquhar.
Kirkcudbright,	954	Kirkcudbright, Castle-Douglas, Gatehouse, Creetown.
Wigton,	512	Wigton, Stranraer, Port Patrick.
Ayr,	1016	Ayr, Kilmarnock, Irvine, Girvan, Ardrossan.
Lanark,	889	Lanark, Glasgow, Airdrie, Hamilton.
Renfrew,	247	Renfrew, Paisley, Johnstone, Greenock, Port Glasgow.
Bute,	257	Rothsay, Lamlash, Millport.

EDINBURGHSHIRE, or Mid-Lothian, extends about twelve miles on the southern shores of the Firth of Forth, but gradually expands east and west on receding from them; and the surface, the maritime portion of which is level or only gently diversified, acquires a somewhat bolder character from the Moorfoot and Pentland Hills in the interior. It is traversed by several small streams, the Water of Leith, the North and South Esk, the banks of which are of great interest and beauty, and the Almond, separates the county for a considerable distance from Linlithgow. The hilly districts are pastoral; fertile lower grounds are distributed into large tillage farms, and numerous market-gardens occupy a considerable area. Coal is wrought in the valley of the Esk, where the bed is fifteen miles by eight in extent, and contains thirty-three seams varying from one foot to six feet in thickness. The sandstone quarry at Craigeith supplies a building material distinguished by durability and purity of colour, of which almost all the modern parts of the metropolis are built.

The city of EDINBURGH, the capital of Scotland, is situated in the north part of the county, within two miles of the coast, 325 miles in direct distance from London, and 399 by railway. Its centre is in latitude $55^{\circ} 57' 20''$ north, and longitude $3^{\circ} 10' 30''$ west of Greenwich. The picturesque blends with the elegant in its appearance, while the site is extremely fine, far surpassing that of other European capitals, with the exception, perhaps, of Naples, Lisbon, and Constantinople. From many high points in the neighbourhood,

‘Traced like a map the landscape lies
 In cultured beauty stretching wide;
 There Pentland’s green acclivities;
 There ocean, with its azure tide;
 There Arthur’s Seat; and gleaming through
 Thy southern wing, Dunedin blue!
 While in the orient, Lammer’s daughters,
 A distant giant range, are seen,
 North Berwick Law, with cone of green,
 And Bass amid the waters.’

Two ridges of hill, running east and west, parallel to each other, are respectively occupied, the northern by the New Town, and the southern by the Old. They are separated by a deep hollow, planted with gardens, across which communication is maintained by bridges and an earthen mound. No contrast can well be greater than between the modern portion, with its broad regular streets, handsome squares and crescents, on the spacious summit of the lower elevation, and the older part, the original Auld Reekie, distinguished by immense piles of lofty, irregular, antique houses, on the slopes and crest of the higher, more abrupt, and narrower ridge. At the opposite extremities of the latter are two prime objects of interest—the Castle, on the western side, occupying a bold rock, with an enclosure of several acres, containing accommodation for a numerous garrison; and Holyroodhouse, on the eastern extremity, anciently the residence of the Scottish sovereigns and the scene of tragical events connected with their history. Its site is a small plain or valley between the Calton Hill, a rounded summit rising 355 feet above the sea-level, and the majestic Arthur’s Seat, rising to the height of 822 feet, one of the most delightful resorts in the vicinity.

Edinburgh, the capital of the kingdom, is chiefly distinguished as the seat of the supreme courts of judicature, and of a university, founded in 1580, long raised to distinction by the eminence of its professors. It is also the place where the general ecclesiastical assemblies are held, and where the representative peers for Scotland are elected. It contains noble hospitals and charitable institutions, three great public libraries, and is extensively connected with the literature of the whole kingdom by many printing and publishing establishments of the first class. The population amounted to 168,000 at the last census. The city is supposed to derive its name from *Edwins-burg*, a fort or stronghold, founded on the spot by Edwin, king of Northumbria, 616–633, who extended his territory to the Firth of Forth. The Gaelic denomination of *Dun-Edin* or *Dunedin* is merely a translation

of the Saxon name. The poetical title of *Edina* was first employed by Buchanan. It is frequently styled the Modern Athens, owing to its literary fame, the taste displayed in its architecture, and the correspondence of the site to that of the renowned Greek city. *Leith*, at a short distance on the coast, is almost a suburb, and is the port of the capital. Fishing-places and sea-bathing resorts lie on the shore on either hand—Newhaven and Granton westward, Portobello and Musselburgh eastward. *Dalkeith*, a small inland town and local grain mart, six miles on the south-east of Edinburgh, has one of the principal residences of the Duke of Buccleuch, Dalkeith Palace, adjoining, below which the North and South Esk effect their junction. The former river, higher up, flows through a romantic and sequestered dell, by the mouldering castle and exquisite chapel of Roslin, and washes the base of the cliff on which stands Hawthornden, once the residence of the poet Drummond, the friend of Shakspeare and Ben Jonson.

LINLITHGOWSHIRE, or West Lothian, lies on the narrower part of the Firth of Forth, and has the small ports of Bo'ness and Queensferry on its shores, the latter sharing a considerable passenger-traffic to the opposite side of the estuary. The county—of very limited extent—has a surface pleasingly varied with knolls, and possesses abundance of coal and iron, with limestone and sandstone quarries.

Linlithgow, an old royal burgh, occupies an inland site, on the banks of a *lin*, or small sheet of water, and retains traces of antiquity in harmony with its historical notoriety. In the palace, overlooking the lake, the unfortunate Queen Mary was born; and in the long irregular main street the Regent Murray was shot down from one of the houses. The town, celebrated for its wells, possesses one elaborately constructed in this thoroughfare. *Bathgate*, five miles to the south, has some cotton and woollen manufactures, with coal, ironworks, and the famous Torbanehill mineral, in the vicinity.

HADDINGTONSHIRE, or East Lothian, at the entrance of the Firth of Forth into the North Sea, is remarkable for its advanced arable husbandry. There is also a maritime population largely engaged in fisheries, and pastoral industry is pursued on the Lammermuirs, which rise towards the southern border.

The town of *Haddington*, a few miles inland, on the little river Tyne, is a principal mart for agricultural produce, and is commonly referred to, but uncertainly, as the birthplace of the celebrated John Knox. An ancient Gothic church, still used, but partly in ruins, was formerly distinguished as the 'Lamp of Lothian.' *Dunbar*, a seaport extensively engaged in the herring-fishery, is of some celebrity in military history, owing to the successful defence of its castle against the English by 'Black Agnes,' Countess of March, and to Cromwell's decisive defeat of the Scotch army in the neighbourhood. *Prestonpans*, a village on the shore, is famous for the triumph of the Highlanders under Prince Charles Stuart over the royal forces, in 1745. The oysters dredged here are of great repute under the name of 'Pandores,' as being found near or by the door of the salt-pans. *North Berwick*, at the outlet of the Forth, frequented as a watering-place, is in an interesting neighbourhood. Eastward are the remains of Tantallon Castle, one of the prominent scenes in *Marmion*, opposite to which the Bass Rock rises precipitously from the waves to the height of 420 feet, with only one point where it is possible to land, on the side towards the main shore. The rock is a mass of granular greenstone, nearly round, about a mile in circumference, and two miles from the coast. It formerly possessed a fortress in which many of the leading Covenanters were imprisoned. The dungeons and cells are still to be seen. A spring on the upper surface supplied the garrison with water; and this stronghold was the last place on which the standard of the Stuarts waved after the Revolution. It is now grazed in summer by a few sheep, while the cliffs are occupied by immense numbers of sea-fowl, chiefly solan-geese, of which bird the Bass is the only breeding-station on the whole eastern coast. To make a bridge to the Bass, and to take Tantallon Castle, was once a current saying with the peasantry to express things impossible.

BERWICKSHIRE, to the southward, extends along the coast to the English border, and has a bold rocky shore, with St Abb's Head for the distinguishing promontory, in a wild and savage neighbourhood, which supplied the reality after which the imaginary 'Wolf's Crag' was sketched in the *Bride of Lammermoor*. The north part of the county contains the higher points of the Lammermuir Hills, but the greater portion of the surface belongs to the comparatively level region, called the Merse, a fertile and highly-cultivated district. The Tweed forms most of the south-eastern boundary, and receives several affluents from the interior, on which the small towns of *Greenlaw* and *Lauder* are seated.

Coldstream, on the Tweed, gives its name to a celebrated regiment, the Coldstream Guards, raised at the spot by General Monk, previous to his march southerly to effect the restoration of Charles II. *Dunse*, the largest town in the county, claims connection with John Duns Scotus, the famous schoolman;

Dr M'Crie, the historian, and Sir Joseph Paxton, were natives of the parish. Ruins of old castles, towers, abbeys, and priories are very numerous in Berwickshire. Dryburgh Abbey, on a richly-wooded peninsula formed by the Tweed, contains the remains of Scott and Lockhart, buried in St Mary's Aisle.

ROXBURGHSHIRE, an inland border county, mainly separated from England by the smooth, dry, and green ridge of the Cheviots, includes the middle portion of Tweeddale, the whole of Teviotdale, and the principal part of Liddesdale, pastoral districts of great interest.

Jedburgh, the small county town, surrounded with orchards in the valley of the Jed, has large remains of a celebrated abbey, part of which is fitted up as a parish church, and contains the grave of Lord Chancellor Campbell. In the south aisle, formerly used as a grammar-school, Thomson, the bard of the *Seasons*, received his early education, and he is said to have described the storm collecting on the mountain-top in his 'Winter' from the appearance presented by Ruberslaw, a conspicuous height in the vicinity. The proverb of 'Jedburgh justice,' the leading principle of which was to hang first and try afterwards, arose from the summary execution of border marauders. *Hawick*, a much more important place, surrounded with extensive nursery-grounds, has manufactures of woollen and worsted goods. Near it is Branksome Tower, the principal scene of the *Lay of the Last Minstrel*. *Kelso*, a centre of agricultural produce, near the junction of the Teviot with the Tweed, is distinguished by large remains of a magnificent abbey, one of the wealthiest foundations of the kind, and by singularly beautiful environs. The north part of the county includes Abbotsford, the far-famed residence of Sir Walter Scott, and Melrose Abbey, the finest ecclesiastical ruin in Scotland. In the extreme south is Yetholm, a village embosomed in the Cheviots, which has for nearly three centuries been a metropolis of the gipsies, and still contains a number of them, more regular in their habits than those of a bygone generation.

SELKIRKSHIRE is further inland and almost wholly a pastoral county. It contains part of upper Tweeddale, the whole of Ettrickdale, and the vale of the Yarrow, a district said to have given rise to more ballad and lyrical poetry than any other part of Scotland. Though now almost entirely bare of trees, the whole is supposed to have been once a woodland, and it is commonly referred to by old writers as the 'Forest,' or as 'Ettrick Forest,' from the name of the principal stream, of which the Yarrow is a tributary. The well-known song, 'The Flowers of the Forest,' refers to the fact of a considerable number of persons from this district being slain in the disastrous fight of Flodden Field. Towards the source of the river is Ettrick Pen, the highest point of the county, 2258 feet above the sea. Between Tushielaw and Ettrick Church, was born the poet James Hogg, commonly called the Ettrick Shepherd. In the valley he spent a great portion of his life, and he died on the banks of the neighbouring Yarrow. This stream emerges from a small lake, bordered with hills, and immediately passes by the ruined tower of Dryhope, once the home of Mary Scott, the 'Flower of Yarrow.' The lake bears the name of St Mary's Loch; an ancient burying-ground is pointed out as having belonged to a bygone religious house, St Mary's Kirk; and a place of entertainment, at the head of the lake, is popularly known as 'Tibbie Shiels's' Cottage.

Selkirk, on the Ettrick, below the confluence of the streams; and *Galashiels*, on the banks of the Gala, near its entrance into the Tweed, are the only towns, both seats of woollen manufactures. These are most extensively conducted at the latter place, and consist of goods of the finest texture and most brilliant colours, chiefly 'Tweeds,' so called after the river.

PEEBLESHIRE, the adjoining county to the westward, has a very irregular border-line, which embraces a surface more generally elevated and thinly peopled than any of the other southern counties. It contains the upper portion of the Tweed, with the source of the river, and contributes several minor streams to the main channel. The lofty heights of Broad Law, Dollar Law, and Scrape, fall within its bounds. The hills are rounded and grassy on their summits, and arable only on their lower slopes.

Peebles, a small ancient town, is pleasantly situated on a peninsula formed at the junction of the Eddleston Water with the Tweed. In the middle of the fourteenth century it was made a royal burgh, in acknowledgment of contributions towards the ransom of David II., taken prisoner by the English at the battle of Neville's Cross. The town, long secluded in a high pastoral region, is now approached by three railways, and has been much improved in recent years. In 1859, Mr W. Chambers presented it with

an Institution which combines a large library, a reading-room, museum, gallery of art, and a hall for lectures and public meetings. The village of *Inverleithen*, six miles distant, possesses a mineral spring, and is a place of resort in summer. It is popularly identified with Scott's *St Roman's Well*. The cottage occupied by David Ritchie, the undoubted original of his 'Black Dwarf,' is on Manor Water, in the county. Among the more remarkable antiquities are numerous British hill-forts, and mediæval border castles in ruins.

DUMFRIESHIRE, partly on the English border, but more extensively on the upper portion of the Solway Firth, embraces some low, swampy moorlands, but stretches northward to the Lowther Hills, and has some of the more elevated summits on its boundary-line, or wholly within its area. It is naturally divided into three districts, Eskdale, Annandale, and Nithsdale, so called from their respective rivers, all of which flow to the Solway. The industry of the county consists chiefly in the rearing of live-stock, with lead-mining in connection with the Lowther Hills on the north-west, in which direction coal is also worked.

Dumfries, an elegant and flourishing town, on the east bank of the Nith, nine miles above its mouth, is locally considered a kind of capital of the southern counties. The resting-place of the national poet, Burns, is in the burying-ground of the old church, with a monument to his memory, and the humble street in which he lived for some years before his death now bears his name. In front of the Savings Bank, a statue of Dr Duncan, the minister of a neighbouring parish, with whom those institutions originated, is appropriately placed. There are no manufactures of importance, but great trade is carried on at large weekly cattle-markets, and large quantities of stock and produce are despatched to England. At a village in the vicinity, was born William Paterson, the projector of the Bank of England, who, instead of gaining a recompense for his labours, had to petition the crown to save him and his family from utter beggary. Annandale, the central natural division of the county, has the seaport of *Annan* on the south, at the outlet of its river; and *Moffat*, in the mountain-region of *Har Fell*, at the north extremity, distinguished by mineral springs, sulphureous and saline. In the centre of the dale are *Lochnaben* and *Lockerby*. The former, nearly surrounded by several beautiful lakes, has remains hard by of a castle which belonged to Robert Bruce. The latter place annually witnesses a great gathering to its lamb fair, held in August, the largest of the kind in Scotland, to which farmers flock for business, and the peasantry for sport. *Gretna Green*, close to the English border, long celebrated for its summary marriages of runaway couples, is now simply a station on the line of the Caledonian Railway.

The Stewartry of **KIRKCUDBRIGHT**, as it is styled, and **WIGTONSHIRE**, districts of a hilly and pastoral character, compose the extreme southern portion of Scotland, and have spacious bays, conspicuous headlands, and numerous caverns along the shore, formerly the haunts of smugglers. The whole region is comprehended under the general name of Galloway, and once possessed a particular breed of small horses, hence called 'Galloways,' a name which has become common for steeds of similar stature. It still retains a race of high-valued hornless cattle, of a prevailing black colour, remarkable for gentleness and beauty, which are sent fattened in great numbers to the English markets. The Mull of Galloway, the most southerly point of the northern kingdom, is the extremity of a long, narrow peninsula, projecting into the Irish Sea, and consists of almost perpendicular rocks, from which the view stretches to the hills of the Isle of Man and the mountains of Ireland. Lakes are numerous, mostly small, and beautifully fringed with wood.

The principal river, the *Dee*, has the character of a Highland stream through the greater part of its course. The town of *Kirkcubright* is situated on the shore of its estuary, into which the peninsula of *St Mary's Isle* projects, luxuriantly clothed with trees, forming one of the most charming sylvan scenes in the southern counties. *Castle Douglas*, inland near the river, chiefly of modern erection, has its name from a neighbouring stronghold of the Douglasses, the remains of which are extant. Conspicuous among them is a main tower, with a block of granite projecting over the gateway, called the 'hanging stone,' of which these feudal lords of Galloway used to say, that 'the hanging stone never wanted its tassel.' *Gatehouse* and *Creetown* are shipping ports, the latter possessing valuable quarries of granite, of which the new docks of Liverpool are constructed. *Wigton* occupies an eminence on the western shore of the bay to which its name is given, a very fertile tract, near the outlet of the *Bladenoch*. Its old churchyard contains an interesting memorial of the two female martyrs who were drowned in the river in the year 1685. *Newton-Stewart*, surrounded with swelling-hills, is a larger place on the banks of the *Cree*, a seat of manufactures, with lead-mines in the vicinity. But both are considerably exceeded by *Stranraer*, the most important town of Wigtonshire, a seaport at the head of *Loch Ryan*. *Portpatrick* is one of the points most contiguous to the Irish coast, twenty-one miles distant, with which submarine telegraphic communication is maintained.

AYRSHIRE, the largest of the southern counties, and one of the finest, somewhat crescent-shaped, extends along the Firth of Clyde, and the channel intervening between it and the Irish Sea. It contains a considerable proportion of hilly surface, some high elevations towards the inland border-line, with spacious plains along the shores, and scenes of picturesque beauty on the rivers Ayr, Doon, Girvan, Irvine, and Garnock. Manufacturing and mining industry prevails in the north and middle portions of the district, where there are extensive beds of coal and ironstone. Agriculture is also pursued, but most extensively in the north.

Ayr, a very handsome and flourishing seaport, is at the mouth of the river of the same name, here crossed by two bridges, the 'Twa Brigs' of Burns, who was born near Alloway on the Doon, a small stream in the neighbourhood, celebrated by the poet. The country around Ayr is called 'The Land of Burns.' *Kilmarnock*, the principal town in size, wealth, and population, with the carpet manufacture for its staple, occupies an inland site, and is the centre of a number of populous places engaged in similar industries. Along the coast northward of Ayr are many fishing towns and ports, Troon, Irvine, Saltcoats, Ardrossan, and Largs, the first and the last two of which are frequented for sea-bathing. Troon and Ardrossan are the principal ports for shipping coal and iron to Ireland, England, and the Continent. *Irvine* once had large collieries on the banks of the Garnock, which here joins the Irvine River, till they were destroyed by an extraordinary accident in June 1833, happily involving no loss of life. The bed of the stream gave way; the water-rushed through the opening into one of the pits; all the excavations connected with it extending for several miles were soon flooded; and the pressure of the water in the pits became so great, that the confined air rent asunder the surface in various places, in the struggle to disengage itself, till the whole was set free. Off the southern coast of the county, opposite to *Girvan*, at the distance of nine or ten miles, *Ailsa Craig* rises, in complete isolation, abruptly from the sea to the height of 1097 feet. It is composed of compact felspar, and exhibits basaltic columns of extraordinary size. The mass has a circuit of two miles, is almost perpendicular on one side, everywhere steep, uninhabited by man, but tenanted by solan-geese and other wild-fowl, goats, and rabbits. The ruins of a tower crown the summit. The height and isolation of the rock render it a very striking object from the shore, and from the steamers proceeding to and from Glasgow.

LANARKSHIRE, traversed centrally by the Clyde from south-east to north-west, corresponds in its general limits to Clydesdale, and belongs almost entirely to the basin of the river. Three natural divisions are distinguished, upper, middle, and lower, varying in their features. The upper is a mountainous, pastoral, and lead-mining region, embracing Leadhills, where the principal veins have an average thickness of from four to ten feet. The middle portion, rich in coal and ironstone, is also a scene of pastoral and dairy husbandry, abounds with thriving plantations, and is celebrated for beautiful and fruitful orchards. The lower division has fertile alluvial tracts along the river, contains important stores of coal, iron, and other minerals, and is the great seat of manufactures and commerce in the country.

Lanark, the county town, near the right bank of the Clyde, in the middle part of its course, acquires its principal interest from being in the immediate vicinity of the celebrated Falls. *Glasgow*, on the lower portion of the river, the chief city of Scotland as respects extent and wealth, is distinguished as the third provincial city in the United Kingdom in point of population, ranking next to Liverpool and Manchester. It is the rival of the former in foreign commerce, and of the latter in manufactures. Though chiefly on the north bank of the Clyde, an important suburb lies on the southern side. The two sections are united by five bridges, to the lowermost of which, vessels of the largest class can come up, owing to improvements in the naturally encumbered bed of the stream. Besides the features common to a vast commercial emporium and manufacturing centre—as magnificent public edifices, a long line of quays, the ship-laden river, a host of spires, and clusters of tall chimneys in every direction—Glasgow has some points of special interest. These include the Cathedral, the only structure of that kind upon the mainland of Scotland spared entire by the zealots of the Reformation; the buildings of the University, founded in 1451, with much of the architectural appearance which belongs to the colleges of Oxford; the Trongate, forming with its continuations a line of streets three miles in length; and the public park close to the river and the city, an appendage of long standing, answering to its old popular name of the 'Green,' being a very extensive space of grassy ground, fitted with convenient walks, and planted with rows of trees. Formerly, the inhabitants were dependent upon the Clyde for their water-supply, but now obtain it from the purer source of Loch Katrine, from which it is conveyed by costly works through the intervening forty miles, which involved an immense amount of blasting, cutting, and tunnelling, from the rugged character of the country. The ceremony of 'tapping the loch' was performed by the Queen in person, in the autumn

of 1859. *Airdrie*, a considerable town to the east of Glasgow, has rapidly grown up from a village owing to collieries and ironworks. *Hamilton* is a small manufacturing town, near the junction of the Avon with the Clyde, two miles above Bothwell Bridge, where the Covenanters were defeated by the royal army under the Duke of Monmouth in 1679, of which a spirited sketch is given in *Old Mortality*. Near by is the palace of the Duke of Hamilton, with which a far-spreading domain of remarkable interest is connected, containing venerable oaks, flowery dells, and ivy-mantled ruins. The country thence along the river up to Lanark is exceedingly beautiful. Lanark was famous for its orchards as early as the time of the venerable Bede. They yielded early in the present century as much as £8000 yearly, but have latterly fallen off; and the ground is more profitably occupied in producing gooseberries, vegetables, &c. for the Glasgow market.

RENFREWESHIRE, on the west, extends inland from the Clyde estuary, and corresponds to the lower portion of Clydesdale in natural features and industrial employments.

Renfrew, the county town, near the southern bank, small and antiquated, gives the title of Baron Renfrew to the Prince of Wales, who travelled under this appellation in America. *Paisley*, further inland, the real capital, while equally ancient, has acquired great modern importance from the production of fancy goods of various descriptions and material, silk, cotton, linen, and velvet. The county contains other two populous manufacturing places, *Johnstone* and *Pollockshaws*; and two villages with historic names, *Elderslie*, near *Paisley*, where the great patriot, Sir William Wallace, was born, and *Langside*, in the vicinity of Glasgow, where the cause of Queen Mary was finally overthrown. *Greenock*, a principal seaport, near the great bend of the Clyde into the firth, is entirely of recent growth. It is distinguished as the birthplace of James Watt, the improver, if not the inventor, of the steam-engine. It has large ship-building establishments and sugar-refineries, extensive commerce across the Atlantic, and is the chief port for the embarkation of emigrants from Scotland to North America. The pier-head commands a delightful view of the hills in the opposite counties of *Dumbarton* and *Argyle*. *Port Glasgow*, a few miles eastward, founded by the merchants of the city for the convenience of commerce before the deepening of the river was thought of, enjoys considerable foreign trade, though its original design was superseded by the improvement of the navigation.

BUTESHIRE, an insular county, in the broader part of the firth, includes the island of that name, with *Arran*, the *Great* and *Little Cumbrays*, and several others of insignificant extent. *Bute*, separated from the mainland by a very narrow strait, is fifteen miles in length by five miles in the greatest breadth. It presents no striking features, but contains many scenes of quiet beauty, commands views of the magnificent adjoining shores, and is studded with several small lakes. From the mild and genial climate, it has been called the *Montpellier of Scotland*, and is hence resorted to by invalids.

Rothesay, the only town, cheerful and picturesque, is at the head of a deep bay on the north-eastern side, and is much visited both in winter and summer. It contains fine ruins of a castle in its midst, which was once a favourite residence with the Scottish sovereigns, and gives the title of Duke of Rothesay to the Prince of Wales. Six miles across the sea-channel to the south-west lies the much larger island of *Arran*, about twenty miles long by twelve broad, of an entirely different aspect, and deeply interesting from its geological character. The surface, generally high, is mountainous in the northern part, and the scenery sublime. Granite here protrudes through the stratified formations of mica-slate and sandstone; and forms a group of grandly picturesque serrated heights, distinguished by their spiry forms, stupendous precipices, and general destitution of vegetation. *Goatfell*, or, according to its Gaelic name, *Gaoth Bhein*, the 'Mountain of Winds' is the loftiest, rising 2874 feet, with an obtuse pyramid of granite for its summit, consisting of large blocks completely bare, or scantily spotted with lichens. In other parts of the island the open valley appears, the wooded glen, and the cultivated plain. The inhabitants speak the Gaelic tongue, and chiefly occupy the fishing villages of *Lamlash*, *Invercloy*, and *Corrie* on the east coast, which are much resorted to by summer tourists. The two *Cumbrays*, both of small dimensions, adjoin the north coast of *Ayrshire*. The lesser is said to have had a parish minister in the olden time, who, after praying for *Great* and *Little Cumbray*, was in the habit of adding, 'not forgetting the adjacent islands of *Great Britain* and *Ireland*.'

II. MIDDLE COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
<i>Dumbarton</i> ,	320	<i>Dumbarton</i> , <i>Kirkintilloch</i> , <i>Helensburgh</i> .
<i>Stirling</i> ,	462	<i>Stirling</i> , <i>Falkirk</i> , <i>Kilsyth</i> , <i>Bannockburn</i> , <i>Denny</i> .
<i>Clackmannan</i> ,	46	<i>Clackmannan</i> , <i>Alloa</i> , <i>Dollar</i> .
<i>Kinross</i> ,	78	<i>Kinross</i> .
<i>Fife</i> ,	513	<i>Cupar</i> , <i>Dunfermline</i> , <i>Kirkcaldy</i> , <i>Dysart</i> , <i>St Andrews</i> .
<i>Forfar</i> ,	389	<i>Forfar</i> , <i>Dundee</i> , <i>Arbroath</i> , <i>Montrose</i> .
<i>Kincardine</i> ,	394	<i>Stonehaven</i> , <i>Bervie</i> , <i>Finnan</i> .
<i>Perth</i> ,	2834	<i>Perth</i> , <i>Crieff</i> , <i>Callander</i> , <i>Blairgowrie</i> , <i>Dunkeld</i> .
<i>Argyle</i> ,	3255	<i>Inverary</i> , <i>Campbeltown</i> , <i>Dunoon</i> , <i>Oban</i> .

DUMBARTONSHIRE, on the north bank of the Clyde, extends from thence between the sea-lake of Loch Long, on the west, and the fresh-water expanse of Loch Lomond on the east. The northern part of the area consists of rugged mountains used for sheep-walks; southward are lower grounds under cultivation; and in the south-east, in the direction of Glasgow, cotton-printing and bleaching establishments appear, and industries corresponding to those of that city are followed. The principal river, the Leven, which issues from Loch Lomond, is the subject of an ode by Smollett, who was born upon its banks. Until contaminated by the refuse from various works on its banks, it is remarkably pure and limpid, and after a short flow, discharges itself into the Clyde.

On its left bank, just above the junction, is *Dumbarton*, of ancient date, with a new town rising up from an old suburb on the opposite side of the stream. The interest of the place centres in the Castle Rock, at the point of confluence. This is about a mile in circumference, 560 feet in height, terminating in two summits, one a little higher than the other. It was formerly a formidable stronghold, often used as a state prison, and is still kept up as a public fort, along with the Castles of Edinburgh, Stirling, and Blackness. The higher summit bears the name of Wallace's Seat, in memory of his feats of arms in connection with the fortress; a part of the castle is called Wallace's Tower; and a huge two-handed sword in the armoury is shewn as his weapon. Dumbarton, under the name of Alclud, was the capital of the old British kingdom of Strathclyde, with which that of Cumbria, embracing three of the northern counties of England, was occasionally united. *Kirkintilloch*, on the eastern verge of the county, is a small manufacturing town. *Helensburgh*, a favourite summer resort, is situated at the entrance to the Gareloch, opposite to Greenock.

STIRLINGSHIRE extends from Loch Lomond eastward to the estuary of the Forth, and comprises the lofty mass of Ben Lomond, rising with a green conical summit 3192 feet, on the western side; the Campsie Hills, with other high grounds, rise towards the centre; and fertile, highly-cultivated plains, or carse, eastward, where also the carboniferous formation is largely developed, and coal, iron, and limestone are extensively obtained.

Stirling, associated with many stirring events of Scottish history, occupies a commanding eminence by the winding Forth, at the head of the river navigation, and is conspicuous from afar owing to its castle-palace, still kept in repair, which crowns a high rock precipitously rising up from the adjoining plain. The view from the battlements, or from 'the Lady's Look-out,' a small opening in the parapet-wall of the garden, is remarkably fine, extending over several counties, and embracing twelve battle-fields. Two miles to the south, is *Bannockburn*, a village which takes its name from the small brook or burn on which it stands. Here in 1314 Bruce defeated, with immense slaughter, the English army commanded by Edward II., and thus secured the independence of his country. *Falkirk*, twelve miles to the south-east, also prominent in military annals, is now surrounded by ironworks, among which, those on the Carron, a small stream, rank with the largest establishments of the kind. Great cattle-fairs are held on a neighbouring moor three times a year, in August, September, and October, to which a vast number of black-cattle and sheep are brought from the Highlands and the Western Isles, and are disposed of chiefly to buyers for the English markets. The last is the most considerable, as the breeders must then part with all the stock which they do not intend to keep through the winter. The total number sold at the three fairs has amounted to 300,000 head of cattle and sheep. Iron ore for the Carron Ironworks is very largely obtained at *Kilsyth*, near the southern border of the county. In the north-east, the village of the Bridge of Allan has recently been modernised, and become one of the most fashionable of inland watering-places, owing to the adjoining saline springs of Airthrey. The neighbourhood is extremely beautiful, and remarkable for magnificent trees.

CLACKMANNAN, the smallest of the Scotch counties, lies on the north bank of the Forth, at the commencement of its estuary. It is only about ten miles in length by four in breadth; and is intersected by the Devon, a stream which forms a series of highly-romantic cascades, the Cauldron Linn and Rumbling Bridge, being just beyond the northern border. Within the limit, in that direction, rises the loftiest of the Ochill Hills, attaining the height of 2300 feet, from which the surface descends gradually southward to the level of the Forth, where it forms a very fertile plain. While a district of diminutive extent, it has not only varied natural features of great beauty, but is a scene of remarkable activity and enterprise. There are coal-mines and ironworks upon a great scale, with a number of large breweries and distilleries.

Alloa, the principal place, is a busy town and port, the outlet of the produce of its own breweries, and the general produce of the county. Woollen goods are made at *Tillicoultry*, in the valley of 'the clear winding

Devon,' as well as at *Dollar*, a place widely known for its excellent seminary, founded by Captain M'Nab, a native of the place, who left it as a poor ship-boy, and realised a very large fortune in London. He left £80,000 for the purpose.

KINROSS-SHIRE, the neighbouring county, wholly inland, is not much larger than the preceding. Their joint extent but slightly exceeds the area occupied by the British metropolis.

Kinross, the only town, is of interest from its pleasant situation on the western shore of the historic Loch Leven. The lake forms an irregular oval ten miles in circuit, and has four islands, of which the second in size is the Castle Island. It contains remains of the fortress in which Queen Mary was imprisoned, where she signed her abdication, and from which she escaped in a romantic manner, in 1568. The keys of the castle, which were thrown into the lake at the time of her flight, or what passed for such, were fished up at a recent date by an inhabitant of the town, and presented to the lord of the manor. Loch Leven is highly celebrated for the excellence and abundance of a peculiar kind of trout.

FIFE, a peninsula on the North Sea, between the Firths of Forth and Tay, is finely diversified with hill, valley, and plain, possesses great mineral wealth, its coal having been worked for many centuries, and is one of the chief seats of the Scottish linen manufacture. The principal river, the Eden, flows from the western side eastward to the sea, which it enters at St Andrews Bay. Its valley is a remarkably fertile tract, called the 'Howe (hollow) of Fife,' sometimes Strath Eden.

Cupar, the county town, in the centre of the vale of the Eden, on the north bank of the river, was a stronghold of the Macduffs, and the birthplace of Lord Chancellor Campbell, whose father was the parish minister. It gives the denomination of 'Cupar justice' to a system of law corresponding to that for which Jedburgh was proverbial. Wilkie, the great painter, was the son of a clergyman in the neighbourhood. *Dunfermline*, the most considerable town, in the south-western part of the county, a few miles from the Forth, produces unrivalled table-linens of every description, and kindred fabrics. It has great historical distinction, and possesses interesting antiquities. A few remains survive, close to a wooded romantic dell, of a royal palace in which Charles I. was born, and which was briefly occupied by Charles II. The Abbey Church, a modern building, but connected with portions of the ancient monastic edifice, contains the tomb of Robert Bruce, accidentally discovered in the year 1818, while digging for the foundation of the new erection. Royal interments within its precincts include eight kings, five queens, six princes, and two princesses of Scotland. The earliest mention of coal in North Britain occurs in a charter obtained by the monks of Dunfermline in 1291, allowing them to dig for it in the neighbourhood of their monastery. *Kirkcaldy*, a south-eastern port, has very extensive manufactures of coarse linens, and considerable trade in the export of coal and grain. *St Andrews*, a small city on the east coast, venerable, genteel, and quiet, is the seat of the oldest Scottish university, founded in 1411, and contains the ruins of a cathedral, with picturesque remains of a castle on a rock overlooking the sea, serving as a landmark to mariners.

FORFARSHIRE, a maritime county, north of the Firth of Tay, is centrally traversed by the great valley of Strathmore, extending from north-east to south-west, thirty-three miles in length, and from six to eight in breadth, with an undulating and highly cultivated aspect. On the inland side of this valley, the surface rises into highlands connected with the main chain of the Grampians, some high points of which are in the county. In the maritime direction are the Sidlaw Hills, only of moderate elevation, and often detached, with conical summits covered with heath. The chief rivers are the North and South Esk, both of which descend from the Grampians.

Forfar, the county town, in the central valley, of ancient date, preserves in its town hall a curious relic of bygone times, called 'the Witches' Bridle,' a kind of gag which was placed over the heads of the unfortunate creatures doomed to suffer at the stake for the imaginary crime. *Dundee*, on the north shore of the Firth of Tay, with beautiful green hills in the background, is the third largest town in Scotland, and one of its most important seaports, with spacious docks, quays, and other accommodation for shipping. Its staple trade is the production of coarse linen and hempen fabrics, intended extensively for foreign export, enormous quantities of which are sent to the greater ports for re-shipment to their final destination. The industry is common to the other towns and a great number of the villages. A convenient position in relation to the countries of the Baltic, from which the principal supply of flax and hemp is obtained, led to the establishment of the linen manufacture in this and the adjoining county of Fife. A public park, presented to the town by Sir David Baxter in 1863, bears his name. *Arbroath*, on the main coast, produces yarn, canvas, and sail-cloth, and is a considerable shipping port, with a Signal Tower for communicating with the Bell Rock Light-house, twelve miles distant on the south-east in the open sea. The name refers to a rock covered at

high-water, and to a bell which the abbots of Arbroath caused to be attached to it, which was rung by the action of the waves, and warned mariners of their danger. A magnificent light-house now surmounts the rock, visited by Sir Walter Scott in 1814, soon after its completion, which occasioned the lines from him :

‘ PHAROS LOQUITUR.

Far in the bosom of the deep
O'er these wild shelves my watch I keep,
A ruddy gem of changeful light
Bound on the dusky brow of night.
The seaman bids my lustre hail,
And scorns to strike his timorous sail.’

Montrose, at the mouth of the South Esk, is a remarkably neat town, largely engaged in flax spinning and weaving, also an important seaport with the advantage of a convenient harbour. It was the native place of the gallant and unfortunate cavalier, James Graham, first Marquis of Montrose.

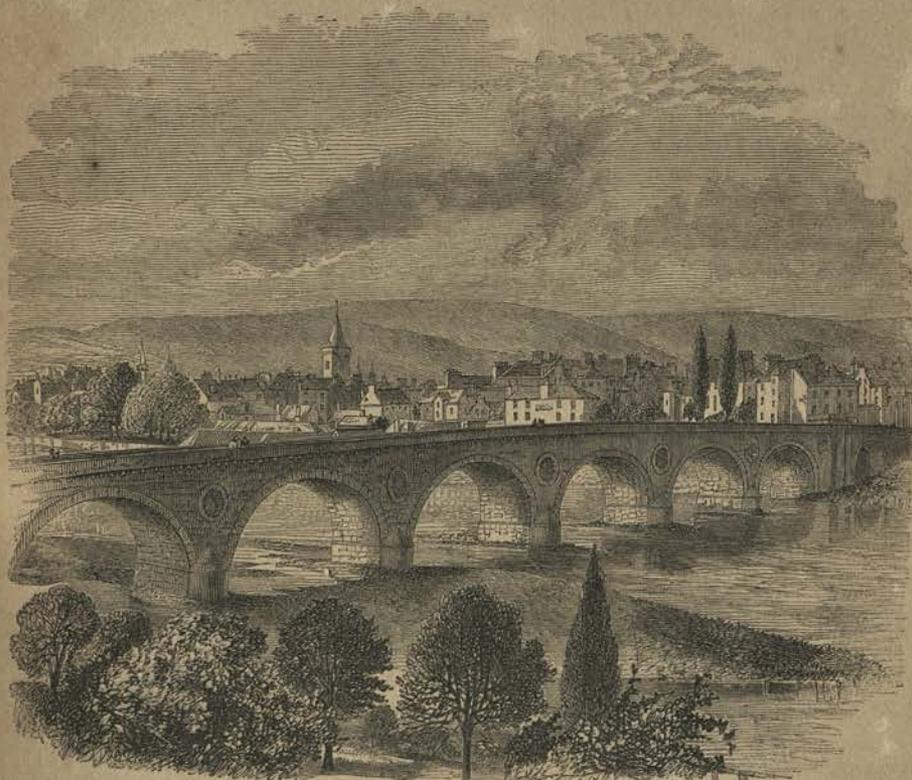
KINCARDINESHIRE, or the Mearns, an old territorial title, extends northward along the coast, and contains a considerable amount of sterile surface, being occupied on the north-west by a portion of the Grampians. But arable husbandry is pursued in a central fertile tract, called the Howe of the Mearns, really a northerly prolongation of Strathmore, while the cod, ling, and haddock fisheries contribute to sustain the population on the shores.

Stonchaven, a small port, resorted to for sea-bathing, is the county town. *Laurencekirk* is a borough of barony, with some linen-weaving. In a few neighbouring churchyards ‘Old Mortality’ made some of his latest appearances, engaged in his favourite occupation of renewing the inscriptions on the tombs of the Covenanters. Among the populous fishing villages, *Finnan* is celebrated for its dried fish, called ‘Finnan haddocks.’

PERTSHIRE, a large inland county, is the third in point of size, and the finest as respects natural scenery, presenting rare combinations of beauty and grandeur, wildness and luxuriance. It belongs chiefly to the basin of the Tay; and a portion extending on the north bank of its firth is maritime. In this direction, a considerable section of the county lies within the area of the Lowlands, and includes part of Strathmore, with the rich plain or carse of Gowrie, and the separating Sidlaw Hills, one of which, Dunsinane, has been immortalised by the genius of Shakspeare. Northward and westward are the Grampians, with their towering heights, deep glens, bounding streams, wooded valleys, and calm lakes, some of which are gloomy from the shadows of the mountains, while others lie open on all sides to the sunbeams. The highest mass, Ben Lawers, ‘echoing mountain,’ rises to 3984 feet, on the northern shore of Loch Tay, with a remarkably verdant surface, rife with alpine plants. From its summit, in the distance southerly, the eye catches Ben More, ‘great mountain,’ 3835 feet, and nearer on the northward is Schehallion, ‘female fairy,’ 3547 feet, of a beautifully simple and conical form. This last was selected by Maskelyne, the astronomer-royal and other scientific men, in 1773, for their experiments to determine the density of the earth. The extreme south-west of the county belongs to the basin of the Forth, and contains the striking defile of the Trosachs, with the lovely expanses of Lochs Katrine, Achray, and Vennachar. Wholly different features appear in the extreme north-west, the district of the Moor of Rannoch, an elevated table-land extending about twenty miles in every direction, and one of the most desolate wastes in the kingdom. It feeds no wild animals, is visited by few birds, has neither tree nor shrub, except a few firs on the margin of Loch Rannoch, but is largely overspread with moss and rushes, interspersed with blocks of granite. A few roads cross the wilderness, with houses at intervals for the accommodation of drovers, strongly built to withstand the rough winter storms.

Perth, beautifully situated on the right bank of the Tay, a few miles from the commencement of the firth, excites the admiration of every visitor from whatever quarter it is approached, owing to the charms of the landscape, and is in itself one of the best built cities in Scotland. It was formerly regarded as the capital, and retained the distinction down to the assassination of James I., in 1437, which led to the permanent

transference of the seat of government to Edinburgh. The kings lived at Scone Palace, about a mile up the river, on the opposite bank, not a trace of which remains, but a modern edifice of the same name occupies the site. They were crowned in the adjoining abbey, some inconsiderable relics of which are left; but the



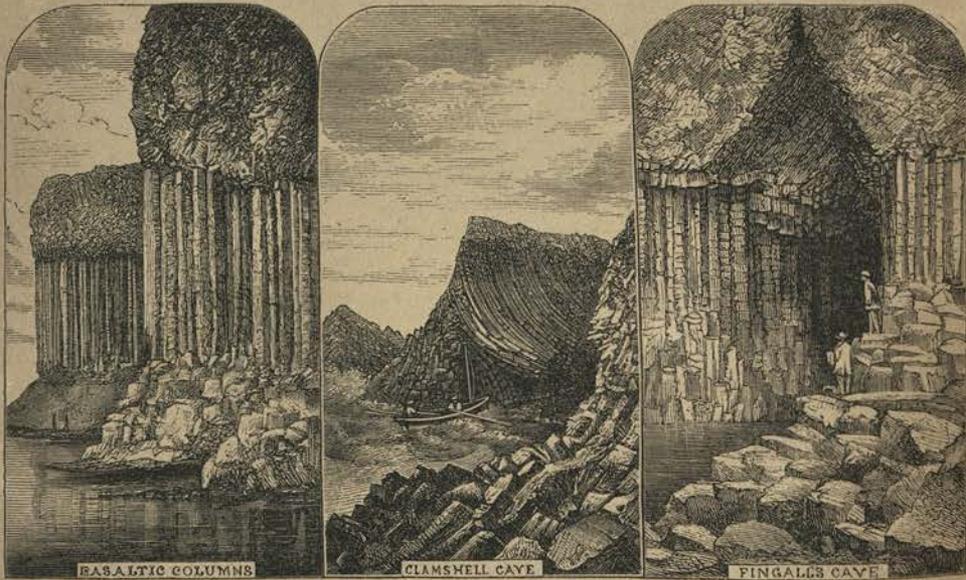
Perth from below St John's Bridge.

famous 'stone of destiny' on which they are said to have been seated is now in Westminster Abbey, to which it was removed by Edward I. Apart from the city, the population of Perthshire is either grouped in comparatively small towns or considerable villages.

ARGYLE, on the west coast, the second largest county, is a region of peninsulas, one of which, that of Cantire, is the most remarkable in the British Isles. This projection is forty miles long, with an average breadth of about seven miles, terminated by the Mull, a high rock, within thirteen miles of the coast of Ireland. To the mainland of the county numerous islands are attached, which form nearly a third of its area. The surface is with little exception mountainous and rugged, rising in Ben Cruachan, the highest point, 3670 feet above the sea, a mass of vast dimensions, overlooking a singularly complicated intermixture of sea and land. Towering to the north of Loch Awe, this mountain is seen to great advantage on approaching the lake from the south, especially from a point which bears the name of 'Burke's view,' where once stood the author of the treatise on the *Sublime and Beautiful*, admiring the scene. Loch Awe is the second of the Scotch lakes in extent, with about twenty little islands within its circuit crowned with trees. The north part of the county contains 'dark Glencoe,' a valley or defile of savage grandeur, the scene of the barbarous massacre of the Macdonalds in 1692.

Inverary, the county town, a very small place, but long a seat of the Dukes of Argyle, is chiefly sustained by the herring fishery of Loch Fyne, near the head of which it is situated. *Campbeltown*, towards the south extremity of the peninsula of Cantire, the largest town, is noted for its distilleries and fisheries. *Dunoon*, on the shore of the Firth of Clyde, is one of the summer retreats of the citizens of Glasgow; and *Oban*, on the north-west coast, is a station for tourists bound for the islands, or for Inverness by the line of the Caledonian Canal.

Mull is the largest island, of very irregular shape, with basaltic cliffs and natural arches on the shores, and a mountainous but monotonous interior, owing to the rounded form of the masses, their covering of brown heath, and the absence of deep valleys. Eastward is Lismore, highly fertile, answering to the meaning of its name, 'the Great Garden,' in ancient times a distinguished ecclesiastical site, the residence of the Bishops of Argyle. Westward is the small isle of Staffa, with the basaltic Cave of Fingal on the southern shore, opening towards the ocean, and traversed by its waves, with the Clamshell or Boat Cave and the Cormorant's Cave in the neighbourhood, hardly less striking than Fingal's. Off the south-west extremity of Mull, separated by a narrow channel, lies Iona, three miles long by one and a half broad, once the residence of St Columba. It contains remains of a cathedral, nunnery, chapel, and monumental tombstones of abbots and chiefs. Further west, in the open ocean, are Coll and Tiree, with the Skerryvore Light-house about twelve miles from the nearest point of the latter, the boldest work of its class. It stands on a ledge of rocks over which the Atlantic dashes with tremendous fury, rises to the height of 138 feet, and contains a mass of masonry more than double that of the Bell Rock, and not much less than five times that of the Eddystone. A southerly group of islands embraces Colonsay, Islay, and Jura, the latter extremely wild and rugged, distinguished by its conical peaks, called the Paps of Jura, from 2000 to 3000 feet in height, which are well-known landmarks to mariners. Three of the principal bear the names of Ben-a-Chaolais, 'the mountain of the sound' (or strait), Ben Sheeunta, 'the hallowed mountain,' and Ben-an-Air, 'the mountain of gold.' Argyleshire, both mainland and islands, has a very thin population, principally engaged in stock-rearing and fisheries, but annually decreasing in numbers as the poverty of the surface stimulates a departure to more favoured sites.



Basaltic Columns, Staffa.



Aberdeen from the Cross.

III. NORTHERN COUNTIES.

Counties.	Area in Square Miles.	Principal Towns.
Aberdeen,	1970	Aberdeen, Peterhead, Fraserburgh.
Banff,	686	Banff, Keith, Portsoy.
Elgin,	531	Elgin, Forres, Fochabers.
Nairn,	215	Nairn.
Inverness,	4255	Inverness, Beauly, Portree.
Ross and Cromarty,	3151	Dingwall, Cromarty, Tain, Invergordon, Stormoway.
Sutherland,	1886	Dornoch.
Caithness,	712	Wick, Thurso.
Orkney and Shetland,	935	Kirkwall, Stromness, Lerwick.

ABERDEENSHIRE, an extensive maritime county, includes that portion of the east coast which forms the rounded projection marked by Kinnaird's Head, where the general direction changes from north to west. It contains the most easterly point of Scotland, or Buchan Ness immediately below Peterhead, south of which are the Bullars (boilers) of Buchan, named from the peculiar bellowing noise of the waves in storms, as they rush through arched rocks and into caverns on the shore. While the interior is generally hilly, some of the grandest highlands of the kingdom rise on the south-west, noticed in the general description of the Grampians, but are partly on the borders of Inverness and Banff. In the same quarter are extensive woodlands belonging to the forest of Mar, containing magnificent specimens of the Scotch fir, and plentifully stocked with red and roe deer. The two chief rivers, the Dee and Don, run from west to east, enter the North Sea in close proximity, and though not navigable, are valuable for their salmon fisheries.

The high grounds are for the most parts moorish and mossy wastes, but on lower sites along the coast a considerable amount of ordinary agricultural produce is raised, except wheat, for which the climate is too cold.

Aberdeen, a very handsome and flourishing town and port, the fourth in point of population, is situated at the mouth of the Dee, on the south bank, contiguous to Old Aberdeen, on the south side of the Don, which may be considered its suburb. It is largely built of fine gray granite quarried in the immediate vicinity. This is the material not only of the public edifices and hotels, the pier and quays, but of the private houses, which form in the principal street a long and spacious avenue of granite, the effect of which is both pleasing and striking. The manufactures include cotton, wool, flax, and iron goods upon an extensive scale, with paper-mills and ship-building. Aberdeen is the seat of a university, originally consisting of King's College in the old town, founded by Bishop Elphinstone in 1500, and first called St Mary's College, and Marischal College, in the new, founded in 1593 by George Keith, fifth Earl Marischal of Scotland. *Peterhead*, northward on the coast, besides its herring fishery, has long taken a leading part in the northern whale fishery, possesses mineral springs which bring to it summer visitors, and ships vast quantities of granite for building and paving purposes quarried in the vicinity. *Fraserburgh*, a port adjoining Kinnaird's Head, is a principal seat of the herring fishery. Within the district of the Aberdeenshire highlands, the village of Ballater is a common tourist's station, in a neighbourhood with which Lord Byron was associated in early life, and at the distance of about nine miles from Balmoral, the summer residence of the Queen.

BANFFSHIRE, to the westward, extends from the coast in a south-westerly direction to the region of the higher Grampians, one of which, Cairngorm, 4090 feet above the sea, is wholly within its limits, while the border-line from Aberdeenshire crosses the shoulder of the loftier Ben Macdhuì (4295 feet). The former mountain is celebrated for its specimens of rock-crystal, hence popularly called Cairngorm stones, but which are of frequent occurrence in the highlands of primary districts, and have now become somewhat rare in this locality owing to the number abstracted. They are of various shades of colour, a rich light-yellow, white, pink, dark-brown, or almost black, and are often styled false topazes from their resemblance to the true example. From this elevated district, the stream of the Aven descends to join the Spey on the western side of the county, these two rivers flow with such singularly transparent water as to deceive the stranger respecting its depth, rendering it perilous for him to attempt to ford them. It receives a small affluent from Glenlivet, a woodless tract famed for the quality of its whisky. On the eastern side, partly along the border, flows the Deveron, with the Isla for a tributary.

The old town of *Banff* is beautifully situated at the mouth of the Deveron, largely modernised, but retaining some curious antique houses. Three Jameses have been conspicuously connected with it—James Sharp, the notorious Archbishop of St Andrews, born in its castle in 1613; James Graham, Marquis of Montrose, from whom the place suffered so severely in 1647, that the inhabitants, styling themselves 'Town of Banff Bodies,' addressed the parliament for relief; and James Macpherson, a noted Highland robber, executed in the last century, whose 'farewell' is the subject of a poem by Burns. The modern village of Macduff, a mile distant, on the opposite bank of the river, forms a kind of suburb. *Portsoy*, a small fishing town, is distinguished by mineralogical rarities in its vicinity. Serpentine is here quarried as marble, and contributed to the ornamentation of the palace of Versailles. A variety of granite also occurs composed of only two ingredients, felspar and quartz, which are so arranged, that upon the rock being polished, a slab appears as if inscribed with Hebrew characters on a white ground. It is hence termed graphite granite, and the slabs are commonly known as the Tablets of Moses.

ELGINSHIRE, further west, lies on the broader part of the opening of the Moray Firth, extending from the mouth of the Spey to beyond that of the Findhorn; and has an inland tract wholly separated from the larger maritime portion by a detached section of Inverness-shire. The district was formerly called Moray, and the name is still in use, signifying a 'marshy' or 'benty sea-coast.' This is a true description of the shore, except centrally, about Burgh Head, which consists of sandstone cliffs crowned with the remains of Danish fortifications. In other directions, sand-hills line the strand for several miles, the loosening of which in the seventeenth century, by the peasantry inconsiderately pulling up the bent, juniper, and other plants which bound each mass together, originated a grave disaster. The fine particles immediately began to drift under the action of the wind, and were blown over a district of more than ten square miles, chiefly included in

the barony of Culbaine, before renowned for extreme fertility. In the course of twenty years, it was turned into a dreary wilderness, depopulated as well as rendered sterile, and its manor-house, offices, and orchards, smothered by the drift. The desolation of this tract has remained to the present day, with the exception of some places where human industry has removed the sand-flood from the rich old soil of the barony. At a short distance from the sea, fine wheat-lands occur, and the general surface is productive, except in the extreme south, where there are highlands either clothed with native forests, or covered with furze and broom. The climate of the maritime lowlands is remarkably mild and dry for so high a latitude.

Besides the Spey and the Findhorn, chiefly on the eastern and western confines of the county, the Lossie flows intermediately to the sea, on the banks of which, a few miles from its mouth, the town of *Elgin* is situated. The name is said to be derived from Helgin, borne by a conquering Norwegian chief, and is so spelt on the seal of the burgh. The town was thrice burned in little more than half a century: by the notorious Wolf of Badenoch in 1390, by a son of the Lord of the Isles in 1402, and by the Earl of Huntly in 1452—this last calamity originating the proverb, 'Half done, as Elgin was burned.' Its principal feature is a dilapidated cathedral in the florid Gothic style, once the most magnificent in Scotland, proudly called 'The Lanthorn of the North,' and still majestic in ruins. The surrounding churchyard, crowded with tombs, is one of the most extensive of the old burying-grounds. *Forres*, on a sandy knoll near the Findhorn, towards its mouth, is remarkable for an antique monument, by the roadside eastward of the town, called the Forres Stone, a pillar upwards of twenty feet high, and believed to descend fourteen feet into the ground. It is carved with the figures of warriors and other objects; and is supposed to commemorate a pacification concluded at the place between Malcolm II. and Sweno, a Danish invader. The neighbourhood figures prominently in the tragedy of *Macbeth*. A spot marked by a clump of trees is traditionally regarded as the scene of his interview with the weird sisters. *Fochabers*, a very neat village on the Spey, adjoins Castle Gordon, the old 'Bog of Eight,' formerly the residence of the Dukes of Gordon, now the property of the Duke of Richmond.

NAIRNSHIRE lies on the narrower part of the Moray Firth, and has a detached tract in the Black Isle, the popular name of the peninsula on the northern side of the estuary. The main portion of the county is intersected by the Findhorn, with beautifully picturesque banks; and also by the Nairn, called in Gaelic *Kis-Nerane*, 'the water of alders.'

The town of *Nairn*, at the mouth of the latter stream, resorted to as a watering-place, consists chiefly of a single spacious street, at one extremity of which the Gaelic language is spoken, and at the other the English or Lowland Scotch. Cawdor Castle, in the neighbourhood, a well-preserved and striking baronial residence of the fifteenth century, still occupied, is of interest from the association of the site with Macbeth, who was Thane of Cawdor. In a part of the roof the hiding-place of Lord Lovat is shewn, where he remained concealed for some time after the battle of Culloden.

INVERNESS-SHIRE, the most extensive of the Scotch counties, and one of the most sparsely peopled, spans the country diagonally from sea to sea, from the Moray Firth to the waters of the Atlantic, and includes a considerable number of islands on the western side. The mainland is eminently a region of mountain and moor, of glen, lake, water-fall, and forest. It embraces several of the higher Grampians, with the loftiest of all, Ben Nevis, at the south-west extremity, and the long outlying range of the Monaghlea, or gray mountains, which form the water-shed between the Spey and the Findhorn. In addition to these rivers and the Nairn, which rise within the county, and flow beyond its borders, it contains the basin of the Spean, connected with the western ocean, and those of the Ness and Beaully, belonging to the Moray estuary. Among the many deep and narrow valleys which indent the surface, Glen Urquhart and Glen Moriston, on the western side of Loch Ness, are remarkable for their wild beauty. The former has been compared to the renowned Vale of Tempe. In the latter, scarcely its inferior in scenic attractions, Prince Charles Edward, after his defeat at Culloden, remained concealed for several weeks, entirely dependent upon the care of a few Highlanders to whom he was known, whose fidelity to him never wavered. Glen Roy, in the basin of the Spean, is distinguished by its Parallel Roads, once supposed to be of artificial construction,

and superstitiously viewed as the pathways of giants, but simply nature-formed terraces marking the successive level of ancient waters. The terraces are three in number, from ten to sixty feet broad, extending eight miles along both sides of the valley, and perfectly corresponding in their height above its bottom.

But the grand example of depression, properly styled the Great Glen, is a long and sublime valley stretching between the sea-loch Eil on the south-west to the Moray Firth on the north-east, and dividing the county into two nearly equal parts. In this valley, Lochs Lochy, Oich, Ness, and Dochfour form a chain of navigable waters which are connected by the Caledonian Canal, and joined to narrow arms of the sea on opposite sides of the country. The whole distance is rather more than sixty miles, of which thirty-seven and a half lie through the natural sheets of water, and twenty-three are by the artificial cuttings. The latter being intended to afford a passage to frigates of thirty-two guns, or merchant vessels of similar size, are 50 feet wide at the bottom, 110 feet at the surface, and 20 feet deep. Differences of level are overcome by twenty-eight locks. This great undertaking, executed under the direction of Mr Telford, was completed after the labour of eighteen years in 1823, at a total cost to the nation, including recent improvements, considerably exceeding £1,000,000 sterling. But it has not answered the expectations of the projectors, for instead of availing themselves of the route, seamen prefer the longer but more convenient course of rounding the northern extremity of the island. It is, however, extensively employed in summer for the transit of passengers and goods between the Clyde and Inverness. The summit-level of the canal, between Lochs Oich and Lochy, is ninety-four feet above the ordinary high-water mark on the east coast, and ninety feet above that on the west.

The town of *Inverness*, commonly regarded as the capital of the Northern Highlands, much frequented by tourists, is well built, and flourishing, situated in a rich, cultivated, and woody district, on both banks of the river Ness, at the north-east extremity of the Caledonian Canal. Though of great antiquity, the date of its origin is unknown, but a castle occupied an eminence to the south-east in the eleventh century, in which, according to tradition, King Duncan was murdered by Macbeth. English or Lowland Scotch is the ordinary language of the inhabitants, but the Gaelic is known to many, and is alone spoken or understood in the secluded glens of the county. A few miles to the eastward is Culloden Moor, where the army of Prince Charles was totally defeated in 1746, in little more than half an hour, and became the victims of an unsparing slaughter. The field is a desolate tract of table-land, traversed by a carriage-road, by the side of which two or three green mounds mark the spot where numbers of the slain were interred. Fort William and Fort George, at opposite extremities of the Great Glen, with Fort Augustus intermediate, were erected at different periods by the government to restrain the turbulence of the Highlanders. They are now of no military importance except as barracks for a few companies of troops, but are convenient stations for tourists. Fort William, on the shore of Loch Eil, and at the western base of Ben Nevis, was built in the reign of William III., and named after him, while an adjacent village received the name of Maryburgh, in honour of Queen Mary. The very considerable inequality of surface traversed by the Caledonian Canal is overcome by twenty-eight locks, to the largest of which the fanciful appellation of Neptune's Staircase has been given. Fort Augustus, at the south-west extremity of Loch Ness, close to the edge of the water, was built soon after the rebellion of 1715. Fort George, on a sandy projection into the Moray Firth, the largest fortress, with accommodation for 2000 men, was erected immediately after the suppression of the insurrection of 1745.

Portions of both the Outer and the Inner Hebrides belong to Inverness-shire. The most important member and the nearest to the mainland is the magnificent island of Skye. Many parts of the coast, composed of columnar trap, exhibit basaltic pillars scarcely inferior to those of the Giant's Causeway. Two caves are pointed out as hiding-places of Prince Charles. A third, the Spar Cave, has the appearance of being lined with marble from the beautiful stalactite formations. For wildness and sublimity few scenes rival Loch Coruisk, with its margin of broken rocks, tier above tier, rising up to the Cuchullin Hills, remarkable for their dark colouring and serrated outline, which girdle the lake on one side with an insurmountable barrier. Referring to this locality Sir Walter Scott remarked, 'Borrodale or even Glencoe is a jest to it.' The highest point of the mountain-wall, *Scur-na-Gillean*, 'the rock of the young men,' rises upwards of 3000 feet above the sea. Another peak, very little lower, has the strange name of *Scur-na-Banachtich*, 'the rock of the smallpox.' The eagle may often be seen wheeling around these heights, while the red deer descends from the mountain fastnesses to browse upon the scanty herbage on the margin of the lake. *Portree*, the only town of the island, is a small fishing

place on the east coast, with a spacious landlocked natural harbour, in regular communication by steamer with Glasgow during the summer months. Its name, signifying the 'King's Port,' was conferred in honour of a visit of James V. Southward from Skye lies the parish of the small isles, consisting of Canna, highly fertile, with a sea-cliff called the Compass Hill from its supposed magnetic influence; Rum, distinguished by sharp-peaked dark mountains, and a breed of horses said to have been originally introduced from a vessel belonging to the Spanish Armada; and Eig Isle, conspicuous from its Scur, a remarkably formed hill of dark porphyritic pitchstone shooting up in columnar precipices to a considerable height. This last isle was the scene of a tragedy in feudal times.

' On Scur-Eigg next a warning light,
Summomed her warriors to the fight;
A numerous race, ere stern Macleod
O'er their bleak shores in vengeance strode,
When all in vain the ocean gave
Its refuge to his victims gave.
The chief, relentless in his wrath,
With blazing heath blockades the path;
In dense and stifling volumes rolled,
The vapour filled the caverned hold!
The warrior-threat, the infant's plain,
The mother's screams were heard in vain;
The vengeful chief maintains his fires,
Till in the vault a tribe expires.'

The cave to which these lines refer has nothing outwardly to distinguish it from an ordinary animal burrow, and can only be entered by creeping on hands and knees. It expands in the interior, and runs to a considerable distance into the bowels of the rock. Skulls, bones, and other human remains, found scattered on the floor—the relics altogether of 200 individuals—have borne melancholy witness to the barbarous vengeance of the Macleods of Skye on the islanders of Eigg.

ROSS and CROMARTY occupy the mainland from coast to coast, north of the preceding district, and have deeply-indented shores on both sides. They are taken together in all statistical documents, and viewed as a single political division, from the circumstance of the latter county consisting of not less than ten small detached portions, scattered chiefly through the northern half of the former. This arrangement is said to have originated with an Earl of Cromarty who wished to have all his lands wherever situated grouped together. The general surface is high, rugged, and barren, bestrewed with mountains rising to from 3000 to 4000 feet above the sea, many of which have the prefix 'Scur' attached to their names, signifying a precipitous eminence. The glens are equally numerous, and are mostly the beds of lakes. Loch Maree, the largest example, eighteen miles long, by from one to three broad, towards the west coast, is unsurpassed for savage grandeur. On the eastern shores, along the Dornoch and Cromarty Firths, there are lowlands, or moderately-elevated districts, with a fertile soil, where agriculture is pursued in connection with the fisheries. The rearing of black-cattle and sheep prevails in the interior, and gives a very scanty subsistence to a scattered peasant population engaged in folding and shepherding. These employments being of a desultory character, some of the cottars profitably occupy spare time in knitting socks and stockings while in the open air of the moors and mountains, an industry introduced into several Highland counties by a benevolent and enterprising employer at Inverness. The peasantry clean, comb, and otherwise prepare the wool with which they are supplied. They dye it themselves where colours are desired; brown, from a lichen called *crothal*; yellow, from the tops of young heather; black, from the bark of the alder; lemon, from furze flowers; and olive, from the roots of the water-lily. These substances are all at hand, and are well known. Articles of various patterns and colours, knitted from home-dyed self-coloured wools, have been exported as far as Hong Kong and Shanghai, but they are chiefly used at or near the sites of production.

Dingwall ('Law' or 'Court Hill'), the county town of Ross, at the head of Cromarty Firth, surrounded with rich and well-wooded lands, commands fine views of Ben Wyvis, and is within twelve miles of the summit. The ascent is commonly made from Strathpeffer, an intervening point frequented by a large

number of invalids, having strongly sulphureous mineral springs. White or Alpine hares, ptarmigan and other moorfowl, abound on the mountain, and rare wild plants are met with belonging to the true Alpine flora. A cairn distinguishes the highest point of the long horseshoe-shaped ridge, which very closely approaches the line of perpetual congelation; indeed, snow has never been known to be entirely absent from certain corries or ravines within living memory, except during the remarkably hot summer of 1826. Ben Wyvis was originally held by the principal proprietor from the crown, by the singular tenure of bringing from the mountain three wain-loads of snow whenever the king should desire. *Cromarty*, at the mouth of the firth, on the southern side, possesses one of the finest of natural harbours, capacious enough for the largest fleet, of easy access, completely landlocked and sheltered from every wind. An obelisk commemorates a native of the place, Hugh Miller, the author of *The Old Red Sandstone*, and other well-known works, who began his career as a stone mason in the neighbourhood. *Invergordon*, on the northern shore, furnished with a convenient pier, is entirely modern, and has become the chief emporium of the trade of the county. *Tain*, on the southern shore of the Dornoch Firth, an ancient burgh, retains some relics of antiquity, but has largely lost the advantages connected with a maritime position by the formation of sandbanks, which threaten to fill up the entire estuary.

The large island of Lewis (Norwegian, *Ljoðkhus*, 'Sounding House'), the most northerly of the Outer Hebrides, belongs to Ross-shire; it is sixty miles in extreme length, and thirty miles in extreme breadth. It is separated from the mainland by the broad channel of the Minch; and has been for twenty years in the hands of a single proprietor, Sir James Matheson, whose modern castellated residence overlooks Stornoway, the only town, on the east coast. Though the surface is generally high, and has its pleasant slopes and valleys, boggy moorlands predominate, with a rounded and tame outline, wholly destitute of trees, except in a few favoured spots. The fisheries of cod, ling, and herring are important, carried on by the natives, as well as by adventurers from a distance. Monumental cairns and conical tumuli are numerous in the island; but the most remarkable relics of long bygone time are the Standing Stones of Callanish, on the western shore. They are forty-eight in number, from seven to thirteen feet in height, arranged in a cruciform manner, with a circle at the intersection all resting on a causewayed base, forming a kind of temple devoted to some early system of worship.

SUTHERLAND, in the shape of an irregular square, embraces part of the extreme north of the mainland, and has an extensive western and northern coast, crowded with deep inlets and bold precipices, while a flat sandy shore stretches on the eastern side between the Dornoch Firth and the Ord of Caithness. Cape Wrath, at the north-west angle, far from human habitations, except those of the light-house keepers, presents grand fronts to the ocean, the currents of which are rendered tumultuous by desolate islets and sunken rocks in the vicinity. This headland, as well as the adjoining coast, is interesting to the geologist from its gneissic mass being permeated with injected granite, and crowned by Silurian deposits. In the interior of the county are pastoral valleys edged by chains of hills, most of which contain long narrow lakes, while majestic mountain forms occur detached, and acquire a severe and savage aspect towards the Atlantic coast-line. In this quarter, north and south of the fresh-water Loch Assynt, there is a remarkable series of lofty isolated masses, composed of Silurian rocks resting on a platform of gneiss, one of which, Suil-vean, or Sugar-Loaf, as seen from a distance to seaward, seems like a perfect sugar-loaf shaped cone, shooting up to the height of about 2400 feet. Macculloch, in his peculiar style, writes of these mountains, appearing 'as if they had tumbled down from the clouds, having nothing to do with the country or each other, either in shape, materials, position, or character, but looking very much as if they were wondering how they got there. Which of them all is most rocky and useless is probably known to the sheep; human organs distinguish little but stone; black precipices when the storm and rain are drifting by, and when the sun shines, cold bright summits that seem to rival the snow.' On the shore of Loch Assynt are the ruins of the Castle of Ardreck, where the unfortunate Marquis of Montrose was confined by Macleod, chieftain of the district, and betrayed to his enemies. The largest lake, Loch Shin, eighteen miles long, by one in average breadth, lies towards the centre, has excellent fishing, and scenery of a soft character. With the exception of a narrow border of arable land on the east coast, the whole surface, five-sixths of which belong to the Sutherland family, is divided into immense sheep-farms, chiefly in the hands of large capitalists, from which the native

peasantry have been removed by various clearances, either to expatriate themselves, or reside along the coast in fishing villages and hamlets.

In the entire county there is no newspaper or printing-press, and no town except *Dornoch*, at the northern entrance of its firth, which is scarcely worthy of the name, having a very inconsiderable population. In former times it had the rank of a city as the seat of an episcopate, and it retains an old square tower belonging to the bishop's palace, with remains of the ancient cathedral repaired to serve as a parish church. *Golspie*, *Brora*, and *Helmsdale* are villages on the coast to the northward. Near the first is the vast pile of *Dunrobin Castle*, the residence of the Dukes of Sutherland, of which high towers and fretted pinnacles, in the style of a foreign chateau, are the conspicuous external features. Coal occurs in the oolite formation at *Brora*, but has no commercial value.

CAITHNESS, the north-easterly section of the mainland, is a generally level district, with a bleak and sterile aspect, owing to the absence of woodland scenery and the presence of peat-mosses; but it has a considerable area profitably devoted to agriculture. Its coast-line alone offers temptations to the tourist, and is very magnificent, distinguished by grand cliffs with the picturesque Castles of *Sinclair*, *Girnigo*, *Ackergill*, and *Keiss*, on the seaward verge, while 'stacks,' or detached pillars of sandstone rock, variously worn by the ocean, are characteristic of the shores. *Duncansby Head*, a confused mass of old red-sandstone strata, perforated by the sea in different parts, marks the north-east angle, and has several stacks in front detached from it by the action of the waves. Near this headland, a grassy knoll close to the beach is pointed out as the site of the famous *John O'Groat's house*, often quoted as the most northern inhabited point on the mainland of the kingdom. According to tradition, the name is a corruption of *John de Groot*, a Dutchman, who settled at the spot about the reign of *James IV.*, and arranged a dispute among his eight sons upon a point of precedence by opening eight doors in his dwelling, by which means they passed in and out without quarrel. Whatever may be the value of this tradition, there can be no doubt as to the existence of a *John Groot*, for in 1496 '*John Grot, son of Hugh Grot,*' had a grant of a penny land in *Duncansby* from *William, Earl of Caithness*. The family still exists.

Wick, the capital of the north-east herring fishery, is at the head of a bay on the east coast, with *Pulteney Town* for its suburb, completely modern, its site having been a huge sandbank little more than half a century ago, and would probably soon be so again without unremitting attention on the part of the harbour authorities. The tendency to *silt* in this and other bays on this coast opens up some interesting questions in physical geography; in all, the north is the deep side, and the roughest ground; and the ground, as *Mr Cleghorn* has shewn, in which the herring deposits its spawn, to which circumstance *Wick* owes its immense herring fishery. The fishing season commences towards the middle of July, and continues about eight weeks, during which the place exhibits animated scenes of excitement and energy. Numbers arrive from the western highlands to serve the masters of boats and nets as 'hired men,' depending upon their wages to pay the rent of the small holdings they occupy. A Babel-like confusion of languages may be heard on a Saturday evening, when the labours of the week are over—broad Scotch, Gaelic, Irish, Orcadian, Shetland, pure Caithness, rough Banff, and rougher Aberdeen, with the Fife or further Scotch dialect. As many as 1600 to 1800 boats are sometimes simultaneously engaged, and it has been calculated that in this district, which comprehends the shores southward to the county of Aberdeen, the netting daily set and hauled up by the boats employed would extend in a straight line nearly 600 miles, or stretch from *Caithness* across the North Sea to the mouth of the *Elbe*. Much of the cured produce is sent to *Germany*, *Italy*, and the *West Indies*. *Thurso*, or *Thor's Town*, on a secure and spacious bay of the north coast, is the most northerly town on the mainland of Great Britain, with the high rocks of *Dunnet Head* a few miles distant, the *Land's End* in that direction.

The insular counties of *ORKNEY* and *SHETLAND* lie to the north-east of *Caithness*, between which and the former is the turbulent and eddying *Pentland Firth*, a channel from five to eight miles wide. The *Orkneys*, *Orcades* of the ancients, visited by the Roman fleet in the time of *Agricola*, when the shores of Britain were first circumnavigated, consist of sixty-seven islands, thirteen of which are of some extent, and twenty-eight are usually inhabited, while several of the others are used as pasture-grounds in summer. They rise to no great elevation at any point, form level tabular masses in general, and consist of

rocks of the old red sandstone, with the exception of a small granitic tract. The Isle of Hoy contains the highest point, Wart Hill, 1556 feet above the sea, and is distinguished by a lofty detached rock, called the 'Old Man of Hoy.' In the interior of this island, there is a remarkable mass of sandstone hollowed into a kind of apartment, said to have been the work of a dwarf, and therefore styled the Dwarfie Stone. Assailed with fearful violence by the winds and storms of the Atlantic, which carry the ocean spray far and wide, no trees or shrubs grow except in a few sheltered places, though large roots and trunks found in the peat-mosses, with hazel-nuts and the horns of deer, attest the existence of ancient forests.

The largest island of the group, Pomona or Mainland, contains the town of *Kirkwall* on a bay of the eastern coast, in possession of an ancient cathedral remarkably well preserved, and still used as a place of worship, but wanting the original steeple which was destroyed by lightning. Close to the cathedral are the ruins of the Bishop's Palace and of the Earl's Palace, buildings described by Sir Walter Scott in his *Pirate*. *Stromness*, on the opposite side of the island, seated on a beautiful bay which forms a secure harbour, is the chief shipping port. Between the two towns, by the side of a sea-loch, are the 'Standing Stones of Stennis,' fifteen in number, most of which are from eight to fifteen feet in height, arranged in a circle, a monument of pre-historic times. The Orcadians raise a very limited amount of agricultural produce, chiefly oats and garden vegetables; rear cattle and sheep; prosecute the cod, ling, herring, and lobster fisheries. Females of the humbler class engage in the making of straw-plait, the material of which is the native rye-straw, with an imported portion of finer kind.

The Shetlands, supposed by some to be the *Ultima Thule* of the ancients, are separated from the preceding by a sea-channel of fifty miles, which has Fair Isle near its centre, as a kind of half-way house, where the flag-ship of the commander of the Spanish Armada was wrecked. The group consists of more than a hundred members, with excessively torn and craggy shores, aptly designated 'the skeleton of a departed country,' the more destructible portions of which have been worn away by the Atlantic. During the storms of every winter the coasts are battered by the waves with the force of real artillery; detached masses of rock are tossed to and fro like marbles on many a beach; some are ground down to pebbles; and fresh blocks supply their place by disruption from the cliffs. Twenty-seven of the series are inhabited, and several of the others are visited for pasturage.

The largest, or Mainland, is so repeatedly penetrated by 'voes,' or deep bays, that no portion of the interior is more than three miles from the sea. It contains *Lerwick*, the only town, on the east coast, between which and an opposite island a fine natural harbour is formed, the common rendezvous of vessels bound for the northern whale fishery. The inhabitants maintain themselves partly by fishing, and partly by the manufacture of woollen fabrics, of which the chief are the celebrated Shetland shawls. The islands are celebrated for a breed of half-wild ponies, known by the name of *shelties*, which are largely exported. Both the Shetlands and Orkneys were early seized by the Northmen and colonised by them, as well as the shores of Caithness and Sutherland, the latter, their 'southernland.' They long remained subject to the kings of Denmark and Norway, but were governed by practically independent earls or jarls. Upon the occasion of the marriage of Margaret of Denmark to James III. of Scotland, in 1468, both groups passed to the latter country. Their inhabitants being of Scandinavian origin formerly spoke the Norse language, but it has long been superseded by the Lowland Scotch.

The early history of Scotland is barren in events known with certainty, and invested with interest. The Romans entered the country under Agricola in 80 A.D., subdued the southern portion of it, and advanced to the foot of the Grampians. Traces of their presence are extant in camps, altars, weapons, coins, tablets, and mounds. To secure the conquest, a chain of forts was erected between the estuaries of the Clyde and Forth, which was afterwards converted into a continuous rampart, called the Wall of Antoninus, from the emperor under whom it was constructed. Some remains of the rampart are now known by the name of Grame's or Graham's Dyke. The Romans designated the region to the northward Caledonia, a word supposed to be derived from the old British, with the signification of 'land of forests;' but the primitive native name was Albin, still in



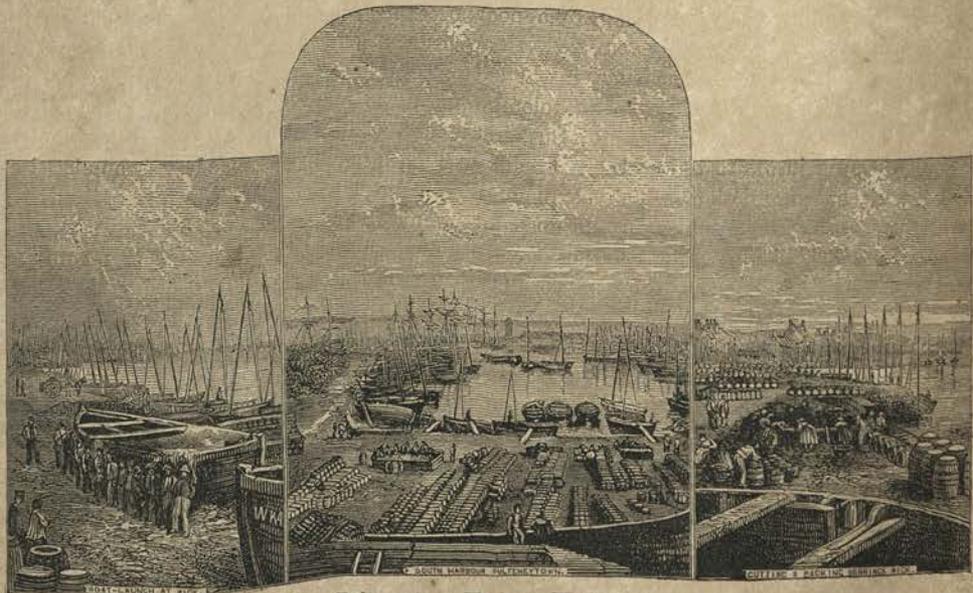
use among the Highlanders, apparently the same as Albion. In a subsequent age two groups of people are historically distinguished, the Picts and Scots, who were troublesome neighbours to the English. The Picts represented the ancient Caledonians or Albins. The Scots were immigrants from the north of Ireland, the original Scotia, who transferred the name to their new home, extended it to the whole country as they acquired the mastery, and under Kenneth Macalpin, in 843, founded the Scottish kingdom. After a long term of independence, Scotland and England were united under the same crown in 1603, but remained distinct kingdoms to the year 1707, when a common legislature was formed, and both were merged in a single state under the name of Great Britain.

At the last census Scotland contained a population of 3,062,964, consisting of a larger proportion of females to males than is to be found in any other part of the civilised world. This excess of the female population is satisfactorily explained by peculiarities of social life. The Scotch emigration to foreign countries is chiefly of males; a much greater proportionate number at home enter the mercantile marine in Scotland than in England; and the deaths by drowning are very numerous, which fall chiefly upon the males, whose pursuits require them to risk themselves in the dangerous channels of the sea in small boats, which are the only means of communication between one island and another, or between the islands and the main shores. During the years 1855-6-7, no fewer than 1263 males were drowned by accidents in the Shetlands, while only 238 females perished there from that cause in the same period.

In few countries has material improvement been so vigorously pursued, and such a large measure of social prosperity been gained, in the face of great physical disadvantages. Rapid rivers, rugged mountains, and savage glens are natural obstacles to intercommunication. These long contributed in Scotland to restrict intercourse between districts at no great distance apart, and to shackle commerce. The first attempt to grapple with these difficulties was made upon the suppression of the rebellion of 1745, when the troops stationed in the Highlands under General Wade were employed to open routes. But in a region thinly inhabited by a poor peasantry, unable to make needful repairs, the military works speedily suffered from neglect, and became to a great extent unserviceable. At the same time, in the extreme north, no roads of any kind existed; and to such a degree did the want of tolerable means of intercourse affect the administration of justice, that the counties of Sutherland and Caithness were expressly exempted from returning jurors to the northern circuit at Inverness. The remedy was applied by a government commission, which commenced its labours soon after the present century opened. Under its auspices, in the space of twenty-five years, about 1000 miles of new road were constructed, while 1200 bridges were thrown over large rivers and mountain streams. By these means, the mail-coach was enabled to proceed direct from London to Thurso, in the neighbourhood of John o' Groats, a distance by the route of 783 miles, which was justly styled the 'true Union of the Kingdoms.' The whole space, with the exception of a small northern portion, is now traversed by railways, one of which, between Perth and Inverness, opened in the summer of 1863, cuts through the Grampians by the Pass of Killiecrankie, a defile so apparently impracticable in its natural state, that during the campaign against Dundee in the reign of William III., the English troops came to a halt in it, and refused for a time to advance, appalled by its dangers.

POPULATION OF THE PRINCIPAL SCOTTISH CITIES AND TOWNS.
FROM THE CENSUS RETURNS OF 1861.

POP.		POP.		POP.		POP.	
Aberdeen,	73,805	Dunbar,	3,516	Johnstone,	6,404	Paisley,	47,406
Airdrie,	12,922	Dunblane,	1,709	Keith,	2,648	Peebles,	2,045
Alexandria,	4,242	Dundee,	90,417	Kelso,	4,309	Perth,	25,250
Alloa,	6,425	Dunfermline,	13,506	Kilbarchan,	2,530	Peterhead,	7,541
Annan,	3,473	Dunkeld,	929	Kilbirnie,	3,245	Pollockshaws,	7,648
Arbroath,	17,593	Dunoon,	2,968	Kilmarnock,	22,619	Port Glasgow,	7,214
Ardrossan,	2,896	Dunse,	2,556	Kilrenny,	2,145	Port Patrick,	1,206
Auchterarder,	2,844	Duntocher,	2,360	Kilsyth,	4,692	Portobello,	4,366
Auchtermuchty,	1,215	Dysart,	8,066	Kilwinning,	3,921	Portsoy,	1,903
Ayr,	18,573	Edinburgh,	168,121	Kincairdine,	2,166	Prestonpans,	1,577
Banff,	6,781	Elgin,	7,543	Kinghorn,	1,426	Queensferry S.,	1,230
Bannockburn,	2,258	Eyemouth,	1,721	Kinross,	2,083	Renfrew,	3,228
Beithgate,	4,827	Falkirk,	9,030	Kirkcaldy,	10,841	Rothsay,	7,122
Berrie,	3,420	Fochabers,	9,030	Kirkcudbright,	2,552	Rutherglen,	8,062
Bertha,	952	Forfar,	1,145	Kirkintulloch,	6,096	Salteats,	4,778
Biggar,	1,448	Forres,	9,258	Kirkwall,	3,519	Sanghar,	1,754
Blairgowrie,	3,344	Fortrose,	3,508	Lanark,	5,047	Selkirk,	3,695
Bonhill,	2,765	Fraserburgh,	928	Largs,	2,638	St Andrew's,	5,176
Borrowstouners,	3,814	Galashiels,	6,433	Lauder,	1,137	St Ninians,	2,298
Brechin,	7,179	Galston,	3,228	Leith,	33,628	Stenston,	2,704
Buckle,	2,798	Girvan,	5,921	Leven,	3,061	Stewarton,	3,145
Burntisland,	3,143	Glasgow,	394,864	Linnitgow,	2,284	Stirling,	13,707
Campbeltown,	6,033	Gourock,	2,076	Lochmaben,	2,723	Stonehaven,	3,009
Carlisle,	3,111	Grangemouth,	1,759	Lochwinnoch,	3,843	Stonehouse,	2,585
Castle Douglas,	2,261	Greenlaw,	800	Lockerby,	1,194	Stornoway,	2,587
Clackmannan,	1,159	Greenock,	42,098	Lossiemouth,	1,709	Stranraer,	6,274
Coatbridge,	10,501	Haddington,	3,897	Maybole,	1,333	Strathaven,	4,085
Coldstream,	1,834	Hamilton,	10,688	Melrose,	4,115	Stromness,	1,795
Creetown,	969	Hawick,	8,191	Moffat,	1,141	Tain,	1,779
Crieff,	3,903	Helensburgh,	4,613	Montrus,	1,462	Tarbolton,	1,154
Cromarty,	1,491	Huntly,	3,448	Musselburgh,	14,563	Thurso,	3,426
Culross,	517	Innerleithen,	1,130	Nairn,	7,423	Tillinoultry,	3,684
Cupar,	5,029	Inverary,	972	Neilston,	3,435	Tranent,	2,257
Dalkeith,	5,396	Invergordon,	1,122	Newburgh,	1,982	Troon,	2,427
Dalry,	4,232	Inverkeithing,	1,817	Newton Stewart,	2,281	Turriff,	1,843
Dingwall,	2,084	Inverness,	12,509	North Berwick,	2,535	Whithorn,	1,623
Dollar,	1,540	Irvine,	2,520	Oban,	1,940	Wick,	7,475
Dornoch,	647	Jedburgh,	3,428			Wigton,	2,017
Douglas,	1,426						
Doune,	1,256						
Dumbarton,	8,253						
Dumfries,	14,023						



Pulteneytown Harbour, Wick Bay.



Tumulus or Rath of New Grange.

CHAPTER IV.

IRELAND—THE UNITED KINGDOM.



IRELAND, the second island of Europe in population, corresponds to its larger neighbour, Great Britain, in having its eastern coast comparatively tame and unbroken, while the northern, western, and southern is generally bold, often fringed with gigantic cliffs, and very deeply invaded by the ocean. The eastern line of seaboard is also encumbered with sandbanks, bars, and sunken rocks, rendering careful navigation necessary, or interfering with it altogether, whereas in the other directions, the deep water of the Atlantic comes close to the strand, and the numerous inlets rank with the finest harbours in the world for easy access, capaciousness, and shelter. The eastern side of Ireland, like that of Great Britain, has few subordinate isles associated with it; but an immense number

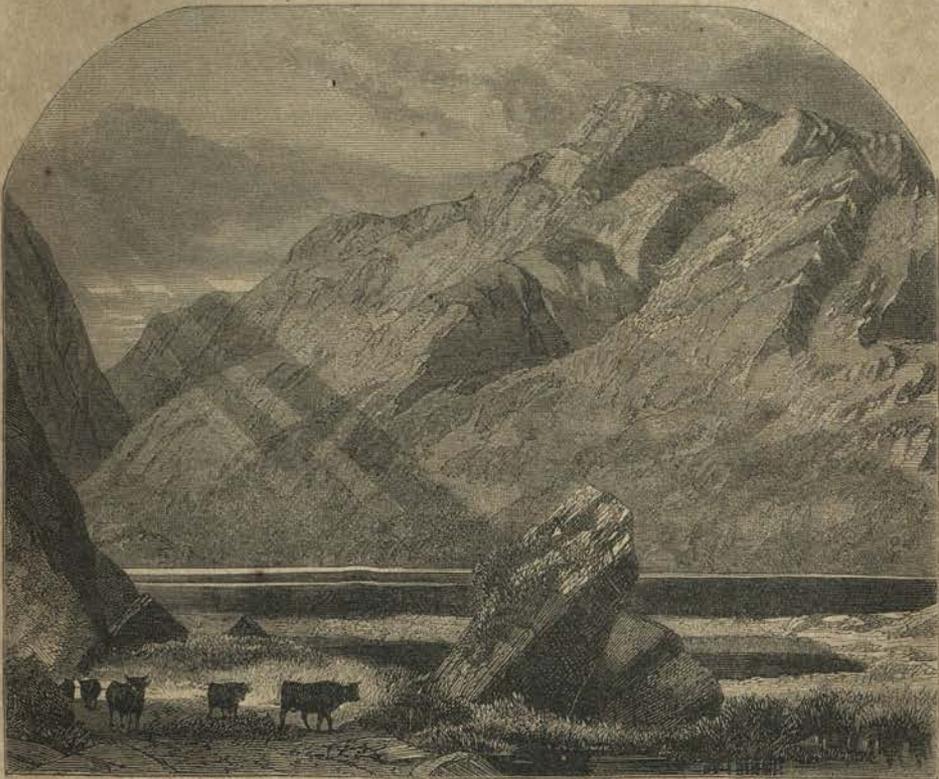
stud the western shores, mostly small, yet thickly peopled, and situated at an inconsiderable distance from the mainland. Valentia Island, on the southern side of the entrance to Dingle Bay, was for some time held by the Spaniards, who were, however, finally expelled by Cromwell. During the period of their occupation, commercial intercourse was active between places on the adjoining shores and Spain, traces of which remain to the present day, in the names of many localities, and in the peculiar styles of building. The town of Galway has its open space called the Spanish Parade, and both there and at Dingle, are several old houses with enclosed courtyards after the Spanish fashion. Legends respecting 'green islands' rising out of the sea, 'enchanted islands' floating on the ocean, and 'fairy castles' appearing and vanishing to seaward, are common in the old Irish chronicles. They may be referred to optical illusions caused by the phenomenon of the mirage, similar to the Fata Morgana of Sicily, and now often observed in the strait between Rathlin Island and the coast of Antrim. In this neighbourhood the shores consist of magnificent ranges of basaltic columns, which form the cliffs and promontories of Fair Head, Bengore Head, and the Giant's Causeway. These polygonal pillars, made by nature herself, seem at a distance like grand monuments of human architecture, or occasionally like ruined edifices, surrounded by a wild waste of rocky fragments, which, in the course of centuries, have been dislodged by the gradual action of the elements, or wrenched away by the ocean in its storms.

The position, limits, linear extent, and area of Ireland, have already been given (see p. 145); but it may be added for easy remembrance, that the island is nearly one-eighth larger than Scotland, nearly two-fifths of the size of Great Britain, and more regular in shape than the contiguous mass. The structure of the surface is extremely simple, consisting of an extensive central plain skirted by imposing mountains. Its general aspect is less rugged than the north and west parts of Great Britain, but not so tame as the east.

The great central plain extends east and west from sea to sea, between the bays of Dublin and Galway; and from the shores of Lough Neagh on the north, to the confines of Waterford on the south. Though varied by swells, the highest ground within its limits, Moat-a-grenogue, in Westmeath, is little more than 300 feet above high-water mark. The foundation rock is carboniferous limestone, the same which has the name of the mountain limestone in England, from being developed there in ranges of considerable height and magnitude. Upon this substratum rest accumulations of clays and gravel, forming a rich cultivable soil, but through a vast proportion of the area it is overlaid with peat-bogs, a characteristic formation of Ireland. The bogs are not confined to the plain, but occur on the uplands, though to an inferior extent. They are estimated by Dr Kane to occupy one-seventh of the whole surface of the island. The largest is the famous Bog of Allen, which stretches in a vast plain across the centre of the island, or over a large portion of Kildare, Carlow, King's and Queen's Counties—having a superficial elevation of 280 feet. Extensive traces of deep wet bog also occur in Longford, Roscommon, Mayo, Galway, and other counties, and give a peculiarly dreary and desolate aspect to the scenery. They are composed of decayed and compressed vegetable matter, or peat, with an overgrowth of unproductive living vegetation, holding more or less stagnant water. They seem to have arisen from interruptions offered to the drainage by fallen timber, or the gravel ridges, whence shallow pools resulted, specially adapted for the growth of aquatic plants, as *Sphagnum palustre*, and other mosses, which luxuriated till a spongy mass of vegetation was formed, decaying, rotting, and compressing into peat below, while continuing to shoot out new plants above. The peat extends to the average depth of from twenty to twenty-five feet, though sometimes to forty feet; dried by the summer heat, it is in many districts the only available

fuel. The bogs of Ireland have no analogy to the fens of England, as they lie in all cases so far above the sea-level as to be readily susceptible of drainage and reclamation. Notwithstanding their moisture they are not insalubrious, owing to the large quantity of tannin which they contain; and such are their antiseptic properties, that bodies of men and animals have been taken out of them with but few symptoms of decay after the lapse of generations. Trunks of oak, yew, pine, and birch are met with at great depths, and remains of the gigantic horned elk are very abundant. Various ornamental articles are made of the bog-timber, that of the oak being generally as black and hard as ebony, while the colour of the yew is a rich brown approaching to chocolate.

The highlands which border the central plain do not form a continuous belt around it, but occur in detached groups or ranges of limited extent, generally close to the shores, and often forming the coast-line. They consist of primary strata, with various igneous rocks, which have protruded through the great pavement of carboniferous limestone, rising to considerable elevations above it. The loftiest masses on the eastern side are the Mourne Mountains, in the county of Down, which approach the height of 2800 feet, and those of Wicklow, which slightly exceed 3000. In the north-west and west, Donegal, Mayo, and the wild district of Connemara, have summits of nearly equal



Gap of Dunloe, County Kerry.

altitude, with stupendous sea-cliffs. But the most generally rugged district is the southwestern, chiefly the county of Kerry, where several ranges run parallel to each other,

between which the ocean far advances its waters, and is overlooked by the highest points of Ireland. Occupying a specially maritime site, in the peninsula north of Dingle Bay, Mount Brandon rises 3120 feet, but is surpassed by Carn Tual, 3404 feet, not far from its southern shore, one of Macgillicuddy's Reeks, a ridge running between the lakes of Killarney and the coast. The Reeks, or rocks, have smooth, sharp, conical summits; and are traditionally said to derive their specific name from that of an old extinct family in the neighbourhood. Carn Tual rises with a uniform slope on every side; and a very striking panorama is in view from it of winding inlets, estuaries, and peninsulas,



Muckross House, Middle Lake, Killarney.

whenever the volumes of mist and cloud which roll up from the Atlantic are withdrawn. Macaulay has eloquently described the district, now brought within reach of a vast number of excursionists. 'The mountains, the glens, the capes stretching far into the Atlantic, the crags on which the eagles build, the rivulets brawling down rocky passes, the lakes overhung by groves in which the wild deer find covert, attract every summer crowds of wanderers sated with the business and the pleasures of great cities. The landscape has a freshness and a warmth of colouring seldom found in our latitude. The myrtle loves the soil. The arbutus thrives better than even on the sunny shores of Calabria. The turf is of livelier hue than elsewhere; the hills glow with a brighter purple; the varnish of the holly and ivy is more glossy; and berries of a brighter red peep through foliage of a brighter green.' Besides these highlands, several groups are distributed over the southern counties, the Galty, Knockmeilidown, Silver Mine, and Slieve-Bloom Mountains, some of which range to an important altitude.

Ten principal river-systems are distinguished, which, though not of much value in a navigable point of view, except in the instance of the Shannon, supply an amount of water-power fitted for industrial purposes which few countries of the same extent possess, and are often associated with highly picturesque scenes, adding to the

beauty or impressiveness of the landscape by their placid flow, wild dash, or roaring cascades.

Rivers.	Length in Miles.	Principal Places from Source to Mouth.
Shannon,	254	Carrick, Athlone, Killaloe, Limerick.
Barrow,	100	Portarlinton, Athy, Carlow, New Ross.
Blackwater,	100	Mallow, Fermoy, Lismore, Youghal.
Bann (Upper and Lower),	65	Portadown, Coleraine.
Boyne,	65	Trim, Navan, Drogheda.
Slaney,	60	Tullow, Enniscorthy, Wexford.
Liffey,	50	Leixlip, Dublin.
Bandon,	40	Bandon, Kinsale.
Lee,	35	Cork, Passage, Queenstown.
Foyle (properly so called),	16	Strabane, Lifford, Londonderry.

The Shannon is the third river of the United Kingdom in the extent of its basin, being only surpassed by the Humber and the Severn, while it is the first in rank as to the length of its navigation. It issues from a bog among the mountains of Cavan, called in the locality the 'Shannon Pot,' flows generally from north to south, forms Loughs Allen, Ree, and Derg, washes the shores of ten counties, meets the tide below Limerick, and then travels westerly to the Atlantic through a long and noble estuary, from one to eleven miles broad, answering to Spenser's description, 'the spacious Shenan, spreading like a sea.' Aided by a few lateral cuttings, the navigation is continuous through upwards of 200 miles, nearly the whole of its course. By one of these cuts the rapids of Doonas above Limerick, where the bed of the river becomes strongly inclined, are avoided, and the whole body of water, 300 yards wide and 40 feet deep, rushes over and through a succession of rocks for half a mile, forming a scene of great magnificence. The Barrow, next in importance, drains a south-eastern district, and includes in its system the Nore and Suir, popularly called the Three Sisters, from rising in the same neighbourhood, and after a long divergent course pouring their united waters through Waterford Harbour into the Atlantic. In the north, the Bann, divided into upper and lower by Lough Neagh, enters the sea below Coleraine; and the Foyle passes Londonderry to the large marine inlet of Lough Foyle. On the eastern side are the Boyne, celebrated for the battle fought on its banks between the forces of William III. and those of James II.; the Liffey, on which Dublin is situated; and the Slaney, which forms at its mouth the haven of Wexford. In the more southerly portion of the island, the Blackwater, designated the 'Irish Rhine' from its scenic attractions, discharges itself into Youghal Bay; the Lee forms the fine harbour of Cork; and the 'pleasant Bandon, crowned with many a wood,' terminates its course at Kinsale, but is now shorn of much of the timber it possessed when the author of the *Faery Queene* trod its banks.

Lakes are numerous distributed, and occupy a very considerable space in proportion to the whole extent of the surface, amounting to nearly 1000 square miles. They differ generally in form and position from the Scottish lakes; have their length and breadth more correspondant, occur in open districts, and, with one striking exception, have tame borders, level or marshy. Lough Neagh, the largest inland expanse in the kingdom, washes the shores of five counties in the province of Ulster, extends seventeen miles in length by ten in average breadth, covers an area of 150 square miles, is a navigable basin, and has waters celebrated for their incrusting quality. In Ireland the word *lough*, like the similar term *loch* in Scotland, is applied indifferently to fresh-water expanses, inlets of the sea, and the estuaries of rivers. Lough Corrib, in Connaught, is the next in magnitude, but much smaller. It maintains communication with Lough Mask, about three miles to the northward, by a subterranean channel through the intervening limestone isthmus. The connecting stream may be seen at various points in

its caverned bed through openings in the superincumbent strata, one of which, called the Pigeon's Hole, sixty feet deep, admits of being descended. Lough Derg, in Donegal, surrounded by dreary moorland hills, and disturbed by violent gusts of wind, has a number of small islands, one of which, called *Saint's Isle*, is the original seat of St Patrick's Purgatory. But the place of penance for some centuries has been on *Station Isle*, under an acre in extent, and with two chapels, which is now the most celebrated place of pilgrimage in Ireland, from 10,000 to 15,000 persons flocking to it annually, from 1st June to 15th August, for prayer, fasting, and vigils. The Lakes of Killarney, three in number, upper, middle, and lower, mutually connected, are exceptions to the ordinary scenery as to natural attractions, being enclosed by the loftiest of the Irish mountains, with vividly green woods and fine monastic ruins on their shores.

The mineral resources of Ireland are very considerable, but remain largely undeveloped. Coal occurs in ten counties, often in thin seams which detract from its value, or of inferior quality, consisting of anthracite or stone coal, which burns without flame. It was worked at an early period, for pits have been discovered which bear evidence, from the rude implements found in them, of having been sunk by a race anterior to historical records. The coal now used in the towns is chiefly imported from England and Scotland, while peat is exclusively used for fuel by the peasantry. Iron ore is abundant in the basin of the Shannon, and other places. It was extensively smelted in charcoal furnaces while the ancient forests lasted, but has been neglected since the supply of wood-fuel failed. Copper is obtained in the counties of Wicklow, Waterford, Cork, and Kerry, and sent for smelting to the coal districts of England and Wales. Lead is much more widely diffused, and worked to a greater extent. Small proportions of manganese, antimony, alum, fuller's-earth, and pottery clays are included in the other mineral produce, with roofing-slate and building-stone of the best description; and there is an extraordinary variety of ornamental marbles—white, black, ash-gray, dove-coloured, and green, the latter almost as bright in its hue as malachite. The Museum of Irish Industry in Dublin contains a fine collection, carefully classified, of all the geological products of the country. Towards the close of the last century, gold was discovered in connection with the mountain-streams of Wicklow, which raised high expectations respecting the auriferous wealth of the district. A schoolmaster, in his solitary walks, found the first 'nugget' in the Ballin Valley stream. He kept the secret to himself, and wandered in his leisure hours, early and late, in search of further treasure. Another party similarly fortunate was not so reserved; and crowds of peasantry were speedily at the spot digging up and washing the soil. The first gleaners made such considerable profits that the government interfered, and regular mining-works were established, till the rebellion of the year 1798 interrupted the enterprise. It was resumed in 1801, but soon abandoned as unremunerative. The stream-gold having been exhausted, and no auriferous veins being discovered in the adjoining rocks and mountains, it became evident that the whole supply had been gathered up. Altogether, the government collected about 944 ounces, valued at £3675, but the expenditure was more than three times this amount. Previously, the peasantry are supposed to have obtained upwards of £10,000 worth of gold, in pieces from the size of minute grains to lumps weighing twenty-two ounces.

The great staple manufacture, that of linen, is prosecuted in the north-eastern districts. It appears to have been long established in the country, for the principal garment worn by the ancient chieftains was a shirt made of many yards of linen cloth, and sumptuary laws were passed to limit the quantity which ostentation would have desired. For upwards of two centuries, or since the governor-generalship of Strafford, in the reign of Charles I. the industry has received marked support from the government, with

a view to its extension. While in England the custom of burying the dead in woollen shrouds was adopted to aid the woollen manufacture, in Ireland the use of linen hat-bands and scarfs at funerals was introduced for a similar purpose. Down to a recent date, the fabric was produced in the cottages, where the peasant, in the intervals of agricultural labour, wove by the handloom the yarn spun by the female and younger members of his family, sometimes working on his own account, though more generally for masters. But this system has been largely abandoned for factory labour, and at Belfast, Lurgan, and Donaghadee there are some of the largest and best conducted mills in the empire. The bulk of the native Irish are, however, by temperament averse to the restraint and continuous application which both the factory system and mining industry involve. The cotton manufacture is carried on to some extent in the same area. Coarse woollens and some fine broadcloths are produced at various places, with lace, embroidered muslin, and tabinets or poplins, a mixed fabric of silk and wool, the manufacture of which is almost entirely confined to Dublin. But except linen, all the other products fill but a limited space in the marts of the world, employ but a comparatively small amount of capital and labour, and in relation to manufactures Ireland occupies nearly the lowest place in the European scale.

The industry of the country is essentially agricultural, and upon the cultivation of the soil the mass of the people depend for their subsistence. Though improving, the general husbandry has long been in a backward state, owing to the minute divisions of the land, the system of subletting, and the undue dependence of tenants upon landowners or their representatives. To the effect of these circumstances in discouraging enterprise and paralysing effort, political agitation in time past contributed. Besides the cereal produce, of which oats form the largest crop, as suited to the moisture of the climate, a considerable extent of surface is devoted to the growth of flax for the linen trade, chiefly in the northern province of Ulster, with limited spaces in other quarters. The light calcareous soil, the softness of the climate, and the fresh breezes which fan the island from the Atlantic tempering the heat of the summer sun, conduce to the health and perfection of that delicate plant. It is usually sown in March or April, flowers about the beginning of July, and is considered ripe towards the close of August. Among the green crops, the potato holds the foremost place. The esculent was introduced by Sir Walter Raleigh about the year 1601 or 1602, who planted it in his garden near Youghal, from whence it gradually spread over the entire country. The Irish peasantry unfortunately made it their main dependence, attracted by the usually abundant yield, and the comparative facility of the cultivation. Hence a failure of the crop threatened their very existence. One failure in 1739 sent a fifth of the inhabitants to the grave. Famine, pestilence, and death resulted from the terrible failure of the year 1845, followed by an emigration of the survivors to such an extent as to deserve the name of the Irish Exodus. The calamity illustrated the folly of an entire nation depending upon a single precarious root, and has since stimulated the culture of the corn-bearing plants. Dairy produce and live-stock, consisting of cattle and swine, are raised for export to an immense extent upon the large and small grazing-farms. As 'the gentleman that pays the rent,' the pig is an inmate in almost every peasant's cabin, remarkably docile, and as carefully provided for as any member of the family. The animals are sent in great numbers to Liverpool and Bristol; and after supplying the local demands, the surplus stock, alive or cured, is transferred to the metropolitan and other interior markets.

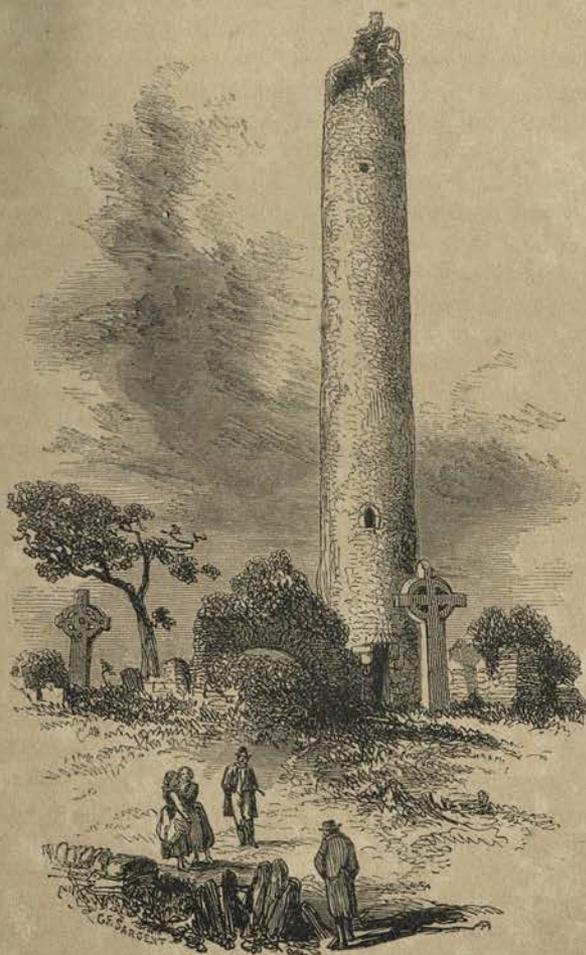
The primitive inhabitants of Ireland are now believed to have been of the same race with the original population of Britain. Although Ireland, styled *Iernis*, (from the native Celtic name *Erin*) is mentioned in a Greek poem five centuries before Christ, and by the

names of *Hibernia* and *Juverna* in various foreign pagan writers, little is known with certainty of her inhabitants before the fourth century after Christ, when, under the appellation of *Scoti*, or inhabitants of *Scotia*, they became formidable by their descents upon the Roman province of Britain. These expeditions were continued and extended to the coasts of Gaul till the time of Laogaire MacNeill, monarch of Ireland (430 A.D.), in whose reign St Patrick attempted the conversion of the natives. Although Christianity had been previously introduced in some parts of the island, Patrick encountered great obstacles, and the new faith was not fully established in Ireland till about a century after his decease. The Irish were in the earliest times divided into a number of clans subject to respective chieftains, who were themselves the vassals of petty insular kings; when an expelled prince, with a view to his own re-instatement, instigated the English conquest. This was effected by Henry II., who landed at Waterford in 1172, and caused himself to be recognised as the lord-paramount. But for several centuries the authority of England was limited to a district around Dublin, which received the name of the English Pale, while the remainder of the country was in the hands of rude, factious, and turbulent nobles. Henry VIII. assumed the title of King of Ireland in 1541; and the strong government of Elizabeth did much to render the nominal sovereignty real, while under her successor, James I., the due administration of justice, with general civilisation, was promoted. In the reign of the latter, the estates of the northern earls, Tyrone and Tyrconnel, forfeited by their rebellion, which embraced a considerable portion of Ulster, were granted to English and Scotch colonists, whose descendants are prominent in the present population of that district. But Cromwell may be said to have been the first who reduced the entire island to a single sway (1649), unwelcome to the mass of the peasantry, and resisted by two abortive insurrections, the pretexts for which have only been removed by legislation within the memory of living men. On January 1, 1801, the legislative union of Great Britain with Ireland was consummated, and, from this period, the history of the country merges in that of Great Britain.

Highly interesting remains of antiquity abound on the surface, as cromlechs, cairns, and pillar-stones, while the peat-bogs have yielded bronze swords, spear-heads of the same mixed metal, rings composed of it, or of gold, the weapons, money, and ornaments of the old Celts. It is a remarkable fact, that a greater number and variety of antique golden articles of remote age have been found in Ireland than in any other part of Northern Europe; and the majority of the gold antiquities illustrative of British history, now preserved in the British Museum, are Irish. The cromlechs, though varying in form and size, consist generally of three upright stones, which support a horizontal slab, and form a kind of rude chamber devoted to a sepulchral purpose; that of New Grange, represented at the beginning of the chapter, is entered by a passage so low that the person entering must draw himself in by his hands, pushing with his feet; inside, the tallest man may stand upright. The cairns are piles of stones, forming artificial 'high places,' on the flat tops of which fires were lighted on the festival of the sun-god, and other special occasions, while all domestic fires were put out, and only rekindled from the sacred flame. Pillar-stones, both standing singly and in company, or arranged in circles, are believed to have been associated with forms of pagan worship; and hence the phrase of 'going to the stone' was in common use in after-times for going to church or chapel. But by far the most remarkable monuments are the Round Towers. These are tall and slender circular buildings, terminating, when perfect, in a conical roof, with four small windows near the top, generally looking to the cardinal points. There are 118 of these singular structures in different parts of the island, but of several only the foundations remain. Eighteen are entire, or nearly so, and retain the conical summit. They are invariably found near the remains of churches, varying in

height from 30 to 120 feet. Their design, after having given rise to endless speculation, still remains an unsolved problem. Ruins of churches of very early date are numerous, small, low, stone-roofed, and of great strength, with the peculiarity of the crypts being placed above, instead of under them; and fine remains of abbeys and monasteries are extant. Small castles—some perfect, others in various stages of decay—are profusely distributed. They are usually high square buildings, with towers at each corner, mostly raised to restrain the 'wild Irish' in the age of Elizabeth. Some palatial strongholds of earlier date are in good preservation, and still inhabited.

Ireland is nominally divided into four provinces, Leinster, Ulster, Connaught, and Munster, which are respectively eastern, northern, western, and southern; and coincide with the limits of former kingdoms. For the purpose of government, the present division is into thirty-two counties, of which Leinster contains twelve, Ulster nine, Connaught five, and Munster six.



Round Tower at Monasterboice.



Dublin from Phoenix Park.

I. LEINSTER.

Counties.	Area in Square Miles.	Principal Towns.
Dublin,	348	Dublin, Kingstown, Howth, Balbriggan.
Wicklow,	781	Wicklow, Arklow, Bray.
Wexford,	901	Wexford, Enniscorthy, New Ross.
Meath,	906	Trim, Navan, Kells.
Louth,	315	Dundalk, Drogheda.
Longford,	421	Longford, Edgeworthstown.
Westmeath,	709	Mullingar, Athlone.
King's County,	772	Tullamore, Parsonstown, Philipstown.
Queen's County,	664	Maryborough, Portarlington.
Kildare,	654	Athy, Naas, Kildare, Maynooth.
Carlow,	346	Carlow, Bagenalstown, Tullow.
Kilkenny,	795	Kilkenny, Callan, Castlecomer.

Seven of these counties—Dublin, Wexford, Meath, Louth, Kildare, Carlow, and Kilkenny—were constituted as early as the time of King John, but in some instances with different limits. The remaining five were laid out under Henry VIII. and his immediate successors.

DUBLIN, the metropolitan county, is centrally situated on the east coast, north and south of the Liffey, which discharges itself in Dublin Bay, the principal feature of the shore. This spacious semicircular basin, about eight miles in diameter, is remarkable for its picturesque beauty, though forming a perilous roadstead, owing to its shallowness and exposure to the winds. But by means of sea-walls along the course of the river, and frequent

dredging, the channel is ascended by vessels of moderate size to the quays of the capital. The Hill of Howth, a peninsular promontory, skirts the northern side of the bay, and is a noble object from its surface, while the view from the summit is attractive in the extreme, embracing the entire expanse, a wide stretch of the outlying sea, the whole extent of the city, and the Wicklow Mountains on the southern horizon. A small, rocky, and very charming islet, with the characteristic name of Ireland's Eye, lies a little to the north, within a mile of the strand, and is often visited by pleasure-parties, while a lofty precipitous rock, called the Baily of Howth, rises boldly from the waves off the extremity of the headland, crowned by a light-house. The interior of the county is level or gently undulating, except southerly, or in the direction of the highlands of Wicklow, where the surface becomes elevated, and has prominent heights on the border-line.

Dublin (Irish, *Dubh-linn*, 'blackpool,' the *Eblana* of Ptolemy), the metropolis of Ireland, in latitude 53° 20' north, and longitude 6° 17' west, occupies a plain on both banks of the Liffey, a little above its mouth, 34 miles north-west of London by the Holyhead route, 102 miles from Belfast, and 156 from Cork, the northern and southern commercial capitals. It is divided into two almost equal parts by the river, which is enclosed on both sides by granite quays, and crossed by numerous bridges, mostly of modern date. Containing nearly 300,000 inhabitants, it takes high rank among the capital cities of Europe in point of population, being in advance of Rome, Turin, Milan, Brussels, Amsterdam, Stockholm, and Lisbon, while upon a par with Madrid, and not much behind Moscow. Nor are its pretensions small to vie with them in appearance, from the number of its spacious streets and squares, and its splendid public edifices and private mansions; though the abodes of squalor and misery in its narrow lanes are lamentably abundant. Sackville Street, at right angles with the river, on the northern bank, is scarcely surpassed anywhere as a noble avenue; St Stephen's Green, well planted, on the southern side, is the largest square in the United Kingdom; and the Phoenix Park, close to the western suburbs, is without a rival in extent, containing ornamental drives and waters, with secluded glades, all but abandoned to the wildness of nature. Immense herds of deer find shelter amid its brushwood and timber. The public buildings, several of which are distinguished for their size and elegance, include the Castle, containing state apartments and government offices; the Bank of Ireland, formerly the Parliament House; the Law Courts, the Custom House, Post Office, Exchange, and Surgeon's Hall, with Trinity College, and two cathedrals, St Patrick's and Christ-Church. The College, a Protestant university, founded in the time of Queen Elizabeth, has a valuable library, and is usually attended by about 2000 students. St Patrick's Cathedral, from its monumental associations, may be styled the Westminster Abbey of Ireland. The city has few manufactures, but a great export trade. It is well supplied with scientific institutions, and with charitable establishments of every description, nowhere more needed, owing to the destitution of many of the lower classes. Dublin has risen during the English era, previous to which there were probably only a few huts of wood and basket-work on the site. *Kingstown*, at the southern entrance of the bay, is the port of the capital, about six miles distant, connected with it by railway. Formerly called *Dunleary*, and quite insignificant, it received its present name in commemoration of the landing of George IV. in 1821; and has been changed into a thriving town, since the construction of an artificial harbour rendered it the steam-packet station to Liverpool and Holyhead. Two noble piers, running out respectively 3500 and 4950 feet, composed of fine granite, and inclining towards each other at their extremities, form the basin, and supply agreeable promenades. The railway is in immediate connection with them, to receive what England may have sent, and bring what Ireland may despatch. *Howth*, a fishing village and favourite resort of the Dublin citizens, occupies the northern side of the famous hill, and has interesting remains of an abbey in its midst, in which was preserved the book of the Four Gospels, called the 'Garland of Howth,' long held in great veneration. The Hill of Howth is about three miles long by two broad and rises to 563 feet in height. It offers much to attract the botanist and geologist, while enjoying the prospect and the sea-breeze. *Malahide* and *Balbriggan* are further north on the coast, the former distinguished by Malahide Castle, a vast and imposing pile, with an interior of great interest, belonging to the Talbots.

WICKLOW, a maritime county dating from the time of James I., adjoins that of Dublin on the south, and is generally the first part of the country to which the stranger directs his steps after reaching the capital, owing to its finely diversified natural features. Nearly the whole surface is occupied by a group of granite mountains, largely overlaid with clay-slate, separated from each other by valleys or rather glens, in some of which, of the more open kind, small lovely lakes occur, while almost all are the beds of streams, rapid in their current, and occasionally forming striking waterfalls. The summits of the mountains have generally an elegantly-pointed form, here pyramidal, there sugar-loaf, and are quite bare, while their lower slopes in the watered vales are thickly covered with

noble oaks and beeches, the trunks of which are clothed with a luxuriant growth of ivy vividly green. The loftiest eminences are the Douce Mountain, which attains the height of 2384 feet; Thonelagee, 2683 feet; and Lugnaquilla, 3039 feet. Among the rivers, the Liffey and the Slaney rise in the county, and pass into bordering districts, while the Dargle, Vartry, and Ovoca have their whole course within its limits. Many are the scenes striking in themselves, very lonesome also, which are rendered singularly impressive by the occurrence of antiquities, as a round tower and ruined churches.

Wicklow, a small shipping port for mineral and other produce, is on the estuary of the Vartry. This river, in the lower part of its course, rushes through the Devil's Glen, a wild narrow pass, after having been precipitated into it by a magnificent cascade. In the upper part, it has recently been made by engineering skill to contribute to the water-supply of Dublin. *Arklow*, a somewhat larger town, is situated at the mouth of the Ovoca, a river flowing through the loveliest scenery, the subject of Moore's well-known lines:

'There is not in the wide world a valley so sweet,
As that vale in whose bosom the bright waters meet.'

The Ovoca is formed by the junction of the Avonmore and Avonbeg, in a scene of great natural beauty,



Devil's Glen.

enclosed by high grounds covered with fine woods. This is the first 'Meeting of the Waters.' From the confluence, the stream flows between lofty banks adorned with an unbroken range of forest till it receives the Anghrim, which forms the second 'Meeting.' One of the tributaries of the Avonmore descends Glendalough, or the valley of the two lakes. At the foot of the lower and smaller lake lie the Seven Churches in lowly ruins, an ecclesiastical establishment referred to St Kevin in the sixth century, in the midst of which rises a round tower, 110 feet high, in fine preservation. *Bray*, at the outlet of the Dargle, on both its banks, is a beautiful little town, in a most attractive neighbourhood, with a bold headland to seaward. The Dark Glen, the meaning of the word 'Dargle,' is a long narrow, and densely-wooded ravine, through which the stream frots and brawls over the obstacles which impede its course, presenting at every turn some of the most picturesque combinations of rock, water, and foliage that the imagination can conceive. It is daily dotted through the summer with picnic parties from the capital. The famous Irish weapon, the shillelah, has its name from one of the Wicklow woods near Arklow, celebrated for its growth of the best oaks and black them.

WEXFORD COUNTY, southward on the coast, includes the south-eastern extremity of Ireland, or Carnsore Point, about fifty-two miles from St David's Head, in Wales. The adjoining district is a peninsula,

forming the barony of Forth, in which Welsh colonists were planted, driven thither by

the early Anglo-Norman invaders, whose descendants long retained the use of their own language, and are still distinct in many respects from the rest of the population. The interior of the county is generally level, fertile, and well cultivated, largely devoted to arable husbandry, and has a pleasing appearance when the many trim furze hedges put forth their yellow blossoms. It is watered on the western border by the Barrow, but chiefly by the lower course of the Slaney.

Wexford, on the shore of the spacious haven formed by this last river, near its outlet, is an old town of narrow streets. Taken by the first English adventurers to Ireland in 1169, it is now in possession of many vessels employed in the export of agricultural produce, and the import of timber. Its long bridge, built over a narrow part of the haven, was the scene of an atrocity during the Irish rebellion of 1798, the murder of English and Protestant prisoners who were thrown from it into the water. *Enniscorthy*, twelve miles up the river, has Vinegar Hill in its immediate vicinity, where the rebels were finally defeated by the royal troops, and where some executions followed in retaliation for the massacre of Wexford Bridge. *New Ross*, seated on the left bank of the Barrow, in one of the most beautiful parts of its course, with a suburb on the opposite or Kilkenny side of the river, has considerable trade in the export of provisions and wool.

MEATH, directly north of Dublin, possesses a very limited extent of coast-line, but acquires considerable expansion inland. It belongs almost entirely to the great central plain, includes some of the richest grazing lands, and has nearly the whole course of the Boyne within its bounds.

Trim, on the left bank of the river, the county town; *Navan*, lower down, at its junction with the Black-water; and *Kells*, near the tributary, are small marts of local trade. At Dangan, near Trim, the Duke of Wellington was born. The Hill of Tara, celebrated in early Irish history as the spot where the kings, clergy, and bards assembled at a hall or palace, to consult on important occasions, is a few miles distant.

'The harp that once through Tara's halls
The soul of music shed,
Now hangs as mute on Tara's walls
As if that soul were fled.'

The Hill was also a common place of rendezvous in time of war, and has been the scene of great political gatherings in our own times.

LOUTH, the smallest of the Irish counties, and the last of the maritime divisions of Leinster, extends along the coast from the outlet of the Boyne to Carlingford Lough. It lies within the manufacturing area of the north of Ireland, though the industry is chiefly agricultural.

Dundalk, at the head of a bay to which its name is given, has some important fisheries and a coasting-trade. *Drogheda*, on the Boyne, three miles above its mouth, shares in the linen and cotton manufactures, and is one of the old historic towns, with an antiquated appearance strikingly contrasting with the grand railway bridge and viaduct which has been thrown across the river-valley. It was successfully defended during the Irish rebellion in the reign of Charles I.; captured by Cromwell a few years later when held by a royalist force; and surrendered to William III., in 1690, the day after he defeated the army of James II. in the neighbourhood. This decisive battle was fought about two miles above the town, close to the river. An obelisk stands on a singular isolated rock, and marks the spot where one main incident of the action occurred. For some distance above Drogheda, the valley of the river is very remarkable for its tunnell, with vaulted chambers in the interior, which are supposed to go back to heathen times. A short excursion leads to Monasterboice, a corruption of the ancient name, the Monastery of St Boethius. This is a ruined ecclesiastical foundation, with two elaborately sculptured stone crosses, the one sixteen, and the other eighteen feet high, considered to be among the most ancient Christian relics in the country, and a round tower shattered at the top, as if by lightning.

LONGFORD, an inland district, constituted under Queen Elizabeth, has the Shannon for its western border, along with the northern part of Lough Ree, the shores of which are very tame, as are those of several small lakes within the county. The general surface belongs to the great agricultural plain of the interior.

Longford, a busy and flourishing little town, also a military station, stands on an affluent of the noble river, and communicates with the capital by a branch of the Great Western Railway. *Edgeworthstown*, within a few miles, is of greater interest, deriving its name from the Edgeworth family, two of whom, father and daughter, are so well known in the annals of literature. The family came over from England in the reign of Elizabeth, and became possessed of extensive domains, from one of which, the village of Pairymount, the Abbé Edgeworth, who attended Louis XVI. to the scaffold, acquired his Gallic name of M. de Firmount.

WESTMEATH, a corresponding tract, extends from the southern part of Lough Ree and the outflow of the Shannon, eastward to Meath, with which it was formerly connected, composing together the chief portion of an ancient kingdom.

Mullingar, the county town, towards its centre, is one of the great cattle marts, on the banks of the Royal Canal, and the line of the Western Railway. *Athlone*, on the Shannon, with its castle on the opposite or Connaught side of the river, is the chief government depot in the west of Ireland for troops and military stores.

KING'S and QUEEN'S COUNTIES, two adjoining districts, were organised in the reign of Queen Mary, and received their names in compliment to that sovereign, and her husband, Philip II. of Spain. The former belongs chiefly to the basin of the Shannon, and to the limestone plain, comprehending a considerable extent of bog land. The latter is wholly included in the basin of the Barrow and Nore, has a generally hilly surface, with the Slieve-Bloom Mountains partly within its limits, and on the border-line between the two divisions.

Philipstown and *Maryborough*, now places of inferior note, were so called after the sovereigns commemorated by the counties. *Portarlington*, the residence of a number of the upper classes, is in both districts seated on either bank of the Barrow. The name refers to the founder, Lord Arlington, in the reign of Charles II., and to the site having been used as a landing-place on the river. *Tullamore*, the county-town of King's County, is the centre of considerable commerce, being on the line of the Grand Canal, and connected by a branch with the South-Western Railway, but is inferior in size to *Parsonstown*, on a small affluent of the Shannon. This place, formerly called *Birr*, is distinguished by the adjoining seat of Lord Rosse, or *Birr Castle*, the site of his famous telescope. Ecclesiastical remains of great interest, called the Seven Churches of Cloonmacnoise, occupy a romantic position by the course of the Shannon. They consist of the ruins of an abbey, with monumental crosses, and a round tower, one of the largest in Ireland, with the unusual number of eight apertures in the upper story.

KILDARE, between the preceding counties and those of Wicklow and Dublin, is generally a table-land, dotted with bogs, which are comprehended in the great bog of Allen. It has the Barrow on its western border, and includes a large part of the basin of the Liffey.

Atty, on the former river, at the head of its navigation, shares the assizes with *Naas*, near the latter. *Kildare*, the ancient capital, now gone to decay, has a ruined cathedral, but the diocese is merged in that of Dublin. It has also a round tower, 130 feet high, which crowns the elevation on which the town is built, and is seen from a great distance. An extensive tract of several thousand acres in the neighbourhood, called the 'Curragh of Kildare,' is used in common as pasture-ground, and for public sports, and is also the station of a military camp. *Maynooth*, fifteen miles west of Dublin, is a small neat town, with striking remains of an old castle, belonging to the once powerful family of the Geraldines, but is best known as the site of St Patrick's College, the principal establishment for the training of candidates for the Roman Catholic priesthood. It was founded by act of the Irish parliament in 1795, and is subsidised by the British government. The academical year embraces ten out of the twelve months. The students usually number about 500, and remain eight years. *Leixlip*, nearer the Dublin border, is on the Liffey, in a very beautiful part of its course, where the river flows between steep and richly-wooded banks, pours over a series of rocky ledges, and forms the Salmon Leap, a striking cascade.

CARLOW, one of the smaller counties, on the south, lies between the Barrow and Slaney rivers, but small portions pass beyond both the streams. It is generally a highly fertile plain, so well cultivated as to have been termed the 'garden of Erin.' Cereal produce of fine quality is extensively raised. Corn-mills abound, moved by water-power, some of which are comparable to cotton factories in their magnitude. The landed proprietors are usually resident, representing many of the early English settlers, and a few of the ancient Irish families. It has been remarked that a large proportion of the former class have names beginning with the letter B; and hence the sayings were once current in the district, 'Beware of the Bs,' and 'The Bs of Carlow carry a sting,' in allusion apparently to high-handed proceedings.

Carlow, on the left bank of the Barrow, in a beautiful country, is modern in its general aspect, though with a castle of note in former times, erected in the twelfth century, in the Anglo-Norman style, now an extensive ruin. It also possesses a Roman Catholic Cathedral, and a theological college. *Bagenalstown*, lower down the river, is the site of some principal flour-works. The largest are, however, at *Milford*

intermediate, where the buildings are flat roofed, have a castellated aspect, and appear with striking effect in a distant view. The chief water-wheel, of iron, said to be the largest in the kingdom, takes the water on a breadth of twenty-one feet, and is equal to the power of 120 horses.

KILKENNY, westward of the Barrow, is traversed centrally by the Nore, and has the lower course of the Suir for its southern frontier. It is one of the principal mineral districts, possesses iron and manganese, with coal of the anthracite kind, which is wrought in various places, and a black marble crowded with madrepores and shells, which takes a high polish, and is extensively quarried.

Kilkenny (Gael. Church of St Kenny), on both banks of the Nore, is the largest town in Ireland wholly inland, and the only one of any importance in the county. But the population has been for some years decreasing, chiefly owing to the decline of the woollen manufactures. It is of ancient date, contains many castellated and monastic remains, and has interesting associations, as the scene of viceregal courts and parliaments in former times, and the place where Swift, Congreve, and Berkeley received the early part of their education. The environs are very pleasing, and the view from the bridge striking, commanding a fine serpentine sweep of the river, overhung by the noble mansion of the Ormond family.

II. ULSTER.

Counties.	Area in Square Miles.	Principal Towns.
Armagh,	513	Armagh, Lurgan, Portadown.
Down,	957	Downpatrick, Newry, Donaghadee.
Antrim,	1190	Belfast, Carrickfergus, Lisburn.
Londonderry,	810	Londonderry, Coleraine, Port Stewart.
Donegal,	1865	Lifford, Ballyshannon, Letterkenny.
Fermanagh,	714	Enniskillen, Newton Butler.
Tyrone,	1260	Omagh, Strabane, Dungannon.
Monaghan,	500	Monaghan, Clones, Carrickmacross.
Cavan,	746	Cavan, Belturbet.

The final settlement of these counties took place in the early part of the reign of James I. At that period, a large proportion of Ulster, consisting of estates forfeited by the rebellion of the northern earls, was granted to the great companies of London, subject to certain conditions, as the introduction of colonists, with the view of forming a Protestant population. A considerable body of English, but a much larger number of the Scotch, owing to their proximity, took part in this 'plantation' of the province. Hence the prevalence of the Lowland Scotch language in the country districts at the present day, and of Presbyterianism in the north of Ireland, with the substitution, in the name of a town and county, of Londonderry for Derry, in honour of the metropolitan bodies corporate. At the same time, as many of the native Irish of the lower classes remained, the Celtic element survived in the district, and to some extent a race of mixed blood arose. Only a few of the companies retain now possession of their estates, managing them by resident agents.

ARMAGH, the most populous of the Irish counties in proportion to its area, after that of Dublin, is an inland district, extending from the Leinster border to the southern shore of Lough Neagh. Most of its drainage is carried to the great lake by the upper Bann, the Blackwater, and its affluent the Callan. While prominently hilly in some places, the general surface only gently undulates, and has often a very English aspect, owing to patches of wood and enclosures of quickset hedges.

The cathedral city of *Armagh* (*Ard-Magha*, 'the lofty field'), the county town, on the right bank of the Callan, is the ecclesiastical metropolis of Ireland, as the seat of the primate. It possesses every requisite of an agreeable place of residence, a beautiful neighbourhood, a good public library, a classical school or college, an astronomical observatory of distinction, and ornamental grounds for recreation. The cathedral, a plain building, has yet a commanding appearance, occupying elevated ground with its tower and spire. Close to the town is the archiepiscopal palace, of recent date, with a noble obelisk in the park, erected by Archbishop Robinson in the last century, ostensibly as a memorial of friendship, but really to give employment to labourers in a season of distress. To this prelate, Armagh is indebted for its observatory, and most of the advantages it enjoys. *Lurgan*, near Lough Neagh, and *Portadown*, on the Bann, have extensive manufactures of linen and other goods.

DOWN, a maritime county on the east coast, embraces the most easterly point of Ireland, and has a very extensive shore, stretching from Carlingford Lough on the south to Belfast Lough on the north, and including the deep inlet of Lough Strangford, with the broad one of Dundrum Bay. Grand scenery distinguishes the surface in its southerly extension, where the Mourne Mountains rise to a considerable altitude, and press closely to the sea-board, with fine woods filling the ravines and climbing towards the summits. The principal heights are Slieve Beg, 2384 feet; Slieve More, 2443 feet; and Slieve Donard, 2796 feet. These mountains enclose Carlingford Lough on one side, while kindred hills rise on the other. They render the inlet—which is about a mile and a half wide at the sea-gate, running up some 10 miles inland, with the accompaniments of neat villages and oak-clad slopes—one of the most charming of all marine nooks. It has been said that were it on the Mediterranean or the Baltic, English families would flock in crowds to occupy the site.

Downpatrick ('Mount of Patrick'), with a cathedral, near the shore of Lough Strangford, is traditionally regarded as the oldest city in Ireland, and was famous long before the arrival of St Patrick, who founded religious establishments here. The four holy wells of Struel or St Patrick, $1\frac{1}{2}$ mile east of the town, where stood the saint's monastery, are resorted to by Roman Catholic pilgrims from all Ireland. *Newry*, much more considerable, is a busy river port with a striking aspect on the Armagh border. *Donaghadee*, a seaport, is important from its position, opposite to Portpatrick in Scotland, with which submarine telegraphic communication is maintained. Small thriving towns and villages are numerous, especially in the direction of Belfast, with bleaching-grounds, and otherwise sharing its industry; and many hamlets on the shores are visited for sea-bathing.

ANTRIM, on the north, embraces the north-east extremity of the island, overlooks from its bold and lofty promontories the coast of Scotland, extends inland to the shores of Lough Neagh, and is geologically one of the most remarkable districts in the empire. Nearly the whole surface is occupied by basaltic rocks and other members of the trap family, originally ejected from beneath in a fluid state, and spread over the pre-existing strata, which consist of chalk, greensand, and new red sandstone, now lying beneath them. The igneous rocks assume the columnar shape on the northern and eastern shores, appear as continuous bands or colonnades, to be measured by miles in the cliffs, or form isolated masses projecting into the sea, as at the Giant's Causeway. This far-famed spot is only one of a series of similar formations, locally indicated by the names of the Giant's Bed, the Giant's Chair, the Giant's Organ, the Giant's Loom, and the Giant's Gateway. Though a wonderful object to contemplate on account of its construction, invested with an overpowering charm and interest for the stranger, owing to the mysterious workings of those great forces of nature of which it is the monument, the site has little of scenic beauty or grandeur, in comparison with the magnificent ranges of columnar basalt, which extend for miles along the shore, imbedded in the cliffs and headlands. Deep narrow glens open to seaward from the interior of the county. Its general surface is mountainous, though without lofty elevations, and it contains a considerable amount of unproductive land; but, owing to the numerous sites of manufacturing industry, it has a high average of population.

Belfast, at the head of an inlet of the east coast which bears its name, and at the outfall of the Lagan, ranks as the second city of Ireland in extent, and the first in trade and manufactures. It possesses an excellent harbour, constantly occupied by shipping and steamers, with a crowd of linen, cotton, glass, and ironworks. The foreign trade is extensive, while vast quantities of live-stock and agricultural produce are sent to the ports of England and Scotland. The inhabitants have long been distinguished by a taste for letters and science, illustrated and promoted by a valuable public library, a botanic garden (occupying 17 acres), a museum rich in national antiquities, a natural history society, a royal academic institution, and one of the Queen's Colleges, in a spacious and elegant building, opened in 1849. The interests of the staple manufacture of the country are consulted by an association for the improvement and extension of home-grown flax. *Listburn*, a few miles up the river; *Carrickfergus*, on the shore of the bay; *Antrim*, at the north-east extremity of Lough Neagh; and *Ballymena*, near one of its affluents, the Main, are seats of

various branches of the linen trade. *Larne, Glenarm, and Cushendall*, small neat towns on the east coast, are connected by a carriage road lauded by all travellers, constructed by the government Board of Works. It runs twenty miles close upon the beach, at the base of some of the grandest cliffs in the world, and opens up a constant succession of new views of sea and shore, by retreating with the bays, and advancing with the headlands. *Portrush and Ballycastle*, on the north coast, are similarly connected by a sea-cliff road, and have the Giant's Causeway between them. Thousands of basaltic columns here form three piers, the longest of which runs out 720 feet into the sea. The columns are generally hexagonal, but vary from three to nine sides. It is said, however, that there are only three with nine sides, and only one with three. So close are they together that a knife-blade can scarcely be inserted between them. About four miles from the mainland, the crescent-shaped Rathlin Island is of basaltic formation, and shews the columnar arrangement. This spot was the retreat of Robert Bruce from Scotland. The islanders are a primitive and harmless race, strongly attached to their insular home, and said to be as indisposed to pay the county rate, for a jail they never see and roads they never travel.

LONDONDERRY, a westerly continuation for some distance of the great trap-field of Antrim, embraces the larger part of the sea-opening of Lough Foyle, the lower courses of the Foyle and Bann Rivers, and various high grounds which are most elevated on the southern border towards the county of Tyrone.

Londonderry, the capital, a large and handsome city, occupies the base and slope of a hill rising up from the left bank of the Foyle River, about four miles above its entrance into the lough, and is connected by a bridge with a suburb on the opposite bank. Vessels of considerable size come up to the quays. The cathedral, neat, plain, and modern, crowns the summit of the hill, overlooks the broad stream, and the arm of the sea to which it flows. Old Derry having been destroyed during the reign of James I. by native chiefs, who left little except the walls standing, its site, with about 6000 acres adjoining, was granted to the London Companies. Under their auspices the present city arose (whence its double name). As a fastness of Protestantism, it was long assailed by the army of James II. in 1689, and had nearly succumbed to famine, when relieving-ships broke through the boom placed by the besiegers across the mouth of the river, and brought provisions to the starving inhabitants. An aged clergyman, named Walker, whose memory is still honoured, contributed to their desperate resistance. 'Five generations,' says Macaulay, 'have since passed away, and still the wall of Londonderry is to the Protestants of Ulster what the trophy of Marathon was to the Athenians. A lofty pillar, rising from a bastion, which bore many weeks the heaviest fire of the enemy, is seen far up and down the Foyle. On the summit is the statue of Walker, such as when, in the last and most terrible emergency, his eloquence roused the fainting courage of his brethren. In one hand he grasps a Bible. The other, pointing down the river, seems to direct the eyes of his famished audience to the English topmasts in the distant bay. Such a monument was well deserved; yet it was scarcely needed; for in truth the whole city is to this day a monument of the great deliverance. The wall is carefully preserved. The summit of the ramparts forms a pleasant walk. The bastions have been turned into little gardens. Here and there, among the shrubs and flowers, may be seen the old culverins which scattered bricks, cased with lead, among the Irish ranks. One antique gun, the gift of the Fishmongers of London, was distinguished during the 105 memorable days, by the loudness of its report, and still bears the name of Roaring Meg. The cathedral is filled with relics and trophies.' The monument, erected in 1828 by public subscription, consists of a fine column, 82 feet in height, ascended within by a spiral staircase. *Coleraine*, on the Bann, four miles from the sea, has given its name to fine linens manufactured in the town, and is surrounded with large bleaching-grounds. *Port Stewart*, a watering-place on the coast, looks out upon the Bann estuary, and claims connection with Dr Adam Clark as a native of the neighbourhood. *Newtown-Limanaddy*, on the pleasant river Roe, is in the heart of the flax district, and carries on an active trade in the article.

DONEGAL, the largest of the Ulster counties, embraces the extreme north point of the island, or Malin Head, and also the north-west extremity, or the Bloody Foreland. Exposed to the full dash of the Atlantic, the shores are tortuous with inlets, and at the same time iron-bound in the intervening spaces, being lined with stupendous cliffs of primitive rock, which have resisted the shock of centuries of storms. The interior, though not without the picturesque, the beautiful, and cultivated, consists largely of dreary moors, black bogs, and barren mountains, comprising also scenes which for wild and savage sublimity rival any example of the kind presented by the Scottish Highlands. The loftiest summits are Slieve Snaght, 2019 feet; Muckish, 2190 feet; Bluestack, 2213 feet; and the cone of Erigal, 2462 feet. The towns are few and diminutive, but the scattered peasantry form a considerable body. Finely-coloured marbles, with the white marble of statuary, occur in the mountain districts, and the sea-fisheries are valuable.

Lifford, on the left bank of the Foyle, is the smallest of the Irish county towns, a mere village. *Lettickenny*, at the head of Lough Swilly, is pleasantly situated in a cultivated country, sprinkled with plantations and genteel residences. The lough is the longest of the sea inlets, running upwards of twenty-five miles from the north coast, with deep water throughout. *Donegal*, in the south-west, is at the head of a spacious bay to which its name is given, into which the Erne discharges. *Ballyshannon*, the largest town, just above the outlet of the river, is the seat of a salmon fishery. Railway communication newly extended to this point, and to *Bundoran*, a thriving little watering-place, will contribute to attract English visitors to the grand sea-cliffs of the north-west of Ireland, as it has done to the mountains and lakes of Kerry in the opposite direction. Many islets fringe the shores, two of which, Aran and Tory islands, are inhabited. It is within memory, that a boat's crew from the latter, seven miles distant, being driven by stress of weather into Ardes Bay, stepped for the first time on the mainland, and gazed with wonder upon its trees. Some took away twigs and branches to shew on returning to their treeless home.

FERMANAGH, an inland county, belongs chiefly to the basin of the Erne, which expands into two lakes, occupying a large portion of the centre, justly ranked among the finest in Ireland. The upper lake is more than eight miles in extreme length, by three in breadth, and is much inferior in size to the lower. Both are profusely studded with islands, the upper containing 90, and the lower 109. Both have shores rich with woods, green slopes, or cultivated fields, are bounded also in places by considerable hills, and want only the adjunct of towering mountains to render them equal to the grandest expanses in the kingdom. They are from four to five miles apart, and are united by the splendid river.

Inniskillen, the only town, is beautifully situated on a hilly island in the stream, and also on both the adjoining banks, which are connected by bridges. The name refers to the site, *ennis*, the correspondent of *innis* and *inch*, signifying an 'island' or 'waterland.' Being well built as well as placed, and in a delightful locality, the town has a striking appearance from any of the approaches to it. The inhabitants took an active part in the struggle between William III. and James II.; defeated some troops of the latter after the relief of Londonderry at *Newton Butler*, now a poor village; distinguished themselves also at the battle of the Boyne; and their name is at present borne by a celebrated regiment, the Inniskillens. *Devenish Island*, in the lower lake Erne, a rich pasture-ground, has ruins of a church and monastery which have remained as specimens of ornamental architecture, as well as a beautifully constructed round tower, apparently as strong as on the day it was built.

TYRONE, the most central portion of Ulster, divided between the basins of the Foyle and Lough Neagh, has a tame surface except towards the border-line on the side of Londonderry and Donegal. The same feature marks the two southern counties of MONAGHAN and CAVAN. Both have a considerable amount of bog-land, with numerous small loughs, belong chiefly to the basin of the Erne, and fall largely within the limits of the great plain.

Omagh, the county town of Tyrone, near its centre, has a handsome court-house; but *Strabane*, on a head stream of the Foyle, is larger and more important. *Newtown Stewart*, a small place, nearly midway between them, is distinguished by the hills called 'Bessy Bell' and 'Mary Gray,' in the immediate vicinity. *Dungannon*, in the low country towards Lough Neagh, a cultivated plain, has a coal-field of value in its neighbourhood, and is said to have been the chief residence of the O'Neils, the old kings of Ulster. *Monaghan*, on the canal which unites the two great loughs, Neagh and Erne, shares in the linen trade, but is principally an agricultural and live-stock mart. *Cavan*, entirely local in its traffic, is the seat of a Roman Catholic school, with a considerable endowment. The north-west corner of the county contains the small lake called the 'Shannon Pot'—the source of the Shannon.

III. CONNAUGHT.

Counties.	Area in Square Miles.	Principal Towns.
Leitrim,	613	Carrick-on-Shannon, Manor Hamilton.
Roscommon,	950	Roscommon, Boyle, Elphin.
Sligo,	721	Sligo, Ballymote.
Mayo,	2131	Castlebar, Westport, Ballina, Killala.
Galway,	2447	Galway, Tuam, Loughrea, Ballinasloe.

Connaught is the smallest and least populous of the principal divisions of Ireland.

LEITRIM has a strip of coast-line on Donegal Bay, but is chiefly inland, extending from thence in a long narrow tract, in a direction from north-west to south-east. It is divided

into two nearly equal parts by Lough Allen, one of the expanses of the Shannon, and by the outflow of the river. The lake is of considerable extent, bounded on almost all sides by lofty hills. After a short course, the river forms the border-line between LETTRIM and ROSCOMMON, a wholly inland district, continued along the right bank of the stream, and the western shore of Lough Ree. Both counties have rich grazing-grounds, with the common features of the Irish landscape, bog and marsh alternating with luxuriant pastures and cultivated soil.

Carrick-on-Shannon, a 'rocky place,' or 'rock fort,' on the left bank, the county town of Leitrim, is little more than a village in size. *Roscommon* slightly exceeds it, but is inferior to *Boyle*, a manufacturing and trading town, of early celebrity, retaining the remains of an ancient abbey. *Elphin*, once a Protestant bishopric; the diocese is now annexed to the sees of Kilmore and Ardagh.

SLIGO, a maritime county, extends along the southern shore of Donegal Bay, and thence westward to the Bay of Killala, both of which are openings exposed to the full swell of the broad Atlantic, but in different directions. The interior consists of extensive tracts of highland and of level surface, and a large proportion of bog and moor appears within its limits, together with grazing-grounds and cultivated areas. Small loughs are copiously distributed, with some of considerable size, which have very picturesque shores, and are studded with wooded islands. Streams also abound, but with short courses and generally with rapid currents.

Sligo, the second town in Connaught in importance, and the only one in the county entitled to notice, is situated in a deep valley, on both banks of the Garogue, immediately above its entrance into the sea. Ships of moderate burden come up, and there is an active coasting trade, with some foreign commerce. Two bridges across the river connect the two portions of the place, which possesses two churches, a neat infirmary, and fine remains of an old abbey. In the adjoining bay, three vessels belonging to the Spanish Armada were cast ashore in 1588. The neighbourhood is mountainous, and has some very striking features. The traveller will not fail to remark the beautifully-shaped hill of Knocarea on the west, with the singular isolated rock at the summit, nor the equally graceful and higher Benbulbin on the north. At a short distance from the town, its river issues from Lough Gill, about four miles in length by two in breadth, one of the loveliest watery expanses in Ireland. The shores are steep and richly wooded; the islands, twenty in number, are mostly crowned with trees; and on one of them—Church Island—the foliage waves over some ancient ruins.

MAYO, the third of the Irish counties in size, embraces the north-western section of Connaught, and has a long range of shore which breasts the Atlantic in two directions, furrowed with inlets and fringed with islands. Achill Island, the largest, measuring fourteen miles from east to west, is mountainous, wild, barren, and boggy; and has its name, which signifies 'eagle,' from the number of those birds by which it was frequented. Clare Island rises up boldly from the waves in the centre of the entrance to Clew Bay, a locality remarkable for the prodigious number of isles and rocks with which the upper extremity is crowded, where they form a labyrinth altogether without example in any other part of the kingdom. The mainland at the head of this bay is the termination westward of the great plain of Ireland, to which a large portion of the county belongs, but those parts of it which lie immediately north and south of the splendid inlet are lofty mountain regions. Northward rise the Nephin heights, one of which, Slieve Car, attains 2368 feet; and the Great Nephin, another finely-shaped mass, quite isolated by its elevation, and visible at a great distance in all directions, rises 2646 feet. Southward are Ben Gorm, 2224 feet; Ben Bury, 2610 feet; and the grand Mulrea, 2685 feet, the highest point of the district. The north-western corner of the county is a singular peninsular tract called the Mullet, abounding with wild and noble scenery, attached to the main shore by an isthmus not half a mile across at the narrowest part. Until recent years, this district was very secluded, there being no road through the isthmus. Many of the inhabitants were strangers to various objects of very common occurrence elsewhere, such as a bridge, a tree, a flight of stairs, or a wheeled carriage of any kind. The first vehicle ever seen in the

Mullet, was taken in by the engineer while constructing the present road, where it was viewed by the young people with great curiosity and delight. But planks had to be laid down before it, step by step, to accomplish the passage of the bogs. Loughs Mask and Corrib, two extensive inland expanses, lie on the border of the county towards and partly within Galway—the former 27 miles long and from 1 to 6 broad; the latter 10 miles long by 4 broad; Lough Conn, about eight miles long, is wholly within its limits, connected by a narrow strait with Lough Cullin. The small lakes are very numerous.

Castlebar, centrally situated, is a considerable seat of the linen trade, partly shared by *Westport*, near the head of Clew Bay, the principal seaport. *Ballina*, the largest place, is seated on the left bank of the Moy, a few miles above its entrance into Killala Bay. The river dashes over bold rapids in the midst of the town, and has a valuable salmon-fishery, the produce of which is chiefly sent to Liverpool. *Killala*, ancient and decayed, but full of recollections, on the west shore of its bay, was held for thirty days by a French army, under General Humbert, sent in 1798 to aid the rebellion of that period.

GALWAY, the second of the counties in Ireland in its dimensions, comprehends the whole south of Connaught, from the Shannon, and its affluent, the Suck, on the east, to the Atlantic on the west. It has a coast-line estimated at about 400 miles in length, embracing the numerous inlets, some of which are narrow and mountain-girded, comparable to the Norwegian fiords, while almost all form excellent harbours. Many islands lie along the shores. The most important are the three south isles of Arran, which lie across the entrance to Galway Bay, and guard it as a natural breakwater from the fury of the ocean. Inishmore, the largest, is very remarkable for containing ruins of stone buildings, perfectly Cyclopean in their structure, chiefly military, which belong to the pre-historic age, and are reckoned among the most striking erections of the far past remaining in Europe. The largest is called *Dun-Ængus*, on a cliff of Inishmore, 220 feet high. Anciently, too, these islands formed an important ecclesiastical seat, containing at one time 20 churches and monasteries—the ruins of which are much visited by pilgrims. *St Kenanach Church*, built in the 7th century, still exists, all but its stone roof, as well as the stone oratories and little bee-hive stone-huts of the monks of the 6th and 7th centuries. Loughs Mask and Corrib, with their outlet, divide the county into two unequal portions. The eastern and more extensive portion is comparatively level, part of the interior is a plain, and has a rich soil. The western division has the reverse features of mountains and moors, bogs and morasses, with some singularly wild and romantic scenery. It includes the tract called *Iar* or *Western Connaught*, a granite plain on the north shore of Galway Bay; the district of *Connemara*, 'bays of the sea,' bordering the numerous inlets on the western coast; and *Joyce's Country*, further north, stretching from the shore to the great lakes Mask and Corrib. *Connemara* is distinguished by the beautiful mountain group of the *Twelve Pins of Bunabola*, the highest of which rises 2396 feet. Many more than a dozen peaks appear, but it is easy to reckon the twelve of superior dignity which give the name. They are said to occupy a space of twenty-four square miles, and rivet the attention of the traveller by their beautiful forms and change of relative position to one another as he proceeds.

Galway, at the outlet of the Corrib River, is an important town and port, occupying both its banks and two islands in the channel, fitted with docks and quays for extensive commerce. It is 130 miles west of Dublin, the terminus of the Midland Great Western Railway, which has a splendid hotel adjoining. The old town, eastward of the river, is poorly built, but has some Spanish-like houses, a memorial of the mercantile intercourse which once subsisted between Galway and Spain. One of these houses is marked with a skull and cross-bones, in memory of a circumstance without parallel in British history. It was the residence of the mayor, *James Lynch Fitzstephen*, in 1493, who, like another Brutus, condemned his own son to death for murder, and caused him to be executed from his own window in order to prevent a rescue. The new town, on the opposite bank, has spacious streets, and is the seat of one of the Queen's Colleges, a very handsome structure of beautiful gray limestone, opened in 1849. A large maritime suburb, called the *Claddagh*, consisting of low wretched cabins, is inhabited chiefly by fishermen who form a separate community. They speak the Irish language, have a nominal government of their own, elect annually a

so-called mayor, always intermarry among themselves, and are tenacious in maintaining exclusive right to their fishing-grounds. As the most westerly port of importance in the United Kingdom, while on the shore of a magnificent bay, with water deep enough for the largest vessels close to the quays, Galway is eminently fitted to be a principal station for the transatlantic passage. It is 1656 miles from St John's in Newfoundland, 2165 from Halifax, 2385 from Boston, and 2700 miles from New York. *Tuam*, a small ancient city on an affluent of Lough Corrib, is the seat of a Protestant bishopric, and a Roman Catholic archiepiscopate. *Ballinastoe*, on the border-river Suck, with a suburb in the county of Roscommon, is noted for its annual cattle and sheep fair, the largest in Ireland. In the neighbourhood of the town, the village of Aughrim was the scene of General Ginkel's victory over the army of James II. in 1691.



Ross Castle, Lower Lake, Killarney.

IV. MUNSTER.

Counties.	Area in Square Miles.	Principal Towns.
Clare,	1294	Ennis, Kilrush, Kilkee, Killaloe.
Limerick,	1064	Limerick, Rathkeale, Newcastle, Askeaton.
Tipperary,	1659	Clonmel, Nenagh, Tipperary, Carrick, Thurles, Cashel.
Waterford,	721	Waterford, Dungarvon, Portlaw, Lismore.
Cork,	2885	Cork, Queenstown, Youghal, Fermoy, Bandon, Kinsale.
Kerry,	1853	Tralee, Killarney.

CLARE, a peninsular tract bordering on Galway, is enclosed by the Atlantic on the west, the noble estuary of the Shannon on the south, and the course of the river on the east. High steep cliffs form the greater part of the coast-line on the side of the ocean, against which tremendous seas roll up during continued winds from the west and south-west, while the few bays offer only imperfect shelter to shipping. The shores of the estuary are very fine. Sloping well-cultivated banks appear on either hand, adorned with wooded demesnes, in the midst of which some old ruin occasionally meets the eye; and the view of the grand mass of water is singularly beautiful, constantly altering its relation to the littoral landscape, widening and contracting, but everywhere preserving the aspect of tranquil power. The interior of the county contributes the Fergus and other affluents to the border stream, all of which are connected with small lakes. Its general surface is hilly, but not bold, and includes a large proportion of bog, with important mineral wealth—iron, lead, copper, manganese, marbles, and slates.

Ennis, a neat-looking trading town on the banks of the Fergus, is distinguished by fine remains of a monastery of the thirteenth century, founded by O'Brien, Prince of Thomond, an endowed classical school in the neighbourhood, called *Ennis College*, founded by Erasmus Smith, and some valuable quarries of black marble. It is the birthplace of Mulready, the painter. *Kilrush*, at the head of a bay of the Shannon, a fishing place, with some coasting trade, has the advantage of a secure harbour and convenient pier, protected by a sea-wall of immense strength. It is much resorted to for sea-bathing. Directly opposite, about a mile distant, is Scatterry Island, once a place of pilgrimage, and still revered by Roman Catholics. It is said to have been the residence of St Senanus, who jealously guarded his retreat against female intrusion, as commemorated by Moore :

'O! haste and leave this sacred isle,
 Unholy bark, ere morning smile;
 For on thy deck, though dark it be,
 A female form I see;
 And I have sworn this sainted sod
 Shall ne'er by woman's feet be trod.'

Ecclesiastical remains abound on the island. *Kilkee*, a charming watering-place, in a beautiful little creek of the Atlantic, forms a semicircle of good villas and lodging-houses, with a stretch of fine smooth white sand for an esplanade. *Killaloe*, the seat of a bishopric, now a decayed place, is splendidly situated in the midst of bold hills, on the right bank of the Shannon, close to its outlet from Lough Derg. The river here forms a series of rapids, and an old bridge of a great number of arches is a picturesque object in the landscape.

LIMERICK, an inland county, extends along the southern shore of the Shannon, in the upper part of its estuary, and for a short distance along the left bank of the river. It belongs almost entirely to its basin, and contributes the Deel and the Maigne to its channel, the last of which has for two of its affluents the Cammogue and the Star rivers. In the tract between these streams lies the romantic and secluded Lough Gur, with one principal island and several smaller, rising up from its bosom. On the large island, and on the shores of the lake, are gigantic relics of the remote 'past—stone circles, pillar-stones, cromlechs, and other works of Cyclopean masonry—with strong square towers of the days of the Desmonds, a family once all-powerful in the district. The whole county is remarkable for monuments of barbaric art, as well as for the number of its castellated and religious remains. Most of the latter are referrible to the wealth and influence of the chieftains named. The aspect of the surface is generally flat; the soil is proverbially rich; and an easterly portion of it is so fertile as to have obtained the designation of the 'Golden Valley.' High grounds overlook the plain, especially towards Tipperary, where the loftiest point of the Galty Mountains marks the border-line, and has an elevation of 3000 feet.

Limerick, an ancient episcopal and historic city, the fourth in Ireland in order of population, is seated on the Shannon, at the head of the estuary, about sixty miles above its mouth. The older portion, divided into Irish Town and English Town, chiefly occupies King's Island in the river, and has very uninviting features. But the more modern part, called New Town or Newton Pery, on the left bank, is remarkably handsome, and there is an extensive suburb on the opposite side of the stream, in the county of Clare. Among the finest public buildings in Limerick are the new Roman Catholic Cathedral, and the church of the Redeemer Order. The city was once famous for its gloves, of such delicate material and fine workmanship, that a pair has been passed through a wedding-ring, but the manufacture has greatly declined. That of lace, introduced from Nottingham, is extensively carried on; and fish-hooks of the purest steel are largely made for the angler's use. The 'Limerick lasses' maintain their old reputation for beauty, a characteristic which belongs to the women of all ranks throughout the county. A considerable foreign and coasting trade is facilitated by deep water at the quays, and an unobstructed navigation to the Atlantic. No place in the island has been more prominent in Irish history. It was held by the Danes in the ninth and tenth centuries, reconquered by Brian Boroihme, fortified by King John (1210), and partly burned by Edward Bruce (1314). It surrendered to Ireton, the son-in-law of Cromwell (1651), after a long and brave resistance. It withstood the arms of William III. (1690), who was compelled to raise the siege, but it capitulated upon honourable terms to his general, Ginkel, in the following year. The city long retained a military aspect. In the middle of the last century, seventeen gates were in existence, which were regularly guarded and locked every night. All the other towns of the county are of unimportant size. *Kilmallock*, once a parliamentary borough, now a mass of ruins and hovels, has been called the 'Baalbec of Ireland,' is memorable as having been the chief seat of the Desmonds. According to a wild legend, the last powerful head of the family, who perished in the reign of Queen Elizabeth, still keeps his state under the waters of Lough Gur, before referred to, reappears fully armed on the morning of every seventh year, rides round

the lake, and will ultimately claim his own again. *Castle Connell*, a village beautifully placed on the river above Limerick, overlooking the rapids of Doonas, is visited by the citizens on account of its strongly chalybeate springs.

TIPPERARY, an extensive inland district eastward, is traversed by the Suir, and contains a large proportion of level or undulating country, with detached heights interspersed, and elevated ranges towards the borders. On the south and south-west rise the Knockmeiledown and Galty Mountains, with the Silver Mine range in the north, abounding with lead-ore from which a considerable quantity of silver is obtained. The county yields excellent slates, coal of the anthracite kind, has woollen and flax manufactures upon a small scale, but is principally a scene of grazing husbandry.

Clonmel ('Vale of Honey'), an agreeable and busy town, occupies the north bank of the Suir, over which a long bridge extends to a suburb on the opposite side, within the limits of Waterford. It has a large export trade in agricultural produce, and numerous flour-mills, owing to the convenient water-power derived from the river. The town was the birthplace of Sterne and Lady Blessington. *Carrick-on-Suir* has the remains of a castle built in 1309. *Cahir* and *Thurles* are higher up the same river, the latter a station on the Great South-Western Railway, possessing a Roman Catholic college and two episcopal palaces. *Tipperary*, well built, lies on an affluent, and on the line of the railway between Limerick and Waterford. *Nenagh*, more important, is connected with the Shannon by a river falling into Lough Derg. *Cashel*, an episcopal city, anciently the residence of the kings of Munster, is of little present note, and in an unattractive neighbourhood, a treeless and unpicturesque, but rich and well-cultivated plain, about midway between Clonmel and Thurles. Yet it has one prime object of interest, the Rock of Cashel, crowned with the largest and most celebrated assemblage of ruins in Ireland. The rock itself is remarkable for the abruptness with which it rises from the extensive plain in which it is situated. Around the southern and eastern slopes is the town, with a handsome Protestant cathedral of modern date, and noble gardens attached to the episcopal palace. On the summit are magnificent remains of varied structures, roofless, windowless, and greatly shattered, yet still standing in their original height. They include a cathedral, St Mary's Abbey, Cormac's Chapel, a castle, and a round tower (ninety feet high and fifty-six in circumference), forming a very effective whole. Tipperary has within its limits, but close to the borders of Cork, a great natural curiosity in a series of subterranean chambers or caves, the existence of which was not known half a century ago, and was discovered quite accidentally. The entrance is in an ordinary field, and is kept under lock and key. A narrow passage from the mouth, with a steep descent, leads to a number of great chinks in the limestone rock, at different depths, opening out into halls of various forms and dimensions, connected together by galleries. These are incrustated with stalactitic and stalagmitic formations, and have as usual received fanciful names—Adam's Organ, Queen Elizabeth's Ruff, the Tower of Babel, the £50 Pillar, from that sum having been refused for the mass, the House of Commons, the House of Lords, and Lord Kingston's Hall, after the owner of the ground. Twenty-four large chambers are enumerated, besides many smaller ones, and upwards of three miles of gallery have been traced.

WATERFORD, a maritime county on the south, is the smallest of the divisions of Munster, and one of the least interesting parts of the country, though comprising a few highly picturesque spots. The surface is generally bare of trees; the soil is naturally poor; the coast-line is inhospitable; and with one splendid exception, the bays and harbours are neither safe nor commodious. The Suir forms a border stream on the north, and a westerly section is traversed by the lower course of the Blackwater. In the centre of the county rise the Comeragh Mountains, well-known landmarks to mariners, hailed by them as the 'high lands of Dungarvon,' the highest of which, 2469 feet, forms a table-land at the summit, remarkable for three lakes well stocked with trout. Westward are the Knockmeiledowns, stretching into Tipperary, which attain a slightly higher elevation. Copper-mines are profitably worked at Knockmahon, close to the coast, the ores of which are sent to Swansea; and lead is also obtained.

Waterford, a large and flourishing city, stands on the south bank of the Suir, twelve miles above the sea, but has water deep enough for vessels of heavy burden to come up to the quay, which has few rivals in the kingdom, stretching a mile in length in a continuous line along the river. In allusion to its natural advantages, it is said to have been anciently called *Cuan-na-Grioth*, 'the Harbour of the Sun,' and to have received its present name from the Danes, supposed by some to be a corruption of *Vader Fiord*, 'the Fiord of the Father,' or 'the Great Haven.' The commerce with England is immense in the transit of passengers, the export of live-stock and dairy produce, chiefly sent to Bristol as the nearest considerable port. Waterford is celebrated in history as the landing-place of Henry II. in 1171, to receive the submission of the Irish chieftains, and for its resistance to Perkin Warbeck, the pretender to royalty in the reign of Henry VII.

Dungarvon, a seaport, depends upon its fisheries of hake and herring, with summer visitors to it as a bathing place. *Portlawn*, a small inland town, has risen from an insignificant village in the present century owing to the introduction of the cotton manufacture. *Lismore*, on the Blackwater, the gem of the county as to scenery, is distinguished by a noble castle, seated on a steep rock by the side of the river surrounded by a finely wooded domain. The estate was included in the grant made to Sir Walter Raleigh, and is now a seat of the Dukes of Devonshire.

CORK, the largest county in Ireland, and larger than any in England except Yorkshire, extends 110 miles from east to west; greatest breadth, 70; average, 34. The coast-line is of great extent, owing to the numerous bays and splendid sea-rivers formed by a series of long narrow peninsulas. It embraces the southernmost part of the mainland, or Mizen Head; and the extreme south point of Ireland or Clear Island, of which Cape Clear is the furthest projection to seaward, is close along shore. Among the extensive inlets, that of Bantry Bay is nowhere surpassed for natural advantages as a harbour combined with natural beauty. It extends twenty-seven miles inland, includes many minor bays, and furnishes from its bed vast quantities of coral sand, which forms an excellent manure. The highest point of the county, Hungry Hill, 2249 feet, in the extreme west, overlooks the noble expanse. From west to east the surface generally declines; and hence in this direction flow the principal rivers, the Blackwater, the Lee, and the Bandon, all of which have several affluents. It comprehends a considerable proportion of infertile ground, either barren mountain or bog, but productive tracts lie along the lower courses of the streams.

Cork, the third city in Ireland in population, is finely situated on both banks of the Lee, where it begins to open out into the large and splendid inlet of the sea which forms the harbour. The river is walled in by handsome granite quays, and crossed by numerous bridges, below which shipping and steamers crowd the surface of the stream. Ship-building and varied manufactures are carried on; the export of provisions and agricultural produce to England is very extensive; and the foreign commerce is second only to that of Belfast. The city is deficient in good public buildings. The most important are the Court House, an elegant Grecian structure, and the new Queen's College, a striking quadrangular edifice in the Tudor Gothic style. The streets are generally confined, and the number of poor dwellings is very large, as the merchants and principal traders have residences in the beautiful vicinity. But Cork has a cheerful prosperous aspect, and may vie with any place of the same size in the variety of its institutions, whether religious, charitable, educational, literary, or scientific. The harbour is a spacious expanse studded with islands, and perfectly landlocked, in which the largest vessels may ride in safety. Spike Island, a convict station with artillery barracks, at the inner entrance, acts as a natural breakwater to it. *Queenstown*, the principal port of Cork, stands on the southern shore of Great Island, and enjoys a mild climate during all seasons. Occupying a steep acclivity, the houses rise in terrace above terrace from the water's edge, and have an imposing appearance from its surface, while the heights overlook a superb view of the anchorage with its merchantmen, steamers, yachts, and splendid encircling shores. The place was formerly called Cove, and received its present name in honour of the Queen's visit in 1849. *Youghal*, on the west shore of the Blackwater outlet, is one of the Irish watering-places, trades in the salmon produce of the river, and is enduringly associated with the memory of Sir Walter Raleigh. It was his residence for a brief period, and his house is still indicated. An old collegiate church, part of which is used for service, but largely a ruin, is one of the finest structures of its kind, containing many sepulchral monuments of great interest. The town derives its name from *Eo-chaille*, 'the Yew Wood,' which once existed in the neighbourhood. *Fermoy*, a military station, and *Mallow*, with a hot mineral spring, are on the upper course of the Blackwater, a district celebrated by the muse of Spenser, in which the *Fairy Queen* was produced, during his residence at Kilcoleman Castle, now a desolate ruin. *Bandon*, a place of modern date, on the river of that name, is the central point of a fertile part of the county. *Kinsale*, near the mouth of the river, is ancient and quaint looking, with some Spanish-like features, having been several times in the occupation of the Spaniards. It was long the most frequented of the southern harbours, a distinction which passed to Cork; and is still a prosperous town sustained by extensive fisheries. The Old Head of Kinsale, the point nearest the sea, marked by a light-house, has for centuries been a noted landmark to mariners. *Bantry*, near the head of its famous bay, attracts summer visitors by the enchanting scenery of the vicinity, chiefly Glengariff, 'the rough glen,' on the opposite shore, a deep and narrow alpine valley, about three miles long, which presents at every step a remarkable combination of the lovely and the grand, the mighty rock and the secluded bower, the pleasant cove and the majestic mountain.

KERRY, southward of the mouth of the Shannon, is the fifth of the Irish counties in extent, and the most magnificent in its natural features, but has the lowest average of

population. It embraces the south-western section of the country, and contains the most westerly point of the mainland in Dunmore Head. The shores are distinguished by their peninsular arrangement and wild sublimity. In the interior, towards the Shannon and the Limerick border, the surface is comparatively open, and in several parts low, but the central and southern portions consist of huge mountain masses, separated by deep romantic glens in which lovely lakes are embosomed. These highlands embrace Carran-tual, 'the inverted sickle,' 3404 feet, loftiest of Macgillicuddy's Reeks, near Killarney, the culminating-point of Ireland; and Mount Brandon, 3126 feet, the next in elevation, on the northern side of Dingle Bay. This rugged district sheltered the wolf to a late period. In the early part of the last century, money was levied on presentments of the grand jury for the destruction of the animal in the county. Exposure to the south-west winds renders the climate singularly mild and moist. The last element often interferes with the pleasure of excursionists, either by soaking showers, or veiling the mountains from view in mist, and suddenly prohibiting all chance of a prospect from their summits. Owing to the mild and humid atmosphere, the vegetation includes plants peculiar to the district, while evergreen shrubs attain the size of trees, and the indigenous woods are clothed with the richest foliage. Many islands fringe the coast, the Blasquet group, Valentia, the pinnacled Skelligs, with Scariff and Dinish. The two latter are opposite Derrynane, the birthplace and seat of O'Connell, and were both his property.

Tralee, a considerable town, is the principal outlet of the produce of the county, consisting entirely of provisions. It is seated near the head of a bay with which connection is maintained by a canal navigable by vessels of considerable size, and has a chalybeate spring of some repute in the neighbourhood. *Killarney*, a mile distant from the lowermost of its far-famed lakes, contains an imposing Roman Catholic cathedral and a nunnery. It has little trade, and is sustained by the summer influx of pilgrims to their scenery, in which mountain, glen, water, island, foliage, and mouldering ruin, blend their various attractions. Toys and other articles of arbutus-wood are made in the town, and disposed of to visitors as souvenirs of their excursion. Though the arbutus flourishes in most parts of Ireland, it is nowhere seen in such profusion, or of so large a size, as in this neighbourhood. Stems, with a girth of several feet, and a height corresponding to that of the ash, are not uncommon. But visitors are liable to be imposed upon, here as elsewhere, by articles made of the cheaper bog-timber being substituted for those really of arbutus. *Dingle*, *Cahiriveen*, and *Kenmare* are small coast towns, the latter planted by Sir William Petty in 1670, the founder of the Lansdowne family. Among the insular parts of the county, the Blasquet Isles, thirteen in number, are the most westerly portions of the kingdom, separated from Dunmore Head by a sound of great depth. Valentia Island, on the southern side of the entrance to Dingle Bay, is close in shore, and has a noble harbour in the intervening channel. It possesses valuable slate quarries, a fertile soil, and has become of interest as the appointed site for transatlantic telegraphic communication, if that should become practicable. The Skelligs are two rocks to the southward, about eight miles out to sea. The Great Skellig rises to the height of 1000 feet above the ocean, as sharp as an alpine *aiguille*, and as elegant in form. Landing is impossible except in calm weather. The only occupants are the keepers of two light-houses, who are often in winter cut off for weeks from all communication with the main shore. The Lesser Skellig is lower, yet more difficult of access. It has never been inhabited by man, but is one of the six breeding stations of the gannet within the limits of the United Kingdom.

POPULATION OF THE PRINCIPAL IRISH CITIES AND TOWNS.

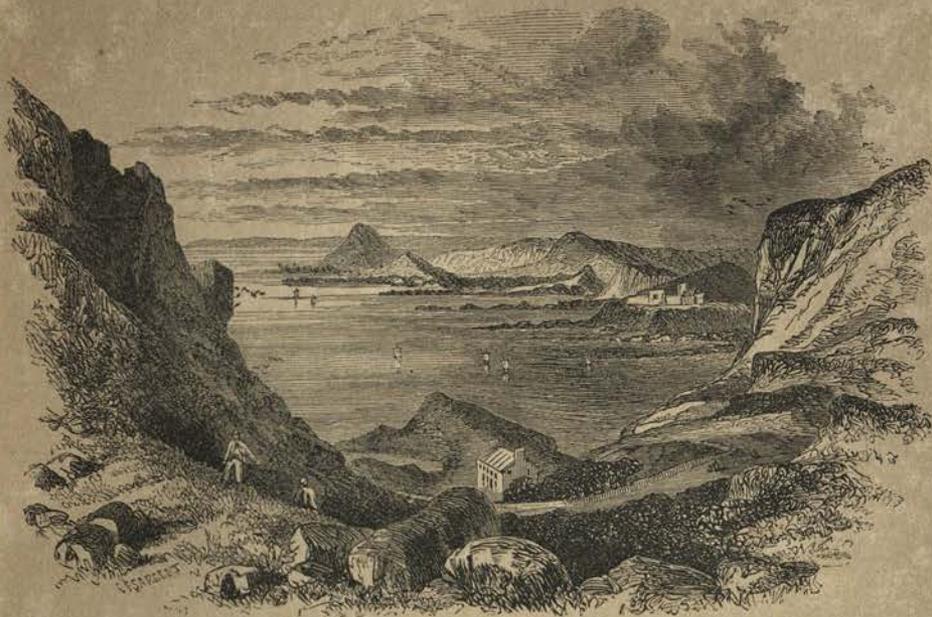
FROM THE CENSUS RETURNS OF 1861.

	POP.		POP.		POP.		POP.
Antrim,	2,131	Bantry,	2,444	Castlebar,	2,960	Dromore,	2,526
Ardee,	2,572	Belfast,	119,718	Cavan,	3,107	DUBLIN (with suburbs),	295,964
Arklow,	4,670	Belturbet,	1,772	Charleville,	2,458	Dundalk,	10,975
Armagh,	8,655	Birr, or Parsonstown,	5,220	Clonakilty,	3,074	Dungannon,	3,886
Athlone,	5,601	Blackrock,	2,916	Clones,	2,388	Dungarvan,	5,881
Athy,	4,113	Boyle,	3,002	Clonmel,	11,104	Dunmanway,	2,071
		Bray,	4,273	Coleraine,	5,628		
Balbriggan,	2,308			Cookstown,	3,513	Ennis,	6,938
Ballina,	5,452	Cahir,	3,068	Cootehill,	1,992	Enniscorthy,	5,369
Ballinasloe,	3,200	Callan,	2,322	Cork,	78,892	Enniskillen,	5,655
Ballinrobe,	2,507	Carlow,	8,204				
Ballymena,	6,739	Carriekfergus,	9,417	Dingle,	2,251	Fermoy,	6,202
Ballyshannon,	3,183	Carriekmacross,	2,045	Donaghadee,	2,664		
Banbridge,	4,032	Carrick-on-Shannon,	1,503	Donegal,	1,516	Galway,	16,786
Bandon,	6,218	Carrick-on-Suir,	4,986	Downpatrick,	3,685	Gilford,	2,884
Bangor,	2,525	Cashel,	4,317	Drogheda,	14,730	Gorey,	2,673

	POP.		POP.		POP.		POP.
Gort,	2,077	Londonderry,	20,153	Nenagh,	6,282	Skibbereen,	3,694
Granard,	1,665	Longford,	4,535	Newcastle,	2,445	Sligo,	10,420
		Loughrea,	3,063	Newry,	11,426	Strabane,	4,146
Holywood,	2,422	Lurgan,	7,766	Newtown Ards,	9,521		
				Omagh,	3,448	Tallow,	1,627
Kanturk,	2,226	Macroom,	3,233			Templemore,	2,973
Kells,	3,225	Mallow,	3,612	Passage,	2,287	Thurles,	4,738
Kilkenny,	17,441	Maryborough,	2,857	Portadown,	5,524	Tipperary,	5,907
Killarney,	5,187	Maynooth,	2,091	Portarlington,	2,389	Trillick,	10,191
Kilrush,	4,565	Middleton,	3,378	Portlaoigh,	3,915	Trim,	2,037
Kingstown,	11,584	Mitchelstown,	2,920	Queenstown,	8,653	Tuam,	4,542
Kinsale,	4,000	Moate,	1,958			Tullamore,	4,791
		Monaghan,	3,797			Tullow,	2,384
Larne,	2,768	Mountmellick,	3,056	Rathkeale,	2,761	Waterford,	23,220
Letterkenny,	2,160	Mountrath,	2,085	Rosecommon,	2,699	Westport,	3,811
Limerick,	44,626	Mullingar,	5,359	Roscrea,	3,543	Wexford,	12,015
Lisburn,	7,484	Naas,	2,959	Ross (New),	6,488	Wicklow,	3,395
Lismore,	2,689	Navan,	3,855				
Listowel,	2,273			Skerries,	2,256	Youghal,	6,328



Muckross Abbey.



Bowley Bay, Jersey.

CHAPTER V.

BRITISH EUROPEAN POSSESSIONS :

THE CHANNEL ISLANDS—MALTESE ISLANDS—GIBRALTAR—HELGOLAND.

THE accession of William the Conqueror to the throne of England associated the kingdom politically with his own duchy of Normandy, which was practically an independent state, but feudally subject, with the adjoining province of Maine, which he had subdued, to the crown of France. To this continental territory, the fourth of his successors, Henry II., first of the Plantagenet sovereigns, added his own paternal inheritance of Anjou and Touraine, with the splendid patrimony of his queen, consisting of the earldom of Poitou and the great duchy of Aquitaine, the latter extending from the Loire to the Pyrenees. At this period therefore—the middle of the twelfth century—the sway of the English monarch embraced considerably more than a third of France. The whole was lost during the reign of his inglorious son John, with the exception of the principal portion of Aquitaine, or the important provinces of Gascony and Guienne. It was partly recovered by the brilliant victories of Edward III., and fully restored, with large accessions, by the successful wars of Henry V. But during the long minority of Henry VI. the course of events was adverse to the maintenance of a foreign dominion; and after the middle of the fifteenth century, or 1453, when Bordeaux surrendered, not a foot of ground remained to the English on the mainland of the continent, except the town and suburbs of Calais. This place was retained a century later, or till the reign of Queen Mary, 1558,

when it capitulated to the Duke of Guise. But the Channel or Norman Isles have continued to the present day uninterruptedly subject to the crown of England since the time of the Norman Conqueror. A form still observed by the House of Lords absurdly keeps up the memory of the long-severed political connection with the mainland across the sea. At the beginning of every parliament Receivers and Triers of Petitions from *Gascony* are appointed, and have their names in French entered in the journals.

The Channel Islands are situated in the Bay of Avranches, off the north-west coast of France, part of the old province of Normandy. They consist of three important members, Jersey, Guernsey, and Alderney, with three of much smaller extent, Sark, Herm, and Jethou. The mainland of the continent is distinctly visible from various points, with the churches and high buildings. Alderney makes the nearest approach to it, being within seven miles of Cape La Hague, and is at the same time the nearest of the group to England, distant about fifty-five miles almost due south of Portland Bill. Rocks in great numbers fringe the shores, some of which are always exposed to view, others only at the recession of the tide, while many are permanently submerged. They originate strong currents and eddies; render the approach to the islands dangerous to those who are not intimately acquainted with the navigation; and have contributed to preserve this isolated nook of the empire from attack in time of war. The islands are almost entirely of granitic formation, though schistose and slaty rocks occur. They have a very mild climate, for the heat of summer is tempered by the sea-breeze, while frost and snow in the opposite season are rare and transient. The prevailing winds are from the north and north-west; rain is frequent; and the dews are heavy. The flowers and fruits, wild and cultivated, are of the finest description; the chaumontelle pear attains a size and flavour rarely to be met with elsewhere; figs, melons, and grapes ripen to perfection without artificial heat; and tender exotics live through the winter in the open air. A breed of cattle, gentle and graceful, commonly referred to Alderney, but more properly belonging to Jersey, is so highly valued, that laws have been passed prohibiting the importation of any other kine, in order to preserve the purity of the race. No venomous reptiles exist, but toads are numerous, and the beautiful green lizard of the south of Europe has here its northern limit.

JERSEY, the largest island and the most southerly, extends in the form of a quadrangle ten miles in length by six in breadth, and is within sixteen miles of the French coast, where the cathedral of Coutance may be seen in clear weather from the heights on the eastern side. It is the most commercially important and attractive member of the group, with well-wooded and watered glens in the interior, broad circling bays and small coves along the shores, of which tranquil beauty is the general characteristic, though bold and striking features are not wanting, especially on the northern side. The whole is highly cultivated, divided into small farms, with tiny fields, orchards, and gardens, except westward, the direction of the violent storms, where there is a tract, once fertile but now perfectly barren, having been covered with sand raised from the shore by a tremendous tempest some three centuries ago, which the winds further distributed. The people, in common with the other islanders, having no lime or chalk, use the sea-weed for manure, as well as for fuel. It is plentifully produced on the rocks off shore from which the tide recedes, and is locally called *vraic*, a word derived from the Norman *varech*, corresponding to the English *wrack*. An old proverb refers to its use and importance, *Point de vraic point de hautgard*—'No sea-weed, no corn-yard.' This marine vegetation is not common property, but stringent regulations are in force, apportioning it to the neighbouring proprietors and occupiers of land, according to the extent of their holdings. Even the drift-weed which the waves throw upon the beach is guarded by a similar law. Nor can

it be gathered at any time, limited periods being appointed in summer and winter for the purpose. Its annual value to Guernsey alone is estimated at £30,000. A great quantity is burned for the manufacture of kelp and iodine. The seasons of the vraise harvest are high festive occasions, as well as times of unusual industrial activity.

St Heliers, the capital, on the southern side of the island, is a place of considerable commercial enterprise, as well as the retreat of many families from England with moderate means, and of transient visitors. The older part of the town occupies a valley opening into the Bay of St Aubin at its eastern extremity, while the surrounding hills are gay with modern terraces, villas, and gardens. Its appearance is remarkably pleasing from the seaward approach. Fort Regent, of recent date and great strength, defends the harbour, with the old fortress of Elizabeth Castle, at a short distance from the shore, but accessible at low water. In 1791 the town was for a few hours in the hands of the French. The party under the Baron de Rullecourt landed by night on the east coast, having been guided thither by a treacherous pilot. By dawn they were in the market-place, and induced the surprised governor to sign a capitulation. But this was repudiated by his subordinates, who rallied the military, assailed the enemy, and compelled them to surrender. Rullecourt fell in the action, as did the commanding English officer, Major Pierson. The latter has a monument in the old church; and his death is the subject of one of Copley's best paintings. Victoria College, a good public school for boys, was founded in commemoration of a royal visit in 1846, and two noble piers enclosing the harbour are respectively called the Victoria and Albert. From St Heliers, the shore of the bay on which it stands extends in a curve of six miles of broad firm sand to the little town of St Aubin, picturesquely seated at the westward extremity. From its bordering heights may be seen to the southward the remarkable Chausey archipelago, belonging to France. Fifteen islands, and about as many detached rocks, may be counted at high water, which seem to be almost on a level with the waves. As the tide ebbs the rocks become islets, while the islands grow sensibly larger, higher, and more important, till they merge in a single considerable mass, with those parts well clothed with marine vegetation which have been under water. At the same time, many rocks, before quite invisible, appear above the surface, some of which enlarge into islets. 'Blocks of every variety of form and size are grouped together in a thousand different ways, some rising into pyramids, others graduated and cut into irregular tiers of steps, others again heaped into confused masses, like the ruins of some giant structure; at one place appearing like colossal Druidical stones; at another, entangled together like the rude materials of some Cyclopean edifice, or else suspended, and so slightly poised that a breath of air seems sufficient to overthrow them.' The tide returns, and the archipelago gradually resumes its high-water aspect.

GUERNSEY, about twenty miles to the northward, is nine miles in length by six in breadth. It is undulating and fertile, but has not the striking beauties of its neighbour, though charming scenes abound. Nor is it so richly wooded, but excels in fruits and floral loveliness. Its famous lilies are not however indigenous, but of Japanese origin, derived from the wreck of a Dutch vessel freighted with the roots, which were cast ashore. Monuments of old Druidical times are numerous, the most remarkable of which, misnamed the Druid's Temple, is a cromlech. It consists of five vast capstones standing within an indistinct circle of smaller stones, and overlooks the sea at L'Ancrese Bay. The small isles of Sark, Herm, and Jethou diversify the view from the eastern shores. ALDERNEY, fifteen miles further north, with a circumference of eight miles, is separated from the French coast by a channel dangerous in stormy weather owing to strong eddying currents, hence called the Race of Alderney. A harbour of refuge in process for ships of war, with strong fortifications for its defence, is apparently intended to be a counterpoise to Cherbourg, on the adjoining continental peninsula.

St Peter's Port, on the east coast of Guernsey, the only town, is well placed on a hill, with the old streets and houses on the lower slope, and new erections above, in connection with delightful environs. It has a valuable educational institution in Elizabeth College, a foundation of the queen of that name. The chaumontelle pears of the island are often of very extraordinary size. The largest on record was grown at Laporte in the year 1849. It measured $6\frac{1}{2}$ inches in length, $14\frac{1}{2}$ inches in girth, and weighed close upon 2½ pounds avoirdupois. Four were gathered from a single tree in 1861 which weighed together 7½ pounds. The minor isles have considerable natural interest. *Sark*, on the eastern side of Guernsey, is about three miles long by one and a half broad, but is remarkably contracted at one point, where the two divisions of Great and Little Sark are formed. These portions are not perfectly detached, but united by an extraordinary natural causeway, or ridge of rock, called the *Couplec*. This is a terrible passage of 150 yards, being not more than from four to eight feet in breadth, while as high above the sea as is St Paul's Cathedral above the pavement. On one side the descent is sloping, but on the other a stone dropped over the edge falls into the water. The island is an impregnable natural fortress, so girded by precipitous cliffs on every hand, that the

only access to the interior is through a tunnel cut in the rock. The French obtained entrance in the reign of Edward IV., and held possession till the time of Queen Mary, when it was recovered by stratagem. A vessel appeared, the captain of which stated that he had a dead man on board, who had expressed the wish to be buried ashore. "Would the commander let them land and bury him? "If you bring no arms with you—not so much as a penknife—yes." So a coffin was landed, taken into the church, and opened. Instead of a dead body, it was filled with arms. The mourners and attendants provided themselves accordingly, sallied out, fought, and won. Meanwhile, a boatful of Frenchmen had been carried aboard the ship to receive some presents as a burial fee. They remained there as prisoners.' Sark has one parish church, a Wesleyan chapel, a comfortable inn for visitors, but no village. Its manorial rights are at present held by the resident clergyman. *Herm*, an adjoining islet, attracts conchologists by a shell-beach extending from half to three-quarters of a mile. It is composed of small perfect shells, and fragments of larger ones, without the least intermixture of sand or pebbles. *Jethou*, scarcely two miles round, is government property, and consists chiefly of gneiss, which has been largely used in constructing the harbour of refuge at Alderney. In 1861, the population of the islands stood as follows: Jersey, 55,613; Guernsey (with Herm and Jethou), 20,850; Alderney, 4932; Sark, 583: total, 90,978.

The Channel Islands constitute two lieutenant-governorships, one including Jersey, the other Guernsey and its dependencies. They ecclesiastically belong to the see of Winchester. The governors are appointed by the crown for five years, and are supreme in all military affairs. But peculiar civil laws and institutions are in force, derived from the old customary law of Normandy; and, unless specially mentioned, the islands are not included in acts of the Imperial Parliament. Norman French is the language of the lower classes; pure French is used in judicial and other public proceedings; but some knowledge of English is very general with the natives.

II. MALTESE ISLANDS.

These closely-adjointing islands, a small but important colony of Great Britain, are situated in the Mediterranean, about fifty miles to the south of Sicily, and more than three times that distance from the nearest point of Africa. *Malta*, the southernmost and the largest, was known to the ancients under the name of *Melita*, and is commonly identified with the island so called, which was the scene of the shipwreck of St Paul on his memorable voyage to Rome—an event commemorated by various local traditions. It forms an irregular oval, is seventeen miles long by nine broad, has an area of ninety-five square miles, and is about one-third less than the Isle of Wight, but more densely inhabited than any part of the United Kingdom, with exception of the metropolitan districts and Lancashire. The coast on the side towards Sicily is indented with bays and inlets, but sweeps in an almost unbroken curve in the opposite direction. Though nowhere high, the surface is diversified with hills and furrowed with valleys, while the industry of the people has given both picturesqueness and fertility to the naturally barren calcareous mass. *Gozo*, separated from Malta by a channel from four to five miles wide, is much smaller, but rises higher, and has bold cliffy shores, abounding with caves. *Comino*, between the two, is smaller still; and *Cominotto*, adjoining, with a few rocks, completes the group. The climate of the islands is almost tropical. During the summer, the great heat is often distressingly aggravated by hot gusts from the coast of Africa, usually of short duration. In the autumn, called the 'little summer,' the air is agreeably cooled with showers, and becomes invigorating. Hail falls frequently in winter, but snow is never seen except as an article of luxury imported from the heights of Etna. Ophthalmia, a prevalent complaint, often ending in blindness as the consequence of neglect, is supposed to be occasioned by the sun-glare reflected by the calcareous rocks, and the clouds of dust raised by the winds. Cotton and corn are principal objects of culture; grapes, figs, oranges, and lemons are raised, and bee-hives are numerously kept, supplying honey of the finest flavour. The total population amounts to upwards of 140,000, consisting of a very mixed race, almost all Roman Catholics in religion. A

patois compounded of Arabic, Italian, and other dialects, is the popular language, in which the former element so far preponderates, that it is said to be intelligible to natives of the opposite shores of Africa. Pure Italian is spoken by the upper and mercantile classes, but a knowledge of English is becoming prevalent, promoted by schools under English direction. The siesta, or mid-day sleep, is universally observed in the summer season.

Valetta, the capital of the group, on the northern coast of Malta, derives its name from the founder, La Valette, one of the grand-masters of the Knights of St John, by whom it was begun and completed, 1556-71, with the aid of the principal powers of Europe, as it was designed to be the bulwark of Christendom against the Turks. The town occupies a neck of land running out into a bay, and dividing it into two harbours, one of which is used for quarantine purposes, while the other, and the larger, is the great port. The citadel of St Elmo, with a light-house, stands at the extremity of the projection. Fortifications crown the adjoining slopes, and are supposed to render the place impregnable. It serves as the headquarters of the Mediterranean fleet, a calling station for steamers on the line of the overland route to India, and a dépôt for articles of British commerce intended for the countries of Eastern Europe and the Levant. The houses are of stone, and flat-roofed, the terraces of which are used to enjoy the cool breath of morning and evening; and the streets are well paved and lighted. Most of the public buildings date from the time of the knights, but those devoted to government purposes have undergone great alterations. The residence of the governor was the palace of the grand-masters. The Royal Naval Hospital was originally a house built for a private member of the Order, but has been re-modelled and enlarged for its present object. It has an imposing appearance, seated on high ground on the left of the great harbour, on entering. A few miles to the westward of Valetta, a small inlet on the coast has the name of *Porto de San Paolo*, or the Port of St Paul, as the supposed point where the vessel which carried him was driven ashore. *Citta Vecchia*, on a hill towards the centre of the island, once its capital (when it was called Medina), and still the seat of the bishopric, has a cathedral which tradition places on the site of the house of Publius, the Roman governor, at the time of the apostle's arrival. A cave in the vicinity, called St Paul's Grotto, seems to have been used as a church.

The history of the Maltese Islands is singularly checkered with change of masters. In ancient times they were successively possessed by the Phœnicians, the Greeks, the Carthaginians, and the Romans. They passed under the rule of the Vandals and Goths, were next subject to the Arabs, then to the Norman lords of Sicily, and were eventually given up to the emperors of Germany. In 1530, Charles V. presented them to the Knights of St John upon their expulsion from Rhodes, who successfully defended their stronghold against the Turks in 1565, during a long and terrible siege, under their grand-master, La Valette. The Order retained their tenure upwards of two centuries and a half, or till the year 1798, when they were compelled to submit to the French. But, two years afterwards, these new-comers surrendered the islands to the British as the result of a close blockade.

III. GIBRALTAR.

The rock of Gibraltar—simply styled the 'Rock' in Mediterranean waters from its remarkable prominence, and familiarly called 'Old Gib' by seamen—is a projection from the southern part of the mainland of Spain, wanting only a further extension of about five miles in order to rival its neighbour, Cape Tarifa, in being the most southerly point of the European continent. The bold promontory is a mass of gray primary limestone, attached by a low isthmus of sand to the general coast-line of Andalusia. It is three miles in length from north to south, nowhere exceeds three quarters of a mile in breadth, and has a circuit of about seven miles. The north front of the grand headland rises up almost perpendicularly from the isthmus; the east side is full of craggy precipices, and nearly inaccessible; the south extremity consists of rapid slopes, terminating in Europa Point; the west side, though interspersed with steep rugged declivities, has flats or terraces on which the town is built, and affords the only landing-places. The summit is a sharp wavy ridge, rising 1350 feet at the Rock Gun on the north, 1276 feet at the Signal House in the centre, and 1439 feet at the Sugar Loaf on the south, the highest elevation. Westward lies the circular sweep of Gibraltar Bay, an important

naval station, but a defective roadstead, formed between the promontory and the Spanish main, which the former completely commands. Eastward rolls the Mediterranean. Southward is the famous channel which connects the landlocked sea with the Atlantic, and beyond it the mountainous coast of Africa is distinctly visible. The strait, at the western entrance, the narrowest part, is about fifteen miles across.



Algesiras and Bay of Gibraltar from the old Moorish Castle.

The rock of Gibraltar is the Mount Calpe of the Greeks, corrupted by them from the name Alube, given it by the Phœnician navigators. Directly opposite, on the African shore, is the classical Mount Abyla, now called Jebel Muza by the Moors. These are the two Pillars of Hercules, which, according to mythological fable, the hero-god piled to commemorate a victory. 'Of the two hills or pillars,' says a graphic describer, 'the most remarkable, when viewed from afar, is the African one. It is the tallest and bulkiest, and is visible at a greater distance; but scan them both from near, and you feel that all your wonder is engrossed by the European column. Jebel Muza is an immense shapeless mass, a wilderness of rocks, with here and there a few trees and shrubs nodding from the clefts of its precipices; it is uninhabited, save by wolves, wild swine, and chattering monkeys, whilst, on the contrary, Gibraltar, not to speak of the strange city which covers a part of it, a city inhabited by men of all nations and tongues, its batteries and excavations, all of them miracles of art, is the most singular-looking mountain in the world—a mountain which can neither be described by pen nor pencil, and at which the eye is never satisfied with gazing.' But like its opposite

neighbour, it has a colony of fawn-coloured monkeys, the only example of the animal wild in Europe, identical with the Barbary ape, and doubtless originally an importation from that country. They usually live among the inaccessible precipices on the eastern side of the rock, where there is a scanty store of monkey-grass for their subsistence, but take refuge from a strong east wind on the western side, where they may be seen from below, leaping from bush to bush, boxing each other's ears, and indulging in all kinds of antics. When disturbed, they scamper off with the utmost rapidity, the young ones jumping upon the backs, and putting their arms round the necks of the old, but are so extremely wary, that it is scarcely ever possible to get near them. Being quite inoffensive, they are protected by the garrison. Though apparently void of vegetation when seen from the sea, the variety of wild and cultivated plants is considerable for so rugged a spot, of such limited extent. Grasses, shrubs, and brambles are found in nooks of the mountain; some noble trees appear in gardens; geraniums and other flowers flourish in profusion; and culinary vegetables, with various fruits, are raised. Caverns and fissures are numerous, several of which have yielded interesting fossil remains. The largest example, the Cave of St Michael, is entered by a yawning cleft at the height of 1000 feet, and thence descends by a succession of chambers and passages to an immense depth, the limit of which has not been reached owing to the difficulties and perils attendant upon the exploration.

The town of *Gibraltar* lies at the base of the north-western face of the rock. It consists of a principal street about a mile in length, with two others much shorter parallel to it. Barracks, and the suburban residences of the chief officers and merchants, stretch away southward from the town, along the shore of the bay to the seaward extremity of the rock. The population, exclusive of the military, amounts to about 15,000, and is of a very miscellaneous description, with varied costumes, which seamen and visitors from vessels in the bay are constantly rendering more motley. Almost any day there may be seen, in close proximity, the turbaned Moor, the black-capped Barbary Jew, the dark-whiskered Spaniard, the sharp Greek, the lively Genoese, with Scotch and English, some of whom are 'rock-lizards,' a soubriquet for persons born of British parents beneath its shadow. The Roman Catholics, the most numerous body, have a bishop and a cathedral; the Jews possess four synagogues; the Episcopalian Protestants have a church, and likewise a bishop, whose diocese embraces all British posts in the Mediterranean; and the Wesleyans have a chapel. The public functionaries include a governor appointed by the crown, a magistrate, and a competent police force; but in all important civil causes appeals lie to the privy-council. From July to November the heat is great, and very fatal epidemics have raged in the sultry season. To guard against this danger, cleanliness is enforced by strict police regulations, and attention is paid to efficient drainage. The greatest natural disadvantage is the want of springs of fresh water, which renders the inhabitants entirely dependent upon the rain-fall. Every drop is carefully collected from the roofs for private use, as well as from the general surface, to be stored in huge reservoirs for public purposes.

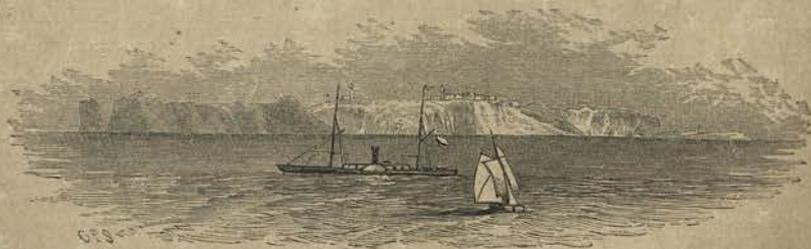
The name, *Gibraltar*, is a corruption of *Gebel-Tarif*, the 'Hill of Tarif,' derived from Tarif, *ebn Zarca*, the general who, in 711, led the Saracens into Spain from the coast of Africa, and who is also nominally commemorated by the neighbouring cape and town of Tarifa. The invaders fortified the spot as a base of operations, and a convenient point for receiving reinforcements, or effecting a retreat. A tower belonging to the old castle remains. In 1309 it was captured by the army of Ferdinand of Castile, regained by the Moors in 1333, and finally recovered by the Christian power in 1462. The Spaniards reconstructed the fortifications by the most eminent engineers, and the place was deemed impregnable. Oliver Cromwell contemplated its reduction in order to obtain a hold of the Mediterranean, but the admirals, Blake and Montagu, commissioned to survey its defences, deemed them too strong for the force at their disposal. But it succumbed to an English squadron under Sir George Rooke in 1704, and has since that period remained uninterruptedly a British possession, though not without several desperate efforts for its recovery, with the peaceful offer on the part of Spain of two millions sterling for its restitution. In June 1779 commenced one of the famous sieges of history, in which the combined forces of France and Spain were engaged, by land and sea, while Great Britain was occupied with her revolted North American colonies. For three years, seven months, and twelve days, the garrison under General Elliot, afterwards Lord Heathfield, repulsed every attack of the beleaguering host, when the siege was raised upon the conclusion of a general peace. The besieged beat the enemy with 90 guns. There may be now perhaps a thousand guns mounted of very different calibre, with batteries hewn in the solid stone, while the rock is honeycombed with immense excavations for stores and munitions of war, and there is always a strong garrison keeping watch and ward with jealous care. An eminence across the bay, near the small town of St Roque, bears the name of the Queen of Spain's Seat, from a local legend, that when Gibraltar fell into the hands of the English, the queen of Spain sat

there disconsolate for three days. Though not of the slightest value in itself, and a costly possession to Great Britain, while its loss is a source of constant irritation to the Spanish people, it has been properly called a post of power, of superiority, of connection, and of commerce; and will doubtless be retained with all the might which the proprietary nation can command. With the firing of the evening-gun, Gibraltar is closed for the night, and no entrance is allowed without special permission.

IV. HELIGOLAND.

This islet-speck in the North Sea, which may be rounded by the pedestrian in little more than half an hour, is situated about thirty-five miles from the mouth of the Elbe, and is somewhat nearer to that of the Eider. It very slightly exceeds two miles and a half in circuit, has been largely diminished in extent by the action of the sea, which old maps render apparent; and is still in process of reduction from the same cause. The principal mass is the 'Oberland,' elevated about 200 feet above the sea, on which most of the inhabitants are settled. The lower portion, called 'Sandy Island,' occupied by a few dwellings, communicates with the 'Oberland' by a flight of 173 steps. The natives are a race of tall and hardy Frisians, very primitive in their manners and simple in their habits, who delight in seafaring, are admirable sailors, and maintain themselves chiefly by fishing and pilotage. They pride themselves on being 'Englishmen.' With them are associated a few merchants, mostly Hamburgers or Danes. Lobsters and haddocks are the principal produce of the fisheries. In the summer season, a number of continentals arrive to enjoy the fresh breezes and excellent sea-bathing. A British superintendent is at the head of affairs, but all internal concerns are managed by a council of the islanders. The total population of the 'Oberland' amounts to 2800, occupying 350 houses, most of which are grouped, forming a little town; with a light-house serviceable to passing shipping, and a jail which is rarely used.

Heligoland, the 'Holy Land' of the rough North Sea, was in ancient times a stronghold of Saxon paganism, deemed sacred to the goddess Hertha, the Earth, who had a temple at the spot. In proof of its having been once much larger than at present, we may mention that on a map discovered by Sir William Gell, the situation of many temples, villages, and large tracts of country are delineated, all of which were swallowed up by the sea between A.D. 700 and 1200, according to D'Anville. Christianity was first preached here by St Willibrod in the seventh century. It was long held by Denmark, but was seized by Great Britain in 1807, and finally ceded to the latter power in 1814. In the time of the first Napoleon, when British goods were excluded from the continent, it served the purpose of a *dépôt*, from which they were smuggled into the foreign markets.



Heligoland.



Bird's-eye View of Paris from over the Cité.

SECTION II.—CENTRAL EUROPE.

CHAPTER I.

FRANCE.



FRANCE, the most westerly portion of Central Europe, occupies a geographical position highly favourable to political and commercial interests, possessing a large and nearly co-extensive amount of maritime and land frontier, both of which are eminently adapted—the first for communication, and the last for defence. It is directly connected with three sea-basins, the Atlantic on the west, the English Channel on the north-west, and the Mediterranean on the south-east, by means of which intercourse is conveniently commanded with the countries of Western and Southern Europe, the shores of Africa, transatlantic regions, and all the coast lands of the eastern hemisphere. The Pyrenees form the boundary from Spain on the south-west;

the Alps and Jura mountains rise on the frontier towards Italy and Switzerland; the Rhine forms the north-eastern border from Basle to Carlsruhe. Only on the north-east, towards Belgium and the Rhenish province of Prussia, is there no natural feature to constitute a well-marked division; there an artificial line, running north-west from Carlsruhe to Dunkirk, is adopted, which is under the protection of a chain of fortresses and a European guarantee to Belgium. The coast on the north is generally irregular, has the Channel Islands of Great Britain near its most prominent peninsula, and acquires a bold rocky character towards its western extremity, the peninsula of Bretagne. From this point, southward to the Pyrenees, it curves inland, forms one side of the Bay of Biscay, becomes low and dreary, extensively fringed with salt-marshes and sandy downs. Here in succession, from north to south, occur the small islands of Ushant, Belleisle, Noirmoutier, D'Yeu, Ré, and Oléron. The Mediterranean shores form the Gulf of Lyon, *Golfe du Lion*, so called from its violent storms; and, except towards the Italian border, are monotonous flats, characterised by lagoons. The only islands are the Hyères group, six in number, immediately eastward of Toulon. The larger island of Corsica, geographically related to Italy, belongs to France, and forms one of the departments.

The general outline of the country resembles an irregular hexagon, three sides of which are land and three water. Its greatest extent, due north and south, amounts to about 620 miles, between Dunkirk and the Col de Falguères, in the Pyrenees; and due east and west, the distance between the Rhine and the extremity of Bretagne is 570 miles. The whole area, including the newly-acquired Savoy provinces, and the Corsican island, is computed at 204,928 square miles. The mainland lies between latitude 42° 20' and 51° 5' north, and between 4° 50' west and 8° 15' east longitude.

'*La belle France!*'—a current native expression in relation to it—is not justified through a vast range of the surface, if understood with reference to scenical appearances, though it may be appropriate if considered to intimate the favourable character of the soil and climate. Englishmen have specially taken exception to the phrase—Captain Basil Hall, Mr Laing, and Mr Inglis among others—whose knowledge was not confined to the path so beaten by their countrymen, the uninteresting route from Calais or Boulogne to the capital. Beautiful, in many parts, are the river-valleys of the Seine, the Loire, the Garonne, the Rhone, and the Moselle; scenery of the grandest description appears on approaching the Alps and Pyrenees; and wild and striking are portions of the interior and coast region of Bretagne. But these districts are collectively of small extent in comparison with the general face of the country, a very large proportion of which has no pleasant diversity, no picturesque or even cheerful features. For league after league the landscape is tame, and frequently becomes tiresome from spreading out as an unenclosed expanse, wanting not only the green net-work of hedges, but the old trees, single or in groups, and the thriving plantations, which relieve the natural monotony of the level tracts of England. Over an extensive space, stretching nearly 200 miles from the mouth of the Garonne to that of the Adour, and running 70 miles inland from the coast, the country is a wilderness of white sand, black pine-woods, and vast plains of furze and heather, interspersed with shallow sombre pools and marshes bearing giant rushes and water-weeds, with here and there the rude huts of a scanty peasantry. This is the region of the Landes, which surprises by its strangeness, and awakens an interest in the mind of the traveller, which the unhedged levels submitted to cultivation fail to excite.

The highest mountains of France are near or on the borders. Before the recent cessions of territory, the most elevated was the Grand Pelvoux, 13,440 feet, to the

south-west of Briançon, in the department of the High Alps. Its loftiest peak was for the first time scaled by Mr E. Whymper in 1862. But Mont Blanc, the culminating-point of Europe, now forms the frontier, along with two of the principal passes of the Alps, the Little St Bernard and Mont Cenis. The Jura range, upon the Swiss border, an outlier of the Alpine system, has only a comparatively moderate elevation, and belongs chiefly to Switzerland. Of the Pyrenean heights, within French limits, the loftiest, Mont Perdu, attains to 10,994 feet. Among the mountains proper to France, from having an interior position, the most important are the Cevenno-Vosgian, a long chain stretching from the north-east far to the southward, with which westerly ranges are connected. The Vosges run parallel to the Rhine, separate its valley from that of the Moselle, and have vine-clad slopes, round-shaped forms, to which the prefix, *ballon*, attached to the names of several refers. They rise the highest in the Ballon de Sultz, 4690 feet, and are connected by a plateau tract with the Cevennes, which extend generally from north to south, divide the basin of the Loire from that of the Rhone, and reach the height of 5794 feet in Mont Mezen, near the source of the former river. During the invasion of Gaul by Julius Cæsar he crossed this narrow ridge in winter, with the snow lying in places six feet deep on the ground. It abounds with natural strongholds—defiles, gorges, caves, and woods—which were bravely held by the persecuted Protestants against the armies of Louis XIV., upon the revocation of the Edict of Nantes. Connected with the southern portion of the Cevennes, the mountains of Auvergne follow a divergent course to the north-west, separate the river system of the Loire from that of the Garonne, and ramify over the central departments in a series of detached groups. These are the loftiest highlands of France apart from the borders, rising to the height of 6180 feet in the Puy de Sancy, one of the group of Mont Dor. They constitute also its most remarkable natural curiosity, as having the true volcanic character, scathed craters, lava streams, and tracts of ashes, referring to a period of igneous eruption long prior to the age of history. This region of extinct fiery action occupies a considerable area, and has been repeatedly subject to careful geological examination. Primary rocks form the skeleton of the frontier mountains, and appear in the outlying districts of Bretagne, Normandy, and the Ardennes. The space intervening between them and the central volcanic nucleus is occupied with secondary and tertiary formations, among which an extensive area around the capital, known as the tertiary Paris basin, is remarkable for its remains of extinct quadrupeds, and celebrated as the field in which Cuvier made his paleontological discoveries.

Twenty-one considerable rivers are enumerated. But among these the Rhine is simply a dividing-line from Germany, entered by a few small affluents on the French side, while the Meuse, Scheldt, and Moselle flow beyond the limits of the country into adjoining districts. On the other hand, the Rhone is received from Switzerland, bringing with it the efflux of the Lake of Geneva. Upon crossing the frontier, rocks contract the channel, till the stream altogether disappears beneath them, and flows for a short distance through a caverned bed, which it has probably worn through the limestone mass. This happens when the water is low. Under different circumstances, it occupies the natural tunnel, and passes over the roof as well, open to the daylight. After a westerly course to Lyon, where it is joined by the Saone, the river proceeds impetuously southward to the Mediterranean, into which it discharges by several mouths, through a wilderness of salt swamps, dead flats, and huge bulrushes. The Rhone frequently overflows its banks, and spreads out in destructive inundations. In the south-west, the Garonne is likewise cradled beyond the frontier, or on the Spanish side of the Pyrenees, and has similarly a subterranean pathway. Its principal source is fed by the snows of Mount Maladetta, at

the base of which it issues copiously from a series of cavities, called Ojos de Garonna, 'the Garonne's Eye.' The river descends from thence north-east to Toulouse, bends north-west to Bordeaux, below which it receives the Dordogne, and forms the broad estuary of the Gironde, through which it enters the Atlantic. At its mouth, on the little rocky islet of Cordouan, stands a celebrated light-house, begun by Henry IV. in 1584 on the site of one of English erection, completed in 1611, and enlarged in 1727, the first structure of the kind in which a revolving light was exhibited.

Among the rivers which specially belong to France, having their rise, course, and termination within its bounds, the Loire, Vilaine, Charente, and Adour flow direct to the Atlantic; while the Seine, Somme, and Orne are connected with it through the English Channel. The Loire is distinguished by beautiful scenery on its banks, and affords an extensive line of navigation. It rises in a wild and dreary part of the Cevennes, at the height of 4550 feet above the sea, winds from thence through the central districts, at first northerly, then it turns to the west, and passes Orleans, Blois, Tours, Saumur, and Nantes, on its course to the sea. It is navigable upwards of 400 miles above the mouth, but its utility is often impaired by the opposite extremes of floods and shallows, changes which led one of the democrats of the last century to remark upon the revolutionary tendencies of the river: '*Quel torrent révolutionnaire que cette Loire!*' During the drought of summer, the stream does not cover in many places half the width of the channel, and the bridges are seen bestriding unsightly tracts of clay or gravel. In the harvesting of 1863, farmers on the Middle Loire, holding lands on both the banks, were able to cart their produce across the bed as safely as on dry land. But in winter and spring the shoals are deeply covered, the whole channel is full, and the river occasionally becomes a terrible enemy to life and property, as in 1846 and 1856, when the country, through hundreds of square miles, was covered by its inundations. The Seine descends from the high lands connected with the Vosges, passes by Paris and Rouen to Havre, and is remarkable for its tranquil flow, serpentine windings, and numerous islands, clothed with groves of poplar and willow, beautiful landscapes lying generally on both the banks. By means of its rivers, France has a total inland navigation of 5500 miles, which the canals connecting them, or forming independent lines of water-communication, extend to a length of 8400 miles. The *Canal du Midi* links the Garonne with the Mediterranean; the *Canal du Centre* unites the Loire and the Rhone; the *Canal du Rhone au Rhin* effects the junction of the two streams; and the *Canal de Bourgogne* connects the Rhone with the Seine. The country is singularly destitute of lakes, not containing a single important example, but lagoons or salt-marshes, called *etangs*, are numerous and extensive in the southern departments.

The climate is one of the finest in Europe, though not without its disadvantages in particular localities. It varies in different parts of the country, in a somewhat marked manner, owing to great range of latitude, and difference of position in relation to the sea. A northern, central, and southern zone may be distinguished. In the north, along the coasts of the Channel, and through the basin of the Seine, the temperature and the rain-fall correspond generally to experience in the south of England, but with warmer summers and colder winters in the more continental districts on the north-east. Passing to the central zone, embracing the valley of the Loire, there is a sensible increment in the temperature. The sky is less clouded, the atmosphere more clear, and the weather more stable. The winter is mild and brief, the summer dry and hot, while violent hail-storms are of common occurrence in the sultry season, and often very destructive to the crops. These characteristics become more decided in the southern region, which embraces the basins of the Garonne and Rhone, where sub-tropical vegetation appears. The climate

not only varies from north to south, but from west to east, as the result of proceeding inland from the sea. Owing to cooler summers on the western coast, the culture of the vine has there its northern limit about the mouth of the Loire, in latitude 47° , but it is extended three degrees further north on the opposite eastern or continental side; and for the same reason, maize is not grown to the north of the mouth of the Garonne on the west, in latitude 46° , while raised near Strasburg on the east, in latitude $48\frac{1}{2}^{\circ}$. Towards the Mediterranean, mosquitoes are apt to be a pest in the autumnal months, while a north-westerly wind occasionally blows down the valley of the Rhone, known as the *mistral*, dry, gusty, and piercingly cold, a great drawback upon personal comfort, while a cause of injury to the fields and gardens. Madame de Sevigné has described this aerial visitant as *le tourbillon, l'ouragan, tous les diables déchainés qui veulent bien emporter votre chateau*. Nor does the description seem to be overdrawn, though at variance with popular notions of the balmy, sunny south of France. 'The wind seemed poisonous,' observes one of our own tourists, Mr Reach, who goes on to affirm 'that the coldest, harshest, and most rheumatic easterly gale which ever whistled the fogs from Essex marshes over the dripping and shivering streets of London, is a genial, balmy, and ambrosial zephyr, compared with the 'mistral.' One benefit is conferred by the visitor, for with its first breath the mosquitoes vanish. The same region is exposed at times to another plague, that of a burning breeze from the south, heated on its passage over the deserts of Africa.

Vast forests clothed the face of the country when Caesar marched the Roman legions into Gaul. They are still very extensive, especially in the central, eastern, and south-western districts, where they may be traversed for miles, notwithstanding improvident management down to a recent date, and the immense consumption of wood for fuel. About one-seventh of the entire area is covered with timber. The common trees are the oak, elm, beech, ash, chestnut, and varieties of the pine. The wild animals include the brown and black bear in the upper part of the Pyrenees, but fast diminishing; the lynx, also in the high mountain-ranges, though comparatively rare, with the chamois and wild goat; the wolf, numerous in the central forests and other wooded districts, with the wild boar, wild cat, and roebuck; the fox, weasel, and pole-cat generally diffused. The wolf is the dread of the peasantry in many parts of the land, preying upon their flocks, and menacing even household life in severe winters, when hunger inspires them with courage and quickens ferocity. Recourse is had to periodical *battues*, to diminish the number of such dangerous neighbours; and during the year 1863, the experiment was tried in Poitou of wolf-hunting with English fox-hounds, but not with much success. Small singing-birds are remarkably scarce, owing to wanton destruction, now in process of being restrained by municipal interference, in order to prevent the alarming increase of noxious insects. Birds rare or not known at all in England are commonly met with, as the fig-eater, the ortolan, quail, bustard, flamingo, and hoopoe. Vipers are extremely numerous in various districts. The sea-fish are the same with those which visit our own coasts, with the addition of the tunny and anchovy, taken off the Mediterranean shore. Neither in point of numbers or quality are the domestic animals in proportion to the extent and resources of the country, or upon a par with the English breeds, though great improvement has been made in the native stock since the close of the long continental war, by the introduction of the best foreign races.

Without possessing districts so exuberantly fertile as the rich meadows of Belgium, the polders of Holland, and the fen-lands of England, the general soil of France is sufficiently good and varied to be adapted to almost every kind of culture, while the climate is friendly to great diversity of produce. An immense proportion of the surface is under cultivation, and the arts of husbandry have recently made rapid progress, though still

in a backward condition as compared with the advanced agriculture of some neighbouring states. Scientific principles are utterly unknown to the great majority of cultivators, who cleave to primitive methods, retain in use the rude implements of their forefathers, and are in general small proprietors of land, without capital for enterprise, even supposing improvement to be contemplated. Besides the ordinary cereals, the objects of culture embrace beet-root for sugar, tobacco, madder, chicory, saffron, and maize; rice, on the shores of the Mediterranean; the vine, mulberry, and olive, extensively; and more partially, the orange, lemon, and pistachio-nut. The vine has, from a very early period, constituted one of the principal sources of agricultural wealth in France. It is grown in five great regions, the valleys of the Moselle and Meuse, of the Seine and Marne, of the Loire and its affluents, of the Saone and Rhone, with those of the Garonne, Charente, and Adour. The vintage usually falls in September or October, according to the latitude; and is a season of merriment and song, just as described by the wine-loving bard of Greece:

‘Lo! the vintage now is done!
And purpled with the autumnal sun,
The grapes gay youths and virgins bear,
The sweetest product of the year!—
Meantime the mirthful song they raise,
Io! Bacchus, to thy praise!’

As in the most primitive ages also, the practice prevails of treading out the grapes with the human foot. This is the ‘wine dance,’ in which strong active young men are employed. Champagne and Rhone wines are generally made by machine pressing. The mulberry for the support of the silkworm is chiefly cultivated in the departments of Gard, Drome, Ardeche, and Vacluse, where there are probably not less than 15,000,000 trees, nearly half of which are in the first-named district. Of late years, the silkworms have been subject to a fatal disease, referred by practical men to a blight which has attacked the mulberry-tree; and experiments are in process both to raise them on other leaves, and introduce species from Japan accustomed to a different vegetation. The olive is principally grown in the tract between Grenoble and Narbonne. Though one of the romantic trees, rife with interesting associations, it does not improve the landscapes of Dauphiné, nor the mulberry either those of Languedoc, according to the impressions of Mr Reach. ‘I was miserably disappointed,’ says he, ‘with the olive. What claim has it to beauty? The tree has no picturesqueness—no variety. It is not high enough to be grand, and not irregular enough to be graceful. Put it beside the birch, the beech, the elm, or the oak, and you will see the poetry of the forest and its poorest and most meagre prose. So also, to a great extent, of the mulberry. I had a vague sort of respect for the latter tree, because one of the champions of Christendom—St James of Spain, I think—delivered out of the trunk of a mulberry an enchanted princess; but the enforced lodgings of the captive form just as shabby and priggish-looking a tree as the olive. The general shape—that of a mop—is the same, and a natural want of variety and picturesqueness afflict, with the curse of hopeless ugliness, both silk and oil trees.’ The mulberry was first planted in France near Tours in the fifteenth century.

In extent, variety, and value of manufactures, France takes high rank, and is in some departments unrivalled, but suffers in competition with England as to amount of production, owing to the comparative scarcity of coal which cripples the employment of steam-power. The fabrics which involve artistic design, minuteness of detail, elegance of finish, and the application of chemical knowledge, are superior to those of any other nation. Scientific instruments, tapestry, clocks, watches, articles of *vertu*, and other costly products, are made in great perfection at Paris, with porcelain and glass at Sèvres

in the vicinity. Rich silks have their great centre at Lyon; ribbons at St Etienne; fine woollens at Rheims and Amiens; cottons at Rouen; linens at St Quentin; laces at Lille, Arras, Caen, and Bayeux; carpets at Abbeville; and paper at Annonay. But France specially deserves honourable mention in relation to manufacturing industry, for having long provided means to adjust those disputes between masters and workmen, which in England have so often led to 'strikes' and 'lock-outs,' disastrous to both parties. With this object in view, a *Conseil de Prud'hommes*, 'Council of Experienced Men,' was established at Lyon by decree of Napoleon I., in the year 1806. It provided for the erection of similar tribunals wherever they might be required; and in 1807, Rouen and Nismes obtained them. Paris long remained without one, chiefly on account of the practical difficulties which it was expected would arise from the great variety of its industries. But there are now several in the capital, and from seventy to eighty in the whole of the provinces. Napoleon extended the same institutions to Ghent, Bruges, Aix-la-Chapelle, Cologne, and other towns in different parts of what was then the French empire, where they still exist. These councils are composed of equal proportions of masters and artisans, popularly elected, with a president and vice-president appointed by the government, who need not belong to either class. They proceed, in the first instance, simply as courts of conciliation, suggesting arrangements, but have power to adjudicate, and enforce decisions.

France is vastly inferior to England in mineral produce, but has till recently been considerably in advance in organisation to develop its resources. Paris has its *Ecole des Mines*, founded in 1783, a school in which instruction is given in practical mining, metallurgy, and other branches of allied knowledge; a second was established in 1816 at St Etienne, in the department of the Loire; and a third in 1845 at Alais, in the department of Gard, each of which has its mineralogical collection. From the proficient in the schools, the officers of the *Corps des Mines* are selected, a body of engineers appointed for various purposes, but chiefly to examine the country in relation to its geological structure and mineral wealth; to guide the labours of those engaged in mines; and to watch over the solidity of the works and the safety of the workmen. They likewise travel occasionally to obtain information respecting the discoveries made by, and the facts observed in, other countries; and publish records under the title of *Annales des Mines*, devoted to the illustration of their department. Iron of excellent quality is abundant, but the distance of the mines from the fuel necessary for the working of the mineral detracts from their value. Coal occurs extensively, but many of the beds are small, besides being inconveniently situated, and both coal and iron are imported. Argentiferous galena, copper, lead, manganese, and antimony occur, yet only to a very limited extent. The neighbourhood of the capital supplies the gypsum better known as 'plaster of Paris;' admirable building-stone has long been quarried at Caen in Normandy, of which some of the old churches of England are constructed; extensive slate quarries are situated near Cherbourg and St Lô; basalt and lava for pavements are supplied by the mountains of Auvergne. Fossil or rock salt is obtained from the Jura and Vosges Mountains; and likewise by means of evaporation from the lagoons and swamps which line the shores about Rochelle on the west coast, and those of the Gulf of Lyon. Mineral springs of various kinds are extremely numerous, of which nearly 1000 are said to be in use, a very large proportion of them being in the Pyrenees, while numbers have not yet been employed for purposes of health. France possesses seven mints, each of which is designated by a particular mark upon its coinage. Thus the coins of the Paris mint bear the letter A; Rouen, B; Lyon, D; Bordeaux, K; Strasbourg, BB; Marseille, MM; Lille, W. But Paris is the only mint which keeps up an uninterrupted supply of

gold and silver money, the provincial establishments being chiefly concerned with the copper coinage.

Before the revolution, towards the close of the last century, the country was divided into thirty-three provinces, mostly coincident in extent with territorial possessions held by the great feudal lords in the middle ages. At that epoch of change, the present division into departments was adopted, which are very conveniently named after some river, mountain, or natural feature connected with them. The departments, eighty-nine in number, are much more uniform in size than the English counties; and are further divided into arrondissements, cantons, and communes or parishes. Though no longer recognised in legal documents, the old provinces retain their place in history, and are therefore given in connection with their present representatives.



Shepherds of the Landes.



Rouen.

I. NORTHERN FRANCE.

Old Provinces: Date of Union with France.	Modern Departments.	Area in Sq. Miles.	Principal Towns.
ILE DE FRANCE (Original Royal Domain),	Seine,	185	Paris, St Denis, Vincennes.
"	Seine et Oise,	2141	Versailles, St Germain, Sèvres.
"	Seine et Marne,	2154	Melun, Fontainebleau, Meaux.
"	Oise,	2218	Beauvais, Compiègne.
"	Aisne,	2322	Laon, St Quentin, Soissons.
CHAMPAGNE (Philip le Bel, 1284),	Ardennes,	1955	Mezières, Charleville, Sedan.
"	Marne,	3116	Chalons-sur-Marne, Rheims, Epéray.
"	Marne (Haute),	2385	Chaumont, Langres.
"	Aube,	2351	Troyes.
LORRAINE (Louis XV., 1766),	Meuse,	2368	Bar-le-Duc, Verdun.
"	Moselle,	2034	Metz, Thionville.
"	Meurthe,	2322	Nancy, Luneville.
"	Vosges,	2230	Epinal, Plombières.
ALSACE (Louis XIV., 1648),	Rhin (Haut),	1548	Colmar, Mulhouse.
"	Rhin (Bas),	1777	Strasbourg, Haguenau.
FLANDERS (Louis XIV., 1667-1669),	Nord,	2170	{ Lille, Valenciennes, Cambrai, Douai, Dunkirk.
ARTOIS (Louis XIII., 1640).	Pays-de-Calais,	2505	Arras, Boulogne, Calais, St Omer.
PICAARDY (Louis XIV., 1667),	Somme,	2343	Amiens, Abbeville, Peronne, Ham.
NORMANDY (Philip Augustus, 1204),	Seine Inférieure,	2298	Rouen, Havre, Dieppe, Fécamp.
"	Eure,	2248	Evreux, Louviers.
"	Calvados,	2145	Caen, Honfleur, Falaise, Bayeux.
"	La Manche,	2263	St Lô, Cherbourg, Granville.
"	Orne,	2329	Alençon.

The ILE DE FRANCE, an inland district, obtained an insular denomination from being intersected by numerous rivers, the Seine, and its affluents, the Marne, Yonne, and Oise, in the same manner as inland parts of England, as the Isle of Ely, acquired, and still retain a similar style. It was the original appanage of the French sovereigns, at first held by a race of nobles, with the title of Dukes of France, one of whom, Hugh Capet, founded the Capetian dynasty. Long afterwards, when the royal domains included the Orleanais and Picardy, the powerful barons who held part of the intermediate territory could interfere with communication as they chose, and the kings had to travel with a sufficient armed force in order to pass securely from one part to the other of their own dominions.

Paris, the capital of the empire, is the second city of Europe in point of extent and wealth, ranking next to London; but is the first in the world as respects material splendour combined with literary treasures and pleasurable facilities. It contains a population of about 1,700,000; occupies both banks of the Seine and two islands in the channel; and is situated in 48° 50' north latitude, 2° 20' east longitude, about 210 miles in a direct line south-south-east of the British metropolis, and 250 miles by the Dover and Calais route. One of the islands, on which stands the cathedral of Notre Dame, with the prison of the Conciergerie and the Palais de Justice, has the style of *La Cité*, is nearly central in the capital, and may be regarded as the original nucleus around which it has been grouped. This spot, in the time of Cæsar, was covered with huts belonging to the tribe of the Parisii, whose name was subsequently transferred to the entire site. The adjoining islet, which includes the Hotel Lambert and the Church of St Louis, was formerly called *Ile de Vaches*, or Island of the Cows, in allusion to the animals once pastured upon it. As a further memorial of striking change, the name of the Louvre is commonly referred to the wolves, *louvres* (Lat. *Lupus*), which swarmed in the neighbouring woods, when a hunting-ledge occupied its place. The Seine flows through the heart of Paris, and divides it into two nearly equal parts, northern and southern. Twenty-seven bridges cross the river, the banks of which are lined with spacious quays, forming very agreeable promenades, being planted almost throughout with trees. On either hand are sumptuous palaces and public edifices—squares, gardens, fountains, columns, and triumphal arches—with noble houses and imposing streets. These form the more obvious attractions, which must be seen in order to be appreciated. But greater lustre is derived from the extent and richness of the artistic, literary, and scientific collections. The Imperial Library (*Bibliothèque Imperiale*), the largest in the world, has seventeen miles of shelves occupied by books, which number 1,800,000 printed volumes, and 200,000 manuscripts. Fifteen museums of painting, sculpture, and antiquities are congregated in the Louvre. Mineral and zoological collections, besides botanical rarities, are comprehended in the Jardin des Plantes. But while possessing strong claims to be considered the head-quarters of intellectual culture, with manifold adaptations to please the votaries of luxury and pleasure, the city is not without large blocks of buildings with tall chimneys in certain parts, indicating the existence of extensive manufacturing establishments. In addition to these, the domestic system of manufacture, conducted by workmen in their own dwellings, with the aid of their families or apprentices, is very prevalent. The famous carpet and tapestry factory, called the Gobelins, after the name of the founder, as well as the porcelain establishment at Sèvres in the neighbourhood, on the road to Versailles, is carried on by the government.

The metropolitan cathedral of Notre Dame, the grandest of the churches, recently restored, was commenced by Louis VII. in 1163, and carried on by his son and successor Philip Augustus. But the magnificence of Paris dates from a long subsequent era, or from the time of Francis I., who introduced the fine arts, and began the Louvre in 1541. In the next reign, Catherine de Medicis founded the Tuileries, which obtained that name from some tile-kilns at the spot. Henry IV. laid out several squares, provided quays on the river, and completed the Pont-Neuf. Under his successor, Louis XIII., or rather Marie de Medicis and Cardinal Richelieu, the Luxembourg arose, with the Palais-Royal, and the Jardin des Plantes. Louis XIV. added new buildings and churches, originated the Observatory, the Institute, the Invalides, and the Gobelins, planted the Champs-Élysées, razed the old walls, and substituted in their place the promenades, which have retained the name of boulevards, or bulwarks, from their site. But Napoleon I. did more than all his predecessors in the way of adornment, at the same time combining in a high degree, works of a useful kind with splendid monuments. Under Louis-Philippe the present fortifications were begun, which extend round the city in a circle of thirty miles, consisting of a rampart, ditch, and strong detached forts. The present emperor, Napoleon III., has carried out improvements on a grand scale, superseding tortuous alleys with broad streets of palatial architecture, the most celebrated of which is perhaps the Rue de Rivoli, while not neglecting equally costly but more unobtrusive improvements, better paving, drainage, and water-supply, in which Paris still lags far behind London. But in multiplying wide and regular thoroughfares, the strategic object has also been kept in view of rendering military operations more available, should they be required by insurrectionary movements. The French capital, with its circuit of sixteen forts, thirty interior barracks, and large permanent garrison, has thus become a superb cage in which the citizens are cooped, with little chance of succeeding in any revolt against its keepers.

A considerable portion of the city on the south bank of the Seine overlies vast catacombs, not originally designed to accommodate the dead, but appropriated to that purpose from convenience. They extend under

some of the more important public buildings, as the Luxembourg, Pantheon, and Observatory. These excavations were quarries, out of which the stone used in the superficial erections was obtained. When the old grave-yards became overcrowded, they were all cleared out, and the bones, after being cleaned and carefully arranged, were deposited in the subterranean passages, and hollows formed by the quarrymen. It is supposed, as a moderate estimate, that they contain the remains of 3,000,000 human beings. Inscriptions indicate the quarters whence they were removed. Accidents having occurred by persons losing their way in the dark retreats, the catacombs are now closed to the public, but are regularly inspected by appointed officers. Three great cemeteries are in use at present, with several of minor extent. The most important, that of Père-la-Chaise, on the eastern side of the capital, contains the graves of many illustrious men, and has monuments of a very magnificent character. It derives its name from an ecclesiastic who formerly owned the ground.

Several principal lines of railway radiate from Paris as a centre, and pass to the frontiers of the country. That of the north, the great thoroughfare to England, connects itself with the Belgic lines, and thence communicates with the greater part of the continent. Its station, entirely new, is a highly imposing structure, ornamented with statuary executed by sculptors of distinction. The centre of the principal façade is surmounted by a statue representing the capital, and on either hand are eight other statues personifying the principal cities to which the railway serves as a means of intercommunication—London, Vienna, Berlin, Cologne, Brussels, St Petersburg, Amsterdam, and Frankfort.

Among the places of interest in the environs, *St Denis*, a small town on the north, claims attention by its splendid abbey-church, in which the French sovereigns were interred down to the time of the revolution, when the tombs were rifled. *Vincennes*, immediately east of the city, is an ancient fortress with an adjoining woodland, once a royal residence, now used as a great military arsenal and state prison. *St Cloud*, an imperial chateau, is on the west, a favourite resort of Maria Antoinette and Napoleon I., frequently occupied by the present emperor. *Versailles*, on the south-west, a considerable town, is best known by the vast palace of somewhat melancholy grandeur, with its ornamental grounds and remarkable water-works, on which Louis XIV. lavished the resources of his kingdom. *St Germain*, west by north, a decayed place with a gloomy castle, which sheltered the de throne James II. of England till his death, has a fine feature in a terrace upwards of a mile and a half long, running along the brow of a hill, commanding a noble prospect of the winding Seine.

At a greater distance from the capital than the preceding, *Fontainebleau*, on the south-east, is celebrated for its extensive forest, once an attractive hunting-ground; and for its royal chateau, where two memorable documents were signed, the revocation of the Edict of Nantes, and the abdication of the first Napoleon. The name is a contraction of *Fontaine belle Eau*, referring to a spring which cannot now be identified. Ponds in the grounds swarm with carp, some of which are among the oldest and largest members of the family in Europe. *Meaux*, east by north, the corn-mart of Paris, boasts of the tomb of Bossuet—its most eminent bishop, called, from the style of his eloquence, 'the Eagle of Meaux'—in its noble cathedral. *Compiègne*, on the north-east, names a town, forest, and palace, the latter splendidly fitted up by Napoleon III. as his hunting-seat. Joan of Arc, the Maid of Orleans, was here taken prisoner, during a sortie from the town, at a spot still pointed out. *Soissons*, old and historic, the first capital of Clovis, yet modern-looking owing to renovations, is in the same general direction; with *Laon*, finely seated on a hill rising up from a plain which a grand cathedral surmounts; and *St Quentin*, a large and flourishing centre of the cotton manufacture. *Beauvais*, north by west, is also an important industrial site, with cloth and cotton mills, a government tapestry establishment, and a cathedral distinguished above all others by the loftiness of its choir.

The ancient and extensive province of CHAMPAGNE, formerly governed by Counts, adjoins the Isle of France on the east, and is watered chiefly by the Seine and its two principal affluents, the Marne and Aube. Numerous plains are the principal natural features, and originated the name of the district. The landscapes are therefore unpicturesque, sometimes positively dreary, except on the north, towards Belgium, where part of the hilly and wooded region is embraced, known from early times as the Forest of Ardennes. Champagne has acquired a world-wide celebrity from the excellence of its sparkling wines, the produce of small and extremely sweet grapes. But much wine is sold as champagne which is not the genuine production of the district. Some of the largest dealers have cellars excavated in the chalk-rock, with compartments and passages having a total extent of several miles. They are furnished with tramways, ventilated and lighted by shafts, and usually contain thousands of pipes and millions of bottles in stock. One merchant, for example, M. Jaqueson has ordinarily about 5,000,000 bottles in stock, and his corks alone cost £6000 per annum.

Troyes, on the Seine, the old capital of the Counts, is a considerable town, though not so populous as in

the middle ages. It contains a first-class cathedral, in which, before the high-altar, Henry V. of England, the victor of Agincourt, was affianced to the Princess Catherine of France. The marriage took place in the now dilapidated Church of St Jean. By the treaty of Troyes, signed May 21, 1420, the crowns of the two countries were destined to be united on the head of the husband, an arrangement happily frustrated by his death. An English standard measure (that used by goldsmiths and jewellers), derived from the town, bears its name—our Troy-weight. *Rheims*, or Reims, more important, with 51,000 inhabitants, is an ancient and noble archiepiscopal city, for a long period the ecclesiastical metropolis of France, where the sovereigns were crowned from Philip Augustus in 1180 to Charles X. in 1825, with the exceptions of Henry IV., Napoleon I., and Louis XVIII. It possesses some fine fragments of Roman date, a colossal cathedral accounted one of the most sumptuous specimens of Gothic architecture, and an archbishop's palace, in which the kings lodged at their coronations. Here Clovis was baptized, 496, after his victory at Tolbiac, and France received her first 'Christian' monarch. But the city has now acquired quite a modern air, is a principal seat of the woollen manufacture, and has a vast wine establishment sustained by the vineyards of the vicinity. *Châlons* and *Epernay*, both southward on the banks of the Marne, are also head-quarters of champagne wines. On the plains near the former town, the great battle was fought by the combined Roman and Gothic armies with the innumerable host of Attila, in the fifth century, in which the latter was defeated, and compelled to withdraw across the Rhine. *Mezières* and *Sedan*, towards the Belgic border, have strong frontier fortresses; and the latter is a principal place for the production of fine black cloths.

LORRAINE, a duchy down to the middle of the last century, extends eastward to the Vosges Mountains, which separate it from the valley of the Rhine. It includes the upper courses of the Meuse and the Moselle, both of which flow through beautiful scenery. This district gave Joan of Arc to France. This damsel was born at Domrémy, now an insignificant village, where her peasant home is preserved, subject to reparations. In consequence of her services, the villagers were exempted from every kind of tax to the state, an arrangement in force till very recent times. Stanislas Leczinski, the last Duke of Lorraine, was a Pole, who had been raised to the throne of his native country. Upon abdicating, he was put in possession of the dukedom, by Louis XV., and held it till his death in 1766, when the territory lapsed to the French crown.

Nancy, the ducal capital, seated on the Meurthe, is one of the best built cities of France, and has a considerable number of artisans engaged in manufactures of cotton, woollen, and embroidery. It contains many memorials of the Polish ruler, who contributed much to its architectural improvement, as the Porte Stanislas, the Rue Stanislas, and the Place Stanislas, in which his statue stands. It was taken by Charles the Bold, Duke of Burgundy, in 1475, who lost his life while besieging it in 1477. *Metz*, a much larger city, with a population of 44,000, including many Jews, is on the Moselle, very strongly fortified, and possessing a great arsenal, is an important military post towards Germany. It has extensive manufactures of lace, army-clothing, flannels, pins, brushes, canes, &c., many noble buildings, a magnificent cathedral, with a spire 373 feet in height, six barracks, a hospital said to be the most beautiful in France, and capable of containing 1800 patients, seventeen handsome bridges and quays, with delightful public gardens along the river. *Verdun*, on the Meuse, with one of Vauban's fortresses, guards the line of the stream, and has an old historic name, as the scene of the treaty, in 843, which made a triple division of the vast empire of Charlemagne. *Epinal*, a small neat town, is beautifully seated on the head waters of the Moselle, surrounded with the declivities of the Vosges. *Plombières*, famous for medicinal springs, hot and cold, is similarly situated, and has become a place of fashionable resort under the patronage of the present imperial court.

ALSACE, a long narrow tract, generally level, except on the west, extends along the west bank of the Rhine, was long a part of the German Empire, but ultimately came into the possession of the French in the time of Louis XIV. It is richly cultivated, abounds with proofs of enterprise, and is largely occupied by people of the Germanic family, who speak the German language, and differ in habits and costume from the French.

Strasbourg, the old capital, with a population of 56,000, stands near the majestic river, but on its little affluent, the Ill. Above a maze of narrow streets, lined with high many-windowed houses, towers the cathedral, originally founded in 504, famous for its spire, the loftiest in Europe, which rises 466 feet from the pavement; and also for its colossal clock, which shews puppet-images at mid-day, and indicates various epochs besides the passing time. It was made by Isaac Habrech in 1574, but reconstructed and improved by M. Schwilge, from 1838 to 1842, after a stoppage of more than half a century. The city contains an immense arsenal, and forms one of the strongest fortresses in Europe. By means of sluices, the surrounding country can be laid under water. It has long been a principal thoroughfare between France and Germany, by means of a bridge of boats across the Rhine; but there is now an iron railway bridge, completed in 1861, the two centre arches of which are removable in the event of war. Strasbourg produces



C. G. PRINCE

Engraved by C. G. Prince

CITY OF NEW YORK

a turpentine which bears its name, made from the resin of the silver firs of the Hochwald, one of the forests of the Vosges, where the tree attains huge dimensions. The section of a trunk is shewn in the natural history museum with a diameter of eight feet. Near the Hochwald is the Ban de la Roche, scene of the unobtrusive and useful labours of Pastor Oberlin. *Colmar* and *Mulhouse*, in the southern part of Alsace, are both seats of extensive manufactures, especially the latter, which has become a kind of miniature Manchester from the number of its large factories and tall chimneys. Printed cottons, silks, and muslins are produced, celebrated for the excellence of their designs and colours.

The districts formerly styled **FLANDERS**, **ARTOIS**, and **PICARDY**, embrace the extreme north of France, and that portion of the coast which makes the nearest approach to the shores of England, from which *Cæsar* and *William the Conqueror* made their famous passages across the Channel. The ground has long been familiar to our travelling countrymen, comprising some of the most frequented ports on continental visits, and is well known also nominally to mere readers, from the numerous sites it contains mentioned in English history—towns, battle-fields, and scenes of tournaments.

Lille (*D'Isle*; originally *Isle*, the island, so called from the marshes that formerly surrounded it), on the river *Deule*, once the capital of French Flanders, contiguous to the Belgian border, is now a first-class fortress, a well-built city, and great industrial centre, with a population of 123,438, but has few features of special interest. The *Hôtel de Ville* has, however, a famous collection of drawings by *Raphael* and other masters. Flax and cotton spinning are extensively carried on, with the manufacture of sugar from beet-root, and the extraction of oils from rape and linseed. *Valenciennes*, a fortified town, much smaller and inferior, is near the same frontier, on the *Scheldt*, celebrated for its lace. It was the birthplace of *Froissart*, and contains a statue of the chronicler. *Cambrai*, higher up the stream, the episcopal see of *Fenelon*, produces the fine muslin to which its name is applied in the slightly altered form of *Cambrie*. In the basin of the river, but on its affluent the *Scarpe*, *Douai* is situated, of bygone scholastic celebrity; and *Arras*, the former capital of Artois, a very handsome and thriving town, gave name to the tapestries of the middle ages. It is the birthplace of *Robespierre*. *St Omer*, in the midst of marshes, is the seat of a seminary chiefly for the education of English and Irish Catholics. *Amiens*, on the banks of the *Somme*, with 50,000 inhabitants, has extensive woollen and cotton manufactures, with a cathedral admired as a master-piece of Gothic architecture. In the *Hôtel de Ville* the treaty of peace between Great Britain and France was signed in 1802. *Abbeville*, with similar industries, but a very inferior town, is lower down the river. Not far distant are several historic sites, as *St Valery*, at the mouth of the *Somme*, the little port from which the Norman Conqueror sailed; the ford of *Blanchetagne* intermediate, where the army of *Edward III.* crossed the stream; and the villages, woods, and battle-fields of *Cressy* and *Agincourt* on the north, which are not more than twenty miles apart from each other. The town of *Peronne*, connected with the fortunes of *Louis XI.* and *Charles the Bold*, as described in *Quentin Durward*, is on the river above *Amiens*, as is also that of *Ham*, the fortress of which was the state-prison of *Prince Louis Napoleon* from 1840 to 1846, after his attempt on *Boulogne*.

The chief maritime places have all large colonies of British. *Dunkirk*, the most northerly town of France, is a fortified and considerable commercial port, with very agreeable features as a residence. It was taken by the English in the time of *Oliver Cromwell*, when held by the Spaniards, and sold by *Charles II.* to the French King *Louis XIV.* The name refers to the *dunes*, or sand-hills, which line the shore in the neighbourhood. *Calais*, is a trading and fishing port, with a lace manufacture of modern introduction. It exports annually nearly 60,000,000 of eggs to England. From its pier and promenades the white cliffs of *Dover* are distinctly visible, to and from which government mail-steamers and other vessels are daily passing. The two towns are also connected by a submarine telegraph. The town, taken by *Edward III.* in 1347, after a long siege, was retained 211 years, or till the reign of *Queen Mary* in 1558, when it was captured by the Duke of *Guise*. During this long period it became completely English, was a great wool mart, acquired considerable opulence, and returned two members to parliament, one chosen by the governor and council, the other by the mayor and commonalty. The small town of *Guines* and several villages were included within the English pale. Upon being recovered by the French, the district was styled *Le Pays Reconquis*. The principal church of *Calais* dates from the time of the English occupation. *Boulogne*, after *Havre*, the largest town on the French side of the Channel, a very flourishing port and bathing-place, is seated at the mouth of the little river *Liane*, in daily communication with *Folkstone* on the opposite coast. It consists of two parts: the old or high town, on the summit of a hill, with gates and ramparts; the new or low town, on the slopes and the border of the harbour, the seat of trade, commerce, and amusement. The conspicuous architectural feature is the column on the heights, surmounted by a statue of *Napoleon I.*, begun by the army in 1804, when encamped at the spot, with the view of commemorating the contemplated invasion of England. The column rises 164 feet; the statue is 16 feet. *Boulogne* possesses a valuable museum and public library, splendid bathing establishments, and has very pleasant environs. It is much resorted to by English people, who form a large section of the population. On the coast towards *Calais* is *Ambletouse*; a poor village, the landing-place of *James II.* on his flight from England, and the hamlet *Ouessant*, or *Witsand*, supposed by many to represent the *Portus Itius*, the point of *Cæsar's* embarkation.

NORMANDY, an extensive district on a central part of the north coast, stretches inland to within forty miles of Paris, and embraces the lower course of the Seine, with the peninsula of Cotentin adjacent to the English Channel Islands. It forms one of the most important and attractive portions of France, and is of special interest to Englishmen, owing to its former connection with their own country, memorials of which survive in the names of places and families, which the Norman conquest of England transferred to its shores. In the town of *St Sauveur*, inhabited by provincial gentry, Mr Gally Knight met with an Abbé de *Perci*, a descendant of the Norman branch of that family which acquired such distinction in England. 'It was striking,' he observes, 'to find this remnant of a noble line, after the lapse of so many centuries, still in existence on the native soil. At two leagues' distance from *St Sauveur*, is the hamlet of *Pierrepont*, the cradle of another ennobled English family. Remembrances of this kind abound in Normandy, and give its old castles and abbeys a peculiar interest in the eyes of an Englishman. Everything in that country is connected with the history of his own, and even with families of whom he has heard all his life.

Rouen, a first-class city, with 94,000 inhabitants, occupies a picturesque situation on the Seine, seventy miles from the sea, and is finely overlooked from the brow of Mont St Catherine. It contains a noble and venerable cathedral, numerous churches, of which the abbey-church of *St Quen*, with its glorious windows and majestic towers, is the finest, Gothic fountains, specimens of domestic medieval architecture, now fast disappearing, a rich museum of antiquities, a Linen Hall, a *Palais de Justice*, and the *Hôtel Dieu*, one of the largest in France, and has become distinguished as the principal seat of the French cotton manufacture. It is the birthplace of Fontenelle and of Corneille. Many memorable events have transpired here. William the Conqueror died in a convent without the walls. Joan of Arc, the prisoner of the English, perished at the stake in the open space which bears her name—*Place de la Pucelle*, May 30, 1431. The blame of the deed belongs equally to the two countries. She was not arraigned as a political enemy, but for sorcery and heresy; the Bishop of Beauvais was one of her most active persecutors; the doctors of the university of Paris demanded her trial; the entire inquisition was conducted by Frenchmen; and the court of Rome approved of the proceedings. *Caen*, on the Orne, now a considerable lace-manufacturing town, has great antiquarian interest. It formerly contributed a building-stone from its quarries to England, much used in the southern counties for public edifices, before native resources were developed. The central tower of Canterbury Cathedral, *St George's Chapel* (Windsor), and Henry VII's Chapel (Westminster), are of this material. The Conqueror was interred at *Caen*, his favourite residence, in the Church of *St Stephen*. In 1542, the tomb was opened by the Bishop of Bayeux, when appearances justified the reports of chroniclers respecting his tall stature. *Falaise*, his birthplace, one of the small towns, has an equestrian statue of him, inaugurated by M. Guizot in the year 1851. *Bayeux*, is celebrated for the tapestry, preserved in a room of the public library, which represents by needle-work various incidents connected with the invasion of England. *Evreux* and *Alençon* are places of merely local note. From the name of the former, that of a noble English family, the Devereux, Viscounts Hereford, is derived. The latter produces the linen cloths called *Toiles d'Alençon*; and the quartz crystals are found in the vicinity known as *Diamants d'Alençon*.

Among the maritime towns, the most important is *Le Havre*, an abbreviation of the original name *Le Havre de notre Dame de Grace* ('The Port of our Lady of Grace'), situated at the mouth of the Seine, the seaport of Rouen and Paris, the Liverpool of France, as the principal site of communication with transatlantic countries, containing a population of 74,000. It receives three-fourths of all the cotton imported into France, and also ships most of the French exports to America. The sum-total of its imports and exports is about £52,000,000. Rouen has magnificent docks, wet and dry, and extensive manufactures of tobacco, oil, ropes, machinery, &c., amounting in all to an annual value of £2,500,000. Its public buildings and institutions are excellent, especially its Royal School of Navigation and School of Applied Geometry. Close by, Henry V. landed on his invasion of the country, and captured *Harfleur*, now an unimportant town, on the river a little above the modern entrepot. *Dieppe*, a fishing-port, watering-place, and packet-station to Brighton, and *Fecamp*, are on the easterly part of the coast. *Cherbourg*, westwardly, a great naval stronghold, is seated at the extremity of the Cotentin peninsula, opposite the Isle of Wight and Portsmouth; and is furnished with extensive docks, a harbour formed by an immense artificial breakwater, and fortifications for mounting 3000 guns. The completion of these works, which extended, with interruptions, over considerably more than half a century, was celebrated by the present emperor in 1858, and was attended by Queen Victoria, with a powerful fleet. *Granville*, on the western side of the peninsula, has the island of Jersey in sight. Southward is *Avranches*, beautifully placed on a hill overlooking the sea, with a Huet Square, named in memory of its learned and excellent bishop of that name, at the close of the seventeenth century. The insulated castled Mont St Michael

is a conspicuous object in the view, three miles distant, but nearer to other points of the shore, which, after being a royal residence, and held by ecclesiastics, is now the site of a village and an extensive prison. The rock may be approached on foot across the sands at low-water, but great caution is requisite in making the transit, from the extreme rapidity with which the tide returns and the sudden fogs. Our Henry II. kept his court here in the winter of 1166, and in Avranches received the papal absolution on account of the murder of Thomas-à-Becket, after swearing on his knees before the legate that he had not instigated or desired his death. *Barfleur*, towards the north-east corner of the peninsula, wholly decayed, was a common point of passage in early times between Normandy and England. Prince William, only son of Henry I., with a retinue of young nobles, sailed from it in the *White Ship*, which was stranded on a rock soon after leaving the harbour, and only a butcher of Rouen regained the shore. *La Hogue*, a small adjoining seaport, is celebrated as the scene of the naval action in which the French fleet was almost entirely destroyed by the English, under Admirals Russell and Rooke, in 1692. Cape la Hague, often confounded with this site, is quite distinct, forming the north-western extremity of the Cotentin.



Cherbourg.



Lyon.

II. MIDDLE FRANCE.

Old Provinces : Date of Union with France.	Modern Departments.	Area in Sq. Miles.	Principal Towns.
BRITANY (Francis I., 1532),	Finisterre,	2548	Quimper, Brest, Morlaix.
"	Morbihan,	2667	Vannes, L'Orient.
"	Cotes-du-Nord,	1967	St Brieuc.
"	Ille et Vilaine,	2554	Rennes, St Malo, St Servan.
POITOU (Charles VI., 1416),	Loire Inférieure,	2595	Nantes.
"	Vendée,	2595	Napoleon-Vendée.
"	Sèvres (Deux),	2315	Niort.
"	Vienne,	2574	Poitiers, Chatellerault.
AUNIS, SAINTONGE, ANGOUMOIS } (Charles V., 1370),	Charente,	2300	Angoulême, Cognac.
MAINE (Louis XI., 1481),	Charente Inférieure,	2500	La Rochelle, Rochefort.
"	Mayenne,	1966	Laval, Mayenne.
"	Sarthe,	2371	Le Mans.
ANJOU (Louis XI., 1481),	Maine et Loire,	2755	Angers, Saumur.
TOURAIN (Henry III., 1584),	Indre et Loire,	2332	Tours, Amboise, Chinon.
ORLEANNAIS (Louis XII., 1498),	Loir et Cher,	2389	Blois, Vendôme.
"	Eure et Loire,	2117	Chartres.
"	Loiret,	2551	Orleans.
NIVERNAIS (Charles VII., 1457),	Nièvre,	2595	Nevers.
BOURBONNAIS (Louis XII., 1505),	Allier,	2762	Moulins, Montluçon.
BERRY (Philip I., 1100),	Cher,	2747	Bourges.
"	Indre,	2624	Chateauroux.

Old Provinces : Date of Union with France.	Modern Departments.	Area in Sq. Miles.	Principal Towns.
MARCHE (Francis I., 1531),	Creuse,	2133	Guéret.
LIMOUSIN (Charles V., 1370),	Vienne (Haut),	2118	Limoges.
"	Corrèze,	2218	Tulle.
AUVERGNE (Philip-Augustus, 1210),	Cantal,	2245	Aurillac.
"	Puy-de-Dome,	3039	Clermont-Ferrand, Thiers.
LYONNAIS (Philip le Bel, 1285),	Loire,	1805	Montbrison, St Etienne.
"	Rhone,	1066	Lyon.
BURGUNDY (Louis XI., 1477),	Ain,	2258	Bourg.
"	Saône et Loire,	3270	Macon, Chalons-sur-Saône, Autun.
"	Cote d'Or,	3354	Dijon.
"	Yonne,	2781	Auxerre, Sens.
FRANCHE COMTE (Louis XIV., 1678),	Saône (Haute),	2028	Vesoul.
"	Jura,	1894	Lons-le-Saulnier.
"	Doubs,	2028	Besançon.

BRITTANY, or Bretagne, anciently a ducal territory, embraces the north-west corner of France, and is watered by the Ille and Vilaine, the Aulne, and the lower course of the Loire. It forms a peninsular region directly opposite to Cornwall, the south-western peninsula of England. Both districts have many features in common; bold and rugged coast-lines; extensive moors of heath, furze, and broom, with the naked granite projecting above the general surface in gigantic tors; and rude, unhewn, monumental masses—cairns, cromlechs, and rocking-stones—whose objects, age, and uses have never been satisfactorily explained. There are localities also in both with corresponding names. Brittany has a tract called *Cornouaille*, or Cornwall, noted for wrestlers and wreckers; a Land's End—*Finisterre*; and Mont St Michael, off the north-east angle, is the counterpart, on a larger scale, of St Michael's Mount, near Penzance. Traditions of King Arthur, with his knights, and of the enchanter Merlin, belong equally to the opposite sides of the Channel. The Bretons, too, are a Celtic race, and speak a dialect akin to the extinct Cornish and the existing Welsh. Their peasantry are the least civilised portion of the French population, remarkable for quaintness of attire bordering on the grotesque, primitive manners, intense veneration for the Roman Catholic religion, but are addicted to superstitions derived from old heathen times. They possess an unusual number of large churches, among which, one near Treguier is probably unique in Christendom, a chapel dedicated to 'Our Lady of Hatred,' as an avenging power.

Rennes, once the capital of the province, is seated at the confluence of the Ille and Vilaine, and contains a population of 34,000. It is almost entirely modern, owing to a conflagration in the last century, which raged a whole week, and destroyed most of the public buildings, but spared the ancient gate, through which the dukes made their public entry upon their accession. Rennes has a cathedral, an arsenal, schools of law, and medicine, a tribunal of commerce, and trade in butter, honey, and wax. *Nantes*, one of the largest and most pleasing cities of France, with 108,000 inhabitants, is also a flourishing port, situated on the north bank of the Loire, 40 miles above its mouth, and 269 miles west of Paris by the railway. Quays bordered with handsome houses line the river, on the margin of which stands the massive castle, in which many sovereigns have for a time resided. Within its walls, Henry IV., in 1598, signed the decree in favour of the Protestants, hence called the Edict of Nantes. From this port the Young Pretender sailed in disguise in 1745, on his expedition to Scotland. In one of the houses near the castle, the Duchess of Berri remained concealed for five months in 1832, after stimulating insurrectionary movements in the neighbouring country. During the first revolution, the city was the scene of scarcely credible atrocities, perpetrated by the infamous Carrere, in which great numbers of women and children perished. Ship-building and sugar-refining, the manufacture of glass, cotton-goods, and machinery are extensively carried on, and the export trade in brandy, wines, and fruit is immense. *Brest*, a town of 51,000 inhabitants, a first-class fortress, dock-yard, naval arsenal, and *bagne* (affording accommodation to about 4000 galley-slaves), stands near the head of a closely landlocked inlet, the northern side of which is formed by the great promontory of Finisterre. Vessels can only enter from the roadstead by passing close to the guns of formidable batteries. This port was the landing-place of Mary Queen of Scots, in 1548, when a mere child; she was soon afterwards affianced to the French Dauphin; off the isle of *Ushant*, at the extremity of the promontory, the French fleet, under Admiral Villaret Joyeuse, was defeated by the English under Lord Howe in 1794, during the war of the Revolution.

The other maritime places include *L'Orient* (a principal station of the French navy), which owes its origin to the French East India Company, who built an establishment here in 1666 for the purpose of trading to the East, whence its name, *Vannes*, and *Quimper*, on the south coast; and *Morlaix*, *St Brieuc*, and *St Malo*, on the northern. They have no particular interest except the latter. *St Malo*, a small fortified town, occupies a rocky islet attached by a long causeway to the mainland. It has long been celebrated for its skilful and daring seamen, one of whom, Jacques Cartier, was the first to ascend the St Lawrence, and fix upon the site of Quebec. During the long wars of the last century it was called *Le Ville de Corsaires*, from the number and activity of its privateers. The illustrious Chateaubriand was a native, born in a house overlooking the sea, now occupied as an inn; he is also interred in a little adjoining islet. Cape Finisterre, the extreme west point of Brittany, the Land's End of France, about fifteen miles from Brest, consists of bleak and savage granitic cliffs, almost constantly wrapped in mists, and assailed by raving winds. The Abbey of St Mathieu, a ruin, crowns the headland, off which are several islands, and a multitude of rocks. The largest, most to seaward, is Ouessant, better known to English readers as Ushant, inhabited by a few fishermen, whose ancestors were idolaters little more than two centuries ago. Belle Isle, nearly opposite the mouth of the Loire, has a fortress used as a convict prison. It was taken in 1761, and held for about two years by a British force.

POITOU, a maritime tract extending from the coast to a considerable distance inland, southward of the Loire, comprises a large part of the courses of the Sèvre and Vienne, two of its principal affluents. It has an uninviting general aspect, consisting of sands, salt-marshes, and ponds along the shore; of thickets and woods without the dignity of forests in the interior; and of rugged heaths. There are few towns of important size, but the sites memorably associated with decisive battles and exterminating wars are numerous. In the western department of La Vendée, the brave peasantry adhered to the cause of royalty at the Revolution, and were cut off after a desperate resistance by the republican armies, who horribly desolated the country, and 'left behind nothing but ashes and piles of dead.' Madame Larochejacquelin, an eye-witness, compares the final flight of the unhappy inhabitants from their homes, old men, women, and children, to the awful spectacle that the world must behold at the Day of Judgment. Poitou formed an earldom, which was held by Henry II. of England, and lost to the English crown during the reign of his son John. It was recovered by Edward, the Black Prince, and retained to the time of Henry VI.

Poitiers, from which the province received its name, occupies a hill by the side of the winding Clain, a tributary of the Vienne, in a picturesque neighbourhood of woody ravines, and contains a population of 25,000. It is a city of steep, narrow, dull streets, without manufactures or commerce of any consequence, but of considerable antiquarian interest and historic fame. The site was occupied by the Romans, and has remains of an amphitheatre, the sides of which are partly converted into houses, while the oval centre is the garden of an inn. The cathedral was founded by Henry II.; and several of the churches are of very early date. About five miles westward the battle was fought, September 10, 1356, won by the army of the Black Prince against fearful odds, in which the French King John was taken prisoner. Between Poitiers and Tours the great struggle took place in 732 between the Christian army under Charles Martel and the Saracens from Spain, in which the latter were defeated with terrible slaughter. *Chatellerault*, a cutlery town on the Vienne, gives the title of Duke in the French peerage to the noble Scotch family of Hamilton, originally conferred upon the Regent Hamilton for his services in promoting the marriage of Mary, Queen of Scots, to the Dauphin of France. The present Duke of Hamilton is the fifteenth Duke of Chatellerault. *Lusignan*, a village and railway-station on the south-west of Poitiers, was the feudal stronghold of the noble house bearing its name, which became royal for a time by the elevation of its crusading chiefs to the throne of Jerusalem. *Napoleon Vendée*, founded after the desolation of that district by the republicans, and intended by Napoleon I. to become important, has never prospered. *Niort*, on the Sèvre, in a pleasant wine-growing country, pretty closely marks the north limit of vine cultivation on the west coast of France.

The small territory of AUNIS, southward on the coast, with the bordering inland districts of SAINTONGE and ANGOUMOIS, comprehend the basin of the Charente, the name of which is given to the two departments constituted out of them. In the valley of the river the cultivation of the vine is general; and the greater part of the produce is made into brandy for exportation. Off the mouth of the stream are the two islands of Oléron and Ré, both of which have a place in English history. The former is connected with naval ordinances issued by Richard I. previous to his crusading expedition to the Holy

Land. They are known to all jurists as the Laws of Oléron, lie at the foundation of the maritime jurisprudence of modern Europe, and are cited as an authority at the present day on both sides of the Atlantic. A little to the north, the island of Ré was the scene, in the reign of Charles I., of the disgraceful failure of the Duke of Buckingham. He was sent at the head of an expedition to aid the cause of the French Protestants, and was baffled in an attempt to take the insular town of St Martin.

La Rochelle, a commercial port, at the head of a deep bay, once the bulwark of Protestantism, sustained a long and terrible siege on that account from the armies of Louis XIII. in 1628. It succumbed to the pressure of famine after a close blockade of fourteen months. Little more than one-fifth of the inhabitants then survived, and the town has now only 14,000 inhabitants. It has a cathedral and several important public institutions; the streets are bordered in many cases by arcades. For some late years its buildings have been infested with white ants, an inadvertent importation from India. *Rochefort*, somewhat larger, with 21,000 inhabitants, is a modern town on the south, one of the chief naval stations, with a dockyard, arsenal, and convict prison. It lies on the Charente, a few miles above its mouth, and may be reached by the largest vessels. Here Napoleon I., after Waterloo, gave himself up to Captain Maitland of the *Bellerophon*. *Saintes*, higher up the river, represents the Roman *Santonum*, and has a well-preserved Arch of Triumph, with remains of an amphitheatre. *Cognac*, on the ascending course of the stream, is a small place with a well-known name, given to the brandy manufactured from the produce of its vineyards. *Angoulême*, on the still upward banks of the river, is finely situated on a hill, in a district of paper-mills, and has many pleasant features, with a prominent place in history. It was the residence of the Black Prince after the battle of Poitiers, and retained to the present century a Chandos gate, built by Lord Chandos, a leader in the battle. The town was the refuge of Calvin, and the birthplace of the accomplished Margaret of Valois. Two assassins, likewise, figure in the list of natives—Poltrot, who shot the Duke of Guise before the walls of Orleans, and Ravaillac, who stabbed Henry IV. in the streets of Paris.

The inland provinces of MAINE, ANJOU, TOURAINE, and ORLEANNAIS, include a highly-favoured portion of the country, centrally traversed by the Loire from east to west, which receives within its limits the Cher, Indre, and Vienne, on the left bank, with the confluent Mayenne and Sarthe on the right. It is studded with important towns and cities, rich in cornfields, acacia-hedges, and beautiful landscapes along the course of the leading river, and rife with memories of the past, often connected with picturesque old castles more or less dilapidated. Some of the tributaries of the Loire flow through tracts clothed with heath and broom, the very plant, *genista* (Fr. *genêt*), which originated the name of Plantagenet, from a sprig having been worn by Geoffrey, Earl of Anjou, father of our Henry II., the founder of the dynasty in England.

Le Mans, once the capital of Maine, is seated on the Sarthe, and has a population of 31,000, engaged in manufactures, but more largely in exporting agricultural produce and poultry to the metropolis. Its cathedral, of mixed Gothic and Romanesque architecture, contains the tomb of Berengaria of Sicily, wife of Richard Cœur de Lion, and a few other antiquities. *Laval* and *Mayenne*, both on the river Mayenne, are smaller, but more manufacturing, producing linen and cotton goods. *Angers*, the former capital of Anjou, with 41,000 inhabitants, occupies a very favourable position, being situated on the united streams of the Mayenne and Sarthe, just below their junction, and near their confluence with the Loire. It has been extensively modernised, but retains many buildings of the middle ages, churches and timber-framed houses, with an old castle of vast dimensions, now used as a prison, a barrack, and store for ammunition. A respectable public library, museum of painting and sculpture, and a cabinet of natural history, with a botanic garden and pleasant walks, are modern appointments. Margaret of Anjou, the indomitable queen of Henry VI. of England, was interred in the cathedral, but the tomb has been destroyed. Lord Chatham and the Duke of Wellington, in the early part of their career, were connected as students with a military academy in the city. Extensive nursery-grounds distinguish the vicinity, and vast slate-quarries, the produce of which is sent to almost all parts of France. The local use of the material originated the epithet of 'black Angers,' in allusion to its sombre hue, but in recent times a different building-stone has relieved its aspect. *Saumur*, on the south-east, stands directly on the Loire, and is one of its most cheerful-looking towns, being built of a very pure white stone, and situated in a district of vines, orchards, walnut-trees, and luxuriant corn-fields. It lost its industrious Protestant artisans by the revocation of the Edict of Nantes, and has now little more than half the population it possessed two centuries ago. Monuments of huge unhewn blocks, supposed to be Druidical, and among the most remarkable of the kind in Europe, are found in the neighbourhood.

Tours, from which the province of Touraine derived its name, a duchy bestowed as an appanage on Mary Queen of Scots and her French husband, occupies the south bank of the Loire at the influx of the Cher, and has long been a favourite place of abode with the English, having a considerable number of good houses. The population, 35,000, is vastly inferior to what it was before the intolerance of Louis XIV. drove the

Huguenots away, many of whom were silk-weavers, who emigrated to England, and settled in Spitalfields. The town is of ancient date. It had St Martin of Tours for the first metropolitan in the fourth century, who founded a vast cathedral, in which Gregory of Tours, another prelate, was buried. Only two of its towers remain; the others were destroyed at the Revolution. In the middle ages, the concourse of pilgrims to the place was so great, that the town was increased to ten times its ordinary inhabitants. The newer cathedral of St Gatien is richly decorated. The stronghold of Plessis-les-Tours, described in *Quentin Durward*, where lived and died the politic and astute Louis XI., is a few miles distant, but reduced to a fragment. At Metray, also a contiguous site, a voluntary establishment for the reform of juvenile offenders has deservedly acquired great repute. *Amboise*, a small old town, higher up the river, retains its historic castle, long a royal residence, inherited by Louis-Philippe, and made the prison of the renowned Abd-el-Kader. *Chinon*, on the Vienne, has a castle of equal interest, which has been styled the French Windsor of the early Plantagenets, now a huge ruin, with but few remains of their date except some substructions. It occupies a commanding height, and overlooks a fine view of the river sweeping round its base, and onward towards its junction with the Loire, with a wide extent of diversified country. This was the favourite continental residence of Henry II.; here he ended his days, and was interred in the great Abbey of Fontevrault, situated in a picturesque dell in the direction of Saumur. A recumbent effigy was placed on the tomb; similar monuments were subsequently raised for his queen, for Richard Cœur de Lion, and for the queen of John, who were buried at the same place. The exterior of the abbey remains entire, but the interior is wholly changed, having been converted into a prison. The royal tombs are no longer in their original position, and the monumental effigies, though still preserved and of great interest, have been more or less defaced by wanton violence.

Orleans, of Roman origin and high celebrity, ranking for a time as the capital of the French monarchy, is seated on the north bank of the Loire; seventy-six miles south by west of Paris. The city contains a population of 43,000, and is a centre of extensive trade, but has few objects of attraction or interest in keeping with its historic distinction. The great event in its annals is the appearance of Joan of Arc for its relief, April 29, 1429, when beleaguered by the English; she compelled them to raise the siege, and acquired thereby the style of the Maid of Orleans. The tide of foreign conquest which had been advancing into the heart of the land under the Bedfords and Talbots, was then and there checked, and constrained gradually to recede from the whole country. Memorials of the heroine in this the scene of her first triumph are unimportant. *Blois*, venerable and decayed, is lower down the river, and has a partially restored castle presented by the municipality to the Prince Imperial, and accepted for him by Napoleon III. Popes, kings, princes, and cardinals have resided in it; assassinations have been authorised and executed within its walls; and it has been used in the present century as a barrack. *Chartres*, on the banks of the Eure, is in the heart of the corn-growing plain of La Beauce, and has one of the largest corn-markets in France. The cathedral is equally distinguished by its vast size and elegance. At Bregigny, an adjoining village, the treaty was concluded in 1360, by which Edward III. renounced all title to the French crown, but retained his conquests.

The limits of the ancient NIVERNAIS, BOURBONNAIS, BERRY, MARCHE, LIMOUSIN, and AUVERGNE, include a considerable part of Central France, traversed by the upper Loire and its affluent the Allier, with the tributary waters of the Cher, Indre, Creuse, and Vienne, and also by streams descending southerly to the basin of the Garonne. This region is intersected by elevated and rugged mountains, studded with extinct volcanic cones, and comprises varied scenery, bold, romantic, quiet, and pastoral. The towns are mostly of very moderate size, invested with but little historical notoriety, and generally of mere local influence.

Nevers, on the Loire, produces pottery and ironwares; and has a cannon foundry for the navy. *Moulins*, on the Allier, was the residence of Lord Clarendon in exile, where he wrote part of his *History of the Rebellion*; the birthplace of Marshal Villars, the opponent of Marlborough; and is the scene in which Sterne has laid his story of Maria. *Vichy*, a much-frequented watering-place, with eight principal mineral-springs alkaline and acidulous, occupies a beautiful valley higher up the same stream. *Bourges*, an ancient, dull, and genteel city, on rising ground between the Evre and Auron, which here unite, contains 20,000 inhabitants, and has a remarkably fine cathedral and Hotel de Ville, the latter formerly the private residence of a citizen. *Chateauroux*, on the Indre, an industrial site, has extensive manufactures of cloth sustained chiefly by the fleeces of the neighbourhood. *Limoges*, the largest town of the whole district, with a population of 41,000, is seated on the upper course of the Vienne. The production of porcelain, made of the kaolin or pure white porcelain clay obtained in the vicinity, gives employment here to great numbers; and horses are reared on the pastures for the use of the French army. Vergniaud, the leader of the Gironde, who became one of Robespierre's victims, was a native of the town, so were Marshals Jourdan and Bugeaud, and the celebrated surgeon Deputytren. The town was taken by storm in the wars of the Black Prince, who sullied his name by giving no quarter to the inhabitants. At *Chalus*, an adjoining place, while besieging it, Richard Cœur de Lion met with his mortal wound. *Clermont*, with 29,000 inhabitants, is chiefly of interest from its situation, in the heart of the volcanic region of Auvergne, at the foot of the Puy de Dôme. It is built of the dark-coloured lava quarried in the vicinity, the sombreness of which is to some extent concealed by whitewash. One of

the squares has a monument in honour of General Desaix, a native. Pascal and Delille are also commemorated, born in the neighbourhood. The town is celebrated for the great council held in it in 1095, convened by Pope Urban II., who presided, which led to the Crusades.

The LYONNAIS comprises a small section of the country on the west bank of the Rhone, extending from thence beyond the Loire, intersected from south to north by the narrow chain of the Cevennes Mountains. Within its limits the first-named river receives its most important affluent, the Saône; and makes the great bend in its course from west to south, flowing to the sea through a rich and sunny valley, comparable to that of the Rhine for beauty and variety of scenery. Great names were associated with the district in the remote past; among them the Emperors Augustus and Severus by residence, of Germanicus and Claudius by birth. In the second century of Christianity, it was the scene of the life, labours, and martyrdom of Irenæus and Pothinus, both Asiatic Greeks, and disciples of the apostles, whose sufferings are related in a document of the period—the Epistle of the Churches of Lyon and Vienne to the Brethren in Asia and Phrygia, of unquestionable authenticity. In the middle ages, it was the frequent home of Charlemagne, the camping-ground of his Paladins and the army. The Lyonnais was the head province of Celtic Gaul during the Roman period, and is now the principal provincial seat of French industry and art.

Lyon, the second city of France in extent and commercial enterprise, and the first in manufactures, supplied the territory with a name. It is splendidly situated at the confluence of the Rhone and Saône, 316 miles south-east of Paris by railway, and 218 miles north by west of Marseille. It occupies both banks of either river, but the largest portion lies in the space intervening between them; and contains a population of more than 300,000, including the suburbs. Seven bridges cross the Rhone, and twelve lead over the Saône. Its quays, 28 in number, are among the most remarkable in Europe. Directly on the right bank of the Saône rise the heights of Fourrières, at the base of which the stream describes a grand segment of a circle. The abrupt eminence, crowned by the Church of Notre Dame, is generally the first spot to which every new-comer directs his steps, on account of the magnificent view to be obtained therefrom. The vast city is spread out at the feet of the spectator, whose eye can follow the rivers to their junction. Immediately beyond are suburban residences, backed by the plains of Dauphiné and the hills of Savoy, while on the far eastern horizon, in clear weather, the hoary head of Mont Blanc may be discerned, at the distance of nearly a hundred miles. Lyon, though of ancient date, with the name of *Lugdunum* in Roman times, is essentially the creation of a recent era, as most of the buildings were reduced to ruins, and the inhabitants literally exterminated in 1793, for opposing the Terrorists of the Revolution. It has also suffered much from the inundations of 1840 and 1856, and from the riots of the operatives in 1831 and 1834. It possesses the best provincial library in France (130,000 vols.), a well-arranged museum, numerous charitable institutions, three great public squares, several new spacious streets after the Paris fashion, with many narrow, irregular, and dirty thoroughfares in the manufacturing quarter. Like the capital, it is encircled with detached forts, eighteen in number, raised in consequence of the revolts of the workmen in 1831 and 1834. The circle of the fortifications is thirteen miles. Its staple industry, the silk manufacture, embraces the production of the richest and the most current fabrics; and employs 100,000 hands; but cotton, woollen, and other goods are also made, with jewellery, silver and gold lace, and chemical preparations. The silk-weavers work in their own houses, and live chiefly in a suburb by themselves, but there are important factories in the environs. The men have the soubriquet of *canuts*, the origin of which is uncertain, but referred by some to the word *cannelle*, signifying a bobbin. A workwoman is a *canuse*. Jacquard, the inventor of the silk-loom called after him, was a native of the city. The manufacture was formally naturalised in France by letters-patent of Louis XI., dated from Orleans, December 22, 1466; and took up its abode at Lyon in the early part of the following century, owing to the settlement there of some Italian refugees. *St Etienne*, on the south-west, in a region of coal-mines, is a prosperous town of 71,000 inhabitants, but only distinguished by the extent of its industries and their dissimilar nature. It is the great seat of the production of ribbons and firearms. The ribbon-manufactories contain 30,000 looms, and the annual value of their produce is £2,375,000. Its firearms manufactory supplies most of the muskets of the French army. It has also extensive manufactures of bayonets, scythes, nails, saw-blades, foils, anvils, &c.

The territory of BURGUNDY, formerly a duchy, now distributed into four departments, is on the north of the preceding district, and belongs largely to the river-basin of the Saône, also to a small extent to that of the Loire, embracing also the upper waters of the Seine, and nearly the whole course of its affluent, the Yonne. It has little variety of surface, but includes the northern extremity of the Cevennes, with the range of the Cote d'Or, a link

connecting them with the Vosges. This range has only a very moderate elevation, and is wholly devoid of picturesqueness, terminating upward in a table-land. But it is very celebrated for its vineyards, to the rich produce of which the name may refer, or to the golden colour of the soil, the prevailing hue being a yellowish red. Burgundy has long been famous for its fine wines, both red and white growths, besides producing a large quantity of ordinary quality. The red wines are distinguished by their brilliant colour, delicate flavour, strength, and rich bouquet. Cherry, almond, and walnut trees are sprinkled in many of the vineyards, and crops of clover and maize are raised.

Dijon, the old capital of the duchy, occupies a plain at the confluence of two small affluents of the Saône, and numbers 32,000 inhabitants. Its principal features are numerous churches, several of which have lost their proper office, and are exclusively devoted to secular purposes; the ducal palace, now the *Hôtel de Ville*, contains a very rich museum; a public park, designed by Le Nôtre for the great Condé; and extensive promenades which environ the whole place with a belt of trees. Some of the best Burgundian wines are produced in the neighbourhood, especially at Vougeot. The vineyard here originally belonged to the adjoining Abbey of Cîteaux, and was cultivated by the monks for their own use. The site of this famed ecclesiastical establishment, the head-quarters of the Cistercian order, where St Bernard assumed the cowl, is about twelve miles south of Dijon. In the days of its prosperity it possessed more than 3000 dependent convents, and gave four popes to Rome. The buildings remain, but are appropriated to the reform of juvenile offenders. *Chalon-sur-Saône*, a small neat town, is at the head of the steam-navigation of the river, here connected with the Loire by the *Canal du Centre*. *Macon*, lower down the stream, the birthplace of Lamartine, is the centre of an extensive wine trade. *Bourg*, on an affluent, claims the astronomer Lalande for a native. *Autun*, pleasantly situated on a stream which joins the Loire, was for a time the diocese of the celebrated Talleyrand. The town is of Roman origin, and contains many ancient remains. *Auxerre*, on the left bank of the Yonne, and *Sens*, lower on the river, have both cathedrals which are much admired. The Yonne is largely used in the transport of the wines of Burgundy to Paris. Some of its sources lie in the high grounds of Le Morven, an extensive tract of forest, the home of many wild animals; the timber of which is floated down the river to the Seine, and supplies the capital with fuel. This woodland tract includes upwards of 200,000 acres, and contains shallow and extensive meres, or pools of water. During the great heats of summer, animal life is still in the woods by day, but no sooner have the shades of evening gathered, than their wild inhabitants—especially wolves, wolverines, and wild-boars—slake their thirst and look out for food. *Vezelay*, on the northern skirts of the forest, now a poor decayed place, gave birth to Theodore Beza, the theologian and reformer; and Vauban, the great military engineer, was born in a village of the woodland region. At the town named, St Bernard preached the second crusade, in an open field, in which Louis VII. and his nobles engaged, in 1146. Philip Augustus and Richard Cœur de Lion repaired to the same spot in 1190 formally to devote themselves to a similar enterprise.

The adjoining district of FRANCHE COMTE lies on the eastern frontier of France, and formerly belonged to the Germanic empire. It embraces the valley of the Upper Saône, the course of the Doubs, its principal tributary, and the western side of the Jura Mountains, which form the dividing-line from Switzerland. These natural features give names to the three departments. The highest peaks of the Jura rise to 6000 feet, and are clothed with magnificent pine-woods. The range is composed of a peculiar limestone, which abounds with caves, containing stalactital formations and the remains of extinct animals. Its slope, the gentlest on the French side, gives rise to scenes of great natural beauty, and yields abundance of grass. Hence, grazing husbandry is the main pursuit of the inhabitants, who associate in small companies to convert their milk and cream into cheese at a common central establishment, and proportionably divide the product. In other parts of the territory the wine and mineral produce is considerable.

Besançon, the only town of importance, a fortress of the first class, contains 31,000 inhabitants, largely engaged in watch-making, an industry imported from Switzerland. It stands on the Doubs, which, at this point, and in other parts of its course, is a doubling or winding river answering to the descriptive name. The stream nearly encloses the old portion of the place, and was accurately represented by Cæsar as curving like a horseshoe round the ancient Vesontio. Besançon is the see of an archbishop, has a cathedral, a large public library (80,000 volumes), an arsenal, military and medical schools, and an hospital. *Lons-le-Saulnier* and *Salines*, as the names indicate, are distinguished by brine-springs and salt-works. *Pontarlier*, near the Swiss frontier, occupies an elevated site on the Jura, beyond which is the defile leading through the chain, commanded by a strong fort. Within its walls the unfortunate Toussaint L'Overture, carried off from St Domingo by order of Napoleon I., was immured in a miserable cell till his death.



Amphitheatre at Nîmes.

III. SOUTHERN FRANCE.

Old Provinces: Date of Union with France.	Modern Departments.	Area in Sq. Miles.	Principal Towns.
GUIENNE (Charles VII., 1451),	Aveyron,	3340	Rhodesz, Villefranche.
"	Lot,	2004	Cahors.
"	Dordogne,	3492	Perigueux, Bergerac.
"	Tarn et Garonne,	1405	Montauban, Moissac.
"	Lot et Garonne,	2027	Agen.
"	Gironde,	3714	Bordeaux, Libourne.
GASCONY (Charles VII., 1451),	Les Landes,	3490	Mont-de-Marsan.
"	Gers,	2390	Auch.
"	Pyrénées (Hautes),	1730	Tarbes, Bagnères-en-Bigorre.
BEARN and NAVARRE (Louis XIII., 1610-43),	Pyrénées (Basses),	2862	Pau, Bayonne, Biarritz.
FOIX (Louis XIII.),	Ariège,	1738	Foix, Pamiers.
ROUSSILLON (Louis XIV., 1659),	Pyrénées (Orientales),	1571	Perpignan.
LANGUEDOC (John, 1361),	Ardèche,	2110	Privas, Annonay.
"	Loire (Haute),	1900	Le Puy.
"	Lozère,	1965	Mende.
"	Gard,	2256	Nîmes, Beaucaire.
"	Hérault,	2382	Montpellier, Beziers, Cette.
"	Tarn,	2185	Alby, Castres.
"	Garonne (Haute),	2529	Toulouse.
"	Aude,	2340	Carcassonne, Narbonne.
PROVENCE (Louis XI., 1481),	Rhone (Bouches-du),	1956	Marseille, Arles, Aix.
"	Alpes (Basses),	2600	Digne.
"	Var,	2773	Draguignan, Toulon, Hyères.
AVIGNON and ORANGE (Louis XIV., 1713),	Vaucluse,	1328	Avignon, Carpentras, Orange.
DAUPHINE (Philip de Valois, 1343),	Isère,	3163	Grenoble, Vienne.
"	Drôme,	2508	Valence, Romans.
"	Alps (Hautes),	2114	Gap, Briançon.
SAVOY (Napoleon III., 1861),	Savoie,	2479	Chambery, Moutiers.
"	Savoie (Haute),	1743	Ancecy, Chamouni.
NICE (Napoleon III., 1861),	Alpes Maratimes,	1621	Nice, Mentone, Grasse, Cannes.
CORSICA (Revolution, 1794),	Corse,	3331	Ajaccio, Bastia.

GUIENNE, an extensive maritime region on the south-west, favoured with a warm atmosphere and sunny sky, originally formed a principal part of the 'fair duchy' of

Aquitaine, of which name Guienne is a corruption, and was long connected with the English crown, to which it became attached by the marriage of Eleanor of Aquitaine to Henry II. Plantagenet, in 1152. It is generally a highly-cultivated and well-watered plain, traversed from south-east to north-west by the great stream of the Garonne, and intersected by its most important tributaries, the Dordogne, Lot, and Tarn, which respectively give names to the modern departments. Vines clothe the banks of the rivers, and old castles in ruins, associated with many a siege and foray in the middle ages, are numerous along their course. Besides a large quantity of ordinary wines, the best clarets are here produced, in the apparently unpromising district of Medoc, a long narrow strip of country in the peninsula formed between the estuary of the Garonne and the Atlantic, slightly raised above the level of the river, and abounding with shallow pools which render it unhealthy. The soil, consisting only of sand and pebbles, seems incapable of sustaining vegetation of any kind, yet it favours the vine and is said to retain the solar heat about the roots, after sunset, thereby promoting fructification by night as well as by day. But so uncertain is the adaptation of the ground, or capricious the plant, that it flourishes and degenerates in the locality within a very circumscribed space. In average seasons the total produce of Medoc amounts to 150,000 hogsheads and upwards.

Bordeaux, the capital of the ancient duchy, is the second port of France, and its fourth city in point of population, it contains 149,000 inhabitants, is seated on the left bank of the Garonne, about 70 miles from the Atlantic, and 360 south-west of Paris. The noble river, upwards of a quarter of a mile broad, and deep enough to receive first-class vessels, describes a curve at the spot, which gives a crescent-shaped outline to the city, with three miles of magnificent quays lined with houses, chiefly in the Italian style, indicative of great opulence. It is crossed by a stone bridge of seventeen arches, the finest in France, completed by a public company in 1821, and by another for the railway opened in 1861. It is the see of an archbishop, the seat of a national court, has a public library of about 130,000 volumes, and several important educational institutions. Though essentially a great trading mart, the place has quite as much of a courtly as a commercial air. It consists of two parts. The modern and northern town follows the line of the river, and is built in a very splendid manner. The other, ancient and southern, is separated from it by streets generally running east and west. Passing from the former to the latter, the squares and terraces of the current epoch are left for the narrow streets of the fourteenth century, containing houses with peaked gables, projecting eaves and balconies, covered with quaint carvings—'the true middle-age tenements, dreadfully rickety, but gloriously picturesque—charming to look at, but woeful to live in.' Wines, brandy, and dried fruits are the principal exports, sent in immense quantities to the northern European and transatlantic countries. England is the great market for the highest priced wines. Those of inferior quality go to Holland, or are retained for home consumption. The cellars of the chief merchants are of enormous extent, and always have several thousands of casks in stock. Bordeaux, while in the hands of the English, had a splendid viceregal court under Edward, the Black Prince. Here he entertained the fugitive Don Pedro from Spain, whose two daughters married the prince's brothers, John of Gaunt and the Earl of Cambridge. His own son, afterwards Richard II. of England, styled Richard of Bordeaux, was born here and baptized in the cathedral. The city, in 1553, had Montaigne; the essayist, for its mayor, and possesses in the public library a copy of the essays with annotations from his own hand. It sent some of the most eloquent and virtuous members to the national assemblies during the Revolution, who obtained the name of Girondists from that of the department.

Libourne, in the neighbourhood, on the Dordogne, neatly built, was one of the Bastides or free towns, often called English towns, from having been founded chiefly by Edward I. A little lower down the valley of this river the battle was fought in 1453, in which the aged Lord Talbot, 'the Frenchman's only dread, their kingdom's terror,' while contending with a vastly superior force, was defeated and slain. The event led to the surrender of Bordeaux, and the expulsion of the English from Guienne. *Perigueux*, seated on the Isle, produces the pâtés prized by gourmands, made of partridges and truffles. *Agen*, agreeably situated on the Garonne, surrounded with plum orchards, supplies Europe with their dried produce so well known under the name of prunes. Sealiger, the younger, renowned for his learning, was born here, with Palissy, an inventor in pottery, and Lacépède the naturalist. *Cahors*, on the river Lot, is conspicuous in the career of Henry of Navarre, for its surprise and capture by him after a very desperate resistance. It was once governed by prince-bishops, and possesses a beautiful cathedral. *Montauban*, the largest town of the district after Bordeaux, contains 17,000 inhabitants, engaged in woollen and other manufactures. It has long been distinguished as one of the principal strongholds of Protestantism in France, and contains a Protestant college. From the banks of the Tarn on which it is situated, a wide rich plain extends to the foot of the Pyrenees, the snowy tops of which are seen on the southern horizon.

The district once known as GASCONY occupies the south-west corner of France (except

the nook of the Basses Pyrenees), reaching as far inland on its southern base as the Central Pyrenees. It embraces several tributaries of the Adour and the Garonne, has rich plains towards the mountains, but its principal feature is the flat, strange, wild, and melancholy-looking Landes—a region of furze, heather, white sand, pine and fir trees, occupying the sea-shore, with an interior breadth varying from narrow limits to an extension of from forty to fifty miles. This singular country is dotted with pools and streaked with ditches of stagnant water; interspersed also at intervals with patches of barley and maize; and towards the boundary-lines, its aspect is varied and improved by a sprinkling of alder-trees and acacias. Its animal tenants are flocks of ill-conditioned sheep, some black goats, and a few cows, shewing little more than skin and bone. Human habitations in this wilderness are few and far between, all of very primitive construction, mere skeletons, indeed little superior to the huts and wigwams of savage tribes.

Mont-de-Marsan, head of the department of the Landes, enjoys some commerce, but is wholly unimportant. In the district the peasantry are shepherds, clad in sheepskins, or wearing woollen garbs of the coarsest kind. They exhibit an odd phase of life to the stranger, that of being mounted on stilts when abroad, by which means they stalk over the prickly bushes and drifting sands without inconvenience, and gain a sufficient elevation which enable them to overlook their sheep at a distance. These stilt-walkers can, with little exertion, describe distances in the same time as a horse kept at a quick trot; and by the aid of a long pole stuck in the ground as a support for the back, they can rest, knitting stockings the while, for hours together. They are of diminutive stature, inferior intellect, endure severe privations, but are contented with their lot. 'France,' it has been said, 'may vibrate with revolution—the shepherds of the Landes feel no shock, take no heed, but pursue the daily life of their ancestors, perfectly happy in their ignorance, driving their sheep or notching their trees in the wilderness.' The timber and rosin of the pine-woods are valuable; and large vacant spaces in the sandy waste have been planted by the government. *Auch*, on the Gers, flowing into the Garonne, is seated on the slopes of an eminence which commands a fine view of the Pyrenees. *Tarbes*, on the Adour, has 13,000 inhabitants, and crowds of summer visitors passing on to the mountains, which are in full view from the town. *Bagnères-en-Bigorre*, higher up on the river, at the base of noble peaks, is one of the principal Pyrenean watering-places, and nearly doubles its population in the visiting season, from the close of June to the end of September. The town, very pleasing in itself, is surrounded with luxuriant verdure and splendid scenery, and has hot saline waters, with a chalybeate spring in the vicinity, a rare occurrence in the district. Beautiful marbles, green, flesh-coloured, and blood-red, are worked up into tables, chimney-pieces, vases, and other ornamental objects. Most of the females are employed in knitting useful and fancy articles for sale. *Barèges*, in a mountain valley, 4180 feet above the sea, is the loftiest of the Pyrenean bathing-places, the most celebrated for the curative virtue of its mineral springs, but is a very cheerless spot owing to the elevation. Upon the approach of winter the greater portion of the inhabitants withdraw, and return in spring to find their houses deeply imbedded in snow from the avalanches. Southward, *Mont Perdu* rises to the height of 11,168 feet, and on the south-west, *Vignemale* attains a nearly equal altitude. The material for ladies' dresses which bears the name of the place, *barèges*, is not made there, but in other towns of the department.

Gascony, the ancient *Vasconia*, acquired the name from its inhabitants, the Vasques or Basques, a portion of whom, being driven out of Spain, were here subdued by the Franks. The habit of vain boasting, characteristic of the people, led to the term Gascon being employed in French to denote a braggart, whence *gasconade*, significant of extravagant speech, which has become a naturalised expression in our own language. Many anecdotes are current of this propensity. 'Ah,' said one, on being shewn the colonnade of the Louvre, 'it's not bad; it resembles pretty closely the back part of the stables at my father's castle!'

BEARN and NAVARRE comprise the south-western angle of France between the river Adour, the Pyrenees, and the sea. It once constituted a small kingdom, the sovereign of which fought his way to the French throne, and became the 'Bon Roi,' Henry IV.

'A single field hath turned the chance of war,
Hurrah! hurrah! for Ivry, and Henry of Navarre.'

The Nivelle flows within its limits to the ocean; the Gave-de-Pau passes by Orthez to join the Adour; the Bidassoa forms part of the frontier from Spain; all streams which were the scenes of severe fighting and masterly strategy in the campaigns of Wellington.

Pau, formerly a seat of royalty, is now a small town, very splendidly situated on the wooded banks of the Gave, with some of the grandest masses and highest peaks of the mountain-chain contiguous to it. The dry mild climate renders it a favourite winter residence with invalids. It is distinguished as the birthplace of Henry IV., and of Bernadotte, king of Sweden. The former, a prince of the younger line of the Bourbons,

was born in the castle, which remains at present the principal building. The latter, the son of a poor tradesman, began life in a mean house of an obscure street. Of these two natives, by a curious coincidence, Henry recanted Protestantism and became a Catholic in order to gain a crown, while Bernadotte renounced Catholicism, and became a Protestant, with the same object in view. The two bathing establishments of Eaux-Bonnes and Eaux-Chaudes, small but fashionable, nestle near each other in the lap of the mountains, about twenty-five miles to the south of Pau. They have hot sulphureous waters, and are frequented by many visitors from Spain. The thermal springs of the Pyrenees issue generally near the junction of primitive rocks with secondary formations. They were known to the Romans and used by them. *Bayonne*, a seaport on the left bank of the Adour, near its mouth, contains a population of 19,000, including a suburb on the opposite side of the river, in the department of the Landes, where there is a large number of Jews. It is very strongly fortified, commanding the western passes across the mountains into Spain, and has considerable commerce with that country in the import of wool. A military weapon, the bayonet, obtained its name from Bayonne, where it was first made by the armourers. But the idea originated with some Basque soldiers, who, in an action with the Spaniards, when their ammunition was spent, used their long knives thrust into the barrels of their muskets. *Biarritz*, five miles distant, directly on the coast, not long ago an insignificant hamlet, which no wheeled vehicle had ever reached owing to the sand-hills, has now its beaten highway, first-class hotels, and Villa Eugénie, as the marine retreat of the imperial court. French, Spanish, English, German, and Russian families are in residence during the season. The place has naturally neither trees nor grass; but it has the charm of seclusion, a smooth sandy beach, and a delightful climate, as the sea-breeze constantly modifies the summer heat. Chalk-cliffs overlook a vast range of the ocean, and rocks project far out to sea from the shore, against which the waves dash with magnificent effect.

FOIX and ROUSILLON are two small provinces which divided the country between them at the base of the eastern division of the Pyrenees. The former was feudally held by a chivalric line of nobles from the middle of the eleventh to the beginning of the sixteenth century. The latter was long a possession of the kings of Arragon. From the slope of the mountains the Ariège flows northerly to join the Garonne, and the Tet eastwardly to enter the Mediterranean.

Foix, on the first-named river, a very small place, with ironworks in the vicinity, retains the castellated stronghold of its counts, picturesquely seated on an isolated rock, three towers of which are well preserved. Gaston de Foix, the third of the race, called, on account of the beauty of his person, *Phœbus*, distinguished himself in the war of the *Jacquerie*, an insurrection of the peasants. He was inordinately attached to the chase, and is said to have kept 1600 dogs. He also wrote a work on the subject, entitled *Miroir de Phœbus des devoirs de la Chasse des Bestes Sauvages et des Oyseaux de Proye*, which was very popular in the sixteenth and seventeenth centuries. He likewise entertained Froissart, and supplied him with materials for his chronicles. The last and most brilliant of the line, of the same name, triumphed against the Swiss, the Venetians, the Pope, and the Spaniards, acquired the title of the 'Thunderbolt of Italy,' and fell in the hour of victory at the great battle of Ravenna in 1512, when only twenty-three years of age. *Perpignan*, on the Tet, a few miles from the Mediterranean, of Spanish origin and structure, with 18,000 inhabitants, is only distinguished by a fortress of great strength, guarding the eastern passes of the Pyrenees. Arago, the celebrated astronomer, born in the neighbourhood, watched the great solar eclipse of 1842 from the citadel, with a band of *savans* from Paris.

The valley of the Ariège ascends the heights nearly to the crest of the main chain, which is crossed by a pass leading into the territory of Andorre, in Spain, belonging to the basin of the Ebro, but a semi-independent district. It consists of three mountain valleys, the inhabitants of which have a republican form of government, and have enjoyed it since the days of Charlemagne. They are ecclesiastically subject to the Spanish Bishop of Urgel, but are under the protection of the sovereigns of France, to whom a small annual tribute is paid. The little capital, *Andorre*, is a mere village; the total population of the valleys is about 8000; the area of the state amounts to 190 square miles; the produce consists of wood and iron, which the mountaineers exchange for corn and other necessaries of life.

The great plain of LANGUEDOC, subject in the middle ages to the powerful Counts of Toulouse, extends from the borders of the Pyrenees to the volcanic region of Central France. It belongs chiefly to the basins of the Garonne and Rhone, but embraces the upper waters of the Loire, and has a coast-line on the Mediterranean. Nearly the whole district is highly fertile, carefully cultivated and thickly peopled, abounding with corn-fields, orchards, vineyards, olive and mulberry plantations. But the landscape is in many parts excessively monotonous, and in the heat of summer its aspect becomes perfectly arid. Every patch of green disappears, except where there is copious irrigation, while the slightest breeze loads the atmosphere with dust, which besides distressing the wayfarer, covers every object with its dull uniform livery.

Toulouse (ancient *Tolosa*), a large but not a handsome or interesting city, lies in a very flat country, occupying both banks of the Garonne, close to the junction of the Canal du Midi with the river, and contains a population of 91,000. It is the centre of extensive provincial trade, has large steel-works, a cannon foundry, manufactures of woollen and other fabrics, with markets abundantly supplied with rich fruits, bearing witness to the fertility of the neighbourhood. Toulouse has a national court, a tribunal of commerce, a school of artillery, a famous academy of 'floral games,' and a great variety of educational institutions. In the immediate environs, within view of the inhabitants, the severely-contested battle between Wellington and Soult was fought, April 10, 1814. An obelisk of brick on the field commemorates those who fell on the French side. Colonel Forbes has also a monument on the site, and several tablets bearing English names are in the Protestant church of the city. *Cette*, an enterprising town and port of the Mediterranean, is the shipping place for the produce of Languedoc, connected with the Canal du Midi, which was constructed for the purpose of bringing it down to the sea. This great work, 150 miles in length, was commenced in 1666, nearly a century before any similar design was entertained in England, and executed in less than twenty years. A railway now runs nearly parallel with it, passing *Carcassonne*,



La Puy.

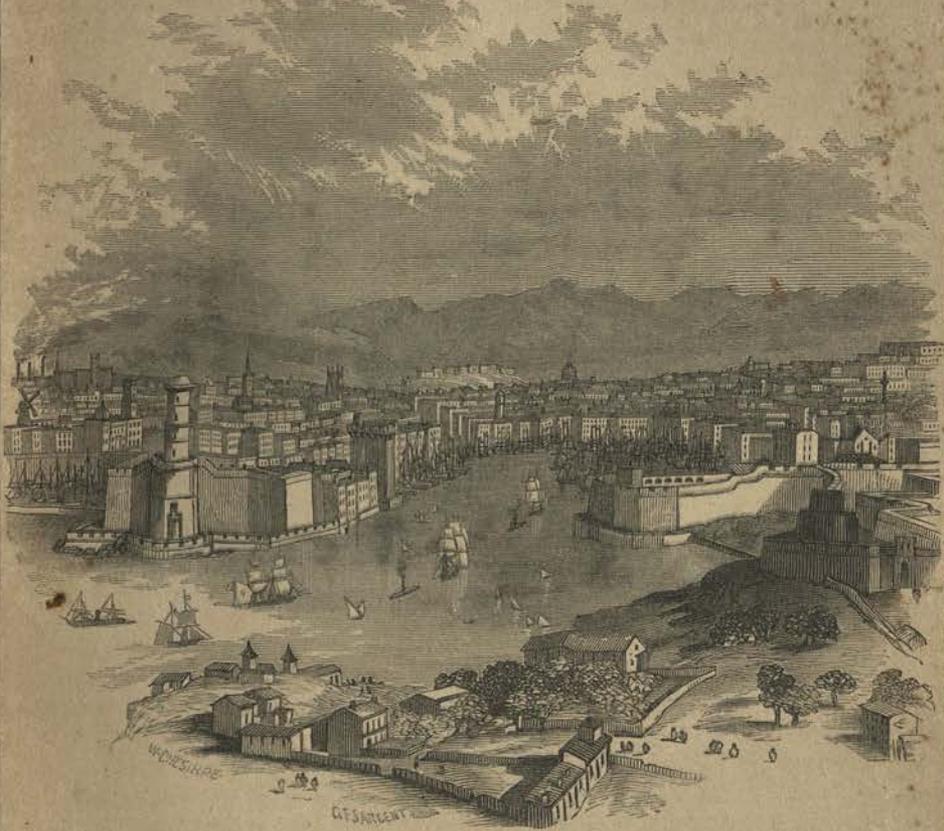
a busy clothing town, with a tall church-tower on the meridian of the Paris Observatory, about midway. *Beziers* and *Narbonne* are also on the railway, but in the maritime district. The latter, one of the earliest Roman colonies planted in Gaul, of great renown in history, has no ancient remains of consequence or appearance answering to its former importance. It is now celebrated for its honey. *Montpellier*, five miles from the sea, but artificially connected with it, contains 39,600 inhabitants, and long attracted invalids to a residence by the fame of its position and climate, advantages which were exaggerated. It has fine features in the suburbs and walks, various literary and scientific establishments containing objects of interest, but is essentially a manufacturing town, specially excelling in the preparation of chemicals. Large ornamental houses and wide streets have risen up towards the railway-station.

Nîmes, further inland on the north-east, contains a population of 50,000, and is actively commercial, producing silk and cotton goods, possessing also print and dye works, and trading in the oil and wine produce of Languedoc. It has a cathedral, and fifteen churches, and a fine library. But the prime feature of the city is the number and extent of its remains of antiquity, as the Nemausus of the Romans. They include a large amphitheatre in which bull-fights have recently been held, a Grecian temple in very pure style, ruins of a Nymphæum connected with adjoining baths, two of the original Roman gates, and the Pont du Gard, a magnificent aqueduct of three tiers of arches spanning a rocky valley in the neighbourhood, which conveyed the water of two springs to the ancient citizens. M. Guizot the statesman was born at Nîmes, where his father was guillotined during the Revolution. M. Linné, the astronomer, another native, gave the old name of his birthplace, Nemausus, to the fifty-second minor planet, which he discovered, January 22, 1858. About fourteen miles to the eastward, the charming picturesque town of *Beaucaire* occupies the right bank of the Rhone, here crossed by two new beautiful bridges, one for the railway, the other for general traffic. The river-side is the site of an annual fair, still one of the largest in Europe, though declining. It is held between the 1st and the 28th of July, when it terminates at midnight; and assembles an average number of 80,000 persons, who mostly occupy a town of wood and canvas put up for the occasion. Armenians arrive from the Levant, and Moors from Africa. Among the still more inland places, *Annonay* is in repute all over France for its paper; and *Le Puy* is remarkable for its position. It occupies the base and slope of a volcanic rock, the summit of which has a tabular mass of the same material, crowned by the ruins of an old castle, and surmounted since 1860 by a colossal bronze statue of the Virgin, 50 feet high. This was presented by the Emperor, made out of 213 cannon taken at Sebastopol. 'Our Lady of Puy' has been famous for ages, represented by a reputed wonder-working image in the cathedral, of small stature and negro complexion, destroyed at the Revolution, but since replaced. Kings and popes were once devotees at the shrine, and the peasantry still make pilgrimages. Another isolated volcanic rock rises up to a great height above the houses, and gives the name of *L'Aiguille* to the suburb from its needle shape.

PROVENCE, of which the old Troubadours sung as a kind of terrestrial paradise, designated the extreme south-eastern section of the country. It may be defined as ranging along the coast of the Mediterranean from the Rhone to the old Italian frontier, extending inland high up the course of the Durance, a turbulent and fickle feeder of the great river, dependent upon the snows of the Cottian Alps. After the fall of the Roman empire, this district was subject, first to the Kings of Arles, then to the Counts of Provence, who patronised literature, and gave occasion to the term Provençal being applied to the entire dialect of Southern France. A large part of the area is exposed to the climatic disadvantage of scorching heat alternating in summer with the bitterly cold, dry, stormy breath of the *mistral*, or north-west wind, never more violently experienced at Marseille and in the Rhone valley than in 1863. But protected by a chain of hills from the unkindly visitor, while open to the sea-breeze, the climate of the coast region eastward of Toulon is peculiarly delightful throughout the year, and its vegetable productions are richly luxuriant, while tropical in their character. This portion of the surface, which includes nearly the whole department of Var, is a natural garden, to which the eulogies of the Troubadours will apply. As a striking contrast, on the opposite side of the province, the railway from Arles to Marseille crosses for about fifteen miles the singular stony desert of Le Crau, a plain covered with rounded pebbles, some of which are as large as a man's head, but of all sizes less, while the shingle of the sea-beach is scarcely more destitute of vegetation.

Marseille, the principal seaport of France, and its third city in population (219,000), is situated at the corner of a bay of the Mediterranean, with some little islets in front, 410 miles in a direct line, and 530 miles by railway south-south-east of Paris. Its history dates from the sixth century before the Christian era, when it was founded by a colony of Phœceans, with the name of Massalia (Lat. *Massilia*), which became one of the most opulent and literary cities of the Roman empire. No ancient buildings remain, nor any vestiges of them. Recent erections and transformations, still in progress, have also effaced much of its aspect in comparatively late times, and ally the place with the present age. It has a natural and an artificial harbour, the former, an inlet of the sea running eastward into the heart of the city, the latter, named *La Joliette*, formed by a detached breakwater 1224 yards long, running seaward parallel to the shore at the distance of 1312 feet from it; a third, named after the present emperor, is in process of construction. The old town has narrow streets and high piled houses, and quays lined with blocks of handsome houses, on which passengers appear in very varied costumes; cafés which rival those of the capital in splendour; a new exchange, with arrangements similar to those of the

Paris Bourae; a new cathedral in the Italian style; a Prado which is three miles long by the shore; and is enclosed by hills, sprinkled with country-houses, called *Bastides*, of which there are about 9000 in the vicinity, overlooking the city, the port, the curving coast, and the deeply blue waters of the Mediterranean. Marseille has schools of hydrography, medicine, drawing, and music; five



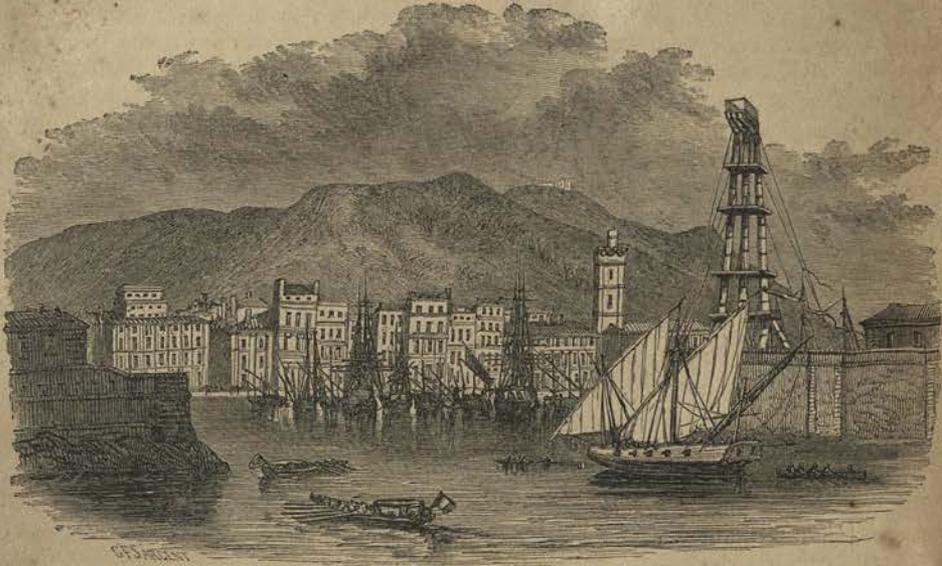
Port of Marseille.

hospitals, an observatory, various learned societies, and institutions. An ample supply of fresh-water for domestic use, as well as for the irrigation of the vicinity, is brought from the Durance by a canal sixty miles long; a stupendous work, commenced in 1830. Lines of steamers are established with the ports of Spain, Algeria, and Italy, and with Alexandria, Smyrna, and Constantinople. The manufactures are very various, and include perhaps most extensively the diverse articles of soap and steam-engines. In 1720, the plague raged at Marseille, and cut off half the population. The citizens welcomed the Revolution with enthusiasm, of which the hymn of Rouget de Lisle, commonly known as the *Marseillaise*, is a lasting expression. A castle on one of the little isles off the port was the prison of Mirabeau, of the Duke of Orleans (*Egalité*), and his younger son.

Toulon, thirty miles to the south-east, is seated on a spacious inlet protected by a ridge of bare heights, and is a first-class naval arsenal, being to France in relation to the Mediterranean what Brest is to the Atlantic, and Cherbourg to the English Channel. It possesses the best of the French dockyards, in which the labourers, who are convicts, generally number full 6000. The town contains 47,000 inhabitants, exclusive of the garrison. It is surrounded by ramparts, ditches, and bastions, has a strong citadel, with forts and redoubts scattered over the heights. Napoleon I. first displayed his military genius at its siege by the republicans in 1793, while a subordinate officer of artillery. *Hyères*, in view of the sea, but three miles from it, marks the commencement of the garden of Provence, on proceeding eastward from Toulon. The orange, fig, aloe, cactus, pistachio, pomegranate, cypress, and date-palm flourish in the open air; and the mild winter climate attracts many from their northern homes to a residence through the season.

Aiz, eighteen miles north of Marseille, formerly the capital of Provence, is still a thriving town of 19,000

inhabitants, with a trade in olive-oil, fruits, the produce of surrounding plantations, and warm mineral springs. It originated with the Romans, and received the name of *Aque Sextie*, in allusion to the founder and its waters, of which the present name is a contraction. Here Marius, 102 B.C., annihilated in battle two whole barbaric nations—the Teutones and Ambrones, and saved Italy from devastation and Rome from pillage. There are various antiquities of the period in the museum, and monuments remain of the middle ages, in which period Aix, under the Counts of Toulouse, was the literary capital of Southern France. The public library contains 100,000 volumes. Among many eminent natives, Tournefort and Adanson, the botanists, are



Toulon.

numbered, with Mignet, the historian. *Arles*, also inland, near the head of the delta of the Rhone, is likewise of Roman origin, and was once a very celebrated city. It retains many memorials of former greatness; an amphitheatre larger than the one at Nimes, though not so well preserved; it must have been capable of holding from 20,000 to 30,000 spectators; a vast cemetery dating from pagan and used in early Christian times; with numerous friezes, statues, altars, and sarcophagi in the museum. An archbishop of Arles consecrated St Augustine, who became the apostle of Christianity to the Anglo-Saxons. Its chief present distinction is the beauty of the women, well set off by a picturesque costume.

The small territory of AVIGNON, once the property of the popes, and that of ORANGE, an independent principality, are both on the left bank of the Rhone, immediately above its junction with the Durance. Both are included in the single department of Vaucluse, but do not fill up its area. The noble summit of Mont Ventoux, 6427 feet, an outpost of the Alps of Dauphiné, covered with snow for half the year, is everywhere the conspicuous object within its limits, from which, on a clear day, the distant Mediterranean is visible. The district is the principal seat of madder cultivation.

Avignon, the capital of the papacy in the fourteenth century under seven pontiffs, is seated directly on the Rhone, with its cathedral on the top of a bluff rock (*Rocher des Dons*) rising up from the river. Though a shrunk city in comparison with its former state, it contains a population of 25,000, and is still distinguished by the numerous spires and bell-towers which led Rabelais to call it 'La Ville sonnante.' The palace of the popes, a vast and massive pile, half castle and half convent, is pre-eminent over all other buildings, and whether seen from afar or near at hand, never fails to make a deep and lasting impression. It was commenced under Benedict XII., and is now partly a prison and partly a barrack, sufficiently ample to accommodate a regiment. Avignon has manufactures of silk, tanning, &c., and a great trade in garden produce. The corn, wine, honey, olives, oranges, and lemons of the district are celebrated. Seventeen miles eastward is Vaucluse, a village, valley, and fountain, the scene of unnumbered pilgrimages in honour of Petrarch, who resided at the spot. A few miles up the river, the village of Roquemaure is

supposed to mark the point where Hannibal crossed, with his troops and elephants, on his way to Italy. *Orange*, a small and poor town, at a short distance from the stream, is remarkable for its monuments of Roman architecture. A triumphal arch, covered with bas-reliefs, and built of a deeply yellow stone, is the best preserved, and may be seen from the railway. The petty principality, of which the town was for many centuries the head, eventually became the possession of the Nassau family, and originated the title of Prince of Orange, retained by the eldest son of the kings of Holland.

DAUPHINE, formerly subject to the Counts of Vienne, extends from the Rhone to the Alps, and is a region of plains on the side of the river, but extensively Alpine in the opposite direction. It embraces the main part of the course of the Isère, and the upper waters of the Durance. Exquisitely lovely valleys occur among the lower declivities of the mountains, with scenes of scarcely surpassed grandeur in the uplands; but the more elevated have a sterile savage magnificence, and are clothed with glaciers. In the high valleys, where the bits of pasture are scarcely accessible to sheep, and in some seasons even rye will not ripen, are many Protestants, shepherds living in poor detached huts, or little clusters, snowed up in the winter, among whom Pastor Neff pursued his pious labours.



Grenoble.

Grenoble, the largest town, contains 26,000 inhabitants, engaged principally in the manufacture of leather gloves, in which women, and also machinery, are employed. It is seated on both banks of the Isère, a full and rapid stream, in a superb neighbourhood. The palace of the old Dauphins is an object of interest; and has in front a colossal statue of Bayard, the pride of chivalry, 'sans peur et sans reproche,' who was born in a chateau higher up the river-valley, now in ruins. Grenoble was the first place of importance to which

Napoleon repaired on his return from Elba, when the citizens and soldiers immediately declared for him. In the vicinity lies the village of Chartreuse, from which the Carthusian monks derive their name, and where they originated. *Vienne*, on the Rhone, the capital of Dauphine, dating from the Roman times, is still a considerable industrial town, with paper, cloth, and ironworks. But it is distinguished by many ancient remains, and of interest as an early scene of western Christianity, whose professors here were associated with those at Lyon in the great persecution of the second century. The ecclesiastical council which condemned the Order of the Templars in 1307 was held at *Vienne*. *Valence*, lower down the river, trades in the sparkling St Pery wine produced on the opposite bank of the stream. *Gap*, the birthplace of Farel, the reformer, and *Embrunn*, formerly visited by royal and plebeian pilgrims to an image of the Virgin, are small towns in the valley of the Durance. *Briançon*, a first-class fortress, and the loftiest town in France, is on its head waters, at the height of 4285 feet above the sea. Forts crown the adjoining rocks to a much greater altitude, and guard the pass into Italy by the Mont Genève, forming a kind of inland Gibraltar. The winter here is long and rigorous. On the south-west rise the peaks of Mont Pelvoux, the highest of which reaches to 13,468 feet, and is the loftiest summit in the great range between Mont Blanc and the Mediterranean. The department is hence appropriately named Hautes Alpes.

The name, Dauphin, was a title of the Counts of Vienne which passed to their territory. It is derived from *delphinus*, dolphin, which they carried as their coat of arms. The origin of the insignia is quite unknown. Upon Count Humbert II. making a voluntary surrender of his domain to Philippe de Valois, he stipulated that it should be the appanage of the heir-apparent, the title of Dauphin going along with it. This was observed down to the Revolution. The cession was made in consequence of the death of his only son while a child, who sprung from his nurse's arms, fell into the Isère, and was drowned.

The newly-acquired district of SAVOY, long incorporated with the Italian kingdom of Sardinia, is properly a portion of France by geographical and ethnological relations. The position, surface, climate, people, and language have a much greater affinity to Gaul than to Italy. It lies wholly on the northern side of the main Alpine chain, and extends from it to the Lake of Geneva, the Rhone, and Dauphiné. Within these limits the natives are generally of French extraction, speak the language; and the entire drainage is conducted into France. The Isère follows a devious course through the province from east to west, starting from the foot of the Little St Bernard. The Arve, child of the glaciers, born on the Col de Balme, intersects it in the same general direction, but makes a more direct cut to the Rhone, entering just below its emergence from the Genevan Lake, in the Swiss canton. On the eastern border rises Mont Blanc, the monarch-mountain of Europe, with several principal summits of the Graian and Cottian Alps to the southward, Mont Iseran, 13,274 feet, and Mont Cenis, 11,460 feet. A pass adjoining the latter, long one of the most frequented routes between Savoy and Italy, culminates at the height of 6780 feet; and at a neighbouring site, the great railway-tunnel through the chain is in process of execution. The Savoyards are a hardy, frugal, and industrious race. Many wander far away to pick up earnings by music and shows in the streets of foreign cities, and then return to their native mountains.

Chamberry, the principal town, the seat of an archbishop, is on the western side, nearly equidistant from Lyon and Geneva. It contains about 13,000 inhabitants, produces silk gauze, and is on the railway leading to the Mont Cenis tunnel. *Annecy*, midway towards Geneva, on the shore of a considerable lake, though much smaller, is more industrial, with glass, cotton, and bleaching works; and is said to be one of the oldest manufacturing sites in Europe. *Chamouni*, a village, in a valley of the same name, is at the northern foot of Mont Blanc, 3150 feet above the sea. Few places so small are so widely known, as the point from which travellers of all countries start for the ascent of the mountain. *Modane*, a hamlet, about eighteen miles from Mont Cenis, marks the northern opening of the great tunnel, seen on the side of the mountain upwards of 300 feet above the ordinary road. This vast work was authorised by the Sardinian legislature in 1857 at its sole expense, but since the cession of Savoy to France, a large portion of it will have to be borne by the French government. The total length will be rather more than $7\frac{1}{2}$ miles, cut through extremely hard rock. It is expected to be completed in the spring of 1875. At the beginning of 1863 there remained $6\frac{1}{2}$ miles of tunnelling to be accomplished; but much time was necessarily spent in overcoming preliminary difficulties. Savoy was ceded to France by Sardinia in 1861, in compensation for military services in the war with Austria in 1859.

The principality of NICE, acquired at the same time from the Sardinian crown, lies on the Mediterranean, and occupies the space between its waters and the Maritime Alps. This cession advanced the French frontier from the river Var to the stream of the Roya,

which descends from the mountains to the sea; and the included tract was incorporated with the old adjoining *arrondissement* of Grasse to form a new department.

Nice (Ital. *Nizza*), a seaport, pleasantly situated at the foot of an amphitheatre of hills, contains a population estimated at 38,000, engaged in the manufacture of silk, oil, perfumery, and other products, occupied also with visitors, of whom the great proportion are English, attracted to it as a winter residence. It has a palace, a cathedral, convents, and hospitals, and various bath establishments. Its reputation for salubrity has, however, declined, as piercing blasts occasionally descend from the snow-crowned Alps. Cassini, the astronomer, was a native, and so is Garibaldi—the hero, par excellence, of modern Italy. *Mentone*, eastward on the coast, a small town, is rising into notice as preferable for invalids, being well sheltered from cold winds, and open to the sea, with delightful scenery. *Cannes*, westward, is similarly distinguished. Its single street is the centre of an English colony, some members of which, as Lord Brougham, have villas of their own in the vicinity. Close to this small port Napoleon landed on his return from Elba. In a little woody island off shore, the Man in the Iron Mask underwent part of his long imprisonment, in the reign of Louis XIV. *Grasse*, nine miles inland from Cannes, receives from its nursery-grounds, and others, a vast quantity of aromatic herbs and odoriferous flowers for the supply of its perfume distilleries. More essences, scents, and pomades are said to be made here than in any other European town except Paris.

CORSICA (Fr. *Corse*), an island in the western basin of the Mediterranean, is incorporated with France as one of its departments, but belongs to Italy by proximity and the descent of the people. It extends rather more than 100 miles from north to south, by about half the distance where the breadth is the greatest, and is traversed in the line of its length by mountain-ranges, which attain the height of 9068 feet in the porphyritic mass of the Monte Rotondo. Forests of oak, pine, beech, and chestnut largely clothe the surface, with brushwood of arbutus, cistus, oleander, and myrtle, while the orange, citron, vine, olive, and mulberry flourish in the cultivated districts. The woods have for ages been the hiding-place of outlaws, or criminals escaped from justice, adopting the life of brigands, a class not yet extinct, and are in certain parts numerous inhabited by the wild boar. On the higher points the moufflon still exists, as well as in the neighbouring island of Sardinia, but is not known elsewhere in Europe. The animal, a species of wild sheep, is supposed by some to be the original stock whence sprung the domesticated race. Nearly half the surface lies waste, and the low grounds are unhealthy from the prevalence of malaria. The island is rich in minerals, but they are not wrought.

Ajaccio, the capital, with 12,000 inhabitants, founded by the Genoese, is pleasantly situated on a promontory of the west coast. Its great and only distinction is that of being the birthplace of the first Napoleon. He was born in a modest-looking house, not now inhabited, but indicated by an inscription, and in the care of a custodian. *Bastia*, the largest town, with 17,000 inhabitants, is on the north-east coast, at the commencement of the finger-like projection which forms the north extremity. It has a small but convenient harbour; exports olive-oil, fruits, wine, fish, and the mineral produce of the island; imports corn and general merchandise.

In ancient times the Phœnicians and Romans successively held the island. The Moors, German emperors, the Pisan and Genoese republics had possession of it in the middle ages. The latter retained it to the middle of the last century, when they were succeeded by the French, but for a short time afterwards it was in the hands of Great Britain. The islanders are an Italian race, and speak a dialect allied to the Sicilian.

The foreign territories of France are distributed in every quarter of the globe, but with one or two exceptions, they are not singly of important extent or value. The African possessions consist of Algeria, settlements on the Senegal and dependencies, the island of Bourbon or Réunion, in the Indian Ocean, the isles of St Mary, Nosse-Be, and Mayotte, on the north-west of Madagascar; the Asiatic, are Pondicherry and various small districts on the coast of India, with a newly-acquired maritime part of Cochin China; the American, comprise French Guiana, the islands of Guadaloupe, Martinique, with dependencies, in the West Indies, and the isles of St Pierre and Miquilon, near Newfoundland; and in Oceania, the Marquesas, Society, Gambier, and Wallis groups, with New Caledonia.

France, anciently called Gallia or Gaul by its Roman conquerors, acquired the present name from the Franks (perhaps 'freemen'), a confederation of Germanic tribes, who invaded the country in the 5th century after Christ. Their leader was called Merwig or

Merovæns, but the real founder of the Merovingian dynasty was Clovis or Chlodwig (the modern German *Ludwig* and French *Louis*). The Merovingian dynasty ceased to rule in 752, and was succeeded by the Carolingian, the most famous sovereigns, of which line were its founder Pepin *le Bref*, and his son Charlemagne; Charles Martel and Pepin d'Heristall, the predecessors of these two, belonged to the same family, and were virtually, but not formally, the rulers of the Frankish states in Gaul. The Carolingian gave way in 987 to the allied Capetian dynasty, founded by Hugo Capet, the most powerful nobleman of his day in France. This, in its turn, became extinct on the death of Charles IV., *le Bel*, in 1328, when the crown of France passed to his cousin Philip of Valois. The Valois dynasty next became extinct in 1589 by the assassination of Henry III., who was succeeded by his brother-in-law Henry IV., the first of the Bourbons, who ruled uninterruptedly, with absolute power, down to the Revolution, a period of exactly 200 years. That far-famed and terrible event, the French Revolution, was largely caused by the profligate selfishness of the court, the clergy, and nobility. The present imperial constitution, dating from the year 1852, ratified by the popular vote, practically invests the emperor with supreme power in the direction of affairs, and has hitherto been associated with an unwonted measure of public prosperity.

The population of France somewhat exceeds 37,000,000. It advances at a very slow rate, and has recently in some single years positively retrograded, the deaths having exceeded the births. The greatest number of large towns is in the northern half of the country, which is generally more populous than the southern. The French proper are a mixed race, partly Teutonic, but chiefly Celtic. They form the vast majority of the people, speak the French language, which is founded upon a Gallo-Romanic idiom of the Latin tongue, and greatly modified by subsequent additions. It early branched into two characteristic dialects—the French spoken on the north of the Loire, or the *Langue d'Oïl*, and the Romance, or *Langue d'Oc*, also called the Provençal. The latter dialect, though the vehicle of the joyous songs of the troubadours, was gradually supplanted by the former, as the northern power extended itself into the provinces of Provence and Languedoc. Its decline was accelerated by the ban of the church, which proscribed the popular poetry for espousing the cause of liberty in the religious wars, especially in the crusade against the persecuted Albigenses. In the districts towards the Rhine and Belgium, there are a considerable number of Germans and Flemings using their respective native tongues, while the Bretons in Brittany, and the Basques adjoining the Pyrenees, offer other varieties of race and speech. The Jews form an aggregate of 156,000, and the resident English average 60,000. The great bulk of the people belong to the Roman Catholic Church, or 35,700,000, who are under the ecclesiastical jurisdiction of sixteen archbishops and sixty-five bishops, six of whom are cardinals appointed by the pope on the presentation of the emperor. There are about 1,500,000 Protestants of the Lutheran and Reformed communions, the former chiefly in the north-eastern departments, and the latter in the southern. Their ministers are subject to some crippling restrictions, but are paid by the state and exempt from military service, like the Catholic clergy and the Jewish rabbis. General instruction is promoted by collegiate institutions, superior normal schools, and primary communal schools, the expenses of which are partly defrayed by public funds, and the remainder by the departments. They are under the direction of a special branch of the government, and regularly inspected; but nevertheless great ignorance prevails, especially among the peasantry. The annals of French literature and science are adorned with numerous names brilliant in every branch. The people are temperate yet impulsive, patterns of courtesy in urban life, fond of pleasure, show, and spectacle, and passionately enamoured of military distinction.



Brussels.

CHAPTER II.

BELGIUM.



BELGIUM is one of the youngest kingdoms and smallest countries of Europe, but second to none in point of industrial enterprise and social prosperity. It is also at the head of all in the average of population to the area, so thickly studded with cities, towns, and villages, that a former master, Philip II. of Spain, remarked on passing through it, 'This is only one great town.' It occupies likewise a very conspicuous place in the military annals of the continent. The names of Antwerp, Ostend, and Namur, revive the memory of famous sieges, while those of Oudenarde, Ramillies, Fontenoy, Fleurus, Jemappes, Ligny, Quatres Bras, and Waterloo, are indissolubly associated in history with great battles. Owing to careful cultivation, and the oft blood-stained soil, Belgium has been aptly described as at once the 'garden' and the 'cockpit' of Europe. It lies on the North Sea, which forms the western boundary, and is enclosed by France on the south, Rhenish Prussia on the

east, and Holland on the north. The coast-line measures little more than forty miles; the greatest extent of the surface, east and west, is only about 160 miles, by two-thirds of the distance north and south; and the area of 11,366 square miles falls short of being equal in area to twice the size of Yorkshire. The latitudinal limits are the parallels of $49^{\circ} 40'$ and $51^{\circ} 30'$ north; the longitudinal are the meridians of $2^{\circ} 33'$ and $6^{\circ} 5'$ east. Yet though of such scant dimensions, the natural resources are very considerable, owing to intersecting navigable rivers, and varied mineral wealth, the value of which is extensively developed by the industry of the people.

The greater part of the surface, especially the western and northern districts, is almost a dead level, very slightly raised above high-water mark, and in various places depressed below it. Artificial means are therefore adopted to guard against inundation from the rivers by banks and dykes along their channels, while sand-hills on the coast, piled by the winds, form a natural barrier against the encroachments of the sea. These hills or downs vary in breadth from one to three miles, rise to the height of fifty or sixty feet, and are largely clothed with pine-woods. Shallows, owing to sand-banks, extend to some distance from the shores, and render the navigation intricate and perilous. In the eastern and southern districts the surface is generally rugged, very wildly broken at intervals, but has no elevation above the height of 2000 feet. Barren moors occur in this direction, with extensive tracts of natural forest; remnants of the old Forest of Ardennes stretching into France; and highly-beautiful scenery distinguishes the river-valleys, in which are limestone escarpments, caverns and other natural curiosities, side by side with evidences of high cultivation, and of mining and manufacturing activity. The two most important rivers, the Scheldt in the west, and the Meuse in the east, enter the country from the French territory, and flow through it northward into Holland. Within its limits, the former receives the Lys, Dender, and Rupel; the latter, the Sambre and the Ourthe. Antwerp, on the Scheldt, the principal port of Belgium, has no natural communication with the sea but by its channel, both banks of which are from thence to its mouth in the Dutch province of Zeeland, but the free navigation is guaranteed by treaty. The navigable rivers, lines of canals, and macadamised common roads, with a system of railways planned and executed by the government, supply means of internal communication perhaps cheaper and more convenient than are enjoyed in any other part of the world.

The rugged portion of Belgium, the south and south-east, is the site of its mineral treasures, consisting of coal, iron, zinc, and lead, marble, building-stone, and slate, with alum and minor produce. More coal is annually raised than in any other part of the continent, and one-half of all the zinc used in Europe is furnished by Belgian mines. The coal-fields, two in number, are in the provinces of Hainault, Namur, and Liège, and have a united area of about 500 square miles. In 1857, the number of coal-pits was 205, and the amount of coal 'put out' was 8,383,902 tons, valued at upwards of £4,000,000. Iron ore occurs in close proximity to the coal, but is not interstratified with it: the amount annually obtained is between one and two million tons. The coal-seams are very numerous, but generally thin, and have been subject to such violent derangement from disturbing causes—contorted in every possible manner—as to occasion peculiar difficulty in working them. All mining and metallurgical works are under a system of regular government inspection; and their produce has now risen to an annual value of more than £10,000,000 sterling. While the working of metals is thus carried on in the south and east, woollen, lace, and linen manufactures are extensively conducted in the north and west, with those of cotton and silk in a more limited degree, agricultural occupations being more or less common in both districts. The soil is not naturally

fertile, as it consists largely of either sand or clay, and would have been a heath if left untouched by the hand of man. But by careful husbandry it has become singularly productive, and through a wide area of the surface, the summer landscape is that of a rich and beautiful garden. Little science, but much persevering industry, exhibited in the application of ordinary manures, and the employment of hand-labour, has contributed to this result. Flax, celebrated for its superior quality, is a principal object of cultivation; the common cereals are raised in far larger quantity than is required for home consumption; hops, chicory, and beet-root for sugar are grown, with woad and madder for dyes, and fields of clover are almost everywhere to be seen, the seed of which is exported to England. The system of small farming prevails, for the vast majority of the holdings consist of only a few acres, held by a class of peasant-farmers, who by application and frugality respectably maintain themselves and families, and invest their premises with an air of comfort.

The country is distributed into nine provinces, which are subdivided into arrondissements, communes, and cantons, after the French model. It was long held by the Spanish and Austrian monarchy, under the government of viceroys; then incorporated with France by the first Napoleon; next annexed to Holland as the south division of the kingdom of the Netherlands; and finally rendered by a revolution in 1831 a separate monarchy with liberal institutions.

Provinces.	Principal Towns.
South Brabant,	Brussels, Louvain, Tirlemont, Vilvorde, Nivelles, Waterloo.
Antwerp,	Antwerp, Mechlin, Turnhout, Geel.
East Flanders,	'Ghent, Lokeren, St Nicholas, Beveren, Alost, Termonde.
West Flanders,	Bruges, Ostend, Courtray, Ypres.
Hainault,	Mons, Charleroi, Tournay, Fontenoy, Jemappes.
Namur,	Namur, Dinant.
Liège,	Liège, Heristal, Huy, Verviers, Spa.
Limburg (part of),	Hasselt, Tongres, St Trond.
Luxembourg (part of),	Arlon, Bouillon, St Hubert.

SOUTH BRABANT, a central division of the kingdom containing the metropolis, belongs to the basin of the Scheldt, but is not touched by the river itself, maintaining communication with it by several small tributaries and a canal. It is for the most part a highly-cultivated plain, but includes the old Forest of Soignies, about eight miles long by seven broad, a somewhat gloomy tract, on the skirts of which—

'Where the woods receding from the road,
Have left an open space on either hand
For fields and gardens, and for man's abode,
Stands Waterloo.'

Brussels, the capital, once styled the 'Queen of the Netherlands,' is a very beautiful stone-built city, with claims to be considered a kind of Paris in miniature, from which it is 150 miles distant, and 88 from Ostend. It occupies both banks of the Senne, a small river which ultimately finds its way to the Scheldt; and consists of a lower and an upper town, in the former of which Flemish and Walloon are spoken, in the latter, French. The lower town is on the plain through which the river flows, and is the ancient portion, the seat of the mercantile community, with some narrow thoroughfares, and many fine old buildings, public and private, formerly belonging to the Brabant nobility. The upper is an extension of it on the slope and summit of a gentle eminence, almost entirely modern, the site of fashion, of the offices of government, and the court end of the metropolis, containing the palaces. The park, on a small scale, immediately adjoins, with some noble trees, flowering shrubs, thickets, lawns, and ponds; here the most severe fighting between the Dutch and the Belgians took place at the revolution. In the lower town, the Cathedral of St Gudule, and the many-windowed Hotel de Ville, are the principal objects of attraction. The latter is one of the grandest of the municipal palaces erected in the middle ages, in the Lombardo-Gothic style, surmounted by a tower and spire rising to the height of 364 feet, of very light and elegant workmanship. In its great hall, in 1555, Charles V. of Germany, surrounded by a splendid court, surrendered a portion of his dominions to his son. Brussels has almost lost the old and celebrated staple

industry, its carpet manufacture; but lace of the costliest description is produced, printing and publishing are carried on upon a great scale, and the general trade is very extensive. Brussels has a university, founded in 1334, besides numerous educational, charitable, and benevolent institutions. It contains a population of 177,000, which has long included a considerable number of resident English, attracted to the place by its agreeable aspect, the tone of society, and considerations of economy. The usual residence of the sovereign is at Lacken in the vicinity, a chateau celebrated as the place in which Napoleon signed his fatal declaration of war against Russia. The field of Waterloo, the scene of his final overthrow, is about nine miles distant from the city. *Louvain*, sixteen miles east-north-east of Brussels, though still a considerable town, is only the shadow of what it was in the fourteenth century, when it is said to have contained 200,000 inhabitants and 4000 cloth manufactories, but retains, among other memorials of opulence and splendour, a Gothic town-hall remarkable for its richly-embellished masonry. The university, once famed for its learning throughout Europe, which attracted thousands of students, is now a mere theological seminary for the education of candidates for the Roman Catholic priesthood. *Vilvoorde*, a small ancient town on the route from Brussels to Malines, witnessed the martyrdom of Tindal, in 1536, the first English translator of the Bible, here strangled and burned as a heretic. A great penitentiary, visited by persons interested in criminal reform, occupies the site of his prison.

The province of ANTWERP, directly on the north, embraces two extremely dissimilar districts. Westward, the surface has great luxuriance, and though perfectly flat, excites interest, from every little patch of ground being cultivated with the utmost care, while the homesteads are neat, and church-steeple appear rising up from the midst of clumps of trees. But eastward, stretching beyond the limits of the province, there is a region of striking sterility, called the Campine, consisting chiefly of barren sand, marsh, and peat-bog. In this natural waste some colonies are planted, consisting of free labourers paid by the government, and of convicts, employed in the work of reclamation, who have converted part of it into an oasis around their settlements. In this district a large number of insane persons are distributed under the superintendence of heads of families.

Antwerp, in French *Anvers*, formerly one of the wealthiest and most important mercantile marts of Europe, is still a large city, containing 114,000 inhabitants, defended by a strong citadel, and the chief emporium of Belgian commerce. It stands on the right bank of the Scheldt, sixty miles from the sea, and twenty-seven north of Brussels. The river, as broad as the Thames at Blackwall, has sufficient depth to allow of large vessels coming up to the quays, with a tidal rise of twelve feet, and brackish water. Extensive docks, constructed by the direction of Napoleon, who wished to make Antwerp the rival of London, are convenient for the shipping in winter when large masses of ice descend the stream. The town is a somewhat bewildering maze of tortuous streets, abounding with quaint high houses of the olden time, adorned with curious tracery, with which the picturesque dress of the peasant-women who come in on market-days well accords. Its Bourse, with a central court and piazzas, frequented by merchants for centuries, is of interest from having been chosen by Sir Thomas Gresham as the model for the first Royal Exchange of London, in the reign of Queen Elizabeth. The cathedral, with a spire running up to the height of 446 feet, is a wonderful example of exquisite lightness and perfect-symmetry. Napoleon compared it to a piece of Mechlin lace, and the emperor Charles V. of Germany remarked that it ought to be kept in a case. In the interior hangs the 'Descent from the Cross' by Rubens, and other works of the great master, with which the whole civilised world is familiar by means of innumerable prints. Rubens lived and died at Antwerp. Teniers, Vandyke, Jordans, and Quentin Matsys, were either natives or born in the neighbourhood. Among other public institutions are the Academy of Sciences, the Academy of Painting and Sculpture, a medical and surgical school, a naval arsenal, museum, and zoological gardens. The prosperity of the city culminated in the sixteenth century. Its population was then perhaps double the present number, while thousands of vessels annually visited the port, and the merchants were princes. The persecutions of the Spaniards drove many away; its capture by the Duke of Parma in 1585, after a siege of fourteen months, was a terrible blow; and the closing of the Scheldt in favour of the Dutch by the Peace of Westphalia, in 1648, completed its commercial ruin. The French cleared away the obstructions, and reopened the river; and since the guarantee of free navigation in 1831, with the establishment of the railway system, the fortunes of Antwerp have been in the ascending scale. *Mechlin*, or *Malines*, a picturesque old Flemish city, with 33,000 inhabitants, is situated on both banks of the Dyle, an affluent of the Scheldt, and has long been well known from the manufacture of the fine lace which bears its name. It is equidistant about fourteen miles from Antwerp, Brussels, and Louvain; and is the central station of the Belgian railways. An obelisk marks the point where the several lines diverge. The city is the see of an archbishop, who is the primate of all Belgium; and has a cathedral, St Romuald, remarkable for its size, covering nearly two acres, and for the height of its massive tower, loftier than the cross of St Paul's. The interior contains numerous fine pictures by Rubens and other artists.

EAST FLANDERS, a north-west section of the country extending to the Dutch province of Zeeland, has the distinction of being the most densely-peopled section of the most

populous European state in proportion to the area. It contains an average of 690 persons to the square mile; and is distinguished both for its agricultural and manufacturing products. On passing through this district, cultivation meets the eye in every direction, and villages enclosed with trees appear in quick succession.

Ghent (Fr. *Gand*, Flem. *Gend*), in the centre of the province, is situated on a rich plain, at the junction of two rivers, the Lys and Lieve, with the Scheldt. These streams so wind and interlace in passing through it as to form nearly thirty islands, which are connected by not less than 270 bridges. It is the second city in the kingdom in population, 120,000, and, as the principal seat of the cotton manufacture, may be called 'the Manchester of Belgium.' It has upwards of sixty cotton mills. Not a little strange does it appear to the English visitor to meet with factories moved by steam-power, and tall brick chimneys sending up their black smoke, in close association with Gothic civic buildings and churches of the middle ages. The manufacture, introduced in the early part of the present century by the importation of workmen and machinery from England, has succeeded in a remarkable manner. Floriculture is carried on to a great extent. In the environs of the town there are no fewer than 400 hot-houses. By the great canal which flows into the Scheldt, it is united with the sea, and it can receive into its docks vessels bearing eighteen feet of water. In the fourteenth century the artisans were chiefly clothiers, distinguished by their independent spirit, and also occasionally by their turbulence, sufficiently numerous to furnish an army of 50,000 men. Our Edward III. courted an alliance with them, and was a visitor, with his queen, when his third son, who is commonly called after the town, John of Gaunt, was born. The emperor Charles V. was likewise born at Ghent; the compact of the provinces of the Netherlands against the tyranny of Spain, in 1578, was drawn up within its walls; and here the treaty of peace was signed between Great Britain and the United States, after the brief war of 1814. One of its most curious features is the *Béguinage*, a little town of itself, consisting of a square surrounded with houses, a church in the centre, with several streets, the whole of which are enclosed, and entered by a single gateway. The houses are inhabited by the *Béguins*, who officiate as sisters of charity, some of whom are in possession of considerable wealth, but all wear the same livery. They are not strictly nuns, and not being bound by any vow, they may leave when they like, contract marriage, and even return again in widowhood. *Lokeren*, *St Nicholas*, and *Beveren*, on the railway between Ghent and Antwerp, are manufacturing sites of considerable size, situated in the Pays de Waes, a district scarcely to be surpassed for its garden-like aspect and productiveness. The name refers to a village. *Alost*, 'to the east,' is near the eastern frontier of the province, a cloth and hop mart, with a collegiate church containing one of the best efforts of Rabens. The town is on the river Dender, which merges with the Scheldt at *Termonde*, or *Dendermonde*, a name referring to the affluent, which Smollett made familiar by 'my uncle Toby's' allusions to its siege. *Oudenarde*, south by west of Ghent, figures in history as the scene of one of Marlborough's victories in 1708, gained chiefly by his own prowess.

WEST FLANDERS, the only maritime province, is less fertile than its inland eastern neighbour, owing to the sand blown up in tempests from the sand-hills of the shore, and besprinkled upon its fields. But it shares the same careful husbandry by means of hand-tools, attention to the rotation of crops, and manuring the soil. Both districts produce large quantities of flax for the home linen and lace manufactures, and the foreign market. The best kind used in fabricating the finest Brussels lace is of very local growth, and is said without exaggeration to be worth its weight in gold. Flanders has long been celebrated for a breed of strong horses for purposes of draught, which are reared for export.

Bruges, eight miles from the coast, owes its name to the numerous bridges over the canals by which it is intersected, formed by the large commercial population it contained in long bygone times. Formerly travellers from Ostend reached the place by canal, as Southey tells us :

'Four horses, aided by the favouring breeze,
Drew our gay vessel, slow, and sleek, and large.
Crack goes the whip; the steersman at his ease
Directs the way, and steady went the barge.
Ere evening closed, to Bruges thus we came.'

The railway now cuts through a suburb. It is connected with the sea by the canals of Ghent, L'Ecluse, and Ostend. Bruges is surrounded by walls pierced by seven gates. In the fifteenth century, Bruges was one of the most famous cities of the Hanseatic League, visited by the merchants of Genoa and Venice, by kings and queens in their need. Though decayed, it still contains nearly a population of 50,000, puts on a gay and animated appearance on fete-days, when the peasantry flock in from the neighbourhood, and has considerable lace manufactures. Antique buildings are numerous; among which may be mentioned the town-hall, with its lofty tower and celebrated set of forty-eight bells; the churches are rich in works of art; and historic memories invest the city with interest. Here died John Van Eyck, the painter, with whom oil painting as an art originated. The

invention of decimal arithmetic is ascribed to another inhabitant. Here was buried Charles the Bold, the last Duke of Burgundy, and his daughter, whose monuments remain in the Church of Notre Dame. Here resided for a time during his exile Charles II. of England, in a house of the Grande Place. *Ostend*, westward on the coast, is a strongly-fortified port, next in rank to Antwerp, and a summer watering-place, in possession of one of the finest marine parades in Europe. It is the western terminus of the canals and railways of the kingdom, the principal seat of its herring-fishery, and the mail-packet station for England. Its long defence against the Spaniards under Spinola, who besieged it for more than three years, from 1601 to 1604, is celebrated in history. *Courtray*, on the Lys, twenty-seven miles south-west of Ghent, has very extensive linen manufactures, and is known throughout Europe by its products. Large bleaching-grounds surround the town, and flax-growing is a principal object in the neighbourhood. *Ypres*, a few miles distant, has the same industry; but it was carried on some centuries ago to a much greater extent than at present. The kind of linen made here received a distinctive name from that of the town, *diaper*, which is merely a corrupted form of *d'Ypres*. Jansen, who originated in the Romish Church the sect called after him Jansenists, was its bishop in the early part of the seventeenth century. His tomb is in the cathedral.

HAINAULT, a province on the French border, derives its name from the river Hane, which flows through its western portion to join the Scheldt, while the Sambre traverses the eastern side on its way to the Meuse. A large part of the surface, on the north and west, is a fruitful level like the preceding districts. But hills rise on the south and south-east, while a smoky atmosphere and roads black with coal-dust indicate the great mineral region of Belgium. Towards the frontier of France are the battle-fields of Fontenoy, Fleurus, and Jemappes; and in that direction the towns are strongly fortified to guard against invasion.

Mons, strongly fortified, with 26,000 inhabitants, is within ten miles of French territory, surrounded with coal and iron mines and with many populous mining villages. *Charleroi*, much smaller, lying eastward on the Sambre, has the same features. *Tournay*, on the western side of the province, occupies both banks of the Scheldt, and has modern fortifications raised at great cost. It is a large town, an important seat of manufactures, where the so-called Brussels carpets are chiefly made, producing also fine porcelain. The cathedral, founded by one of the Merovingian sovereigns, is reputed to be the oldest in the country. Tournay is frequently mentioned in English history. It was taken by Henry VIII.; and Perkin Warbeck, the pretender of the previous reign, is said to have referred to it as his birthplace; its name occurs also in the Marlborough wars.

The province of **NAMUR**, further eastward, is a diversified district watered by the Meuse, which is here joined by the Sambre. The river-valley has many striking combinations of bold rock, wooded height, ruined stronghold, narrow gorge, with the flowing stream, which are specially delightful after the eye has been confined to views of the neighbouring levels. The vine is cultivated in the district, but produces only an indifferent wine. Its true wealth is not naturally open to observation, but lies deep below the surface, in the carboniferous strata and its accompaniments.

Namur, beautifully situated at the junction of the two rivers, both of which are navigable, is defended by a citadel built on the summit of a commanding rock, and contains a population of 26,000. It is the Sheffield of the country, producing cutlery goods and firearms, with other hardwares; possessing also glass-works and tanning establishments. Coal, iron, and lead mines, with marble quarries, are in the vicinity. The town is often mentioned in military history. Don John of Austria, the conqueror of the Turks in the naval battle of Lepanto, was buried here, having died in camp in the environs. It was taken by the French under Louis XIV. in person, in 1692, who strengthened the fortifications, and caused to be inscribed over one of the gates the sentence in Latin: 'It may be surrendered—it cannot be captured.' In less than three years it was retaken by the English under William III., in the presence of the whole French army. *Dinant*, a little town higher up the river in a romantic situation, often visited owing to the attractions of the scenery, has its citadel, being within hail of France.

The province of **LIEGE**, once a prince-bishopric, belongs to a lower part of the basin of the Meuse, which receives the Ourthe within its bounds. It is an equally picturesque district, embraces many wooded heights, parts of the old Forest of Ardennes, and includes some moorlands on which the heathcock is said to linger, its only asylum in continental Europe.

The town of *Liège* is very finely seated at the junction of the Meuse with the Ourthe, surrounded with hills and foliage. It occupies the third place after the capital in amount of population, 97,500, but has large villages in the immediate vicinity connected with the coal, iron, lead, and alum mines, the slate and marble

quarries of the district. Busy streets, tall engine chimneys, volumes of smoke, dusky artisans and houses give it a peculiarly English appearance; and from the extensive production of firearms, it has been styled the Birmingham of Belgium. It possesses one of the largest cannon foundries in Europe, belonging to the government; but steam-engines, machinery, and almost all kinds of ironwork, are produced. The firearms are extensively executed for Prussia and Germany; and vast quantities of nails are sent into France and Holland. At *Seraing*, a few miles up the river, the palace of the old prince-bishops, greatly altered and enlarged, has become a machine-factory of the first class as to magnitude and workmanship, founded by an Englishman. In the days of their greatness, the prelates ruled over 52 baronies, 18 walled cities or towns, 400 villages, and were able to maintain an army of 8000 men. But the Liégeois were bold burghers; and troubles were incessant till the conquest of the country by the French in the last century put an end to the incongruous ecclesiastical rule. In Sir Walter Scott's *Quentin Durward* graphic descriptions are given of revolts and contests in the fifteenth century, but without strict attention to historical accuracy.



A Street in Liège.

The old episcopal palace still stands in the more ancient part of the town, and is now used as the provincial court of justice. Immediately in front was the cathedral which the French republican forces utterly destroyed. A university of modern date occupies a handsome edifice, and possesses a museum rich in fossils from the neighbourhood. Sir John Mandeville, the romancing English traveller of the middle ages, was buried in a convent without the walls. The village of *Chaufontaine*, 'warm fountain,' five miles distant, is much visited in summer, having the attraction of mineral waters, and a beautiful situation. *Heristal*, almost a suburb, inhabited by miners and artisans, contains a few remains of the castle in which Pepin was born, the grandfather of Charlemagne. *Huy*, a thriving town strikingly placed on both banks of the Meuse, between Liège and Namur, commands the river by a strong citadel, which crowns the top of a bold rock rising up from the water. It once possessed a convent founded by the famous preacher of the first crusade, Peter the Hermit, in which he was interred. At a short distance resided William de la Marke, the Wild Boar of the Ardennes, conspicuous in the romance of *Quentin Durward*. *Verviers*, large and flourishing, on the Great Eastern Railway leading to the Prussian territory, indicates its character as the Leeds of Belgium, by factories, dye-works, and acres of cloth hung up to dry. *Spa*, connected with the main line by a short branch, is distinguished for its chalybeate springs, in the town and the vicinity, the strongest in Europe,

being impregnated with carbonic acid. Besides attracting invalid visitors, the waters are extensively bottled for export. This was formerly one of the most fashionable watering-places on the continent, and enjoyed a kind of practical neutrality even in time of war, but easy access to the brunnens of Germany has caused its summer gatherings to decline, both in numbers and rank.

LIMBURG, part of an ancient duchy, forms the north-east extremity of the kingdom, and is bordered in that direction by the remaining portion of it which is attached to Holland. The district lies chiefly along the left bank of the Meuse, and has infertile features belonging to the tract of the Campine, before referred to, which it shares in common with the adjoining province of Antwerp. In other parts, the rearing of cattle and the culture of bees are prevailing industries. The old capital of the duchy, of the same name, now reduced to insignificance, towards the Prussian frontier, is included in the province of Liége. The towns are of very minor rank.

Hasselt, on an affluent of the Scheldt, has distilleries and manufactures of linen, lace, and tobacco. *Tongres*, on a tributary of the Meuse, is of very ancient date, the name being derived from the Tungri, the first Germanic tribe who crossed the Rhine, and settled in the vicinity. A mineral spring described by Pliny as ferruginous still retains its properties. The church is reputed to have been the first north of the Alps which was dedicated to the Virgin. *St Trond*, the largest place, bears the name of the founder of a convent around which the town was gathered. Near it the men of Liége were signally defeated by Charles the Bold of Burgundy in 1467.

LUXEMBURG, similarly a duchy, part of which is annexed to Holland—the king being Grand Duke—forms a south-eastern section of the country. The Belgian portion, by far the most extensive, yet thinly peopled, consists chiefly of the high grounds of the Ardennes, wooded and pastoral, on which a considerable number of horses are reared for the supply of the army and for export. Many sylvan scenes of great beauty are found in the woodland region, especially the tract around St Hubert, with which Shakspeare's 'Forest of Arden' is commonly identified, the scene of the fine comedy, *As You Like It*. The trees are chiefly of oak, many of which are of enormous size—

'Whose boughs are mossed with age,
And high top bald with dry antiquity—
Whose antique roots peep out
Upon the brook that brawls along the wood.'

Young plantations are raised by the government in the natural forest for public purposes. Besides the valuable timber obtained, the oak-bark is sufficient to supply the home tanneries, and leave a surplus for export to England. While deer are general, the wild boar and wolf lurk in the denser and more solitary glades.

Arlon, the head of the province, a small neat trading town, is only of local note as a grain mart. *Bouillon*, once the capital of a duchy, has historic distinction from its connection with the chivalrous crusader, Godfrey de Bouillon. After succeeding to the government of his patrimony in 1076, he mortgaged it to defray the expenses of his expedition, and was proclaimed king of Jerusalem upon its capture. Ruins of the ducal castle occupy a commanding height above the town. *St Hubert*, in a forest district, completely poverty-stricken, retains a Gothic abbey-church remarkable for its elaborate adornment. The name refers to the patron of hunting and sportsmen, who would not refrain from his pastime on Sundays or even Good-Friday, but reformed his manners, founded the abbey, and became famous for sanctity.

Belgium is supposed to have been originally occupied by Celtic inhabitants, but derives its name from the Belgæ, a Germanic tribe, who intruded upon the natives, reduced them to subjection, and extended their incursions to the southern shores of England. The present population, 4,782,000, is not homogeneous, but belongs to these two distinct stocks. In the northern provinces the people are of Germanic origin, therefore Belgians proper, formerly called Flemings, and the lower classes speak the Flemish language, which is merely a form of the Dutch. In the southern districts they are Walloons, of mixed Celtic extraction like the French, and use the Walloon tongue, which is precisely the same as the French of the thirteenth century. But pure French is uniformly the language of the government, of literature, of educated society, and is

generally understood except in remote rural situations; while pure German is spoken in places adjoining the frontier of that country. Both races, though with little real sympathy between them, agree on various points. They are almost universally Roman Catholics in religion, but all other sects are tolerated. They have generally a profound veneration for the clergy, and will devoutly observe rites and ceremonies in which the priests take part, which surprise the stranger by their extreme puerility. While at no period eminent for literature, they have carried the fine arts to a high degree of perfection in the departments of painting and architecture. The artists of the early Flemish school, founded by Van Eyck, excelled in brilliancy of colouring and the faithful imitation of nature, to which those of a later school, represented by Rubens, added nobleness of design, combined with freedom of execution and harmony of parts. In architecture, the fine examples of Gothic are not confined to the churches, but include town-halls, with other civic buildings, and some private dwelling-houses raised by the opulent burghers of bygone times. All classes are distinguished by a passionate attachment to civil liberty; yet patriotism, owing to repeated change of masters, fluctuating territorial limits, and correspondences to bordering communities, can scarcely be said to exist, in the ordinary sense of the term. Local attachments refer to the town or village of birth rather than to the country.

The popular fondness for spectacles has descended from very ancient times, and though not carried to the same extravagant length as formerly, the exhibitions on festival-days, sure to please the public, are not a little grotesque. A score of towns might be mentioned familiar with wicker-work giants and giantesses, which figure in processions on holidays; and stilt-walkers still appear in the streets of Namur on occasions of general merriment, conducting themselves, however, more soberly than their predecessors a century ago. At carnival-time, in the preceding age, it was usual for the young men of the town to assemble in the square of St Remigius, mounted on stilts. They formed themselves into two battalions representing two distinct quarters, hoisted separate colours, red and white, gold and sand-yellow cockades, and had regular leaders. At a given signal, with drums and fifes playing, the armies joined battle, each striving to discomfit the other by crossing stilts and vigorous elbowing; but angry passions were frequently roused, leading to more violent modes of warfare, and the magistrates at last prohibited the display. Marshal Saxe, an eye-witness in 1748, affirmed that 'if two armies exhibited as much bravery at the moment of coming into collision as these young men did, it would no longer be a battle but a frightful butchery.' Peter the Great and Napoleon were severally treated with the spectacle. The last stilt-fight took place in honour of the entry of the Prince of Orange into Namur in 1814. A strong taste for music is universal; this is evinced by frequent assemblies of amateur performers, many of whom belong to the labouring-classes; and by the chimes from the towers of the town-halls and the church-steeple, which are constantly pouring forth their notes on the passing breeze. In the great towns a salaried musical professor is retained to amuse the citizens daily by playing upon the bells.



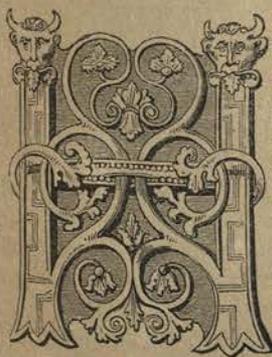
Antwerp.



Amsterdam.

CHAPTER III.

THE NETHERLANDS OR HOLLAND.



HOLLAND is the name commonly in use among us to denote one of the most singular portions of the continent, an extensive portion of which is depressed below the level of the sea, occupied by a people who have bravely struggled to gain the ground beneath them from the waves, and are still compelled to maintain vast artificial ramparts to preserve it from the threatening surge, while remarkable themselves for public spirit, commercial enterprise, and household thrift. This territory is naturally a continuation of Belgium, by which it is bounded on the south; the North Sea washes the western and northern sides; eastward lie the dominions of Hanover and Prussia. It has an extreme extent of about 160 miles in a direct line from north to south, by 120 miles from east to west, and contains a superficial area of 12,600 miles, situated between

latitude $50^{\circ} 43'$ and $53^{\circ} 21'$ north, longitude $3^{\circ} 24'$ and $7^{\circ} 12'$ east. These limits do not include Luxemburg, a completely isolated district, connected with the crown, but a state of the Germanic Confederation. The coast-line of the country is interrupted at its south-west extremity by the estuaries of the Scheldt and the Maas, the Dutch form of the French Meuse, which have a group of flat low islands in their channels, Walcheren, the two Bevelands, Tholen, Schouwen, Overflakkee, and Voorne. On the north occurs the deep indentation of the Zuyder Zee, or South Sea, so called to define its relative position to the North Sea. This is a broad shallow expanse, with an islet chain running from off its mouth parallel to the main shore, consisting of Texel, Vlieland, Ter Schelling, and Ameland, sandy tracts, subject to changes of outline from the action of the billows. The north-east corner is marked by the smaller inlet of the Gulf of Dollart, the estuary of the Ems from Germany. No rock, hill, or natural forest, of any importance, appears in the interior. Though waters abound upon the surface, there are few examples of running streams except in the south, owing to the general flatness, while a considerable portion of the area is from twenty to thirty feet below the level of high tide. The distinctive names applied to the region refer to this peculiar conformation. The term Holland signifies a low, concave, or hollow tract, to which the Netherlands, *Nederlanden*, of the natives exactly corresponds in meaning, and which the French express by *Les Pays Bas*, or the Low Countries.

In ancient accounts of the country, it is described as an extensive marsh diurnally submerged and abandoned by the tidal waters, with the exception of some slightly elevated grounds susceptible of being occupied by man. With astonishing energy the inhabitants maintained through successive centuries a contest with the floods, reclaimed lands from inundation, protected them by embankments; and nature aided human industry in accomplishing the object, although occasionally defeating it. Broad sand-hills raised by the sea-winds along shore defend the low-lying interior where they exist from the invasion of the watery element; and to prevent the drifting inland of their material, the sand-downs are planted with fir-trees and bent grass, the roots of which render the masses compact and fixed. Where natural agencies have not been favourable to the formation of such barriers, as on the coast of the Zuyder Zee and in the island province of Zeeland, artificial mounds or dykes guard the country. They are constructed of earth, sand, and clay, faced with willow boughs; are sometimes lined with masonry towards the base, while fringed to seaward with huge blocks of stone indiscriminately thrown together, and further protected by piles driven into the ground, intended to break the force of the advancing waves. The quarries and forests of Norway have contributed much of the material for these erections, some of which are of enormous magnitude. Both sides of the rivers are also extensively defended with the same bulwarks, as their beds are in many places above the general level of the surface; in addition to which, the breaking up of the winter always brings with it the great danger of a sudden thaw and a high tide being concurrent events. The sea and the river-walls slope towards the water, form roads at the top, which are usually planted with double rows of trees, relieving the monotony of the landscape. All these protective works are under official superintendence with a view to their security; watchmen are posted at every weak point when peril is anticipated; labourers are in readiness to adopt measures to avert a disruption; and if a dyke-break occurs, the thunder of cannon conveys the ominous intelligence to the neighbouring towns and villages. Whatever damage occurs, the people address themselves with invincible resolution to the task of making the necessary repairs, however great the cost. Hence, with good reason, one of the provinces adopted for its coat of arms the figure of a lion swimming, with the motto in Latin, 'I strive, and keep my head above water.'

Many changes and calamities caused by the beleaguering floods mark the history of Holland—

‘A country that draws fifty feet of water,
In which men live as in the hold of nature,
And when the sea does in upon them break,
And drowns a province, does but spring a leak.’

In the Roman times, where the Zuyder Zee now rolls its waves, there was dry land, occupied by a lake, from which a river issued with a course of fifty miles to the sea. But in the thirteenth century successive storms impelled the ‘tall ocean’ against the coast, which forced its way through a broad isthmus, obliterated the ancient lake, and converted it, with a large space of the surrounding country, into the existing expanse. In the year 1421, a high tide raised by a violent tempest, and driven up the estuary of the Maas, ruptured a dam, and occasioned a terrible inundation. Seventy-two villages were swept away; many thousands of the inhabitants perished; and the watery waste of the Biesbosch near Dort was formed, since recovered to some extent from submergence. Repeated inroads of the sea in the fifteenth and sixteenth centuries originated the great Lake of Haarlem, which took the place of meadows, gardens, and the populous village of Nieuwienkirk. Upon the drainage of this lake by gigantic steam-power—an event of the present day—remains of the unhappy village were found, with bones of the inhabitants. Several recent years have been eminently disastrous. In January 1861, during a thaw, the masses of ice brought down by the rivers from Germany blocked up their channels, burst the dykes by their pressure, and laid the fields far and wide under water. The fertile district of Bommelerwaard, an island enclosed by the Waal and Maas, was the chief scene of the catastrophe. Sixteen villages were inundated, 18,000 persons were driven from their homes, and forty lost their lives. Some days afterwards severe frost returned, and the deluged country became a sea of ice, with houses, churches, and trees standing up above it at half their height. A skater entered the church of Gameren by one of the windows, passed over the pulpit, and made his exit by a window on the opposite side of the building. Occasionally in time of war, the people have cut the dams and opened the sluices in order to get rid of an enemy, upon the principle of choosing the lesser of two evils. This was done in 1574 when Leyden was reduced to extremity by the besieging Spaniards, and it compelled them to retire.

The lower courses of the Scheldt and Maas, both from Belgium, but originating in France, lie within the limits of Holland, with that of the Rhine from Prussia, all of which reach the North Sea on the west coast. The Scheldt enters the country at the head of its estuary, where it immediately divides into two principal branches which enclose the islands of South Beveland and Walcheren. The Maas crosses the frontier a short distance above Maestricht, receives large contributions from the Rhine, and separates towards its mouth into three great branches which encircle the islands of Overflakkee and Voorne. The Rhine passes the border 2000 feet wide, not far above the town of Arnheim, and rapidly undergoes a remarkable reduction in its volume by the successive surrender of its waters. A large branch, the Waal, flows from it westward and joins the Maas; another, the Yssel, is next sent off northward to the Zuyder Zee; a third division, the Lech, is then despatched to fall into the Maas above Rotterdam. The stream, retaining the name of the Old Rhine, but no longer entitled to be called the ‘exulting and abounding river,’ pursues its way to Utrecht, where a fourth bifurcation takes place, and the Vecht departs from it for an estuary of the Zuyder Zee. Sluggishly, with the aspect of a canal, it passes Leyden, and eight miles below, a wholly artificial channel, provided with sluices, enables the once mighty Rhine to effect a passage to the sea, through the vast beds of sand which line the coast. Deprived of its natural outlet by a tempest which blocked it up, the

stream remained without one for nearly a thousand years, and was lost in the sands, or formed marshes, till engineering efforts at the beginning of the present century furnished the new water-course. No natural contrast can well be more complete and striking than the one between the physical circumstances of the infant and the expiring Rhine—the Alps and glaciers in the one case—the sand-hills of the North Sea shore in the other. Yet it is interesting to note with an acute observer, that the two small populations at the two extremities, though far apart and in totally different external conditions, are morally and nationally very much alike. ‘The Swiss,’ observes Mr Laing, ‘are the Dutchmen of the mountains. They are the same cold, unimaginative, money-seeking, yet vigorous, determined, energetic people as the Dutch at the mouths of the Rhine. In private household life the same order and cleanliness, attention to small things, plodding, persevering industry, and addiction to gain, predominate in the character of both; and as citizens, the same reverence for law, and common sense, the same zeal for the public good, the same intense love of country, and, hidden under a phlegmatic exterior, the same capability of great energy, and the same readiness to make sacrifices for it.’

The surface of Holland is numerously sprinkled with lakes or meres, chiefly found in the more maritime districts, generally small and shallow, hence favourable for drainage. In the course of the last two centuries a considerable number have been reclaimed for cultivation, or as pasture land, yielding rich crops of herbage, and are of high importance in husbandry. Upwards of 300 square miles have been added in this way to the extent of the productive area. The sites of the exhausted meres, called *polders*, are carefully dyked, being very low, in order to prevent the return of submergence, while the undue accumulation of water by slow filtering is checked by hydraulic machinery, employed to raise it into adjoining canals. Wind-mills supply the motive-power for this purpose, though steam-engines are partially in action, but from the want of coal it is not probable that the former, which at once arrest the attention of the stranger by their number and size, will speedily lose their prominence in the landscape. Yet it is not uncommon to meet with extensive polders, as lacustrine as ever, being completely under water, the remnants of some direful inundation which require lengthened and costly labour to remove. Canals constructed for drainage, and answering the general objects of intercommunication, intersect the country in every direction, fringed on both sides with rows of poplars and willows. Being generally frozen over for a considerable time in winter, a great part of the population betake themselves to skating on them for business or pleasure. Provisions of various kinds are brought by women skaters from remote villages and hamlets to the markets of the towns, who attain great speed when the wind is in their favour. It is on record that two young females at Groningen compassed thirty miles in two hours. Long straight lines of canals, dykes, and rows of trees, with the interspersing wind-mills, compose much of the scenery, which rarely fails to interest the foreigner by its strangeness to him; and while very enjoyable under a bright sky, with the vegetable profusion of summer bursting forth in its full glory, the mind acquires a sense of freedom, elevation, and elasticity, as the eye overlooks from one of the higher embankments the great surrounding level ranging to the far-distant horizon.

The soil consists of the most recent marine and fluvial deposits, yielding no economic mineral produce except potters-clay, brick-clay, fuller's-earth, and peat for fuel. Owing to the large quantity of inland water, with complete exposure to the sea, and prevalent east winds in winter, the climate is remarkably humid and foggy, often severely cold through eight months of the year, while the four summer months are frequently intensely hot, and insalubrious to foreigners, from the exhalations of the marsh-lands. Being without natural woods, though plantations are by no means rare, the wild animals are wholly unimportant;

and the people depend for their timber upon the produce of the forests of Germany brought down in enormous rafts by the Rhine. Aquatic plants are rendered numerous and varied by the abundant drains and meres, which foster the smaller reptiles, and invite aquatic birds; the stork is a constant summer visitor, to be seen in all the towns and villages, where it is secured by law in the enjoyment of complete protection as a useful scavenger. Fish of various kinds abound on the coasts; and a considerable number of the maritime population engage in fisheries off shore, and also in the more distant seas. Ship-building, distillation, horticulture, pottery, the manufacture of toys, wooden clocks, and tobacco, are prevailing industries, but grazing husbandry and commerce are the main sources of the national wealth. Fine cattle sustained by rich meadows are extremely numerous; dairy produce is exported in enormous quantities; the import into Europe and other parts of the products of the Spice Islands—cloves, nutmegs, and mace—exclusively belongs to Holland; and a large share of the carrying-trade in the productions of various countries is enjoyed by her merchants. The internal trade has long been carried on by the canals; but the common roads running along the embankments are excellent; and railways now connect the important places, and link the country with the great railway system of the continent. The famous ship-canal from Amsterdam to the Helder, designed to avoid the shallows of the Zuyder Zee, is nearly fifty miles in length. It was constructed at an immense expense, and of sufficient depth and breadth to carry the largest merchantman, and admit of two frigates passing abreast. But it has not answered expectation. Besides being annually stopped by the ice for three months, accumulations of mud and aquatic plants render the passage of large vessels difficult and tedious; and hence it has been gradually deserted by the deep-sea trade in favour of the channels to Rotterdam, since Antwerp ceased to be a Dutch port.

Foreign oppression in its utmost rigour, with political vicissitudes of almost every diversity, have been experienced in this singular region, while desperate struggles for independence have been witnessed within its limits, which were not made in vain, nor was the success abused. It formed part of the empire of Charles V. of Germany, and passed from him to his son Philip, becoming an appendage to the crown of Spain. Civil exactions followed intended to abridge liberty, and religious persecution to extirpate Protestantism, were sustained by the presence of a powerful army to quell resistance. The Dutch, as the people are called, rose in arms under William of Nassau, Prince of Orange. The inhabitants of Holland, Zeeland, of the lordship of Utrecht, the northern portion of the duchy of Guelders, the county of Zutphen, the lordship of Overijssel, Groningen, and Friesland formed themselves into the Republic of the Seven United Provinces in 1579, and after a severe contest, gained the prize of freedom for which they fought, the Prince of Orange being placed at the head of the state as stadtholder, or guardian of the country. In the following century they rose to great national distinction, became the leading maritime and commercial power in Europe, acquired colonies, and raised fleets which contended with England for the supremacy on the narrow seas. Their influence declined, owing to the successful rivalry of other states. In 1747 the form of government became monarchical by the stadtholdership being declared hereditary. The French revolutionary armies poured in and established the Batavian Republic, after the name of an aboriginal tribe. In 1806 it was made a kingdom by Napoleon, and given to his brother Louis. It was incorporated with France in 1810; then connected with Belgium, and constituted into the Kingdom of the Netherlands in 1815, an arrangement which subsisted till 1831, when the two became separate monarchies, the union being found utterly incompatible. The Dutch retained possession of all the colonies.

Holland consists of eleven provinces, and has the Germanic duchy of Luxemburg, held by the sovereign as grand-duke, associated with it, which gives him a vote in the councils of the Germanic Confederation.

Provinces.	Principal Towns.
North Holland,	Amsterdam, Haarlem, Alkmaar, Saardam.
South Holland,	The Hague, Rotterdam, Leyden, Dort, Delft.
Zeeland,	Middelburg, Flushing.
North Brabant,	Bois-le-Duc, Breda, Bergen-op-Zoom.
Utrecht,	Utrecht, Amersfort.
Gelderland,	Arnheim, Nimeguen, Zutphen.
Overyssel,	Zwolle, Deventer, Kempen.
Drenthe,	Assel, Meppen.
Friesland,	Leeuwarden, Harlingen.
Groningen,	Groningen, Delfzyl.
Limburg,	Maestricht, Ruremonde, Venloo.
Luxemburg,	Luxemburg.

The foreign possessions are of considerable value. They include—in Africa, settlements on the Guinea coast; in America, Dutch Guiana, the islands of Eustathius, Curaçoa, and others in the West Indies; in Asia, parts of Sumatra, Java, the Celebes, part of the coast of Borneo, and Timor, with the Moluccas, Banca, and Rhiau, near Singapore.

The province of NORTH HOLLAND is a peninsula projecting between the North Sea and the Zuyder Zee, terminating with a tongue of land not more than two miles broad, off which are the islands of Texel and Vlieland. The shore at this narrow point is defended from the inroads of the sea by the great dyke of the Helder, constructed entirely of blocks of Norwegian granite, squared and smoothed like a pavement. It is six miles in length, forty feet broad at the top, along which a good road is carried, and has a slope to the sea of 200 feet, inclined at an angle of about 40°. The lowest tides are far from shewing the base, and the highest fall equally below the summit. Enormous buttresses project at intervals from the rampart for its protection. Sand-downs form the greater part of the west shore, one of the highest of which, Camperdown, is composed of extremely fine, pure, and white sand, used in the manufacture of glass. It overlooks the scene of the naval battle to which the name is given, in which the Dutch were defeated by Admiral Duncan in 1797. The interior of the peninsula contains marshy districts, many small ponds, with lands rendered highly productive by drainage, as the site of the Harlem Lake, drained by an English company, where more than 40,000 acres are now divided into farms under tillage or pasturage.

Amsterdam, the commercial capital of the kingdom, and its largest city, is seated on the southern side of an inlet of the Zuyder Zee, at the junction with it of the little river Amstel, in latitude 52° 22' north, longitude 4° 53' east. The name refers to the position, properly Amsteldam, 'dam of the Amstel.' The site being naturally a morass, piles of wood have been driven to secure a foundation for the houses and buildings. This led Erasmus to remark on visiting it, 'that he was in a town where the inhabitants lived, like rocks, on the tops of trees.' The circumstance also induced the magistrates to lay a tax upon carriages, in order to restrict their use, under the idea that the movement of the wheels produced a dangerous concussion of the piles, but the regulation has been long rescinded, and seems to have been superfluous, as heavy goods are almost entirely transported along the canals. Still, the precaution pointed to a real danger, for dwellings now decline from the perpendicular, owing to the want of a firmer basis, and overloaded warehouses have sunk down below the general level from the same cause. The city was popularly said in former times to be built on herring-bones, as the fisheries then contributed largely to the immense wealth of the merchants. It forms a large semicircle, the curve of which is directed inland, while the straight side is on the sea-inlet, called the Y or Ij (pronounced Eye), which is in places nearly a mile broad, and affords deep water up to the quays. A rampart with bastions, now laid out in walks, and crowned with twenty-six wind-mills, describes the landward circuit. Interior to this, and running parallel with it, are three principal streets, of great breadth, and at least two miles long, each with a canal in the centre, between rows of trees. Inner streets and canals form the heart of the town, which is one of the most singular in Europe, once familiarly styled the Venice of the North, in allusion to its numerous water-courses, with the opulence and power of the citizens. The canals are said to cut up the ground into ninety-five distinct blocks or

islands, connected with each other by 290 bridges. All the houses of the city are of brick, painted in various colours, with door-steps and pavements of stone, imported for the purpose; but the streets, except the three referred to, have an inferior appearance. The principal building, formerly called the Stadthouse, and occupied by the States-general, is now the palace of the sovereign during his temporary visits; it is a stone structure of vast dimensions and magnificent character, resting upon not less than 13,659 piles. The interior is adorned with a profusion of white and veined marble, of which many of the floors, walls, and doorways are wholly composed; and has one apartment, the grand hall, rarely equalled in size and splendour, which formed the waiting-room of those who attended the levees of the burgomasters. Besides the churches—one of which, called the *Nieuwe Kerk* (New Church), is reckoned by the patriotic Dutch the finest ecclesiastical structure in Europe—town-hall, exchange, and dockyard, the other public establishments include several literary and philosophical societies, a remarkable number of benevolent institutions, a national picture-gallery, devoted chiefly to productions of the Dutch school, and the recently-opened Fodor Museum, located in a handsome building. This last originated with a merchant of the same name, who, in 1860, bequeathed his valuable collection of works of art to the city, together with his residence and adjoining warehouses, on the condition of a suitable edifice being erected on the site. The *chef-d'œuvre* is Scheffer's 'Christus Consolator,' purchased at the sale of the Duchess of Orleans's collection, for £2100. Amsterdam contains a population of 233,000, dependent entirely for fresh water upon tanks supplied from the clouds, and water-barges which convey it from a distance. Another disadvantage is the offensive effluvia from the canals in the heat of summer.

Saardam, a ship-building town, occupies a site on the opposite shore of the *Ai*, and is conspicuous from afar by a long line of enormous wind-mills connected with it. The place has become widely known from Peter the Great having made a short stay here, working in one of the building-yards. The cottage in which he resided is preserved with care, and has had many distinguished visitors. *Broeck*, similarly situated, but a few miles inland, a mere village in size, has acquired great notoriety as the cleanest place in the world. The houses are all bright with paint of gaudy colours, the little gardens are gay with flowers; and paved alleys, not wide enough to admit a carriage, are the only streets, scrupulously kept clear of every unsightly speck. The interiors correspond with the exterior in purity. It is a specimen of Dutch neatness and cleanliness carried to an extravagant excess. *Haarlem*, twelve miles west of the capital, is, after it, the largest place in North Holland, containing 28,000 inhabitants. Bleach-works and various manufactures are carried on, but the principal trade is in flower seeds and bulbous roots, tulips and hyacinths, which are raised in extensive nursery-grounds, and sent to all parts of Europe. *St Bavon's*, the principal church, is famous for its organ, with 5000 pipes, 60 stops, and 4 rows of keys, built in the fifteenth century, and, till a recent period, the largest of its kind. In the square adjoining, stands the statue of Coster, to whom the Dutch persist in ascribing the invention of the art of printing. The town endured a seven months' siege from the Spaniards in 1573, remarkable for the resistance offered by the people, and the perfidy with which they were treated upon capitulating. A newspaper, the *Courant*, has existed since the year 1650. *Alkmaar*, on the line of the ship-canal, has the largest cheese market in the country, held weekly, and is the scene of an annual swan fair. *Hoorn*, a decayed place on the *Zuyder Zee*, gave birth to the mariner Schouten, who first rounded Cape Horn, and so named it after his native town; and to Tasman, who discovered Van Diemen's Land, now called after him, Tasmania. The large nets used in the herring-fishery were first constructed here. *Helder*, an important port, is at the north extremity of the peninsula, with an artificial harbour, very strongly fortified, upon which Napoleon expended an immense sum, with the intention of making it a northern Gibraltar, but left the works unfinished. The channel between it and Texel Island is the principal entrance into the *Zuyder Zee*, and almost the only part of the coast which has deep water; the accumulation of sand being prevented by the strong tidal current.

SOUTH HOLLAND, exclusively on the North Sea, comprehends the country around the mouths of the Rhine and the Maas, which the latter river cuts up into the islands of *Ysselmonde*, *Voorne*, *Overflakkee*, and several others. It contains many important towns, and highly productive districts, and enjoys a large share of the national wealth and commerce. The surface has also some agreeable natural features, especially around the Hague, and from thence to *Leyden*, where almost the only relics remaining of the primeval forest are met with. Good roads, paved with bricks, besides the railway, traverse the woodland; and occasionally a rope appears stretched from tree to tree at a considerable height over them, on which a lamp is suspended, sufficiently indicative of the handiwork of man. But the trees are left to grow according to their will, without the training to which the Dutch are partial; and pleasant glades are at hand of a thoroughly rustic character.

Rotterdam, the second city of the kingdom, with a population of 111,400, stands on the north bank of the principal outlet of the Maas, about twenty miles from the sea, and forty miles south-south-west of Amsterdam; its port receives the largest merchant-ships, while smaller vessels pass by canals into the

leading streets. It has also canal communication with most of the larger Dutch towns, and with Germany by the Rhine. It forms a triangle, the base line of which is on the river, a mile and a half in length. The open country lies on the one side beyond the stream, and a range of lofty houses occupies the other, with a row of fine trees in front, and a thoroughfare to which the misnomer of *Boompjes*, 'little trees,' is applied. The foreign commerce is very extensive as well as the inland traffic by the river. A bronze statue of Erasmus, a native of the city, stands in the principal market-place. The house in which he was born, indicated by an inscription, is now a shop for the sale of effervescing drinks. The house occupied for a time by Bayle, the author of the Dictionary, is also pointed out. Another dwelling has the ominous name of *Duizend Vreesen*, or 'Thousand Fears,' from the circumstance that during a massacre by the Spanish soldiers the inmates saved their lives by stratagem. They slew the cats, sprinkled the blood at the entrance, and left the door open, which led the murderers who passed by to suppose they had been anticipated by their comrades in the work of death. The principal public edifices are the Cathedral Church of St Laurence, the exchange, the town-hall, and the palace of justice. The chief prison of the Netherlands is here. Rotterdam never fails to interest the stranger, as it is commonly the place where a first acquaintance is made with Dutch scenes and usages.

Schiedam, a few miles on the west, is the chief seat of the manufacture of the gin called *Hollands*. *Dord*, or *Dordrecht*, on the south-east, the rendezvous of the rafts of timber floated down from the Swiss and German forests by the rivers, has great historic distinction. It was the first gathering-place of the States-general, in 1572, after the declaration of independence; and the scene of the ecclesiastical synod, in 1618, which, attended by some Anglican divines, condemned the doctrines of Arminius. *Gouda*, on the north-east, is a large cheese-mart and tobacco-pipe manufactory, and has in its Church of St John many windows of painted glass, some of which are of very large size, and accounted the finest in Europe. *Brielle*, a little town on the island of *Voorne*, near the mouth of the *Maas*, is the first place that comes into view on passing from the sea into the river. The name literally signifies a pair of spectacles, and means figuratively, in allusion to its site, the outlook of Holland. It was the birthplace of the Admirals Van Tromp and De Witt. *Hellevoetsluis*, on the south side of the island, is a fortified port and chief station of the navy, the place from which the Prince of Orange sailed to become William III. of England by effecting the Revolution of 1688.

The Hague, three miles from the shore of the North Sea, is the political capital, the seat of the court, of the government, and the supreme judicial tribunals. It contains a population of 82,600. The name is a contraction of *S' Gravenhagen*, the 'Count's haugh or meadow,' in allusion to a seat at the place of the old counts of Holland. It has an air of elegance which does not belong to the other Dutch towns; possesses handsome streets, houses, shops, and avenues of linden-trees; contains a picture-gallery of unrivalled excellence in productions of the Dutch school; and a museum located in the same building, with apartments stored with valuables and curiosities from China and Japan. In one of the public offices are deposited the archives and state papers which have been preserved by the republican and regal governments of the country for 400 years. The royal residence in the vicinity, '*Huis in 't Bosch*,' 'House in the Wood,' is a charming retreat; but, indeed, the environs are quite covered with handsome villas. To *Scheveningen*, a large village on the neighbouring coast, reached through a beautiful avenue of trees, the court and notables repair in summer for sea-bathing. William III. of England, and Huyghens the mathematician, were born at the Hague. *Delft*, southward in the direction of Rotterdam, an antique and decayed-looking town, was formerly famous for its pottery, hence called '*delf*,' a name once more familiar with English ears than at present; but the manufacture is now unimportant. The churches have objects of interest in the tombs of the first Prince of Orange, assassinated in the town in 1584; of Grotius, a native; and of Van Tromp, the victor in thirty-three naval battles. *Leyden* (Fr. *Leyde*, the *Lugdunum Batavorum* of the Romans, originally *Luijckduin*, from *Luijk*, an 'end,' and *dun*, a 'hill,' during the middle ages *Lugdun* or *Leydis*), northward on the railway to Haarlem, the literary capital of the kingdom, as the seat of a celebrated university, is situated on the canal-like channel of the Old Rhine, six miles from the sea. Though containing 37,000 inhabitants, it has little trade or commerce; the streets are extremely dull and quiet, but have an unusual proportion of good houses, in harmony with its renown for eminent professors, grave jurists, and ponderous divines. The city is said to be the oldest in Holland, and in 1640 had nearly thrice its present population. The story of its siege by the Spaniards in 1574 is of romantic interest, and forms one of the brightest chapters in the annals of Holland. It was closely beleaguered for several months, during which no bread was seen through seven weeks, while horses, dogs, roots, and weeds were eagerly devoured. Pestilence was added to famine, but failed to subdue the determination of the citizens not to surrender. To relieve them, the Prince of Orange caused the dykes on the coast to be broken down, and laid the country under water. But it did not rise high enough to dislodge the enemy, or allow of the passage of boats laden with provisions. At last the wind changed. It blew from the North Sea, drove the water up the rivers, and while the great overflow carried destruction to the Spaniards, it transported food to the gates of Leyden. This deliverance is still gratefully commemorated on its anniversary, the 3d of October. In reward for their heroism, the government offered the inhabitants their choice of an exemption from all taxes for a stated period, or the foundation of a university, and much to their honour they chose the latter. The names of Grotius, Gomarus, Scaliger, Descartes, and Boerhaave occur in the list of its professors or scholars, with those of many of our countrymen, Evelyn, Goldsmith, and Fielding. It has an excellent botanical

garden, and an unrivalled Japanese museum. The latter was not shewn to the Japanese ambassadors recently in Holland, as the objects had been obtained by merchants and consuls contrary to the laws of the country.

ZEELAND, 'sea-land,' according to the name, is an eminently maritime province in position, and has the waves rising high above a large portion of the surface at every tide. It embraces the islands in the estuary of the Scheldt, and a portion of the mainland on the southern bank of the river, bordering on Belgium. In the spring and autumnal months the insular sites are very unhealthy, especially to strangers, owing to the marsh fever, from which the English army suffered severely during the ill-conducted expedition to Walcheren in 1809, under the Earl of Chatham. The seaward side of that island, where a breach occurs in the line of sand-downs, is protected by one of the most stupendous of the dykes, 4700 yards long, and 30 feet high, the disruption of which would submerge the greater part of the province. It gave way in the year 1808; the sea poured in; and the water rose in the streets of Middelburg to the roofs of the houses.

Middelburg, near the centre of Walcheren, is a considerable town, to which, by a happy accident which befell a spectacle-maker, the invention of the telescope is traced. *Flushing*, on the south coast, a fortified port, has extensive docks and arsenals; and with two forts on the opposite shore of the Scheldt commands the mouth of the river. The Admiral De Ruyter, who sailed up the Medway, burned the English fleet at Chatham, and alarmed London, in the reign of Charles II, was a native of the town.

NORTH BRABANT, the largest province, is washed by the tidal waters of the Scheldt and Maas, but belongs chiefly to the basin of the latter river. It forms the northern border of Belgium, and is principally distinguished by strong fortresses. *UTRECHT*, the smallest province, has a coast-line on the Zuyder Zee, and a considerable portion of surface, which agreeably contrasts with the adjoining districts, in being slightly raised above their level. It is therefore devoted to tillage as well as pasturage, and further diversified with streams not requiring embankments, and with clumps of trees and copsewood.

Bois-le-Duc, the French translation of the native *S'Hertogenbosch*, 'the Duke's Wood,' occupies the site of a hunting-seat of the old Dukes of Brabant, to which the name alludes. It is a fortified trading town, at the confluence of two tributaries of the Maas, and has undergone several sieges. It possesses a cathedral, an academy of arts, an arsenal, &c., and has manufactures of various kinds. *Breda*, the scene of congresses, with a military academy and arsenal, forms a fortress of the first class, which may be rendered inaccessible to an enemy, as the surrounding country admits of being laid under water. *Bergen-op-Zoom*, equally strong, fortified by Cohorn, is considered almost impregnable, and was unsuccessfully besieged by the British in 1813. *Utrecht*, the fourth most important city of the kingdom, with a population of 55,500, stands on the Old Rhine, at the point of the departure of the Vecht from the decayed stream, about 23 miles south-east of Amsterdam. It has the advantage of a healthy site and beautiful environs, the ground being somewhat elevated, and the country well wooded with fine trees. It is the seat of a university, founded in 1636, has charming walks, and a church tower, from the summit of which, in clear weather, the eye may overlook nearly all the Netherlands. A Roman station existed at the spot, called *Trajectus ad Rhenum*, 'Ford on the Rhine,' for which *Ultra Trajectum* was substituted in the middle ages, the original of the present name. The city has been the scene of several important historical events. The compact of the states against Spain was here subscribed, as was the treaty which gave peace to Europe in 1713, hence styled the Treaty of Utrecht. *Amersfort*, on the north-east, deserves mention as the native place of the patriot Barneveldt, who, after a life spent in securing the independence of his country, fell a victim to the enmity of Prince Maurice, and was beheaded at the Hague in 1618, at the age of seventy-two.

GELDERLAND and OVERYSSEL, connected with the east coast of the Zuyder Zee, extend from it to the frontier of Germany, and are traversed by the Rhine, with its branches, the Waal and the Yssel. The former province is the finest part of Holland, portions of which bear the name of the 'Dutch Paradise,' being studded with country-seats, parks, and gardens, while the eye is conscious that the rivers flow, and do not stagnate.

Arnheim, the capital of Gelderland, is the largest town of the two districts, with 25,400 inhabitants, pleasantly placed on the Rhine, soon after it leaves Prussian territory, and enjoys a considerable river trade. *Zutphen*, on the Yssel, is enduringly associated with the memory of Sir Philip Sydney, who there received his death-wound in the battle of 1586. *Nimeguen*, on the Waal, strongly defended, gives its name in history to the treaty of 1678 between Holland, France, and Spain, which was signed in the town-hall. Some distance below the town, the Waal bifurcates with the Maas before finally falling into it. They form together the

river-island of Bommel, at the western end of which stands the Castle of Loevestein, a site of celebrity. This was the prison of Grotius for twenty months in 1619, where he wrote the greater part of his treatise *Jus Belli et Pacis*. It was also the scene of his wife's devoted fidelity. She romantically effected his escape, aided by a trusty maid, by having him conveyed away in a chest used for the transport of books, while she remained behind to conceal as long as possible his departure. *Zwolle* and *Deventer*, both flourishing towns in Overijssel, are associated with the widely-known Thomas-à-Kempis. In the latter he studied; and in a convent near the former, he spent the greater part of his life, and died in 1471.

GRONINGEN, FRIESLAND, and DRENTHÉ, are the most northerly portions of the kingdom, the two former being maritime, on the North Sea, and the latter wholly inland. The first-named province has excellent arable land under cultivation, but the general surface of the three is either sandy or marshy, very numerously sprinkled with lakes and ponds, around which are pasture-lands sustaining large numbers of horses and cattle. Extensive peat-beds occur, and as there is no coal nearer than the carboniferous basins of Belgium, the article is of high service as fuel in domestic economy. Some of the beds quiver perpetually, and hence the common saying, *Het land leeft*, 'the land is alive.' The country being flat and low has to be guarded from the irruptions of the sea, and is intersected with a net-work of canals for drainage, serving also for traffic, as the ordinary roads are bad, and railways have not yet put in an appearance. The chronicles of Friesland are especially rife with calamities from the attacks of the stormy deep. It contains a monument without example in the kingdom, raised in honour of a Spanish governor near Harlingen, who introduced an improved method of constructing the sea-walls. The people are a Frisian race, fishermen on the shores, whose ancestors joined the Angles and Saxons in their migration to Britain, but have lost all distinctive characteristics by contact with their present neighbours.

Groningen, a fortified and flourishing town of 36,000 inhabitants, the largest in the north-east of Holland, at some distance from the sea, communicates with it by a canal navigable by large vessels. It is the seat of a university founded in 1615, furnished with a good library, museum, and botanic garden. The market-place is the finest square in the whole kingdom, and the principal church has one of its highest towers, rising 343 feet. *Leeuwarden*, the capital of Friesland, is a great canal centre, connected by a grand trunk with the *Zayder Zee*, on the west, and the Gulf of Dollart on the east, passing by Groningen. It contains the tombs of the Princes of Orange in one of the churches.

LIMBURG, a long narrow tract traversed from south to north by the Maas, borders on North Brabant, but is chiefly enclosed by Prussian and Belgian ground. The grand duchy of LUXEMBURG, wholly isolated, lies on the Moselle, which forms the eastern frontier, surrounded by Prussia, Belgium, and France. As a state of the Germanic Confederation, it gives the king of Holland three votes in the general council of the diet at Frankfort.

Maestricht, the capital of Limburg, a town of 28,000 inhabitants and first-class fortress, lies on the left bank of the Maas, close to the Belgian frontier. Vast stone quarries perforate the hill of the citadel, now called *St Pierre*, formerly *Mons Hunnorum* in memory of Attila, consisting of subterranean passages, which embrace a total length of many miles. In time of war, the inhabitants of the surrounding country have occupied them as a place of refuge, with their cattle. They are not fully known to any of the labourers, and inexperienced persons entering alone would soon be bewildered in the labyrinth. Among other fossils, have been found in these workings two heads of the gigantic *Mosasaurus*. *Luxemburg*, a small town on an affluent of the Moselle, is one of the best fortified places in Europe, with a garrison maintained by the Germanic Confederation. Strong by nature, it has been made additionally so by art, and is reckoned to be impregnable. The site has been compared to that of Jerusalem. A lower part of the town, on the margin of the *Alsette*, communicates with an upper by flights of steps and zigzag streets which are cut in the face of steeply-escarped rocks.

The population of the kingdom, 3,618,000, consists mainly of Hollanders or Dutch, a branch of the Germanic family speaking a dialect of the German language. More than a half of the number are Protestants of the Calvinistic Church, founded on the decrees of the Synod of Dort in 1618. The remainder are chiefly Roman Catholics, though there are Lutherans, and other denominations, with many Jews in the large towns,

especially in Amsterdam. The national clergy are paid by the state, which contributes also to the support of the ministers of different communions. They attend to the religious education of children at stated times during the week, while secular instruction is provided by the government. Many of the churches have four services on the Sunday, the first early in the morning; and it is not uncommon for the officials to go round to receive offerings for the poor three times during a single service. Excellent elementary schools are established, in which the poorest are taught free, and only a small payment is required from those who are in better circumstances. The public treasury likewise sustains the three universities, Leyden, Utrecht, and Groningen, their order in point of importance. The system of Forecasting the Weather is adopted by authority, based upon readings of the barometer, taken for every day of the year and every hour of the day, at Flushing, Maestricht, Groningen, and Helder. The first telegraphic warning of a storm was given on the 1st of June 1860. French is spoken fluently by the upper classes, who are also generally proficient in English. Some knowledge of our mother-tongue is common with the middle and lower grades of the people; and after a little experience, the Englishman and the Dutchman, only accomplished in their native speech, may communicate as to everyday wants without much difficulty, owing to similar forms of expression. 'Brood en Koekbakker,' 'Koffy en Thee te Koop,' inscriptions over shop-doors, cannot long remain a puzzle, though not quite so intelligible as 'Tabak, Snuif, en Sigaren.'

The Dutch are intensely national, so much so as to be not a little vainglorious of moderate achievements among themselves. They are patterns of industry, frugality, and cleanliness; strongly attached to civil and religious liberty, exemplary in their domestic relations, and extremely charitable to the poor; while of phlegmatic temperament, they are strongly prejudiced on behalf of rules and usages which found favour with their grandsires, hence slow to admit improvements, and obstinate to excess. Perhaps not more than to most other mercantile nations are the lines of Canning applicable:

'In matters of commerce, the fault of the Dutch
Is giving too little, and asking too much.'

They have excelled in the fine arts and various branches of learning, and been distinguished for their enterprise, but seem now deficient in genius and energy, and are not entitled to be considered one of the advancing nations. In jurisprudence and philology, the great names are Grotius, Heinsius, Leusden, Schrevelius, Burman, Gronovius; in natural science, Huyghens, Boerhaave, Leeuwenhoeck, Camper, Swammerdam; in criticism and theology, Erasmus, Arminius, Gomarus, Erpenius, Vitringa, Limborch; in painting, Rembrandt, Teniers, Wouwermans, Vandervelde, Ruysdael, and numerous others. While customs are met with at every turn different to our own, many provoke a smile by their oddity. A birth announced in the newspapers will often have the appendage of 'a prosperous delivery;' or a 'well-formed infant;' and a death will be dolorously proclaimed by a newly-made widow's hand, with the record that 'Tabak, Snuif, en Sigaren' continue to be sold. Of piquant appearance are the garden-houses of well-to-do traders in the suburbs of the towns, or those connected with the villas of wealthy retired merchants, shining with paints of divers hues, surrounded with trim hedges, closely-shaven grass-plots, and tidy flower-beds. Each has its motto in front, in painted or gilt letters, such as 'My Delight,' 'Beyond Expectation,' 'Rural Felicity,' 'Our Contentment,' 'Sweet Solitude,' 'My Desire is Satisfied,' which serve to amuse the stranger, however disposed to question the taste of the proprietors.



Rotterdam Cathedral.



Market-Place, Lübeck.

CHAPTER IV.

GERMANY.

GERMANY, from the Latin *Germania*, is the English name of the country which the natives call *Deutschland*, and the French *Allemagne*. It occupies the central portions of Europe, is a region of high historic renown and great political importance, embracing within its limits the principal possessions of two first-class powers, the Austrian and Prussian monarchies, with several minor kingdoms, and a multitude of states of subordinate rank, all united in the bonds of a common confederation. The shores of the North Sea and the Baltic, with the Danish peninsula, form the northern boundary; the confines of Switzerland and Italy, with the head of the Adriatic, mark the southerly extent; France, Belgium, and Holland lie on the western frontier; and from thence the country stretches to Prussian, Russian, and

Austrian Poland, and to Hungary and Croatia. The territory thus enclosed, lies between latitude $44^{\circ} 50'$ and $54^{\circ} 50'$ north, and between longitude $6^{\circ} 20'$ and $20^{\circ} 10'$ east. Its extreme length, north and south, amounts to 680 miles; the greatest breadth is somewhat less, or 615 miles; the circuit measures 2700 miles, of which only a comparatively small proportion is sea-coast; and the area contains 280,000 square miles. Complete uncertainty rests upon the origin and meaning of the classical denomination; but it is conjectured by some to have been borrowed by the Romans from the Gauls, who denoted a loud cry by the word *gairm*, out of which the epithet might be formed in allusion to the war-shout of the tribes, like the Homeric *boen agathos*, 'good at the war-shout.' Another derivation gives to the term German the signification of 'war-man,' from *ger*, the root of the French *guerre*, and the Spanish *guerra*, 'war.' The *Allemagne* of the French is derived from the *Alemanni*, 'all men,' a powerful confederacy of the populations who vigorously assailed the Roman Empire, and were eventually mastered by the Franks. The first part of the native name, *Deutschland*, is formed from the old Gothic word *thiudisk* or *diutisc*, 'people,' referring to the popular tongue, and has its equivalent meaning in 'fatherland,' a favourite phrase with the present inhabitants.

Three natural divisions may be recognised in this extensive territory, northern, central, and southern, differing in their superficial aspect. From the sea-margins on the north, extending to a distance inland, varying from 100 to 300 miles, the country is generally low and level, part of the great European plain. It consists of a series of sands, heaths, peat-moors, pine-woods, and small lakes, with cultivable tracts along the courses of the rivers; and would be, to a large extent, almost a desert, were it not for the abundant rainfall and the industry of the people. Exposed to winds from the northern seas, the climate is humid and variable; fogs and storms are common; while the winters are persistently severe, deep snow covering the ground through three or four months of the season.

The central region is beautifully diversified by hills, forming groups and ranges, some of which acquire the character of mountains, and enclose romantic valleys. They never fail to inspire the north Germans, accustomed to the wearisome monotony of nearly a dead level, with enthusiasm, though the general elevation is not considerable. The *Harzgebirge*, 'pine-resin mountains,' rise on the south of Hanover; the *Böhmerwald*, or Bohemian Forest Chain, the *Erzgebirge*, 'ore mountains,' and the *Riesengebirge*, 'giant mountains,' wall in the basin-shaped valley of Bohemia; the *Thuringerwald* over-spreads the Saxon duchies; the *Odenwald*, continued southward by the *Schwartzwald*, or 'Black Forest,' forms the Rhenish highland system, running parallel to the course of the Rhine. These, and other elevated tracts, are sometimes collectively called the *Hercynian Mountains*, from the name of the immense forest, the *Hercynia Silva* of Tacitus, which once covered a large portion of the country, and was estimated by Cæsar at sixty days' journey in length, and nine in breadth. *Schneekoppe*, 'snow-cap,' the highest point, one of the summits of the *Riesengebirge*, over which passes the frontier line between Prussia and Austria, rises 5235 feet above the sea. Removed to a distance from the coast, while protected by hills from the sea-winds, the climate in Central Germany is much drier than in the northern division; the sky is usually serene; and the temperature less liable to sudden variations.

The southern region embraces the high plateau or table-land of Bavaria, with the chains of the *Rhætian* and *Noric Alps* in the background, which extend in enormous masses over the *Tyrol* and the other adjoining provinces of Austria. The elevation here checks the climatic effect of the southerly latitude; and except in the close deep valleys and at great heights, where the opposite extremes of heat and cold are experienced, the temperature is

moderate. Germany is thus in its conformation an ascent, by successive steps, from the low shifting sand-hills of the northern shores, to the snows and glaciers of the high Alps. The loftiest summit is the Ortler Spitz, 12,850 feet above the sea, a magnificent mountain, close to the Italian and Swiss frontiers. It overlooks a house on the crest of the Stelvio Pass, occupied by the inspector of the road, at the elevation of more than 9000 feet, the highest permanent human habitation and carriage-route in Europe; and has at its northern base the 'Bears' Playground,' a level tract so called from the former frequent appearance of these animals at the spot, since rendered rare by the rifles of the Tyrolese. The peak of the Ortler was scaled for the first time in the year 1804 by three peasants, in consequence of a reward offered for the achievement by a member of the Austrian royal family.

Four sea-basins receive the superficial drainage of Germany. A small part finds its way, chiefly by the rapid Adige, southward from the Tyrol to the Adriatic; a large proportion is carried eastward by the Danube to the Black Sea; the greatest quantity is conducted northward by the Elbe, Weser, Ems, and Rhine, to the North Sea, and by the Oder to the Baltic. Minute descriptions of the hydrography enumerate fifty navigable streams. The noble Danube intersects the country nearly from west to east. It descends from the slopes of the Schwartzwald in Baden, passes by Ulm, Ratisbon, Passau, and Linz to Vienna, below which its waters quit the land of their birth. Within these limits, the important tributaries are the Iller, Lech, Altmuhl, Isar, and Inn on the right bank; with the Wornitz, Naab, and March or Morava, on the left. A rapid current, with many islands in the channel, dividing it into several branches—a flow through expanded valleys and deep defiles, between vine-clad hills and forest-clothed mountains, villages and convents peeping up above the woods, and old castles crowning the heights—are features which distinguish the course of the stream, the finer scenes occurring at somewhat distant intervals. While the Danube is born in the country, the Rhine is received from Switzerland, and remains a border river from it and from France to some distance below Strasburg. It then separates the Palatinate from Baden, intersects Hesse-Darmstadt, flows by Mayence careeringly through a glorious gorge, to become wholly Prussian near Coblenz, passes Cologne with a gradually relaxing pace to the frontier of Holland. Its principal affluents in the Germanic part of its course are the Neckar and the Main on the right bank, the Moselle on the left.

From source to mouth, the Elbe (Lat. *Albis*, i. e. the 'White River') is entirely German, and is the largest river answering to that condition. It is formed in the central region, at the foot of Schneekoppe, on the north-eastern border of Bohemia, at the height of more than 4000 feet above the sea. After receiving the Moldau on the left bank, it escapes from the confined Bohemian basin, through a wild gorge in the enclosing mountains, descends to Dresden, and passes thence with a tranquil flow, through scenes of industry and fertility, by Magdeburg and Hamburg, to its embouchure at Cuxhaven. The stream has an expansion of more than ten miles at its mouth, and experiences there a tidal rise of twelve feet. In the early part of its course, while effecting the passage of the mountains, it flows between high battlements of sandstone rock, cut at intervals with smooth-walled defiles, so deep and narrow as not to be reached by the direct sunbeams, forming the district commonly styled the Saxon Switzerland. While traversing the northern plain, it receives the Mulde and the Saale on the left bank, the Havel on the right. As an infant river, the Oder belongs to Austria, rising at the base of the Carpathians, but it speedily enters Prussia, and is confined to it, passing by Breslau and Frankfurt to Stettin, below which it forms one of the *haffe*, or fresh-water expanses, which mark the shores of the Baltic. Having nearly

its whole course through a great level, the stream is extensively capable of navigation, but the current is so feeble that a north wind will arrest its flow, and sometimes reverse it, by driving the waters of the sea into the channel. The lakes of Germany have no important magnitude or points of interest, though extremely numerous in both the northern and southern countries.

The great northern plain consists of tertiary strata overlaid with very recent sand and mud, besprinkled with erratic blocks. A very extensive area south of the Danube is also occupied by the same strata, but often highly altered by the intrusion of the granitic masses of the Alps, and elevated on the mountain-slopes. Secondary rocks compose the central region, from the Danube northwards to Hanover, dislocated, elevated, and modified in character by the intruded granite which forms the higher portions of the Harz, Erzgebirge, and Reisingebirge. Basalts, trachytes, and other volcanic products, with numerous extinct craters, many of which are filled with pools, appear in the Eifel district, in the western division of Rhenish Prussia. Metals of almost every kind are obtained in abundance from the mountain-ranges; and nowhere is mining conducted with greater economy and skill. The southern countries possess vast deposits of rock-salt. Four true carboniferous beds distinguish the central, with lignites of a more modern age, but except in a few places no considerable amount of coal is raised. Clays and earthenware used in arts and manufactures abound, and are articles of export, particularly the dull yellow limestone employed in lithography, of which nearly all the supply comes from Bavaria. Mineral springs occur in great numbers and remarkable variety, many of which have been visited from very early times for sanitary purposes. Woodland districts, often indicated by the word *wald*, 'wood,' as a terminal in their names, still answer to the denomination, as the Thuringerwald, Bohmerwald, and Schwartzwald, remnants of the old Hercynian forest. The common pine prevails in the north-east; the oak, beech, and ash in the centre; the Siberian pine, and larches of enormous dimensions, in the Alpine region. In most of the states, the large forests are the property of the government, and are under careful superintendence, the timber being of great commercial value in the foreign trade, while they are the main dependence at home of millions of people for fuel. The woods supply abundance of game for field-sports, commonly sheltering the wild boar, red deer, and wolf, with the black bear and lynx in the high mountain districts. A small burrowing animal, the hamster, occurs in various parts in prodigious numbers, though an exterminating warfare is waged with it as a pest to the crops.

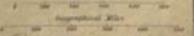
Germany has been appropriately styled the labyrinth of geographers, owing to the number of its political divisions; their diminutive size in many instances; fragmentary character and involved distribution in others; while several are connected with non-Germanic countries. It contains not less than thirty-four separate states, which form a confederation for the purpose of preserving the external and internal security of the country, with the independence and integrity of the component parts. They may be arranged in three groups, consisting of twelve northern, seventeen central, and five southern states. To the leading powers, Austria and Prussia, distinct chapters in this volume are devoted, while Holstein-Lauenburg associated with Denmark, and Luxemburg with Holland, are noticed in those connections. Their names are therefore simply inserted in the enumerations given. For the population of the minor states, see Table of Europe, p. 140.



EUROPE.

BY J. HARRISON, 1843.

Scale of Miles.



Note: The Red Line indicates the boundary of the Russian Empire.

W & A CO. LONDON.

I. NORTHERN STATES.

States.	Principal Towns.
Kingdom of Prussia, Germanic part,	(See Prussia.)
" Hanover,	Hanover, Emden, Celle, Lüneburg, Göttingen, Clausthal.
Grand Duchy of Oldenburg,	Oldenburg, Knipphausen.
" Mecklenburg-Schwerin,	Schwerin, Rostock, Wismar, Dobberan.
" Mecklenburg-Strelitz,	Neu-Strelitz, Neu-Brandenburg.
Duchy of Holstein-Lauenburg,	(See Denmark.)
" Brunswick,	Brunswick, Wolfenbüttel, Helmstadt.
Principality of Lippe-Deimold,	Deimold, Lemgo.
" Lippe-Schaumburg,	Bückeburg, Stadthagen.
Free City of Bremen,	Bremen, Bremerhaven.
" Hamburg,	Hamburg, Cuxhaven.
" Lübeck,	Lübeck, Travemünde.

The kingdom of HANOVER consists of two detached tracts, the largest of which lies on the North Sea, but is itself nearly divided into two parts by the enclosed territory of Oldenburg. The Elbe forms the boundary for upwards of a hundred miles on the north-east; the interior is traversed by the Weser and the Ems; and the surface belongs entirely to the great northern plain. It abounds with poor or unproductive soil—marsh-lands, peat-moors, and sandy heaths—but has fertile districts along the banks of the rivers. The smaller portion of the kingdom lies on the south, detached by part of the Brunswick duchy, and has a different aspect, being overspread with the Harz Mountains, rich in minerals, clothed with forests of pine and oak. Their highest summit, 3543 feet, the Brocken, famous for its spectral illusions, which gave birth to many a wild tale in the middle ages, is just beyond the frontier, on Prussian ground. The meteorological exhibition occurs chiefly in the autumnal months, but is very occasional, depending upon a rare juncture of circumstances. At sunrise or sunset, when the opposite horizon is clothed with mist, the form of the mountain, the inn at the summit, and the figures of spectators, appear delineated in cloud-land, but in colossal proportions. Gold, silver, lead, zinc, and copper are obtained from the mines, and in some instances from the same mountain. They are partly in the hands of the government, as are entirely the railways and telegraph-lines throughout the country. The great majority of the population, who, in 1861, amounted to 1,880,000, are Protestants of the Lutheran communion.

Hanover, the capital, a city of 71,100 inhabitants, including the suburbs, is situated on the banks of the *Leine*, an affluent of the *Weser*, and on the main line of railway between *Cologne* and *Berlin*, in the midst of a sandy plain. Since 1837, when it became a royal residence, great improvements have taken place in its appearance, and a new town has risen up near the railway station. The old part contains specimens of quaint medieval architecture. Its principal buildings are the town-hall, the theatre (one of the largest in Germany), the king's palace, the museum, the gallery of pictures, and its numerous benevolent and educational institutions, of which the most noted is the *Georgianum*, a college for the sons of the nobility. Two palaces in the immediate environs, *Herrenhausen* and *Montbrillant*, have very beautiful gardens and grounds. The city was the scene of the deaths of *Leibnitz* and *Zimmerman*, and of the birth of the elder *Herschel*. *Leibnitz's* house is indicated, and his arm-chair is preserved in the royal library. This collection contains 100,000 volumes, in addition to which there is a public library of 40,000. Hanover was the first city in Germany lighted with gas (1826). *Celle* or *Zell*, a manufacturing town, is on the north-east; and *Hildesheim*, an episcopal city, on the south-east. *Osnabrück*, towards the south-western border, produces the coarse linens called *Osnaburghs* from the site. *Emden*, at the outlet of the *Ems*, is the principal seaport, in a low situation requiring dykes for protection from inundations of the sea. *Lüneburg*, on a small affluent of the *Elbe*, gives its name to the most extensive of the heaths, used as a sheep-walk, and much resorted to by the keepers of bees when the heather is in bloom. There are upwards of 200,000 hives in the district, yielding honey of the annual value of £40,000. *Göttingen*, in the small detached district, is the seat of a university, celebrated for books and duels. It was founded by the Elector, *George II.* of England, in 1734, and speedily acquired reputation, but has declined since seven of the professors were deprived of their chairs in 1837 for holding liberal political opinions. Yet, in 1855, it had as many as 107 professors and 713 students. The library contains upwards of 300,000 volumes and 5000 manuscripts. *Clausthal*, the chief town in the mining district, occupies

a high bleak situation in connection with the Harz, and has a school of mines, with a mint for the coinage of the precious metals.

The kingdom dates from the year 1815, having previously been an electorate. In 1714, the country became connected with Great Britain, by the second Elector, George, succeeding to Queen Anne as her nearest Protestant relative, the great-grandson of James I. The connection subsisted till the accession of Queen Victoria in 1837, when females being excluded from the Hanoverian succession, that crown passed to her uncle, Ernest-Augustus, Duke of Cumberland, and put an end to one cause of English entanglement with continental politics.

OLDENBURG, a grand duchy, embraces a district on the North Sea, wholly surrounded in other directions by Hanover, with two detached tracts in Holstein, and a third in Rhenish Prussia. Their united area does not equal that of Devonshire. The country is wholly agricultural, and very thinly peopled. A small corner of the coast has passed to Prussia by purchase, and forms the territory of *Iadhe*, a naval station, on the eastern shore of the gulf of that name. The two states of MECKLENBURG-SCHWERIN and STRELITZ border each other on the coast of the Baltic, and are held by branches of the same family, associated in the making of laws and the imposition of taxes, while separate grand duchies. Their joint area falls short of that of Yorkshire. The surface is for the most part a sandy plain, interspersed with pine forests and a prodigious number of small lakes, with some remarkable banks of stone and shingle on the shore.

Oldenburg, with the grand ducal palace, is a small unimportant town on an affluent of the Weser, to the westward of Bremen.

Schwerin, the capital of Mecklenburg-Schwerin, with a population of 22,900, is pleasantly situated on the side of a lake, with the old ducal castle on an island near the shore. *Rostock*, the largest town, containing 23,300 inhabitants, is seated upon the Warnow, a river nearly half a mile broad which forms the harbour, and enters the Baltic about nine miles below. It is the seat of a university founded in 1419, with which Kepler was for a time connected. The principal church, St Peter's, has a spire rising 420 feet, which forms a useful sea-mark. In the centre of the chief square stands the bronze statue of Blucher, a native of the town. The house in which he was born, in 1742, still exists. Another house is likewise pointed out as the one in which Grotius breathed his last; and the spot is marked in St Mary's Church where his body was interred, afterwards removed to Delft. *Wismar*, a commercial port, is at the head of an extensive bay, which forms an excellent harbour. *Dobberan*, a favourite sea-bathing resort of the north Germans, contains the summer residence of the grand duke, surrounded with pleasant beech-woods. The *Helige-dam*, or 'holy dyke,' is on the shore, a mound of stones raised to serve as a barrier against the sea, of unknown date, and therefore once superstitiously regarded. It is more than two miles in length, fifteen yards in breadth, and from twelve to sixteen feet high. In the sister-state, *New Strelitz*, the capital, and other places, are of minor note. The House of Mecklenburg is the oldest of the European reigning families.

The duchy of BRUNSWICK consists of three unconnected districts, with several others of trifling extent, chiefly interposed between the dominions of Hanover and Prussian Saxony, the total area of which is inferior to that of the county of Kent. Between Hanover and Rhenish Prussia lie the two principalities of LIPPE-DETMOLD and SCHAUMBURG-LIPPE, slightly exceeding the area of the county of Hertford. They are on opposite sides of the Weser, overspread with well-wooded hills belonging to the Teutoburger Wald, a range historically connected with the signal defeat of the Romans by the revolted Germanic tribes in the age of Augustus.

Brunswick, in the northernmost and largest section of the duchy, is an ancient city of about 40,000 inhabitants, situated on the Oker, and on the railway from Hanover to Berlin. The old buildings and narrow streets have much picturesque architecture; the cathedral, of great antiquity, contains the tombs of members of the ducal house, some of whom had English connections; the museum has paintings by Jan Seens, Albert Dürer, Holbein, Rembrandt, Raphael, Guido Ruysdael, Michael Angelo, and Cellini. On a fine site afforded by the levelled ramparts rises an obelisk, sixty feet high, commemorating the two dukes, father and son, who successively fell in the battles of Jena and Quatre Bras. The ducal house descends from Henry the Lion, whose effigy, and that of his wife, an English princess, the sister of Cœur de Lion, recline upon a tomb in the cathedral. The family became divided into two principal branches, the Dukes of Brunswick-Lüneburg, subsequently Electors of Hanover, and the Dukes of Brunswick-Wolfenbüttel, the present dynasty. *Wolfenbüttel*, a few miles on the south, is celebrated for its library of 200,000 volumes, containing an extensive collection of Bibles. Among them is Luther's with notes in his own handwriting.

Detmold and *Buckeburg*, the capitals of the Lippe principalities, are only small towns. Not far from the former, on the highest point of the Teutoburger Wald, stands a colossal statue, raised by the German princes in honour of Hermann or Arminius, the champion of German independence, who triumphed over the Romans in the battle fought at the *Saltus Teutobergiensis* in the year 10 A. D.

The free cities of BREMEN, HAMBURG, and LUBECK retain the name of the Hanse Towns, a term derived from the old German word *Hansa*, signifying a company or association for mutual support. They were so styled in the Treaty of Vienna in 1815. In early mediæval times, when commerce was insecure by land and sea, owing to unscrupulous nobles, bandits, and pirates, the great trading centres combined to protect their interests from depredation, and formed the Hanseatic League. It gradually became a most formidable body, negotiated with sovereigns, levied troops, waged war, and proceeded to maintain a rigorous monopoly of the entire trade of Northern Europe. At one period eighty-five cities belonged to the confederacy. These were distributed into four classes or circles. Lübeck was at the head of the first circle, and had under it Hamburg, Bremen, Rostock, Wismar, and other places. Cologne was at the head of the second circle, with twenty-nine towns under it. Brunswick presided over the third, consisting of thirteen towns; and Dantzic over the fourth, which included eight towns in its vicinity, and others more remote. The supreme authority of the alliance was vested in the deputies of the towns assembled in congress. To this office any one might be elected. Hence the assembly embraced politicians, artists, lawyers, clergymen, as well as merchants, though the latter predominated. The League was at the height of its prosperity and power in the fifteenth century. It declined in the sixteenth, and was dissolved in the seventeenth, owing to the growth of order and influence in adjoining states, and the successful attacks of rival traders upon its exclusive pretensions.

Bremen is situated on both banks of the Weser, about fifty miles above its mouth, and has a domain adjoining, chiefly pasture-ground, of about 100 square miles, surrounded by the territories of Hanover and Oldenburg. The town, clean and pleasant, contains a population of 67,200. It is a principal place for the embarkation of German emigrants, has regular communication with America by a line of packets, and very extensive trade in tobacco and cigars made at the spot. From America alone, in 1862, it imported produce valued at 11,000,000 dollars, exporting in return goods to the value of 12,000,000. In the same year the total value of its imports was 67,856,000 dollars, and its exports 63,216,000. Its governing body has the style of *Die Wütheit*, 'The Wisdom.' The old town-hall, a beautiful Gothic building, has opposite to it, in the market-place, a singular statue, eighteen feet high, to which the name of Roland is given, a hero of romance. Olbers, the physician and amateur-astronomer, who discovered the small planets Vesta and Pallas, was a native of Bremen, as well as Heeren the historian. For the convenience of vessels too large to come up the Weser, a strip of ground was obtained from Hanover at the mouth of the river. Here a harbour has been constructed, opened in 1830, and the town of *Bremerhaven*, with 6000 inhabitants, has risen up.

Hamburg, the greatest commercial emporium of Germany, as well as of the continent, occupies the north or right bank of the Elbe, at the junction of the Alster with it, some seventy miles up the river, and is the head of a small adjoining territory. It possesses also several islands, a few detached inland tracts, and the port of *Cuxhaven* at the mouth of the Elbe. This is the stopping place of vessels of the largest class, where others also lie at anchor awaiting favourable winds, and is resorted to by the Hamburgers in summer for sea-bathing. The public interests are presided over by a senate, the members of which are elected for life, and must serve, or quit the territory, at the same time paying a considerable fine. Till recently, external appearances in the city were not generally in harmony with its wealth and reputation, and but little was there to arrest attention besides varied costumes on passing along the streets. No grand old buildings met the eye, but several imposing structures, with a magnificent exchange, have been erected since the fire of 1842. That terrible conflagration is estimated to have destroyed property of the value of £8,000,000 sterling, and is supposed to have cost 300 lives. But as it ravaged the older and unsightly parts of the town, the opportunity was embraced to occupy the space made vacant with handsome houses and streets. Its chief buildings are the Church of St Michael, with one of the loftiest steeples in Europe; the Exchange, one of the most commodious in the world; the Johanneum, a collegiate school, with a library of 200,000 volumes, and 5000 MSS.; two magnificent theatres; the Jewish Hospital; and the Seaman's Home. The celebrity of Hamburg rests upon the vastness of its trade, the enterprise and hospitality of its merchants, and the number of its magnificently supported charitable institutions. In 1862, its imports reached £48,000,000; its exports since 1837, when vessels ceased to be obliged to give notice of clearing, have not been ascertained. During the present century, it has put on a peaceful aspect, by walls and ramparts being levelled, and their space devoted to walks and gardens. But the gates remain, and are not to be passed after nightfall without

paying toll. Within the memory of present inhabitants, ingress and egress were alike prohibited after midnight. This usage took its rise in those times when bandits were abroad in such force, that the magistrates of Hamburg and Lübeck maintained forty horsemen for the protection of merchants and goods through the thirty-eight miles between the two cities. Including the suburbs of St George and St Paul, the population amounts to 176,000.

Lübeck stands on a moderate eminence encircled by the winding Trave, ten miles above its entrance into the Baltic, and has *Travemünde* for its shipping port, a small town and bathing-place, situated at the mouth of the river, as the name imports. Though shorn completely of its former consequence, when, as the head of the Hanseatic League, its fleets commanded the sea, its voice decided in the affairs of kingdoms, while far-extended commercial relations rendered it the Carthage of the north; the city still possesses a considerable transit trade, has opulent burghers, and retains many striking memorials of its past importance. Historical associations—houses, old, lofty, and picturesque, with their gable-ends facing the streets—church towers and spires out of the perpendicular—an antique cathedral and town-hall—rich wood-carvings and examples of feudal fortification—invest the place with peculiar interest. The Dom, or Cathedral, and the Marienkirche, St Mary's Church, contain many curious objects. The latter is one of the finest churches of Northern Germany, in elegantly pointed Gothic, and has an astronomical clock behind the high-altar, one of those ingenious and fantastic devices in which the mechanicians of the middle ages delighted to display their craft. Every day at noon figures of the emperor and seven electors strut forth, make a reverential obeisance before the statue of our Saviour, and then retire. The town-hall or senate-house, though defaced by modern repairs, is a striking turreted structure, in ancient Gothic, with several noble halls, in one of which, now divided into compartments, the deputies of the Hanse Towns held their sessions. These meetings were almost always convened at Lübeck, triennially at Whitsuntide; and the archives were kept in the city. One of its burgomasters presided; and during the recess, its magistrates had the principal direction of the affairs of the League. The first general assembly within its walls met in the year 1260. The last was held in 1630, when the deputies merely appeared to subscribe an act of dissolution. Still the authorities keep up the memory of former consequence in their style and title, the common councillors being the 'well wise sirs,' the syndics 'high wise,' and the head burgomaster 'your magnificence.' Of the old fortifications four gates remain. The Holstein Gate is an eminently beautiful specimen of ancient feudal architecture. Huge ramparts of earth, planted with trees and laid out with walks and drives, contribute to the ornament of the town and the convenience of the inhabitants, about 30,000 in number. In the market-place a stone is pointed out, upon which Mark Meyer, an admiral, was beheaded, for cowardice in shunning an encounter with the Danish fleet. Sir Godfrey Kneller, Overbeck, and Ostade, the painters, with Mosheim, the ecclesiastical historian, were natives of Lübeck.

II. CENTRAL STATES.

States.	Principal Towns.
Kingdom of Saxony,	Dresden, Leipsic, Chemnitz, Freiburg, Bautzen.
Electorate of Hesse-Cassel,	Cassel, Hanau, Fulda, Marburg, Schmalkald.
Grand Duchy of Hesse-Darmstadt,	Darmstadt, Mainz, Worms, Giessen.
" Saxe-Weimar-Eisenach,	Weimar, Jena, Eisenach.
" Luxemburg,	(See Holland).
Duchy of Saxe-Meiningen,	Meiningen, Hildburghausen, Sonneberg.
" Saxe-Coburg-Gotha,	Coburg, Gotha.
" Saxe-Altenburg,	Altenburg, Ronneburg, Eisenberg.
" Anhalt-Dessau, &c.,	Dessau, Koethen, Bernburg, Alexisbad.
" Nassau,	Wiesbaden, Ems, Schwalbach, Selters.
Principality of Waldeck,	Arolsen, Pyrmont.
" Reuss, Elder,	Greitz.
" Reuss, Younger,	Schleitz, Gera, Lobenstein.
" Schwarzburg-Rudolstadt,	Rudolstadt, Frankenhausen.
" Schwarzburg-Sondershausen,	Sondershausen, Arnstadt.
Landgraviate of Hesse-Homburg,	Homburg, Meissenheim.
Free City of Frankfurt,	Frankfurt.

SAXONY, a small kingdom, about the extent of Yorkshire, but a fine and fertile region, is chiefly enclosed by the dominions of Austria and Prussia, with Bavaria and the Saxon duchies on the western side. It is traversed by the Elbe from south-east to north-west, and divided by the river into two not very unequal portions. The country is generally level in the whole northern district, and presents a pleasing succession of orchards and vineyards, with the pastures on which the sheep are bred which furnish the wool so long celebrated for the quality of its fibre. But southerly it rises towards the ridge of the

Erzgebirge, or ore mountains, which separate it from Bohemia, and has beautifully picturesque features in some parts, with the sternly desolate in others, where the granite of the range forms the surface. The sterile tract is remarkable for the variety of its mineral wealth, consisting of silver, lead, copper, tin, iron, zinc, cobalt, bismuth, and arsenic; and is occupied by a hardy and intelligent mining population. Agriculture, the manufacture of fine woollen cloth and of porcelain, are prominent industries in other parts of the kingdom. The picturesque region lies on the Elbe above Dresden. For some miles from the city, the railway for Bohemia follows the course of the river, which flows between abrupt walls of sandstone, in the material of which the space for the line has been cut. Luxuriant woods intermingle with the rocky masses, and overhang the stream. Its course is very devious, and opens up at every turn some new vista of grandeur or beauty. This is the district styled the Saxon Switzerland, extending on either side some miles from the margin of the river. The remarkable points are the narrow and deeply-cut lines between the rocks; the disjointed masses which start up at once from the ground, sometimes at considerable distances from each other, as if lords in possession of particular domains; and their singular forms, that of huge regular columns capped with projecting blocks, or table-mountains with perfectly perpendicular sides, or truncated cones and inverted pyramids, the latter seeming as if a gust of wind would capsize them. One of the giants of the territory, the Königstein, rises 800 feet above the Elbe, with a spacious tabular summit, and is surrounded on all sides by precipitous escarpments of several hundred feet, while so isolated as not to be within the range of ordinary artillery from any other height. It is therefore a fortress, the access to which is wholly artificial; and one of the few citadels which has never been taken. Water is obtained for the garrison in abundance from a well sunk to an immense depth through the rock; extensive excavations serve as storehouses for provisions; and several vacant acres around the fortifications admit of cultivation. The population of the kingdom in 1861 was 2,225,240.

Dresden, the capital, is seated on the Elbe, which separates the old town from the new, and is crossed by two bridges. The city contains a population of 128,000, and has very pleasing environs. Without possessing any first-class public buildings, it has several remarkably rich in works of art; a picture gallery, the best out of Italy; museums of arms, natural history, antiquities, engravings, and porcelain; a library of 300,000 volumes; and the oddly-named Green Vaults, a suite of vaulted apartments on the ground-floor of the royal palace, crowded with articles of vertu, of precious stones, and of gold and silver ornaments, valued at several millions sterling. It has therefore been called the German Florence, but lacks the historical and literary distinction, the fine scenery, and the bright blue sky of the Italian city. Its finest churches are the *Frauenkirche*, the Roman Catholic church, with a splendid organ, the *Sophienkirche*, and the *Kreuzkirche*. No particular branch of industry is prominent, as the porcelain so widely known and universally admired under the name of Dresden china is chiefly made at *Meissen*, a town on the Elbe fourteen miles below. This was the first seat of the production of the ware in Europe. The art is referred to a local apothecary or alchemist, who is said to have stumbled upon the mode of transmuting clay into china while aspiring to produce the precious metals from the baser. The discovery proved a source of great wealth to Saxony, which enjoyed for many years the monopoly of the manufacture. The old Castle of Meissen, perched on a rock, has somewhat incongruously been converted into a porcelain factory. Hahnemann, the founder of homœopathy, a native, was the son of a porcelain painter.

Leipsic (Ger. *Leipzig*, formerly *Libiziki*, said to mean 'the home of the linden-trees,' from the Slavic, *lip* or *Upa*, a linden-tree), second in population, 78,500, is situated on a fertile plain traversed by the small streams of the Elster and Pleisse, 70 miles by rail north-west of Dresden. It is the seat of a university of distinction, founded in 1409; and the centre of the German book-trade; and, indeed, in this respect, ranks third among the cities of the world, coming immediately after London and Paris. Besides a considerable number of resident booksellers, who have an Exchange of their own, there is always a large influx at the three annual fairs. These are held at Michaelmas, the New Year, and Easter, each lasting for three weeks. The town, ordinarily dull, then exhibits a very animated appearance, as the concourse of traders and visitors, many from foreign parts, especially at Easter (including even Turkey, Greece, Armenia, Persia, and even of late, it is said, China), amounts generally to more than 50,000. Transactions to the extent of £10,000,000 take place at Easter. Leipsic has consequently become the chief seat of type-founding in Germany. Without any particular attractions, Leipsic has great historical celebrity, but chiefly as the scene of the terrible three days' conflict, in October 1813, between Napoleon and the Allies, which issued in his

defeat, and the deliverance of Germany. This 'battle of nations,' as it is justly called, from the numbers engaged and the consequences, was fought on the plain in the environs, and partly in the streets. On the fiftieth anniversary, commemorated October 19, 1863, by veteran survivors and an immense multitude, the foundation stone of a memorial was laid on the Thonberg, a low flat hill, the principal station of Napoleon during the fight. *Chemnitz*, the most important manufacturing town, with 45,000 inhabitants, has many operatives in a superior condition, possessing freehold cottages, with gardens, which they cultivate when other work is slack. *Freiburg*, the capital of the mining district, is celebrated for its mining school and rich mineralogical museum. The institution, founded by Prince Xavier in 1765, was placed under the care of Werner, and has had Humboldt, Von Buch, Jamieson, and many other eminent naturalists connected with it. The town is seated upon the metalliferous gneiss, pierced by dykes of porphyry, and is within a short walk of an extraordinary variety of geological formations. In a circle round it, with a radius of about three miles, there are nearly 100 mines of silver, copper, lead, and cobalt, where about 200 shafts, 71,000 fathoms of adit or water-course, and 250,000 fathoms of level or gallery, exhibit every species of timbering and masonry used in mining. In the neighbouring valley of the Mulda, the ores are daily roasted and smelted in twenty or thirty furnaces of various construction, and the beautiful process of separation is always to be seen in action. Of late years the produce of the mines has greatly fallen off, owing to the exhaustion of the richest veins, or their descent to a depth from which the water cannot be drained. The town is ancient, and contains a population of 17,000, much reduced since the seventeenth century, when the silver-mines were most prolific, the first of which was discovered about the year 1190.

The Saxon House consists of two branches descended from Ernest and Albert, the sons of Frederick the Gentle, who divided his possessions between them. The elder or Ernestine branch is ducal, represented by the Princes of Saxe-Weimar, Saxe-Coburg-Gotha, and other lines. The younger or Albertine branch was made royal by Napoleon, and adhered to his fortunes when Germany in general rose in arms against him. The Saxon sovereign was in consequence deprived of a large portion of territory by the Congress of Vienna, which was transferred to Prussia.

The electorate of HESSE-CASSEL consists of one large and several isolated districts of very insignificant size. The main portion is a long irregular tract, extending from the territory of Hanover on the north to that of Frankfurt on the south. It is traversed centrally by the Fulda River, an affluent of the Weser, which forms the north-eastern frontier, while the Maine flows along the southern border. The surface is generally hilly, in some parts mountainous, well wooded, and abundantly fruitful; but for a lengthened period there has been no harmony between the people and the government, owing to a succession of unworthy rulers.

Cassel, the electoral capital, is pleasantly seated on both banks of the Fulda, connected by railway with Hanover on the north, Leipsic on the east, Cologne on the west, and Frankfurt on the south. It contains 38,000 inhabitants, and has various manufactures planted or fostered by Flemish and French settlers, driven into exile by religious persecution. The gardens, conservatories, fountains, and the colossal statue of Hercules, within the hollow of whose club eight persons can stand, around the Wilhelmshöhe, or summer palace of the elector in the neighbourhood, have acquired for it the name of the German Versailles. It has a square called Friedrichs-Platz, the largest in any German town. Cassel was the capital of the ephemeral kingdom of Westphalia, which Napoleon created, and bestowed upon his brother Jerome. *Hanau*, on the Maine, twelve miles from Frankfurt, is eminent for its jewellery, gold and silver wares, woollen and other manufactures, founded by Protestant refugees from Belgium. In the vicinity, Napoleon, on his retreat from Leipsic, fought his last battles in Germany, October 30 and 31, 1813, in which he was victorious. *Fulda*, on the river of that name, chiefly a Roman Catholic town, boasts the shrine of the Anglo-Saxon missionary, St Boniface, in its cathedral, where his body is said to have been interred after his murder by the Frisians in 754. *Marburg*, on the Lahn, possesses a Protestant university, the first that was founded after the Reformation, and was the scene of theological discussion between Luther and Zuinglius, who occupied two houses said to be still extant. *Schmalkald*, in one of the detached tracts lying between the duchies of Meiningen and Gotha, is memorable for the great Protestant League of 1531, the articles of which were drawn up there by Luther and his associates, and signed by princes and divines in one of the inns. The town is small, ancient, and little altered, consisting of timber-built houses with high-pointed gables, the occupants of which are mostly connected with iron-mines, forges, and smithies. It lies in a valley in the heart of the Thuringian Forest, a region in which the villagers love the singing of birds, and employ their leisure in teaching them to imitate certain strains, the chaffinch being a prime favourite, soon learning in captivity a variety of short airs. Bechstein has given several of these acquired ditties of the Thuringian finches, as the Wine Song.

'Fritz, Fritz, Fritz! willst du mit zum Wein gehen?'

'Fred, Fred, Fred! wilt thou go with us to the wine?'

HESSE-DARMSTADT, a grand duchy, includes two principal portions, northern and southern, of nearly equal extent, separated by a strip of land belonging to Frankfurt and

Hesse-Cassel. Taken together, along with some small adjuncts, they form a region about twice the size of Lancashire. The northern district is mountainous, being intersected by the range of the Vogelsberg, consisting entirely of trap-rock, which rises to the height of 3000 feet. The southern is generally level, except on the eastern side, which is occupied by the beautiful hills of the Odenwald, of moderate elevation, with fine beech woods on their slopes. This last district is traversed by the Rhine, and formed by it into unequal eastern and western divisions. From the loftiest summit of the Odenwald, the conical granitic mass of Melibocus, surmounted by a white tower, the eye looks down upon villages, gardens, orchards, and vineyards, traces the winding river, marks the junction of the Neckar with it; Mainz, Worms, Mannheim, and Spires being embraced in the field of view.

Darmstadt, on the little river Darn, consists of a confined old town, and an agreeable new one spread over a considerable space, forming a small capital of 28,000 inhabitants. The residences of the reigning family are unpretending mansions; yet one of them contains a library of 200,000 volumes. Its principal buildings are the arsenal, barracks, and churches, one of which is crowned by a dome supported upon twenty-eight large columns. Liebig, the distinguished chemist, was born here soon after the commencement of the century. *Mainz* (French Mayence), more important, stands on the left bank of the Rhine, near the junction of the Maine with it, and marks the extreme upper limit of the fine part of its course till Switzerland is gained. The city is a great commercial centre and military station, defended by a citadel and outworks; is reckoned the strongest fortress of the Germanic Confederation; and is garrisoned by a large number of Austrian and Prussian troops. The commandant is alternately chosen from each nation, and serves for five years. Independent of the soldiery, the population amounts to 41,000. A bridge of boats crosses the river, with one of iron for the railway route to Vienna. Mainz dates from Roman times, when it was called *Moguntiacum*, and was raised to ecclesiastical distinction by Charlemagne. Its archbishops were princes of the German empire, and claimed the right of placing the crown upon the head of the emperors. Notwithstanding railway and steam-boat traffic, commercial activity, and the music of military bands, its general aspect belongs to the past. Gutenberg, the inventor of printing, was a native and resident. His dwelling no longer exists, but its site is indicated, and a statue of him by Thorwaldsen occupies one of the open spaces. *Worms*, on the same side of the river to the south, is an ancient imperial city, once of great consequence, but now a melancholy scene of utter decay, with only 11,000 inhabitants. It has a name in history as the scene of the diet in 1531, at which Luther appeared, and denounced the corruptions of the Church of Rome. The neighbourhood was celebrated by the old minstrels as the 'Land of Joy,' and produces some of the best Rhenish wine. *Bingen*, a small frontier town on the Rhine towards Prussian territory, is the centre of highly-attractive scenery, and a common halting-place with summer tourists. Some of the most celebrated vintages of the Rheingau lie between it and Mainz. *Giessen* is the chief town of Upper Hesse, or the northern division, and the seat of a university.

The House of Hesse, of which there are two main branches, descends from two sons of Philip the Magnanimous, who died in 1567, and allotted his possessions to his family. William, the elder, obtained the largest share, with Cassel for his capital, while George obtained Darmstadt. Of this younger line the Hesse-Homburg family is a branch, holding a territory which will return to it on the failure of heirs.

SAXE-WEIMAR-EISENACH, a grand duchy, consists of not less than fifteen fragments, lying between Hesse-Cassel and Saxony, with a total extent inferior to that of the county of Sussex. The two principal portions are separated chiefly by the territory of Gotha, which has the Weimar division on the eastern side, and that of Eisenach on the western. Sites celebrated in the history of religion, literature, and war are within their limits. The surface is everywhere pleasantly diversified, has a productive soil, and embraces noble remains of the old Thuringian woodland.

Weimar, fifty miles south-west of Leipsic, is now simply a small plain town, but deriving interest from its former residents, Schiller, Goethe, Herder, and Wieland. The houses of the two first named are pointed out, and also their graves. Its opera-house is famous, and it has a library of 140,000 volumes. *Jena*, twelve miles distant, beautifully placed in a valley on the Saale, is the seat of a very eminent university, supported by the Saxon states. Its name is given to the great battle in the neighbourhood, gained by Napoleon on the 14th of October 1806, which made him master of Prussia and Northern Germany for several years. The spot where the aged Duke of Brunswick fell is marked by a monument. *Eisenach*, well-built, thriving, and industrial, is distinguished by the Castle of Wartburg in the immediate vicinity, very strikingly placed on a steep and lofty eminence, surrounded by forests. This was formerly a residence of the landgraves of Thuringia. It became what Luther called his 'Patmos,' as the place to which he was conveyed by the friendly violence of the Elector of Saxony, in order to screen him from his enemies on

returning from the diet of Worms. The room he occupied for ten months is shown, with the chapel in which he preached, and both are carefully preserved. A magnificent tree in the forest, eight feet in diameter, bears the name of 'Luther's Beech,' from the tradition that it marks the place of his friendly arrest. Another tree not far from Worms has the name of 'Luther's Elm,' from the tradition that he reposed at the spot while on his way to attend the diet.

The Saxon duchies of COBURG-GOTHA, MEININGEN, and ALTENBURG adjoin the preceding district, and form three states, each composed of detached tracts, but so small that their aggregate area is considerably less than that of Devonshire. On the northward lies the ducal territory of ANHALT, a little larger than the county of Warwick, and almost entirely environed by the province of Prussian Saxony. It is traversed by the Elbe, which receives the Mulde within its limits, and is intersected by another important affluent, the Saalle, which joins the main river a short distance beyond the frontier.

Coburg, on the small stream of the Itz, which flows into the Maine, has a very widely-known name, from the connection of the reigning House with the British royal family, but the place is small, containing only 10,000 inhabitants. The ducal palace of the Ehrenburg, 'burg of honour,' a simple and chaste building, occupies three sides of the principal square, and contains the government offices, a library of 30,000 volumes, and a collection of objects of natural history, with coins and prints. The environs of the town are very beautiful. Perched on a commanding eminence which immediately overhangs it, stands the old ducal castle which afforded an asylum to Luther, and was besieged unsuccessfully by Wallenstein. *Gotha*, the alternate capital of the duchy and residence of the court with Coburg, is seated on an eminence, at the foot of which winds the Leine, a tributary of the Werra; and is about midway on the railway-route between Leipsic and Cassel. It is the larger town of the two, has various manufactures, a literary and scientific character, with a geographical publishing establishment of the first class, that of M. Perthes. The house issues the celebrated *Almanach de Gotha*, which completed the century of its existence in the year 1863, and then appeared with a brief historical notice of its career. The ducal residence has an imposing appearance from its position, on the crown of the height on which the town is built. It contains a library of 150,000 volumes, and 6000 MSS., among which are 2000 Arabic, and from 300 to 400 Persian and Turkish, a valuable cabinet of engravings, and one of the best collections of coins and medals in Germany, numbering in all 93,000. The country districts are to a large extent hilly forest lands, clothed with pines, often rising to the height of nearly 300 feet, famed as hunting-grounds for red deer and other game, while the timber obtained for building purposes yields an important revenue to the state.

Meiningen, on the Werra River, the capital of a duchy which gave Queen Adelaide to the British throne, its largest town, has scarcely 7000 inhabitants. *Sonneberg*, about half the size, is a remarkable industrial site, where the wares are extensively made which are sold throughout the world under the name of 'Dutch toys.'

Altenburg, near the Pleisse, which flows to Leipsic, upwards of twenty miles to the northward, is a well-built commercial town, with a population of 16,800, among whom the antique costume of long bygone days is prevalent. *Eisenberg*, 'iron mountain,' also a manufacturing town, produces woollens, porcelain, and earthenware.

Dessau, the capital of Anhalt, is very pleasantly situated on the Mulde, near its confluence with the Elbe, in a richly-cultivated district. This town, with Koethen and Bernburg, formerly represented three distinct duchies. That of Koethen was united to Dessau in 1853; and that of Bernburg lapsed to it in 1863, by the failure of its ducal line. *Alexisbad*, a small watering-place, with strong chalybeate springs, has its name from the late Alexander Charles, Duke of Anhalt-Bernburg, who caused most of the buildings for visitors to be erected, and had a villa at the spot.

NASSAU, a ducal state, consists of a single territory of compact form, somewhat smaller in size than Lancashire. It extends along the right bank of the Rhine, from the junction of the Maine with it to the neighbourhood of Ehrenbrietstein, opposite Coblentz, and is almost wholly environed by Prussia and Hesse-Darmstadt. It embraces the eastern side of the grand defile of the Rheingau, through which the river flows full to the brim, and vigorous in its current, between castle-crowned crags, sloping vine-clad hills; towns and villages by the score lying on the banks, full of life and animation, sobered, yet rendered doubly interesting by the hues of antiquity. The interior is traversed from east to west by the Lahn, which divides it into two nearly equal portions, northern and southern, having its course through a valley of rich woods and verdant pastures. Northward rise the heights of the Westerwald, bleak and pastoral; southward lies the range of Taunus, rift with sylvan scenes and industrious cultivation. The country is

very remarkable for the number of its mineral springs and fashionable watering-places. They vary greatly in their properties and temperature, some being quite cold, while others are strongly heated. The district possesses a large amount of mineral wealth, consisting of copper, iron, and manganese of superior quality, chiefly obtained from mines in the basin of the Lahn.

Wiesbaden, the residence of the duke, the seat of government, and principal resort of visitors, is a handsomely-built town of modern appearance, in which hotels, lodging-houses, saloons, and gardens are conspicuous, with a throng of upper-class strangers from June to September. The resident population is about 20,000, but during the aforesaid months it is greatly increased. It is situated within a short distance of the Rhine, twenty-six miles by rail west of Frankfurt, in a delightful valley open towards the south, but enclosed on the other sides by the swelling hills of Taunus, which serve as a screen from the cold winds, and render it a suitable place of abode for delicate persons in winter. There are fifteen mineral springs of the same alkaline quality, closely corresponding also in their temperature, and hence believed to be the outpourings of a common source. The principal, called *Kochbrunnen*, 'boiling spring,' has a cloud of vapour resting upon the surface of the water, and is in a state of ebullition, with the heat of 156 degrees of Fahrenheit. The town occupies the site of a Roman station, of which remains are constantly turned up in the process of digging for the foundation of buildings. *Ems*, in the valley of the Lahn, was likewise known to the Romans as a bathing-place, who called it *Embasis*, the 'washing-tub,' from which the present name is derived. The other waters in the most repute are those of *Schwalbach*, *Schlangenbad*, and *Selters*. Sir F. Head remarks, that should his 'reader be consumptive, or, what is much more probable, be dyspeptic, let him hurry to Ems; if he wishes to instil iron into his system, and to brace up his muscles, let him go to *Langen-Schwalbach*; if his brain should require calming, his nerves soothing, and his skin softening, let him glide onwards to *Schlangenbad*; but if he be rheumatic in his limbs, or if mercury should be running riot in his system, let him hasten "body and bones" to *Wiesbaden*, where, they say, by being parboiled in the *Kochbrunnen*, all his troubles will evaporate.' The far-famed *Selters* or *Seltzer* water, drunk as a luxury through the whole civilised world, is obtained from a spring near the village, so called at the base of the *Westerwald*. More than a million and a half of bottles of it are stated to be exported annually.

The duchy derives its name from the picturesque Castle of Nassau, an extensive ruin on the summit of a conical wooded height by the *Lahn*, which has the small, ancient, and decayed town of Nassau on the opposite bank. It is a conspicuous and romantic object in the landscape. From the feudal proprietor of this stronghold in the middle ages the ducal house descends, and forms the elder branch of a family the younger of which is represented by the kings of Holland.

The five principalities, *Waldeck*, *Reuss* elder and younger, and the two *Schwarzburgs*, with the landgraviate of *Hesse-Homburg*, are of very trifling extent, as their united area does not equal that of the county of Northumberland. With the free city of *Frankfurt*, they complete the list of the Central German States.

Pyrmont, in a small northern division of *Waldeck*, though not the capital of the principedom, is the largest town, yet with only 7000 inhabitants. It lies close to the Hanoverian border, and is distinguished as one of the oldest watering-places in Europe, to which Charlemagne repaired, visited downwards from his time, at present by reduced numbers, but of the highest rank. The springs are variously chalybeate, saline, and acidulous, some of which are so strongly impregnated with carbonic acid gas, that the water effervesces like champagne. A large quantity is bottled and exported. The vicinity of the town is remarkable for the *Dunst Höhle*, a cavity in the sandstone rock, emitting a deadly vapour, the same as the choke-damp of mines, therefore enclosed to prevent injury from incautious exposure to it. Small animals are killed in a few minutes.

Homburg, nine miles north of *Frankfurt*, the little capital of the smallest Hessian state, is charmingly placed amid the forest-clad hills of Taunus, and attracts by curative springs in addition to the lovely scenery, while the inglorious distinction belongs to it of surpassing all the other gambling dens of Germany in the magnitude of its transactions.

Frankfurt, an ancient imperial free city, in possession of a small adjoining territory of thirty-nine square miles, is seated on the north bank of the *Maine*, about twenty miles above its junction with the *Rhine*, and contains a population of 75,000. A suburb, called *Sachsenhausen*, lies on the south bank of the river; both sides are lined with quays; and are connected by an old stone bridge. It is the capital of the Germanic Confederation, as the place where the diet holds its sessions, and the residence of the foreign ministers. Without possessing any public buildings of striking architectural merit, the general appearance is very noble. The streets are spacious in the newer portions; the houses in them are palaces, occupied by merchants, bankers, and diplomatists; and signs of opulence are everywhere apparent in the environs. Great historical celebrity belongs to the city. Occupying a central position, it was early made the site of national assemblies; and was afterwards the place in which through several centuries the emperors of Germany were elected. The *Hotel de Ville* contains the *Hall of Election*, where the deliberations were

carried on and the suffrages given; and also the Imperial Hall, in which the newly-chosen sovereign gave his first public banquet, hung round with portraits of the potentates. In the adjoining cathedral they were crowned. Frankfurt has long been the seat of great inland commerce, and a centre of banking transactions for the continent. Its inhabitants have always included a large number of Jews, among whom the Rothschilds here acquired their wealth and influence. The house occupied by the founder of their fortunes is indicated in the *Juden-gasse*, or Jews Street, to which members of the persuasion were formerly restricted. This street was formerly closed at either end with gates; which were locked at an early hour every night, and no ingress or egress allowed till the morning. The Jews now reside in any quarter they choose, and possess a very handsome synagogue. Goethe was born in the city, and has a statue in one of the squares. Museums, libraries, galleries of art, and charitable institutions are numerous.

III. SOUTHERN STATES.

States.	Principal Towns.
Empire of Austria, Germanic Part,	(See Austrian Empire.)
Kingdom of Bavaria,	Munich, Nuremberg, Augsburg, Wurzburg, Ratisbon.
" Wurtemberg,	Stuttgart, Ulm, Heilbronn.
Grand Duchy of Baden,	Carlsruhe, Mannheim, Heidelberg, Freiburg.
Principality of Lichtenstein,	Lichtenstein.

BAVARIA is by far the most important of the minor German states in extent of territory, population, and political influence. It consists of two divisions of unequal size, eastern and western, separated by the possessions of Wurtemberg, Baden, and Hesse-Darmstadt. The eastern portion, much the largest, is called the Territory of the Danube and Main, being watered by those rivers. The western is the Territory of the Rhine, lying along its left bank, and is also styled the Palatinate. It was formerly part of an extensive district governed by Electors Palatine of the Bavarian house, one of whom, Frederic V., married the Princess Elizabeth, a daughter of James I, whose great-grandson ascended the throne of England as George I. The area of the two divisions is inferior to that of Scotland. Population (in 1861), 4,689,800.

The eastern, or main portion of the kingdom, comprising seven of the eight provinces, is extensively bordered by the Austrian empire, and divided into northern and southern sections by the Danube, which flows through it from west to east. That river is fully formed as a noble stream within its limits. It becomes navigable at Ulm on the western frontier, and receives on its onward passage the Iller, Lech, Isar, and Inn on the right, with the Altmuhl, Nab, and Regen on the left. Two fine monuments raised in honour of the German nation grace its banks. Six miles below Ratisbon, on a rock rising up boldly from the river, stands the Walhalla, a splendid Doric temple, erected by the late king to receive the busts and statues of distinguished Germans, completed and inaugurated in 1842. On the Michaelsberg, a high rock at the junction of the Altmuhl, which marks the eastern end of a grand gorge, the Temple of Liberation rises in majestic proportions, a memorial of the deliverance of Germany from a foreign yoke obtained by the battle of Leipsic. It was opened with great ceremony on the fiftieth anniversary of the conflict in 1863. The names of the different races who fought and conquered, with those of eighteen of the principal commanders, Austrians, Prussians, Bavarians, and others, are inscribed on tablets. Of the commanders only one survived at the period of the opening—the king of Wurtemberg. Over the entrance are the words in bronzed zinc: 'To the German Warriors of the War of Liberation, Ludwig I, King of Bavaria, 1863.' The Michaelsberg rises to the height of 374 feet, and the temple ascends 204 feet above the summit.

South of the Danube the country is a high undulating plain or table-land, penetrated by spurs of the Tyrolese Alps, and overspread with numerous lakes, of which the Chiemsee is the largest, and the Konigsee, close to the Austrian frontier, the most beautiful. North of the river, the surface is diversified by the wooded ranges of the

Bohmerwald on the eastern frontier, the Fichtelgebirge on the north-east, the Speissart on the north-west, and the romantic region of the Franconian Switzerland in the centre. The group of the Fichtelgebirge, 'pine-bearing mountains,' is a prominent hydrographical point on the great water-shed of Europe, separating streams which flow from it in opposite directions, and ultimately reach different seas. The White Maine rises within its limits, at the base of Schnesberg, and flows westward to the Rhine; the Eger emerges from the cluster, and travels eastward to the Elbe; the Saalle runs northward to the same channel; and the Naab southward to the Danube. These four rivers, having their sources and early course connected with an area of limited extent, led to the region being compared to the Garden of Eden with its quadruple streams. The central district, called the Franconian Switzerland, is included between the towns of Nuremberg, Bamberg, and Baireuth. The name refers to the picturesque natural scenery, and to the early colonists of the country, the Franks, who originated the old territorial division of Franconia, now forming three circles or provinces of Bavaria. It consists of a high plain cut with deep valleys or dells in which the interest of the region centres. The dells are the beds of trout-streams, adorned with rich clumps of vegetation, and lined with limestone rocks, between which at intervals neat villages nestle, and on which the remains of feudal castles, turrets, and watch-towers appear. The rocks are very remarkable for the number and extent of their chambered caverns, in which immense quantities of the bones and teeth of bears, hyænas, and other animals of extinct species have been found, now largely rifled of their contents. The Cave of Kùhloch, which resembles in size and proportions the interior of a large church, contained upon its floor, covering it to the depth of six feet, hundreds of cart-loads of black animal dust, mingled with teeth, principally proceeding from mouldering bones. Dr Buckland estimated the amount to be equal to at least 2500 individuals of the cavern-bear. The country, among its living animals, retains the stag, roebuck, fallow deer, wild boar, wild cat, and chamois. Otters are found in almost all the rivers, and the beaver lingers on some solitary streams. Specimens of the latter, taken on a small tributary of the Isar, are in the museum of natural objects at Munich. The lynx and bear are supposed now to be extinct. The last bear seen was killed in 1835, and the last lynx in 1846, both in the mountains bordering on the Tyrol. Wolves likewise are nearly exterminated in the forests. One was killed in 1837, near the Tegern-see; three in 1848, in the Palatinate; one in 1852, in the Upper Palatinate; and one in 1859, in Lower Franconia.

The Bavarians, far beyond any other German people, are addicted to the beer-drinking habit. Inordinate quantities are taken daily by all classes. The state derives a large portion of its revenue from this propensity, and the country has no little resemblance to an enormous brewery, from the number and size of the establishments created to meet the national demand. 'Listen,' says Mr Wilberforce, a recent visitor, 'to the conversation of Bavarians, it turns on beer. See to what the thoughts of the exile recur, to the beer of his country. Sit down in a coffee-house or eating-house, and the waiter brings you beer unorderd, and when you have emptied your glass replenishes it without a summons. Tell a doctor the climate of Munich does not agree with you, and he will ask if you drink enough beer. Arrive at a place before the steamer, or train is due, and you are told you have so long to drink beer. Go to balls, and you find that it replaces champagne with the rich, and dancing with the poor. I once went to a servants' ball and stayed there some time; but when I came away, dancing had not begun, and all the society was sitting as still as ever drinking beer.' By an iniquitous and absurd law, marriage is not allowed till a couple have what is called assured means of subsistence; and as the authorities are the sole judges in the case, the permission is delayed for years, in order to obtain the fees

attendant on each application. Social immorality is hence the natural result, and a number of illegitimate births sometimes exceeding that of the legitimate. In a south-eastern section of the kingdom, an old popular custom maintains its ground in spite of gens d'armes and fines, quite foreign to the orderly movements of German life, akin to the American system of lynch-law, and apparently a lingering trace of the judicial visitations for which secret societies were organised in the middle ages. Upon an individual becoming obnoxious by his avarice, usury, or any offence not cognizable by law, he receives warning to amend his manners. If his misdeeds are continued, a band of men is collected by private summons from a distance, who appear in disguise, surround his house at night, armed with every instrument capable of making a discordant noise—pans, bells, horns, trumpets, and whips. After a hideous uproar, the culprit is called out, and dares not disobey. A dispatch is then read to him by torchlight, as if coming from the Emperor Charlemagne, which sets forth his crimes, and admonishes him to reform on pain of further proceedings. The ceremony closes with a renewal of the uproar, in which jeers and yells mingle with every kind of clang and bang. Charlemagne is the great traditional hero of the peasantry, and is claimed by the Bavarians as their countryman. A quiet spot in a valley on the south-west of Munich, marked by a corn-mill and a few neat buildings, is referred to as the place of his birth.

The population consists very generally of Roman Catholics, distinguished in the rural districts especially by a profound respect for relics and the devout observance of pilgrimages, for whom the manufacture of sacred images is a flourishing trade in several villages. In the small town of Altötting, near the river Inn, the shrine of the Black Virgin constitutes it the Loretto of Bavaria. The figure, over the high-altar in the church, is of undoubted antiquity, eastern origin, and sable complexion. For more than 1000 years devotees have flocked to the sanctuary, and still come annually in crowds, seeking some cure of disease, or other benefit, from the dark-hued object of their veneration. At Ammergau, towards the frontier of the Tyrol, the dramatic representation of the story of the Passion is a decennial performance. The name of the village refers to its position in the *gau* or valley of the *Anmer*, which descends from the highlands through it to join the Isar on the plains. In 1633, after a famine and pestilence, a portion of the inhabitants made a vow that thenceforth they would perform every tenth year the Passion of Christ in a sacred play; and since that time the pledge has been kept with the slight variation that in 1680 the year was changed so as to accord with the recurring decennial periods of the century. Such spectacles were common in the middle ages, under the name of 'mysteries' or 'moralities,' and received the sanction of Protestantism in its early stages. But the practice has very properly been generally abandoned, and the Ammergau play is now the principal surviving example of it. A rustic edifice is raised for the occasion in the vicinity; the stage scenery and the dresses are the work of the villagers; and the actors are all inhabitants of the place. The last representation took place on the 30th of September 1860, in the presence of the king of Bavaria, and of several English visitors, who bore testimony to the perfect decorum of the peasantry, performers and spectators, yet strongly felt the utter inapplicability of such a scene to other times and places than its own. The representation will next occur in 1870.

Munich, the capital, called by the Germans München, 'monkstown,' lies on the banks of the Isar, and contains a population of 148,000. It was founded in 962, and walled in 1157. Seated on the Bavarian table-land, it occupies a more elevated position than any European city after Madrid, and being on a naked plain, it suffers alternately from exposure to biting blasts from the Tyrolean Alps in winter and spring, and to a burning sun without shade in summer. The city consists of an old town of narrow thoroughfares huddled close to the river, and of a new one far spread in every direction around it, distinguished by spacious streets and squares, chastely magnificent public edifices, statues, and monuments, extensive pleasure-

grounds, walks, and drives. This last and principal portion has been formed during the present century, and was mainly the work of the late king, who did his best at once to embellish his capital and corrupt its inhabitants. The Glyptothek or sculpture-gallery, and the Pinakothek or picture-gallery, with no fewer than 300,000 engravings; the Odeum, devoted to music; the royal library, of vast extent, with 800,000 volumes, 18,600 MSS., and many rarities—contained in noble buildings, annually attract a large number of the votaries of art and taste from various countries. The university, founded in 1826, is one of the most respectable in



Royal Palace, Munich.

Germany. But Munich is not without a list of disagreeables. Its heat, glare, dust, and shadelessness, in summer, are painful; its splashy mud in wet weather, and its keen winds in cold, are not pleasant; its beer-drinking is excessive; its formal salutations are interminable; and the full salute to royalty in the streets, which is required, is ludicrous. Outside the city, a colossal bronze female figure, 84 feet high, intended to personify Bavaria, stands upon a pedestal of marble. The statue is hollow, and may be ascended by a spiral staircase to have a look-out from the eyes. The city is noted for its manufacture of telescopes and mathematical instruments. Twenty miles to the east, lies the village of Hohenlinden—the scene of the battle (celebrated by Campbell's ode) in which Moreau triumphed over the Austrians in the first year of the century.

Augsburg, seated on the Lech, on the north-west, is ancient and very picturesque, with evidence in the vast size of many dwelling-houses of the wealth, in former days, of its citizens, who were 'merchant-princes,' managing the exchanges of Europe. An inn, with the sign of the Three Moors, mentioned in records of the year 1364, is still extant, after an existence of five centuries. The old episcopal palace remains, in the hall of which the Protestant declaration of faith drawn up by Luther and Melancthon was presented to the Emperor Charles V. in 1530, hence called the Confession of Augsburg, is now devoted to public business. Though decayed, the city still contains 45,000 inhabitants, and issues the most influential and widely

circulated of the continental newspapers, the *Allgemeine Zeitung*. Transactions of great magnitude are conducted in banking, jewellery, horology, cotton, and other manufactures. *Ratisbon*, equally celebrated in the past, but now much more reduced, occupies the south bank of the Danube, nearly opposite to the influx of the Regen, and has hence the German name of Regensburg. It marks the western limit of the incursions of the Turks in Europe, some of their advanced parties having appeared in the neighbourhood during the famous siege of Vienna in 1683. The imperial diets were held for a long period in the town-hall, beneath which the hideous dungeons are shewn in which prisoners were immured, and the torture-chamber in which attempts were made to extort confessions. There are manufactures of porcelain, steel goods, leather, and tobacco. The astronomer Kepler died at Ratisbon, and was buried in an unmarked grave. *Passau*, on the eastern frontier, occupies a remarkable position, built on the tongue of land formed between the Danube and the Inn at their junction, while on the opposite or north bank the dark stream of the Ilz enters, and around lies an amphitheatre of crags and mountains. Near the opposite or western frontier, and close to the great river, is the village of Blenheim, the scene of Marlborough's decisive defeat of the French in 1704.

Nuremberg (Ger. *Nürnberg*), next to the capital in population, 62,700, is seated on the Pegnitz, a tributary of the Main, which divides it into two nearly equal parts, and is crossed by fourteen bridges. The town was founded in 905, and in 938 became the seat of the first German diet. It was raised to distinction at an early period by the ingenuity of its natives in various handicrafts, and it retains perhaps more than any other place the aspect it wore in the middle ages. There are feudal walls, turrets, and watch-towers—irregular streets—houses with acutely-pointed gables facing them—projecting oriel windows—palatial stone dwellings with beautifully-sculptured fronts, erected by the leading citizens when their commerce was so extensive as to find expression in the proverb, 'Nuremberg's hand—goes through every land.' Numerous inventions in the mechanical arts originated here, as copperplate engraving, the gun-lock, the air-gun, the clarinet, a machine for wire-drawing, the combination of metals now adopted in the manufacture of brass, and watches, not made round, but oval-shaped, hence called 'Nuremberg eggs.' Albert Durer, painter, sculptor, and engraver, 1471—1528, was a native, as well as Hans Sachs, the cobbler and poet, a contemporary. Their houses remain; their graves are indicated; and both have streets named after them. After falling from a highly-prosperous condition into sad decay, chiefly through the calamities of war, the town has again become an important seat of manufacture and trade. It produces cloths, metal-ware, mirrors, and furniture; exports immense quantities of the so-called Dutch toys, the workmanship of the Thuringian villagers; and serves as a general depôt for goods passing between northern and southern districts. *Bamberg* on the north, *Baireuth* on the north-east, and *Wurzburg* on the north-west, are considerable industrial sites. *Kissengen*, thirty miles north of the latter, is the principal Bavarian watering-place, with acidulous and chalybeate springs, to which many English annually repair, and the water is largely exported.

Spire (Ger. *Speyer*), the chief town in the Palatinate, or Rhenish Bavaria, stands on the left bank of the Rhine, and is of high antiquity, historical interest, and mournful celebrity. Princes once took counsel within its walls, and eight emperors were buried in its cathedral. At the diet held here in 1529, the protestation of the Reformed leaders against its decree originated the distinctive name of Protestants for the followers of Luther. It has the remains of an ancient palace, in which 49 diets were held. The citizens once enjoyed a monopoly of the carrying trade on the river, and were distinguished for their military as well as commercial spirit. But the army of Louis XIV. of France, in 1683, reduced the town to a dismal ruin. Upon its capture, the inhabitants had notice to quit by an appointed day on pain of death; the place was set on fire; and a conflagration of three days and nights ensued. In little more than a century afterwards, 1794, when beginning to recover from this blow, the French revolutionary army renewed the desolation. Spire is now the mere skeleton of its former self, with only about 9000 inhabitants. The cathedral, restored by the government, is one of the noblest in Europe, remarkable for the simple, colossal, and symmetrical grandeur of the design, with the advantage of standing detached in a plot of ornamental ground, like our own cathedrals, a feature which attends few foreign ecclesiastical edifices.

The reigning family of Bavaria descends from Otto of Wittelsbach, 1180. After being ducal and electoral, it was made regal by Napoleon in 1806.

WURTEMBERG, a small regal state, inferior in extent to the Welsh principality, lies between Bavaria on the east and Baden on the west, and is enclosed by them, except on the south, where it touches the Lake of Constance, and nearly surrounds the Prussian patrimony of Hohenzollern. The Danube, as an infant river, crosses the southern part of the country from west to east; but the Neckar is the characteristic stream, flowing from the centre northward to the Rhine, through a rich and beautiful valley, a scene of vine cultivation. The bold heights of the Schwarzwald rise on the side towards Baden, and a rugged plateau occupies a central area, apart from which the surface exhibits gentle hills and valleys in the highest degree fertile, and industriously cultivated.

Stuttgart, the capital, seated on the Nesenbach, which joins the Neckar, contains a population of 56,000. Hills closely surround the town, thickly clothed with vineyards, which give a rich and beautiful appearance to the environs in summer, and may be seen from all the streets. The charm of the situation, with mineral

springs in the neighbourhood, and the moderate cost of living, invite strangers to a temporary residence. The public library is distinguished by its collection of Bibles, one of the largest in the world, consisting of more than 8000, in sixty different languages. Danneker, the sculptor, whose Ariadne is the pride of Frankfurt, was a native, became professor of the Fine Arts in the Academy, and remained a resident till his death in 1841. Stuttgart is the seat of an important book-trade. *Heilbronn*, on the lower course of the Neckar, an industrial town, is the centre of the principal vintage district. *Tübingen*, on its upper banks, contains the university of the kingdom, founded in 1477, which had among its earliest professors Melancthon and Reuchlin. Its most celebrated professor in modern times is Baur, the founder of the well-known 'Tübingen school' of theology. Uhland, the lyric poet, recently deceased, resided here; Wieland composed his *Oberon* in the neighbourhood; and Schiller was born at a village lower down the stream. *Ulm*, on the Danube, at its entrance into Bavaria, ancient and dull, possesses a cathedral of the first class, now devoted to the service of Protestantism. The town is a fortress of the Germanic Confederation, of inglorious notoriety from the surrender, within its walls, in 1805, of General Mack to Napoleon, with the entire Austrian army under his command, without striking a blow.

BADEN, a grand duchy, is a long narrow territory on the right bank of the Rhine, extending along its course from the Swiss frontier to the border of Hesse-Darmstadt. It is traversed from north to south by the granitic range of the Schwarzwald, or Black Forest, so called from the dark hue of the pines which clothe the lower slopes and the enclosed valleys of the upper region. The highest point, the Feldberg, rises to 4675 feet above the sea, and long bears the winter's flakes upon its head. In spring the melting of the snow along the whole crest of the ridge swells an endless number of streams, which often set out from very closely-contiguous points, and travel in opposite directions, some by the Rhine to the North Sea, others by the Danube to the Black Sea. It has been said that the droppings from different sides of the same house-roof, in some instances, take these courses; and thus pass to basins a thousand miles apart from each other. Very striking scenery marks many parts of the range, as in the valley of the Treisam, a defile by which it is crossed from Freiburg to Schafhausen. This is locally called the Höllenthal, or Valley of Hell, but it has nothing infernal, or even savage, in its aspect, though with wild and sublime features. The pass is celebrated in military history for the successful retreat of Moreau and his army through it in 1796. On gaining the summit, and looking out on the opposite side, the waters of the Lake of Constance may be discerned, and a wide panorama is unfolded, to which the name of the Kingdom of Heaven has been given. The Neckar crosses the northern part of the duchy on its way to the Rhine. The Danube rises within its limits, in the southern portion. A fountain in the castle-garden of the village of Donaueschingen is the nominal source; but two rills descending the eastern slopes of the Schwarzwald are better entitled to the distinction. Mountain scenery, extensive woods, numerous streams, a mild climate, and a fertile soil, have won for Baden the epithet of *Das Eden Deutschlands*, 'The Paradise of Germany.' It produces rich crops of the ordinary cereals, with tobacco, maize, hops, flax, hemp, wine, and oil. In the Black Forest district the villagers manufacture a large number of wooden clocks, polish crystals, and rear singing-birds.

Carlsruhe, the capital, is a small, elegant, but dull place, of modern origin and formal appearance, situated a few miles east of the Rhine. Population, 27,000. It contains the grand-ducal palace, from which all the principal streets, thirty-two in number, diverge like the rays of a fan, and has a few other buildings praised for their architecture. The principal are, besides the grand-ducal palace, the palace of the old margrave, the polytechnic school, the schools of science and the fine arts, churches, the mint, barracks, hospitals, and arsenal. The site was formerly a forest, large remains of which are still in the environs. Here the Margrave Charles had a hunting-seat, called Carl's-ruhe, 'Charles's Rest,' which became the nucleus of the city, and supplied it with a name, in the early part of the last century. *Baden-Baden*, on the south, in high repute as a visiting-place from its warm mineral waters, offers various attractions to mere pleasure-seekers, with whom it is thronged in the summer months. Not the least is the charming locality, encircled by hills, offshoots of the Black Forest, which abound with murmuring streams and delicious woodland shades. The springs were known to the Romans, who planted a colony at the spot, with the name of *Civitas Aurelia Aquensis*. The hottest has a temperature of 153° Fahrenheit. Twelve others rise near it, and render the soil so warm that snow never lies on the ground in the coldest weather.

Mannheim, situated at the confluence of the Neckar with the Rhine, the largest town in the duchy, with 27,100 inhabitants, is also the chief seat of commerce. It is very regularly built, has spacious streets crossing each other at right angles, and quite a modern air, having been almost entirely reconstructed since the close of the last century, when the French were compelled to surrender it to the Austrians, after a bombardment which laid the greater part in ruins. Being easy of access, as well as pleasant and cheap as a place of residence, it has a considerable colony of English.

Heidelberg, an antique-looking town, thirteen miles to the eastward, with 16,000 inhabitants, occupies the south bank of the Neckar, and the slope of a hill rising up from it, where the valley of the river opens into the spacious valley of the Rhine. The richness and beauty of the country, with various memorials of the past, and the unfortunate history of the place, combine to render it full of interest. Formerly the capital of the Palatinate, a state now merged in adjoining territories, it underwent all the cruel vicissitudes of that district in the seventeenth century—bombardments, pillage, fire, and sword, first from the imperialists, next from the French. The conspicuous object is the palatial castle of the old Electors, which, after being restored from the ravages of war, was fired by lightning in 1764, and reduced to desolation. The grand ruin stands on a wooded height, and commands one of the finest views of its kind in the world, embracing the winding Neckar and the gleaming Rhine; with towns, villages, church-towers, and vineyards, bounded by the distant heights of the Vosges Mountains in France. In a cellar beneath the castle is the famous Tun, capable of holding 800 hogsheads, the largest of all wine-casks, but inferior in size to many of the porter-vats of London. St Peter's Church is memorably connected with Jerome of Prague, who nailed to its door a summary of the reformed doctrine which he preached to a multitude in the churchyard. Heidelberg is the seat of a university, the oldest in Germany proper, having been founded in 1386. It has a library of 150,000 volumes, and a large manuscript collection, and is much resorted to by students from England and Scotland. The German students are notoriously addicted to duelling, beer-drinking, and boisterous revelry in the streets at night. *Freiburg*, in the southern part of the duchy, possesses one of the finest Gothic cathedrals in Germany, the tower of which, surmounted by a spire, is 380 feet high, remarkable for its lightness and elegance. The town stands on the Treisam, a few miles from its descent through the Valley of Hell from the Black Forest; and is the seat of the Roman Catholic university for the duchy. It has many other educational institutions besides manufactures of chemical products, soap and starch, with foundries, bleaching-works, &c. A statue of Schwarz, a native and resident monk, one of the inventors of gunpowder, who is believed to have lost his life while pursuing the study about the year 1354, has recently been erected in the Augustine Place. *Constance*, at the western extremity of the lake of that name, now a reduced place, has a name in history as the scene of the ecclesiastical council, 1414-1418, which deposed two rival popes, elected a successor, condemned the doctrines of Wickliff, and consigned John Huss and Jerome of Prague to the flames. The field in which they suffered is pointed out in the suburbs, and the very spot of their martyrdom into which the stake was driven. England was represented at the council by a deputation under the Bishop of Salisbury, who died during its sittings, and has a grave marked by a brass plate before the high-altar in the cathedral.

LICHTENSTEIN, a principality, the smallest state of the Germanic Confederation, lies to the south of the Lake of Constance, on the right bank of the Rhine, enclosed by Switzerland and the Tyrol. It is about equal in area to one-third of the county of Rutland, and has a town of the same name for its capital, with a village population as to numbers.

The Prince of Lichtenstein resides at Vienna, where his palace, with a picture-gallery, is one of the show-places. The state was till very recently governed in much the same manner as his own immense private domains in Moravia. But in 1862, the handful of inhabitants made a quiet movement, and obtained a constitution. According to its articles, the seat of government is transferred from Vienna to Lichtenstein; representatives are to vote the budget; and the administration is to be 'radically different and separate from that of the prince's domains.' Soon afterwards the first number of the *Lichtenstein Gazette* appeared, but as there was no press in the principality, it was printed at Feldkirch, a small town in the Tyrol.

Germany was included in the vast dominions of Charlemagne, who was crowned by the hands of the pope Emperor of the West in the year 800. With him began the long line of emperors of Germany extending through a thousand years, or till the commencement of the present century. But his dynasty becoming extinct in 911, the different provincial chiefs, consisting of seculars and ecclesiastics, who at one time amounted to 300, constituted themselves into a national assembly, assumed the right of electing the sovereign, and placed members of various houses upon the imperial throne by their suffrages. This arrangement subsisted till the year 1806, when the victories of Napoleon, and the defection of subordinate princes to him, induced Francis II. to resign the German crown, and assume the title simply of Francis I., Emperor of Austria. Then

followed the short-lived 'Confederation of the Rhine,' in which those states were included whose rulers were subservient to the views of France. This was succeeded by the 'Germanic Confederation,' established by the Congress of Vienna in 1815, consisting of the minor powers, with Austria and Prussia at their head, united for the purpose of mutual protection and defence, which maintains its existence, but has always been in a very precarious condition. The general administration is conducted by a Diet sitting at Frankfurt, composed of representatives chosen by the governments—not by the people, in which the plenipotentiary of Austria always presides, and has a casting voice. Each state is bound to furnish a military contingent to the federal army according to its amount of population, while the fortresses of Mayence, Ulm, Luxemburg, Landau, Rastadt, and Ingoldstadt are garrisoned by federal troops. In their internal economy the several states are quite independent, and adopt various forms of government, but in all, constitutional principles are more or less distinctly recognised, though with great reluctance in several instances by the ruling powers. Besides the reigning houses, upwards of a hundred princes and counts of the old empire remain who have been 'mediatised,' or deprived of sovereign rights, but are permitted to retain their titles and estates.

Internal communication is in a highly-efficient condition, by means of an extensive system of railways, and the numerous rivers susceptible of steam navigation. Manufactures, though varied, are only conducted upon a great scale at a few points, but are very general in relation to articles necessary or common in domestic life; these are largely made by the peasantry themselves at intervals of leisure from other pursuits. Agriculture is the principal employment, and embraces the growth of rye to a much greater amount than wheat for the bread of the people. Commerce, formerly shackled by the exaction of dues on goods passing the frontier of each petty state, is now nearly relieved from this incumbrance by the incorporation of most of the states in the Customs Union, or *Zollverein*, which renders all merchandise free throughout the League after one levy. Hamburg, Bremen, Lubeck, and Emden are the chief seats of the foreign commerce. Frankfurt, Nuremberg, Augsburg, Munich, Cassel, Brunswick, Leipsic, and Stuttgart rank as principal centres of the inland trade, extensively carried on by means of periodical fairs. The two last-named cities are the only places in Europe at which book-fairs are held. Leipsic supplies the north of Germany with literature, and Stuttgart the south. The business is conducted entirely upon the system of exchange. 'The bookseller, perhaps, from Kiel on the Baltic, meets and exchanges publications with the bookseller, perhaps, from Zurich; gives so many copies of his publication—a dull sermon possibly—for so many of the others, perhaps an entertaining novel. Each gets an assortment of goods by this traffic, such as he knows will suit his customers, out of a publication of which he could not perhaps sell a score of copies within his own circle; but a score sold in every bookselling circle in Germany gets rid of an edition.' Public libraries are large and numerous; elementary instruction is efficiently provided for in most of the states; and universities are sufficiently well endowed to render classical and scientific knowledge cheaply attainable.

The subjects of the Germanic Confederation form an aggregate number exceeding 44,000,000, but excluding the inhabitants of the Prussian and Austrian portions, the total population of the minor states, to which this chapter is devoted, is little more than 17,000,000. This last number is composed almost entirely of people of the Teutonic race, speaking two principal dialects—the *Hoch Deutsch*, or High German, distinguished by its rough and guttural sounds, prevalent in the southern and central districts; and the *Nieder Deutsch*, or Low German, characterised by a softer enunciation, the popular speech in the northern states. The High German was the mother-tongue of Luther, and the

language into which he translated the Bible. It hence became the universal vehicle of literature, and is the medium of intercourse among the educated classes in all parts of the country, generally understood, as alone taught in the schools. Both High and Low Germans are very similar in habits, character, and disposition. They are phlegmatic, thrifty, and plodding—qualities very ordinary in themselves, but which, when allied with genius, taste, and discernment, contribute to elevate those endowed with the combination to the highest rank in the departments of polite literature, the fine arts, and natural science. Poetry has been nobly represented by Klopstock, Goethe, Schiller, Körner, Arndt, and Uhland; music by Handel, Haydn, Beethoven, Mozart, Weber, and Mendelssohn; physical science by Werner, Humboldt, Von Buch, Berghaus, Bessel, Struve, Gauss, Mädler, Encke, Ritter, and Liebig; and no nation can furnish such a host of writers eminent in mental philosophy and jurisprudence, in philology and archaeology, in historical research, biblical criticism, and sacred literature in general. In the present century, Germans have distinguished themselves as intrepid travellers, and have enduringly associated their names with various fields of adventure—Humboldt with South America and Russian Asia, Tschudi with Peru, Martius with Brazil, Lepsius with Egypt, Schomburgk with British Guiana and Burmah, Gutzlaff with China, Siebold with Japan, the brothers Schlagentweit with Central Asia, Barth, Owerveg, and Vogel with Central Africa, and Leichardt with Central Australia.

In relation to religion, the greater proportion of the people in the northern and central states are Protestants, divided into Lutherans and Calvinists or Reformed, the former of which are the most numerous. There are minor sects, as the Moravian Brethren, whose mother-colony at Herrnhut, 'the watch of the Lord,' in Saxony, founded in 1722, has planted offshoots in almost all parts of the world. Saxony has also some adherents of the Greek Church. In the southern countries Roman Catholics form a decided majority of the population. The modern seceders from the Romish Church, styling themselves Christian Catholics, who were chiefly provoked to the secession by the exhibition of the Holy Coat at Treves in 1844, are found in various parts, but in gradually diminishing numbers. Having become democrats in politics, and freethinkers in general on religious subjects, several governments imposed vexatious restrictions upon them with a view to their suppression, prohibited their public meetings, withdrew the rights of citizenship, or went to the extreme of enforcing banishment.

By the general body of both Protestants and Catholics little distinction is drawn between Sunday and week-days, except that great part of the former is the favoured time for recreation in the public gardens and houses of entertainment in the environs of the towns. Both communions agree in a regard for old customs, a respect for anniversaries, and a fondness for festivals, carefully attending to every observance in their celebration which time has hallowed. All over Germany on Christmas-eve, every house, belonging to either rich or poor, has its gaily-decked Christmas-tree, sometimes called *Christbaum*, or 'Christ's tree;' and wherever Germans go, as emigrants to the remotest parts of the globe, as artist-students to Rome, as resident merchants to London or New-York, at every recurrence of the season, the tree makes its appearance in the domestic circle, at once the symbol of their faith and the emblem of their nationality.



The Royal Palace, Berlin.

CHAPTER V.

PRUSSIA.



THE region around the mouth of the Vistula was anciently occupied by a people called the Prucei, from whom the name of Prussia is derived. Their territory embraced only the district stretching from thence to the Niemen, and is still known as Prussia Proper, which, together with the adjoining province of Posen, lies beyond the pale of Germany, and was formerly part of the kingdom of Poland. The name of Prussia has, however, since been extended from a small territory to the dominions of a great monarchy, the vast proportion of which is Germanic, and acquired its present extension in 1815, at the close of the long Napoleonic wars. Prussia thus constituted, consists of two principal divisions of very unequal size, entirely separated from each other. They may be called Eastern and Western from their relative position, and Maritime and Rhenish from their respective

positions. The total area, 107,960 square miles, is inferior to that of the United Kingdom by considerably more than the extent of Wales.

I. EASTERN OR MARITIME PRUSSIA.

This main division of the kingdom, comprising five-sixths of the whole area, extends along the Baltic from the frontier of Mecklenburg to that of Russia; embraces a large part of the north of Germany; and stretches inland to the Austrian territories. The coast-line, along the shore of the Baltic, very nearly 500 miles in length, exhibits a succession of sand-hills through the greater part of its course, and is monotonous and dreary in the extreme. But eastward, it is distinguished by the formation of tongues of sand, called *nehrungs*, of extraordinary length in proportion to their breadth, variously flat or undulating with hillocks which the winds have piled, and enclosing expanses of fresh water, called *haffs* or bays. The latter are the estuaries of rivers, shallow, but of considerable extent, communicating with the sea, but rendered lake-like by the narrowness of the outlets and the fluviatile quality of the water. Thus the mouth of the Vistula is enclosed on the north-western side by a sandy promontory, eighteen miles long by only a quarter of a mile broad, terminating in the well-known Hela of Dantzic, marked by a revolving light. Another of these singular tracts commences eastward of the corn-exporting city, thirty-eight miles long by less than one mile broad. It bounds the Frische-haff, so named from its freshness, the estuary of the Pregel, which has an area of 250 square miles, and opens to the sea by a narrow strait, half a mile wide. A third sandy ridge lies immediately to the north, fifty-two miles long by one and a quarter in average breadth, almost entirely destitute of vegetation, but occupied by a few scattered hamlets. It encloses the Curische-haff, or Bay of the Cures, an ancient people who dwelt upon its banks. The Niemen discharges itself into this watery expanse of 470 square miles, connected with the sea by the Memel Deep, a passage about 300 yards wide.

This part of the coast is remarkable for its produce of amber, the carbonaceous mineral so well known for its electrical properties, and so prized for ornamental purposes. Though found along the western shores of Prussia, the chief source of the supply is between Dantzic and Memel. After high north winds have agitated the sea, shoals of sea-weed are washed towards the strand, among which the article is found, adhering to the mass, or entangled in it. As soon as a cargo arrives within convenient distance, the amber fishers enter the water to secure it, haul the prize upon the beach, and examine its contents. The amber occurs in nodules, varying in size from that of a nut to that of a man's head, though the latter size is very rare. It has also been obtained by regular mining in the sands, and divers have been employed to search for it at the bottom of the sea, but neither plan proved remunerative, and the billows are now the sole agents of the supply. About 150 hogsheads are annually collected, an amount which has been steadily maintained for three centuries. But the occupation is strictly closed to individual enterprise. The Grand-masters of the Teutonic Order, during their reign upon the coast, took possession of the trade, and derived a considerable revenue from it. It afterwards became a royal monopoly. An officer of the government superintended the collection, and disposed of the proceeds by public auction. Watchmen, or 'strand-riders,' kept guard on the coast; gallows were erected *in terrorem* along the shore; and any person detected collecting on his own account was liable to capital punishment. Since the commencement of the present century, the right of collecting has been let by the government to contractors, who pay an annual rental, and have the monopoly of the produce. Though the former severe laws are not in force, yet detaining a piece of amber accidentally found, renders the party liable to a prosecution for theft; and in the use of the beach, persons

going beyond certain limits are subject to a penalty for the trespass. Amber is a resin of vegetable origin, supposed to be yielded by an extinct species of pine, exuding like the gum which we see issue from trees in the orchards of the present day, but indurated and mineralised. Hence we may assume that in places where the waters now freely sport, forests of amber pines once waved to the winds, and were either slowly submerged by encroachments of the sea, or suddenly engulfed by some grand catastrophe of nature. Insects are often found imbedded in the mineral. Pope says of flies in amber :

‘The things themselves are neither rich nor rare,
The wonder’s how the devil they got there.’

But the fact is obviously susceptible of very easy explanation. Some of the insects appear evidently to have struggled after being entangled in the originally viscous mass. Occasionally a leg or wing is found at a distance from the body, which had been detached in the effort to escape, or a limb appears alone, plainly broken off in the partially successful attempt at disengagement. The highly-interesting substance is chiefly sent to Turkey, where it is used, as well as in Germany, to form mouth-pieces for tobacco-pipes. The largest known specimen, weighing eighteen pounds, is in the Royal Museum, Berlin. But a total quantity of 800 pounds was collected after a storm on the 1st of January 1848.

A few islands closely adjoin the western part of the main shores. Those of Usedom and Wollin, level and wooded, enclose the Stettiner-haff, or Bay of Stettin, and form three channels connected with the adjacent coast, by which it communicates with the Baltic; but the ordinary line of navigation is the central passage. Gustavus Adolphus, at the commencement of his memorable campaign, landed on the former island with his army, and set his troops an instructive example, by falling upon his knees on the beach in prayer, rising to work with his own hands in throwing up intrenchments. Rügen, more to the west, the largest island belonging to Germany, is separated from the mainland by a strait about a mile in breadth, and is supposed to have been torn from it in the early part of the fourteenth century, during one of the most violent hurricanes on record. It is of very singular form, being cut up by indentations of the sea into a series of peninsulas, but presents a surface pleasingly diversified with hill and dale, well-wooded slopes, and wild romantic ravines. Its scenery, of which beauty and softness are the prevailing features, render it a great point of attraction in summer for sea-bathing with the inhabitants of North Germany, as its chalk-cliffs and flowery glens so strikingly contrast with their own sandy plains and swampy heaths. The highest point of one of the promontories, composed of grotesquely-grouped masses of chalk, is called the Königstuhl, ‘King’s Chair,’ or ‘King Frederick William’s Chair,’ from which a flight of 600 steps, cut in the rock, leads down to the strand. But Rügen is historically interesting as one of the last strongholds of paganism in the north of Europe, still containing the sites of temples, stone coffins, jars full of bones and ashes, tumuli, and cromlechs. These are traces of a barbarous people, whom Odoacer, king of the Rügii, fourteen centuries ago, led from this remote spot, and the neighbouring shores of Pomerania, to the conquest of Rome and Italy. The island was considered sacred to the goddess Hertha. Tacitus describes the site of her worship. An ancient beech forest, containing an oval-shaped pond, called the Black Lake, from the sombre shade of the adjoining trees, is still regarded with feelings of superstition, and believed to be identical with the place described by the historian. The present islanders are a very creditable race, long familiar with humane regulations respecting wrecks, which provide for the security of stranded property and the relief of distressed seamen.

Inland Prussia, to a considerable distance from the shores, except towards the Vistula,

is a flat uninteresting country, for the most part a great plain of sand, with rounded fragments of slate and granite rocks scattered over it, torn from the primitive mountains of Scandinavia, and transported to their present site by some unchronicled deluge. Small lakes, morasses, pine woods, and heathy moors are very numerous. One of the largest of the latter, the Tuchler Heide, or Heath of Tuchel, in the central province of Brandenburg, extends fifty miles in length, by from twenty-five to thirty in breadth, and is a collection of drift sand, incapable of cultivation, producing only heathery plants, a few shrubs, and pines. On the south-west the surface is diversified by a portion of the Harz Mountains, which stretch in an east-south-east direction from Goslar, in Hanover, to Mansfeld, in Prussian Saxony; in which direction the slopes of the Riesengebirge abound with striking scenes. This range forms the boundary between the Prussian and Austrian territories. A small chapel at the summit of Schneekoppe stands on the frontier-line. This is the highest point of the chain, 5235 feet above the sea, the 'prince of German mountains,' so called as the loftiest of its elevations apart from the Alps. It appears higher than it really is on the approach from the north, rising at once from the plain, without being diminished in its altitude by any intervening ridges of lower elevation. The prospect from the crest is very extensive when fine weather is commanded, embracing the fertile plains of Silesia, studded with towns and villages, on the one hand, with rugged glens, wild and steep precipices, on the other, the side towards Bohemia. Within twenty minutes' walk of the top, the humble inn or chalet of Hampebaude, provided for the accommodation of travellers, at the altitude of 4300 feet, is the highest inhabited house in Prussia.

There is no important river entirely Prussian from source to mouth. The Oder answers the most closely to this condition, having only a slight portion of its upper course within the Austrian empire, and then passing centrally through the heart of the country to the Bay of Stettin. On the south-west, the Elbe winds over the surface from the Saxon to the Hanoverian border. Eastward the lower course of the Vistula is embraced, from the frontier of Poland to its discharge in the Gulf of Dantzic. On the north-east the Niemen is received from Russia, and flows to the Curische-haff. Between the two last named is the Pregel, entirely confined to the province of Prussia Proper, which terminates in the Frische-haff, but is only a stream of subordinate rank. In this province lakes are the most numerous, and embrace the largest examples. The total number throughout the country is reckoned at upwards of 1000, some of which are from ten to twenty miles in length, but the majority are very small. None have any attractive features, but they are generally well stocked with fish. The numerous lakes and marshes have been formed by the rivers, which, travelling languidly owing to the very slight fall of the surface, are unable to discharge their waters after heavy rains, or when the snows melt, and hence speedily overflow their banks. Lakes and rivers are firmly frozen over in the winter months; and the snow lies long and deep upon the ground, especially in the north-eastern districts. The Silesian province yields calamine, the ore from which zinc is derived, in great abundance, and has zinc-works upon the largest scale, which extensively supply the foreign market with the product. In Prussian Saxony, mines of lead and iron are wrought in the Harz Mountains, which yield also in various parts of the range marble, alabaster, and granite, giving employment to an industrial population of about 70,000; and in Pomerania, near Stettin, the important discovery has very recently been made of vast beds of rock-salt of the purest quality. The northern part of the Rhine province has rich coal and iron mines, and the river-valleys are rich wine-producing districts.

The eastern section of Prussia consists of six provinces, which are divided into regencies and subdivided into circles.

Provinces.	Cities and Towns.
Germanic—Brandenburg,	Berlin, Potsdam, Frankfurt, Brandenburg.
" Silesia,	Breslau, Gorlitz, Neisse, Glogau, Brieg.
" Prussian Saxony,	Magdeburg, Halle, Erfurt, Naumburg.
" Pomerania,	Stettin, Stralsund, Griefswald, Rugen.
Non-Germanic—Prussia Proper,	Königsberg, Dantzic, Elbing, Tilsit, Memel, Thorn.
" Posen,	Posen, Lissa, Rawitsch, Bromberg.

The reigning house is a younger branch of the family of Hohenzollern, who held the comparatively humble office of burgraves or stadtholders of the city of Nuremberg in Bavaria. In 1415 one of them obtained, by purchase from the Emperor Sigismund, the sovereignty of Brandenburg, with the dignity of elector. In 1618 the dukedom of Prussia Proper fell to the electorate by the failure of its male line; and the state was raised to power and consequence by Frederick-William, 1640-1688, commonly called the Great Elector. His son obtained the title of king from the Emperor Leopold, by a bribe administered to the imperial confessor, and put the crown upon his own head as Frederick I., at Königsberg in 1701. The kingdom, enlarged by the wars of Frederick the Great and the partition of Poland, was conquered by Napoleon, but reconstituted with additional possessions by the Congress of Vienna in 1815. Since that period the little territory of Jähde, on the North Sea, has been obtained by purchase from Oldenburg, as previously mentioned; and the two states of Hohenzollern, the patrimony of the elder branch of the reigning family, formerly members of the Germanic Confederation, have been incorporated in the monarchy. This last arrangement, by which Prussia acquired a footing in Southern Germany, took effect in the year 1848, and the princes were compensated by pensions for the surrender of their rights.

BRANDENBURG, an inland province, is intersected by the Oder on the eastern side in the middle part of its course, and contributes on the western several affluents to the Elbe. It has a considerable extent of infertile surface, a low average of population, but acquires importance from being the nucleus of the monarchy, containing the capital.

Berlin, the metropolis of the kingdom, is seated in the centre of a flat sandy plain, on both banks of the Spree, in latitude 52° 30' north, longitude 13° 18' east, and contains a population of 547,000, including the military. The river winds with a sluggish current circuitously through it, and is crossed by thirty-seven bridges within its limits, finally joining the Havel, which discharges into the Elbe. The city has an elegant yet formal appearance; remarkably broad streets, and numerous spacious squares, the latter adorned with statues; but being entirely of modern date, called into existence chiefly by the will of Frederick the Great, it fails to excite that interest which much smaller places inspire by venerable structures and picturesque dwellings, 'historical stone and lime.' It possesses, however, one feature finer than anything of the kind in Europe, the street called *Unter den Linden*, 'beneath the lime-trees,' reaching in a straight line from the royal palace to the triumphal arch of the Brandenburg Gate, the principal entrance into the capital, and a very imposing portal. This noble thoroughfare has four rows of trees, consisting of limes, chestnuts, aspens, acacias, and plantains, which form a central walk for pedestrians, and a road for carriages on each side, where the fashionable and the wealthy exhibit themselves and their equipages. Palaces and public buildings are on either hand—the Museum, the Opera, the University, the Arsenal, and the Academy of Arts—which combine with the varied foliage to render this a superb architectural vista. Berlin is well supplied with literary, scientific, and educational institutions; it possesses a royal library of 500,000 volumes; and may be regarded as the centre of intellectual development in the north of Germany. Its charitable institutions are also numerous, the most important being the two magnificent hospitals of the Charité and the Bethunien. The university, founded in 1810, has risen to great distinction, and numbers among its former and present professors many illustrious names, as those of Neander, Schleiermacher, and Hengstenberg, the theologians; Fichte, Hegel, and Schelling the metaphysicians; Encke the astronomer; Humboldt and Ritter the geographers; Raumer the historian; Savigny the jurist; Bekker, Zumpt, and Bopp, the philologists; Dove the physicist; and Ehrenberg the naturalist. But with all their civilisation, the Berliners have not yet supplied themselves with the social conveniences of many an ordinary English village as to drainage and water-supply, so essential to cleanliness and health. Though unfavourably situated for commerce, having no easy communication with the sea, yet still the manufactures are important and varied, embracing woollen, cotton, and silk goods; paper, porcelain, and earthenware; and the beautifully executed cast-iron articles for use and ornament which have obtained the name of 'Berlin jewellery.'

Potsdam, eighteen miles on the south-west, occupies a pleasant site on the north bank of the Havel, which appears the more agreeable in contrast with the dreariness of nature immediately around the capital. The river here expands into a lake, and has well-wooded sloping shores. The town is a principal station of the army, and the frequent residence of the sovereign, with four palaces in and about it. Population, 41,700. In one of the squares is an obelisk of marble 76 feet high. A plain sarcophagus in the church of the garrison, containing the remains of Frederick the Great, surmounted by captured flags, and his retreat in the vicinity

of *Sans Souci*, 'without care,' where he died, are the objects of interest to strangers. Potsdam is the birthplace of Alexander Von Humboldt. *Spandau*, a small town regularly fortified, stands at the junction of the Spree with the Havel, and can be strengthened by the inundation of the environs. Its citadel has often received prisoners of state. *Frankfurt*, on the Oder, 50 miles east of Berlin, undistinguished save by the commerce commanded by its position, is seated on a navigable river which serves as an outlet for the mining and manufacturing produce of Silesia, and is connected by canals with the Elbe and the Vistula. It has three great fairs annually, much frequented by Poles and Silesians, and considerable manufactures. About four and a half miles distant is Kunersdorf, where Frederick the Great was defeated by the Austro-Russian forces in 1759.

SILESIA, a south-eastern district, watered by the upper course of the Oder, borders on the dominions of Austria, and formerly belonged to the empire. It was conquered by the arms of the great Frederick, and is distinguished in military history as the scene of many decisive battles, not only during the struggle for its possession, but in the wars of Napoleon. The province is now the most populous and prosperous portion of Prussia, a region of fertile and well-cultivated fields, of bleaching-grounds like acres of snow, of manufacturing and mining industry, and of beautiful scenery. On entering from the north, hamlets, villages, and towns multiply as the interior is penetrated, while the view of monotonous plains is exchanged for that of undulating hills, which become bolder, till the high range of the Riesengebirge appears on the southern horizon.

Breslau (Pol. *Wracklaw*), centrally placed, occupies both banks of the Oder, and ranks after Berlin in point of population, 145,000, consisting of a considerable number of Catholics, but with a decided majority of Protestants. The signs of opulence appear in the environs in numerous villas and ornamental grounds; and as the chief mart for the corn, metals, and linens of the province, the streets are the scenes of great animation and traffic. It has important manufactures, and upwards of 100 distilleries. At Easter, when the principal wool-fair is held, the largest of the kind on the continent, the town is thronged with merchants, many of whom are far-comers, appearing in oriental costumes. It possesses a library of 300,000 volumes, and is the seat of a university founded in 1702. The Church of St Elizabeth has the loftiest tower in Prussia, 364 feet high. One of the principal squares, the *Blucher-platz*, contains a colossal bronze statue of the warrior, who gained his great victory over the French, in 1813, at the *Katzbach*, a few miles to the westward, at the age of seventy-one, and died tranquilly at an adjoining village in 1819. His tomb is by the high-road, marked by a granite monument, shaded by three linden-trees. On the approach to *Breslau* from the north, the great Frederick gained the battle of *Lissa*, in which he defeated a triple force of the Austrians. The other provincial towns are numerous, highly industrial, but are not separately large, and have no historical importance.

PRUSSIAN SAXONY, a western district, includes part of the middle course of the Elbe, and a portion of the Harz Mountains, with the highest point of the group, the celebrated *Brocken*. Detached tracts are associated with it, and some of the smaller German states are almost wholly impacted within its limits. Prussia obtained the southern part of this province at the expense of the kingdom of Saxony. That state was deemed lawful spoil by the Congress of Vienna, justly amenable to an entirely new appropriation, owing to the adherence of its sovereign to the cause of Napoleon. But after lengthened discussions, he was permitted to retain his patrimony, reduced in its dimensions by a partial surrender of territory. Copper and other mines are wrought extensively in the Harz; and extensive corn-lands occur, highly fertile, but very monotonous, being without enclosing hedgerows, and rarely dotted by a tree. This portion of the kingdom was the cradle of the Reformation, as the scene of the birth, education, and death of Luther. It has been the theatre also of many battles and sieges.

Magdeburg, a large commercial and manufacturing town on the Elbe and some islands in its channel, situated eighty miles south-westward of Berlin. It is a fortress of the first class, with a citadel on one of the river-islands, and contains a population, including the suburbs, of 78,000, besides the garrison. The citadel is used as a state prison, and was the scene of Baron *Trenck's* long captivity. The town is the focus of four of the principal lines of railway in Germany, and has manufactures of silk, cotton and woollen goods, gloves, ribbons, &c., with extensive breweries and distilleries. The cathedral, built between 1208 and 1363, is a noble building, with many interesting monuments and objects in the interior, such as the tomb of the Emperor *Otho*, the founder of the city, and of his wife, the Saxon Princess *Editha*. Pleasant public gardens are laid out by the side of the river beyond the fortifications. An inscription, 'Remember the 10th of May 1631,' recorded on one of the houses, marks a terrible incident in the history of *Magdeburg*.

On its capture by the imperialists under Tilly during the Thirty Years' War, the commandant was executed, and the inhabitants, to the number of 30,000 men, women, and children were butchered. Tidings of this horrible deed were announced to the emperor by the dispatch, that 'since the destruction of Jerusalem and Troy such a victory has not been.' The ferocious Tilly lies buried near the shrine of the Black Virgin of Altötting in Bavaria, before referred to. *Halberstadt* and *Quedlinburg*, the latter the birthplace of Klopstock, are on the south-west. *Halle*, with 41,000 inhabitants, is more important, rapidly advancing also as a railway centre, is situated on the Saale, and is the seat of a university, founded in 1694, with which many great names are associated, and of the Francke Institution, embracing an orphan-house and schools. The town is distinguished by the activity of its printing-presses. The name derived from *Hall*, an old word for 'salt,' refers to the brine-springs of the place and its neighbourhood, from which a large quantity of salt (from 200,000 to 300,000 hundredweights annually) is made by a peculiar class of workmen called the 'Halleores.' Further to the south, the village of *Lutzen* gives its name to the battle in which Gustavus Adolphus fell in 1632, at a spot now marked by an erratic block called the Stone of the Swede. It was the scene also of an engagement in 1813, in which Napoleon was victorious over the allies, previous to the battle of Leipsic. A few miles distant is the field of Rossbach, where Frederick the Great achieved his great triumph over the combined French and Austrians in 1757.

Eisleben, a small place about twenty miles west of Halle, with manufactures of potash and tobacco, and in the vicinity copper and silver mines and smelting-works, is famous as the scene of Luther's birth in 1483. Portions of the house remain. Here also he died in 1546. In the Church of St Andrew are the cap, cloak, and other relics of the great Reformer. *Erfurt*, in the extreme south of the province, a fortified and considerable town, contains Luther's Cell, in the Augustine monastery, now converted into an asylum for destitute children. He became a monk in 1505, and resided there several years. *Wittenberg*, on the Elbe, is distinguished as the place where he openly proclaimed the Reformation. It contains his tomb, with that of Melanethon. A statue of him in the market-place bears the inscription in German, 'Is it God's work? then will it endure. Is it man's? then will it perish.'

POMERANIA, a maritime region, extends along the shores of the Baltic from the territory of Mecklenburg nearly to the Gulf of Dantzic, and has the island of Rugen towards the western extremity. It embraces the lower course of the Oder, with a large extent of dreary sterile surface, and is one of the most thinly-peopled portions of the kingdom. The western part of the province, conquered by Gustavus Adolphus, long remained connected with Sweden, and was usually styled Swedish Pomerania. By the arrangements of the Congress of Vienna, it was finally ceded to Prussia, while the Swedish crown was aggrandised by the annexation of Norway.

Stettin, a fortified town and flourishing shipping port, with 64,000 inhabitants, including the military, is seated chiefly on the left bank of the Oder, but has a suburb on the opposite side. Its commerce is very extensive in the export of corn, wool, and other produce brought down by the river. Two Russian empresses were natives of the place—Catherine, surnamed the Great, and Maria Feodorowna, the wife of the Emperor Paul, and the mother of Alexander and Nicholas. Their respective fathers were the local governors at the time of their birth. Below the town the river expands into a spacious bay, the *Stettiner-haff*, and finally discharges into the Baltic by three channels formed by two islands and the mainland. *Swinemünde*, a small seaport, on the largest island, Usedom, marks the principal line of navigation, or the central channel. On this island the great Gustavus landed with his army in 1630, to take part, on the side of Protestantism, in the religious war then raging in Germany. The same spot speedily witnessed the disembarkation of a large band of English and Scotch auxiliaries, one of whom, Munro, who wrote an account of the campaigns of his chief, was supposed to be the original of the Captain Dugald Dalgetty, who so amusingly figures in Sir Walter Scott's *Legend of Montrose*. *Stralsund*, a strongly-fortified port, is seated on the mainland opposite the Rugen island, and was formerly the capital of Swedish Pomerania. It is celebrated for its long siege by Wallenstein at the head of the imperialists in 1628, who had sworn to take it, 'even though it were fastened by chains to heaven,' but was compelled to retire with great loss. It was also the scene of one of Charles XII.'s romantic adventures. Upon escaping from Turkey, and returning to his own dominions, he reached the place so overcome with fatigue, that he was found asleep without the walls by a sentinel on duty. The stone on which he laid his head is preserved in the town-hall. *Griefswald*, on an adjoining part of the coast, with 15,600 inhabitants, has a small university. *Putbus*, a beautiful sea-bathing resort, and *Bergen*, a small town, are in the isle of Rugen.

PRUSSIA PROPER extends along the coast from the preceding province to the frontier of Russia, and embraces the lower courses of the Vistula and Niemen, with the intervening basin of the Pregel. Along the borders of the first-named river are fertile arable lands, but the greater part of the surface exhibits an alternation of lakes, swamps, sandy wastes, and dark pine-woods. Though including two of the most populous cities of the

kingdom, the proportion of inhabitants to the area is small. The winter climate is severe, distinguished by wild and pitiless snow-storms, popularly called 'Courland weather,' coming from the direction of the Russian province of that name. This part of the country was long subject to the Teutonic knights, an order of military priests founded in Palestine during the Crusades, but there obscured and kept in abeyance by the more powerful Templars and Hospitallers. Summoned in the 13th century to the aid of Christian Poland against the barbarous Prucei, and other heathen neighbours, they gladly hastened to the eastern shores of the Baltic, mastered the territory, erected strongholds, built castles, and enforced their faith upon the natives with the sword. The knights had their Masters at Königsberg and other places, while the Grand-masters were established at Marienburg on the Vistula, where the palace they occupied still exists. Albert of Brandenburg, the last chief of the Order, embraced Lutheranism and renounced his vows, when the district was constituted into the duchy of Prussia, and made hereditary in his family. Upon the failure of his line in 1618, the duchy lapsed to the Electors of Brandenburg, who assumed the regal style in the following century.

Königsberg, the fourth city of the kingdom, with a population of 91,000, including 7400 military, and an important commercial port, occupies both banks of the Pregel, and an island in the river, a short distance above its entrance into the Frische-haff. Vessels too large for the shallow water of the lake discharge and receive cargoes at Pillau, on the narrow channel by which communication is maintained with the Baltic. Like Rome, it is built on seven hills; it has also seven gates and seven bridges—discriminating circumstances by which to test the integrity of a professed native in foreign parts—and in addition, there is a head over the clock on the town-hall which puts out its tongue at every stroke of the clapper. The city spreads over a wide area, as it includes a considerable extent of water-surface, many gardens and shrubberies, and no less than thirty public squares and market-places, some of them very spacious. It is the seat of a university, founded in 1544, with a library of 160,000 volumes, and an observatory on an old bastion, rendered famous by the labours of the late Professor Bessel, who, after watching through three years the star 61 Cygni, announced its annual parallax in the year 1838, which was the first approximation to a measurement of the distance of stellar bodies. The oldest and busiest portion of the city is on the river-island, the site of the cathedral, which contains the grave of Kant, the metaphysician, who lived at a still existing house, No. 3 in the Prinzessin Strasse. Königsberg was founded by Ottokar, king of Bohemia in 1255, who erected a wooden fort on a spot now occupied by a cavalry barrack; and hence in 1855 the city held a jubilee commemorating the completion of the 6th century of its existence. Next arose a more durable stronghold of stone, surrounded with walls and a moat, furnished with towers and drawbridges, which, after undergoing repeated alterations, is now the schloss or palace, devoted to government offices. It was the refuge of the royal family of Prussia when driven by Napoleon from Berlin, and contains an apartment of interest, called the Amber Chamber, adorned with the carbonaceous mineral obtained from the neighbouring shores. The battle-fields of Friedland and Eylau are in the adjoining country. *Tilsit*, on the stream of the Tilse, an affluent of the Niemen, is very unimportant, but known to fame as the scene of Napoleon's fantastic interview with the Emperor Alexander in 1807. *Memel*, at the outlet of the Curische-haff, the most northerly town in the Prussian dominions, with a population of 17,600, is the central point of the Baltic timber trade, brought down by the Niemen from the Lithuanian forests. Its quays and streets exhibit a lively scene and a motley throng during the trading season, or while the navigation is open. There are German and Russian merchants—English, French, and Dutch captains and sailors—Lithuanian boatmen, foresters, and farmers—Jew dealers and pedlers—and occasionally some country people of singular appearance and costume are seen, the Samaitish inhabitants of the adjoining tract of Samogitia, a branch of the Finnish race, of low stature, wearing the mean-looking ash-coloured woollen cloak of their ancestors. The town is noted for its ship-building. It is two years older than Königsberg, having been founded by the Livonian order of knights in 1253. North of Memel the country is a desert of loose sand—the sea on one side, and pine-forests, interspersed with cultivated tracts, on the other. At about twelve miles distance, a barrier defines the Prussian border, beyond which lies a tract of neutral ground leading to another barrier, which marks the Russian frontier.

Dantzic, the most important port of the kingdom, and a first-class fortress, with 82,000 inhabitants, including 10,000 soldiers, is situated on the western main arm of the Vistula, about three miles above its entrance into the sea. Ramparts, bastions, redoubts, and wet ditches, with gigantic works to lay the adjoining country under water, render it as impregnable as any position can be made by artificial means. Lines of chestnuts and other trees give a pleasant appearance to the suburbs in summer; country-houses are suggestive of citizen opulence and comfort; but the interior is mostly a maze of narrow streets and somewhat gloomy antique dwellings, with few public buildings deserving notice besides the cathedral and exchange. Commercially the city ranks with the greatest corn-shipping ports in the world, besides exporting timber, linseed, hemp, flax, and

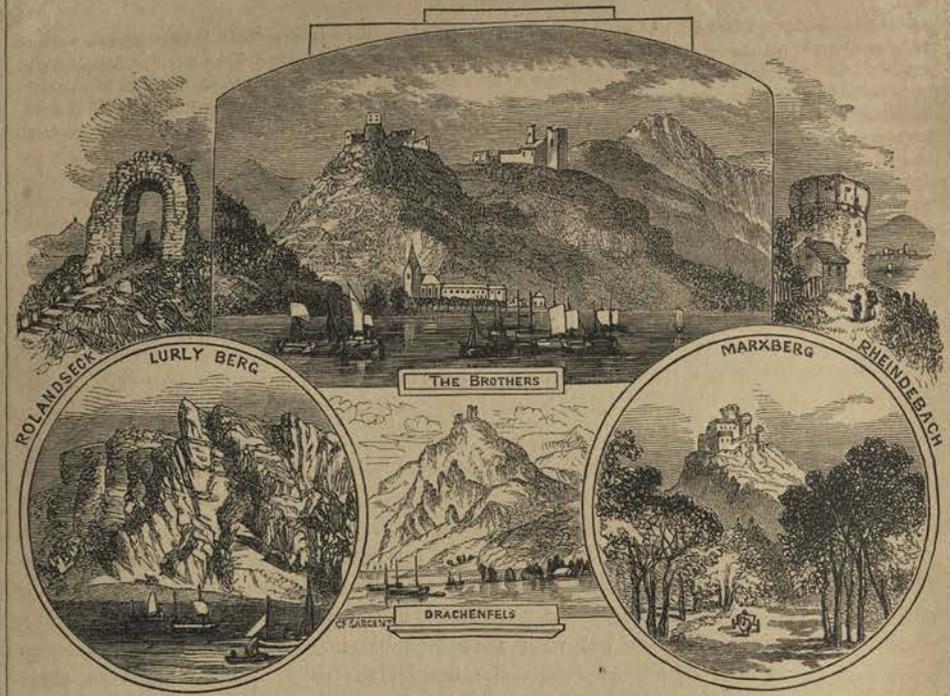
other produce of the countries watered by the Vistula. The granaries are on an island formed by two arms of the Mottlau, a tributary of the river, called Speicherinsel, or 'Magazine Island.' They are buildings of six or seven stories, furnished with an ample allowance of windows, which are left open in dry weather to ventilate the corn. No person is allowed to live upon the island, and, as a precaution against fire, no lights are ever admitted. Drawbridges connect it with the streets, which are raised at night. Ships are loaded with remarkable dispatch by gangs of porters, who will complete a cargo of 500 quarters of wheat in three or four hours. Dantzic was long one of the principal Hanse Towns, but accepted, with certain limitations, the protection of the kings of Poland. Various attempts were made by the Poles to become its real masters. In repelling their attacks, the citizens received such important aid from a number of Scotch residents, whose ancestors had settled in the place as weavers, that they were invested with the privileges of freemen. The district where they resided still bears the name of Schottland. The city was taken by the French in 1807 under Marshal Lefebvre, whom Napoleon created Duke of Dantzic; it was recaptured after an obstinate defence in 1813. Fahrenheit, the optician, who invented the thermometer bearing his name, and Hevelius, the astronomer, were natives. *Marienburg*, on the eastern arm of the Vistula, is distinguished by its castle-palace, erected by the Teutonic knights as their head-quarters, partly re-edified by the Prussian government. Subterranean dungeons are memorials of the power and tyranny of the order. *Thorn*, on the river close to the Russian frontier, strongly fortified, was the birthplace of Copernicus. *Frauenburg*, overlooking the Frische-haff, was the scene of his residence and death. In a house on the hill of the cathedral he wrote his famous treatise on the motions of the heavenly bodies, and founded the system of modern astronomy. A simple tablet in the cathedral in which he held a canonry, marked with a rude sphere and a half-effaced name, indicates his grave.

POSEN, an inland province eastward of the Oder, borders on Russian Poland, and was formerly part of the Polish monarchy, acquired by Prussia upon the iniquitous partition of that unfortunate country at the close of the last century. The district is intersected from east to west by the river Warta, the principal tributary of the Oder, which it joins within the limits of Brandenburg. Agriculture is the prevailing industry of the people, who consist mainly of Poles, but with a considerable number of Germans and Jews. There are few towns of any important size besides the capital; and villages appear in many parts only at distant intervals, separated by monotonous spaces of flat cultivated fields or dreary pine-woods, often of very wretched appearance, but in harmony with the down-trod social condition of the numerically-predominant race. The Polish part of the population, supposed to be under-estimated in the government returns, is considered to be in the proportion of eight to five of the German and Jewish.

Posen, at one time the capital of Poland, is centrally seated on the Warta, and contains 51,000 inhabitants, among whom Jew pedlars figure conspicuously in the streets, with long flowing beards, dressed in their oriental costume. It is strongly fortified, possesses a cathedral distinguished by the noble simplicity of its style, with twenty-three churches, all Roman Catholic except two, which are Protestant, and a striking town-hall. The trade is extensive in the export of corn, hemp, flax, tobacco, and hops, raised in the province. *Bromberg*, on the north-east, is a frontier town of 21,000 inhabitants, on the railway between Berlin and Warsaw. A few miles beyond it the Prussian train stops, and delivers over its passengers to the searching scrutiny of Russian officials.

Prussia has carefully avoided the open violence of Russia and Austria in governing her Polish subjects. But covert means have been as carefully adopted to extinguish if possible their nationality, chiefly by the system of 'obscurantism.' Throughout Posen it seems as if the desponding exclamation of Kosciuszko, *Finis Poloniae*, had been realised. In every department under government control, which embraces the whole internal administration of the province, no Pole need apply for employment. The mayors appointed to Polish villages are Germans. The district counsellors, *landrathe*, elected in the rest of Prussia, are in Posen named by the government, and are generally Germans. A knowledge of Polish is not required of any of these functionaries, though the persons with whom they are chiefly in contact are Polish peasants. In the prefecture there are two interpreters, but not one official who understands Polish. German inscriptions are over all the public offices. The clerks at the railway-stations, the conductors, and even the stokers are Germans. The entire history of Poland is a proscribed subject in the schools; and no Polish school is allowed unless instruction in three out of six classes is given in German. Hence the Poles are accustomed to say that 'Russia is a bear, Austria a hyena, and Prussia a fox—a fox with a large liberal tail which she loves to exhibit to the eyes of Europe, but a cunning, fraudulent, and destructive fox nevertheless.'

While sharing in the spoil of Poland, the infamy belongs to Prussia of being the first to propose the dismemberment. It was Frederick-William who despatched his brother Prince Henry to St Petersburg to lay before the Empress Catherine the plan of partition, and urge an assent to it. 'Gain Austria,' was the final reply, 'and let her amuse France; England I will flatter; Turkey I will frighten.' The first partition treaty was signed in August 1772. So completely were English statesmen hoodwinked, that in a letter from Chatham to Shelburne, in October 1773, he remarked, 'Your lordship knows I am quite a Russ.'



Celebrated Sites on the Rhine.

II. WESTERN OR RHENISH PRUSSIA.

The smaller detached portion of the kingdom is separated from the larger chiefly by the territories of Hesse-Cassel, Brunswick, and Hanover. It consists of two provinces which rank with its most populous and flourishing districts, and have generally more varied superficial features than the greater part of the principal division, while embracing the grand part of the Rhine channel.

Provinces.	Cities and Towns.
Westphalian Province,	Münster, Hamm, Iserlohn, Bielefeld, Minden.
Rhine Province,	Cologne, Bonn, Coblentz, Düsseldorf, Aix-la-Chapelle.

WESTPHALIA is bordered by the above-named territories, with those of Waldeck, Darmstadt, and Nassau, a part of Holland, and the sister-province. It belongs on the eastern side to the basin of the Weser, and on the northern to that of the Ems, but is chiefly included in the valley of the Rhine, to which it contributes two tributaries, the Ruhr and the Lippe. Several ranges of hills appear in the south, with part of the Tentoberger Wald in the north. But the surface is mostly level, devoted to the inferior kinds of grain, and to the rearing of live-stock, while a portion is included in the mining district of Northern Germany. It is eminently the country of rye-bread, consumed by high and low, man and horse; and also of smoked hams for export, which are cured over fires made of the twigs of juniper. In former days it was the chief seat of the *Vehmgericht*, or Secret Tribunal, which, however, held its meetings openly, and exercised a jurisdiction distinct from that provided for by due course of law, arising out of its inefficiency and partial administration.

Münster, a short distance from the left bank of the Ems, the largest town, with 27,000 inhabitants, including the military, is well built, and contains some antique beautiful structures, and various objects of curiosity. It

has a name in history connected with John of Leyden and his Anabaptist followers (1535-1536), who took possession of the place, proclaimed it to be the New Jerusalem, and enjoyed a short-lived triumph. The house of the fanatic, marked with quaint carving, is still shewn in the market-place; and the iron cage in which he was cruelly put to be tortured by the populace prior to execution, is kept in the church of St Lambert's. In the town-hall, the Treaty of Westphalia was signed in 1648, which terminated the Thirty Years' War, and secured religious liberty to the Protestants. Portraits of the high contracting parties are preserved, with the seats on which they sat. *Hamm*, on the south, the residence for a time of the exiled Bourbon princes, is a small manufacturing town benefiting by its position, at the intersection of four lines of railway, to Münster, Cologne, Minden, and Cassel. *Iserlohn*, further south, is distinguished by the variety of its hardware products, of iron, copper, and brass, made in the vicinity, which has very picturesque natural features, to which ruined castles lend their attractions, now intermingled with forges, workshops, and mills. *Bielefeld*, eastward of Münster, with delightful environs, is the principal seat of the Westphalian linen and thread trade. *Minden*, on the north-east, is strongly fortified on the Weser, the name of which is given to the battle in which the French were defeated in 1759, by the allied British and Brunswickers. But the action was fought at a village a few miles distant to the northward.

The RHINE PROVINCE, the most populous portion of the monarchy after Silesia, lies west of the preceding district, and is bordered by Holland, Belgium, France, Bavaria, and Nassau. It is intersected by the great river from south to north; and the principal part of the population is found within a few miles of it, on either bank. It includes also the lower course of its affluent, the winding and lovely Moselle. Away from the river-valleys, there is a large extent of high dreary country, where the climate is bleak, the soil barren, and the inhabitants are few, rude, ignorant, and excessively superstitious, while in patches of forest the howl of the wolf is not yet extinct. This applies to the table-land of the Hunsrück, or the 'dog's-back' hills, south of the Moselle, to nearly the whole district bordering on Belgium, and to the region of the Eifel-gebirge, which intervenes between it and the Rhine, naturally remarkable for its extinct volcanoes, deep crateriform lakes, and noxious vapours.

Cologne (Ger. Köln, the *Colonia Agrippina* of the Romans), next to Berlin and Breslau in population, 120,500, inclusive of 7000 soldiers, is a fortified city of the first rank, on the left bank of the Rhine, connected with the opposite side of the river by an old bridge of boats, and a tubular structure for the railway. It preserves a memorial of its Roman origin in its name, which is only a corrupt form of *Colonia*. Besides the cathedral and some specimens of ancient church architecture, there is nothing in its external aspect to arrest attention, but the view of its numerous towers and steeples, as seen athwart the river, is extremely imposing. The interior is chiefly a maze of narrow irregular streets and lanes, the odour of which, from want of drainage, is in striking contrast with that of its staple manufacture, the aromatic liquid with the well-known name of *Eau de Cologne*, of which millions of flasks are annually exported. The cathedral, close to the railway station and the tubular bridge, was founded more than six centuries ago, then long suspended, and is not yet finished, but commands admiration as one of the most perfect specimens of Gothic architecture extant. Though in process, it will not be completed according to the whole of the original design. The church of St Ursula is noted as the place where, according to tradition, are preserved the bones of 11,000 virgins, companions of St Ursula, who were slaughtered by the Huns because they refused to break their vows of chastity. Rubens was a native of Cologne, and presented to St Peter's Church, in which he was baptized, one of his best paintings, representing the Martyrdom of the Apostle. *Bonn*, on the same side of the river, in the ascending direction, is a celebrated seat of learning, and attracts a number of English residents by its educational advantages. The names of Niebuhr and Schlegel occur in connection with the university. In the square near the cathedral, a monument of Beethoven, who was born and resided in a house pointed out in one of the streets, has recently been placed. The town stands near the entrance of the Rhine gorge, and commands fine views of the Siebengebirge, or Seven Mountains, which form the portal, bold and rough volcanic masses, castle-crowned, and vine-clad, wherever terraces can be formed admitting of being planted. *Coblenz*, containing 28,000 inhabitants, including military, who are always here in considerable force, is finely situated higher up the Rhine, on the triangular point of land formed by the confluence of the Moselle. It derives its name from the junction of the two rivers, a corruption of the *Confluentia* of the Romans. The site is one of great natural beauty, the seat also of warlike demonstrations. Forts rise on every hand. One is specially conspicuous in every point of view, the rock-fortress of Ehrenbreitstein, 'broad stone of honour,' on the opposite side of the river, the battlements of which overlook a landscape that will well repay the fatigue of ascending the heights. Being contiguous to the wine districts, the town has an extensive trade in the export of their produce, as also of the Seltzer waters of Nassau, a territory which commences immediately above it on the right bank of the stream. An old church stands at the confluence of the rivers, originally built in the year 836, within which the grandsons of Charlemagne met, and divided his vast empire into Germany, France, and Italy.

Düsseldorf, singularly neat and regularly built, with pleasant gardens and walks on the site of its old ramparts, occupies the right bank of the Rhine, on its lower course through the province, where the current is sluggish, and the banks are unromantic. It is a flourishing shipping port for the produce of a great industrial district, contains a population of 41,000, and is the seat of a modern school of historical painting of celebrity, the founders of which were Cornelius and Schadow. A few miles to the eastward, *Elberfeld*, and its neighbour *Barmen*, united by a bridge across the Wupper, form the Manchester of Prussia, containing between them upwards of 100,000 inhabitants. Linen, silk, and cotton goods are produced in great quantities, and dyeing is extensively conducted with the beautiful colour called Turkey red, of local manufacture. *Cleves*, in the country westward of the Rhine, one of the historic towns, formerly the capital of a duchy, has declined; while *Crefeld*, wholly without place in any chronicle, has risen up from obscurity to a population of 50,000, engaged with silks and velvets. *Essen*, also a modern industrial site, but a town of very ancient date, twenty miles north-east of Düsseldorf, is indebted to the coal and iron of the neighbourhood for its prosperity. It is distinguished by tall engine-chimneys, large ironworks, and the vast steel manufactory of M. Krupp, the products of which were represented at the International Exhibition, London, by a solid cylindrical mass of steel eight feet long by nearly four feet wide. At this establishment, wheel-tyres for railway and other purposes, of wonderful strength, are made, with which many of the English railway companies are supplied.*

Aix-la-Chapelle, on the railway between Belgium and the Rhine, close to the frontier of the former, is a city both of ancient fame and present importance, with nearly 60,000 inhabitants, splendid houses, and manufactures of cloths, watches, jewellery, needles, glass-pins, and other articles, for which it has long been distinguished. It has warm mineral springs, of sulphureous quality, known from the time of the Romans, which annually attract a great number of visitors, and rise at the high temperature of 143° Fahrenheit. Its history embraces the assembling of several congresses, one in 1668 to conclude peace between France and Spain; another in 1748, to negotiate a general peace in Europe; and a third in 1818, to decide upon the evacuation of France by the allied armies. On the last occasion, Sir Thomas Lawrence attended to paint the portraits of the sovereigns and statesmen assembled for the Windsor Gallery. Charlemagne made it his residence, and the capital of his dominions north of the Alps; it became also the scene of his death. His tomb is in the cathedral, marked with the inscription CAROLO MAGNO. It was opened in 1861, in the presence of the whole chapter, government officials, civic notables, and several physicians, when the remains were found intact, in excellent preservation, in wrappers of a beautiful silken tissue. The cathedral contains a large collection of relics, which are publicly shewn to the people once every seven years, through a whole week in July, and attract crowds from a distance. In few parts of Europe are the lower classes, especially the peasantry, more superstitious than in Rhenish Prussia. *Treves*, in the valley of the Moselle, of the highest antiquity, once very populous, is now decayed, having only about 21,000 inhabitants. It is distinguished by fine remains of Roman greatness, and a very lovely neighbourhood. But the 'Holy Coat' in the cathedral, believed to be the seamless coat of our Saviour, is deemed the greatest treasure of the city, and regarded with the profoundest reverence. It was formerly exhibited at regular intervals to the public gaze. This spectacle, after being long suspended, was revived in 1810, when vast multitudes, estimated at more than a quarter of a million persons, collected to honour the relic. It was repeated in 1844, and attended by a greater crowd, some of whom were alleged to have been miraculously cured of disease by a sight of the garment. But the folly disgusted many of the more intelligent Roman Catholics, and led to the secession of Rongé and his followers from the Romish Church. At Treves the Moselle is crossed by a bridge mentioned by Tacitus, originally founded in the reign of the Emperor Augustus. But having been blown up by the French during the wars of Louis XIV., the piers are now the only remains of Roman work.

The territory of Hohenzollern, incorporated in the Prussian monarchy during the present age, is in the south of Germany, wholly enclosed by the estates of Wurtemberg and Baden, making a close approach to the north-west extremity of the Lake of Constance. It consists of a narrow tract of land, diversified by the eastern offsets of the Black Forest range, crossed by the Danube in the south, and by the Neckar in the north. It was formerly divided into two independent principalities, held by two branches of the elder line of the Hohenzollerns. But by a private compact, the king of Prussia, who represented the more fortunate younger line, was declared the head of the family; and to him the princes resigned their sovereign rights in 1849, retaining their estates and receiving pensions. The entire district corresponds in size to one of the smaller English counties. It contains an almost exclusively Roman Catholic population, and belongs ecclesiastically to the archbishopric of Freiburg, in the duchy of Baden.

Hechingen, once the capital, is a very small town on an affluent of the Neckar, containing a Roman Catholic college. The old castle, the cradle of the Prussian royal House, ruined, but partly restored, remains in the environs, seated on the Zollern heights, and hence the patronymic of Hohenzollern. *Sigmaringen*, on the Danube, is little more than a village, but has been made the seat of the Prussian provincial government.

The district of Jahde, at the other extremity of the monarchy, on the estuary of the river of that name, flowing into the North Sea, obtained for the purpose of forming a naval dépôt, has not yet a thousand inhabitants.

The Prussian dominions contain a population of 18,200,000, three-fourths of whom are Germans, High or Low, according to their locality. The remainder are chiefly races of Slavonic origin, found in Prussia Proper, Posen, and Silesia, using various dialects belonging to that stock of languages, the Polish, Wendish, and Slovak, all in process of being superseded by the German. A kindred tongue was spoken by the original Puzzi, but it has been long extinct, and representatives of that people are not now distinguishable. Protestantism is the prevailing religious profession, except in the Polish and Rhenish provinces, where the Roman Catholics form a very decided majority. Agricultural pursuits everywhere predominate, conducted with little skill, but with such unwearied industry, that crops are raised from a naturally poor soil in sufficient abundance to meet the home consumption, and leave an important surplus for export. Domestic manufactures of coarse linens and woollens are very general, while the factory-system is applied to production in portions of Silesia and on the Rhine. Complete provision for national instruction is made; and all parents are bound by law to avail themselves of its advantages for their children, unless it can be shewn that they are receiving a proper education from another source. The kingdom enjoys a constitutional form of government; but a strong party exists among the upper classes, who interfere with its free working, being in favour of a return to arbitrary power, and a rigorous censorship of the press.



Railway Bridge at Cologne.



Durrenstein on the Danube.

CHAPTER VI.

THE AUSTRIAN EMPIRE.

AUSTRIA, the name of an archduchy, also denominates an empire of which that province is the nucleus, occupying the second place among the states of Europe in point of extent, being next to Russia in area, though vastly inferior to it, and holding the fourth rank among the five great powers. It is distinguished by striking superficial features and fine natural resources, as well as by political influence; and consists principally of an inland region circling round the head of the Adriatic Sea, thence extending chiefly northward and eastward, so as to include large central and south-eastern portions of the continent. Saxony, Prussia, and Russian Poland lie on the north; Bavaria, Switzerland, and Italy on the west; Russia and Turkey on the east; Italy below the Po, the Adriatic, and Turkey on the south. While embracing within these bounds numerous nationalities differing from each other in race, language, customs, religion, and degree of civilisation, with great diversity of soil and climate, the Austrian dominions form in the main a compact oblong territory, with well-defined natural frontiers in general, consisting of chains of mountains, great rivers, and the sea. A narrow southerly projection along the east coast of the Adriatic, or Dalmatia, is the chief interruption offered to the regularity of the outline. The major axis of the oblong runs east and west, and has an extreme length of 800 miles; the average extent, north and south, may be taken at 450 miles; the total area includes 254,000 square miles, equal to more than twice the magnitude of the British Islands, and exceeding by one-fourth the size of France. The entire frontier-line is estimated to measure not less than 5000 miles, of which only a comparatively small portion consists of sea-coast. This limited maritime accommodation, with

the fact of high mountain-ranges intervening between the greater part of the productive area and the shores, is the main natural disadvantage of the empire. The whole country is situated between the parallels of 42° and 51° north latitude, and between the meridians of $9^{\circ} 20'$ and $26^{\circ} 20'$ east longitude.

The Austrian territory comprehends great superficial diversities. Within its limits are the vast flats of Hungary, the undulating levels of Bohemia, Moravia, and Galicia, with part of the fertile plain of Northern Italy. But towering highlands and hilly ranges are more prominent, occupying full three-fourths of the area. The chains of the Rhetian, Noric, Carnic, Julian, and Dinaric Alps overspread the south-western districts; the ridges of the Riesengebirge, Erzgebirge, Böhmerwald, and Marische-gebirge form a rampart around Bohemia, separating it from the rest of Germany; the Sudetic Mountains divide Moravia from Silesia; and the Carpathians sweep in a huge semicircle around the north of Hungary, leaving the Danube near Presburg, and after performing the curve, returning through Transylvania again to the river on the Wallachian frontier. The respective features of the highlands and lowlands are noticed in the detailed account of the several provinces, along with the mineral wealth and vegetable products of the different regions. But the general remark may here be introduced, that Austria yields to no portion of the continent in the abundance and variety of its mineral stores. Besides furnishing a valuable proportion of gold and silver, all the useful metals occur, except platina, generally in profusion, while there are beds of rock-salt and coal of immense extent, though the latter have not been thoroughly explored, are not much worked, and the produce is often of inferior quality. Mineral and thermal springs are numerously distributed, frequented for sanitary purposes, among which those of Carlsbad, Marienbad, Eger, Toplitz, Sedlitz, and Baden enjoy a European reputation.

The climate varies considerably, along with the cultivated vegetation, owing to the extent and diversity of the surface. Three zones may be generally distinguished—southern, central, and northern. In the warm southern zone, between latitude 42° and 46° , the vine and maize flourish throughout, with rice, myrtles, olives, oranges, and lemons in the more favourable situations. In the central temperate zone, between 46° and 49° , which embraces the largest proportion of the area, maize and wine are still raised in perfection, but do not succeed in the northern zone, or above 49° , except in a few localities. This last is specially the region of grain, fruit, hops, hemp, and flax. Natural forests of oak, beech, and elm extensively clothe the lower grounds, with birch, larch, and pine on the uplands, supplying timber, tar, potash, charcoal, bark, and cork, though there are great tracts of country, both low and elevated, without a tree or a bush. The wild animals include the bear, wolf, lynx, and jackal, but reduced in number during the present century in consequence of rewards offered for their destruction by the public authorities, while the beaver, otter, marmot, chamois, and wild goat, are similarly diminished by the chase.

Among its rivers, the empire comprises the upper courses of the Elbe, Oder, and Vistula, which flow out of it to the northward; the upper Dniester and the central Danube, which pass the frontier to the eastward; the Isonzo, Piave, Brenta, and Adige, confined to its limits, descending southward to the Adriatic, with the lower course of the Po discharging in the same basin. The Danube, with its mighty arms, is the prime hydrographical feature, having a total flow of 850 miles in the Austrian dominions, navigable through the whole extent, and traversed by a large number of steamers and tugs. It crosses the border from Bavaria below Passau, with a contracted width, but with great depth, at that point, runs easterly by Vienna into the heart of Hungary, where, at Pesth, it has a breadth of 2000 feet. Having made an abrupt bend, it flows nearly

due south to the Turkish frontier, and from thence proceeds eastward again, forming the boundary-line to Orsova, where it quits the empire at the ravine of the Iron Gate. The Morava or March, Waag, and Theiss enter the great water-course on the left bank, with the Inn, Enns, Raab, Drave, and Save on the right. In winter the river is usually frozen over, and is the occasion of great disasters on the return of spring, if the thaw is rapid and coincident rains descend. The great body of water brought into its channel from the melted snow furiously breaks up the ice with explosions resembling the discharge of artillery, tosses immense masses to and fro like straws, carries them ashore, and inundates the country for miles on either bank. In the spring of 1862 the whole region between Vienna and Pesth was thus destructively visited. Towns had to be abandoned in haste by the inhabitants to save their lives; cattle and flocks were drowned; houses and cottages fell from the flood sapping their foundations, or loosening the ill-cemented materials of their walls; the winter seed was washed out of the ground; the drifted ice accumulated in places up to the roofs of the dwellings; and so suddenly did the inundation subside as to leave quantities of the large Danubian fish in pools behind it, and the peasants went fishing in the fields. Mountain lakes abound in connection with the Alps and Carpathians; two large but shallow expanses occupy the great plain of Western Hungary; and examples of minor dimensions occur in almost all parts of the country.

The political divisions of the empire consist of twenty provinces, called crown-lands, of very varying extent, which may be arranged in four principal groups—the Germanic, Polish, Hungarian, and Italian.

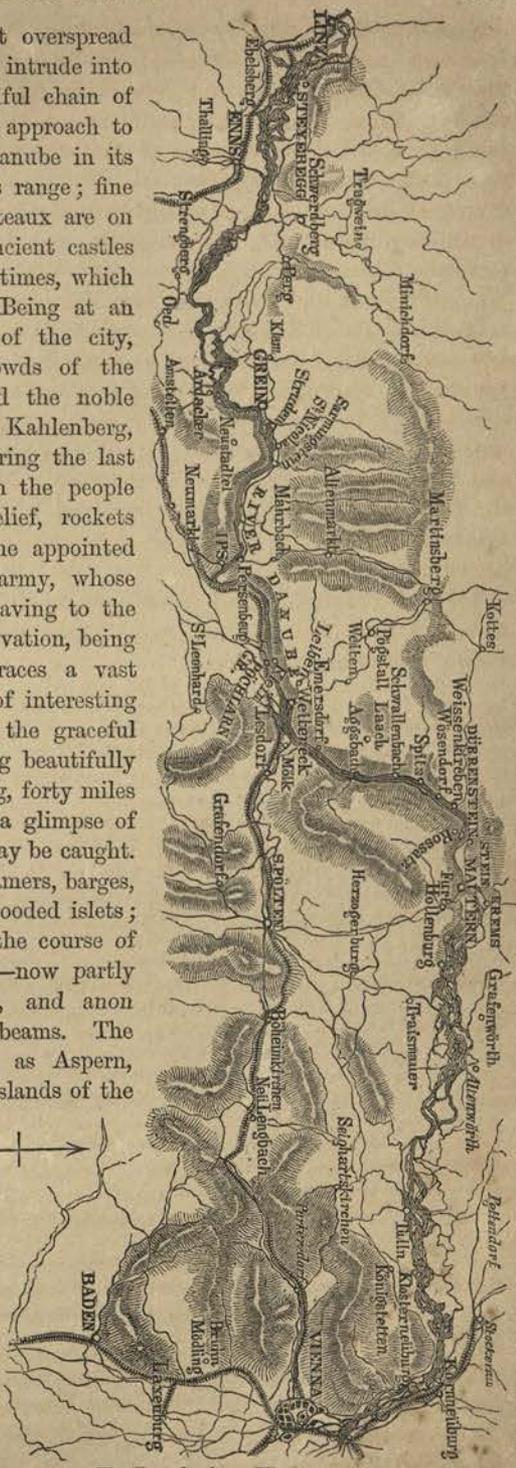
	Provinces.	Cities and Towns.
Germanic Provinces, . . .	Lower Austria, . . .	Vienna, Wiener-Neustadt, Krems, Baden.
" " . . .	Upper Austria, . . .	Linz, Steyer, Wels.
" " . . .	Bohemia, . . .	Prague, Eger, Pilsen, Carlsbad, Töplitz.
" " . . .	Moravia, . . .	Brünn, Iglau, Olmütz, Pressnitz.
" " . . .	Silesia, . . .	Troppau, Teschen, Bielitz.
" " . . .	Tyrol and Vorarlberg, . . .	Innsbruck, Hall, Brixen, Botzen, Trent.
" " . . .	Salzburg, . . .	Salzburg, Hallein, Wildbad-Gastein.
" " . . .	Styria, . . .	Gratz, Marburg, Eisenerz, Mariazell.
" " . . .	Carinthia, . . .	Klagenfurth, Villach, Bleiberg.
" " . . .	Carniola, . . .	Laybach, Adelsberg, Idria.
" " . . .	The Littoral, . . .	Trieste, Capo d'Istria, Pola.
Polish Provinces, . . .	Galicia, with Cracow, . . .	Lemberg, Halicz, Cracow, Wielicza.
" " . . .	Bukowina, . . .	Czernowitz.
Hungarian Provinces, . . .	Hungary, . . .	Buda-Pesth, Presburg, Debreczin, Erlau, Tokay.
" " . . .	The Banat, . . .	Temeswar, Theresianopol.
" " . . .	Transylvania, . . .	Klausenburg, Kronstadt, Hermonstadt.
" " . . .	Croatia and Slavonia, . . .	Agram, Fiume, Peterwardein, Karlowitz.
" " . . .	Dalmatia, . . .	Zara, Spalatro, Ragusa, Cattaro.
" " . . .	The Military Frontier.	
Italian Province, . . .	Venstia, . . .	(See Italy).

I. GERMANIC PROVINCES.

AUSTRIA PROPER, an archduchy, extends along both banks of the Danube, between the frontiers of Bavaria and Hungary, and consists of two provinces, Lower and Upper, respectively eastern and western, separated in part by the stream of the Enns, one of the smaller affluents of the great river. This district received the German name of *Oesterreich*, whence Austria, signifying 'eastern state,' as it formed the eastern border of the dominions of Charlemagne. It is the hereditary patrimony of the reigning house, the cradle and nucleus of the empire, to which other possessions have been gradually attached by treaty, marriage, or descent, very few additions having been made by conquest.

Upper Austria is chiefly a rugged tract overspread with branches of the Alps. They likewise intrude into the Lower division, and form the beautiful chain of the Wiener Wald, which makes a close approach to Vienna, and abruptly descends to the Danube in its vicinity. Romantic valleys intersect this range; fine woods clothe the slopes; villas and châteaux are on every hand; and picturesque ruins of ancient castles occasionally appear, monuments of feudal times, which add to the charms of the landscape. Being at an inconsiderable distance from the heart of the city, the hill-tops are often visited by crowds of the inhabitants, to enjoy the fresh air and the noble prospects. The loftiest summit, called the Kahlenberg, is historically famous in its annals. During the last siege of the capital by the Turks, when the people were sore pressed and in despair of relief, rockets were seen one night to rise from it, the appointed signals of the approach of a friendly army, whose banners were beheld the next morning waving to the breeze on its crest. Though of no great elevation, being under a thousand feet, the view embraces a vast stretch of country, and a great variety of interesting objects. There is the metropolis, with the graceful spire of its cathedral in the centre rising beautifully against the sky. The towers of Presburg, forty miles off, may be seen, and in clear weather a glimpse of the more distant Carpathian Mountains may be caught. At the base rolls the Danube, with its steamers, barges, and floats of timber, winding between wooded islets; and for many a mile the eye can follow the course of the monarch of strictly European rivers—now partly concealed from view by dense forests, and anon exposed in broad sheets reflecting the sunbeams. The sites also of several great battles, such as Aspern, Essling, and Wagram, fought among the islands of the stream and on its banks, are overlooked.

Vienna, the capital of the empire, locally called the 'Emperor's City,' *Kaiserstadt*, is situated on the south side of the Danube, but apart from the stream itself, with which it communicates by an insignificant branch. The city is in latitude $48^{\circ} 10'$ north, longitude $16^{\circ} 20'$ east, and contains a population of about 560,000, including the environs. It dates from the middle of the twelfth century, when Duke Henry II, father of the Leopold of inglorious memory, who treacherously seized and imprisoned Richard Cœur de Lion while passing through his dominions, made the spot his residence. The site was then largely a dense forest, occupied by the bear, wolf, wild ox, and deer, while the beaver constructed its dam in the adjoining waters. The



The Danube from Vienna to Linz.

Viennese of the present day have living remains of the primeval woodland at the far extremity of the Prater, which is their Hyde Park, extending over several low islands formed by arms of the Danube. There are fine aged trees towering over thickets so tranquil that a rambler might fancy himself many a league away from the busy crowd. The city is very regularly built. It consists of an inner circle—the old town, exterior to which is an environing open grassy space, planted with trees, laid out with walks and roads, while enclosed by an outer circle, formed by a broad band of suburbs of comparatively modern date. In the centre of the whole, as a radiating point for the streets, stands St Stephen's Cathedral, with its steeple rising to the height of 465 feet, combining all that is beautiful and imposing in Gothic architecture, reputed to be the largest church in Germany. Comparing Vienna with other important places, it has been said that there is much more regularity in Berlin, a more frequent intermixture of showy edifices in Dresden, more lightness and airiness of effect in the best parts of Munich, a greater profusion of olden-time memorials in Augsburg and Nuremberg, but in none is there so much of that sober and solid stateliness, without gloom, which is perhaps the most fitting style of building for a large city.

Dwelling-houses of vast extent distinguish Vienna, intended for the accommodation of several families, to whom they are let in stories or flats; or a single story is often capacious enough to be divided into three or four tenements. A house-master or porter has charge of the common door, which is closed at night at ten o'clock, and only opened afterwards on payment of a fee. Some of these masses of building used for dwellings are of enormous dimensions, and may have a population equal to that of a large village or small town under one roof. The capital is the greatest seat of manufactures in the empire, and the centre of its inland commerce. Silk goods, gold and silver lace, hardwares, porcelain, jewellery, musical instruments, carriages, furniture, and paper are extensively produced. Libraries, museums, cabinets, and picture-galleries are numerous, and remarkably rich in literary treasures, curiosities, and works of art, to which strangers are readily admitted. Since the dawn of the railway age, movement and progress have been very evident in the outward appearance of the capital. The great event in its history is the taking down of the high walls and projecting bastions which environed the old or inner city, by which a wide belt of land is secured for building, decorative, and recreative purposes. Blocks of costly houses have been erected, French in character, with bay-windows, ornamented friezes and pilasters, and statues in the niches. A new arsenal, comprising barracks, armoury, chapel, and storehouses, is an enormous pile. A Votive Church, on the glacis or esplanade, subscribed for in all parts of the empire as a monument of gratitude for the preservation of the emperor's life from attempted assassination, commenced in 1856, and still in process, will be one of the best reproductions of pointed architecture in Germany. But a dark shadow rests upon the place, if the official report of its annual death-rate is correct. In London, an average of 24 persons out of every 1000 die each year; and this is greatly in excess of some of the healthiest parts of England. But in Vienna the annual average is 49 persons out of every 1000, so that according to the given estimate of the population, 12,500 human beings perish every year merely because they reside on the banks of the Danube instead of those of the Thames.

Vienna has been the scene of many historical events. It was twice unsuccessfully besieged by the Turks, the first time under Soliman the Magnificent in 1529. The second and most famous siege was commenced by the grand vizier, Kara Mustapha, on the 14th of July 1683, and lasted to the 12th of September following, when the city was relieved from imminent hazard of capture by the Poles under the renowned John Sobieski. Numerous memorials remain of this struggle. The *Turkenschanze*, a rampart thrown up by the Turks, is still pointed out near the village of Währing, on the way from the city to the Kahlenberg. In one of the suburbs the Church of Maria Frost, built in 1721, marks the site of the grand vizier's tent. His head is in the town arsenal, also the cord by which he was strangled on returning from the disastrous expedition, and his shirt or shroud covered with Arabic inscriptions. These were deciphered by Von Hammer, and found to be chiefly passages from the Koran. Upon the Austrian capture of Belgrade, his body was disinterred, the head separated from it, and transferred to Vienna. The green standard of the Prophet is preserved in the imperial arsenal. George Kolshitzki, a Pole, who had succeeded in passing the Turkish lines to communicate with the relieving army, was afterwards permitted to open a coffee-house, as a reward for the service, the first in Christian Europe; and long afterwards every keeper of a café in the city was required to have his portrait hung up in his establishment. Vienna was twice occupied by the French under Napoleon, in 1805 and 1809; and here was held the famous congress upon his first abdication, which sat from November 3, 1814 to June 9, 1815, to re-arrange the map of Europe.

Schönbrunn, the usual summer residence of the emperor, about two miles from the city, derives its name from a spring in the grounds, *Schöne Brunnen*, the 'beautiful fountain.' The palace is crowded with portraits of the Hapsburgs, few of which excite interest except those of females, Maria Theresa, and the unfortunate Maria Antoinette. It was the abode of Napoleon while in possession of the capital; and also the residence of his son, the Duke of Reichstadt, who died in the same apartment which his father had occupied, and lies in the burial-vault of the imperial family, attached to the Capuchin Church in the city. This vault contains upwards of seventy metal coffins. Maria Theresa descended into it every Friday, for fourteen years after the death of her husband Francis, to pray by his remains. Beyond the Danube, nearly opposite Vienna, the villages of Aspern, Essling, and Wagram give their names to great battles between the Austrians and the French. Some miles higher up the river, on the same bank, stands the ruined Castle of Dürrenstein,

magnificently placed at the end of a long ridge of hills, with jagged peaks of rock around, and cottages below. In this robber-stronghold of the middle ages the lion-hearted Richard of England was imprisoned. *Baden*, a place of baths, inns, and lodging-houses, fifteen miles south of Vienna, has a summer throng attracted by its warm sulphureous springs, impregnated with carbonic acid gas, and the beauty of the neighbourhood.



Ebensee on the Traun.

Linz, the capital of Upper Austria, with 27,000 inhabitants, is chiefly distinguished by its fine situation on the south bank of the Danube, a singularly extensive market-place, an encircling chain of thirty-two round towers which form the new fortifications, and the snow-clad tops of the Styrian Alps on the southern horizon. *Ebensee*, at the southern extremity of the Traun see, is only remarkable for its salt-works, and the extensive view obtained from the mountain on the west of the village.

BOHEMIA, a north-west section of the empire, once a separate kingdom, is one of its most important divisions in point of extent, population, and resources. It is a basin-shaped territory, drained by the Elbe and its tributaries, the Moldau and the Eger, and very nearly enclosed by a mountain-wall, through an opening of which, on the north, the river finds its way out of the district, and descends into the plain of Northern Germany. The bounding ranges consist of the Böhmerwald, or Bohemian Forest, on the south-west; the Erzgebirge, or Ore Mountains, on the north-west; the Riesengebirge, or Giant Mountains, on the north-east; and the Marische-gebirge, or Moravian Mountains, on the south-east. With these highlands very striking scenery is connected, and one of the most extraordinary natural sites in Europe—the Rock Labyrinth of Adersbach—on the north-east frontier. This is a valley more than six miles long by three broad, containing an assemblage of detached masses of sandstone, of immense size and varying shape—that of pillars, towers, battlements, obelisks, and inverted cones—appearing at a distance like a city of gigantic architecture in ruins, the interstices between the rocks being converted by no great stretch of fancy into lanes, streets, and squares. The Sugar Loaf, the Watch Tower, the Pulpit, the Emperor's Throne, are names given to the more conspicuous or singular forms. This nature-made labyrinth is kept under lock and key, and requires a guide to be explored without the hazard of being lost. It seems to have been constructed by the action of powerful currents of water which wore away the softer parts of the originally compact sandstone. Apart from its borders the country is not at all picturesque, but a plain, simply relieved from monotony by occasional swells and gentle

undulations, with here and there an isolated hill. The Germans call it the 'Kettle-land' from its basin shape, and the number of its hot steaming springs. Viewed in connection with the encircling heights, it seems as if the surface had once been the bed of an extensive lake, which was drained upon a rupture occurring in the northern barrier, through which the Elbe now finds an outlet. The soil is highly fertile, and the landscapes have a rich appearance in summer, resembling an interminable garden, fruit-trees lining the roads, vineyards, orchards, hop-grounds, and cornfields alternating with each other. The most productive district, around the little town of Leitmeritz, where the best wines are made, is popularly called the paradise of Bohemia and the corn-magazine of Saxony. The manufactures of ornamental glass are in high repute, and mining is conducted on the southern slopes of the Ore Mountains. At Joachimsthal, situated in a very striking pass, there is a silver-mine which is said to be the oldest in Europe, and the first for which mining laws were framed. Here also the first silver dollars were coined, called *thalers* or 'valley pieces,' a contraction of the name of the town, Joachimsthaler.

Prague, the capital, next to Vienna in population, 142,000, is very finely situated nearly in the centre of the country, on both sides of the Moldau, which follows a winding course through it from south to north. Hills and rocky eminences ascend from the water's edge, the slopes of which are covered with houses rising one above another, intermingled with noble trees, and overtopped by sixty towers, spires, and domes belonging to the public edifices. The old town is the largest portion, on the right bank of the river, the district of trade. The opposite side is the aristocratic quarter, containing the palace of the old Bohemian kings, the palace of Wallenstein, and those of present noble families, mostly unoccupied. The two divisions are connected by a celebrated stone bridge of ancient date, and by a very chaste chain bridge, both of which afford fine views of the place and its environs. Prague is the seat of the oldest university in Germany, the head of an archiepiscopate, and a principal centre of manufacturing industry, connected by railway with Vienna and Dresden. It contains a very large number of Jews, who form one of the oldest colonies of that people in Europe, and perhaps the most distinct, as they have municipal institutions peculiar to themselves. Many eminent names appear in the history of the city, those of John Huss, Jerome of Prague, and Ziska the blind Hussite chief, of Tycho Brahe and Kepler, Frederic V. and his queen, Elizabeth of England, Wallenstein, and Gustavus Adolphus. Autograph writings of Huss are preserved in the library of the Clementinum, and in that of the museum.

The provincial towns are numerous, but not of important size, or special interest, though several attract great numbers of summer visitors by their mineral waters. *Eger*, close to the Bavarian frontier, has a place in history as the scene of Wallenstein's murder, in the year 1634. The burgomaster's house, in which the foul deed was committed, stands in the market-place, and the bedroom is shewn in which he was slain. *Carlsbad*, or Charles's Bath, eighty miles to the west of Prague, has its name from the Emperor Charles IV., who is said to have accidentally discovered the peculiarity of the site while hunting in the forest, by one of the dogs falling into the scalding water. The town is perhaps the most strictly aristocratic watering-place in Europe. It lies in a narrow romantic valley, on the margin of a small stream, surrounded by hills richly clothed with foliage, and traversed by serpentine footpaths leading to spots which command varied and extensive prospects. The houses are almost all intended for the reception of summer guests. They are not known so much by streets and numbers, as by signs like inns, inscribed upon them, usually in French for the guidance of foreigners. Some of the indications are sufficiently fantastical, as 'The Eye of God,' 'The Lap of the Virgin,' 'The Nest of the Seven Wise Swallows,' 'The Arms of the Beautiful Mermaid,' and even 'This Night thou shalt sleep in Paradise.' The principal spring pours forth its water in jets from four to five feet high, repeated many times every minute. It has a temperature of 165° Fahrenheit, boils eggs hard, and ranks with the hottest mineral waters of Europe. Some springs, discovered in 1858, have the property, from the quantity of silver contained in the waters, of converting into a hard red-coloured stone anything that is immersed in them for a short time. Examples of vases, statuettes, and other objects, originally of soft clay, which had been thus treated, were in the Great Exhibition, London, 1861. The first, and at present the only English church erected in the Austrian empire is at Carlsbad. *Töplitz*, near the border of Saxony, at the base of the Ore Mountains, has seventeen springs of varying temperature, the hottest being 120° Fahrenheit, which annually collect an aristocratic company to the bathing-houses. It is seated upon the small stream of the Saubach, or 'Swine Rivulet,' so called from a swineherd making the discovery of the springs, to which he was led by the sagacity of one of his pigs. During the great earthquake of Lisbon in 1755, it was observed that the waters of Töplitz became turbid, then ceased to flow for a time, and subsequently returned in an increased quantity of a blood-red colour. Those of Carlsbad were similarly affected.

The Bohemians were governed by their own sovereigns till the early part of the 16th century, when the crown reverted by marriage to the House of Austria. In the century following, it was nearly snatched from the imperial grasp. Strongly attached to the Reformed faith, and having had their liberties assailed, the

people revolted, elected a king, Frederick V., the Palatine of the Rhine, son-in-law of James I. of England, who accepted the dignity, but was unable to retain it. Totally defeated by the imperialists at the battle of the White Hill, near Prague, in 1620, his adherents speedily felt the full weight of the imperial vengeance. Wholesale executions followed; Protestantism was proscribed; and by relentless persecution, with the voluntary expatriation of thousands, its profession became extinct in the land of Huss. The Bohemians of the present day belong almost exclusively to the Romish Church, the Jews forming the chief exceptions.

The peasantry are singularly superstitious. According to popular belief, the festivals of the Virgin used to be held sacred even by animals; and birds, for instance, took particular care not to work at their nests on those days. The cuckoo, having infringed that custom, was cursed, and obliged to wander perpetually without ever having a nest of its own. But St John Nepomuk fairly shares the honour of public veneration with the Virgin. Originally an obscure priest, his bronze statue stands upon the bridge of Prague, at the spot where legend says he was thrown into the river by the order of a pagan king, when a miracle was wrought for the recovery of the body. Centuries elapsed before notice was taken of his name and merits. But in 1729 he was canonised, and his shrine in the cathedral, of solid silver, said to weigh 27 cwt., is now one of the most splendid in Europe. As the patron of bridges, his effigy appears upon many a structure of the kind. Every year, on the 16th of May, his festival is kept, and generally lasts eight days. Prague is then so full that the peasantry encamp in the streets. The bridge is stopped for vehicles, in order that the thousands of foot-passengers may the more readily throng it. Portraits of the saint appear in the windows; cannon thunder from the heights; confessions and offerings are received by a retinue of priests from morning till night; and all over the country the devotees address themselves with unflinching ardour to songs and waltzes.

MORAVIA, the adjoining district on the east, apart from its borders, is an extensive, fertile, and highly-cultivated plain, celebrated for its grain crops and fruitful orchards, chiefly included in the basin of the March or Morava. Though the name is given to an interesting Protestant sect, it would be vain to look for any of the so-called Moravians or United Brethren within its limits, as the founders of the community were constrained by persecution to quit the country in the former part of the last century. The Sudetic Mountains separate the province from that of Austrian SILESIA on the north-east, a narrow tract contiguous to the large Prussian territory of the same name, which Frederick the Great wrested from the empire. It contributes some affluents to the Oder, and contains the source of the Vistula, which issues from a morass towards the eastern frontier.

Brünn, the capital of Moravia, with 53,000 inhabitants, is centrally situated, about ninety miles nearly due north of Vienna, connected with it by railway, and likewise with Prague. It is the head of an archiepiscopate, and a great manufacturing town, so distinguished for its woollen cloths as to be called the Austrian Leeds. But silk, cotton, linen, glass, soap, tobacco, leather, and dyeing works are carried on. Two hills render it conspicuous, one of which is surmounted by the cathedral, and the other by the Castle of Spielberg, used as a prison for political offenders, in which were confined Baron Trenck, General Mack, and Silvio Pellico. An insignificant place in itself, *Austerlitz*, is about twelve miles on the east, the scene of the great battle in which the Austrian and Russian armies under their respective emperors were signally defeated by the French, in 1805, under Napoleon. It is therefore sometimes called the Battle of the Three Emperors. *Olmütz*, on the north-east, only of moderate extent, is strongly fortified, and the seat of a modern university. *Troppau*, the chief town in Austrian Silesia, about the same size, is noted for the manufacture of firearms. From the neighbourhood of Vienna, through Moravia to the Silesian frontier, a distance of nearly 200 miles, the country is almost without interruption the private property of Prince Lichtenstein, one of the Viennese nobles.

The small province of SALZBURG, constituted at a recent date, lies on the Bavarian border between Upper Austria and Tyrol. It is almost entirely a mountainous district, occupied by branches of the Noric Alps, and the valley of the Salza, a torrent-like affluent of the river Inn. Salt is obtained in large quantities from the mines of Durrenberg, which have been wrought upwards of six centuries, and an important amount of gold was once procured in the high valley of Gastein. The territory was formerly the patrimony of a prince-bishop of the German empire, and had a considerable Protestant population till the early part of the last century, when many thousands left their homes and country for ever, rather than submit to the dictation of the Jesuits and abjure their faith.

The town of *Salzburg*, on both sides of the rapid Salza, surrounded by splendid mountains covered with verdure, is said to occupy the finest site of any place in Europe. In addition to the charming position, it possesses a noble cathedral, and is distinguished by its connection with Mozart. Two houses are marked

prominently with the great composer's name; the one in which he was born, and another in which he resided for a time after his return from London. A good bronze statue of him stands in the principal square. Salzburg is a centre for many interesting excursions, but the town is one of very minor rank as to trade and population. *Wildbad-Gastein*, so called in allusion to the wild country around it and its baths, is a watering-place 3000 feet above the sea, in the vicinity of the Gross Glockner. The warm mineral springs were visited centuries ago by the emperors and princes of Germany, and are still frequented by the upper classes, though the site is most secluded, and the manners of the inhabitants very primitive. They range in temperature from 115° to 120° Fahrenheit, and owe their value to the combination of the chemical ingredients, various salts, not to their separate strength. At this spot the small river Ache forms a splendid water-fall, descending in three leaps about 300 feet.

The TYROL, immediately adjoining Switzerland, is an easterly continuation of its natural features, exhibited in a somewhat less imposing manner, yet with an aspect of great grandeur, embracing mountain masses whitened with the perpetual snow, immense glaciers, deep narrow valleys into which the avalanche descends and the cascade falls, the sloping sides of which are densely clothed with woods. The charm of the scenery is not a little heightened by its association with a peasantry of frank manners and hospitable spirit, without a tinge of Swiss sordidness in the more upland districts, though its development may be expected in proportion as travellers become numerous who have a money equivalent ready on every occasion for the most trivial service. The main chain of the Alps crosses the country from west to east, and sends off secondary ranges within its limits in various directions, rendering the province a mountain-citadel, which a handful of determined men might successfully defend against an army in the narrow passes. On the eastern border rises the Gross Glockner, or Big Bell, 12,563 feet, so called from the fancied resemblance of the highest peak to that instrument. On the western frontier towers the Ortler Spitz, 12,850 feet, the highest point of the Austrian empire. Between the two is the Drei Herrn Spitz, or Three Lords' Peak, 10,122 feet, so named from the old Counts of Tyrol and Görz, with the Archbishop of Salzburg, being accustomed to assemble their retainers at the spot. On opposite sides of the main chain are the two principal river-valleys, that of the Inn, on the northern, stretching generally from west to east, and that of the Adige, on the southern, running from north to south. They are connected by the Brenner Pass, one of the lowest of the carriage-roads across the Alps, 6788 feet, but remarkable for the number of castellated forts which crown the heights on either hand, erected during the middle ages to guard the country from invasion. The tract called the VORARLBERG is on the north-western side of the province, and borders the eastern extremity of the Lake of Constance. The Tyrolese are imbued with strong religious feelings, and are devotedly attached to their country, though numbers are compelled to migrate from it in search of subsistence, becoming pedlers and servants, owing to the impossibility of obtaining support in a region where the pasturage is so limited, and the absolutely sterile ground so extensive. They are fond of music, dancing, festivals, and athletic exercises, are admirable marksmen and expert chamois hunters, loyal to the Austrian House, but unwilling to engage in military service except in defence of their native hills and valleys.

Innsbruck, the seat of the provincial estates, is a very handsome town of 14,000 inhabitants, occupying both banks of the Inn, which are united by an old wooden bridge, whence the name, *Brücke*, a bridge, and also by a recent suspension one. The situation is magnificent, as the river-valley is 1800 feet above the sea, and is enclosed by mountains which rise from 6000 to 9000 feet, upon which the snow glistens in the summer's sun. Manufactures of woollen and silk goods are carried on, with carved work, and the transit trade is important. The town possesses a university, with which a national museum is connected, chiefly devoted to objects illustrating the arts and natural history of the Tyrol. It contains also the grave and statue of Hofer, the brave peasant-general who so nobly defended his country against the French in 1809, till betrayed by one of his associates, and shot at Mantua by order of Napoleon. The principal church is remarkable for the tomb of the Emperor Maximilian I., one of the most splendid and elaborate monuments in Europe, with the singular distinction, that though constructed by his direction it never received his remains. *Hall*, a few miles distant, is distinguished by salt-mines, from which the province derives its supply of the mineral.

Brizen, Botzen, and Trent are on the southern side of the Alps, in the basin of the Adige, where, with every advance towards the Italian frontier, the country becomes less rugged, the vegetation more varied and luxuriant, and the people losing their northern characteristics, begin to exhibit those of the southern stock in complexion, habits, and speech. Trent, in a district of wine, mulberry-trees, and silkworms, is an ancient but decaying place, chiefly Italian, often mentioned from having been the seat of the great ecclesiastical council, convened, in consequence of the Reformation, to determine disputed points of doctrine, which held its sessions from 1545 to 1563 in the Church of Santa Maria Maggiore.

STYRIA, on the south of Austria Proper, is extensively occupied by chains of the Alpine system; but the surface gradually becomes depressed eastward, till it sinks down into the great plain of Hungary, by which it is bordered in that direction. The Save forms the southern frontier of the province; the Drave intersects it from west to east; the Mur, one of its tributaries, chiefly waters the centre; and by these channels, with that of the Enns, the entire drainage is conducted to the Danube. The mountain region is covered with forests of firs and larches, which abound with game, are haunted by the wolf and bear, are still vast and dense, though long subject to reduction to supply fuel for the smelting-furnaces in a highly metalliferous district. Iron is the principal product, and hardwares the staple manufacture. The ore, a very rich carbonate, far superior to English and Swedish kinds, occurs in enormous quantities. It forms the main mass of some entire mountains, and is obtained by open excavations like stone from the quarry. Captain Basil Hall mentions a tradition of long standing among the miners. It relates that when the barbarians from the regions north of the Danube drove the Romans from Styria, then called Noricum, the Genius of the Mountains, willing to do the new inhabitants a favour, appeared to the conquerors, and said: 'Take your choice: will you have gold-mines for a year?—silver for twenty years?—or iron for ever?' 'The wise ancestors of the Styrians, who had just begun to learn the true relative value of the precious metals, by ascertaining practically that their rude swords were an overmatch for all the wealth of the Romans, at once decided to accept iron for ever.' The province is traversed by the Vienna and Trieste Railway, which crosses the Styrian Alps at the Semmering Mountain, by many curves, bridges, and tunnels, attaining the height of 2872 feet above the sea. The mountaineers are, like the Tyrolese, excellent marksmen and intrepid hunters. The dress of both males and females is very picturesque, exhibiting various hues, among which green is the most common.

Graz, the capital, 140 miles southward of Vienna by rail, is finely seated on the Mur, and only inferior in beauty of situation to Salzburg and Prague. It is a large and important mercantile town, with 63,000 inhabitants, the residence of a bishop, the seat of a university, possesses various manufactures of textile fabrics and hardware goods, and is reputed to be the cheapest place in Europe for provisions. The name is derived from the Slavonic, *Miemetz-ki-Grad*, referring to a fortified hill in the centre of the town. This was crowned by a citadel which the French battered down in 1809. The distinguishing feature is now the Johanneum, so called after its founder the Archduke John, an institution for the promotion of science, art, and industry, which contains a valuable library and museum. Von Hammer, the historian, was a native. Here likewise the persecuting and infamous Emperor Ferdinand II. was born, who caused many thousands of Protestant books to be burned in Graz, and indulged for years in the chase of the 'heretic boars,' *Ketzer-Sauen*, as he was pleased to call their owners, till they became extinct.

All the other towns of Styria are of very inferior note. But *Eisenerz* claims attention from its site in the great mining district, surrounded with fir-clad mountains, which resound with the clang of hammers, and are lighted up at night by the fires of charcoal-burners and the glare of furnaces. The place is small and ancient. It lies at the base of the Erzeberg, or Ore Mountain, which has a circuit of about five miles, a height of 2840 feet, and has yielded iron ore from time immemorial, being literally a mass of the metal. The mines are worked partly by the Austrian government and partly by a private company. Another place of interest, but of a different kind, is *Mariazell*, 'Mary in the Cell,' a village famous for a miracle-working image of the Virgin, which constitutes it the Loretto of Austria. The image is very old and very ugly, but the vicinity is most romantic, the church handsome and the shrine gorgeous, enriched from the offerings of devotees who annually go in procession on pilgrimage to it from different towns of the empire. St Stephen's Cathedral, Vienna, is the starting-point of the pilgrims from that city, who have a journey of some fifty miles before them. Previous to the appointed day, a proclamation is fixed to the great gate, bearing the imperial sanction, inviting all pious subjects to the enterprise, in order to implore from the Virgin such personal and

domestic comforts as they need, and supplicate continued prosperity to the House of Hapsburg. It is now conducted in a more orderly manner than formerly, for the village being small, beds few, and pilgrims many, they used to spend the night in the neighbouring woods, drinking, singing songs, dancing, and squabbling. The scandal has been somewhat obviated by the two principal processions taking place at different periods, the one from Vienna on the 2d of July, and the other from Gratz on the 12th of August. Mariazel is surrounded with iron-mines and furnaces; and has near it the principal cannon foundry of the Austrian government.

The three districts of Carinthia, Carniola, and The Littoral lie between North-western Styria and the Adriatic, and are largely overspread by the chains of the Carnic and Julian Alps, with their subordinate highlands. They formed the chief part of the kingdom of Illyria, founded by decree of Napoleon in the year 1809, and were after his fall re-united as a kingdom to the Austrian empire, till the present arrangement into three provinces was adopted in 1849. CARINTHIA, the most northerly, belongs to the basin of the upper Drave, and is both bordered and intersected by high limestone ranges. It contains the most valuable lead-mines in the Austrian dominions; and has for an article of export the aromatic herb, called Speik, a species of spikenard, *Valeriana celtica*. This plant, though found on most of the eastern Alps, is so characteristic of a particular mountain in Carinthia, as to have originated its name, the Speik-kogle. The peasants pluck it up by the roots, and after being dried, it is sent in barrels to Trieste, from whence it is exported to the Levantine countries, where it forms a considerable object of commerce, being used to flavour tobacco, and also for pastiles. The Wendish or Slavonic part of the population are of melancholy temperament, shy, and diffident, some misunderstanding of which perhaps originated the idea of inhospitality, as mentioned by Goldsmith,

‘The rude Carinthian boor
Against the houseless stranger shuts the door.’

CARNIOLA, on the south, traversed by the Save, is distinguished by the immense number of caverns in its limestone mountains, as well as by the intermittent Lake of Zirknitz, and the quicksilver-mines of Idria. THE LITTORAL, or coast region, at the head of the Adriatic, is subdivided into the four districts of Görz, and Gradiska, with the territory of Trieste, and the peninsula of Istria. A complete change marks the vegetation on descending the seaward slope of the Alps to its margin. The pines, firs, and larches of the loftier uplands are left behind; the beech and oak disappear; the singular region of the Karst is entered, a high and extensive limestone plateau, almost without the scantiest shrub, over which the Bora wind rushes with tremendous fury, terminating abruptly a few miles from Trieste. From the edge of the desolate table-land, the eye overlooks shores lined with vineyards, olive-groves, and rice-grounds, where the mulberry-tree flourishes, and the silkworm is reared.

Klagenfurth, the chief place in Carinthia, is a town of moderate size, with an air of prosperity, possessing manufactures of cloth, silk, and muslin, and very agreeable environs. Westward lies the Wörthsee, a beautiful lake, enclosed by a landscape of green fields, wooded heights, and ruined castles. Beyond is *Villach*, a small town on the Drave, the scene of one of the first great defeats suffered by the Turks, in 1492, while attempting to reach the heart of Christendom. A few miles further west is *Bleiberg*, with the extensive and productive lead-mines adjoining. A sacred mountain rises in the neighbourhood, with two pilgrimage chapels at the summit. It is said to have been ascended by the pope himself, who, with all due formality, dedicated it to the Virgin. This was as a preservative from the repetition of a dreadful catastrophe in 1345, when the larger portion of its mass gave way, and sixteen villages, with their inhabitants, were entombed by the debris.

Laybach, the capital of Carniola, stands at a short distance from the south bank of the Save, and has 17,000 inhabitants. It was on two occasions the residence for some months of Sir Humphry Davy, and the seat of the Congress in 1820-1821, which was fatal for a time to Italian liberty. The great sights of the province are on the western side, and at no considerable distance from each other. In one of the valleys lies the Lake of Zirknitz, which varies in size from four or five to seven or eight leagues in circuit, and sometimes entirely disappears, leaving its bed dry, a phenomenon apparently dependent upon subterranean cavities

which receive a redundant or scant supply of water according to the season. Among the numerous caverns, that of Adelsberg is remarkable for its vast extent, stalactical formations, and the entrance into it of the river Peuka which does not reappear. In its dark waters, and in a few similar places in the neighbourhood, the *Proteus anguinus* is found. This curious creature is of an eel-like form, a pale fleshy colour, very impatient of light, and seems capable of living for years without aliment by a simple change of the water in which it is placed. The quicksilver-mine at Idria, in the same region, is one of the most productive in the world, worked in the service of the government. The small town occupies a deep valley; and its inhabitants indicate by their pale countenances the pernicious atmosphere they inhale, impregnated by the vapours of various preparations of mercury manufactured in the place. The whole district is said to be so affected that cattle cannot be reared, and neither fruit nor grain will ripen. Formerly criminals were deported to the mine as workmen, but now free labourers are employed, tempted by high wages.



Trieste.

Trieste, an important city and the principal seaport of the empire, is seated on the shore of a gulf at the head of the Adriatic, within eight hours' steaming distance of Venice, and contains a population of 65,000. It is the residence of consuls of most commercial nations, maintains a large mercantile marine, and is to the south of Germany as Hamburg to the north, the great port of entry and of export. Steamers of the Austrian Lloyd's Company proceed hence regularly to Alexandria, Smyrna, Constantinople, and most parts of the Eastern Mediterranean. Besides ship-building establishments, there are extensive sugar-refineries, soap-works, rope-walks, and other manufactures. The old town is somewhat inland, on the slope of a hill crowned by the castle with the cathedral, an ancient building in the Byzantine style, near it. It is connected with the new town adjoining the harbour by the Corso, the principal street, which contains handsome edifices, elegant shops, and gay coffee-houses. The chief traders and merchants are foreigners, among whom may be found a considerable number of our own countrymen, sufficient to support a neat church. Greeks and Jews are also numerous. The great body of the middle classes are Italians, who speak the Italian, which is the language of the theatres and courts of justice. The lower orders, especially the peasantry who attend the markets, are Wends, who use a Slavonic dialect. German is the language of the imperial authorities. Trieste has a summer climate remarkable for its great and abrupt changes. The ordinary heat is intense, owing to the reflection of the rays of the burning sun from the rocky adjacent hills, while there is a general want of shade, with the occasional visits of the *sirocco*, a hot and oppressive south-east wind. This alternates with the *Bora* wind from the north-east, so piercingly cold, sudden in its onset, and so powerful that vehicles

and passengers are overturned by its gusts. *Capo d'Istria*, formerly a dependency of the Venetian Republic, occupies an island a few miles to the southward, connected with the main shore by a causeway, and produces large quantities of salt by the evaporation of the sea-water. *Pola*, at the extremity of the Istrian peninsula, is a small town in command of an excellent harbour, but is most distinguished as a place of the highest antiquity, retaining fine remains of Roman architecture, consisting of temples, a triumphal arch, and an enormous amphitheatre in a nearly perfect state of preservation. 'We entered the harbour in a felucca,' remarks Sir Humphry Davy, 'as the sun was setting, and I know no scene more splendid than the amphitheatre seen from the sea in this light. It appears not as a building in ruin, but like a newly-erected work; and the reflection of the colours of its brilliant marbles and beautiful form, seen upon the calm surface of the waters, gave to it a double effect—that of a glorious production of art, and a magnificent picture.' *Pola* has attained considerable importance since the Austrian government has made it a naval station and port for war-vessels. Its harbour is both safe and commodious, having water for the largest ships-of-war close inshore, and room enough for the whole British navy, and easily accessible.

II. POLISH PROVINCES.

GALICIA, a north-east section of the empire, is an extensive district on the northern side of the Carpathian Mountains, and consists of a high terrace at their base, traversed by a few low ranges of hills, from which the surface declines into vast plains, the characteristic features of the region. It is watered on the west by the Vistula and its affluents, but belongs eastwardly to the basins of the Danube and the Dniester. Near the mountains the country is overspread with forests, which still harbour the wolf and bear, though systematic measures have long been in action to effect their extermination. Stimulated by rewards offered by the government, the peasantry destroyed, in little more than two years, 41 bears and 4938 wolves. The plains yield vast quantities of wheat, which is sent by the Vistula on rafts to Dantzic for export, besides barley and oats, used for domestic distillation. Flax, hemp, hops, and tobacco are likewise grown. Rock-salt is the important mineral, quarried in various places, but principally at *Wielicza*, where there is one of the most extensive and productive mines in the world. The province was annexed to the empire upon the unrighteous partition of Poland in the last century; and in 1846, the city of **CRACOW**, with the small territory belonging to it, till that time a free state, was absorbed with the consent of the other partitioning powers. In the western portion of the country the people are Poles, and in the eastern, Ruthenians, a closely-allied Slavonic race. Jews are everywhere numerous, and are almost universally the village inn-keepers. There is great divergency in the views of the people throughout the province, which separates them into two hostile political parties, to the delight of the Austrian authorities. The nobles, landed proprietors, citizens, and all the educated classes are in favour of a revived Poland, while the ignorant peasants, under the influence of the priests, are on the side of a Roman Catholic concordat-loving emperor. In Russian Poland, the Catholic clergy are patriots because Russia is schismatic. In Austrian Poland, they have no sympathy with the feeling for independence, because Vienna is Papal. But the peasants are urged by another, and perhaps a stronger motive to political subserviency. Emancipated from serfdom, and endowed with lands by the government, in reward for their loyalty during the insurrection of 1846, when they rose against and massacred the insurgent masters, they cherish the idea of obtaining fresh forests and pastures by adhering to the existing order of things. National considerations are therefore subordinated to personal and imperial interests. The **BUKOWINA**, a small district on the south-east, was formerly part of Moldavia, ceded by the Turks to Austria in the year 1777. It is a forest region, traversed by the *Sereth* and the *Pruth*, affluents of the Danube.

Lemberg, the capital of Galicia, centrally placed on an affluent of the Bug, contains a population of 70,000, a considerable proportion of whom are Jews, who have one of the finest synagogues in the Austrian dominions. The remainder belong chiefly to the Roman Catholic, Armenian, and Greek communions, each of which has a resident archbishop. The town is the seat of a university, and possesses a public library rich in Polish literature. Many of the Jews are wealthy merchants. They have the trade principally in their

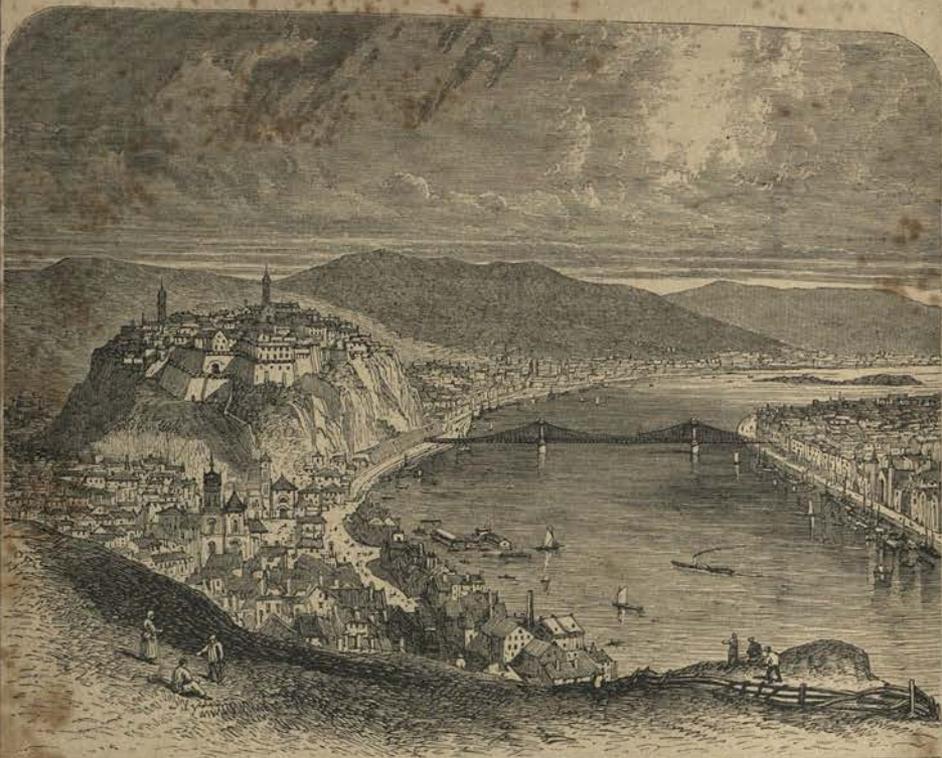
hands, which is very extensive in corn and cattle, largely carried on at annual fairs. Peasants from the neighbourhood injured by wolves are frequently brought in to the hospital. *Halicz* or *Galicz*, situated on the Dniester, from which Galicia has derived its name, is simply now its oldest town, dating from the twelfth century, and distinguished by the ruins of a hill-seated fortress, the scene of many a bloody struggle. It was at the head of a grand-duchy, which included the eastern part of the province, with Volhynia, and was long governed by Varangian or Russo-Norman princes.

Cracow, seated on the Vistula, is a venerable, curious, and interesting city, the ancient capital of Poland, with a striking aspect in the distant view, owing to the spires and towers of numerous churches, and the old palace-castle placed upon a rock, now used as a barrack and hospital. But the streets are gloomy and deserted, yet have at once the impress of better days and fallen fortunes. The inhabitants number 41,000. The cathedral, high-seated by the ancient royal castle, is the interesting spot, containing the tombs of many of the sovereigns, some with recumbent effigies. The inscriptions connected with them read like a history of Poland. That of Casimir the Great is of red marble, enclosed by an iron railing. A record on the tomb of Sigismund I. proclaims him 'King of Poland, Grand-duke of Lithuania, Conqueror of the Tartars, of the Wallachians, of the Russians and Prussians!' In a separate crypt below the church, repose the remains of John Sobieski, Poniatowski, and Kosciusko. The latter has a monument in the neighbourhood of the city, consisting of a conical mound of earth on an eminence, rising from a base of 300 feet in diameter to the height of 175 feet. It was erected in 1819, by the voluntary labour of the people, of earth collected from his battle-fields, some of which was brought by crippled soldiers in their helmets, and by women in their slippers. Cracow was the residence of the sovereigns down to the time of Sigismund III. in 1610. They were crowned before the high-altar in the cathedral. The regalia remained to the year 1794. The university, of ancient foundation, possesses a statue of Copernicus, who was for a time one of the professors, executed by Thorwaldsen. From the rising-grounds to the north, a fine view of the town is obtained with all its towers; the valley of the Vistula, and the range of the Carpathians, in the loftiest and most unbroken part of the chain: the *Eisthaler-Thurm*—the highest of the *Tátra* group—presenting an aspect truly Alpine.

Wieliczka, a small town on the south-east of Cracow, is celebrated for its salt-mines, which are worked by the Austrian government, and have been in operation upwards of six centuries. They are mentioned in Polish annals as early as 1237, under Boleslaus the Chaste, and then not as a new discovery. The excavations completely underlie the town, the streets of which are without men in the daytime, who are toiling in the underground world. They descend to the depth of 1200 feet; extend through a space more than half a league in length by a quarter in breadth; and require from four to five hours to be explored. The works include three stories, each of which corresponds to a bed of compact rock-salt; and consist of galleries or passages and chambers of vast magnitude formed by the removal of the mineral. Some of the chambers are supported by immense pillars of salt left by the workmen; others are adorned with obelisks and statues of salt; most of them are inscribed with particular names cut in the salt; and one contains a salt-lake which is crossed in a flat-bottomed boat. The spot of greatest interest is a chapel dedicated to St Anthony, who is traditionally said to have brought about the discovery of the mines. It is supposed to have been constructed more than four centuries ago. The columns, with their ornamented capitals, the arches, the images of the Saviour, the Virgin, and the saints, the figures of two priests represented at prayers before the shrine, the altar and the pulpit with their decorations, are all carved out of the rock-salt. In this chapel high-mass is regularly celebrated once every year, and attended by all the miners.

Calvarya, a village and monastery south-west of Cracow, among the roots of the Carpathians, is one of the Holy Places of the Poles, deriving its name from the supposed resemblance of the site to Mount Calvary. It is the scene of a vast gathering in the month of August, when an annual indulgence is proclaimed to those who visit the spot. The place then assumes the dimensions and population of a large city, and the appearance of an immense camp. Besides pilgrims to the number of 60,000 on the average, who are chiefly peasants, at least one-third more consist of spectators and traders. Streets are formed of wooden booths and huts of the most primitive construction, which serve the purpose of houses and shops, and are adapted to the hot summer weather. The peasants arrive village by village, each group with its leader, and its standard emblazoned with particular devices. They come from hundreds of miles, out of all parts of Poland, many from Posen, are dressed in holiday attire, carry long thick staves to help them on the way, and sing religious chants along the line of march. On reaching their destination, the standards are planted in the ground, and serve as gathering-points to those who may have been separated from their party. In the courtyard before the church of the monastery are two long rows of confessionals, one on each side, and in front is a balcony, from which the monks give absolution and preach to the people. Calvarya was founded by one of the old Palatines of Cracow, and subsequently endowed by the Czartoryskis. In its immediate neighbourhood, the Mount of *Landskrona* was the last stronghold of the last band of heroes who resisted the Austrians and Russians after the insurrection of Kosciusko.

The district of the *Bukowina* derives its name from the Slavonic *buckow*, an oak, in allusion to the forests. *Czerwonitz*, the chief town, situated on the Pruth, has manufactures of clocks and hardwares.



Buda-Pesth.

III. HUNGARIAN PROVINCES.

HUNGARY, styled a kingdom, once an independent and powerful state, is an eastern portion of the empire, its largest and most important member. As a province, according to the restricted limits adopted since the abortive insurrection of 1848-1849, it lies enclosed by the Carpathian Mountains on the north; Transylvania on the east; the Banat and Slavonia on the south; Styria, Lower Austria, and Moravia on the west. Within Hungarian limits, the Carpathians culminate in the peak of Lomnitz, about the longitude of Cracow, at the height of 8,636 feet above the sea, which appears to be the loftiest summit of the whole range. The country consists chiefly of an immense plain, and possesses a soil of extraordinary fertility, but along the rivers extensive swamps are formed by their low borders being readily overflowed. There are also in various parts tracts of deep sand, locally called *puszta*, interspersed with soda-lakes, which dry up in summer, and leave their beds incrustated with the mineral. But the extent of the unprofitable surface is small in comparison with the productive or cultivable area; and both the swampy and sandy tracts are in process of reduction by works energetically conducted for their reclamation. The Danube runs from west to east towards the central region, where the general breadth of the river amounts to 2000 feet. Bending abruptly to the south, it preserves that course to the junction of the Drave with it, on the northern border of Slavonia; and then proceeds south-east to its confluence with the Save, having previously received another of its principal tributaries, the Theiss, by which the whole of Hungary is intersected from north to south. The Raab, also an important affluent, joins the noble stream in the western portion of the country. In this district the two largest

lakes occur, the Neusiedler-See, which may be seen from the hills in the neighbourhood of Vienna, and the Platten-See, at a greater distance from the frontier. The water of the former is brackish, and the latter intensely salt. Both are shallow, surrounded by marshes, and fluctuate much in their extent. In the Hansag-marsh, connected with the Neusiedler-See, the 'wild boy' was discovered in 1749; he was supposed to be about ten years of age, long refused to wear clothes, or eat cooked victuals, but at last conformed to domestic habits, though it was found impossible to teach him to articulate a single syllable.

Besides its rich dark vegetable mould, the forests are extensive, and the mineral wealth varied and abundant. But the development of these natural resources has been largely restrained by imperfect means of internal communication, and an illiberal commercial policy; and though great progress has been made of late years in promoting traffic by the introduction of steam-navigation and the opening of several important lines of railway, yet political dissatisfaction remains to exert its invariably depressing influence upon public industry. Gold, silver, quicksilver, copper, lead, iron, coal, and rock-salt are yielded. Of three adjoining towns in the north-west, among offsets of the Carpathian range, a proverb of long standing states that Kremnitz is surrounded with walls of gold, Schemnitz with walls of silver, and Neusohl with walls of copper, in allusion to their supply of the respective metals. The gold and silver mines are still worked, but are in an exhausted condition. Schemnitz has a mining academy founded in the reign of the Empress Maria Theresa, for the purpose of educating officers to superintend all the mining and smelting works throughout the empire. The veins here are of gigantic dimensions, from 20 to 200 feet wide, but worked with great difficulty and expense, owing to the rock decomposing rapidly, which renders it necessary to case the galleries with wood. Water carefully collected in reservoirs is employed to move the machinery, while fuel for smelting is supplied by the thick forests of oak, pine, and beech which clothe the hills. The drainage of all the mines in the neighbourhood is conducted to a common level, 600 feet below the surface, from whence it is conveyed to the point of discharge by an adit or gallery, twelve miles long, excavated through a mountain-ridge, a work remarkable for boldness of project and skill in execution. The old town of Eperies has extensive salt-works; and also a mine in the vicinity from which the precious or noble opal is obtained, a gem of great beauty and value, distinguished by its brilliant interchange of colours.

But Hungary is essentially agricultural in its industry. With little tillage the prolific soil yields abundant harvests of all kinds of grain, some of which, as wheat of the finest quality, is known in the French and English markets. Tobacco is also extensively cultivated, with the vine for wines, which resemble the best produce of Burgundy and the Rhine, but have greater body and strength, and are said to possess a particular restorative virtue from the phosphoric acid which they contain. The average yearly production is estimated at 400,000,000 gallons, of which at least one-third is available for export, which would be largely increased, as well as the tobacco and corn crops, by free trade, political security, and greater facilities for transport. Upon the pasture-lands immense numbers of live-stock are reared, with swine in the woods. At the International Exhibition of the year 1862, a few fleeces were shewn, with some pieces of bacon and lard, as the representatives of more than 15,000,000 sheep and 8,000,000 hogs. At the same time, the productions of the porcelain manufactory of Herénd were displayed, and admired as very successful imitations of Chinese and Japanese fancy articles. But manufactures are generally limited to the weaving of coarse woollen cloth by the peasantry, and the production of household wares for their own use.

The Hungarians proper, who form the main body of the population, call themselves

Magyars, and belong to the Mongolian family, but the peculiarities of personal appearance distinctive of the stock have been widely obliterated, especially among the upper classes, by intermarriage with members of the Caucasian race. They migrated from the countries beyond the Uralian Mountains and the Caspian Sea to their present seat in the ninth century; founded a powerful state, governed at first by chiefs of the House of Arpád, and then by kings of the same line. The first of the latter, commonly called St Stephen, from the renunciation of heathenism by the nation in his reign, received investiture from the pope, Sylvester II., in the year 1000, with a crown sent for the purpose, which is still extant. The male line of the Arpáds failed in 1301, and was followed by sovereigns of different foreign families till 1526, when, by free election, the Austrian House was placed upon the throne. But the Turks invaded and held possession of the greater part of the country for upwards of a century. The Austrian princes became kings of Hungary, subject to certain stipulations ratified by treaty, the notorious violation of which led to the recent gallant but ill-fated struggle for national independence. St Stephen's crown, a much-venerated relic, after being kept at Presburg, was removed to Vienna by the Emperor Joseph II., who sought to centralise his dominions, but was soon afterwards restored to appease the general dissatisfaction, and thenceforward preserved at Buda. During the late insurrection it was given up to Kossuth and his friends by the keeper, saying: 'Here I deliver you the Holy Crown wherewith more than fifty kings have been crowned.' Upon perceiving that the revolutionary leaders remained covered while receiving it, the spectators cried out: 'Take the hat off! take the hat off!' During their flight into Turkey, the custodians secreted it in the earth, in the midst of a clump of trees growing in a sequestered spot, not far from the frontier of Wallachia, where it was discovered in 1853, after a long search by officers of the Austrian government.

The Magyars retain their national language, which belongs to the great Finnic linguistic family, subject to slight modifications owing to long-continued contact with other forms of speech. Its vowels are resolved into two classes, one of which, a, o, u, denotes the masculine, and the other, e, i, ö, ü, the feminine. The words are so formed that a masculine and feminine vowel never meet in the same vocable, whether simple or compound. Another peculiarity is that the Christian name is always mentioned last, as Hunyady János, instead of John Hunyady. The language is the vehicle of interesting historic annals and popular poetry. Various productions in it were supposed to be irrecoverably lost with the library of Matthias Corvinus, the greatest of the Hungarian kings, who reigned from 1458 to 1490. This prince, distinguished by his love of learning, spared no expense in procuring books, and possessed a library at Buda, at the time of his death, of 50,000 volumes, the finest collection then in existence. It was neglected and diminished by his successors, who were in the habit of making presents from it to foreign courts, in an age when books were scarce; and when, in 1541, Buda was captured by the Turks under Sultan Soliman the Magnificent, the library disappeared from notice. Repeated inquiries were made respecting it, after the expulsion of the Turks, but without effect, though the hope was strongly entertained by many that it might be found by careful search at Constantinople. Its discovery by a commission appointed for the purpose in the Old Seraglio was announced in 1863, a short time before that building was destroyed by fire, but whether it perished, or was rescued, and what it contains, has not been reported.

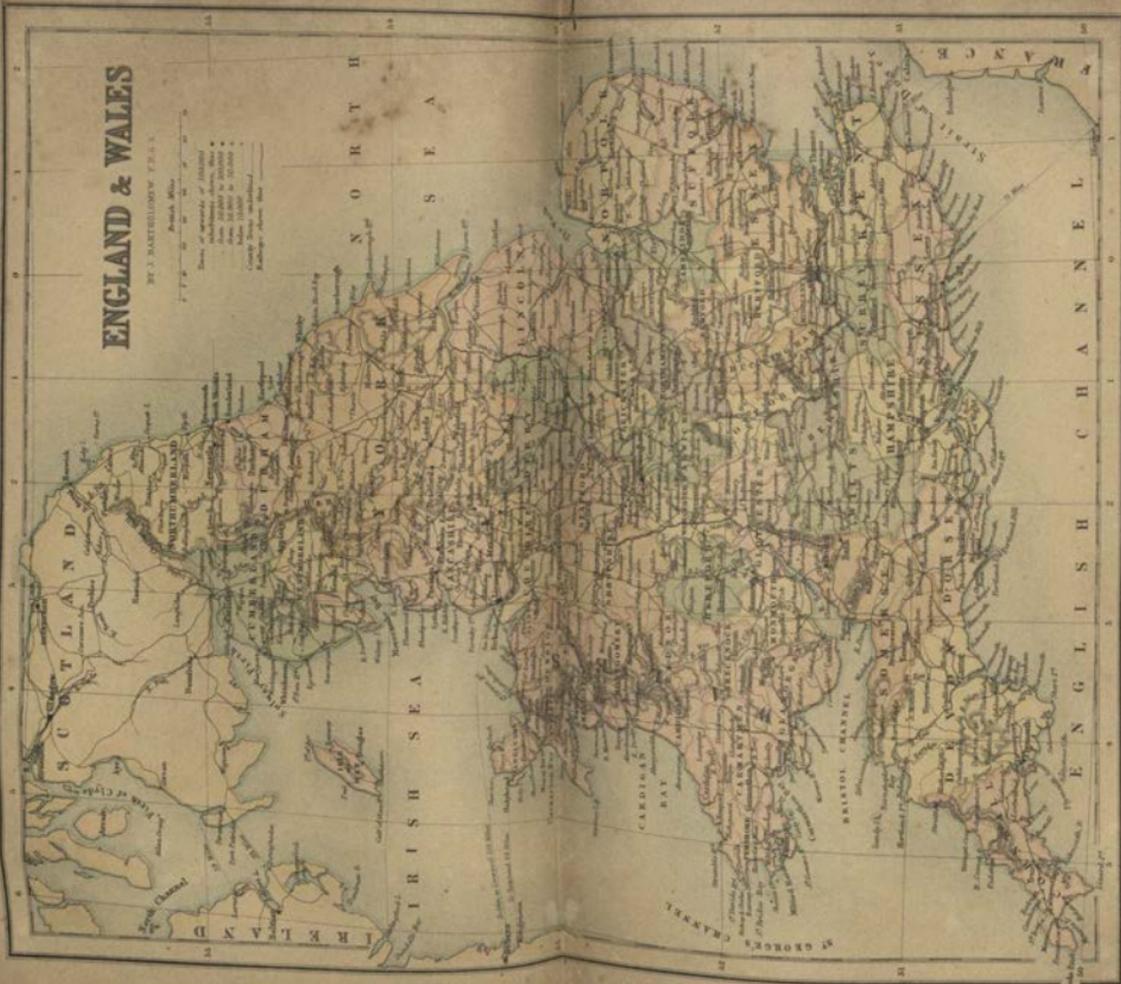
Besides the dominant Magyars, who are largely Protestants as well as Roman Catholics, there are a considerable number of Slovaks, Wallachs, Serbs, and other Slavonic races belonging to the Greek Church, with German colonists, Jews, and gipsies. Great variety of costume distinguishes the people, even of the same stock, and occupying closely

ENGLAND & WALES

BY J. BARTHOLOMEW, F.R.S.

Scale 1:1,000,000

Scale of heights of 1000 feet
• 1000 feet above sea level
• 2000 feet above sea level
• 3000 feet above sea level
• 4000 feet above sea level
• 5000 feet above sea level



adjoining districts. This was very happily shewn by photographs at the International Exhibition. They represented the herdsman of the plains of the Theiss in his sheep-skin coat, the shepherd of the forests of Bakony in his felted cloak trimmed with red, the peasant of the Lower Danube in his blue tight-fitting Sunday-dress, the horseman of Cumania in his wide linen trousers, the Rouman woman in her embroidered gown and ornamental head-dress, and the sturdy German colonists who have adopted with but slight variation the attire distinctive of their locality.

Buda-Pesth, the modern capital, consists of two towns on opposite sides of the Danube, at the distance of about 135 miles to the south-east of Vienna, with which communication is maintained by railway and steamers. The river, 2000 feet wide and 27 feet deep, of a clear green colour, flows with a strong current, but is usually covered with ice from December to March. It is spanned by a huge suspension-bridge erected by Mr Tierney Clark, the engineer of Hammersmith Bridge, near London, which connects the two towns, and was severely tested at its opening by the retreat of the patriot Hungarian army across it before the Austrians. Buda, on the right bank, called *Ofen*, 'oven,' by the Germans, in allusion to its hot springs, contains a population of 55,000, and is of ancient date and appearance. It occupies the base and slopes of picturesque hills, one of which is crowned by a stern feudal citadel, directly overlooking the place in which the regalia of Hungary were formerly preserved; while another, up which the houses creep, rises higher in the vicinity, commands a fine view of the river and the plains for an immense distance, and has an observatory at the summit. The hot springs issue from the foot of the hills at various points. They are sulphureous, have a temperature of 118° Fahrenheit, and are used as baths—a purpose to which they were applied by the Romans and the Turks. The town, during the rule of the latter, which lasted from 1541 to 1686, was the seat of a governor-general or vizier, who had several pashas under him. Many mosques were erected with lofty minarets, and destroyed upon the expulsion of the Moslem. Pesth, much larger, containing 131,000 inhabitants, is the opposite of its neighbour, seated on level ground, almost wholly modern, and regularly built, with many handsome houses and spacious streets. It possesses a national university, museum, and theatre, is a great trading centre in the agricultural produce of the country, and puts on a very animated appearance at the annual fairs which bring together a vast concourse of strangers. Several newspapers in the Magyar language are published. At a short distance up the river, the village of *All-Buda* occupies the site of a Roman station, that of Aquincum, indicated by various remains, where, at a subsequent date, the terrible Attila established his head-quarters. Further on, the ruins of *Wissegrad* appear on the summit of a hill, a palatial castle, the favourite residence of Matthias Corvinus and other native sovereigns.

Presburg, the ancient capital, the scene of the coronations and of the assembly of the Diet, is situated just within the frontier, on the north bank of the Danube, 41 miles by rail from Vienna. Though a decayed place, it possesses considerable trade, contains 43,000 inhabitants, and has a name in history. Here, in 1741, the young Empress Maria Theresa, assailed by a host of enemies, summoned the Hungarian nobles to meet her, and by a brief recital of her wrongs, while she appeared clad in deep mourning, with St Stephen's crown upon her head, and his sword by her side, roused them to adopt her cause enthusiastically. Here also, in 1805, the treaty was signed between the Austrian Emperor Francis and Napoleon, which ceded Venice to the French, and the Tyrol to the Bavarians. Outside the town, is an artificial mound, called the *Konigsberg*, to which every new king of Hungary repaired on horseback on the day of his coronation, and waved St Stephen's sword to the four cardinal points, in token of his purpose to defend the country from enemies from whatever quarter they might come. *Komorn*, lower down the river, a town of some size, is best known by its fortress, supposed to be impregnable. It was held during the late insurrection by General Klapka against the Austrians, and given up to them on honourable terms when the struggle had ceased elsewhere. *Oedenburg*, near the Neusiedler-See, is distinguished by its wine produce, and has one of the principal seats of the Esterhazy family in the vicinity. *Stuhlweissenburg*, about forty miles south-west of Buda, a considerable place inhabited almost exclusively by Magyars, is one of their oldest towns, and served as a capital under the early sovereigns, twelve of whom, including Matthias Corvinus, were here interred. *Mohacs*, a village on the Danube as it approaches the Drave, is of fatal celebrity in the history of the nation, as the scene of the decisive triumph of the Turks in 1526, which soon afterwards brought the country into subjection to them. The flower of the nobles perished; the king, Lewis II., while escaping from the battle-field, was drowned in a swamp; and his death opened the way for the election of the first Austrian ruler.

Debrecin, eastward of the Theiss, in the heart of the kingdom, is one of the chief seats of manufactures and commerce, with a population of 36,000. It consists of scattered one-storied houses, has wide, rambling, unpaved streets, appears more like an aggregate of hamlets than a town, and has therefore been styled the largest village in Europe. There is a Protestant college upon an extensive scale. This place was for a time the seat of the national diet under Kossuth, after Pesth had fallen into the hands of the Austrians, and was subsequently the scene of many summary executions, in which several eminent men were involved. *Eyrlau*, on the north-east of Pesth, the seat of an ancient bishopric, founded by St Stephen, is enclosed with walls, and has a pleasant appearance, being surrounded with vine-clad hills, and containing many good public buildings. The inhabitants are engaged with vineyards. The best red wines are made in the neighbourhood.

for which there is a growing demand in the foreign market. *Tokay*, on the banks of the Theiss, gives its name to a dessert wine in high repute, obtained from dry grapes. The general excellence of the wines, both red and white, is ascribed to the species of grape, the peculiarities of the soil, to the strongly-contrasted summer and winter seasons, and to the vineyards occupying sunny slopes of considerable elevation. It deserves remark that Hungary and Greece are the only countries of any consequence which have hitherto escaped the recent vine disease.



Presburg.

By treaty, when the nobles of Hungary rallied round the Empress Maria Theresa, it was provided that the government of the country was to be confided to natives only. Articles agreed upon in 1790-1791 declared that 'the power of making, changing, and interpreting laws in the kingdom of Hungary belongs to the sovereign legitimately crowned, together with the Diet legally convened; that the Diet has the right of voting taxes and fixing the number of recruits; that it shall be convened at least once every three years; that nothing can be done in Hungary by means of royal letters-patent.' The infringement of these provisions led to the unsuccessful attempt to throw off the yoke of Austria in 1848-1849. But while stipulating for an independent internal administration, the old Hungarian constitution was radically defective. It made the nobles a privileged class, bearing no share of the public burdens, and exempt even from military service, except at their own option. It reduced the whole of the peasantry to a state of serfdom. These anomalies were, however, abolished by the national Diet at the outbreak of the war.

THE BANAT, a recently-constituted province, embraces the southern part of the Hungarian plain, and is extensively a region of marshes, especially towards the Danube, though great works of drainage have been executed. It is however an important granary, intersected by several canals, one of which, connecting the rivers Beja and Temes, is upwards of eighty miles in length, and was originally constructed by the Romans. During the summer heats the swampy tracts are plagued with myriads of flies or gnats, which form perfect clouds, attack the cattle, horses, and swine, often with fatal effect from their numbers. The peasants protect themselves by lighting great fires of materials which burn slowly and make much smoke, to which the animals fly for refuge.

These insects are believed to be identical with the species called *Furia infernalis* by Linnæus.

Temesvar, the provincial capital, has various manufactures, and is strongly fortified, provided with accommodation for a garrison of 10,000 men. The name refers to the Temes on which it is situated, in a very unhealthy locality. This river descends to the Danube, which it enters a few miles below Belgrade. *Theresianopol*, or *Maria-Theresianstadt*, is the most populous place, containing 53,400 inhabitants, but has the aspect of an aggregation of villages rather than of a town.

TRANSYLVANIA, the south-eastern portion of the empire, is enclosed by Hungary on the west, the Bukowina on the north, and the nominal dominions of Turkey on the east and south, or the provinces of Moldavia and Wallachia. It is altogether a highland region, bordered by the Southern Carpathians, and overspread by offsets of the range. The district contains much wild scenery, many difficult gorges and defiles, with only levels of inconsiderable extent along the rivers, the principal of which are the Aluta and Maros, belonging to the system of the Danube. It thus forms a natural fastness, and bears much the same relation to the plain of Hungary as Wales to England. Long and severe winters, with very heavy falls of snow, alternate with short warm summers. The population is composed of a medley of races, but consists mainly of Magyars, once the politically dominant class; German colonists, established for centuries in the country, who take the lead in industry, commerce, and general civilisation; and Roumans or Wallachs, the strongest in numbers, but very ignorant and abject, as the consequence of ages of ill-treatment. Formerly denied all political rights by their neighbours, the boon had no value in their esteem when offered it by the Hungarian patriots in 1848; and they were readily induced to take part with the House of Austria in the great struggle of the period. Transylvania possesses considerable mineral wealth, and was once styled the gold-mine of Europe from its supply of the precious metal, which is still obtained in various places.

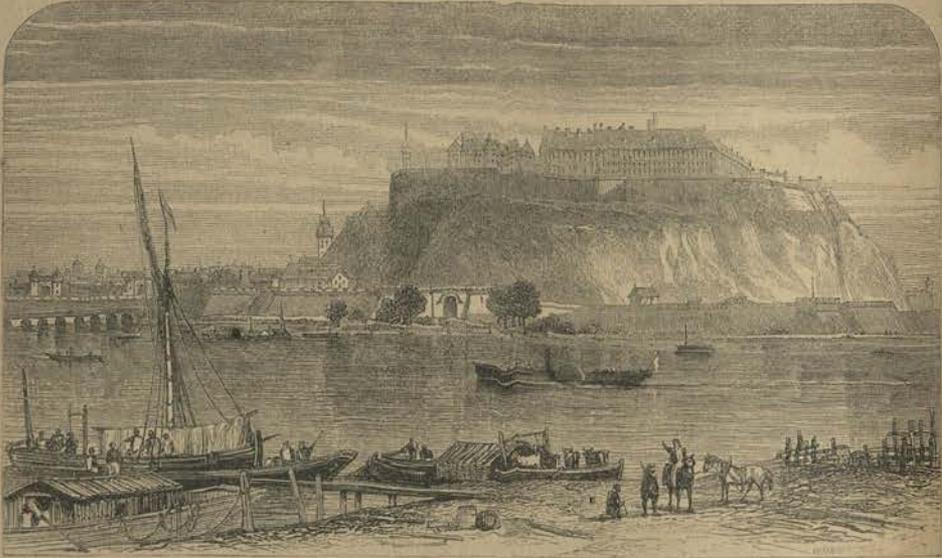
Klausenburg, seated on an affluent of the Theiss, near the centre of the province, ranks as the capital, but is not the largest place. It is surrounded by walls passed by six gates; has a Roman Catholic and Protestant college, manufactures of woollens, china, and paper; and gave Matthew Corvinus, a native, to the throne of Hungary. *Karlsburg*, on the Maros, is a small fortified town, with a cathedral, in the neighbourhood of the most valuable gold-mines. *Hermanstadt*, in the south of the province, within the district known as the Military Frontier; is the military capital, strongly fortified, the see of a Greek bishop, and has Roman Catholic and Lutheran seminaries, with a good national museum. A few miles on the south, the Aluta River crosses the Carpathian Mountains by the fine pass of the Rother-thurm, and descends into the plains of Wallachia. Mount Negoi, east of the pass, the principal elevation, rises to the height of 8338 feet. *Kronstadt*, the nearest town to the Turkish frontier, is the most populous and commercial place, with 29,800 inhabitants, among whom are several opulent Greek merchants, who chiefly carry on the trade with the adjoining Principalities. Printing and the paper-manufacture are leading industries.

As a mountain stronghold admirably adapted as a base for military operations, the warlike Turkish sultans of former days coveted Transylvania, or influence in it, in order to secure possession of Hungary, and ultimately succeeded. They intrigued with native pretenders to the Hungarian throne, one of whom, John Zepelya, was placed upon it, by whom the whole of the peasantry were reduced to a state of serfdom; and the kingdom, weakened by the fiercest civil dissensions, fell at length beneath their power.

SLAVONIA, a long narrow tract, generally level, lies between the Danube and its two great tributaries, the Drave on the north and the Save on the south. The latter river forms the boundary from Turkish territory. AUSTRIAN CROATIA, chiefly mountainous, is a westerly continuation of the country to the coast of the Adriatic. Both districts were formerly incorporated in the kingdom of Hungary, and now jointly form a single province of the Austrian empire.

Peterwardein, in Slavonia, on the south bank of the Danube, is a small poor town, but a very strong military post, with a fortress on a rocky eminence, projecting abruptly into the river, by which it is surrounded on three sides. It was the scene of one of Prince Eugene's victories over the Turks in 1716. The name of the place is said to commemorate Peter the Hermit, who marshalled his army of Crusaders at the spot. The citadel long continues in sight, owing to its high position and the windings of the river, which flows on to *Karlowitz*, a trading town, somewhat picturesque, with a name in history. The treaty was here

concluded in 1699, under English and Dutch mediation, which separated Slavonia, Hungary, and Transylvania from Turkey, and made them over to Austria. It is the residence of the metropolitan of the Greek church in the Austrian dominions. *Sentin*, small and mean, a stopping-place for steamers, is important as a frontier town, well known from its position, on the tongue of land formed by the junction of the Save with the Danube; opposite to it is Belgrade, still Turkish in its celebrated fortress, the garrison, and a few of the inhabitants.



Peterwardein.

Agram, in Croatia, with about 14,000 inhabitants, is the capital of the united districts, the residence of the Ban or viceroy, and the seat of the high civil tribunals. It is pleasantly situated in a hilly and wooded district two miles from the north bank of the Save, but above the point where the river begins to be navigable for steamers. An upper town, well built, occupied by the higher classes, crowns the summit of a hill, and contains the government house, the national casino, which includes reading-rooms and a museum. A lower town forms a distinct poor quarter, adjoining which, but separate, is the abbey-town, where the cathedral and episcopal palace are situated. Both German and Slavic newspapers are published. *Carlstadt*, a small town on the banks of the Kulpa, an affluent of the Save, receives the corn of the Banat by it in long narrow boats, whence it is conveyed to the coast at Fiume along the Louisen-Strasse. This celebrated road, named after the Archduchess Maria Louisa, eighty-six miles long, was executed in the early part of the century. It traverses a very wild mountain region, and involved great engineering difficulties in its construction. *Fiume*, a seaport on a gulf of the Adriatic, is a handsome trading and manufacturing town, formerly connected with Hungary, and its only port, but severed from it in 1849 with the adjacent territory. It suffers from the vicinity of Trieste, forty miles distant on the north-west, across the Istrian peninsula, as well as from the intervention of the Julian Alps between it and the great corn and wine producing districts. Ship-building is a principal industry, for which the splendid mountain forests afford the greatest facilities; there is also one of the largest paper-making establishments in the empire. The people are Italian and Slavic, with a sprinkling of Magyars.

DALMATIA, nominally a kingdom, comprises a long and narrow territory on the Adriatic, terminating southward almost in a point, bounded inland by the provinces of Turkey. Many elongated islands extend parallel to the shores, and closely fringe them, forming numerous landlocked anchorages in which productive fisheries are conducted. These insular tracts are beautiful, populous, and fertile, extensively clothed with olive-groves and almond-plantations, as well as with vines, while the climate in the best localities admits of the growth of indigo. There is much less of vegetation and culture on the mainland, as it is rugged and mountainous, overspread with offsets of the Dinaric Alps, a chain running parallel to the coast, at no great distance from it, and forming the Turkish

border. The mass of the people are of Slavic origin, but those on the shores have many traces of Venetian civilisation, while the peasantry in the interior correspond not a little in appearance to the Turks, wearing the red fez on the head, with huge pistols in the belt. In the islands the men are addicted to maritime occupations, and make the best seamen in the Adriatic, while all rustic work is performed by the women during their absence on fishing and trading voyages. Dalmatia was a province of the Roman empire, and gave a native to the imperial throne in the person of Diocletian. In modern times it has been more or less Hungarian and Turkish, but was chiefly Venetian down to the fall of that republic, when it became Austrian. For some years it was held by the French, and governed by Marshal Marmont, created Duke of Ragusa, the name of one of its towns, but reverted to Austria upon the fall of Napoleon.

Zara, the seat of the provincial government, is a small port shut in by fortifications, but has a considerable village population in the neighbourhood. It possesses a secure and convenient harbour, has some Roman remains, and consists of dwellings chiefly in the Venetian style. The trade includes the import of manufactures from Trieste, and the export of maraschino, anchovies, almonds, and other productions of the vicinity. Maraschino is a liqueur made from the black cherry, in the preparation of which several distilleries are engaged. The notable event in the history of the place is its capture in 1346, in a daring assault by Marino Faliero, which opened the way for him to the chief magistracy of Venice, to become the only Doge ever formally executed for crimes against the state. *Spalatro*, southward on the coast, the largest town and principal seat of commerce, contains 10,000 inhabitants, and is of interest as the retreat of the Roman Emperor Diocletian upon his voluntary resignation of the imperial throne. Fine and vast remains of his palace accommodate a large number of the people with habitations. *Ragusa*, likewise maritime, has an agreeable appearance, the site being picturesque, the houses of solid stone, the streets clean and well paved, while several public buildings are handsome. The place was formerly the head of a small commercial republic, the weak but resolute opponent of Venice, and therefore the ally of Genoa, befriended by the Porte. It has now an active coasting trade, exports the raw produce brought from the Turkish province of Herzegovina, and imports manufactures which are exchanged for it. Earthquakes more or less violent have frequently occurred, one of which, in 1667, destroyed half the population. *Cattaro*, the most southerly port, is the utmost limit of the Austrian empire in that direction, being close to the Turkish provinces of Albania and Montenegro. The small town, strongly fortified by nature and art, is magnificently seated at the upper extremity of a long, winding, lake-like inlet, surrounded by towering mountains. Villages and isolated villas line the edge of the water. Rich vineyards, with citron and olive grounds, slope rapidly upward to a considerable distance; and above the line of vegetation, tremendous bare rocks rise suddenly and precipitously to an Alpine elevation. Outside the gate of the town, under a rude roof and some trees adjoining a market is held, at which the Montenegrins barter their agricultural and pastoral produce for salt, arms, ammunition, and coarse manufactures. They reach the place from their highland territory by the ladder of Cattaro, one of the most remarkable roads ever constructed. It is cut in the face of a mountain from 3000 to 4000 feet high, and consists of a series of zigzags of very steep inclination, rising one above the other, not unlike a coil of ropes as seen from above or below.

The small island of *Lissa*, a member of the Dalmatian archipelago, was a dépôt for British goods during the period of their exclusion from the continent by the decrees of Napoleon I.; and from this spot they were smuggled through Turkish territory into the very heart of Germany. Such was the prosperity of the trade that the population rose from 4000 to 12,000. A swarm of boats from the sounds and creeks of the mainland brought provisions, and took back the fabrics of Manchester and Leeds, the hardwares of Sheffield and Birmingham. The French attempted its capture by a naval expedition from Ancona, but were defeated by the gallant Hoste. A small fort was constructed, the towers of which still retain the names they bore, those of Wellington, Bentinck, and Robertson, the latter from the civil and military governor.

The district called THE MILITARY FRONTIER consists of a belt of country on the Turkish border, which was set apart exclusively for military purposes at a time when the Turks were formidable to the powers of Christendom. It extends from Dalmatia to Transylvania, through the southernmost part of Croatia, Slavonia, and Hungary, a distance of 900 miles, and has an average breadth of about thirty miles. This region is occupied by a chain of strong fortresses, among which that of Peterwardein, is the most important, while the Danube is lined at regular intervals with guard-houses. All the male population are under the obligation of military service in lieu of ground-rent and taxes, and are disciplined for it, attending drill, doing duty at appointed periods as sentinels, and otherwise as their superiors may determine, while liable to be employed

at a distance as the exigencies of the empire may require. The administration of civil affairs is conducted by the officers of the frontier corps; and the divisions of the territory are not by provinces, districts, or parishes, but by regiments, battalions, and companies, as indicated by sign-posts at their respective boundaries. This arrangement originated in the reign of the Empress Maria Theresa, at the suggestion of Prince Eugene; and has been maintained to the present period, subject to various modifications, as a training-school from which to recruit the regular standing army.

VENETIA, the Italian province, held in impatient subjection to the rule of Austria by fortresses and a large military force, is noticed in its geographical connection with Italy.

The empire contains a total population exceeding 37,000,000, consisting of various races of distinct origin, restricted in intercommunication by difference of language, great intervening distances, and lines of formidable mountains. Races of a common Slavonic stock, but exhibiting many diversities, compose nearly one-half of the people. Next in number are the Germans, who form about one-fifth of the aggregate, but occupy the first place in point of intelligence, industry, and political influence. The third class in numerical importance are Greco-Latins, who include the Italians of Venetia and the southern part of the Tyrol, with the Wallachs or Roumans of Transylvania and Hungary. The Magyars constitute the fourth conspicuous portion of the population. Nearly three-fourths of the subjects of Austria belong to the Roman Catholic communion, and have a parochial clergy largely independent of the civil power, except with the consent of the high ecclesiastical authorities. The form of government has long been an avowed autocratic tyranny, hereditary in the House of Hapsburg. But in recent years, under the pressure of difficulties, a constitutional form has been assumed by the establishment of the Reichsrath, a parliament composed of two houses, in which the dominant German element is chiefly represented. Entire nationalities, as the Hungarians and Venetians, refuse to recognise Vienna as the central seat of public policy, and are only retained as parts of the empire by overwhelming armaments, the cost of which exhausts its exchequer, and has to some extent damaged its credit in all European financial circles.



German Peasants at Market.



Falls of the Aar at Handek.

CHAPTER VII.

SWITZERLAND.



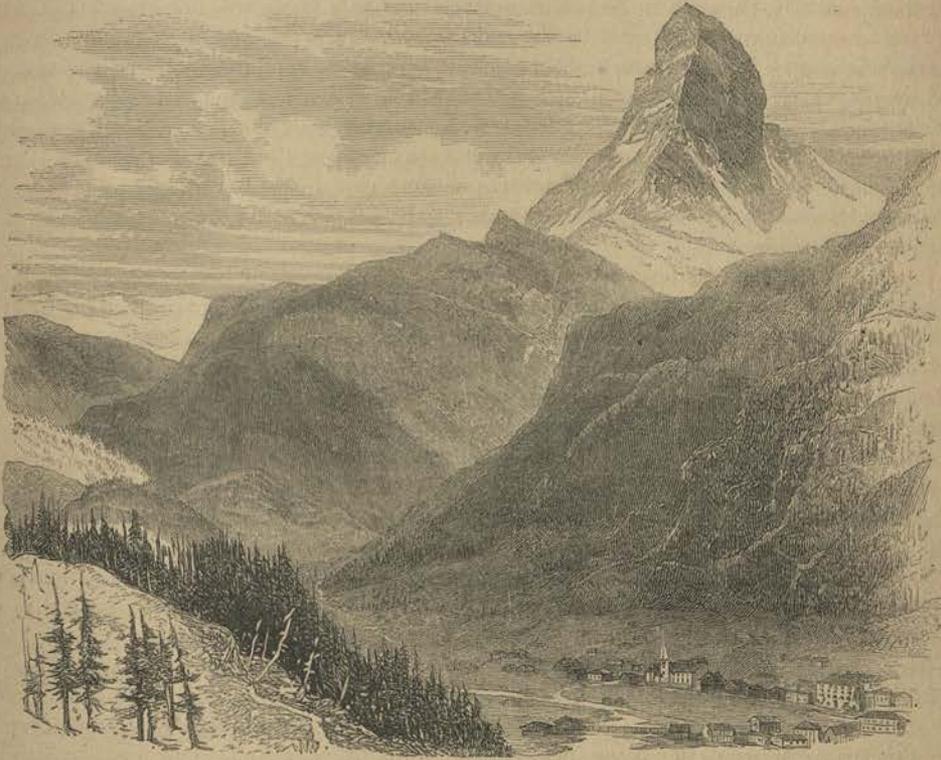
SWITZERLAND, one of the smallest states of Europe, and almost the only one of celebrity without some maritime frontier, is the seat of its grandest natural scenery, the cradle of two of its most famous rivers, the Rhine and the Rhone, and has been distinguished in its annals for centuries as the stronghold of freedom, while it is also the centre of attraction at present to travellers of all nations, for the purpose of paying homage to its mountains and glaciers, its lakes, torrents, and water-falls. The name is derived from that of one of the cantons, Schwytz, the inhabitants of which took a leading part in the emancipation of the country from the Austrian yoke, in the early part of the fourteenth century. It was anciently called Helvetia, from its primitive Celtic population, the Helvetii, who entered upon aggressive wars with the Romans, in which they suffered so severely as to become almost extinct as a separate people. The ancient name was revived in the Helvetic Republic, one of the political arrangements which fell with the overthrow of Napoleon. The country is enclosed by Germany on the north and east; by France on the west; and Italy on the south. Its northern border is defined generally by the Rhine and the Lake of

Constance; the eastern by the Rhine and diverging ranges of the Alps; the western by the course of the Doubs and the ridges of the Jura; the southern by the grand chain of the High Alps, embracing the Pennine, Lepontine, and Rhetian divisions. Between these limits lies the elliptical area of Switzerland, extending rather more than 200 miles from east to west in its greatest length, by 156 miles from north to south, a surface slightly exceeding the half of Scotland in its dimensions.

The southern and south-eastern districts, including two-thirds of the area, belong to the proper Alpine region. This part of the country exhibits every variety of mountain and valley, naked precipice and wooded slope, crystal stream and roaring torrent, with a vast extent of perpetual snow on the loftier elevations, and of glacial ice-fields creeping down from them deep into the glens, in strange contrast with their fresh green-sward, fruitful orchards, and pleasant cottages. The remainder of the surface consists chiefly of a comparatively lowland tract, though really a high plateau, diversified with ridges, on which all the principal lakes and the important towns are situated. It extends north-east and south-west between the Lakes of Geneva and Constance, and has the Jura range on its north-western border, stretching in parallel ridges along the frontier between the Rhone and the Rhine, which present a totally different aspect to that of the Alpine masses; nowhere reaching the elevation of perpetual snow, and clothed from base to summit with magnificent pine-woods. Primitive rocks, granite, gneiss, and slates compose the upper parts of the Alps. These are flanked by secondary formations, the equivalents of our own oolitic limestones, which occur at great heights, and serve to mark the comparatively recent date of the alpine upheaval. Similar limestones form the entire mass of the Jura range, and indicate its age. The intervening plateau consists generally of tertiary strata, comprising alternations of soft limestones and sandstones, with clays and marls. Besides ordinary building materials and iron, the mineral produce of the country is much less important than might be inferred from its mountainous structure, but its resources in this respect are by no means fully known. Mineral springs are, however, extremely numerous, some of which are of great medicinal celebrity, resorted to by foreign visitors. Those of Leuk, in the canton of the Valais, upwards of 4500 feet above the sea, have the temperature of 124° Fahrenheit, and are much frequented by the French.

The main chain of the Alps reaches Switzerland eastward of Mont Blanc, and runs along the southern frontier through half of its extent, or to the St Gothard, which forms an immense central mountain-knot or nucleus. It becomes interior at this point, and overspreads from the border-line the canton of the Grisons eastward to the Tyrol. The loftiest masses, Monte Rosa, 15,152 feet, and Mont Cervin or the Matterhorn, 14,837 feet, have a divided nationality, being Swiss on one side and Italian on the other. The former has been scaled, an achievement of recent date, but the latter has defied every attempt to reach the peak, and appears to be invincible from its obelisk shape. From the St Gothard a great branch diverges into the interior, westward, called the Bernese Alps, as the dividing-line between the cantons of Berne and Valais. It rises as a northern wall to the valley of the Rhone, and forms the magnificent region of the Oberland. This range is distinguished by a family of giants, the sharply-defined Finster-Aar-Horn, or 'Peak of Darkness;' the Mönch, or 'Monk;' the Eiger, or 'Giant;' the Jungfrau, or 'Virgin;' the Schreckhorn, or 'Peak of Terror;' the Wetterhorn, or 'Peak of Tempests;' the Engleshorn, or 'Peak of Angels;' and others of the noble brotherhood. Their snowy summits, the 'billows of a granite sea,' tower from 13,000 to near 15,000 feet, and overlook broad subjacent streams of ice. These heights have all been recently scaled, and for the first time by members of the British Alpine Club, except the Jungfrau, the

crest of which was gained by the brothers Meyer of Aarau, in 1812. It was again ascended by Professors Forbes and Agassiz in 1841, and has lately been trod by the foot of an English lady, Mrs Winkworth. By means of gorges which cleave the mountains to the depth of several thousand feet, in many instances mere rents and the beds of torrents, the main chains are crossed. Several of the routes are good carriage-roads, made with immense labour by blasting the rocks, tunnelling through them, and bridging the



The Matterhorn and Zermatt.

chasms; but the greater number, from forty to fifty altogether, are either simply footways or bridle-paths, often winding through terrific scenery, seldom travelled except in summer, being blocked up with snow through the winter months. The principal passes are enumerated proceeding along the main range from west to east, with their heights, and the places they connect.

	Height in Feet.
The Great St Bernard, leading from Martigny, in the Lower Valais, to Aosta, in Piedmont, . . .	8,185
The Cervin, or Matterhorn, from Zermatt, in the Valais, to Chatillon, in Piedmont, . . .	11,000
The Simplon, from Brieg, in the Upper Valais, to Domo d'Ossola, in Lombardy, . . .	6,592
The St Gothard, from Altorf, on the Reuss, to Bellinzona, on the Ticino, . . .	7,087
The Splugen, from the Grisons to Chiavenna, in Lombardy, . . .	6,939
The Gemmi, through the Bernese Alps, connecting the cantons of Berne and Valais, . . .	7,596
The Grimsel, through the same chain, in the upper part of the Hasli Valley, . . .	7,126

The Pass of St Gothard, traversed by diligences; long an important commercial thoroughfare, is the only road carried over the crest of the mountains, all the others being conducted through the deep gorges. The Simplon road, executed by Napoleon, at the commencement of the century, was the work of six years, though at one time

30,000 men were employed in its construction. It extends about 30 miles, has an average width of 25 feet, and embraces several extensive tunnels, with 611 bridges. The Cervin Pass is the highest in Europe, but is only a mule-path. That of the Great St Bernard is also not practicable throughout for wheels. It is celebrated for having been traversed by Napoleon and his army in the year 1800, and is annually crossed by an average number of more than 10,000 passengers. The hospice at the summit, a large stone building, the highest permanent habitation in Europe, is occupied by some Benedictine monks, engaged in the entertainment of ordinary travellers, and the relief of wayfarers arrested and endangered by the snow-storms, and is celebrated for its noble-looking sagacious dogs. It contains a dead-house, in which are kept the entire bodies of those who have been frozen to death, or killed by the avalanches, and never claimed, rigid as marble, withered up, but preserved from putrefying by the icy cold of the climate. The monks are all young men, generally entering upon their duties about the age of eighteen, and removing to establishments in more genial localities after a term of years, as the human system could not long support exposure to the dry, keen, cold, and rarefied air of the St Bernard.

All the High Alps are snow-mountains, and are the scenes of terrible phenomena from avalanches or snow falls, frequently destructive to life and property in the adjoining valleys. Accumulating in immense quantities in the upper regions, the snowy masses become detached from the steep declivities by their own weight, or are loosened by the solar heat, and thence descend, acquiring greater dimensions and increased speed on their course, till finally arrested in the subjacent valleys. Rocks are broken into fragments by the rushing avalanches, woods are swept away in their path, the beds of streams are filled up, thereby occasioning floods; hospices, farmhouses, and entire villages have been buried. More dangerous, but of rarer occurrence, are landslips; masses of earth and rock are detached by the action of various natural causes, which carry desolation and death into the regions below, such as overwhelmed the ill-fated hamlet of Pleurs in 1618, and that of Goldau in 1806, and buried their inhabitants. Professor Tyndall, the first to conquer the Weisshorn in 1861, witnessed a landslip upon a small scale while effecting the descent. 'A deep and confused roar,' says he, 'attracted our attention. From a point near the summit a rock had been discharged. It plunged down a dry couloir, raising a cloud of dust at each bump against the mountain. A hundred similar ones were immediately in motion, while the spaces between the larger masses were filled by an innumerable flight of smaller stones. Each of them shakes its quantum of dust in the air, until finally the avalanche is enveloped in a vast cloud. The clatter of this devil's cavalry was stunning. Black masses of rock emerged here and there from the cloud, and sped through the air like flying fiends. Their motion was not one of translation merely, but they whizzed and vibrated in their flight as if urged by wings. The clang of echoes resounded from side to side, from the Schallenberg to the Weisshorn and back, until finally the whole troop came to rest, after many a deep-sounding thud in the snow, at the bottom of the mountain. This stone avalanche was one of the most extraordinary things I had ever witnessed.' By the dislodgment of an immense mass from Monte Conto, on a September night in 1618, the little town of Pleurs was overwhelmed. Its 2000 inhabitants perished while asleep in their beds; and sixty feet of earth, stones, and rubbish now lie over the site, shaded by a forest of chestnuts. The fall of the Rossberg in 1806 destroyed the village of Goldau, with more than 500 persons, who lie buried beneath mounds which nature has rendered ornamental, being green with grass and gay with wild-flowers.

Glaciers are the most remarkable features in the physiognomy of the Alps. They are appendages to the snow mountains, bearing much the same relation to them as icicles to

the roof of a house ; and are formed by the partial thawing of the snowy masses, with subsequent congelation, about the line where, on descending from the higher regions, the temperature begins its annual oscillations above and below the freezing-point. The icy product, apparently rigid, but really semi-fluid, is urged down into the valleys by the pressure of its particles, and the inclination of its bed, and, while wasted below, is recruited from above. The singular spectacle is hence exhibited in the full glory of summer of enormous masses of ice existing in close connection with fruitful orchards, smiling gardens, fields ripening for the harvest, and the hum of bees. Four hundred glaciers are reckoned in the space between Mont Blanc and the Tyrol, varying greatly in their magnitude, but estimated to cover a total area of more than 1000 square miles. They differ likewise in external appearance, but have the general aspect of streams suddenly arrested in their headlong course down the declivities, and congealed.

‘Torrents, methinks, that heard a mighty Voice,
And stopped at once, amidst their maddest plunge !
Motionless torrents ! silent cataracts !’

Two great rivers, the Rhine and the Rhone, originate in this waste of glaciers, though, within the limits of Switzerland, neither is available as a channel of communication.

The Rhine embraces in its basin the greater portion of the country. The principal source is on the eastern side of the vast mountain nucleus of the St Gothard ; but the river is formed by the junction of two main branches in the canton of the Grisons. It thence flows northward to the Lake of Constance, and after its outlet, is confined chiefly to the northern frontier. A large proportion of the interior drainage is conveyed to its channel by the Aar, the most important tributary, which receives by various affluents the surplus waters of the Lakes of Zurich, Zug, Lucerne, Neufchatel, and Bienna. The Rhone descends from a glacier at the base of Mont Furca, on the western side of the St Gothard. It runs centrally through the entire canton of the Valais, passes through the Lake of Geneva, receives the Arve soon after its emergence, and speedily enters France. A visit to the confluence of the two strongly-contrasted rivers—the Rhone, blue, clear, and stately ; the Arve, muddy, brawling, and torrent-like—is one of the pleasantest excursions that can be made from Geneva. The eastern part of the Grisons is traversed by the Upper Inn, a feeder of the Danube ; flowing through the grand valley called the Engadine, while the southern canton of Tessin contributes the Ticino to the system of the Po. Thus the superficial drainage is carried off by the rivers to four distinct basins, those of the North Sea, the Mediterranean, the Black Sea, and the Adriatic. Descending from high elevations, and traversing a rugged country, the streams exhibit numerous water-falls which form a striking feature of the scenery. The Rhine has a total descent of from seventy to eighty feet near Schaffhausen, making it in three leaps, rendered very imposing by the great volume of water. The Staubbach, in the valley of Lauterbrunnen, acquires interest and beauty from an opposite element ; the thinness of the stream, in connection with the great height of the rocky rampart from which it is precipitated, being not far short of 1000 feet. Long before reaching the bottom, the water is broken up into spray, and hence the name, which signifies ‘dust-fall.’ The appearance is commonly illustrated by that of a long lace veil suspended from the summit, and waving as it hangs ; but it suggested to Byron another striking imagination :

‘Like the pale courser’s tail,
The giant steed to be bestrode by Death,
As told in the Apocalypse.’

Lakes characterise the country more than any other part of continental Europe, with the exception of Sweden and Finland, and have shores very remarkable for their loveliness or

their grandeur. Besides those named, which are on the northern side of the Alps, portions of the Lago Maggiore and Lago Lugano, on the southern slope, are Swiss. The largest example, the crescent-shaped Lake of Geneva, extends about fifty miles following the outer line of the curve, by six miles in its greatest breadth, and has in various places a very profound depth. It was called by the Romans *Lacus Lemanus*, and is often referred to under that name.

‘Clear, placid Leman! thy contrasted lake,
With the wild world I dwell in, is a thing
Which warns me, with its stillness, to forsake
Earth’s troubled waters for a purer spring.
This quiet sail is as a noiseless wing
To waft me from distraction.’

The shores command views of the High Alps, which are very magnificent, especially at sunset, when the hues of the summits change from the dazzling white to the deep rich crimson, from the crimson to the pink, from the pink to the cold gray, till the colour and outline are lost in the dimness of evening.

Great differences in the elevation of the surface give rise to very different climates within narrow bounds, the cold of the polar zone on the mountain-tops co-existing with a moderate temperature at a subjacent level, greater mildness below, and oppressive summer heat in the deep and close valleys, owing to the confinement of the air, and excessive radiation from the high rocky walls on either side. Hence the vegetation varies ascendingly. The characteristic floras of all countries from the Mediterranean to the Arctic zone are met with in successive belts on passing from a lowland to a highland position. In the lower valleys, on the banks of rivers and lakes, the vine is cultivated, up to the height of about 1800 feet above the sea. The oak ascends to 2800 feet; walnuts and chestnuts to 3000 feet; beeches to 4000 feet; the birch, alder, and pine to 7000 feet. Above this, on the verge of snow-fields and glaciers, just where vegetation is about to expire, it becomes most ornamental, consisting of blue-bells and hyacinths, lilies and gentians, with which bushes of the lovely red rhododendron are intermingled on the velvet turf. Higher still are lichens, and then the desolation of eternal frost. The wild animals exist, like the plants, in successive zones along the sides of the mountains; among them are found, at the greater heights, the ibex or rock-goat, now very scarce, the chamois, also thinned by the hunter, and the marmot, of common occurrence, whose shrill whistle often breaks the silence of the upper solitudes. The marmots, valued for their fur, associate in families, form burrows in the ground, and pass the winter in a state of lethargy. In the upland forests are the wolf and bear, but now rarely heard of, especially the latter, except in the severest winters.

Switzerland is divided into twenty-two cantons or provinces, which form a confederation of twenty-five distinct republics, as three of the number, Berne, Appenzell, and Unterwalden are each politically distributed into two separate states. The independence of the country dates from the year 1307, when three of the cantons, Schwytz, Uri, and Unterwalden, combined to assert their freedom; and eight years later, on the 15th of November 1315, signally defeated a large Austrian army on the field of Morgarten. The general interests of the federation are under the direction of a Diet, composed of deputies from all the states, who appoint a president and the principal executive officers. Its sessions are successively held at Berne, Zurich, and Lucerne; but the former is the permanent seat of the government, the residence of the foreign ministers, and is therefore considered the capital. Of the cantons, seven are western, twelve are north-eastern, and three are southern.



The High Street, Berne.

Cantons.	Towns and Principal Sites.
Western Cantons,	Berne, Thun, Interlachen, Lauterbrunnen.
" "	Fribourg, Morat.
" "	Lausanne, Vevey, Yverdon.
" "	Geneva, Ferney, Carouge.
" "	Neuchatel, Vallengin, Chaux-de-Fonds, Locle.
" "	Soleure, Olten.
" "	Basle, Liesthal.
Central Cantons,	Lucerne, Sempach.
" "	Zug.
" "	Schwytz, Morgarten, Einsiedlen.
" "	Stanz, Sarnen.
" "	Altorf, Bürglen.
" "	Glarus, Näfels.
North-Eastern Cantons,	Aarau, Baden.
" "	Zurich, Winterthur.
" "	Schaffhausen.
" "	Frauenfeld.
" "	St Gall, Wallenstadt, Pföfers.
" "	Appenzell, Herisau, Trogen.
Southern Cantons,	Sion, Martigny, Leuk, Brig.
" "	Bellinzona, Locarno, Lugano.
" "	Coire, Bernhardin, Splügen.

The canton of BERNE, the second in point of extent, comprehends a large portion of the plain of Switzerland. It extends from the Jura Mountains on the north, to the Bernese Alps on the south, where the region of the Oberland, remarkable for its multitudinous snow-crowned peaks, is formed, and group of glaciers. In the included space are the Lakes of Brienz, Thun, and Biemme, with a portion of that of Neufchatel, and the greater part of the course of the Aar, the only navigable river of any consequence in the whole country.

Berne, the capital of the confederation, but not the largest town, contains a population of 29,000. It is handsomely built of stone, and is seated on a sandstone platform at the height of 1700 feet above the sea, on the left bank of the Aar, by which it is nearly surrounded. It possesses a good public library and museum; many ornamental fountains in the streets; charitable institutions admirably regulated; and commands fine views of the mountains on the southern horizon—the Jungfrau, Finster-Aar-Horn, and their brethren, from various terraces. Haller, the illustrious physician and naturalist, was a native, and died in the place of his birth. Berne is said to derive its name from the old German *bären*, signifying 'a bear.' The figure of the animal is conspicuous in the armorial bearings of the canton; and stuffed specimens of all ages are in the museum. Bruin is represented in stone along the thoroughfares; and a number of living bears are kept in an enclosure for exhibition at the public expense. In 1862 an unfortunate English visitor, looking into the bear-pit, lost his balance, fell among the brutes, and perished after a dreadful struggle with them. At Hofwyl, a few miles on the north, the late M. Fellenberg founded the still celebrated industrial and educational establishment on the Pestalozzian principle. *Thun*, near the outlet of the Aar from its lake, contains the military school of the confederation. The situation is extremely lovely, and the town is rendered picturesque by old bridges, a venerable church, and a feudal castle of the twelfth century on the summit of a steep house-clad hill in its centre. The lake, about ten miles long, has neat villas and hamlets on its borders, and is traversed by steamers, crowded in summer with travellers bound for the tour of the Oberland, or returning from it. *Interlachen*, delightfully situated between the Lakes of Thun and Brienz, consists chiefly of boarding-houses, shaded by enormous walnut-trees, where the natives carry on a profitable trade with visitors in beautiful wood carvings. *Lauterbrunnen*, a village on the south, derives its name, signifying 'nothing but fountains,' from the number of little streams that leap into the valley from the bordering heights. The 'sky-born water-fall' of the Staubbach is its great attraction, with contiguity to the Wengern Alp, the avalanches of the Jungfrau, and the glaciers of the Grindelwald.

FRIBOURG, the adjoining canton on the west, is mountainous on the southern border, almost everywhere finely diversified with hills, but without heights reaching to the snow-line. It is traversed by the Savine through nearly its whole extent from south to north, flowing in part of its



Glacier of Grindelwald.

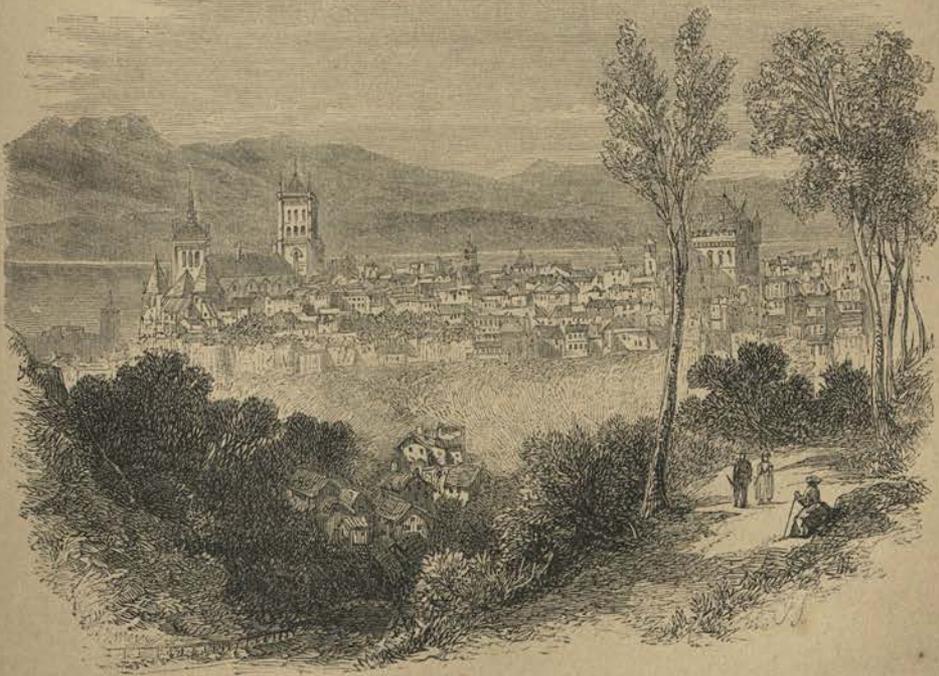
course through a singularly romantic gorge, and finally uniting with the Aar. Excellent meadow-lands sustain large numbers of cattle, the best breeds in the country; and dairy husbandry, especially cheesemaking, is extensively pursued, and in high repute for the quality of the produce. The cheese called Gruyères, from a place in the valley of the Upper Savine, where it is made, is exported to all parts of the world.

Fribourg, with a population of 10,000, on the Savine, consists of a lower town built by the side of the river, but chiefly of an upper occupying the declivity of a rock that lines the stream, along which the houses are arranged in terraces, while some are at the summit, on the very edge of the precipice. Ancient fortifications, consisting of embattled walls, watch-towers, and gateways, remain in a perfect state, which, with the inequality of the ground, render the distant view highly imposing. The gorge through which the river winds is crossed by several bridges, one of which, on the suspension principle, is 175 feet above the stream, and remarkable for its great length, 906 feet, being the longest bridge of a single span ever constructed. The Roman Catholic Cathedral possesses an organ, built by a native, said to be the richest toned instrument in the world; it has the finest peal of bells, with the highest spire, of any church in Switzerland. *Morat*, on the east shore of the small lake of that name, is a celebrated site with the Swiss, as the scene of the battle in which they totally defeated the invading army of Charles the Bold, Duke of Burgundy, in 1476.

'There is a spot should not be passed in vain—
Morat! the proud, the patriot field! where man
May gaze on ghastly trophies of the slain,
Nor blush for those who conquered on that plain.'

The bodies of thousands of the enemy were left unburied where they fell. Some bones remained strewed about to a recent date, but all relics have been collected and interred at a spot surmounted by an obelisk. The Place des Tilleuls, or Limes, in Fribourg, has its name from an existing lime or linden tree, which, according to tradition, was immediately planted in honour of the victory.

The canton of VAUD extends along the northern shore of the Lake of Geneva, and fills up the space intervening between it and the French frontier, embracing the southern part of the Lake of Neuchâtel. It formed part of Savoy down to the year 1536, then became



Lausanne.

a dependency of Berne by conquest, and was admitted into the confederation as a separate member in 1798.

Lausanne, on the Geneva lake, is distinguished by the exceeding beauty of its situation, occupying three hills belonging to the lower slope of Mont Jorat, with the intervening valleys. It contains a population of 20,500, chiefly engaged in making watches, chronometers, and jewellery; possesses a cathedral, college, and museum; and is associated with the memory of several literary celebrities. Kemble, the tragedian, lies in the adjoining cemetery of Pierre de Plain. Gibbon completed his *History of the Decline and Fall of the Roman Empire* in a house still extant, but changed, and now the Hotel Gibbon. 'It was on the day, or rather the night, of the 27th of June 1787,' according to his own account, 'between the hours of eleven and twelve, that I wrote the last line of the last page in a summer-house in my garden. After laying down my pen, I took several turns in a berceau, or covered-walk of acacias, which commands a prospect of the country, the lake, and the mountains. The air was temperate, the sky was serene, the silver orb of the moon was reflected from the waves, and all nature was silent.' *Vevey*, eastward on the lake, at the opening of a gorge, is a small but highly-attractive place, in the centre of orchards and vineyards. Two of the regicides, Ludlow and Broughton, who took part in sentencing Charles I. to the scaffold, resided here as exiles, and are interred in St Martin's Church. At the extremity of the lake, stands the Castle of Chillon, on a rock close inshore, rendered memorable by Lord Byron's poem, the *Prisoner of Chillon*. The castle is now used as a magazine for munitions of war.

The canton of GENEVA, one of the smallest of the federal states, but the most distinguished in history, extends around the western extremity of its lake, and makes a slight advance on either side, but is wholly cut off on the southern by France, and very nearly so on the northern, from communication by land with the sister-republics. It is watered by the Rhone, which passes westward through it into the French territory after receiving the Arve from Savoy.

Geneva, the largest and most flourishing town of Switzerland, contains 41,000 inhabitants, distinguished for their industry and enterprise, attachment to liberty, and literary predilections. Watches, chronometers, musical boxes, mathematical instruments, and articles of jewellery are the staple manufactures, exhibited in many attractive shops, and extensively exported. It is situated at the efflux of the Rhone from the lake, which rushes through it clear as glass and blue as indigo, forms two islands on its passage, on one of which stands a group of antiquated buildings, while the other is laid out as a public pleasure-ground. Few places have undergone a more marked improvement of late years, embracing the removal of the ancient ramparts, the provision of quays and a harbour for the accommodation of steamers, a new stone bridge across the river, a *jardin Anglaise* close to the lake, with walks, trees, and fountains, an English church, with several large and splendid hotels. No town, perhaps, of the same size can boast of such a list of illustrious names associated with it, either as natives, exiles, or voluntary residents, Farel, Calvin, Beza, Crammer, John Knox, Casaubon, Lefort, Rousseau, Voltaire, Neckar, De Luc, Saussure, Bonnet, Huber, De Candolle, Josephine, Marie Louise, Sir Humphry Davy, Sismondi, and Merle d'Aubigné. Calvin settled in Geneva as public teacher of theology in 1541, and died there in 1564. He acquired complete ascendancy over the inhabitants, founded the college now possessing a library of 40,000 volumes, attracted the Protestant youth from all quarters to the place for educational purposes, and thereby made it a centre of influence to Germany, France, England, Scotland, and other countries. The cathedral church of St Peter contains his pulpit. Many charming excursions may be made from the town, and fine views are obtained from various points, both in and around it of Mont Blanc, distinctly visible in clear weather, at the distance of about fifty miles. *Ferney*, a village within the French frontier, but close to the Swiss border, where Voltaire resided nearly twenty years, and built a chateau, two rooms of which are shewn in much the same state as they were when occupied by him.

The territories of NEUCHÂTEL and SOLEURE, separated by an intervening portion of Berne, are of limited dimensions, and correspond in being traversed by ridges of the Jura, and the long parallel valleys they enclose. From the northern slope of the range the small canton of BASLE extends to the Rhine, consisting chiefly of a fertile and populous plain.

The town of *Neuchâtel*, on the western side of its lake, is a place of considerable trade in the export of wine, the produce of neighbouring vineyards, and of watches made in villages of the canton, which are mostly sent to Geneva. The workmen pursue their handicraft in their own dwellings, and confine themselves to one particular part of the mechanism. In the ancient church the doctrines of the Reformation were preached as early as the year 1530. Farel, the reformer, was buried at an adjoining site, but the spot has not been indicated. A museum contains an interesting collection of geological specimens from the Jura, arranged by the celebrated Agassiz, a native. On the slope of a hill in the background of the town lies the largest of the erratic blocks strewn over the face of the limestone range. It is 62 feet long by 48 broad, and consists of granite similar to that of the Alps. *Soleure*, on the Aar, likewise contains a collection of Jura

fossils in its museum, and possesses an arsenal in which curious armour of the old Switzers and Burgundians is stored. Kosciusko, the Polish patriot, died here in 1817. *Basle*, once a free imperial city, is seated on the Rhine, principally on the left or western bank, at the point where the stream makes its great bend to the north. It commands a very considerable commerce, being close to the frontiers of France and Germany, at the head of the steam navigation of the river, and a great centre of railways. It ranks next to Geneva in population, 37,000, contains a once famous university, many benevolent and educational institutions, with a good public library and museum, and is said to be the wealthiest city in Switzerland. Erasmus, whose tomb is in the cathedral, was connected with it as a professor, as well as the two mathematicians, Euler and Bernouilli, who were born in the city. Holbein, the painter, was likewise a native. *Basle* is often named in church histories, as it was the seat of a great ecclesiastical council in the former part of the 15th century. A singular practice prevailed down to near the close of the last century, that of the clocks being kept an hour in advance of the proper time, the origin of which is obscure. One explanation is, that a design to deliver the town to the enemy at a certain appointed hour was defeated by the town-clock, which was to have given the signal, striking an hour in advance, which led the conspirators to suppose that they were too late, and quashed the movement. Therefore the clocks were afterwards kept wrong in grateful remembrance of the means of deliverance. The custom was abandoned, after strenuous opposition, in 1795; and true railway time has now, for some years, been kept at *Basle*.

Among the central states, those of *LUCERNE*, *UNTERWALDEN*, *URI*, and *SCHWYTZ* are distinguished as the Four Forest Cantons. They form together the shores of the tortuous Lake of *Lucerne*, one of the most beautiful sheets of water in the world, begirt with strikingly varied scenes. Sloping hills, smiling with verdure, studded with small towns, hamlets, and dwellings, lie around the north-west extremity, above which Mount *Pilatus* grandly towers, standing as a kind of sentry in advance of the Alps, whose clear or cloud-capped brow is a weather-index to the boatmen, shepherds, and villagers below. High mountain-barriers press in upon the waters in the opposite direction, which alternately advance in the boldest projections and recede to form closely-landlocked bays, where stupendous precipices rise sheer upright from the basin as its brim, or overhang it threateningly, or have little strips of verdant pasture on which a few cottages can nestle at their base. This region is of interest from its associations, as the land of *Tell*, containing many sites connected with his personal history, and the early struggles of the people for independence. *Zug*, the smallest of the Swiss states, encloses the larger part of the lake bearing its name, the southern portion of which projects into *Schwytz*, and has at its termination the isolated and well-known Mount *Righi*, overlooking both the Lakes of *Zug* and *Lucerne*, and a wonderful panorama. The territory of *GLARUS*, adjoining that of *Schwytz* on the east, embraces a bold mountainous surface, with the valley of the *Linth* in the centre, a river which traverses with torrent-like speed its whole extent from south to north, and falls into the fine Lake of *Wallenstadt* on the northern border.

Lucerne, at the outlet of the *Reuss* from its lake, is one of the three towns where the federal Diet holds its sessions, and may be considered the Roman Catholic capital of Switzerland, from nearly all the population, 11,500, belonging to that communion, while it is the ordinary residence of the papal nuncio. Three old bridges cross the river, curiously decorated with paintings of legendary, historical, and sacred subjects, forming, in the words of Wordsworth, 'lessons for every heart, a Bible for all eyes.' The town retains its feudal fortifications, possesses an arsenal containing some ancient military trophies of interest, and has, in a quiet seclusion in the vicinity, a monument designed by *Thorwaldsen*, consisting of a colossal wounded lion, in honour of the Swiss guards who perished at *Paris* while defending the *Tuileries* in 1792. There are no particular manufactures; but the transit trade, carried on with *Italy* by means of steamers across the Lake and the Pass of the *St Gothard*, is considerable. *Sempach*, a village eight miles on the north-west, on the shore of a small lake, marks the site of the second great victory of the Swiss over the Duke of *Burgundy*, in 1386. It was gained by means of the self-devotion of *Arnold von Winkelried*, who rushed upon the spears of the enemy, grasped as many of them as he could in his arms, and thus opened a gap in the mail-clad ranks for his compatriots to rush in.

Stans, a small town in the cantonal division of the *Niedem-wald*, 'Lower Woods,' of which the heroic *Arnold* was a native, contains a statue of him in the market-place; he is represented with the bundle of spears in his arms. A tablet in the parish church commemorates the unfortunate people whom the French massacred for defending their homes in 1798, while the survivors became exiles. *Sarnen*, in the *Obdem-wald*, the 'Upper Woods,' is a pastoral village pleasantly situated on the shore of a small lake. On the border of *Unterwalden* and *Lucerne*, belonging to both cantons, rises the dark form of Mount *Pilatus*, 7000 feet above the sea, fringed with forests. It was once an object of dread to the peasantry.

The name is said to be derived from a wild legend, that Pontius Pilate, being banished into Gaul by the Emperor Tiberius, wandered hither, and while conscience-stricken, flung himself into a black lake at the summit. A small pool, formed by the melting of the winter's snow, occupies there a hollow, but becomes exhausted in the summer. *Alpmach*, a village at the base, has its name connected with the famous 'Slide,' described by Professor Playfair, constructed and used for the passage of timber from the mountain, in the early part of the century. This was an inclined trough composed of nearly 30,000 trees, which descended from the height of 2500 feet down to the edge of the Lake of Lucerne, a distance of eight miles. Enormous trunks, having been previously prepared, were discharged into the lake by their own momentum in the short space of about six minutes. It is, however, no longer in use.

Altorf, the chief place in the canton of Uri, but only a village, is of interest from its traditional connection with the legend of Tell, as the spot where he shot the apple from his child's head. A stone fountain in the open square, surmounted by figures of the father and the boy, commemorates the incident. *Bürglen*, a beautiful rural hamlet hard by, adorned with luxuriant vegetation, claims the patriot as a native. A little chapel stands on the spot occupied by his house, covered with very rude paintings descriptive of various scenes of his life, accompanied with sentences from Scripture. On the front of the chapel is the text, 'We are called unto liberty—but by love serve one another.' Between Bürglen and Altorf a rapid stream is crossed, in which Tell is said to have lost his life in old age in endeavouring to

save a child from drowning when the waters were high. These sites adjoin the southern extremity of the Lucerne Lake, and are close to the influx into it of the Reuss. The river-valley thence ascends through a series of magnificent gorges from 30 to 40 miles up to the heights of the St Gothard, accompanied by the high-road which repeatedly crosses the stream by bridges, passes through tunnels, follows zigzag terraces, while its roar is



Fluellen in Uri.

incessantly heard as it dashes along, or tumbles in cataracts, in the ravine below. In this valley, up to the point of the perpetual snows, French, Austrian, and Russian armies marched, manoeuvred, and fought, in the year 1799.

Schwytz, from which comes the name, Switzerland, is a town of 5000 inhabitants, the head of a canton containing a spot held in the greatest reverence by the Roman Catholics of the country, and those of adjoining districts. This is at *Einsiedlen*, a village of inns and alehouses for the reception of pilgrims to the shrine of the 'Black Lady of Switzerland,' in the neighbouring Benedictine abbey—one of the finest in Switzerland. The site is a high, bleak, and sterile plain. In the church is a shrine of black marble, where a little ebony figure of the Virgin and Child, gaudily adorned, is exhibited. Thousands are attracted to it, particularly on the great annual festival, or virginal levee, which is held in September, and lasts for a fortnight. Confessions are heard in German, Italian, French, or Romansch; while trade flourishes out of doors, in the sale of images, pictures, and various knickknacks in honour of the Virgin.

Zug, small and antiquated, is pleasantly seated at the north-east extremity of its lake, the shores of which present a rich appearance from numerous gardens, orchards, and vineyards. The defile of Morgarten is on the border of the canton towards Schwytz, where 20,000 Austrians were defeated in 1315 by a small body of Swiss mountaineers.

Glarus, on the Linth, in a secluded valley overhung with high rocks, is the seat of important cotton and cloth manufactures, and exports large quantities of the green cheese for which the canton is celebrated. Its

Gothic church is used by both Catholic and Protestant congregations. Zuinglius was the pastor from 1506 to 1516. *Näfels*, a village a few miles on the north, was the scene of the third great triumph of the peasantry over the Austrians in 1388. The event is annually commemorated by a festival, when a sermon is preached by the Protestant and Catholic ministers on alternate years.

Three of the north-eastern cantons, AARGAU, ZURICH, and SCHAFFHAUSEN, border on the Rhine in the western part of its flow, and belong to the region of the Swiss plain, though their surface is generally varied with hills of moderate height. THURGAU, likewise a district chiefly of rich levels and broad open valleys, extends along the shore of the Lake of Constance. St GALL touches the southern extremity of the lake, and circles thence round the entire canton of APPENZEL to the Rhine, as it runs from south to north.

Aarau, the chief town of Aargau, is a small manufacturing place on the Aar, at the south base of the Jura. *Brugg*, lower down on the river, ancient, walled, and diminutive, the birthplace of Zimmerman, is in an interesting locality. At a short distance are the baths of Schintznach, a frequented watering-place, with the tall square keep adjoining of the Castle of Hapsburg, from which its owner, Rudolph, was called, in the 13th century, to sway the sceptre of Charlemagne, and become the founder of the Austrian House. Below Brugg, in the plain, the Aar is joined by the Reuss from Lucerne, and the Limmat from Zurich, the joint streams shortly afterwards discharging into the Rhine. At and around the meeting of the waters stood *Vindonissa*, a great Helvetic settlement and stronghold of the Romans, the substructions of which have been traced, with other remains, over a wide extent of ground. *Baden*, on the Limmat, has warm sulphureous springs which have been visited by invalids from very early times.



Zurich.

Zurich, at the north extremity of its lake, where the Limmat gushes from it with a broad impetuous current, is built along both banks of the river in a valley hemmed in by mountains. It is a seat of the federal Diet, and the most important manufacturing town in the country, producing silk and cotton goods, with machinery. The inhabitants, 19,700, have long been distinguished for their literary as well as commercial spirit. Owing to the activity of its press, at the time of the Reformation, and the number of learned Protestant refugees who found here an asylum from persecution, it acquired the name of the Athens of Switzerland. Coverdale's Bible, the first entire English version of the Scriptures, is presumed to have

been printed at Zurich in 1535. In the cathedral, a massive venerable structure, Zuinglius preached for the last six years of his life. He perished while attending his flock on the field of battle at Cappel, in 1531. At the close of the last century, Lavater, the physiognomist, a native, was for twenty-three years minister of St Peter's Church, and fell in the streets by the shot of a French soldier, in 1799, close to his own door. In the town library, containing 40,000 volumes, are three Latin letters in the handwriting of the unfortunate Lady Jane Grey addressed to Bullinger. The university library possesses original manuscripts of many of the early reformers, the valuable portion of which has been published in the present age. The Lake of Zurich, thirty miles long by one and a half in medium breadth, has no grand mountains on its borders, though their outline is visible in the distance. Its shores are distinguished by quiet beauty, cultivated landscapes, and neat villages, which appear to great advantage, rising with their church steeples and tiled roofs up the hillsides around its waters.

Schaffhausen, on the right or north bank of the Rhine, has little interest but a celebrated name, as it is given to the grand Falls of the river at a short distance below the town. *Frauenfeld*, the little capital of Thurgau, is a scene of industry in connection with cotton-mills and dye-works. *St Gall*, ancient and historically distinguished, within ten miles of the Lake of Constance, is a busy manufacturing town of 14,500 inhabitants, engaged with bleacheries, cotton-spinning, and the production of embroidered muslins. This place was a seat of learning and centre of civilisation in rude ages, owing to its abbey, the monks of which officiated as teachers, attracted scholars from distant parts of Europe, and employed themselves in transcribing the classical authors, some of whose writings are indebted to them for their rescue from oblivion. The abbey-church is now the cathedral, and the other buildings are devoted to secular uses. *Pfeffers*, with slightly saline hot springs, some bath-houses, and a chapel, is very remarkable from its site. This is a mountain-split through which the stream of the Tamina furiously dashes. The sides of the half gorge and half cavern are dark, savage, and jagged, approaching so closely overhead as only to allow of scanty daylight entering, and narrow strips of the sky to be visible. *Appenzell*, at the head of one division of its canton, called Inner Rhoden, is little more than a slovenly village. The name is derived from *Abbatis Cella*, referring to a country-house of the old abbots of St Gall at the spot. *Herisau*, the chief place in the other cantonal division, or Outer Rhoden, a little larger, is neat and flourishing, with manufactures of cotton, muslin, and silk, the employment of a large number of persons in the neighbourhood.

VALAIS, a south-western district, embraces the valley of the Upper Rhone, and consists of an enormous trough, seventy miles long, but narrow at the base, through which the river descends from its glacial source at the one extremity to its entrance into the Lake of Geneva at the other. The Bernese Alps rise on the northern side, crossed by the strangely sublime Pass of the Gemmi. The higher Pennine and Lepontine Alps form the southern wall, which include Monte Rosa and the Matterhorn, with the routes of the Great St Bernard and the Simplon. Many subsidiary valleys are connected laterally with the main trench. In this region the most striking contrasts are exhibited—luxuriant vegetation below and utter sterility aloft—the most oppressive heat in summer at the one point, and perpetual ice-fields at the other—nature in all her magnificence, and man subject to hideous infirmity and complete abasement. Here the most numerous examples are met with of the two terrible diseases to which the inhabitants of the Swiss mountain valleys are exposed—goitre, a malformation of the neck, and cretinism, a form of idiocy—the causes of which are obscure. **TESSIN**, central among the southern cantons, embraces the country descending from the crest of the St Gothard to the Lago Maggiore, and is for the most part Italian, as well in its position and scenery, as in the language and manners of the people. The **GRISONS**, a south-eastern district, the largest and least populous of the cantons, includes the valleys traversed by the two great arms of the Rhine, from their sources to the confluence, with the valley of the Inn, forming the Engadine, and many intersecting chains of the higher Alps. The name is derived from that of a popular league against the nobles, constituted in the early part of the fifteenth century, called the 'Gray League,' *via Grischia*, from the gray homespun dress of the confederate peasants.

Sion, the chief town of Valais, seated on the north bank of the Rhone, is very inconsiderable, as are all the other places in the canton. But it presents an exceedingly picturesque appearance at a distance, having three extensive old castles on successive craggy peaks. *Leuk*, a village higher up the river, on the same bank, gives its name to a hamlet with warm springs, Leukerbad, a few miles distant, at the foot of the Gemmi Pass. This cluster of wooden dwellings is upwards of 4500 feet above the sea. Its bathing-houses are thronged with visitors in the height of summer, but wholly abandoned and shut up from October to May. Three

times since their establishment in the sixteenth century they have been overwhelmed by avalanches. The hottest spring rises at a temperature of 124° Fahrenheit, with the volume of a rivulet. *St Gingough*, on the borders of the Lake of Geneva, lies at the entrance of a deep ravine, which divides Savoy from the Valais.



St Gingough.

Brieg, in the Upper Valais, on the south side of the Rhone, marks the commencement of the ascent of the Simplon route into Italy, and is a halting-place for travellers about to cross, or having made the journey. *Martigny*, in the Lower Valais, twenty-four miles south-south-east of the east end of the Lake of Geneva, near the entrance of the torrent-like Drance into the Rhone, occupies the same position with reference to the road across the Great St Bernard, and contains a convent, from the inmates of which those of the mountain monastery are recruited. *Zermatt*, a village of clean wooden houses, with a neat church at the upper extremity of the Val St Nicholas, is a principal station, with high Alpine climbers, 5400 feet above the sea, set in, perhaps, the grandest spot in Europe. It stands at the junction of three valleys, each with its characteristic glacier, overlooked by Monte Rosa from one side, and the Matterhorn from another.

Bellinzona, on the left bank of the Ticino, one of the chief towns of Tessin, is feudal in its aspect, from three old adjoining castles, and Italian in the style of its dwellings. It is the entrepôt of a considerable transit trade between Switzerland and Italy, and the seat of the cantonal government for six years alternately with *Locarno*, at the north extremity of the Lago Maggiore, and with Lugano, similarly situated with reference to the lake to which its name is given.

Coire, an ancient town of 5000 inhabitants, the principal place in the Grisons, stands near the right bank of the Upper Rhine, and enjoys commercial advantages by its position at the junction of various roads, and on the highway of travel from Italy, through Switzerland, into Germany. *Reichenau*, a hamlet higher up the Rhine, has an inn, formerly a chateau, which was converted into a school in the last century, in which Louis Philippe officiated as a teacher in the days of his adversity. His rank and name were known to the master alone. *Splügen*, a little village, is remarkable for the approach to it from Coire, through the Via Mala, a tremendous defile, and its own position, 4700 feet above the sea, at the point where the two roads for Italy diverge, which respectively follow the Passes of the Splügen and Bernardin.

The illustration of the High Alps is a task to which our countrymen have addressed themselves of late years with remarkable zeal and success, amply vindicating their claim to be considered a keen-eyed, sure-footed, and clear-headed race, not to be deterred from an object by danger or fatigue. The Swiss, in imitation of the British Alpine Club, have formed an association at Berne, under the title of 'Schweizerische Alpen Club,' for the purpose of encouraging, as far as possible, the exploration of untrodden peaks, and of building huts for shelter and scientific observation in the more desolate and interesting localities. But excursionists will do well to bear in mind, that while all honour belongs to the men who knowingly venture their lives in the cause of science, like Saussure,

Agassiz, and Forbes, society will not fail to connect censure with regret, in the event of fatal accidents occurring in the attempt to scale the 'iced mountain's top,' with no higher object in view than that of standing where human footstep never stood before.

Switzerland contained in 1860 a population of 2,510,000, belonging mainly to two distinct stocks, the German or Teutonic, and the Latin. The Germans are by far the most numerous, occupying the central, northern, and eastern cantons, and their language is officially adopted by the general government. The Latins consist of French in the western, and Italians in the southern districts. About three-fifths of the people are Protestants, and two-fifths Roman Catholics. Only a few cantons contain within their limits considerable proportions of the two communions. In those of Lucerne, Uri, Schwytz, Unterwalden, Zug, Tessin, and Valais, nearly all the inhabitants are Catholics. Thus differing in creed, race, and language, harmony has not always been maintained in the internal political relations of the confederacy, but the menace of foreign aggression has never failed to strengthen the bond of union. Agriculture is the prevailing pursuit, most carefully conducted entirely by hand-labour; but many of the German Swiss are silk and cotton manufacturers, while the French Swiss are occupied largely with jewellery, horology, and artistic productions. Public education is in a highly-advanced state, especially in the Protestant cantons, where also are to be seen the neatest homesteads, the best husbandry, with other evidences of general intelligence and domestic comfort. The people are hardy, industrious, and temperate in the main; brave, patriotic, and virtuous, but imbued with an excessive love of money, betrayed in exorbitant charges to travellers, which the thoughtless extravagance of some of their wealthy visitors has not failed to strengthen. Though enthusiastically attached to their native land, they seem incapable of appreciating the sublime or beautiful in nature, and will unceremoniously exclude the most glorious landscape from view by a cattle-shed, which might as conveniently be placed in a position which would leave it open to the eye from their thresholds.



Swiss Milkman.



Court of Lions, Alhambra.

SECTION III.—SOUTHERN EUROPE.

CHAPTER I.

SPAIN.



THE south-western extremity of Europe, occupied by the kingdoms of Spain and Portugal, forms a peninsula, commonly styled the Spanish, from that power being in possession of the greater part of the area. It was known to the Greeks and Romans as the Hesperian from its western position, and also as the Iberian from the name of one of the principal rivers, the Iberus or modern Ebro. The peninsula is connected with the main mass of the continent by a comparatively broad isthmus on the north-east, intersected by the Pyrenees; and is bounded in other directions by the waters of the Atlantic and the Mediterranean. It differs remarkably in shape from the other two peninsulas of Southern Europe, the elongated and slender Italian, and the tapering Turko-Hellenic. The ancients compared the country to a bull's hide on account of its configuration, a rude but not inapt resemblance, as it forms a compact irregular square, and possesses a very extensive margin, chiefly of sea-coast, from which large portions of the interior are removed

to a considerable distance. It is upwards of 500 miles from north to south, and more than 600 miles from east to west, while the area includes about 212,000 square miles, of which the lion's share belongs to Spain. Stirring memories are associated with the soil. It was the scene of the campaigns of Hannibal and Scipio, formed an important part of the Roman empire, gave Trajan to the imperial throne, and added Lucan, Martial, and Seneca to the list of the Latin classics. For a long period in the middle ages, while largely under the dominion of the Moors, it was almost the only seat of art, science, and literary culture in Europe. From its ports, at a little later date, Bartholomew Diaz went out to reach the southern extremity of Africa, followed by Columbus to discover a Transatlantic world, by Vasco di Gama to open a maritime route to India, and by Magellan to circumnavigate the globe. In recent times, British valour signalised itself in connection with its shores, towns, and landscapes, by the naval triumphs of St Vincent and Trafalgar, the sieges of Gibraltar, Badajoz, and St Sebastian, the battles of Salamanca, Talavera, and Vittoria. One of the most universally popular books, the *Don Quixote* of Cervantes, emanated from Spain, and a melancholy notoriety belongs to its abolished judicial institution, the secret tribunal of the Inquisition.

The Spanish monarchy embraces five-sixths of the peninsula, or 176,000 square miles, and includes its insular dependencies, the Balearic Isles, on the eastern side. Its general boundaries are the Atlantic and Portugal on the west; the Bay of Biscay, an arm of the ocean, and France, on the north; the Mediterranean and the Strait of Gibraltar, on the east and south. These limits include the southernmost point of the European continent, Cape Tarifa; likewise its highest mountain apart from the Alps, or the Cerro de Mulhagen, towering to 11,665 feet above the sea; its most elevated railway, carried across the Asturian chain, ascending 3053 feet above the mean tidal rise at Bilbao; its loftiest-seated capital city, Madrid, 2175 feet; and two royal palaces at a greater altitude, the Escorial, 3520 feet, only a trifle lower than the top of Snowdon, and La Granja, 3943 feet, higher than the summit of Vesuvius.

The Pyrenees, crowned with snow, form a well-defined border from France. They intersect the connecting isthmus from the Gulf of Lyon to the Bay of Biscay; and the highlands are thence continued by the lower range of the Asturias through the whole north of Spain to its western extremity, the bluff headland of Cape Finisterre. The frontier mountains are the most precipitous and the grandest on the Spanish side, which includes also the highest point, the Pic de Nethou, rising to the elevation of 11,426 feet, first scaled by a Russian officer, with a French companion and guides, in 1842. The peak is an eastern summit of Mont Maladetta, or the 'Accursed,' perhaps so called from its dreary nakedness, as if 'the ghost of some mountain belonging to a departed world.' This aspect is all the more striking as the Pyrenees are remarkable for vast forests of pine, oak, and beech, while the lower slopes and floors of the valleys are carpeted with the greenest grass. The chain is from forty to fifty miles broad; and is cut at great heights by passes, locally styled *puertos*, ports or gates, which serve as lines of communication. They are commonly mere gaps, only a few feet wide, through which the wind rushes with great power, howling dismally. Of the Port de Venasque, a thoroughfare from the Spanish town of that name, it is proverbially said, that in it 'a father will not look back at his son, nor a son wait for his father.' Another notch near Mont Perdu, called the Brèche de Roland, bears the name of the brave Paladin of Charlemagne, who is traditionally said to have cut it with his sword; and was himself cut off by the mountaineers in that of Roncesvaux. Most of the passes are practicable on horseback, and two for carriages are respectively at the eastern and western extremities. Hannibal and Cæsar

led armies across the Pyrenees in ancient times; Charlemagne and Edward the Black Prince in the medieval; Napoleon and Wellington in the modern age.

The central region of the country is an extensive table-land or plateau, with a mean altitude of 2000 feet, which descends abruptly towards the Mediterranean, but has a long gradual slope westward towards Portugal and the Atlantic, in which direction most of the rivers travel. The plateau is bounded on the north by the Asturian prolongation of the Pyrenees; traversed centrally from east to west in a deviating manner by the Sierra de Guadarama and the Sierra de Toledo; and walled on the south by the Sierra Morena. This last ridge overlooks the valley of the Guadalquivir, beyond which rises the Sierra Nevada, with the silvery head of the Cerro de Mulhacen on the north-east of Granada, far above the snow-line, the culminating point of Spain. In the nomenclature of the mountains their respective forms are referred to—*sierra* denoting a saw-like or serrated range; *pic*, a pointed height; and *cerro*, a hog-backed hill. The high plains between the central ridges are generally treeless, arid, and dreary, to which the name of *despoblado*, or desert, is given, and appropriately so, when viewed in contrast with the luxuriant aspect of the lowlands by which the plateau is skirted. Owing to elevation and exposure, they are swept by piercing winds in winter, while scorched by a burning sun in summer; and hence the climate of Madrid, seated on one of them, is said to consist of nine months of winter and three of hell! The *gallego*, a cold wind, nipping and injurious, blows from the north-west; and a hot blast, the *solano*, from the south-east, exciting fever and producing enervation. Forests appear on the slopes of this high region, in which the cork-tree, the evergreen-oak, the kermes-oak, the sumach-tree, the chestnut, and hazel are conspicuous, while the maritime lowlands on the south and east abound with the choicest vegetable productions, and appear like a garden in perpetual bloom. Here orange-trees flourish thirty feet high, laden with golden fruit; groves of the myrtle, lemon, and mulberry are common; the olive, fig, vine, almond, and sugar-cane are cultivated; extensive rice-grounds appear, and the date-palm indicates a climate of almost tropical heat.

The country is deficient in its river system, owing to the dryness of the climate on the great central table-land; the rivers formed are not for that reason proportionate to the magnitude of the area. Nor are they available to any considerable extent for the purposes of navigation, suffering from want of water during the summer droughts, while swollen into impetuous torrents by the melting of the snows on the mountain-ranges. The most important are the Douro, northern; the Tagus, central; the Guadiana and the Guadalquivir, southern. These have a westerly flow to the Atlantic, but the first two named pass out of the country, and have the lower parts of their course, where their commercial value is the greatest, entirely confined to Portugal. The Guadiana also quits Spain for Portugal, but returns to it again to form the frontier between the two countries at its mouth. In the Spanish part of its course, this stream disappears among swamps, and has a subterranean flow of nearly thirty miles, but throws up numerous pools at the surface, called *los ojos*, 'the eyes,' *de la Guadiana*. Among the rivers discharging into the Mediterranean, the Ebro is the largest, and one of the most considerable which Europe contributes to its basin. It drains the southern slope of the Pyrenees, and has its source near the crest of the chain. The syllable *guadi*, a component in the names of several Spanish streams, and of other localities, is a corruption of the Arabic *wady*, 'a river' or 'river-valley,' introduced into the country by the Moors, and adopted from them. It appears in Guadiana, the 'River Ana,' and in Guadalquivir, an altered form of *Wady-al-Kebir*, 'the great river,' as the stream would seem to the Africans when compared with the scant water-courses of their native land. The Spaniards took the word with them to the New World, where it figures in the names of sites in Mexico.

Among the wild animals, the chamois and ibex, the bear and wolf, are found on the heights and in the forests of the Pyrenees, but in diminishing numbers, from the exterminating war waged against them by chasseurs and peasantry. The wolf is the black variety, or *lobo* of Spain, general in the rocky and elevated ranges throughout the country, stronger than the common species, shy and ferocious, haunting the passes, watching for an opportunity to seize a victim from a string of mules. 'A dangerous person is the wolf,' remarked a shepherd in the hearing of Mr Borrow, 'and cunning as dangerous: who knows more than he? He knows the vulnerable point of every animal; see, for example, how he flies at the neck of a bullock, tearing open the veins with his grim teeth and claws. But does he attack a horse in this manner? I trow not.' 'Not he,' said another shepherd, 'he is too good a judge; but he fastens on the haunches, and hamstringing him in a moment. Oh the fear of the horse when he comes near the dwelling of the wolf!' 'Yet the mares know occasionally how to balk him,' replied his companion. 'See them feeding in the campo with their young eria about them; presently the alarm is given that the wolf is drawing near; they start wildly, and run about for a moment, but it is only for a moment; again they gather together, forming themselves into a circle, in the centre of which they place the foals. Onward comes the wolf, hoping to make his dinner on horseflesh; he is mistaken, however, the mares have balked him, and are as cunning as himself; not a tail is to be seen—not a hinder quarter—but there stand the whole troop, their fronts towards him ready to receive him; and as he runs round them barking and howling, they rise successively on their hind-legs, ready to stamp him to the earth, should he attempt to hurt their eria or themselves.' The lynx and boar are common to various localities; the Barbary ape inhabits the rock of Gibraltar; and several insects are of economic value, the gall-nut fly, the cantharides, and the kermes, besides the bee and silkworm. Of the domesticated animals, the horses of Andalusia, descended from Arab steeds, are a noble race; the mules and asses are superior breeds, strong, active, and sure-footed, used for transit on the mountain-roads; and the merino-sheep, reared to the number of from five to six millions, produce the fine wool which has led to the introduction of the stock into most European countries and Australia.

The peninsula was the Mexico of the ancient world, rich in the precious metals, which invited the Phœnicians and Carthaginians to establish colonies on the shores, till the Romans came in and took up possession of the whole country, with the remaining part of the spoil that was readily accessible. Lying exposed at the surface, or to be reached by slight excavations, and washings of the soil, the gold was speedily exhausted. So abundant was the silver, however, that some of the commonest implements of the inhabitants were composed of it. The Phœnicians obtained the metal in such quantities, that they are said to have laden their vessels with it to the water's edge, and used it for their ordinary utensils. Spain is still remarkable for the vastness and variety of its mineral stores, but the political distractions of the country, with the apathy of the people, have interfered with the development of its buried treasures. Mines are, however, worked in various districts, and will be more extensively as railways open a convenient mode of transit, and thereby invite the introduction of foreign enterprise. Silver-mines are wrought with success in Andalusia; tin and cobalt are obtained in Galicia; iron ores occur abundantly in the Asturian Mountains, where there is also pit-coal for smelting; and lead is diffused generally in astonishing quantities, and in every combination. The galenas, or argenteriferous lead ores, frequently contain silver in the largest proportion. An important supply of quicksilver is drawn from enormous veins of cinnabar at Almaden, a town on the table-land north of the Sierra Morena, where the mines have been open since the time of the Romans. They are supposed to be the richest in the metal of any known

sites, and are the property of the government. The hills of Cardona, at the base of the Pyrenees, abound with rock-salt.

Spain, including the Balearic Isles, is divided into forty-eight provinces, all of which are named after their principal towns; an arrangement of the present century, dating from the year 1833. It was formerly distributed into fourteen great districts, several of which were once independent kingdoms, principalities, and lordships. Their names are well known from the records of history, while often referred to in the present day. They are hence inserted in connection with the existing divisions in the enumerations given.

I. INTERIOR REGION.

Old Divisions.	New Provinces.	Cities and Towns.
NEW CASTILE, . . .	Madrid, . . .	Madrid, El Escorial, Chinchon.
" . . .	Toledo, . . .	Toledo, Aranjuez, Talavera.
" . . .	Ciudad Real, . . .	Ciudad Real, Almagro, Almaden.
" . . .	Cuença, . . .	Cuença, Requena.
" . . .	Guadalaxara, . . .	Guadalaxara, Sigüenza, Alcala.
LEON, . . .	Leon, . . .	Leon, Astorga, Villafranca.
" . . .	Salamanca, . . .	Salamanca, Ciudad Rodrigo.
" . . .	Zamora, . . .	Zamora, Benevente.
ESTREMADURA, . . .	Badajos, . . .	Badajos.
" . . .	Caceres, . . .	Caceres, Truxillo, Alcantara.
ARAGON, . . .	Saragossa, . . .	Saragossa.
" . . .	Huesca, . . .	Huesca.
" . . .	Teruel, . . .	Teruel.
NAVARRÉ, . . .	Pamplona, . . .	Pamplona.

NEW CASTILE, an extensive district in the heart of the peninsula, embraces elevated plains intersected centrally by the ridge of the Sierra de Toledo, and bordered northward by the range of the Sierra de Guaderama and its connected heights. The upper courses of the Tagus and the Guadiana are within its limits, which are divided from each other by the central ridge, while the northern range forms the boundary from Old Castile. New Castile produces olives, corn, pulse, and saffron, but flocks of sheep constitute the chief wealth of extensive tracts of land. The commerce carried on by means of long trains of mules reminds the tourist of the caravan-traffic over eastern deserts. The Castilians have even more than the general haughtiness of Spaniards. Their language is that of literature and of all the educated classes in Spain.

Madrid, the metropolis of the monarchy, was so constituted by Philip II., in the sixteenth century, from its position being supposed to mark the centre of Spain, though far removed from the sea, distant from a navigable river, apart also from the productive districts, and without easy communication with them till the engineer came with the railway to connect it with the southern coast. The city, in latitude 40° 25' north, longitude 3° 40' west, stands on the left bank of the Manzanares, an unimportant affluent of the Tagus, usually dried up in the summer months. The site is singularly unfavourable, a high barren plain, with scarcely a garden, tree, or tract of pasture for miles around, except along the course of the stream where there are some woods and orchards; but verdant mountains appear in the more distant environs. It is surrounded by a brick wall, about eight miles in circuit, pierced by sixteen gates. A remarkably fine street extends from an open space in the centre to an eastern gate, on which side lies the Prado, a long and spacious walk between rows of trees, adorned with several fountains, the evening resort in summer of all classes of the inhabitants. On the opposite side, by the Manzanares, stands the palace, a vast square edifice of white stone, each front of which is 100 feet high, and 470 feet long, enclosing an open central area. The royal public library contains 200,000 volumes, and the national picture-gallery is a vast collection of rare excellence. The royal armoury is one of the finest in the world; the Toledo blades, the artistic armour and shields from Augsburg and Milan are superb. Madrid has numerous churches and convents for nuns, 17 hospitals, 14 barracks, nearly 100 elementary schools, a university, 8 theatres, 25 daily newspapers, and numerous literary and artistic institutions. Madrid has been much improved in its aspect by the removal of several monasteries (forty-four were suppressed in 1836), which rendered the streets gloomy by their small grated windows. The population is supposed to exceed 300,000, consisting mostly of Spaniards, but collected to a considerable extent from different parts of the country. The capital is about 680 miles south-south-west of Paris, and 265 miles north-east of Lisbon.

About thirty miles to the north-west is the small town and convent-palace of the *Escorial*, the latter a

stupendous fabric, little less than a mile in circuit. It was erected by Philip II., in fulfilment of a vow made at the battle of St Quentin, which he gained on the day of St Lawrence, the martyr, August 10, 1557. The buildings are arranged in the form of a gridiron, in honour of the saint, who is said to have suffered death by being roasted on an instrument of that kind. The royal apartments form the handle, the conventual the bars, and long courts indicate the interstices. There is a richly-decorated church, with a mausoleum containing some of the Austrian and Bourbon sovereigns of Spain, and a library which the French pillaged of many valuables. The entire pile, according to current accounts, has 48 wine-cellars, 80 staircases, 800 columns, 73 fountains, 1860 rooms, 11,000 windows, 14,000 doors, and cost 6,000,000 ducats. It is now with difficulty kept up in a very forlorn condition by grants from the state. *Chinchon*, a poor place, has a memorable name. The grandee derived his title from it, whose wife, the Countess of Chinchon or Cinchon, while vice-queen of Peru, derived benefit from the use of Peruvian bark, and brought it to Spain as early as 1640. It was hence called the 'Countess's Bark,' and the trees yielding it form the genus *Cinchona*, the source of quinine.

Toledo, forty miles south by west of Madrid, connected with it by railway, occupies a steep rocky hill washed by the Tagus, and nearly enclosed by it. It is of ancient date, being famous in the time of the Romans, when it was called *Toletum*, and possessing some relics of the classic ages, as a ruined amphitheatre, walls, &c., was the capital of the country under the Goths, but belongs to the class of decayed cities, though retaining ecclesiastical pre-eminence, the archbishop being the primate of all Spain. It has a university and four colleges, with hospitals, asylums, and a mint. The name often occurs in connection with the manufacture of sword-blades, which were so celebrated in long bygone times as to be despatched as merchandise to all parts of Europe. A factory of arms, where swords are made for the government, is still carried on near the river, the sand and water of which are believed to be essential to their proper tempering. It was visited by Mr Borrow, from whose experience it would seem that the modern Toledo blades may be accounted equal to the ancient. 'I asked,' says he, 'some of the principal workmen whether, at the present day, they could manufacture weapons of equal value to those of former days, or whether the secret had been lost. "Ca!" said they, "the swords of Toledo were never so good as those which we are daily making. It is ridiculous enough to see strangers coming here to purchase old swords, the greater part of which are mere rubbish, and never made at Toledo, yet for such they will give a large price, whilst they would grudge two dollars for this jewel, which was made but yesterday;" thereupon putting into my hand a middle-sized rapier. "Your honour," said they, "seems to have a strong arm, prove its temper against the stone wall—thrust boldly, and fear not." I have a strong arm, and dashed the point with my utmost force against the solid granite: my arm was numbed to the shoulder from the violence of the concussion, and continued so for nearly a week, but the sword appeared not to be at all blunted, or to have suffered in any respect. "A better sword than that," said an ancient workman, a native of Old Castile, "never transfixes Moor out yonder on the *sagra*."

Aranjuez, higher up the Tagus, in a fertile locality, is the site of a royal residence in a lovely spot, surrounded with gardens containing groups of noble elms, cedars, and plantains. *Talavera*, lower down the river, has a well-known name from the victory gained near it by the British under Wellington over the French in 1809. *Ciudad Real*, south of the Guadiana, is the chief place in the old district of La Mancha, in which Don Quixote is represented as having commenced his adventures. *Almagro*, in the same neighbourhood, produces a rich black lace, one of the few articles of Spanish manufacture which offers any temptation to the traveller. *Quenca*, close to the eastern border of New Castile, is in a scene of great natural beauty, on the banks of the Xucar, with high walls, a stately cathedral, and striking Moorish features. It was once celebrated for arts, literature, and industry, but its glory has now quite departed. *Guadalajara*, north-east of Madrid, a small cloth-manufacturing town, is on the Henares, a stream which flows to the Tagus, passing by *Alcala*, the birthplace of Cervantes.

LEON, formerly a distinct kingdom, is a north-western district, watered by the Upper Douro and its affluents. The surface is largely mountainous or rugged, in some parts sterile. The towns are not of present importance, though several are of historic note. The people exhibit decided differences, a portion of them forming the singular class of the Maragatos, or Moorish Goths, descended from those natives of the peninsula who took part with the Moors on their invasion of Spain, and became assimilated to them. They never intermarry with the ordinary Spaniards; are distinct in dress, habits, and temperament; and have for their home a tract of barren and rocky country in the neighbourhood of Astorga. But they are known far and wide, in the capital and the populous cities, at the inns and on the high-roads. As their soil ill rewards the task of cultivation, the men travel as *arrieros* or carriers, and almost deem it a disgrace to follow any other profession. In all respects they are the same as their original ancestry, except in their calling and religion, if indeed their forefathers so far conformed to the Moors as to embrace their faith.



Olive Gardens of Oliveras.

Leon, near the base of the Asturian Mountains, is ancient, gloomy-looking, dirty, crowded with beggars, possesses many churches, with a remarkably fine cathedral—a specimen of the purest Gothic, containing the tombs of many sovereigns of Leon, saints and martyrs. The environs are fertile and beautiful, abounding with trees, and with streams running down from the mountains in the background. *Astorga*, a small walled town thirty miles distant, may be deemed the capital of the Maragatos. A colossal figure of lead appears on the roof of the cathedral, the statue of one of them, a carrier, in his distinctive dress, who contributed a large sum to its endowment. *Villafranca*, towards the border of Galicia, is strikingly placed in a deep hollow with surrounding heights close at hand, near the grand Pass of Fuencebadon leading into the Galician province. This is an ascent of nine miles from the entrance to the summit by the side of a profound ravine. Trees grow luxuriantly wherever there is a slope—oaks, poplars, and chestnuts. Meadows of rich grass hang on the steeps, where mowers ply their scythes, though it seems scarcely possible for them to secure a footing. Everything here is at once wild, strange, and beautiful. *Salamanca*, long celebrated as the seat of a university of renown in Europe, and called the ‘Mother of Virtue, Science, and Art’ (which, in the fifteenth century, had 8000 students, but in 1850, only 500), is now best remembered in connection with Wellington’s defeat of Marmont in the vicinity in 1812. It stands on the Tormes, an affluent of the Douro, is surrounded by walls pierced by nine gates, contains twenty-five churches, many convents, and the largest public square in Spain, employed as a bull-ring, and capable of accommodating from 16,000 to 20,000 spectators. Population about 14,000. ‘A melancholy town is Salamanca; the days of its collegiate glory are long since gone by, never more to return.’ The bridge referred to, outside the gate *del Rio*, has twenty-seven arches, and is of unknown date, but undoubtedly of Roman origin.

ESTREMADURA, a western province bordering on Portugal, is intersected by the Tagus and the Guadiana. Though a westerly continuation of the central table-lands, the general elevation is much lower; and being well watered, the valleys are clothed with rich pastures, while the sloping hills are adorned with woods. But the greater part of the country is uncultivated, and has lain desolate ever since the expulsion of the Moors, while the people are mostly poor and miserable. The system of Spanish sheep-farming supplies the reason. It is almost entirely a monopoly in the hands of nobles, persons in power, and dignified ecclesiastics, some of whom have as many as 40,000 sheep. They form an incorporated company, possess and exercise the right of depasturing their flocks on all lands throughout the kingdom at their pleasure, to the detriment of the community. In summer the sheep are on the high grounds of Castile and Leon; but on the approach of

winter they are driven down to the lower levels of Estremadura and Andalusia. Proprietors of enclosed lands on the route are obliged by law to leave spaces clear for the passage, nor can the owners of the pasture-grounds turn up a sod for cultivation without the consent of those interested to prevent it.

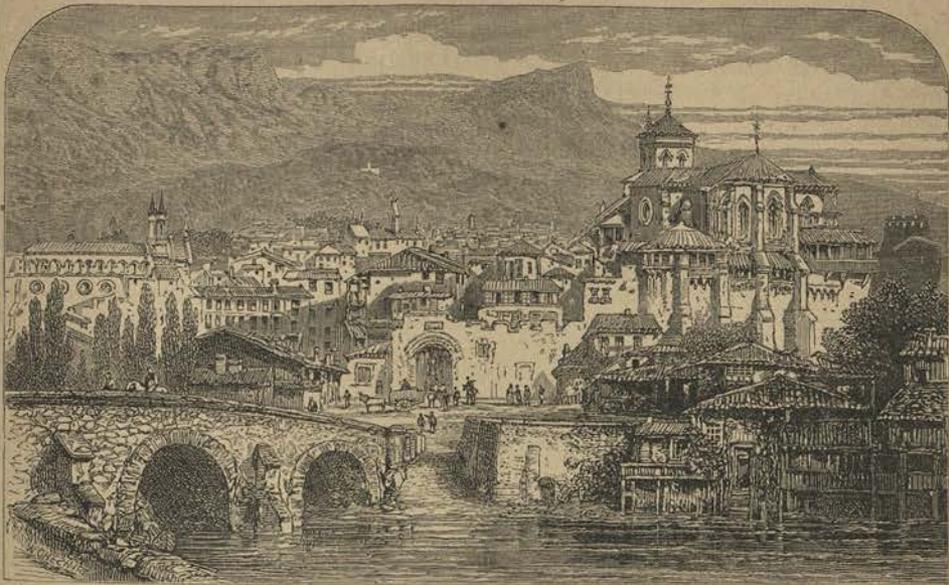
Badajos, close to the Portuguese frontier, is seated on the Guadiana, here a tolerably wide but shallow and sluggish stream, winding through a country of brown moors relieved by the sight of blue mountains in the distance. The town has a few coarse manufactures, and is the seat of extensive contraband dealings with the adjoining kingdom. It is strongly fortified, and acquired a historic name during the Peninsular War in 1812, when it was taken by storm by the British army under Wellington. In the previous year, the village of *Albuera*, on the south, was the scene of a hard-won victory obtained by the combined British and Spanish over the French under Marshal Soult. *Merida*, higher up the Guadiana, now of small importance, represents a large ancient city, the *Emerita Augusta* of the Romans.

ARAGON and NAVARRE, north-eastern districts, once distinct kingdoms, border each other along the Pyrenees, and are therefore highly-diversified regions. The former extends from the crest of the chain to the Ebro, and passes to a considerable distance southward of the river. The latter is a much smaller tract, chiefly confined to the slope and immediate base of the mountains, at the western extremity of the range.

Saragossa, the capital of the old monarchy of Aragon, is a large ancient city of 82,000 inhabitants, situated on the Ebro which divides it into two portions connected by a striking stone bridge. It existed as a native town in the early Roman age, and being rebuilt by the Emperor Augustus, was called after him *Cæsar Augusta*, of which the present name is a corruption. It is the head of an archbishopric, contains two cathedrals, a university, and has manufactures of silks and cloths. The heroic resistance offered by the inhabitants to the French in 1808—1809, in which the 'Maid of Saragossa' was conspicuous, is the famous episode in its annals, when 'war to the knife's point' was the reply to every summons to surrender. It had a seasonable and decided effect in rousing the national spirit in other parts of the country against the invaders. *Pamplona*, or *Pampeluna*, at the base of the Pyrenees, is an important military position, with a strong fortress, to guard the frontier. Its bull-ring is capable of accommodating 10,000 spectators. On the north-east lies the Pass of Roncesvaux, in which the army of Charlemagne was checked by the mountaineers, upon its advance into Spain in 778. Further east are the baths of *Panticosa*, a village about 5000 feet above the sea, in a basin-shaped valley surrounded by naked rocks and tremendous precipices, visited by Spaniards of the upper class for a short time in the height of summer. *Tudela*, a small town on the Ebro, has its name connected with the celebrated Jewish traveller of the middle ages, commonly called Benjamin of Tudela.



Spanish Costumes.



Orduna.

II. NORTH MARITIME REGION.

Old Divisions.	New Provinces.	Principal Towns.
BISCAY,	Bilbao,	Bilbao, Durango, Orduna.
"	St Sebastian,	St Sebastian, Tolosa, Fuentarabia, Irun.
"	Vitoria,	Vitoria.
OLD CASTILE,	Santander,	Santander, Laredo, Barcena, Reinosa.
"	Logrono,	Logrono, Calahorra, Haro.
"	Burgos,	Burgos, Lerma.
"	Soria,	Soria, Osma.
"	Valladolid,	Valladolid, Medina de Rio Seco.
"	Palencia,	Palencia, Torquemada.
"	Segovia,	Segovia, La Granja.
"	Avila,	Avila, Medina del Campo.
ASTURIAS,	Oviedo,	Oviedo, Gijon, Sama.
GALICIA,	Corunna,	Corunna, Ferrol, Santiago de Compostella.
"	Lugo,	Lugo, Mondonedo.
"	Orense,	Orense.
"	Pontevedra,	Pontevedra, Vigo.

BISCAY, an ancient lordship, is a small rugged territory on the shore of the Bay of Biscay, immediately adjoining France, from which it is divided by the Bidassoa River. It is the seat of the Basque population, a distinct race from the Spaniards proper, who speak a peculiar language, the Euscarra, which has no relation to any of the known linguistic families. They believe it to have been once prevalent throughout Spain, and are by some considered to represent the aborigines of the peninsula. In person they are active and athletic, have in general fair complexions and handsome features, while of frank, lively, sociable, fiery, and generous temper; brave to a proverb, making excellent soldiers. There is no class of nobility among them, nor will any one acknowledge a superior. Hence they recoil from servitude, and though compelled to seek employment out of their own country, it is rarely accepted except in situations which involve confidence, and enable them to meet masters upon somewhat equal terms. But the women, who are generally considered inferiors by the men, often become domestic

servants in the towns, and are highly valued. The Basques are fond of music, and excel in musical composition, but they have no poetry except of the trivial kind, and the words which accompany the strains are usually very commonplace, or without any definite meaning whatever.

Bilbao, the principal northern port of the kingdom, and one of its most commercial towns, is situated on



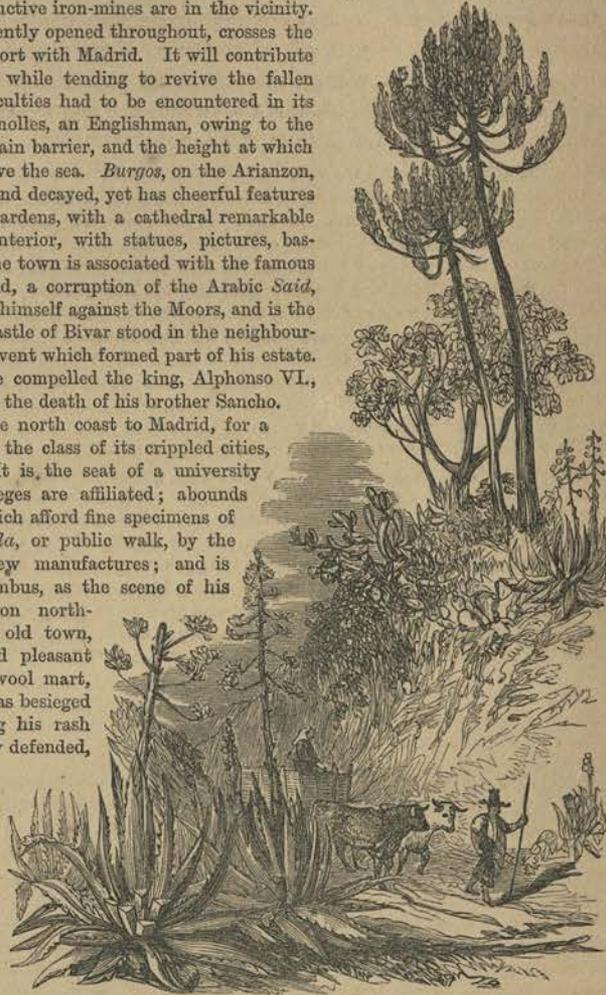
Bilbao.

the river Nervion, eight or nine miles from the sea, and contains about 10,000 inhabitants. It has convenient quays and ship-building docks, with iron and copper mines in the neighbourhood, and is the chief emporium for the export of Spanish wool. The windings of the narrow picturesque river are 'The Bilboes' of our ancient mariners, in which they feared to be penned, and to whose entanglements the marriage-noose is compared in Beaumont and Fletcher. A shallow and dangerous bar marks the mouth of the stream, but higher up the channel has tolerable depth, and vessels of considerable burden ascend to a short distance from the town, and the smaller reach its centre at high-water, going alongside a handsome quay which forms part of the public promenade. Here is the station of the railway which crosses the Cantabrian Pyrenees to the Ebro, passing through the grandest scenery, and connects itself with the east coast by the line to Barcelona. In 1860, the English astronomers, professional and amateur, were conveyed to Bilbao, by the government screw-steamer the *Himalaya*, who observed at various inland stations the great solar eclipse of that year. *St Sebastian*, a fortified seaport on the east, within easy visiting distance from Biarritz and Bayonne in France, contains the graves of many of our countrymen, officers and soldiers, who fell when it was taken by storm by the British army in 1812. *Irun* and *Fuentarabia*, small frontier places near the outlet of the Bidassoa, have the fords between them, only passable at low-water, of which Wellington was informed by some native fishermen. He was thus enabled to throw part of his army across, thereby gaining the first permanent footing on the French territory. *Vitoria*, a pleasant inland town, has obtained distinction as the scene of the last great victory of his troops on Spanish soil. The astronomers, M. Madlar of Dorpat, M. D'Arrest of Copenhagen, and M. Goldsmidt of Paris, made it their head-quarters during the eclipse. The astronomer-royal, with M. Otto Struve of Pultowa, observed on the southern slope of the mountains, not far from Miranda on the Ebro.

OLD CASTILE occupies a narrow strip of the coast westward, but extends inland from it to the centre of the kingdom, and embraces the upper part of the course of the Douro, with the Sierra Guadarama which forms the water-shed between it and the basin of the Tagus. There are only a few places of present importance within its limits, but the names of many are prominent in the past history of the country, once splendid and populous, now reduced, retaining little beyond the memorials and traditions of former greatness.

Santander, a seaport, and one of the largest towns, contains a population of 20,000, and is a flourishing seat of commerce of modern date, exporting agricultural produce from the Castiles, and engrossing the greater part of the trade with the Spanish West Indies. It stands on a magnificent bay, and is accessible at all times of the tide to the largest vessels. A tobacco and cigar manufactory is one of the most extensive buildings, formerly a convent. Productive iron-mines are in the vicinity. A railway, the highest in Europe, recently opened throughout, crosses the Cantabrian chain, and connects the port with Madrid. It will contribute to the commercial advance of both, while tending to revive the fallen fortunes of Old Castile. Great difficulties had to be encountered in its construction by the engineer, Mr Vignolles, an Englishman, owing to the ruggedness of the intervening mountain barrier, and the height at which it could alone be passed, 3053 feet above the sea. *Burgos*, on the Arrianzon, a tributary of the Douro, is ancient and decayed, yet has cheerful features in shaded promenades and pleasant gardens, with a cathedral remarkable for the profuse decoration of the interior, with statues, pictures, bas-reliefs, and stained-glass windows. The town is associated with the famous Don Rodrigo, better known as the Cid, a corruption of the Arabic *Said*, 'lord' or 'master,' who distinguished himself against the Moors, and is the great hero of Spanish ballads. His Castle of Bivar stood in the neighbourhood, and his tomb is shewn in a convent which formed part of his estate. In one of the churches of Burgos he compelled the king, Alphonso VI., to swear that he had taken no part in the death of his brother Sancho.

Valladolid, on the railway from the north coast to Madrid, for a time the capital of Spain, belongs to the class of its crippled cities, though still a considerable place. It is the seat of a university with which English and Scotch colleges are affiliated; abounds with deserted convents, some of which afford fine specimens of architecture; has a beautiful *alameda*, or public walk, by the little river Esgueva; possesses a few manufactures; and is associated with the career of Columbus, as the scene of his death in 1506. *Palencia*, a station northward on the railway, is a striking old town, with a light, elegant cathedral, and pleasant environs. It has importance as a wool mart, producing also woollen fabrics. It was besieged by Edward the Black Prince during his rash adventure into Spain, and so bravely defended, particularly by the women, that they were authorised to wear a golden band around their hair, in acknowledgment of their courage. *Medina del Campo*, the 'City of the Plain,' on the south-west of Valladolid, was formerly large and prosperous, but has utterly fallen; yet immense ruins around it in every direction attest its bygone greatness. *Segovia*, at the northern base of the Sierra Guadarama, noted for its sheep-pastures, and once for its cloth-works, has also dwindled, though not so completely, and a remnant of the manufacture survives. Its principal feature is a grand Roman aqueduct (supposed to belong to the reign of Trajan) of 161 arches which spans the valley, and rises to the height of 100 feet above it; but the town has also a cathedral, a mint, several hospitals, and a barracks. *La Granja*, a small town on the slope of the mountains, a few miles distant, has the summer palace of the Spanish sovereigns adjoining, at the height of nearly 4000 feet above the sea. It occupies a beautiful recess, screened from the burning sun, and open to the refreshing breezes from the north, with a pine-clad mountain rising like a cone behind it. Within memory of the living, when the palace was unoccupied, owing to the political distractions of the country, the wild boars from the woods freely roamed the gardens, and rubbed their tusks against the pillars of the porticoes.



Spanish Vegetation.

The ASTURIAS and GALICIA are westward continuations of the north mountain region to the open and broad waters of the Atlantic. But in the last-named district, the coast-line bends gradually round to the south, and in that direction connects itself with the

sea-board of Portugal. It includes the most northerly point of Spain, or Cape Ortegal, and the most westerly, or Cape Finisterre. The latter is a bluff headland of granite, stern and savage, projecting from an iron-bound coast, but broken at intervals by bays and firths running far into the land, containing space and depth of water for the largest fleets. Though the interior country is almost everywhere rugged, the sides of the mountains are clothed with luxuriant woods, the valleys are abundantly fruitful, and streams with short courses are numerous, which serve to irrigate the soil, though not susceptible of navigation. The principal river, the Minho, flowing between high, precipitous, forest-clothed banks in the upper part of its course, forms in the lower the boundary from Portugal.

Oviedo, the chief town of Asturias, is about nine miles from the coast, where *Gijon* forms its port, from which shipments are made of local produce. It has a cathedral, a university attended by about 500 students, several other educational institutions, a theatre, eleven public fountains, and two aqueducts. When nearly all Spain was in the hands of the Moors, the Christian clergy found an asylum here. *Corunna*, a fortified seaport, on the north Galician coast, occupies one side of a spacious bay, and contains 20,000 inhabitants, but has suffered in its commerce by the rise of Santander. A tobacco manufactory here employs upwards of 2000 hands, chiefly women, and produces annually 300 tons of cigars. The town is of interest to Englishmen from the battle fought on the adjoining heights in 1809, in which the French were defeated by the troops under Sir John Moore, who fell in the hour of victory. His tomb, marked by a chaste monument, is in the centre of an old battery, now a planted enclosure. *Ferrol*, on the opposite side of the bay, is one of the principal naval arsenals, with vast docks and basins of noble execution. They are of little present use, except to tell of the bygone maritime power of Spain, when armadas sailed from her ports, and war-galleons brought into them the wealth of Mexico and Peru. *Pontevedra*, on the west coast, surrounded with groves of fruit-trees, contains splendid convents and public edifices, but all in a state of great decay. *Vigo*, to the southward, is distinguished by one of the finest natural harbours in the world, protected by lofty and steep hills on all sides except the west, the outlet to the Atlantic. In the middle of this channel rises a huge rocky island, which breaks the swell of the ocean, prevents the billows from pouring through it in their full violence, admits of the largest ships passing on either side, while the interior waters are deep, still, and lake-like. *Santiago de Compostella*, once the capital of Galicia, and still its largest town, with a population of 29,000, occupies an inland site. It is famed for a venerable and majestic cathedral, the reputed resting-place of St James the Elder, the patron saint of Spain, and the subject of many a wild tale recorded in prose and verse.

' When terrible wars had nigh wasted our force,
All bright 'midst the battle we saw thee on horse,
Fierce scattering the hosts, whom their fury proclaim
To be warriors of Islam victorious Saint James !'

The Galicians, commonly called Gallegos, are a robust and industrious race, accustomed to travel in search of employment. Many are found in Madrid acting as water-carriers and general porters.



Cape Finisterre.



Seville.

III. EAST AND SOUTH MARITIME REGIONS.

Old Divisions.	New Provinces.	Principal Towns.
CATALONIA,	Barcelona,	Barcelona, Mataro, Sabadell, Manresa.
"	Gerona,	Gerona, Rosas, Olot, Figueras.
"	Tarragona,	Tarragona, Tortosa, Reus, Valls.
"	Lerida,	Lerida, Cardona, Urgel.
VALENCIA,	Castellon de la Plana,	Castellon de la Plana, Peniscola, Vinarosa.
"	Valencia,	Valencia, Alcira, San Felipe, Murviedro.
"	Alicante,	Alicante, Alcoy, Orihuela, Elche.
MURCIA,	Murcia,	Murcia, Cartagena, Lorca.
"	Albacete,	Albacete, Chinchilla, Hellin, Almanza.
GRANADA,	Almeria,	Almeria, Huercalovera, Berja.
"	Granada,	Granada, Loja, Motril.
"	Malaga,	Malaga, Antequera, Ronda.
ANDALUSIA,	Jaen,	Jaen, Ubeda, Baeza.
"	Cordova,	Cordova, Lucena, Montilla, Cabra.
"	Seville,	Seville, Eeija, Osuna, Carmona.
"	Huelva,	Huelva, Valverde, Palos.
"	Cadiz,	Cadiz, Xeres, San Lucar, Algesiraz.
BALEARIC ISLES,	Palma,	Palma, Port Mahon.

CATALONIA, a north-eastern district, extends from the Pyrenees along the coast of the Mediterranean to below the Ebro, embraces the lower course and mouth of the river, and is bordered westward by Aragon. The main route over the mountains from the French side, by the Col de Perthus, though less wildly picturesque than most of the other passes, abounds with striking scenery, in which steeps crowned with ruined strongholds are

prominent, and stone-pines clothing the lower slopes. Pompey led the Roman legions across it, and was soon afterwards followed by Cæsar with his army. Both erected commemorative trophies, but no trace of them remains. A mountain stream, a stone bridge, two white posts on either side of the road, some wild-looking douaniers and their tenements, mark the frontier. On descending the Spanish slope, cork-trees are everywhere abundant, and wide-spread plains are overlooked extending along the shores containing rice-grounds and varied cultivation, while the whistle of the railway from Barcelona is heard. This is destined eventually to meet the French line on its advance from Perpignan, and will so far realise the object which invading armies attempted in vain to achieve, to which political ambition gave expression in the vain boast, 'The Pyrenees are no more.'

Barcelona, the second city of the kingdom in population, 252,000, is seated on the Mediterranean, has been for ages a place of importance, and is at present distinguished by extensive commerce and manufactures. It is in regular steam-communication with the other Spanish ports, the Balearic Islands, and Marseille. The site is a rich plain watered by many small streams, surrounded by swelling hills, with a delightful climate. From the port, the Rambla extends through the centre of the town, a beautiful street nearly a mile long, bordered with trees and seats, and lined on each side with the best shops, the principal hotels, and public offices. Narrow tortuous thoroughfares radiate from it, occasionally opening upon small plazas with fountains, at which groups of peasants may be seen watering their mules, or carrying off the contents in elegant-shaped earthen vessels on their heads for domestic use. Woollen mantas are worn by men of the middle classes, striped with rich and brilliant colours, scarlet predominating. Ladies appear in dark silk dresses, occasionally with French bonnets, but Spanish eyes are not yet accustomed to hats for females. A few in the streets, worn by travelling-parties, have been viewed with mute astonishment. Beautiful lace is made in the surrounding villages in pieces, which are sewn together in the town establishments. Barcelona is the see of a bishop, possesses a university, eight colleges, several scientific institutions, and four public libraries, one of which is very rich in MSS., archives of the kingdom of Arragon. The town received its name from its founder, or restorer, Hamilcar Barca. *Mataro*, a seaport northward, with the inland towns of *Sabadell*, *Manresa*, and *Lerida*, all on the railway from Barcelona to Saragossa, are prosperous manufacturing sites. Crowds travel the railway in summer as far as the Monistrol Station, intent upon a visit to the holy mountain, *Montserrat*, some impelled by curiosity, the majority on pilgrimage. Its singularly beautiful mass rises abruptly out of an undulating country, covered with pines and brushwood. It is remarkable for its jagged peaks, to which the name refers, and also for its flora, the lower part being clothed with myrtle, arbutus, and boxwood, redolent with lavender, wild rosemary, and thyme. The ascent commands grand and extensive views. At the height of 3000 feet stands the far-famed and much-revered monastery, named after the mountain, now in ruins, except a part occupied by some Benedictine monks, who keep a school for children of the higher ranks, and the church. A black image of the Madonna, with a splendid dress and wardrobe, is the grand attraction, visited daily by from 200 to 300 pilgrims in fine summer weather. *Gerona*, a fortified inland town, north-east of Barcelona, distinguished by its gallant resistance to the French in 1809, is graced by a grand cathedral on the summit of its hill, approached by a flight of eighty-six steps, but is otherwise dreary and dilapidated. *Tarragona* and *Tortosa*, seaports in the southern part of the province, are of ancient date, with remains of the Roman age in their vicinity.

VALENCIA and **MURCIA**, two provinces in succession southerly, consist chiefly of a series of rich and extensive plains, which, from ample irrigation, being watered by the Guadalaviar, Xucar, Segura, and other streams, are under a rotation of crops all the year round. Oranges, olives, lemons, figs, grapes, and pomegranates are cultivated; groves of date-palms adorn the surface; and fields of maize, with rice-grounds, are numerous. But some of the most fruitful tracts are fever haunted, from the prevalence of malaria; and hundreds of the inhabitants annually fall victims to it.

The city of *Valencia* is delightfully situated on the banks of the Guadalaviar, three miles above its entrance into a spacious bay, from the surface of which its aspect is quite oriental, owing to the number of the domed churches and campaniles. It is one of the finest and busiest places in Spain, contains a population of 145,000, possesses extensive silk and cloth manufactories, with printing establishments, and has the most frequented university in the kingdom. Moorish walls remain, which are passed by eight massive gateways. The streets, narrow and winding, are smoothly paved and kept beautifully clean, two rare features in the economy of the towns. Some of the best examples of Juanes, the Valencian painter, are in the cathedral, from the bell-tower of which a fine view of the city and its environs is obtained. An adjoining chapel, dedicated to Our Lady of the Unprotected, *Nuestra Señora de los Desemparados*, contains an image of the Virgin blazing with jewels. In the *Glorietta*, an attractive public garden, all the beauty and fashion of Valencia appear daily towards sunset. The markets are of special interest. Mules and donkeys decked out with worsted

tassels and trappings of every hue, carrying panniers of golden fruit, form, with the attendant peasants, picturesque groups for the artist. *Peníscola*, *Castellón*, and *Murviédro* are northern seaports, the latter on the site of Saguntum, a Roman town, destroyed by Hannibal on his march through the country. *Alicante*, on the south, has a striking appearance from the sea, being situated at the base of a high rock crowned by a citadel. It is in direct railway communication with Madrid, 280 miles distant, forms its port, and is increasing thereby in commercial importance. Palm-forests appear in connection with *Elche*, about eighteen miles inland. The date-palm is here cultivated for its fruit; and is so profitable that the plantation is rapidly extending, already spread over an area of ten square miles. The trees are mostly set in rows around squares of ground about a quarter of an acre each, in which corn, lucerne, and pomegranates are raised. Some are arranged in beautiful avenues, with a broad footpath between the rows. A portion of the produce is now exported to England and elsewhere as African dates.

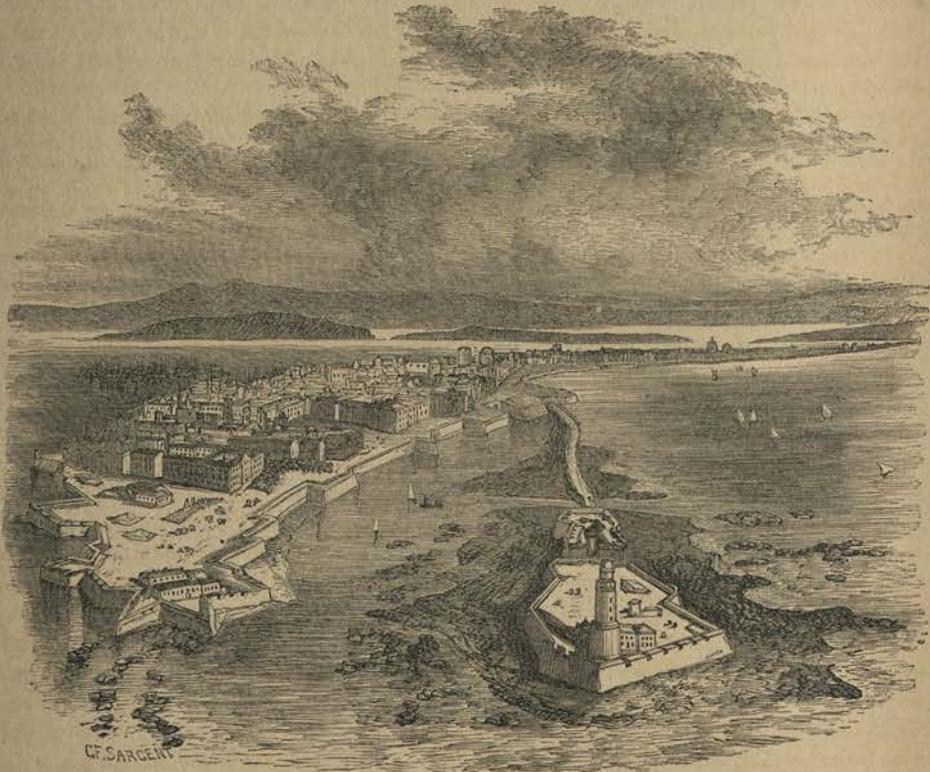
Murcia, an inland city, is seated on the Segura River, and contains 109,000 inhabitants, a cathedral, episcopal palace, and three colleges, with establishments of the government for the preparation of saltpetre and gunpowder. *Cartagena*, or Carthage, a principal naval arsenal, is situated on one of the most land-locked harbours of the Mediterranean, now comparatively deserted. The name originated with its Carthaginian founders, who called it New Carthage, but the offspring never bore any resemblance in extent and commerce to the mother-city. In the background of the town two remarkable round-topped hills rise from the plain, famous as the positions of Scipio and Asdrubal, at the head of Roman and Carthaginian armies, during a sanguinary battle.

GRANADA, the last of the Moorish kingdoms in the peninsula, and ANDALUSIA, in which it is now included, form an extensive province on the south coast, which has towards its centre the projection occupied by the rock-fortress and town of Gibraltar, a colony of Great Britain. The interior, belonging principally to the basin of the Guadalquivir, has the Sierra Morena on its northern border, and the snow-covered peaks of the Sierra Nevada in the more maritime region. It is rich in minerals, varied vegetation, interesting sites, and historical associations, while containing several important cities of the present day. Andalusia is an Arabic softening of Vandalusia, the name given to the south of Spain upon its conquest by the Vandals.

The city of *Granada*, with its Moorish towers, gateways, narrow streets, and wild-looking gypsies among the population, stands on the arrowy Darro, at its junction with the Xenil, and contains about 100,000 inhabitants. The site is a plain renowned for its beauty and fertility, at the height of 2000 feet above the sea, bordered on the southern side by the snow-mountains, which are in full view at the distance of twenty miles, and contribute to the richness of the vegetation by the streams they originate. The cathedral, built on the site of an ancient mosque, has a chapel containing the splendid alabaster monuments of Ferdinand and Isabella, side by side, who wrested Granada from the Moors in 1492, and the equally beautiful monuments of their daughter Juana, and her husband Philip of Burgundy. The far-famed Alhambra, the palace of the Moorish sovereigns, a mile and a half from the city, is its great charm and point of interest, recently admirably repaired. This congeries of buildings, remarkable for interior decorations, is placed on a bluff rock, the ascent of which is through groves of oranges and poplars. The Xeneralife, a kind of pleasure-house, is half a mile distant, in the midst of grounds furnished with streams, tanks, fountains, and avenues of ancient cypresses. Among the gypsies of Granada, who occupy a particular quarter, and are troublesome beggars, the women are distinguished by their shining coal-black hair, polished mahogany-tinted skins, and picturesque attire. *Malaga*, on the coast, highly commercial, with a population of 113,000, and a balmy winter climate, is situated at the head of a bay, surrounded by a country producing wines and raisins, almonds and other fruits, in the exportation of which its trade principally consists. Vine-clad hills appear in the neighbourhood, with the farms of the peasantry, and the yards or floors on which the raisins are prepared. These yards are small spaces surrounded by a wall a foot high, placed on a slope facing the sun. The inside is strewn with sand, and divided into compartments by narrow footpaths, between which the bunches of grapes are laid to dry, after being previously allowed to wither a little, by having the stalk half cut through on the parent stem before being gathered. They require from ten to fourteen days to dry, and are then sent packed in boxes to the merchants in the town. Christmas is a time of high festivity at Malaga. Turkeys are the fare of all families who can afford it, large flocks of which are driven in by the peasants with long bamboo-canes in their hands. The scene in the cathedral on Christmas-eve changes from the solemn to the ludicrous. After midnight mass has been celebrated, the organ peals forth, and successively imitates the sounds in the manger—an infant's cry, the cock's crow, the donkey's bray, and the ox's low.

Seville, the chief city of Andalusia, and the third in Spain in population, 152,000, is seated on the left bank of the Guadalquivir, about 45 miles above its mouth, 212 miles south-south-west of Madrid, and has steam navigation to the Atlantic. An iron bridge across the river leads to the suburb of Triano, chiefly occupied by gypsies and the lower classes. In this suburb the founders of the Inquisition fixed their first tribunal, in 1481. On the flat adjoining plain remains of a square platform may be traced, the *Quemadero*,

or burning-place, scene of many a tragic *auto-da-fé*. Seville is the residence of many old families of nobles, gentry, and merchants, who appear in handsome equipages on fine evenings on the drive along the river. It contains a vast cathedral, in which are some of Murillo's best paintings, an immense palace of the Moorish kings, a spacious arena for bull-fights, and the beautiful new residence of the Infanta, and her husband, the Duke de Montpensier. Its importance in popular esteem appears from the proverb, *Quien no ha visto Sevilla no ha visto maravilla*—('He who has not seen Seville has not seen a wonder'). The chief trade is the export of oranges, and the manufacture of tobacco. The latter, a government monopoly, as elsewhere throughout Spain, is conducted in an establishment employing several thousand persons, and turns out an enormous quantity of cigars. There is also a government factory for making rifled cannon, fitted up with machinery imported from England. *Cordova*, 70 miles higher up the Guadalquivir, old and renowned, now decayed yet interesting, was once the capital of the Mohammedan dominions in Spain, the seat of a rival califate to those of Bagdad and Cairo. A fine Roman bridge crosses the river, and a Moorish mosque forms the cathedral, the interior of which is profusely decorated with coloured marbles, sculptured and gilt. The place was formerly celebrated for the manufacture of a superior kind of leather, called *Cordovan* from the site, whence the French *cordonnier*, and the English *cordwainer*, applied to the shoemaker.



Cadiz.

Cadiz, a fortified seaport, is seated upon a projection of the Isle de Leon, close to the coast of the Atlantic, between the mouth of the Guadalquivir and the Strait of Gibraltar. Though not so important since Spain lost her American colonies, there is still much life and bustle in the streets, considerable commerce in the export of wines, and a population of 71,000. It is one of the oldest towns in Europe, having been built by the Phœnicians, under the name of Gaddir, about 1100 B.C.—nearly a century before the time of David, king of Israel. From the Carthaginians, it passed into the hands of the Romans, who called it *Sades*, whence its modern name. Southward lies Cape Trafalgar, a bluff headland, not of any great height, the scene of Nelson's naval victory and death. Northward is the port of *San Lucar*, from which Magellan sailed on the first voyage of circumnavigation; and the little town of *Palos*, a more memorable spot, from which Columbus set out to discover transatlantic realms. From the latter may be seen the belfry of a convent in ruins rising above a clump of pines, before the porch of which, in the earlier part of his life, Columbus stood, faint and weary, to ask bread and water of the inmates. *Xeres*, thirty miles

inland from Cadiz, remarkably well built, is a principal *dépôt* for the wines called sherries, from the name of the town, which is pronounced *Shares*. The cellars of the chief merchants are of immense extent, and have a constant stock of several thousands of pipes, arranged in rows like streets. The wines are of various quality and age, amounting in some instances to upwards of a century. Owing to the railways, large quantities of wine are now brought down from the interior of the country to Xeres, to be turned into sherry for the English market, by the admixture of spirits, with other treatment. *Algesiraz*, a dilapidated Moorish town, with a half-deserted port, is known from its position, which overlooks the Bay of Gibraltar from the western side.

The BALEARIC ISLANDS, forming one of the modern provinces of the kingdom, lie off the east coast, and have regular steam communication with Barcelona and Valencia. They consist of Majorca, centrally placed; Minorca, on the north-east; Ivica, on the south-west; and Formentera, adjacent to it, with several others of insignificant extent. They are rich in olive and orange groves, produce various other fruits in abundance, and have a temperate and healthy climate. The inhabitants are cleanly in their habits, and favourably disposed towards the English, having been under the control of Great Britain in the last century. Many of them speak English, and it is still taught in several of the schools.

Majorca, the largest island, about the size of the county of Wilts, has a hilly surface, and is wholly overlooked from the northern side by the Silla de Torillos, which rises to 5000 feet above the sea. *Palma*, the chief town, on a bay of the south coast, contains 40,000 inhabitants, has some silk and woollen manufactures, with a huge palace in the vicinity formerly occupied by the Inquisition. But *Port Mahon*, on the eastern side of Minorca, a much smaller place, is the residence of the military governor, possesses regular fortifications, and a splendid harbour.

The Canary Islands, off the south-west coast of Marocco, are considered an integral portion of the monarchy, and form one of its modern provinces, making the total number forty-nine. In this volume they are noticed in connection with Africa, being among its insular appendages.

The Spanish foreign possessions consist of Ceuta and its dependencies on the Barbary coast, to which criminals and political offenders are deported; Cuba, Porto Rico, with a portion of Haiti, and two of the Virgin Isles, in the West Indies; part of the Philippine and the Ladrone Islands in Oceania.

The original inhabitants of the peninsula are supposed to have been Celtic tribes from Gaul. But more than a thousand years before the Christian era its southern shores were known to the Phœnicians, who planted colonies upon them, and were followed at a later date by the Carthaginians. The latter overrun a considerable portion of the interior, but were mastered by the Romans, who incorporated the whole country in their empire. Upon the fall of the imperial power, the Vandals, Suevi, and Visigoths successively appeared as conquerors within its limits, founding various monarchies, till the Moors or Saracens came over from Africa in the early part of the eighth century, or the year 711. The newcomers drove the Goths to the northern mountains, took possession of the southern and central provinces, introduced the arts and sciences of Arabia, and remained more or less dominant through seven centuries, but were gradually weakened by civil wars, voluptuous indulgence, and the arms of their northern neighbours. At length, by the union of the two principal Christian kingdoms through the marriage of Ferdinand of Aragon with Isabella of Castile, a confederacy was formed too powerful to be resisted. The Moors were deprived of their last stronghold, Granada, in 1492, and were afterwards compelled by edict to quit the country. Ferdinand gave political unity to Spain, becoming its monarch from the Pyrenees to the Gibraltar Rock. He witnessed its external aggrandisement by the acquisition of transatlantic possessions through the discoveries of Columbus, and promoted religious intolerance internally by the establishment of the Inquisition. From the foundation of the kingdom to the present century, the infamous tribunal reigned in all its terrors; and the form of government remained perfectly absolute, yet subservient to a host of monks and priests, who monopolised the wealth of the country without contributing to its welfare. After various struggles and vicissitudes, in 1833 a constitution was adopted, which, subsequently modified, now vests the right of legislation in the

sovereign and the Cortes, or national assembly, while the convents have been suppressed, the Inquisition abolished, the property of the church confiscated, and the clergy made stipendiaries of the state. But the Roman Catholic religion is still the only tolerated form of faith; penalties are inflicted upon natives dissenting from it; and foreign Protestant residents have with difficulty obtained the concession of the ordinary rites of sepulture. Public instruction only exists to a very limited extent, but is advancing through the efforts of the government and voluntary associations; and after a long period of depression, the general interests of the country are now in the ascending scale, a result to which the introduction of railways has contributed, though lagging far behind the majority of European states in the march of improvement.

Spain contains a population of rather more than 15,000,000, only a small number in comparison with the extensiveness of its area. The people are very unequally distributed, chiefly found in the north, east, and south-east maritime regions, while a large proportion of the high central tract is as solitary as the wilderness. Four distinct families may be discriminated—the Spaniards proper, who form the main mass of the people; the Biscayans or Basques, previously noticed, on the western skirts of the Pyrenees; some remnants of the Moors in the southern provinces; and the Gypsies or Gitanos, in various localities, numbering about 40,000, who have fixed habitations and employments, though addicted to temporary wandering. The Jews, who once formed a considerable body, were banished the kingdom by Ferdinand of Castile on religious grounds, and compelled to scatter themselves over Europe, many of whom finally settled at Constantinople, but a few have reappeared in the British colony of Gibraltar.

The Spaniards proper are a mixed race, descended from the original Celtic tribes, intermingled with Carthaginian, Roman, Gothic, and Moorish blood. They differ therefore to some extent provincially in dialect, appearance, temperament, and habits. The standard Spanish language is the tongue of Castile, spoken there in its purity; but so widely known as to have become national, being now taught in all the schools throughout the peninsula, while instruction in the provincial dialects is strictly prohibited by the central government. It is the idiom of the court and of literature, manifestly derived from the Latin, but with a considerable admixture of Gothic, and more especially of Arabic words. The sixteenth century, which produced Cervantes, the author of *Don Quixote*, and Lope de Vega, the dramatist, was the flourishing age of literature in Spain, after the golden era of Arabic learning. In Catalonia, Valencia, and the Balearic Isles the dialect of the lower classes corresponds somewhat to the language of the old troubadours in the south of France. In Galicia, the popular speech occupies a middle place between its parent, the Spanish, and its offspring, the Portuguese.

Great variety distinguishes the inhabitants of the peninsula in temperament and manners, with not a little discordance. The Castilians are characteristically proud and taciturn, formal in their deportment, temperate in their diet, piquing themselves upon their high sense of honour. Those of fair complexion are deemed the purest Spaniards, being without the dark or Moorish tinge. They constitute the class called *hidalgos*, and are entitled to the appellation of 'Don,' with other privileges. The Asturians, Biscayans, and Catalans are of lively, social, fiery, and independent spirit, free and easy in their manners, placing themselves upon a perfect equality with the members of every company. A common labourer or mechanic, with a handkerchief around his brow, or hempen sandals on his feet, will ask a light for his cigar from the most fashionably dressed on the public promenade, as a matter of course. Until a recent date, the Catalans were notoriously given to smuggling and brigandage, accustomed to lie in wait for *grandees* and merchants of Barcelona, kidnapping them in order to exact a ransom.

Frugality and honest industry are features of the Galicians; indolence and insincerity of the Estremadurans and Murcians; while the Valencians and Andalusians are imaginative, vain, and vivacious, careless, though reduced to poverty, prone to plotting, and vindictive. But however differing in national character, the great body of the people are united by a variety of common tastes, and an appetite for the same amusements. Singing, music, and dancing are in favour with all classes, often conducted by the peasantry in shady sequestered spots, as an interlude amid the toils of the day, or a recreation at eventide when labour is over. The charming climate admits of much indulgence of this kind out of doors. It has been said that if the *bolero*, a national dance, were to be struck up in any of the churches and courts of law, the very clergy and judges could not refrain from joining in it.

High and low, young and old, male and female, are passionately attached to the bull-fight, a brutalising sport derived from the Romans, and one of the dark blots upon the Spanish character. Every town of consequence has its arena for the so-called combat, in which the animal has no more chance with his numerous assailants than a rat turned out to be worried by a pack of dogs. Great effect is given to the spectacle by the gay and gorgeous dresses worn by the parties engaged, at which even the priests appear, though not, as formerly, in full canonicals, but in disguise. The suit of the matadors or killers is usually made of one colour, either crimson, pale sea-green, violet, or blue, according to taste, adorned with gold and silver braid, spangles and tassels. Sunday and Monday are the great bull-days.



Elvas.



Lisbon.

CHAPTER II.

PORTUGAL.



PORTUGAL, the most westerly portion of the European mainland, once of high rank among its states, now one of the least influential of its kingdoms, has a very limited area, not much exceeding that of Ireland, enclosed by Spain on the north and east, and by the Atlantic on the west and south. The inland frontier is defined by artificial lines and the larger rivers in parts of their courses, but chiefly by insignificant streams, according to the indication of the national poet, Camoens in the *Lusiad* :

‘ And scarce a name distinguisheth the brook,
Though rival kingdoms press its verdant sides.’

The country is about 360 miles in length from north to south, but nowhere reaches 150 miles in breadth, while the area only slightly exceeds 35,000 square miles. Its shores are historically celebrated as the starting-point of the expeditions which first explored the western coast of Africa, disclosed the maritime highway to India, and effected the discovery of Brazil, which long remained a Portuguese colony. Among the prominent headlands, Cape Roca, a well-known sea-mark

a little to the north of the mouth of the Tagus, has the distinction of being the extremity of the continent of Europe to the westward; while Cape St Vincent, a promontory in the south-west, has given the title of an English earldom, in honour of the victory of Sir John Jervis over the Spanish fleet in 1797, in its neighbourhood. Salt-marshes form part of the coast-line, but it is generally bold and rocky, has few inlets of consequence, and the harbours formed by the estuaries of the rivers are all obstructed by dangerous bars at their mouths. The general surface is agreeably diversified, and exhibits very striking landscapes in many places, rich, too, with fruits, foliage, and flowers, though extensive tracts occur, both of hill and plain, which have a very desolate appearance from the want of grass, the neglect of cultivation, and the presence of no other trees but the monotonous and melancholy-looking olive.

Three chains of mountains cross the frontier from Spain, and follow a diverging course to the sea, occupying considerable spaces with their offsets. The most northerly of these, called the Sierra d'Estrella, 'starry mountain-range,' attains the greatest height, but probably nowhere exceeds the elevation of 7000 feet. In the maritime district it forms the hills of Torres Vedras, memorable in the campaigns of Wellington, with the precipitous granite crags of Cintra, one of which is crowned by the convent of La Pena, 'Our Lady of the Height,' now a royal abode, and terminates on the coast in Cape Roca. A central range forms the southern boundary of the basin of the Tagus, and meets the ocean at Cape Espichel. A southern chain, connected by offsets with the preceding, is a continuation westward of the Sierra Morena of Spain, and breasts the Atlantic at Cape St Vincent. Three principal rivers likewise enter the country from the sister-kingdom, the Tagus, Douro, and Guadiana, the two former passing to the west coast, and the latter flowing to a southern strand. On the north, the Minho forms part of the frontier from the Spanish province of Galicia, and has the chief part of its course beyond the border. The Mondego, the most considerable stream entirely Portuguese, drains a portion of the country immediately north of the Sierra d'Estrella; and the Sadao, similarly native, traverses a southern district between the mountain-chain of the south coast and the Bay of Setubal.

In its climate and botany Portugal corresponds generally to Spain, but has a greater rain-fall, especially in the lower part of the Mondego valley, and from thence southward to Mafra, where the showers in autumn rival for copiousness those which descend within the tropics. But through the greater part of the year the face of nature has everywhere a brown, sunburnt, and sombre appearance. Among the vegetable products, the vine, olive, orange, lemon, citron, aloe, and fig, with orchard fruits and water-melons, are found throughout the country; the stone pine and cork oak are characteristic trees in many districts; aromatic plants are numerous; and in the extreme south the date-palm appears and flourishes. Solitary dwellings of peasants, low and gloomy like those in eastern lands, are often seen attended by a single fig-tree of huge size. Hedges of aloes commonly separate the vineyards, and fence the cultivated fields, sending up at intervals a tree-like stem, crowned with a flower. The vine is the prime object of industrial care, trained around poplars and oaks planted for the purpose, from the branches of which it hangs in graceful festoons, after the beautiful manner adopted by the ancients. It is also trellised at the height of ten or twelve feet from the ground, and forms delightful walks and arbours in the gardens of towns and villages, which offer a shady retreat during the heat of the day. But in the great wine-producing district, the plant is raised on terraces and carefully kept low, the branches being tied to stakes; and it is likewise grown extensively without support, and with little care in rows in the fields, where it is left chiefly to the direction of nature. In this case, when loaded with fruit,

much of it inevitably lies upon the ground, and contracts a peculiar earthy taste. The principal wine region is on the Upper Douro, and extends along both its banks upwards of forty miles by a general breadth of twelve miles, where the climate is cold in winter, but excessively hot in summer. In the vintage season, which usually begins towards the close of September and lasts about a month, the fruit is cut by women and children of the neighbourhood, but Gallegos annually pour in from Spain, to the number of several thousands, by whom the grapes are trodden. They also migrate into the district at the period when labour is required to turn up the soil around the vines. The olive is next to the vine in prominence, its oil figuring in the daily fare of the people, and maize is the general crop for their bread.

In point of mineral wealth Portugal ranks high, possessing stores of iron ore, copper, lead, tin, quicksilver, and antimony, with carboniferous strata; but these elements of national prosperity are only turned to account to a very insignificant extent. In fact, in almost all the great branches of industry, whether mining, manufacturing, or agricultural, the country lags behind every other European state. To this result many causes have contributed, as the selfishness of the government, the pride of the upper classes, the ignorance of the people, the general misery consequent on repeated political convulsions, and the abundance in which productions are raised with little labour—fruits, wine, and garden vegetables—owing to the fertile soil and delicious climate. In former ages, the nobility were prohibited from engaging in commercial pursuits as degrading to their order—a rule observed wherever feudalism was established. But in Portugal it was carried to such a ridiculous extreme, that persons of rank were not to reside longer than three days in any trading city or port, on pain of summary ejection by officers of the law. Though a new race of nobles has now risen up, the offspring of the civil wars, who deal freely in the wine trade and monetary transactions, yet the representatives of the old stock keep aloof from such proceedings, and while the two classes mingle in society, they do not amalgamate. Both the upper and the middle ranks, divided into hostile political factions, on the side of constitutionalism and arbitrary power, have been too much absorbed with their respective party interests to attend to public improvements, even if sufficiently well informed to apprehend their value. Hence the backward condition of the kingdom, almost everywhere stupidly surrendered to the rule of custom. Implements of husbandry remain of the rudest description; drainage, manurés, ordinary ploughs, the rotation of crops, and other appliances of modern agriculture, are wholly unknown; more than half the land is uncultivated; and most of the native vine-growers prefer to produce an inferior class of wines, when those of better quality might be obtained by attention to the art of culture in relation to the soil, the plant, and its position.

Till very recent years, Portugal was entirely without tolerable means of internal communication, except for short distances in the neighbourhood of the two chief cities, Lisbon and Oporto. Several lines of railway now diverge from the capital, and are in process of extension. But in other parts of the country there are no high-roads, or public conveyances of any kind; and travellers can only move from place to place on mules or on horseback, or in sedan-chairs suspended between the animals. Canals being also unknown, heavy goods are conveyed in bullock-carts, and the lighter either on mules or the backs of Gallegos. Navigation by the rivers can scarcely be said to exist, except on the Douro, where, however, it is obstructed by rocks, sand-banks, and the rapid current; and on the lower course of the Tagus, which is ascended up to a little above Lisbon by the largest merchant-vessels and men-of-war.

For administrative and electoral purposes Portugal, exclusive of its insular, African, and Asiatic possessions, is distributed into nineteen districts, but six principal geographical

divisions or provinces have long been recognised, and are commonly referred to in familiar intercourse by natives as well as foreigners.

Provinces.	Chief Towns.
Estremadura,	Lisbon, Cintra, Torres Vedras, Santarem, Setubal.
Alemtejo,	Evora, Elvas, Castello de Vide, Estremoz.
Algarve,	Faro, Portimao, Lagos, Sagres.
Beira,	Coimbra, Lamego, Viseu.
Entre Douro e Minho,	Oporto, Braga, Penafiel, Viana.
Tras-os-Montes,	Braganza, Chaves, Villareal.

ESTREMADURA, the second largest province, is a maritime district extending nearly 200 miles along the Atlantic. It embraces the lower part of the basin of the Tagus, and the country for some distance both north and south of its mouth, with the valleys of several affluents. The surface is in general finely diversified, in many parts extremely fertile, producing wine, oil, fruits, corn, and cork, while various flowering and fragrant plants, the cistus, rosemary, and myrtle, flourish on the uncultivated sandy tracts. Earthquake shocks of the slighter kind have often been experienced, and the whole of the coast region was specially convulsed by the terrible visitation of the last century which laid the capital in ruins.

Lisbon (called by the Lusitanians, *Olisipo* or *Ulisippo*, and by the Moors *Lishbuna* or *Ashbuna*), the metropolis of the kingdom, is finely placed on hills lining the northern shore of the estuary of the Tagus, and in their intervening valleys, in latitude 38° 40' north, longitude 9° 10' west. It contains a population of 275,000, extends from two to three miles, or, including the suburbs, about five miles, along the river, retreats about half the distance from its margin, and has a very striking appearance from its position, in which the Castle of St George, on the loftiest hill, is the conspicuous object. The stream, at its mouth, is not more than a mile in width, and has a bar at the entrance dangerous to be passed except under skilful pilotage. But above the city it is for some distance a magnificent expanse, and forms a harbour equally secure and spacious, capable of containing all the fleets of Europe. The newer portions of Lisbon, or those erected since the earthquake of 1755, consist of broad regular streets faced with good houses. Many residences of the nobility are huge, massive, and picturesque; and the dwellings of the rich merchants are handsome. But there are no attractive public buildings, and the main part of the capital is a maze of narrow, dirty, winding thoroughfares, crowded with miserable habitations, where 'hut and palace shew like filthily.' Cats are as numerous in the streets as dogs in Constantinople, and do the work of public scavengers. Every house of any size has its little garden or grape-terrace, with the vines trained on trellis-work. Wine and spirit shops abound; likewise those of jewellers and money-changers; and lottery-offices are very numerous. The manufactures are unimportant, except jewellery, wares of the precious metals, and trinkets. The water-supply is brought by an aqueduct—the Alcantara—from the Cintra Hills, a distance of seventeen miles, which crosses a valley close to the city on lofty arches, and discharges its contents in a beautiful edifice called the Mother of the Waters. This was completed in 1743, and will bear comparison with the greatest Roman works of the kind. It remained uninjured at the time of the great earthquake. The graves of Doddridge the divine, and Fielding the novelist, are in the English cemetery. In May 1853 the sod for the first railway in Portugal was cut by the queen, in the presence of the king and court, with a silver spade, at a spot in the vicinity on the margin of the Tagus. *Belem*, near the mouth of the river, a kind of fashionable suburb, where many opulent citizens reside, has a magnificent church in the mixed Gothic and Arabic styles, containing tombs of members of the royal family. It was erected by King Emanuel in 1499, in honour of the first voyage to India by Vasco di Gama, and is said to occupy the site of a humble chapel to which he repaired previous to his embarkation. Belem Castle, a massive tower on the margin of the river, Fort St Julian, and other defences, protect the seaward approach to the capital.

The great earthquake of Lisbon, on the 1st of November 1755, occurred about half-past nine in the morning. Three shocks were felt in quick succession, accompanied by three refluxes and fluxes of the sea. The whole interval was reckoned at from five to seven minutes. The king and royal family were at the time at Belem. The palace and public buildings fell with the first shock. At least 50,000 persons perished. The supposed point of greatest intensity was in the Atlantic, about 100 miles from shore. The area of concussion, or the space through which the shocks were propagated, formed an ellipse, the longer axis of which extended 2000 miles, from the Canary Islands to Abo in Finland. The shorter axis stretched from the north-west of Ireland to the head of the Adriatic. Memorials of the earthquake, chiefly ruins of churches and convents, are still to be seen in Lisbon.

Cintra, north-west of Lisbon, called the Portuguese Paradise, is celebrated for its beautiful scenes, comprising a town, palace, country villas, crags, stream, shady groves, and Moorish ruin. Here, Aug. 22, 1808, a convention was concluded between the French and English, by which the former agreed to evacuate Portugal. *Mafra*, further north, a large village, is distinguished by a palace, convent, and church, forming

a single edifice, the finest in the kingdom, erected by King John V., containing the most extensive library in Portugal. The convent is 730 feet in length, 690 broad, contains in all 866 rooms, and 200 windows, with about as many doors, and it is said 10,000 men could be reviewed on its roof. This vast building, however, now exhibits an air of desolation. The entrance is doorless; the rain patters in through the broken windows; suites of rooms are either vacant or very poorly furnished; and piles of wood encumber the spacious courts. *Torres Vedras*, a small town a few miles distant, gives its name to the heights fortified by Wellington in 1810, where he successfully resisted the approach of the French, and saved the capital. *Vimiera*, the scene of his first victory in the peninsula, is a village in the neighbourhood. *Setubal*, a maritime town, in the country south of the Tagus, with 15,000 inhabitants, is a place of shipment for wines, fruit, and salt.

ALEMTEJO, the most extensive division, is slightly washed by the Atlantic, but has its principal extension along the Spanish frontier, and forms naturally a rich portion of the kingdom, but is one of the least cultivated, and most sparsely peopled. In ancient times it was styled the Sicily of Spain, and it figured as the granary of Portugal in the middle ages. A few ranges of hills are clothed with chestnuts and other trees; but wood is generally scarce, and even shrubs, while plains covered with brown heath, lavender, and other aromatic plants, are characteristic of the surface. In the valleys, the cork oak, the evergreen oak, and the stone pine luxuriate, the latter having the greatest prevalence. The live-stock, for which the province was once renowned—embracing swine, goats, and sheep, and to a less extent horned cattle, asses, and mules—now exist in very diminished numbers, owing more to the paucity of population than to any failure of the pasture-grounds.

Evora, the chief town, very beautifully situated, about eighty miles east of Lisbon, is walled, entered by five gates, but could not resist a siege a single day. It is the see of an archbishop, has a cathedral founded in 1186, and a library of 50,000 volumes, with manufactures of hardware and leather, but possesses no present importance, though of interest as existing in the time of the Romans, when it was called *Ebora*, retaining many monuments of their age. These include a temple of Diana, with beautiful Corinthian columns, used till lately as a slaughter-house; an aqueduct; and a brick tower at its extremity, in very perfect preservation, decorated with Ionic columns and pilasters. *Elvas*, the largest town, with about 12,000 inhabitants, is reputed to be the strongest place in the whole country, situated near the Spanish border, within a few miles of Badajoz, of which it may be considered the military rival. It is perched on the top of a precipitous hill, surrounded by walls, a glacis, and covered-way, and further protected by formidable forts on adjoining eminences. An immense Moorish aqueduct, consisting of four tiers of arches built upon one another, the whole rising to the height of 250 feet, conveys water from a source three miles distant. Arms and jewellery are made, but the chief trade is the smuggling of British goods across the frontier into Spain, from which considerable wealth is derived. It was in 1659 the scene of a famous battle between the Spanish and Portuguese, called the Lines of Elvas, in which the latter were victorious. *Estremoz*, also a stronghold in the neighbouring country, but of inferior rank, is the seat of an earthenware manufacture, continued from the Roman times, the products of which preserve a purely classical design. Elegantly-shaped vessels, made of a porous clay, have the property of keeping water singularly cool, and are in use throughout the peninsula.

ALGARVE, the smallest and most southerly district, was once an independent kingdom of the Moors, but much more extensive than its present limits, comprehending a portion of Spain beyond the Guadiana, which forms the frontier. The name is Arabic, and signifies 'a land lying to the west.' It ceased to be a separate state in the middle of the thirteenth century, but its old style is retained in the designation of the existing monarchy, the kingdom of Portugal and Algarve. Being specially maritime, the climate is delightful, as the heat natural to the southerly position is mitigated by the cool sea-breezes. Fine fruits are raised, even dates and plantains; fisheries are prosecuted, and salt is manufactured. The spare population are reputed to be the best sailors and truest friends in the kingdom.

Faro, a small episcopal city and seaport, at the mouth of the Feroso, is the centre of an active fishery, and exports anchovies, fresh and dried fruit, wine, cork, and sumach. Blind persons are very commonly met with among the inhabitants, an affliction said to be occasioned by the light sandy soil of the neighbourhood. *Sagres*, an unimportant place, is of interest from its site, near the headland of Cape St Vincent, and as the residence of the prince, Don Henry, in the fifteenth century, the great promoter of discovery along the shores of Africa.

BEIRA, a province on the Atlantic, embraces the country in its entire breadth, extending

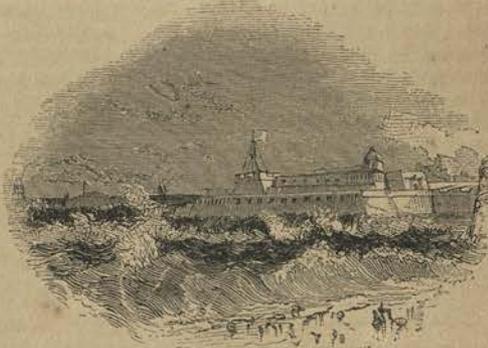
between the Tagus on the south and the Douro on the north, and includes centrally the whole basin of the Mondego. The surface is largely mountainous; plains of sandy soil occur far from fertile; but still an important supply of valuable produce is raised, with little labour and less skill, consisting of corn, wine, olive oil, flax, and various fruits. The culture of bees is also a prevailing industry, the honey and wax from which furnish many with their principal means of subsistence. A part of the province, lying along the bank of the Upper Douro, belongs to the port-wine district. There are no manufactures of the slightest consequence, but salt is made on the coast by the evaporation of the sea-water, and small quantities of iron, coal, and marble are wrought.

Coimbra, an episcopal city, picturesquely built round a conical hill rising abruptly from the right bank of the Mondego, is the largest place in the province, contains about 13,000 inhabitants, and is 110 miles north-north-east of Lisbon. It is the seat of a university, founded in 1537, the only one in the kingdom, which has eighteen colleges, with a library, museum, and observatory. It was attended in 1853 by 970 students, a large number of whom were Brazilians. The city was originally built by the Goths, from whom it passed into the hands of the Moors, and was finally taken in 1064 by Fernando the Great, aided by the gallant Cid. On the erection of Portugal into an independent kingdom, Coimbra was made the capital, and continued such for two centuries and a half. The average rain-fall in this locality exceeds that of any other place in Europe. The scene of Wellington's repulse of the French under Massena in 1810, at the village of Busaco, is about eighteen miles distant.

The most northerly maritime province, *ENTRE DOURO E MINHO*, 'between Douro and Minho,' has its position defined by the name. In proportion to its area it is the most populous portion of the country, the most fertile, and the best cultivated. It is also renowned for the beauty of its scenery, whence it has been called the *Paradise of Portugal*. A portion of the vale of the Lima is said to form the loveliest landscape in the world. Almost all the varieties of the agricultural produce are yielded within its limits; live-stock and game abound; and profitable fisheries are carried on along the shores and in the rivers. The Minho is celebrated for its fine salmon.

Oporto, on the north bank of the Douro, about two miles above its mouth, ranks next to Lisbon in population and commercial importance, but excels it in the extent and variety of its manufactures. It consists of well-built streets of white-washed houses; squares lined with trees, refreshed and adorned with fountains; and is connected by a handsome suspension-bridge with a suburb on the opposite side of the stream. The inhabitants number 80,000, and include a larger proportion of enlightened and liberal Portuguese than the capital. Hats, silk and linen goods, pottery, roperies, and ship-building are the prominent branches of manufacturing industry; but the main trade and dependence of the city is the export of wine, white and red, chiefly the latter, which has the name of *port* from that of the place, properly *Porto*. It is brought from the region of the Upper Douro, the great wine country, in flat-bottomed boats containing from thirty to seventy pipes each, which are stowed away in immense vaults for exportation. The vineyard proprietors and merchants are manufacturers rather than simply producers and exporters of wine, superadding to the juice of the grape a system of mixing and fortifying with spirit, which tends to produce an intoxicating rather than a purely exhilarating beverage. Even after its arrival in the Thames, the wine is often made to keep company with Masdiou, Benecario, Red Sicilian, and Red Cape before it enters the market with the pseudonym of port. Its consumption in this country is gradually lessening, and thereby manifests the more refined habits of the present age, and the altered style of our social customs. *Braga*, thirty-five miles north-east of Oporto, is a considerable town of 17,000 inhabitants, with manufactures of hats, jewellery, cutlery, and firearms. It is the residence of the primate of Portugal, who has a palace here. In the time of the Romans it was called *Bracara Augusta*, and the ruins of a temple, an amphitheatre, and an aqueduct still remain.

TRAS-OS-MONTES, 'beyond the mountains,' interior to the preceding district, is so called in relation to the Sierra d'Estrella range. It is the only principal division of the country



San Joas de Foy, Oporto.

which is entirely inland, and belongs on its southern border to the great region of the vine culture. Though the cradle of the existing royal family, this portion of the kingdom is very little known apart from its outskirts, being rarely entered by travellers, as there is scarcely a convenient route within its limits. But it is said to be replete with natural beauties of a high order, and abounds with wild animals, the boar, wolf, and wild cat, while birds of prey are numerous, with storks and herons.

Braganza, a small ancient city, with two castles, and manufactures of silk and velvet, gives its name as a title to the reigning royal family, descended from John, Duke of Braganza, who was raised to the throne in 1640. *Chaves*, a fortified town, possesses hot saline springs, with a temperature of 129° Fahrenheit, which were known to the Romans under the name of *Aqua Flavia*.

The AZORES, or Western Islands, situated in the Atlantic Ocean, belong to Portugal, form an insular province, and are accounted a part of Europe, as the nearest mainland, though about 800 miles distant from it. The group consists of San Miguel or St Michael, Terceira, Pico, San Jorgo, Flores, Fayal, Santa Maria, Gracioso, and Corvo, containing an area of 700 square miles, and a population estimated at 240,000. The islands are of volcanic origin, and subject to violent earthquakes. The coasts are steep and rugged; the surface is diversified with lofty mountains and deep ravines; the climate is temperate and healthy; and the soil almost everywhere extremely productive. The 'peak' of Pico, the loftiest summit, rises to the height of 7613 feet above the sea. In the sixteenth century the meridian of Terceira, 29° 10' west, was adopted by the Spaniards and Portuguese as their starting-point for the reckoning of longitudes. Columbus, previous to his great voyage of discovery, visited the Azores, and was confirmed in his conviction that there must be land across the Atlantic within accessible distance, from the drift of strange objects to the shores, and plants which could not be identified with the productions of any known district.

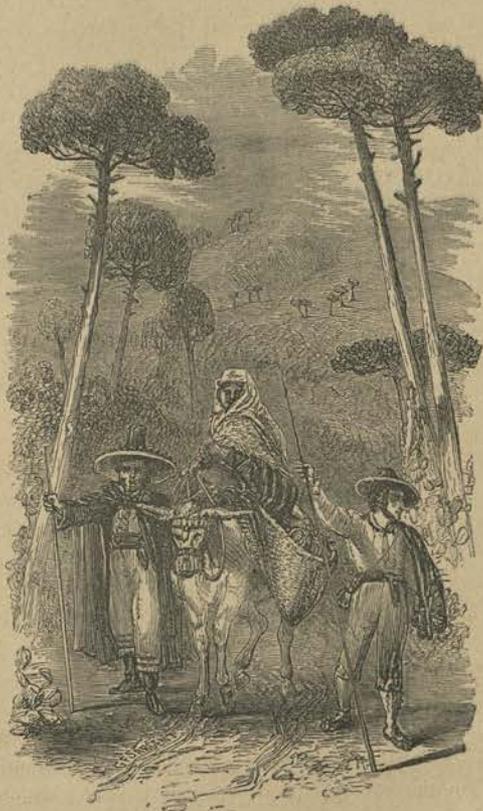
Angra, in the island of Terceira, is the seat of government, and possesses a military college, with various educational establishments and scientific and literary societies. But *Ponta Delgada*, in St Michael, is the commercial capital and the larger town, containing 16,000 inhabitants.

The principal products of the Azores are wines, oranges and lemons, maize, coffee, sugar, and tobacco. Both Terceira and Fayal annually export a considerable quantity of oranges, but St Michael is the great mart, and supplies the finest kinds. More than half the oranges imported into Great Britain come from the Azores, in exchange for textile fabrics and other manufactured articles. A single tree, on arriving at maturity, will produce annually, on an average, a crop of from 12,000 to 16,000; but growers have been known to pick as many as 26,000. The trees bloom in March and April; the fruit is gathered for the London market as early as November; and more than half the crop is shipped in that month and the following. But the natives never eat the produce till the end of January, by which time it possesses its full flavour. In 1859 it was estimated that the island of St Michael produced 252,000,000 of oranges and 40,000,000 of lemons. The total value of the fruit exported from thence to England in the year mentioned amounted to £84,000. But the orange trade of the Azores has been for some years severely depressed, owing to the low prices obtained in the foreign market.

The Foreign Possessions of the monarchy consist of the Madeiras and Cape Verd Islands, on the north-west coast of Africa; St Thomas and Prince's Islands in the Gulf of Guinea; the districts of Congo, Angola, and Benguela, on the western side of Southern Africa, with Mozambique on the eastern; Goa, Diu, and Damaum, small stations in India; Macao, in the neighbourhood of Canton in China; and a few settlements in different parts of the Malay Archipelago.

The kingdom dates from the year 1139, when Don Alphonso Henrique, after a signal overthrow of the Moors, was proclaimed by the army the first independent sovereign, under whose descendants the country attained its greatest political, commercial, and literary eminence. Brazil was occupied, the African coast was explored, the sea-route to India was traversed, and Camoens, the epic poet of the nation, flourished. The royal line failing in 1580, a short union with Spain followed, till a revolution placed the House of Braganza on the throne. The form of government, long absolute, is now constitutional, but with less power belonging to the crown than is usual with limited monarchies; and from various causes, some of which were unavoidable, as the attacks of the French, the

loss of colonies, and the rise of other European nations, the state has lapsed completely from its former consequence. Portugal, exclusive of its insular and foreign possessions, contained in 1863 a population of 3,693,000; but including these possessions, a population calculated at 7,720,000. The people are of the same lineage as the Spaniards, and speak a dialect originally of the same language, but now exhibiting so many peculiarities as to be more than dialectically distinct, including words, supposed to be derived from the vocabulary of Northern Africa, of which there are no traces in the Spanish. They are universally Roman Catholics in religion, subject to a clergy who, though deprived of the secular power and vast estates they once possessed, are still influential with the masses. The moral character of the Portuguese has been very unfavourably represented, and perhaps not untruly as it respects the town-dwellers. But the rural classes eminently exemplify the virtue of patience as a redeeming quality for their shortcomings. They are intensely poor; miserably clad, ill-housed, and wretchedly fed; rarely tasting animal food throughout the year; toil hard bareheaded in the burning sun; yet are attached to their employers, and bear their burden with content and cheerfulness.



Portuguese Peasants.



Lake Como.

CHAPTER III.

ITALY.



ITALY, the seat of ancient, and the mother-country of modern, civilisation, embraces the central peninsula of Southern Europe, with part of the mass of the continent, and many islands, several of which are of considerable size, of great natural interest, and economic value. Its northern boundary is formed by France, Switzerland, and the Tyrol, where the frontier is strongly defined by the grand chain of the Alps, while on the west and south rolls the Mediterranean, with its great arm the Adriatic on the east. The peninsular portion is a long projection inclining from north-west to south-east, comparatively narrow, and bifurcating at the south extremity into two much smaller straggling projections, between which lies the Gulf of Taranto. This outline of the country corresponds to that of a high-heeled boot, with the toe advanced towards Sicily, and the heel pointed towards Turkey. The coast-line is but slightly indented, except in the south, where also the shores are the most elevated

and rocky. Both on the eastern and western sides large maritime tracts are low and insalubrious. The country, measuring from the Alps, has an extreme length of about 700 miles, by a breadth of 300 miles in the north, or specially continental portion; but the average width of the peninsula is not more than 100 miles, which dwindles to 20 miles in the so-called heel and toe. The islands include Corsica, a department of France, noticed in connection with that country; Sardinia, Sicily, the Lipari Isles, Elba, and others of minor dimensions, are incorporated in the new Italian Kingdom; and the Maltese group, a colony of Great Britain, described under the head of British European Possessions. Mainland and islands are comprised between latitude $35^{\circ} 40'$ and $46^{\circ} 30'$ north; between longitude $6^{\circ} 30'$ and $18^{\circ} 35'$ east; and contain a total area of 121,000 square miles.

The High Alps environ the entire north with a mountain-girdle, clad with everlasting snow, which has a steeper inclination on the Italian than on the Swiss side of the chain. It presents to view from the plains of Piedmont the lofty summits of Mont Blanc, Monte Viso, Monte Rosa, the Matterhorn, and numerous others, strikes its roots into the interior to some extent, and originates a very varied landscape. But the Apennines form the characteristic highland system of the country. Starting from the extremity of the Maritime Alps, and winding round the Gulf of Genoa, the range traverses the whole peninsula to its southernmost point, somewhat centrally as its backbone, though with curvatures, which give it an entire length of not less than 700 miles. None of the summits reach the line of perpetual congelation, but the higher points are white with snow from October to June. The loftiest, Monte Corno, called also the *Gran Sasso d'Italia*, or 'Great Rock of Italy,' attains the elevation of 9500 feet, and is a fine object from the plain of Rome. Limestone is the predominant formation, often passing into marble, and granite appears in the south. About the latitude of Naples, the Apennines divide into two branches, one of which runs through the eastern prolongation of the peninsula to its termination in Cape di Leuca, while the other extends through the western to Cape Spartivento. This last branch reappears in Sicily, and forms its mountain system, where the volcanic cone of Etna rises to the snow-line, 10,874 feet above the Mediterranean, and is the highest point of Italy. Vesuvius, the twin volcano, is an outlier of the continental chain, rising up from the surface of a fertile plain, and overlooking the Bay of Naples.

The extent of level country is very considerable, but invested with opposite features in the two principal tracts. In the north, between the Alps and the Apennines, is the plain of Piedmont and Lombardy, continued by that of Venetia to the Adriatic, having a length of 250 miles from east to west, by a breadth of 50 miles, nearly a dead-level through a large portion of its area. Watered by the Po and its numerous affluents from the mountains on either hand, this region is extremely fertile, highly cultivated, and thickly peopled. On the other hand, along the Mediterranean, through Tuscany, and the Papal territory, a series of low districts extends for nearly 200 miles, varying in breadth from 12 to 40 miles, the whole of which is unhealthy, and comparatively deserted through the summer months. The northernmost or Tuscan portion is called the Maremma; the central, around Rome, the Campagna; and the southern, the Pontine Marshes. Dry pasture-lands in the latter intermingle with the marshy surface. A rank vegetation is luxuriantly produced; and hence malaria prevails, which renders even travelling through the fever-haunted region unsafe, except in the winter season. There are a few fixed inhabitants whose appearance, comparable at the best to that of convalescents in the grounds of an hospital, betrays the insalubrity of the site. But as soon as the fierce heat is over, and the fresh autumn breezes begin to blow, removing the scourge, the peasantry

from the Alban Hills, and other bordering heights, come down to the low grounds with their flocks to pasture them till May renews the danger, lodging in temporary huts of straw and reeds. This district has been stamped with its fatal peculiarity in consequence of ages of neglect, for in ancient times it was thickly studded with Etruscan and Volscian towns. Ruins of aqueducts, arches of demolished buildings, broken fountains, and masses of rubbish are scattered in every direction, the monuments of bygone life, where now the sounds and signs of human industry are few and far between.

Italy is distinguished from the rest of the continent by a volcanic zone on its southwestern side, which includes three active summits—Vesuvius on the mainland, Etna in Sicily, and Stromboli in the Lipari Islands; the last of which has never been known to extinguish its torch, and is the great light-house of the adjoining Mediterranean. The activity of Etna has been noted the longest. Its earliest recorded eruption took place under Hiero, in the second year of the 75th Olympiad, or 476 B.C., and is mentioned in the *Prometheus* of Æschylus, and the first Pythian Ode of Pindar. It reposed for several centuries in the middle ages, but has been in frequent and violent action in more modern times. On the last occasion, in 1852, vast torrents of lava were ejected, one of which was two miles broad, with immense clouds of ash-gray dust, which covered the whole of the surrounding country. Vesuvius was not known to be active before the year 79 A.D., when the cities of Herculaneum and Pompeii were overwhelmed by its products, and only discovered in the first half of the last century. From that period to the year 1138 eight eruptions are recorded; none occurred afterwards till 1306; a pause followed of more than three centuries with but one slight outbreak; but since 1666 the volcano has only been at rest for very brief intervals. Dormant craters are numerous in connection with the lower slope of the Apennines as far north as Tuscany, several of which are now occupied by small lakes. The Romans obtained their cement from the pozzuolana or volcanic earth of their neighbourhood. In excavating for it, as well as for materials to enlarge and beautify the city, the subterranean galleries were formed, which afterwards served as places of refuge for the early Christians during the persecutions, and were also used for the burial of their dead. Violent earthquakes occasionally disturb the southern region, and would doubtless be more frequent and severe but for the volcanic vents.

Owing to the configuration of the country, only one river of considerable magnitude is formed, the Po, which intersects the surface in the line of its greatest breadth, from the Cottian Alps to the Adriatic. It flows with but few windings of any importance, passes fifty cities and towns, and receives numerous affluents. The Ticino, Adda, and Mincio enter on the left bank; the Tanaro, Trebbia, and Secchia on the right. The river has a powerful current, subject to sudden and frequent changes, which interfere with its navigation. It brings down large quantities of sand and mud, which, by deposition, have formed an extensive delta, and very sensibly advanced the coast-line, during the historic period, on both sides of its mouth. In the age of Augustus, the town of Adria, from which the Adriatic has its name, was a seaport, and a station for the Roman fleet, but is now fifteen miles from the nearest point of the shore; and the city of Ravenna, which was once maritime, is now a few miles inland. The sediment has also contributed to raise the bed of the river in the lower part of its course considerably above the level of the surrounding country, so that in the plain of Ferrara the surface of the water is thirty-five feet higher than the streets of the town, which are preserved from inundation by huge artificial embankments. Another important river, the Adige, descends from the Tyrol, and enters the Adriatic between the mouth of the Po and Venice, similarly charged with sediment. It has operated with the like effect, formed islets and sand-banks, on a group of which the former Queen of the Ocean, aptly described as a 'city risen from the sea,' is planted. In the

peninsula, owing to its narrowness, and the central position of the Apennines, the rivers have necessarily short courses, and are chiefly mountain-streams, in several instances invested with classical interest. The largest are on the western side, the Arno, Ombrone, Tiber, and Volturno. To provide efficient water-communication for commerce, as well as to promote irrigation, the construction of canals was commenced in Italy much earlier than in any other European country, dating from the beginning of the twelfth century. The great northern plain is overspread with a net-work of artificial channels, which have advanced the interests of agriculture, and are adapted for vessels of large burden.

At the foot of the Alps the most extensive of the lakes are formed, Maggiore, Como, and Garda, famed for their picturesque beauty. The first of these is partly Swiss; the two latter are wholly Italian, except that the Lake of Garda touches the Tyrol at its north extremity. This is the largest expanse, extending thirty miles in length by ten in its greatest breadth; it is bordered by grand Alpine spurs, between which lie fertile valleys, scenes of vine cultivation. It has long had a bad reputation from being swept by violent winds, which, owing to the extensive surface, give it the appearance of a sea. On a projecting neck of land at the south end are Roman ruins, which have been associated with the name of Catullus, as remains of the poet's country-house, an idea not at all supported by their extent and traces of former magnificence. The Mincio is the outlet. Greater attractions belong to the Lake of Como, on the shores of which the younger Pliny had a rural retreat, and refers to it in his letters. Though not without the wilder outlines of bare mountain-tops, yet more characteristic of the scenery are steep hills and rocky headlands clothed with noble trees, lovely gardens, neat hamlets, tiny church-spires, scattered white dwellings, and many beautiful villas. The lake discharges by the Adda. In the central part of the peninsula are the Lakes of Perugia and Fucino, with many of small size occupying the craters of extinct volcanoes in the Roman and Neapolitan



Grotto of Puzzuolé.

territory. The Alban Lake, one of the latter class, about fourteen miles from Rome, is on the summit of a hill or mountain at a considerable elevation, and vies in the rich deep blue of its waters with the colour of the Italian sky above. A medieval palace on its shores, the Castle Gondolfi, is one of the country-seats of the pope.

With the exception of iron, the metals of Italy are few; but other mineral produce is abundant, as marbles, alum, and salt, with the valuable volcanic products, sulphur and boracic acid. From Southern Italy, or the old Kingdom of the Two Sicilies, the markets of Europe have long received their principal supply of sulphur, though a considerable and increasing quantity is now obtained from Iceland. The monopoly of this article led to the application of the *sobriquet*, the 'brimstone king,' to a former sovereign, apt to rely upon gunpowder as a means of government. It occurs in the district around Naples, but most plentifully in Sicily, where the sulphur-beds are in the tertiary strata, and occupy great part of the centre and south of the island. Many mines are worked by companies of English and other foreigners. Boracic acid is procured from a remarkable spot near Volterra, in Tuscany, where it was discovered in the latter part of the last century, which has since been the main source of supply to the European manufacturers. Here a large extent of the surface is occupied with borax lagoons, apparently consisting of an endless number of tiny volcanoes and springs, which are in a state of violent ebullition. The ground shakes beneath the foot, and steams in evidence of the fiery activity below. By subjecting the vapours to a peculiar process, the acid is deposited in crystals. Mineral and warm springs are numerous throughout the volcanic zone; and at certain spots noxious gases are generated, which prove fatal to animal life if long exposed to their influence. The most famous example is the Grotto del Cane, in the vicinity of Naples, and close to the Lago d'Agnano, the bed of which is the crater of an extinct volcano. The name refers to the dogs upon which experiments are chiefly tried to gratify the curious.

Deep-blue cloudless skies, and a very transparent atmosphere, are characteristic of Italy. The climate differs owing to the range of the latitude, difference of position in relation to the mountains, and to the influence of the sea. But very hot summers and mild winters are general; and insalubrity is confined to the malarious districts. Occasionally the summer heat is aggravated by the *sirocco*, or hot wind from Africa, which enfeebles and fevers the human frame, and blights the vegetation. This is specially felt in the southern localities, while an opposite evil is experienced in the northern, that of the *tramontana*, or mountain-wind, which blows cold and piercingly from the direction of the Alps. The vine flourishes on the lower levels throughout the country; the olive, orange, citron, lemon, pomegranate, myrtle, and other fruits and evergreens grow luxuriantly in the central and southern region; a varied and brilliant flora distinguishes the sub-apennine valleys; and in Sicily, in the extreme south, a tropical vegetation appears, in the sugar-cane, cotton-plant, and date-palm. On the higher grounds are oaks, chestnuts, beeches, and pines. Nowhere is the Silver Fir seen to greater advantage, amply meriting the name, *pulcherrima*, 'most beautiful,' applied to it by the ancients. The classical writers frequently refer to the uses made of the tree, for javelins and the masts of ships; and the position in which it luxuriates, as in lines scattered through the pages of Virgil:

'Whose breast exposed the long fir-spear transpierced.'

'The fir about to brave the dangers of the sea.'

'Hills clad with fir, to guard the hallowed bound,
Rise in the majesty of darkness round.'

The Stone Pine, a comparative dwarf in England, is also a fine object in Italian scenery, often associated with classic ruins, and frequently introduced into the landscapes of

Claude. It rises to a great height perfectly clear of branches, with a spreading head in the form of a parasol. The tree is prominent in the pine-forest of Ravenna, on the east coast, perhaps the most ancient woodland now in Italy, certainly the most interesting, being associated with the names of Dante, Boccaccio, and Byron. It supplied the old Romans with timber for their fleets, and in more modern times furnished the Venetians with masts for their war-galleys and argosies. The forest extends about twenty-five miles along the shore, covering a flat sandy tract from one to three miles wide. It may be traversed over the turf through a vast succession of lovely avenues and glades. But the pine does not entirely monopolise the site, as noticed by Leigh Hunt :

' Various the trees and passing foliage there,
Wild pear and oak, and dusky juniper,
With briony between in trails of white,

And ivy, with the suckle's streaky light—
And still the pine, long haired, and dark, and tall,
In lordly right, predominant o'er all.'

The produce of the cones yields a considerable annual revenue. In the more southern woods, the wolf, boar, and lynx are found, and are the principal wild animals. The buffalo occurs domesticated, and also the camel. But the latter is limited to the plain of Pisa, where a colony has been perpetuated from the time of the Crusades, originally introduced by the Knights Hospitallers. Noxious reptiles, as the scorpion and tarantula, are extremely numerous in the south. The birds include the vulture, ibis, flamingo, and pelican, with interesting examples of the smaller species, the blue thrush, the rose-coloured starling, the hoopoe, ortolan, and fig-eater. Shore fisheries yield the tunny, pilchard, and mackerel, with anchovies and sardines. The two latter are exported in immense quantities.

The political map of Italy, as arranged by the Congress of Vienna, recognised seven principal divisions, or the two kingdoms of Sardinia and Naples, the States of the Church, the Grand Duchy of Tuscany, the Duchies of Parma and Modena, with Lombardy and Venice assigned to Austria. It has since 1859 been largely remodelled, partly by the arms of the French emperor and the Sardinian king, in part also by the daring enterprise of Garibaldi, and the determination of the people. The map now embraces three principal divisions : the Kingdom of Italy—a reduced Papal Territory—and Austrian Italy, limited to Venetia.



The Tarantula.



Bardonnèche Mouth of the Mount Cenis Tunnel.

I. KINGDOM OF ITALY.

The newly-formed Italian Kingdom consists of the old Sardinian monarchy, with the exception of the principality of Nice and the duchy of Savoy ceded to France; but is more largely composed of territories which comprehend nearly the whole of the peninsula, obtained partly by voluntary annexation, partly by force of arms. This aggrandisement of a state formerly of very limited extent dates from the early part of the year 1860, a period too recent to allow of authority being firmly established over the whole area, occupied as it is by many favourable to the fallen dynasties, and by not a few politically indifferent, but friendly to any agitation likely to enable them to subsist with impunity by rapine. For administrative purposes the kingdom is distributed into sixty provinces. These are referrible to nine principal districts, the names of which are given, as of long standing, and therefore familiar. Those of the provinces are taken generally from important cities and towns within their limits, the seats of the local government.

Cities and Towns.

Piedmont,	Turin, Alessandria, Asti, Novara, Cuneo, Genoa, Port Maurice.
Lombardy,	Milan, Pavia, Cremona, Brescia, Bergamo, Como, Sondrio.
Æmilia,	Parma, Piacenza, Modena, Carrara, Reggio, Bologna, Ferrara, Ravenna, Forli.
The Marches,	Ancona, Ascoli, Macerata, Urbino, Pesaro.
Umbria,	Perugia.
Tuscany,	Florence, Leghorn, Pisa, Sienna, Arezzo, Lucca.
Neapolitan Territory,	Naples, Puzzuoli, Castellamare, Gaeta, Reggio, Taranto, Foggia.
Island of Sicily,	Palermo, Messina, Catania, Marsala, Siragusa, Girgenti.
Island of Sardinia,	Cagliari, Sassari, Oristano.

The total area amounts to 98,000 square miles, equal to considerably more than three-fourths of the whole country, containing a population of nearly 22,000,000. The advantages of the constitutional form of government, adopted by Sardinia in 1848, are equally enjoyed by the incorporated states, where formerly religious freedom was unknown, and the liberty of the subject was at the mercy of arbitrary power. The common parliament assembles at Turin, but the anticipation is indulged, that by the annexation of the Papal Territory its sessions will be transferred to Rome.

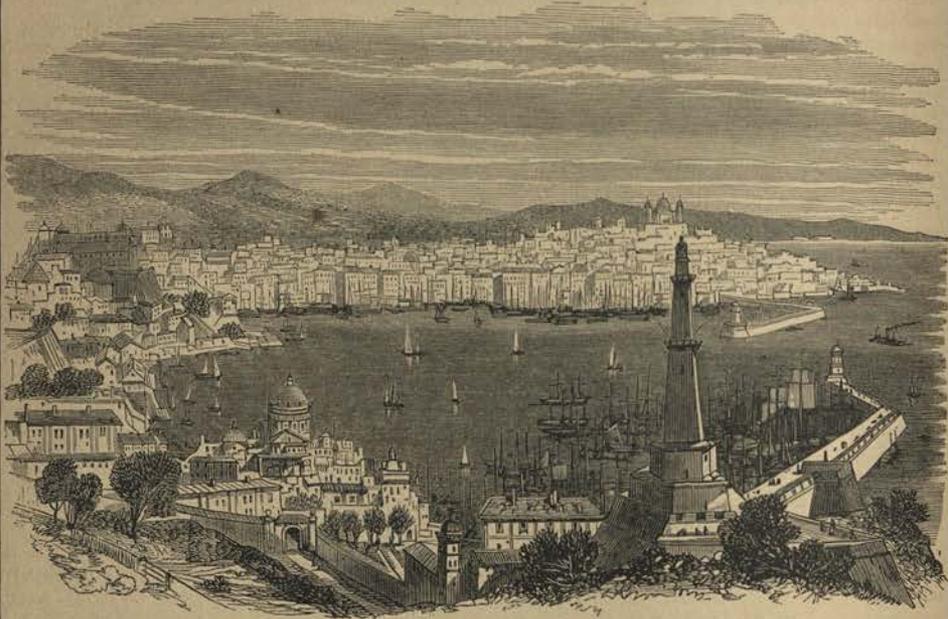
PIEDMONT, a north-western section, lies on the Mediterranean, and consists chiefly of a beautifully-varied plain, well watered and fertile. The surface becomes nearly a dead-level on the eastern side, but rises gradually in other directions towards the Alps, which run in a grand semicircular chain around it, and throw off spurs into the interior. They comprise the Maritime, Cottian, Graian, and Pennine ranges, with part of the Lepontine, and form the boundary from France and Switzerland. The position of the country at their base originated the name, compounded of *pied*, 'foot,' and *mont*, 'mountain.' The Po intersects it from west to east, descending from the slope of Monte Viso; and receiving almost the whole drainage by numerous affluents into its channel. Fruits, wine, grain, hemp, flax, and silk are raised, and the olive is a principal object of culture. Railways connect the leading towns with the capital, for one of which running between Turin and Susa, the great tunnel is in process through the range of Mont Cenis, which will complete the line of communication between Italy and France. When this work is finished, there will be unbroken railway transit from Calais to one of the southern ports of the Adriatic, which will probably render it a more eligible route for the Anglo-Indian mail than the one to Marseille, owing to the diminished length of the voyage to Alexandria.

Turin (Ital. *Torino*), the capital, centrally situated on the north bank of the Po, in a very charming locality, contains a population of 204,000. It is chiefly a brick-built city, distinguished by the number of its churches, possesses a flourishing university, with a library of 110,000 volumes, and many literary, artistic, and scientific institutions, which entitle it to rank as one of the principal seats of learning on the southern side of the Alps. The silk manufacture is the staple industry. In the Carignan Palace, formerly a royal residence, the Italian parliament meets. This is a huge pile, with an unprepossessing exterior, but many of the rooms are very splendid. The one appropriated to the deputies, the scene of the triumphs of Cavour, is magnificent. The seats rise one above the other from a semicircular floor, in the centre of which are placed tables for the official short-hand writers; and on the extreme verge, with their faces to the house, behind a long table, sit the ministers. The press has a gallery at its service, placed in a convenient position; the diplomatic corps and municipal authorities are provided for; and there is separate accommodation for ladies and a miscellaneous crowd of spectators. Cavour, returned for the first electoral college of Turin, early in 1848, was first heard under the domed roof of this apartment, remonstrating against the folly of proceeding single-handed against Austria, which led to the fatal defeat of Novara in 1849. The silvery summits of the Alps are finely seen from the capital. Three of the mountain valleys on the south-west are occupied by the Vaudois, a Protestant community, on behalf of whose ancestors, under a barbarous persecution, Cromwell interfered, and Milton wrote the noble sonnet beginning—

'Avenge, O Lord, thy slaughtered saints, whose bones
Lie scattered on the Alpine mountains cold.'

The Vaudois occupy a small town and a number of scattered villages. *Susa*, at the foot of the Cottian Alps, and on the road across Mont Cenis, where the railway from Turin in that direction now terminates, is twenty-five miles from the Italian end of the great tunnel, near the village of Bardonnèche. This spot is at least

fourteen miles from the French end at Modane, following the route over the mountain, but the distance will be little more than seven miles through the shaft. *Alessandria*, eastward of Turin, a considerable manufacturing town, has a strong modern citadel for its prominent object, was of great importance as a bulwark to Piedmont when it was immediately bordered by Austrian territory. The battle-field of Marengo, the scene of Napoleon's decisive victory in the year 1800, is a few miles distant. *Asti*, on the rail nearly midway between Turin and *Alessandria*, surrounded with a wine-producing district, boasts of the poet Alfieri as a native, born about the middle of the last century.



Genoa.

Genoa (Ital. *Genova*, Fr. *Gênes*), on a gulf of the Mediterranean to which its name is given, is the principal port and naval arsenal, with strong fortifications and a spacious harbour. Though fallen from its high estate in the middle ages, it still contains 128,000 inhabitants, has great shipping trade, and various manufactures of silk, velvets, damasks, with filigree-works in gold and silver gilt. The appearance of the city from the sea justifies the title bestowed upon it, *La Superba*. Hills rise up from the shore, the slopes of which are covered with churches, palaces, and houses, finely relieved by intermingling groves of oranges, pomegranate-trees, and vines. But the interior disappoints. The richly-decorated marble dwellings of the merchant-princes of bygone days are in narrow streets, only to be seen from without with difficulty, while comparatively few belong to parties in possession of sufficient means to be their occupants. The majority are hotels, or public offices, or places of business, or devoted to still humbler uses, the lower rooms being let out to small shopkeepers, or tenants of the labouring class. Yet a passing visit to *Genoa* will never fail to excite interest, the place where Columbus was born, the capital of a sovereign commercial republic for several centuries, the rival and at times the superior of Venice, the mother of colonies on the shores of the Black Sea and the Levant. It was taken by the French in 1797, and ceded to Sardinia by the Congress of Vienna in 1815. The city possesses a grand ancient cathedral, a university, several splendid theatres, and is remarkable for the number and magnitude of its philanthropic foundations. The Genoese are expert mariners and shrewd commercialists, to be seen in all the important ports of the Mediterranean.

LOMBARDY, entirely inland, extends from the Rhaetian Alps on the north to the banks of the Po on the south, between Piedmont on the west, and Austrian Italy on the east, where the frontier is defined generally by the line of the Mincio River. The northern part of this district, at the base of the mountain-barrier, diversified by its offsets, is distinguished by splendid scenery, and contains the exquisitely lovely Lago di Como, and part of the Lago di Garda, scarcely less beautiful. The southern portion is a level plain renowned for its exuberant fertility and populousness. Rich dairy produce is raised, especially the celebrated and misnamed Parmesan cheese, which is made in the district

between Milan, Pavia, and Lodi. The corn crops of the finest quality are abundant, and the white mulberry is extensively cultivated for the silk-worm, to the number of at least 17,000,000 trees.

Milan (Ital. *Milano*), the principal city, ancient, populous, and highly attractive, is seated on a plain between the Ticino and Adda Rivers, and contains a population of 219,000, including the suburbs. It has a circular outline, is enclosed with walls nearly eight miles in circuit, and entered by eleven gates, some of which are remarkable for massive proportions and architectural design, while invested with interesting traditional recollections. The streets are generally spacious, and the public buildings elegant, including palaces and churches rich in paintings. The white marble *Duomo*, or cathedral, which is profusely adorned on the exterior with statues, now in process of being multiplied to complete the original design, excites universal admiration. The opera-house, *Della Scala*, opened in 1799, is said to be the finest in the world. Scientific bodies have large and valuable literary and art collections, as well as some private individuals. The academy has a library of 100,000 volumes; the *Ambrosian* contains 60,000; and both have extensive stores of MSS. The schools of surgery and medicine, especially that of veterinary practice, and the *Conservatory* are celebrated; so are the charitable and benevolent institutions, whose aggregate property is worth £7,000,000. The *Conso*, or chief street of Milan, is the universal fashionable promenade, and the famous arcade, or *Galleria di Cristofers*, with its brilliant shops and cafés, is also a favourite place of evening resort, and on account of its gay appearance has been called 'Little Paris.' The manufactures include weapons, arms, and ironwork of all descriptions; but Milan is chiefly distinguished as the seat of the trade between Northern Italy and Central Europe. It is favourably situated for this purpose, as the point to which the great routes across the Alps converge, by the *Simplón*, the *St Gothard*, the *Splügen*, and the *Stelvio*, while now connected by railway with the leading Italian cities. The city has experienced many vicissitudes. It flourished under the Roman emperors, was successively plundered by the Huns and Goths, rose to distinction under the sway of Charlemagne, but was entirely desolated by a confederacy of adjoining powers in the middle of the twelfth century. It was speedily rebuilt, became the capital of an independent duchy, and after passing under various rulers, was incorporated with Austria in 1815, and remained in impatient subjection till 1859, when it was entered by the allied French and Sardinian army. The poet *Virgil* studied at Milan, and *St Ambrose* was long its bishop.

Pavia, southward, on the Ticino, is a decayed place, though containing 30,000 inhabitants, and still the seat of a university, once celebrated, in which *Volta* and *Spallanzani* were professors. Its name is given to the battle fought in the neighbourhood in 1525, when the French were defeated, and their king, Francis, was taken prisoner by the army of the Emperor Charles V. *Lodi*, on the Adda, forming a triangle with Milan and Pavia, now busy with its dairy produce, was the scene of Napoleon's terrible passage of the bridge, and decisive victory over the Austrians in 1796. *Brescia*, on the east of Milan, is a prosperous manufacturing town, with 40,000 inhabitants. It contains many Roman antiquities and interesting modern objects, as a town-hall entirely of marble of the richest description; a noble cathedral, also of marble; with churches and private galleries stored with many of the best works of the old masters. On the south-east, about twenty miles distant, is the small town of *Solferino*, the scene of the final victory obtained by the French and Sardinians in 1859, which led to the peace of *Villafranca*, and delivered Lombardy from the Austrians.

Bergamo, north-east of Milan, in a delightful country, has extensive silk manufactures, and a population of 33,700. It was the birthplace of *Bernardo Tasso*, and *Tiraboschi*. An annual fair, held here in August for a fortnight, attracts a crowd of visitors from a distance, intent upon both business and pleasure. Its principal scene is a huge stone building which contains 600 shops, and is ranged round a court adorned with fountains. *Como*, at the south-west extremity of its lake, the native place of the younger *Pliny*, has 18,000 inhabitants, engaged in silk and cloth manufactures. The neighbouring country is the home of a class of travelling peddlers, who go out into the world to make their fortune, visit Paris, London, and other cities, disposing of stucco figures, bird-cages, barometers, and similar small-wares. They are often absent ten or twelve years, but many return with savings sufficient to buy a cottage and patch of land by the side of their native lake. According to Mr Laing, they are a very interesting class of shrewd observing men, well worth getting acquainted with, having seen various phases of life in different countries.

EMILIA lies immediately southward of the Po, and embraces the country between the main ridge of the Apennines and the Adriatic. It includes the old duchies of Parma and Modena, with the northern part of the territory formerly under the Papal dominion, comprehending the legations of Bologna, Ferrara, Ravenna, and other adjoining districts, the affairs of which were once administered by Papal legates. The present name is derived from the *Via Emilia*, a great highway constructed by the Romans, which passed through the region from Rimini on the coast to Piacenza on the Po, and had its designation transferred to the province during the Roman period. This road was a continuation of the *Via Flaminia*, which ran between Rimini and Rome, and was the first regular route opened in the north of the peninsula. Along it civilisation travelled

towards the Alps, and reached the heart of Europe beyond them, when military power had cleared a passage across the barrier.

Parma, the capital of the former duchy, is situated on a stream of the same name flowing northward to the Po, and contains a population of 47,000. It is of ancient date, having been established as a Roman colony 183 B.C. The city has a handsome appearance, is the seat of a university, and possesses small but valuable collections of paintings and antiquities. The cathedral, a fine pile of the eleventh century, has its interior adorned with frescoes, the most important of which are on the cupola, by Correggio. *Piacenza*, with 39,000 inhabitants, immediately adjoins the Po, on the right bank, and goes back also to the Roman period, when it was founded, 219 B.C., to serve as a protective position against the Gauls. Its principal square is one of the finest in Italy.

Modena, a former ducal capital, occupies a plain between the Po and the Apennines, possesses colleges of theology, law, medicine, &c., a botanic garden, cabinets of natural history, a library of 100,000 volumes, with many manuscripts. The campanile, or belfry, is one of the great towers of Italy, 315 feet high. The population numbers 55,000. *Reggio*, a few miles distant, was the birthplace of Ariosto in 1474, and of Correggio in 1494, has a population of 50,000. *Carrara*, on the western side of the Apennines, near the Mediterranean shore, is famous for its quarries of statuary marble opened in the face of some lofty, picturesquely-shaped, woodless mountains. More than 1200 men are here constantly employed, and the supply seems inexhaustible.

Bologna, the largest of the *Emilian cities*, two miles in length by one in breadth, entered by twelve gates contains 109,000 inhabitants, and occupies a plain carpeted with the beautiful hemp-plant. Arched colonnades extend over the foot-pavements on both sides of the streets, which are convenient owing to the frequent rains, but have a very gloomy effect. The manufactures are considerable, comprising silks, glass, chemical preparations, and instruments. Bologna has more than seventy churches, many of which are rich in the master-pieces of Italian art. Its ancient university, founded in 1119, is remarkable for having had a few female professors of distinction. It has a library of 105,000 volumes, with 6000 manuscripts. The painters Guido, Domenichino, and the three Caracci were natives, as well as Galvani, the physician, whose name has acquired wide celebrity by a purely accidental discovery, in which originated the science of galvanism, born in 1737. The present inhabitants are generally distinguished by their intelligence and independent spirit. Bologna (the *Bononia* of the ancients), after having given six popes to Rome and nearly a hundred cardinals, instantly threw off the Papal yoke upon the withdrawal of the Austrian troops in 1800. *Ferrara*, in the delta of the Po, a few miles from the main channel, is surrounded by walls, and has a population of 25,000, scarcely one-fourth of the number it possessed in the middle ages, when it was the seat of a splendid ducal court, and the most important commercial emporium in Italy. It now wears a very melancholy aspect. Grass grows in the streets, while the palaces are deserted and crumbling. But the churches are numerous, of striking architecture, and rich in paintings. The university also retains celebrity as a school of medicine and jurisprudence; and the public library of 80,000 volumes is of great interest from its missals and manuscripts. Among the latter are works in the handwriting of Ariosto and Tasso. Here Ariosto was buried, and Tasso was imprisoned. His prison is shewn in the hospital of St Anna, a room below the ground-floor, lighted by a grated window from the yard, and inscribed with the names of distinguished visitors, those of Lord Byron and Lamartine among others. Ferrara was long the seat of the Dukes of Este, from whom the House of Brunswick and the royal family of England derive their direct descent.

Ravenna, one of the famed historic sites, with a population of 57,000, is now about five miles from the sea, but was once washed by its waves, and was a principal station of the Roman fleet. The deposit of sediment brought down by the Po accounts for the change. By means of a canal alone is communication maintained with the Adriatic. The emperors made the city their residence when Italy was threatened by the barbarians. It was afterwards the capital of the Lombard Kingdom, and the head of an independent district through the middle ages. Ravenna is now only of interest to the lovers of medieval art, remains of which are very numerous and striking; and to pilgrims to poetic shrines, as the scene of the death of Dante. Banished from Florence, he accepted the hospitality of its feudal ruler, and spent the last years of his life in the city. The 'Poet Sire of Italy' often wandered in the pine-forest before referred to. A particular part of it now bears the name of *Vicolo de Poeti*, from a tradition that at the spot he loved to meditate. His sketch of the terrestrial paradise in the *Purgatorio* is drawn from the scenery on a sunny breezy morn, 'the sweet hours of prime,' when the birds 'their several arts pursued among the trees,' while the leaves 'kept harmonious murmur with their notes.' Dante's mausoleum, a square edifice, is behind the Church of S. Francesco, and has had many a notable visitor. Chateaubriand knelt bareheaded at the door before he entered; Byron placed a copy of the poet's works upon the tomb; and Alfieri prostrated himself, and embodied his emotions in one of his finest sonnets. Byron, who spent two years in Ravenna, has commemorated the wood, and the changes of the shore.

'Sweet hour of twilight!—in the solitude
Of the pine forest, and the silent shore,
Which bounds Ravenna's immemorial wood,
Rooted where once the Adrian wave flowed o'er,
To where the last Caesarian fortress stood,
Evergreen forest!'

Rimini, an episcopal city and seaport on the south, represents the ancient *Ariminum*, and has an object

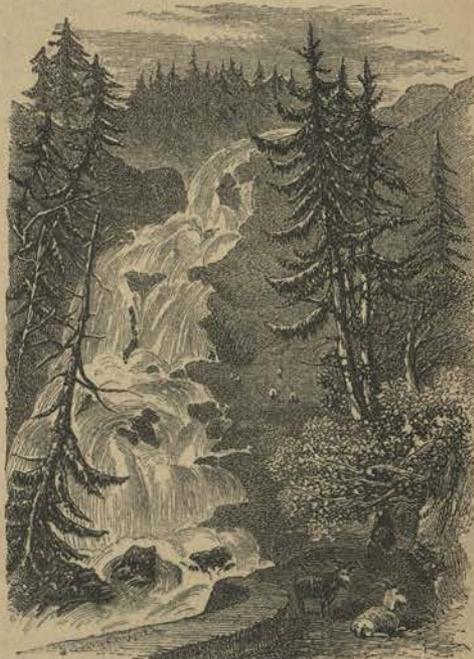
of interest in the triumphal arch of Augustus, with valuable silver-mines in its vicinity. Population, 33,000.

THE MARCHES, southward on the coast, form a small district extending to the northern border of the old kingdom of Naples, and with UMBRIA, an inland province, on the opposite side of the Apennines, embracing the upper basin of the Tiber, were formerly included in the States of the Church.

Ancona, a busy commercial town and fortified seaport, is one of the most important places on the Adriatic, about 130 miles south-east of Venice, and the same distance north-east of Rome. It possesses various manufactures, and contains 46,000 inhabitants, among whom are many Jews, Greeks, and Moslems. The town is built in the form of an amphitheatre on the slope of two hills rising from the shore. It has an excellent harbour formed by a breakwater on one side, and a fine pier on the other, 2000 feet in length, 100 feet in breadth, and 65 feet above the water, shewing a revolving light at the extremity. A triumphal arch of Trajan is one of the most admired Roman remains extant. *Loretto*, a celebrated shrine of the Virgin, is a few miles to the south, with a magnificent church, once rich with offerings from crowds of devotees. *Urbino* is of interest as the birthplace of Raphael, and as the spot where most of the beautiful specimens of painted pottery, called *Majolica*, were produced.

Perugia, the chief town in the Umbrian province, with about 18,000 inhabitants, is seated on the left bank of the Tiber, ninety miles north of Rome. It is the seat of a university, and possesses some silk manufactures. During the Roman period it was an important city, long defied the power of the Goths; and in the neighbourhood some of the most interesting Etruscan antiquities have been found. The Lake of Perugia, the ancient *Thrasimenus*, is a few miles distant, on the shores of which Hannibal obtained his famous victory over the consul Flaminius, 217 B. C.

TUSCANY, formerly a grand duchy, extends along the Mediterranean, and from thence inland to the Apennines. The mountains, receding from the shore, leave a spacious district intermediate, from seventy to eighty miles in its greatest width, through which the Arno, Ombrone, and some other streams travel to the sea. The more maritime portion of this tract is a plain, and belongs largely to the malarious region, called the Maremma. It is however fertile, yields a variety of mineral substances, and the desolate expanses were in ancient times densely peopled, shewing that the cessation of industry for centuries in cultivating the soil, rather than any inevitable operation of nature, has provoked the brooding pestilence. A considerable proportion of hilly surface borders the Apennines, and approaches the sea in the north, wholly free from the enemy, where the scenery is beautiful, the people actively industrial, working quarries of marble, mines of copper, and prosecuting agricultural occupations. The olive is extensively cultivated, and the best olive-oil is here produced from the fruit. The preparation of straw-plait, with the manufacture of straw-hats, is also a prevailing employment. Tuscany corresponds in its general limits to the Etruria Proper of antiquity, which was held by twelve sovereign cantons, one of which cradled the Tarquins, so prominent in the early annals of Rome. The island of Elba, celebrated for having been the scene of Napoleon's exile in 1814, surrounded by a number of rocky islets, lies about five miles off the coast.



Falls of Valambrossa.

Florence (Ital. *Firenze*, now *Firenze*), the capital of the former grand duchy, called *la bella*, 'the beautiful,' is delightfully situated in the garden-valley of the Arno, about 50 miles inland, and contains a population of 114,500. It occupies both banks of the river, which is crossed by four fine bridges, is surrounded by walls six miles in circuit, and communicates by eight gates with thickly-peopled suburbs. The city is remarkable for the number of its castellated palaces of the middle ages, its gorgeous churches, rich galleries of art, large libraries, and stores of valuable manuscript, which, with the intelligence of the inhabitants, and the loveliness of the environs, attract many foreigners to it as a residence. Inscriptions in English on many sign-boards indicate their presence. The cathedral, founded in 1293, is a splendid edifice, the cupola of which was taken as a model for that of St Peter's at Rome. It has in recent times put on a singular appearance; for while the exterior, under the control of civil authorities,

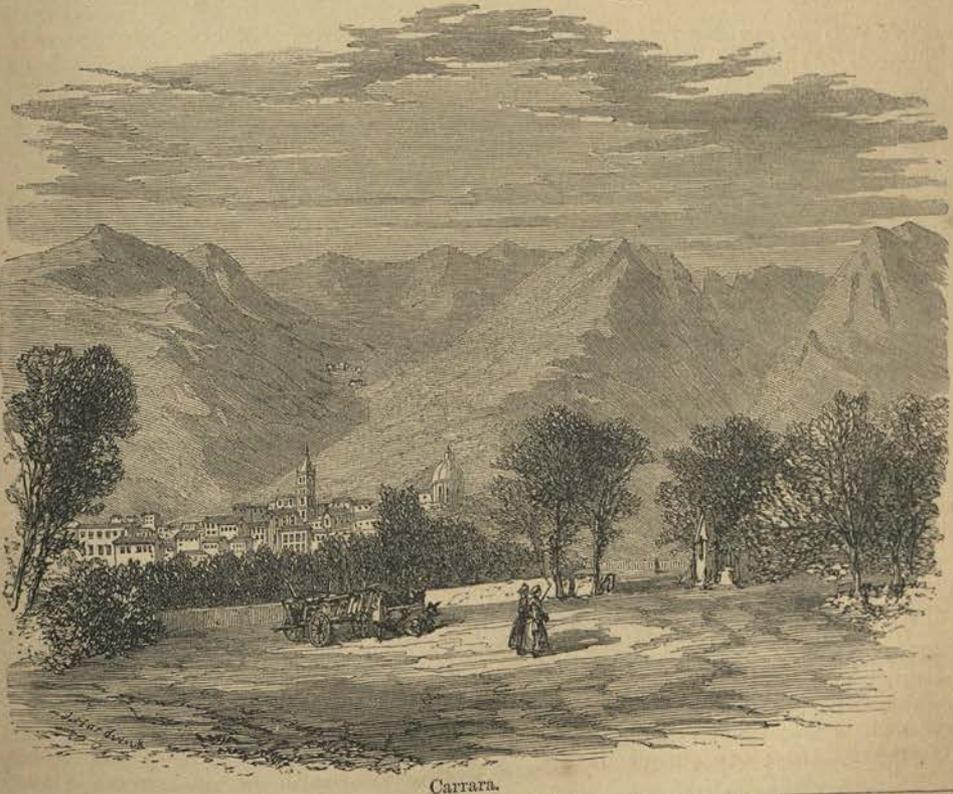


Florence.

has been brilliantly illuminated in honour of the restored Italian nationality, the clergy, who command the interior, have kept it in utter darkness. The Church of Santa Croce is of interest as the Westminster Abbey of Florence, containing monuments of illustrious Florentines or Tuscans; those of Dante, Galileo, Michael Angelo, and Machiavelli, among others. The Palazzo Pitti, recently the grand ducal residence, possesses a superb gallery of paintings, and a library of 70,000 volumes. Silks, carpets, straw-hats, mosaic-work, porcelain, and jewellery are the principal manufactures. Below the city, by the side of the Arno, is the Casino, or Hyde Park of the fashionables; a long narrow plantation of trees, where they assemble on summer evenings to drive and ride. Florence, in the thirteenth century, was a chief scene of the struggle between the rival factions of the Guelphs and the Ghibellines. It afterwards adopted a republican constitution, rose to great prosperity, and, though often disturbed, popular institutions were maintained till August 8, 1530. The city was then taken by the imperialists, and the grand duchy of Tuscany constituted. Arezzo, on the south-east, at the foot of the Apennines, of very ancient date, is now a decayed town, but with many memorials of former importance, as extensive walls and numerous churches. It was one of the twelve Etruscan cities, and is remarkable for its long list of distinguished natives, which includes, among others, Mæcenas, the patron of letters in the Augustan age, Petrarch, Aretino, Guido, Redi, and Vasari. Michael Angelo was also born in the immediate vicinity. Pistoja, on the north-west, small but highly industrial, produces firearms, cutlery, with general hardwares, and claims the invention and first manufacture of pistols.

Leghorn (Ital. *Livorno*), the principal seaport, with 96,000 inhabitants, embraces all the foreign trade of Tuscany, and ranks as the greatest commercial emporium in Italy. A fine light-house stands prominently on an isolated rock in the sea. The town is well built, paved, and lighted, has spacious squares, regular streets, with wide footpaths on either side, and is one of the most improving places on the continent. Ship-building and the other industries of a great port are carried on. Great numbers of visitors arrive in the summer season from Rome, Florence, Bologna, Sienna, and other inland sites, to benefit by the sea-breeze. The grave of Smollett is in the English cemetery. Tuscan straw-plait, commonly called Leghorn, acquired the name from the place of export. *Pisa*, on the Arno, a few miles above its mouth, once the head of a powerful commercial republic, is now a comparatively decayed city, but contains many noble edifices; and its ancient university is still a principal centre of education. Population, 51,000. The remarkable object is the 'leaning tower,' a circular structure 188 feet high, which diverges fifteen feet from the perpendicular, but whether from accident or design is not known. *Lucca*, on the north of Pisa, in the valley of the Secchio, is a pleasant and thriving town, very agreeably situated, being encompassed by an amphitheatre of hills covered with olive groves, in a highly-cultivated country. The baths of Lucca, about fifteen miles distant, are in a valley of picturesque villages and villas, shaded by mountains covered with chestnut-trees, so steep and high that the sun appears two hours later in the morning, and is lost sight of two hours earlier in the evening, thus curtailing the length of the natural day, and checking the accumulation of heat. The mineral waters, the lovely scenery, and the coolness, render the place an agreeable summer residence, and a favourite resort, especially with the English, who have a handsome church. Population, 65,000. *Sienna*, thirty miles south of Florence, has lost the importance it once possessed, though still a considerable place, and the seat of a university, with many objects of interest. It was formerly the capital of an independent republic, had a celebrated school of painting to which its name is given. The citizens are celebrated for their pure Italian speech.

The island of Elba, celebrated as the scene of Napoleon's first banishment, separated from the mainland by the channel of Piombino, is eighteen miles long, but at one point only about three broad, owing to inlets on the opposite sides. The shores are rocky, and the interior is mountainous, the higher part of which is bare and sterile, but the lower grounds and valleys have the vine, olive, mulberry, and other trees. Iron ore, of very rich quality, occurs in profusion, and mines have been worked since the early part of the Roman period. A hill, 500 feet high, and two miles in circuit, consists almost entirely of ore. *Porto Ferrajo*, the chief town, is of small size, on the north coast. The island has a total population of about 21,000.



Carrara.

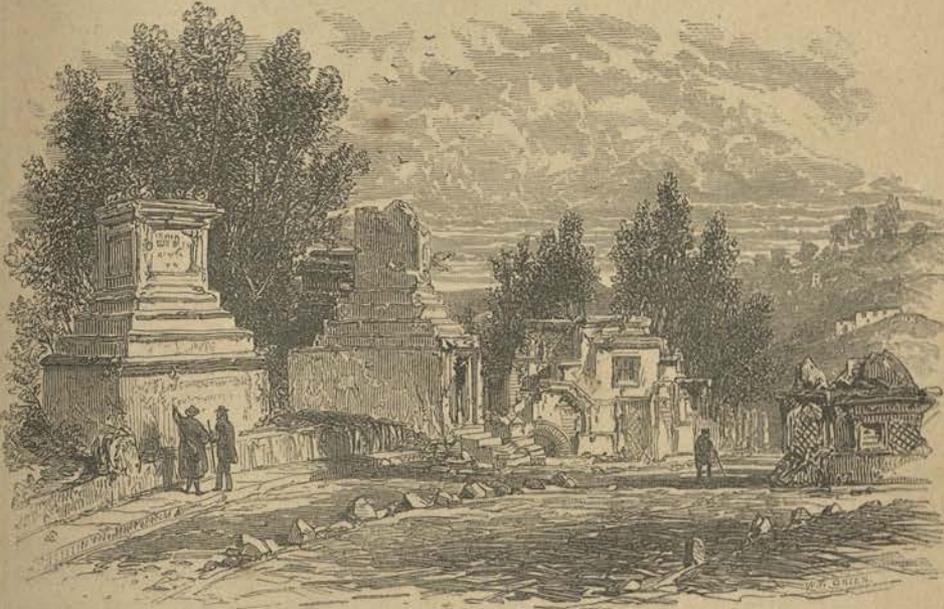


Gaeta, from the Sea.

The NEAPOLITAN PROVINCES embrace part of the centre and the whole south of the peninsula. This region includes the highest points and wildest scenery of the Apennines, which, with their banditti, largely occupied the pencil of Salvator Rosa. Recent political changes have rendered brigandage more common than ever, under the plea of serving the cause of the fallen dynasty. The country possesses great natural advantages, a fine climate, a soil overflowing almost spontaneously with the choicest productions for the use of man. But the mass of the people are wretched objects to observers from northerly latitudes, ill clad and ill housed, partly owing to maladministration under a long absolute government, and partly to their own indolence. With little labour a supply of vegetable and farinaceous food is secured—olives, wine, Indian corn, legumes, and fruit—to which small fish found in shoals along the shores is readily added. Fuel is not needed except for preparing meals, where the sun furnishes the requisite warmth for personal comfort; the same cause offers an excuse for indifference to clothing and house accommodation; and thus the very bounty of nature is turned into a curse by a population indisposed to industry, to whom it is the height of enjoyment to lounge and gossip in the thoroughfares, bask in the sunbeams, or slumber in the shade. The provinces contain many sites of great scenic beauty and classical interest, unique remains of ancient civilisation, found in the cities which have been exhumed from the load of volcanic ashes under which they were buried for centuries, Herculaneum and Pompeii. With Sicily, the south-western portions form the earthquake region of Italy, visited by shocks of tremendous violence in the last century, commencing in 1783, when chasms were opened in the ground, streams were diverted into fresh channels, and all buildings near the focus of disturbance were levelled, to the destruction of thousands of lives.

Naples (Ital. *Napoli*), the largest of the Italian cities, containing a population of 447,000, is seated on the shore of a splendid bay of the Mediterranean, besprinkled with towns, hamlets, and villas, olive and orange groves, orchards and vineyards, while mountains rise high in the clear blue sky, clothed with forests on their

slopes, and carpeted with deep green grass-fields at their base. The scenery has been enthusiastically styled 'a piece of heaven let down upon the earth.' In connection with the climate it originated the saying, *Vedi Napoli e poi muori*—'See Naples, and then die.' The city rises in the form of an amphitheatre on the slope of a range of hills. It has no land-defences, and is but feebly protected to seaward by the Castle of St Elmo and two forts. Most of the houses are lofty and the streets narrow. The open spaces or squares are few, and not large, except in one or two instances; and besides a multitude of churches, an immense palace, and a magnificent theatre, the public buildings are not remarkable. But the National Museum, as it is now called, much improved in its arrangements since the recent political change, contains an unrivalled collection of vases, bronzes, gems, and other relics of antiquity; a picture gallery, fresco paintings, a library of 150,000 volumes, with papyri found in Herculaneum. The people with whom the principal streets are crowded, are the noticeable objects out of doors, but it is necessary to avoid contact with them. Scarcely a tithe of the number are intent upon any serious business, mostly belonging to the class of lazzaroni, mendicants, and pilferers. They are active with voice and gesture, assuming every variety of attitude, squatting on the ground, lounging at the doorways, or grouped at corners. Naples has been called a 'wonderful den of human animals—the St Giles's of Europe.' The principal industry is the production of silk goods and the fishery along-shore, with the making of macaroni and vermicelli for the daily fare of the populace. *Capua*, strongly fortified, on the north of Naples, covers the approach to it in that direction.



Street of the Tombs, Pompeii.

Across part of the bay, on the south-east, and three miles from the opposite shore, the graceful form of Vesuvius rises to the height of 3792 feet, seeming much nearer than it is through the transparent atmosphere. It is the first object to which the stranger directs his gaze. No other mountain has had so many eyes turned to it at the same time as this, for no other volcano has a city so vast in its neighbourhood. Vineyards clothe the lower slopes, which, with the dwellings of the peasantry, are unfailingly renewed as often as they are ravaged by eruptions, yielding a delicious wine. The railway takes the visitor to the village of Portici, from which the ascent of Vesuvius is made. Half-way up, at the limit of the cultivated ground, is the Hermitage, a house for refreshment, reached by mules and donkeys. The other half consists of lava, scorie, and volcanic rubbish, which for months retains the heat after an explosion. At the seaward base of the mountain are the ill-fated cities of Herculaneum and Pompeii, partially uncovered and still partly buried, which have revealed more of the private life of the ancients than all other remains put together. Herculaneum was discovered in its volcanic tomb in 1711, by a peasant while deepening a well. It lies at the depth of from 70 to 120 feet below the surface, and has yielded a vast number of art treasures, now in the museum at Naples, while several of its buildings have been uncovered. The site of Pompeii was not identified till some time afterwards. It has been much more completely cleared of the superincumbent material. In 1748, the Amphitheatre was brought to light; 1763, the Gate of Hercules; 1764, Theatres and Temple of Isis; 1811, the House of Pansa; 1813, the Forum;

1818, the Temples of Mercury and Venus; 1825, the House of the Tragic Poet; 1826, the Street of Mercury; 1829, the Street of Fortune; 1841, the Street of Merchants; 1845, the Quadrivium; and 1847, the House of Lucrezio. It is said that about 600 skeletons have been discovered in the ruins, but records can hardly be found for half the number. The systematic excavations now in progress reveal almost daily new and important discoveries.

Near the north-west extremity of the bay stands *Puzzoli*, a small town, which represents Puteoli, the landing-place of St Paul, on his journey to Rome; also *Baia*, the Brighton of the Roman nobility; and *Cuma*, inland, now consisting of a few scattered farmhouses, with immense ruins covered with a wilderness of shrubs. At a short distance from the shore lies the island of *Ischia*, with mineral waters, rich fruits, and enchanting scenery, the seat of volcanic action in ancient and modern times, but not recently. *Castellamare*, at the south-east angle of the bay, is a considerable manufacturing town and port. The small isle of Capri is at the southern entrance of the bay, the scene of the guilt and gloom of the Emperor Tiberius, remarkable for its Sapphire Grot, a cave by the sea, the roof and sides of which are of the deepest azure hue.

Northward on the coast is *Gaieta*, an important stronghold, of ancient foundation, the Cajeta of the Romans, and of recent notoriety, as the refuge of Pope Pius IX. in 1848, when revolution drove him from his capital; it was the last place held by the Neapolitan Bourbon dynasty in 1860. It occupies a far projecting promontory with a bold termination, connected by a low narrow isthmus with the mainland, overlooks a beautiful bay, has many remains of classical interest in the vicinity, is very strongly fortified, and contains about 14,000 inhabitants. The Tower of Orlando, on the highest point of the headland, a circular building, is said to have been erected as a mausoleum for a friend of the Roman Emperor Augustus. In the citadel the tomb of the Constable Bourbon, killed at the capture of Rome, while scaling the walls, in 1527, is shewn. The Roman town was the scene of Cicero's assassination, 43 B. C. *Fondi*, a few miles inland, near the Papal Territory, has only interest from its position on the Appian Way, which forms the principal street, and the fruitful adjoining plain, which produced the celebrated Cæcuban wine of the classic age. On the coast southward of the Bay of Naples stands *Salerno*, connected with the capital by railway, the seat of a university once famed for its school of medicine. It is a considerable commercial site, possesses silk-works, has rice-ground in the neighbourhood, passed by the traveller on his way to the majestic ruins of Paestum. Population, 29,000. *Reggio*, on the continental side of the Strait of Messina, a larger town, with upwards of 30,000 inhabitants, represents ancient Rhegium, one of the most renowned of the Græco-Italian cities, the birthplace of many distinguished men, touched at by St Paul on his voyage to Rome. The Greek language was spoken here down to a late period of the middle ages.

Taranto, between the projections of Southern Italy, on the shore of the gulf which bears its name, contains a population of 27,000, but has fallen completely from its historical consequence. Founded by emigrants from Sparta, seven centuries before the Christian era, it acquired immense wealth by commerce, maintained a large number of mercenary troops, and was nominally at the head of all the Greek colonies in the peninsula. *Gallipoli*, a much smaller town, of similar origin, on the eastern side of the gulf, is finely situated on a steep insulated rock, connected by a bridge with the mainland, is rendered by nature and fortifications a very strong military position. It is remarkable for its cisterns excavated in the limestone rock, in which the olive oil of the province is deposited and clarified for exportation.

On the Adriatic side of the country, *Brindisi* is the impoverished representative of Brundisium, so often mentioned in Roman history as the ordinary point of passage between Italy and Greece. *Bari* and *Barletta* are now the chief ports, both considerable places. *Foggia*, the largest inland town, with 34,000 inhabitants, in the fertile Apulian plain, is well built, and the centre of great trade in corn, cattle, wool, cheese, wine, oil, and capers. *Aquila*, the birthplace of Sallust, and *Sulmona*, of Ovid, the first named a commercial mart of consequence, are in the mountainous province of Abruzzo Ultra, within view of the highest and most rugged portion of the Apennines. *Arpino*, the native place of Cicero, Marius, and Agrippa, is a town of some size towards the Papal frontier, and contains monuments which go back to their age. *Nola*, eastward of Naples, has its name historically noted as the scene of the death of the Emperor Augustus, and the spot where bells are said to have been first used in churches.



Castellamare.



Messina.

SICILY, separated from the south-western part of the mainland by a narrow channel, is a large and lovely island, extending upwards of 160 miles from east to west on the northern side, and from thence contracting southward so as to assume the general form of a triangle. Its coast-line embraces many excellent harbours; the interior is watered by numerous small rivers; and while the scenery is splendid and the soil fertile, the vegetation is luxuriant, and the climate favourable to the growth of tropical plants on the lowlands. A range of mountains of moderate elevation runs parallel to the northern shore, and diversifies the greater part of the surface with its offsets, but the eastern side is distinguished by the enormous volcanic cone of Etna, the great natural feature of the island. The mountain, now called Monte Gibello by the natives, ascends considerably above the range of vegetable life, and rises up from a base of more than eighty miles in circuit. It is completely isolated from the coast-chain by a valley, as well as from heights in other directions. The shores for many miles on either hand are formed of dark lava streams, which have descended its slopes, poured into the sea, and been suddenly cooled by it, which give to the strand a singular appearance, as if formed by the accumulation of millions of tons of coal. Around the base of the mountain, and ascending to some height, is a cultivated district, producing corn, wine, oil, fruit, and aromatic plants, studded with towns, villages, and farms. This is the Fertile region, above which lies a Woody zone of considerable breadth, consisting of forests of oak, beech, chestnut, poplar, and pine, with interspersing pastures for flocks and herds. The uppermost region is a dreary desert plain, covered with black lava, scorice, ashes, ice, and snow, in the centre of which rises the crater-bearing cone. Etna may be ascended without any extraordinary difficulty. The travelling distance to the summit from Catania is about twenty-four miles. Sicily produces silk, the greater part of which is manufactured into ordinary silk stuffs; a small quantity of cotton is raised; the coral, tunny, and other fisheries are extensively prosecuted; the sulphur-mines are of great value; and various minerals peculiar to

volcanic districts occur, as chrysolite, zeolite, selenite, alum, nitre, vitriol, mercury, and spicular iron. The Lipari Isles, about twelve in number, are grouped off the north-east coast.

Palermo, on the northern shore, 190 miles south by west of Naples, ranks with the principal cities of Europe in size and appearance, containing a population of 194,000. The streets are spacious, the squares numerous, the flat-roofed balconied houses and public buildings handsome, and the sea-views beautiful, particularly the one from the Marina, a long promenade by the shore. It is the see of an archbishop, the seat of a university, possesses a botanic garden and an astronomical observatory from which Piazzi discovered the planet Ceres, so named after the tutelard goddess of Sicily. At Palermo the dreadful massacre of the Sicilian Vespers commenced in 1282, caused by an insult offered by a Frenchman to a lady, which ended in the entire destruction of his countrymen throughout the island. Around the city stretches a spacious, fertile, and well-cultivated plain, called by the semi-oriental natives *La Conca d'Oro*—'The Golden Shell,' bounded by mountains, remarkable for the aloes by the waysides, the stems of which start up to the height of twenty feet, and are as thick as a small tree. The swelling hills enclose the small town of Monreale, the 'Royal Mount,' about four miles distant, distinguished by one of the most splendid and costly painted churches in Europe.

Messina, a busy seaport on the north-east coast, with 103,000 inhabitants, presents an equally fine appearance, having many good buildings, picturesque fortifications, and mountains in the background. It has one of the best harbours in Europe, forming a curve along which runs a noble quay two miles in length. The Strait of Messina, or the channel between Sicily and the mainland, is rather more than two miles and a quarter in width at the narrowest part. In the immediate neighbourhood of the city, about a quarter of a mile from the shore, and in the middle of a kind of bay, there is a spot of agitated water from seventy to ninety fathoms deep, circling in rapid eddies. This is the whirlpool of Charybdis, so much dreaded by the ancient mariners, apparently caused by the meeting of some local lateral currents with the main current which runs through the strait. Small-craft are occasionally endangered; even large vessels of war may be turned round; but no peril need be apprehended if proper caution is exercised. The rocks of Scylla, the twin danger with Charybdis to the old navigators, are situated on the Italian side of the channel, a few miles northward of the whirlpool. They lie partly under water at the foot of the bold headland on which the Castle of Scylla is built, a precipitous cliff, in places positively overhanging the sea. The two spots became proverbial for peril on either hand, or a choice of evils, but they present no difficulties to modern seamanship.



Catania.

Catania, the third place in importance, with 68,000 inhabitants, is a seaport at the southern foot of Etna, with silk manufactures and a large export trade in corn, fruits, wine, and snow from the mountain. The houses are built and the streets paved with lava. It has repeatedly suffered from earthquakes and eruptions of the volcano. In 1669 a lava stream reached the walls, which were pertinaciously heightened and strengthened to stop its flow, but the fiery torrent poured over them at last, covered part of the city, and entered the sea. *Marsala*, towards the west extremity of the island, is celebrated for the wine which bears its name, the export of which is very considerable. Population, 31,000. *Bronte*, a town at the western base of Mount Etna, about twenty-two miles north-north-west of Catania, possesses woollen and paper manufactures, and produces oil, almonds, and wine; but is chiefly interesting to us as the dukedom with which the Neapolitan government rewarded the services of Admiral Lord Nelson.

Sicily, during the middle ages, was held successively by the Goths, the Moors, the Normans, the French, and the Spaniards. In ancient times, Greek colonists had at first the mastery, but were compelled to share it with Carthaginian settlers, till both eventually submitted to the power of the Romans. Of the old foundations, *Syracuse*, a city of five regions, occupying a triangle more than twelve miles in compass, on the shore of a



Bronte.

noble bay, had the precedence in date, fame, and splendour; the magnificent harbour remains, on the east coast, to the south of Catania; but is used only by a few coasting barks. The small fortified town of *Siragusa*, with narrow and dirty streets, mean public buildings, stands on part of the ancient site, but the vestiges of pagan antiquity are few and unimportant. There are catacombs of the early Christian age, wide and lofty passages hewn in the rock, with deep arched recesses on each side, stuccoed and painted walls, some of which have had gates and locks. Ancient *Syracuse* was the birthplace of Archimedes, Theocritus, and Moschus; and for a time the residence of Plato, Zeno, Simonides, and Cicero. On the south-west coast, *Agrigentum* has been more fortunate, for its ruins, beside the insignificant modern town of *Girgenti*, are among the most magnificent of all classical monuments. Here are remains of the forum, circus, camps, aqueducts, and reservoir; columns of a beautifully proportioned temple, called that of Juno, in the midst of carob and olive trees; entire columns of another temple, named that of Concord, with the entablature and pediments of both fronts nearly complete; and huge piles of ruins styled the Temple of the Giants, which vouch for the correctness of the description given of the shrine of Jupiter Olympius at the site, but which was wholly disbelieved till the vast mass of fallen fragments was discovered. This structure was the largest temple ever erected by the Greeks, at home or abroad. Its dimensions are ascertained from the remaining wrecks; and the modern measurements prove the ancient assertion to be strictly true, that a man could hide himself in one of the flutings of the columns. Another spot, *Enna*, is rapturously spoken of by the classical writers, who describe it as an impregnable fastness, the seat of a stately temple of Ceres, a flowery meadow around it, with a lake adjoining, as well as luxuriant woods and pasturages, where the odour of the violets was sufficiently strong to throw dogs off the scent. Milton seized upon its reported beauty as an emblem of the Garden of Eden.

‘That fair field

Of Enna, where Proserpine gathering flowers,
Herself a fairer flower, by gloomy Dis
Was gathered, which cost Ceres all that pain
To seek her through the world.’

This place, of which other features are given, is identified with *Castro Giovanni*, a hill-town in the heart of the island. But the fastness, a ridge with precipitous sides, has no trees, flowers, or verdure; the lake is a marsh four miles in circuit; the temple has disappeared; and a Saracenic castle in ruins crowns one of the heights.

The deep rocky valley of *Ipsaca*, on the south coast, westward of *Cape Passaro*, is perhaps the most anciently occupied site in Sicily, or in Europe, which still retains inhabitants. This valley has on one side a wall of perpendicular rock, which presents a prodigious number of small excavated chambers, arranged over each other in several stories, of ten or twelve feet each, the opposite side exhibiting the same appearance, but to a less extent. There are as many doors as chambers, all of the same size and workmanship, almost all of

the same form, and evidently designed for the same purpose. Each chamber forms a square with obtuse angles, eighteen feet long by six wide, and as many in height. The valley presents this appearance for the length of three miles, and was therefore once the seat of a numerous population. In some instances a second chamber occurs behind the first; and occasionally the upper communicate with the lower by round apertures, where doubtless temporary ladders were placed, serving instead of staircases. The dwellings were evidently constructed by a very rustic people, for not a straight line appears, nor a right angle, nor an arched roof, nor a smooth surface. The origin of this curious troglodytic city, now the abode of a few peasants, is involved in complete obscurity.

SARDINIA, somewhat exceeding Sicily in size, but inferior in wealth and importance, while much less known, ranks as the largest island in the Mediterranean, and measures about 160 miles from north to south, by an average breadth of seventy miles. It lies to the south of Corsica, from which it is separated by the Strait of Bonifacio. The shores abound with spacious and beautiful bays; the interior is extensively mountainous, especially in the north; but none of the summits equal the Corsican in height. Woods of chestnut, cork, ilex, and wild cherry, with an undergrowth of myrtle, arbutus, and brilliant flowers, densely clothe the sides of the hills, sheltering the wild-boar, deer, quails, partridges, and other game-birds. Along the southern and western coasts are plains, in many parts highly cultivated, rich with vineyards, olive and orange groves, intersected with hedges entirely composed of cactus. But the lower grounds in these districts are marshy, and for months during the summer heats the exhalations are very fatal to strangers, and deleterious to the natives. Hence the old Romans regarded the island with mingled feelings of satisfaction and dread. They profited by its fertility, and it became one of their granaries, while they shunned a sojourn for any length of time on its shores, deporting to them criminals and political foes. Sardinia possesses a spare population, generally uncultivated and prone to indolence, cunning and revengeful, but courteous and hospitable, with a number of outlaws in the mountain-fastnesses, either bandits by birth, or offenders against the laws who have absconded from the pursuit of justice.

Cagliari, the capital, is finely placed on a commanding hill of the south coast, overlooking a spacious bay, and contains a population of 30,900. It possesses a cathedral, many churches, a well-attended university, and several public seminaries. Its narrow steep streets are scenes of great animation by day, except for about two hours at noon, when every one retires to rest; for the inhabitants commonly follow their callings before their own thresholds, carpenters, tailors, tinnmen, shoemakers, and young women spinning with spindle and distaff. The 1st of May is their grand holiday, the festival of St Eufisio, the patron saint, when guns fire, flags fly, bells ring, and the image of the saint, large as life, in full canonicals, is conducted to the place of his martyrdom, about fifteen miles distant, attended by a procession of priests and people. *Sassari*, the rival town, in the north division of the island, with a population of 25,000, has also a university, with considerable trade in tobacco and fruits. *Oristano*, on the west coast, exports corn, salt, and fish; and has the remarkable orange-groves of Milis in its vicinity, several miles in extent. 'Do not imagine,' says a visitor, 'a group of orange-trees here and there, the perfume of which comes and goes as you approach, and as you leave it; but try to realise the idea of a wood—a veritable forest! As far as the eye can reach under this balmy forest it meets with nothing but oranges.'

Sardinia was early colonised by the Phœnicians, Greeks, and Carthaginians. The Romans wrested the mastery from the latter, and retained it till the fall of the empire. In the middle ages, the rival republics of Genoa and Pisa contended for its possession, but referring their respective claims to the pope, he decided for neither, and attached it to the crown of Aragon, to be held as a fief of the papacy. In 1720 it passed from Spanish rule to that of the House of Savoy and Piedmont, and gave the title of King of Sardinia to the reigning princes, till the monarchy merged in the new Kingdom of Italy.

The Sards betray their composite origin by differences of language, dress, and manners. Besides Italian, nearly pure Spanish is spoken in some districts, and a mixture of the two, interlarded with oriental forms of speech, in others. The festal fare of the people is unique. It consists of a huge wild-boar, inside the carcass of which is placed a kid, and within the kid a sucking-pig, with a quail or some other game-bird still more interior. The whole mass is roasted in a hole of the ground, lined well on all sides with branches of myrtle, between embers of charcoal above and below. The flavour imparted by the myrtle is said to be exquisite. Monuments of antiquity, called *Noraghe*, are profusely scattered over the surface of the island. These are stone towers of conical form, often placed on the summit of hills, in various states of preservation, but generally of prodigious strength. They are probably prehistoric, of unknown design, though considered by some to have been places of sepulture to the earlier colonists.



Castle of St Angelo and St Peter's.

II. ROMAN OR PONTIFICAL TERRITORY.

The reduced domain of the Church lies on the western coast of Italy, between the Neapolitan and Tuscan provinces of the Italian Kingdom, but has only an inconsiderable extension inland. The total area very slightly exceeds 4500 square miles, and would be immediately free from ecclesiastical rule by the suffrages of its inhabitants, were it not for the presence of a foreign soldiery. It is traversed by the lower course of the Tiber, and of its affluent the Teverone, consists of a plain studded here and there with low volcanic hills, comprehending a large extent of dry pasture-ground, without trees or habitations, but thickly studded with shapeless remains of buildings. Though naturally fertile, and once productive, yet under the joint influence of neglect, social disorganisation, and malaria, the district has degenerated largely into a desert, one of the least-peopled portions of the peninsula, which the traveller would refrain from entering but for associations with the past, and the attractions of the Eternal City. In the extreme south are the Pontine Marshes, which extend about twenty-four miles along the coast, by six in breadth, formed by a number of streams which have no sufficient outlet, or descent adequate to carry off their waters. Attempts at the drainage have been often made, but not with much success, and the whole tract is highly insalubrious. The Pontifical Territory contains only a population of 690,000, all of whom are impatient of their political condition, except clergy, mercenaries, and brigands.

Rome (Ital. *Roma*), the mistress of the ancient world, the capital of Papal Christendom, and the proper metropolis of Italy, is situated on both banks of the Tiber, about sixteen miles above its mouth, in latitude $41^{\circ} 50'$ north, longitude $12^{\circ} 30'$ east, and contains a population of 197,000. The river is narrow, but deep, rapid, and turbid; and has the greater part of the city on the left or east bank. Its densest portion extends over the old Campus Martius, and three of the renowned Seven Hills, the other four, or the Palatine, Esquiline, Caelian, and Aventine Mounts, being comparatively deserted sites. The walls, which have a circuit of fifteen miles, include a large extent of ground consisting of public fields, gardens, and vineyards, interspersed with ruins. The Corso, the principal street, long and spacious, and a few other places, are scenes of bustle. But most of the thoroughfares are winding, narrow, dirty, and unpaved. Miserable dwellings often appear close beside

the finest palaces; which, with the mouldering remains of bygone grandeur, render many parts of Rome peculiarly sad and desolate. But highly picturesque are the ruins often rendered by intermingling groves of cypresses and pomegranates, overspreading fig-trees, while ivy twines around broken columns, clusters of rich grapes hang from imperial archways, and bowers of roses serve

* To gild Destruction with a smile, and beautify Decay.

On the right bank of the river are the Vatican, St Peter's, and the Castle of St Angelo. The former, the winter residence of the popes, is an immense pile of more than 4000 halls, chambers, and galleries, besides courts and gardens. It contains a celebrated library of 100,000 volumes, with 23,000 manuscripts, in almost all languages, and rich collections of ancient and modern art. In summer, the unhealthy season, the Papal residence is a palace on the ancient Quirinal Mount, or a country-seat among the hills. The Cathedral of St Peter's, adjoining the Vatican, is the largest of all temples dedicated to religion, and without a rival in its internal decorations, though considered by many inferior to St Paul's in outward appearance. But the distinction of being the metropolitan church belongs to that of St John Lateran, in which the popes are crowned, and of which they are the official ministers. So numerous are the churches, that it has been boasted the pontiff might say mass in a different one every day in the year. But many are either constantly closed, or only opened once a year on a festival-day. About eighty palaces are enumerated. The Protestant burying-ground, on the southern side of the city, close to the walls and the pyramid of Caius Cestius, contains the graves of many English, who are always numerous as art students or winter residents, with other foreigners. The English church occupies a site adjacent, but outside the gate of San Paulo. Rome is the seat of a university, one of the oldest in Europe, founded in 1244, well attended, with an astronomical observatory of distinction attached to it.



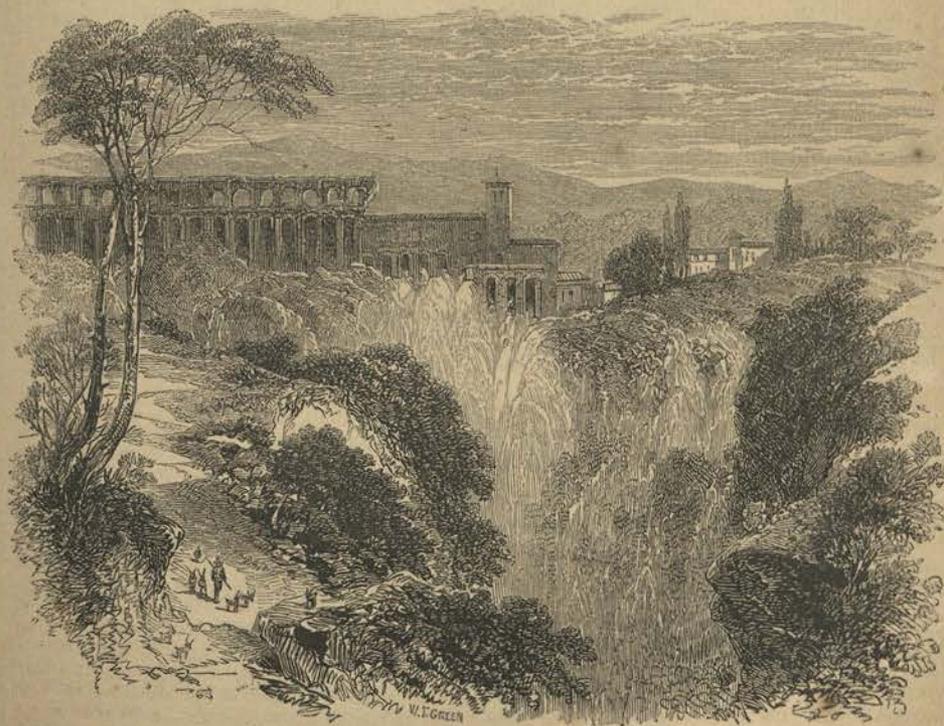
Ponte Lugano.

The Campagna, for a wide space round Rome, consists of undulating prairies, green and fertile in the extreme. At a distance it appears to be a vast level surface, but this surface is full of sudden depressions, and it is traversed by numerous water-courses, as at Ponte Lugano on the Via Tiburtina. The monuments of imperial times, more or less ruined, include the Colosseum or Flavian amphitheatre, commenced by Vespasian and completed by Titus; the column of Trajan, erected by the senate in honour of his Dacian victories; the arch of Titus, commemorating his conquest of Judea; the arch of Septimius Severus, a memorial of his successes against the Parthians; the baths of Diocletian, Titus, and Caracalla; the Pantheon, most beautiful of heathen fanes, converted into a Christian church; and the arch of Constantine, raised upon the occasion of his becoming sole emperor of the west. The most remarkable of these, the Colosseum, near the centre of the ancient city, but beyond the range of the modern dwellings, is an oval building, more than one-third of a mile in circuit, 157 feet in height, the remains of which form a gigantic monument of power and barbarity. A crucifix now occupies the centre, and extends its guardianship over the pile, while noble walls have been built to sustain the tottering portions of the fabric, tangled with grass and shrubs. It encloses an area of five acres, capable of containing 80,000 spectators of the cruel sports of the circus. 'Of all that Rome includes it should be seen alone, and by moonlight. No other human

monument speaks so strongly to the moral sense of man. The deep and lonely silence of the moonlight hour within its vast walls is broken only by the chirping of the solitary cricket in the grass of that arena which has resounded with the shrieks of human beings, the wild yells of ferocious beasts tearing them, and the acclamations of 80,000 spectators rejoicing in the butchery.' This mighty fragment is immediately eastward of the Palatine, the most famous of the Seven Hills, site of the palaces of the Caesars, nearly the whole of which belongs by purchase to the Emperor of the French, whose agents have made extensive excavations, and been rewarded by the discovery of many antiquities.

Great interest belongs to subterranean Rome, or the Catacombs, which served as places of refuge and worship for the early Christians in times of persecution, and also of burial. They consist of gloomy underground galleries formed in quarrying materials to extend the ancient city, and also in obtaining pozzuolana for cement. These galleries turn and twist in the most capricious manner, have a total extent of several miles, but can only now be very partially explored owing to obstructions from the falling in of the roofs and sides. The passages are generally about eight feet high and five wide. Three tiers of cells, used as graves, run along them on either hand; and at certain intervals, several passages opening into one another form large vaulted chambers with a church-like appearance. The Catacombs, after remaining long neglected and almost forgotten, were re-opened in the fifteenth century, and examined by Bosio and other antiquaries. Their most interesting inscriptions, sepulchral tablets, bas-reliefs, and other monuments, are in the museums of Rome, and principally in the Galleria Lapidaria of the Vatican.

Ostia, the port of ancient Rome, on the southern branch into which the Tiber divides at its mouth, is now comparatively deserted from the unhealthiness of the site. *Terracina*, on the southern border of the Pontine Marshes, is a small fishing town scourged by malaria. *Civita Vecchia*, the principal port, forty miles northwest of the capital, connected with it by railway, contains 10,000 inhabitants. It is of importance as the portal through which most travellers enter Southern Italy, regularly touched at by the steamers passing to and fro between Naples and Marseille, and the station of the French government packets communicating with the French troops in Rome. Among the inland towns, somewhat larger, are *Viterbo*, an episcopal see, in the northern part of the province; and *Velletri*, in the southern, which represents the ancient Velitrae where Augustus was born, 63 B.C. *Tivoli*, eighteen miles eastward of Rome, is delightfully seated in the valley of the Teverone, of interest from its picturesque cascade and classic ruins, comprising fine remains of the temple of Vesta, with those of the villas of Mecenas and the Emperor Hadrian.



Falls of Tivoli.



Grand Canal, Venice.

III. AUSTRIAN ITALY.

VENETIA, a province of the Austrian Empire, held by a precarious tenure, embraces a north-eastern section of the mainland, lying between the Tyrol and the Adriatic, and divided from the remainder of Italy by the lower course of the Po and the stream of the Mincio, one of its principal affluents. The territory thus enclosed has an area of 9500 square miles, with a strikingly-contrasted superficial aspect. On the northern border rise the Alps, which throw spurs far into the interior, with deep and beautiful valleys between them; but from thence to the sea and the river frontier, the country is a low and level plain, finely fertile and highly cultivated. Besides the bounding rivers, it is watered by the Adige, the Brenta, the Piave, and the Tagliamento, but, as in Lombardy, the inland water-communication is chiefly carried on by means of canals. The streams are generally rapid, loaded with sediment, which, by deposition in the course of ages, has advanced the shores in various places, or fringed them with low islands enclosing lagoons. The whole of the maritime district, with a considerable interior territory, formed the celebrated republic of Venice, which originated in the fifth century with refugees from the incursions of the terrible Attila, who fled for safety to the marshes and islets of the coast. It gradually rose in the middle ages to be the first maritime and commercial power in the world, acquired extensive foreign possessions, and was courted for its wealth and influence by all the leading states of Europe. But the chief-magistrate, or doge (a corruption of *dux*, 'duke'), at first popularly elected, became eventually the puppet of an oligarchy, arbitrary in their measures, secret in their counsels, guilty of every species of terrorism,

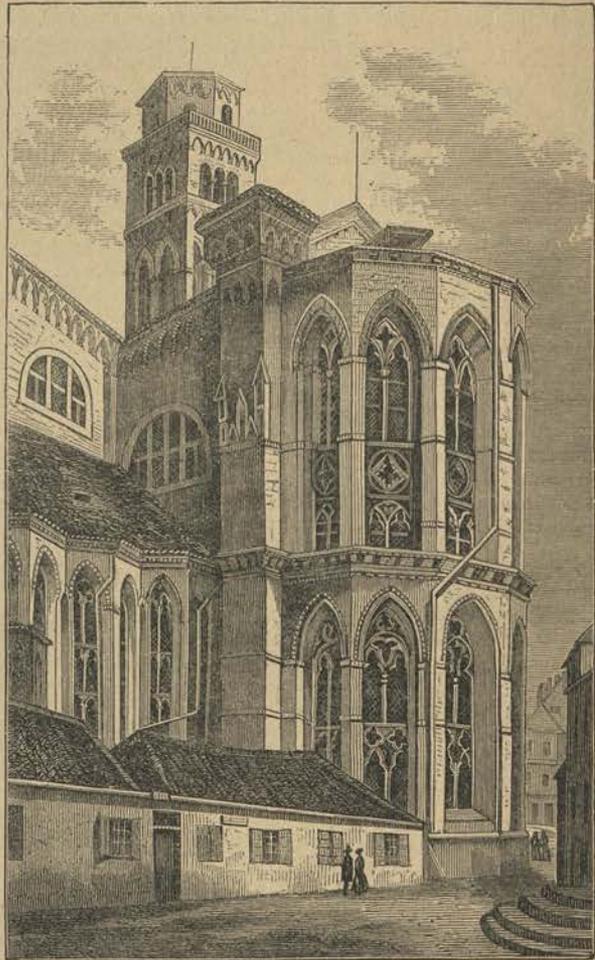
espionage, and bad government. After a long interval of decline, the independence of the nominal republic was terminated by the arms of Napoleon I., and upon his overthrow the territory was formally annexed to the Austrian possessions by the Congress of Vienna. For half a century, subject to a brief interruption, the proper natives have been treated by their foreign masters in much the same despotic manner as the powerful among their forefathers dealt with the humbler and defenceless classes of their countrymen. Venetia has a population of 2,446,000.

Venice, situated on the north-western side of the Adriatic, containing a population of 118,000, is one of the most remarkable and interesting cities in the world. It occupies a cluster of seventy-two small low islands, in the midst of a shallow lagoon, or salt-water lake, separated generally from the sea by a long narrow bar of firm sand, but communicating with it by passages through the barrier, the principal of which are guarded by strong fortifications. On the side of the mainland the lagoon is now crossed by an immense railway bridge, of more than 200 arches, which links the city with the continent, and renders the otherwise pertinent description in one point inaccurate:

'The sea is in the broad, the narrow streets,
Ebbing and flowing; and the salt sea-weed
Clings to the marble of her palaces.
No track of men, no footsteps to and fro,
Lead to her gates. The path lies o'er the sea,
Invincible; and from the land we went,
As to a floating city—steering in,
And gliding up her streets as in a dream.'

In all other respects the poetical description is accurate. The salt water penetrates every part of the strangely-situated city. The channels separating the islets are now canals, crossed by a multitude of steep bridges, and answer the purpose of streets, while gondolas serve as substitutes for carriages and cabs. No natural land is visible, owing to the close clustering of the buildings. Hence it has been remarked that there might be natives wholly unacquainted with meadows and cornfields, the lark's song, and the varied scenes of rural life. There are indeed streets, properly so called, and every dwelling may be reached on foot. But they are not wider than twelve feet from house to house, and mostly much narrower, so that locomotion is chiefly carried on by water. The change of level in the water-streets from the ebb and flow is very regular, and amounts to a fall and rise of from two to three feet. Spring-time is the most suitable season for a visit to Venice, when there are no stonches from the canals, or mosquitoes astir, as during the summer heats, and no bitterly cold winds from the snow-crowned Alps, which are common during the winter months. But a visit has at any period its disagreeables in the presence of artillery, foreign troops, and police spies. Among the citizens, the annual number of deaths has long largely exceeded that of the births, from the young and enterprising quitting the place, whenever it has been practicable, to settle permanently beyond Austrian rule. An enormous taxation, and the risk of arrest for an incautious expression, are everywhere powerful motives to emigration.

The great square of St Mark, the patron saint, in the heart of the city, is the first spot to which the



Church of Santa Maria Gloriosa dei Frari, Venice.

stranger usually repairs, and to which he most frequently returns. The cathedral occupies one side, a singular but brilliant combination of the Gothic and Oriental styles, with a lofty detached Campanile or bell-tower, and the celebrated bronze horses obtained as plunder at the sack of Constantinople in the fourth Crusade. Over elaborately-ornamented pedestals in front of the church, three gonfalons of silk and gold once waved to the breeze, symbolising the triple dominions of the old republic—Venice, Cyprus, and the Morea. The former palace of the doges, their actual residence down to the close of the sixteenth century, subsequently appropriated to offices of government, forms the east side of an adjoining oblong area. Portraits of them compose a long frieze round the hall of the grand council, with one space left blank, where that of Marino Falieri should have appeared, beheaded for treason in 1355. Angelo Participazio, the first doge, in 809, was followed by seventy-one successors in the dignity down to October 1797, when Manin, who closed the long line of magnates, had to take the oath of allegiance to a foreign power. Behind the ducal palace, a bridge over a narrow canal connects it with the state prisons, across which criminals condemned to die were led to hear their sentences read. Hence its name :

‘I stood in Venice on the Bridge of Sighs,
A palace and a prison on each hand.’

The city retains its arsenal and dockyard, surrounded by battlemented walls about two miles in circuit, in which 16,000 workmen were once employed upon the armaments of the republic. This place now tells a story of departed glory, being more of a storehouse and museum than devoted to ship-building and launches. The same tale is told by the aspect of many a palace, and the condition of many a long ennobled family.

Padua, twenty-three miles west of Venice, connected with it by railway, is a fine ancient city of 53,500 inhabitants, the seat of a university possessing the oldest anatomical and botanic garden in Europe. Galileo was associated with it as professor of mathematics; Tasso, Columbus, and Gustavus Adolphus as students. Passing *Vicenza*, on the north-west, a silk-manufacturing town, of which the architect, Palladio, was a native, the railway leads to *Verona*, which contains a population of 59,000, noted for its dyeing, silk-works, beautiful situation, military importance, and historical interest. It stands upon both banks of the rapid Adige, subject to floods which are occasionally very destructive. The surrounding landscape is dotted with cypresses, villas, and old feudal castles, while the blue hills and mountains of the Alps form the northern background, from which the breeze comes always fresh, and sometimes biting. The city is remarkable for its magnificent monuments of ancient days, consisting of Roman gateways, and a nearly perfect amphitheatre still used for horsemanship, fireworks, and other popular exhibitions. It has an enduring hold upon remembrance as the locality of Shakspeare's *Romeo and Juliet*. The celebrated quadrilateral, the strength of which induced Napoleon III., in 1859, to propose the peace of Villafranca, has Verona at the north-east angle, Legnago at the south-east, Peschiera at the north-west, and Mantua at the south-west, all strongly fortified. The two former command the line of the Adige, and the two latter that of the Mincio. *Mantua*, the native place of Virgil, is surrounded with lakes and marshes which add considerably to the strength of its defensive works. It succumbed to the arms of the first Napoleon in 1796, but only in the prospect of famine, after a long and severe blockade. The place has under 30,000 inhabitants, and exhibits a decaying aspect, the grass growing in the streets at the outskirts. *Chioggia*, on an island in the lagoon of Venice, south of the city, is a fortified seaport with considerable commerce. *Treviso*, inland, on the north, surrounded with elegant villas, and containing many handsome buildings, has varied manufactures of silk, cloth, paper, and cutlery. *Bassano*, on the north-west, seated on the Brenta, and enclosed with beautiful environs, produces the finer straw-hats, and has its name connected with the defeat of the Austrians by Napoleon in the campaign of 1796. *Udine*, close to the eastern frontier of Austrian Italy, is a flourishing industrial town, with good public buildings, and one of the most beautiful cemeteries in Europe.

Italy contains a total population of rather more than 25,000,000, destined shortly in all likelihood to form a single political body, by the Papal and Austrian territories being wrested from their present rulers, and annexed to the Italian Kingdom. The people are a very mixed race, descended from aboriginal inhabitants and the foreigners who have at different times poured into the country as colonists and conquerors, Greeks, Gauls, Goths, Arabs, and others, moulded by time into general homogeneousness, corresponding in personal appearance, habits, tastes, and temperament. Their language, a branch of the Græco-Latin family, soft and musical, is based mainly upon the ancient Latin. It is distinguished by a great number of dialects, very widely differing from each other, caused by the different infusion of foreign elements in particular districts; long-standing political divisions, and varying interests. The Tuscan is considered to be the purest and most harmonious idiom. It is consequently the language of the educated classes, irrespective of locality, and has been for a long period the ordinary vehicle of literature. The list of the great painters includes Raphael, Titian, Correggio, Caracci, Guido, Paolo Veronese, Leonardo da Vinci, and Salvator Rosa; of the sculptors, Michael Angelo and Canova;

of the poets, Dante, Petrarch, Ariosto, Tasso, Metastasio, and Alfieri; of the natural philosophers, Galileo, Torricelli, Volta, and Galvani.

The Roman Catholic religion is almost universal. Nowhere are the churches so splendid, the ceremonies so pompous, and the clergy so numerous; but whatever reverence may be paid by the people to the rites of the church, its official ministers have not secured their good-will, but are personally viewed with aversion. Except in Piedmont, and to a less extent in Lombardy and Tuscany, public education is neglected, and the popular ignorance is deplorable. The Italians are generally a handsome and lively race, of quick apprehensions, marked by strong passions, enthusiasts in the fine arts, but regardless of moral restraints, of indolent temperament, especially in the south, where indifference to household comforts has been grafted upon the bounty of nature. Many blemishes of the national character may be traced to the despotisms which so long prohibited the exercise of the understanding on public affairs, and consigned high and low alike to political slavery. Whether constitutionalism will remove the blots, and make the social and moral condition of society in some degree reflect the brightness of the skies and the beauty of the landscapes, is a problem for the future to solve.



Whit-Sunday Fête at Naples.



Constantinople, from the Cemetery of Galata.

CHAPTER IV.

EUROPEAN TURKEY.



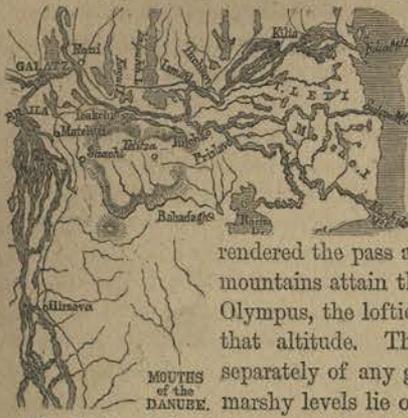
THE Turkish Empire is the only sovereign state in Europe which professes Mohammedanism, and the only one which embraces within its limits an extensive area in each great division of the mainland in the Western Hemisphere. It includes a large portion of Southern Europe, of Western Asia, and of Northern Africa—countries which are among the best situated, most beautiful, most naturally fertile, and historically renowned of the continents to which they belong. It is washed by the waters of seven seas, the Mediterranean, the Adriatic, the Ægean or Archipelago, the Sea of Marmora, the Black Sea, the Red Sea, and a small part of the Persian Gulf. The empire has the name of Ottoman from its founder Othman or Osman, at the commencement of the fourteenth century; and the dominant race invariably style themselves after him Ottomans or Osmanli, rejecting the name of Turks with disdain as synonymous with barbarian. The first ruler, a shepherd, freebooter, and warrior, confirmed his power over the north-west of Asia Minor, and bequeathed his double-pointed sword to his successors, with which, as the recognised symbol of sovereignty, they have been girded on ascending the throne—a ceremony now performed in the Mosque of Eyub at Constantinople. Their sway became European as well as Asiatic under Amurath I., who captured Adrianople in 1361, and

made it his capital. Under Selim I., in 1517, it became African likewise by the conquest of Egypt, to which the next two sultans, Soliman the Magnificent and Selim II., added Tunis and Tripoli. But all the African territories, and some of the European, though acknowledging subordination to the imperial government, are very slightly connected with it, having affairs of internal economy completely under the control of native authorities; and hence far more closely resemble separate states than provincial dependencies.

Turkey in Europe consists of the greater part of its south-eastern peninsula, and an adjoining portion of the main mass of the continent, embraced between latitude 39° and $48^{\circ} 20'$ north, longitude $15^{\circ} 40'$ and 30° east, with the large island of Candia, and several others of small dimensions. The Hungarian provinces of Austria and part of Russia form the boundary on the north; the Black Sea lies on the east; the Archipelago and the kingdom of Greece are on the south; the Mediterranean, the Adriatic, and Austrian Dalmatia on the west. Within these limits, the greatest extent is east and west, about 700 miles, between the mouths of the Danube and Western Croatia; the extreme distance north and south is nearly the same; but the average length and breadth are considerably less, owing to the southerly contraction of the peninsula. The area of the country comprises rather more than 200,000 square miles. On the west, the coast-line stretches from the Castle of St Stephens, below Cattaro, in Dalmatia, to the sandy promontory of La Punta, at the south entrance of the Gulf of Arta, of celebrity as the scene of the naval battle of Actium between Augustus and Mark Antony, 31 B.C., which secured to the former the dominion of the Roman world. On the east, the maritime frontier extends from the northernmost mouth of the Danube to the Gulf of Volo, and makes a close approach to the shores of Asia at the channel of Constantinople, or the old Thracian Bosphorus, and at the famous strait of the Dardanelles, the Hellespont of early times. Between the two straits is the Propontis of the ancients, a small, deep, and beautiful expanse of water, now called the Sea of Marmora, from an island of that name situated in it, celebrated for its marble. These narrow waters have been the scene of great military and commercial movements, from a period long anterior to the Christian era to the present day. They were crossed by the armies of Darius and Xerxes intent upon the invasion of the west, and by that of Alexander contemplating the conquest of the east, while they were navigated by vessels freighted with corn for Athens. In the middle ages they were traversed by the merchant-galleys of Venice, Genoa, and Pisa, till the Turks established their dominion on both sides of the channel, and closed the entrance to the flags of the western nations. In our own time, their waves have borne one of the mightiest armaments ever collected, British, French, and Sardinian, despatched to preserve the Ottoman rule on the soil of Europe, to expel which, four centuries ago, conclaves were held and crusades projected—a striking, but not uncommon, instance of revolution in public policy.

The interior of Turkey has for its principal superficial feature an extensive central nucleus of highlands and plateaus, under the meridian of 21 degrees, which culminate in the peak of Tshar-dagh, covered with snow nearly all the year; and form a kind of mountain-knot, from which various ranges diverge in different directions. North-westward stretch the Dinaric Alps, which join the great Alpine system of Europe. Eastward, the chain of the Balkan, ancient *Hemus*, extends to the bold headland of Cape Emeneh, on the shore of the Black Sea. South-eastward, a loftier ridge, the Despoto-dagh, runs into the plains which border the north coasts of the Archipelago. Southward, the range of Pindus follows the direction of the peninsula into Greece, of which, the classical mountains, Olympus, Pelion, and Ossa are offsets on the Gulf of Salonica. These chains, to a

considerable extent, render communication between contiguous provinces rare and difficult in a country where art has not been employed to soften the features of nature owing to the apathy of the present inhabitants; and where the engineering works of its ancient



masters—Greek and Roman—have suffered largely from the ravages of war as well as from the dilapidations of time, with scarcely an effort to repair them. The only route across the Balkan to which much attention is paid, is on the line of communication between Constantinople and Vienna, which bears the name of *Porta Trajani*, in memory of the emperor who rendered the pass a practicable thoroughfare. A few of the Turkish mountains attain the elevation of from 9000 to near 10,000 feet, as Olympus, the loftiest, 9754 feet; but they are generally much below that altitude. The lowlands are chiefly maritime, and are not separately of any great extent, except on the north-east, where vast marshy levels lie on both sides of the Lower Danube.

The Balkan Mountains, protecting the heart of the country, are of great importance as a line of military defence in the event of invasion from the north. They form an undulating range separating Roumelia from Bulgaria; and the waters which flow to the Archipelago from those which fall into the Danube. Their height gradually diminishes from west to east. Towards the Black Sea it is inconsiderable, and here the fortified positions of Shumla and Varna close three of the passes. In the opposite direction it rarely exceeds 4000 feet. Mount Merrikon, the culminating-point, rises 6395 feet, and does not lose its snow at the summit till the summer is somewhat advanced. The tops and sides of the chain are clothed with thick woods through almost the whole of its course, and it is only along the declivities of valleys and gorges that any extent of bare rock appears. A range of hills along the base, intersected with ravines, is also so densely covered with brushwood as to be scarcely penetrable. The difficulty of leading an invading army across these mountains is not owing to the height of the passes; the forests are the chief obstacles, with the want of roads better than the rudest mule-paths. When the Russians, under Marshal Diebitsch, effected the passage in July 1829, pioneers were sent in advance to hew ways through the woods and jungle. The soldiers marched in caps, linen trousers, and uniform. Each carried a knapsack containing provisions for ten days, and a change of linen. Baggage of every other kind was left behind. The Turks themselves rendered this operation successful, Varna having been surrendered by the treachery of the governor, while, as if bewildered by its audacity, not a hand was lifted to oppose the passage of the enemy. Yet, under these favourable circumstances, it was with extreme difficulty, after the lapse of a month, that a remnant of the invaders staggered on to Adrianople; and had not their commander carefully masked the condition of his troops, and the infatuation of his opponents blinded them, they would only have accomplished the feat to become prisoners of war. The Russian line of march was by the defiles parallel to the sea-coast from Iowan Derwish to Misivria; which seems to have been the route taken, but inversely from south to north, by Darius. Alexander probably forced one of the westerly passes. He found the barbarians in arms to defend their mountains. They were strongly posted on the summit of a steep acclivity, guarded by precipices on each side. Their front was protected by a line of wagons which served as a rampart, and were also intended to be rolled down so as to break the phalanx as it advanced up the height. But anticipating this design, the general provided against it. On seeing the machines put in motion, the

phalanx opened its ranks, where the ground admitted of the operation, and where it was impracticable, the soldiers lay down under the shelter of their interlinked shields. Thus the vehicles either passed harmlessly through the spaces suddenly opened to admit them, or with little injury rolled over the bodies of the troops defended by a solid brazen canopy.

The northern provinces are watered by the Danube, which receives many important tributaries from each, the Morava from Servia, the Isker from Bulgaria, the Aluta and Jalomnitz from Wallachia, the Sereth and Pruth from Moldavia. This noble stream has long been navigated by rafts similar to those of the Rhine, and is now, by steamers, an important channel of communication between Turkey and the rest of Europe. It acquires great expansion at intervals, and is often split into several channels by numerous small islands, which, with the occurrence of sand-banks and rapids, render the navigation intricate. Soon after reaching the Wallachian frontier, the river enters the Iron Gate, a defile bordered on both sides by steep and lofty cliffs, which contract its bed, and encumber it with rocks. The confined waters rush through the pass with great violence, and form a succession of rapids. Towards its termination, the aspect of the stream is remarkably different—as unpicturesque as possible. It flows through a vast flat of swampy ground, covered with bulrushes, of which pelicans and other large birds, frogs and reptiles, are almost the only inhabitants, but is rife with mosquitoes in hot weather, and choked with immense accumulations of mud and sand. The course of the Danube is singularly



Sulina Mouth of the Danube.

tortuous through the Turkish dominions. After a long curving sweep from west to east, it approaches to within forty miles of Kustendij on the Black Sea, then makes a great bend to the north, turns again to the east, and adds nearly 200 miles to its length by this detour. It finally discharges by three principal channels—the northern, called Kilia; the central or the Sulina; and the southern or St George's. The two former are the most used by shipping, but both are much obstructed by sand-bars, and the temporary or permanent stranding of vessels on them is a common incident. Since the year 1858, under the auspices of a commission constituted in pursuance of the Treaty of Paris at the close of

the Russo-Turkish war, the Sulina mouth has been much improved. The peninsula formed by the great northern bend is the Dobrudscha, a well-known swampy and pestilential tract, formerly crossed by an embankment, traces of which remain, under the name of Trajan's Wall. A railway now intersects it, connecting Techernavado on the Danube with the port of Kustendij, by means of which passengers are spared the most tedious part of the river navigation. Rivers are numerous in other parts of the country, but are not of important size, or of much navigable value. Some of classical interest are reduced to threads in the summer heat. The Maritza, ancient *Hebrus*; the Struma or *Strymon*, which anciently formed the boundary between Macedonia and Thrace; the Vardar or *Axius*, and the Salembria or *Peneus*, flow into the Archipelago; and a considerable number with short courses descend from the mountains westward into the Adriatic. The Lakes of Scutari, Ochrida, and Janina are spacious expanses in the highland region of Albania.

Great diversity marks the climate, owing to the varying elevation and exposure of the surface. On the extensive plains of the Lower Danube the winters are intensely cold, and the summers correspondingly hot. The Romans were astonished at the severity of the former season in this region. In the age of Augustus, the poet Ovid, banished from Rome by the edict of the emperor, and ordered to reside at Tomi, a colony near the mouth of the river, had some years' acquaintance with the spot, then on the confines of civilisation. Poetical epistles sent home to his friends are crowded with complaints of everything—the land, water, and sky—the air, the people, and especially the winter. 'The snow lies deep; and as it lies, neither sun nor rain can melt it. Boreas hardens it, and makes it endure for ever. Hence, when the former ice has not yet melted, fresh succeeds, and in many a place it is wont to last for two years. I have seen the vast sea frozen with ice, and a slippery crust covered over the unmoved waters. To have seen it is not enough. I have trod upon the hardened ocean, and the surface of the water was under my feet, not wetted by it.' The thermometer now sometimes descends to 15 degrees below zero, and the sledge is used for travelling. But probably in former times the winter was in more violent antagonism to the summer than at present. Only the most northerly ports of the Black Sea are now annually ice-bound; but in 401 A.D., large tracts of it were strongly frozen, and when the weather broke up, such mountains of ice drifted by Constantinople that the inhabitants were terrified. In the reign of Constantine Copronymus also, people walked across the Bosphorus on the ice, from the European to the Asiatic shore. Either of these events would now be quite a phenomenon. At Constantinople the mean annual temperature is lower than that of places in Italy and Spain at the same latitude; and great changes are suddenly experienced from the shifting of the wind to opposite quarters, north and south. But in all the inland districts south of the Balkan, except at high elevations, and on the shores both of the Archipelago and Adriatic, the climate is delightful, and the vegetation has a southern luxuriance.

The northern provinces have extensive woodlands: whole forests of apple, pear, cherry, and apricot trees, with the oak, beech, lime, and ash. South of the mountains, these trees are confined to their slopes, while the lowlands are clothed with the almond, walnut, chestnut, maple, and mulberry, cypresses, and sycamores of enormous dimensions, besides the myrtle, laurel, box, and other evergreens. In spring the surface is gay with flowers, among which the narcissus, violet, and hyacinth appear in profusion, with gardens of roses, jasmine, and wild lilac. In the extreme south the olive becomes the most common fruit-tree, while the orange and fig are abundant. The vine is grown generally, but the grapes raised on the banks of the Danube are far inferior to those grown on the coasts of the Archipelago. In Bosnia the plum takes its place, and a favourite beverage, *slivovitza*, is made from its juice. Melons, cucumbers, peas, beans,

and cabbages, which form a principal part of the ordinary food of the Turks, are raised in great quantities; but some of our common vegetables are scarcely known, and the potato has a very restricted cultivation. The grain crops—maize, wheat, rye, barley, and millet—are sufficiently abundant, not only for the home demand, but for exportation, and ten times the produce might be gained by skilful husbandry. Roumelia is one great garden, in which, however, the weeds contend with the fruits of the earth, for the mastery. Rice is grown in the southern provinces, where there are marshy tracts of limited extent; but the supply being insufficient for home consumption, this is the only grain which is imported. Tobacco, flax, hemp, cotton, and silk are other products of the soil. Both agriculture and horticulture are everywhere in a very backward state, the implements being of the rudest description, while the long unsettled state of society has so far checked industrial efforts, that a vast proportion of the surface is not brought under any kind of cultivation. Herds of oxen, flocks of sheep and goats, with bees producing large quantities of wax and honey, constitute the chief wealth of the inhabitants in Wallachia and Moldavia; and, to a less extent, that of the mountaineers in Albania and Bosnia.

For purposes of internal government the country is divided into eyalets or provinces, which are subdivided into districts of smaller dimensions. But Turkey is best known by old geographical divisions, those of Roumelia, Thessaly, and Albania; Montenegro, Bosnia, Herzegovina, and Croatia; Servia, Wallachia, Moldavia, and Bulgaria.

Divisions.	Cities and Towns.
Roumelia or Rumili,	Constantinople, Adrianople, Gallipoli, Cavalla, Saloniki.
Thessaly,	Larissa, Trikhala.
Albania,	Janina, Scutari, Durazzo.
Montenegro,	Cettigne.
Bosnia,	Bosna-Serai, Travnik, Novi-Bazar.
Herzegovina and Croatia,	Mostar.
Servia,	Belgrade, Kragojevatz, Nissa.
Wallachia,	Bukharest, Giurgevo, Ibrail, Krajova.
Moldavia,	Jassy, Galatz, Ismail.
Bulgaria,	Sophia, Shumla, Varna, Widdin, Silistria.

ROUMELIA comprises the country between the Balkan Mountains on the north and the Archipelago on the south, and corresponds in its limits to ancient Thrace and Macedonia. It contains the capital, and is the only province in which the Turks are found in large compact bodies. The points of natural interest are the shores, particularly those of the two narrow straits, the Bosphorus and the Dardanelles, where the European portion of the empire closely approaches the Asiatic part of the territory.

The Bosphorus connects the Black Sea and the Sea of Marmora. It extends about eighteen miles, between receding and advancing shores, which form seven bays, with corresponding promontories opposite, and cause the breadth to vary from rather less than half a mile to two miles. This fine natural canal is bounded by ranges of undulating hills, crossed at intervals by sloping valleys of delicious verdure, clothed with oriental trees and flowering plants. Being the resort of the wealthy classes from the capital, the sides of the hills are thickly studded with their residences, surrounded with gardens and plantations, in which the orange, plantain, vine, and fig-tree are intermixed with flowers of every hue. On the shores of the Bay of Buyukdere, which lie open to the fresh and cooling breezes of the Black Sea, are the summer palaces of the British, French, and Russian ambassadors, with the Giant's Mountain, the highest hill on the channel, nearly opposite on the Asiatic side. In the midst of these charming retreats, castellated ruins occur here and there, which tell of the struggles and vicissitudes of the past, and give picturesqueness to the beautiful landscape. Nearly midway, at the narrowest part of the strait, are the Castles of Europe and Asia, so called in relation to the continents on which

they stand and also styled the Castles of Roumelia and Anatolia, in allusion to the provinces in which they are situated. The fortifications were erected to secure a point constituted by nature the high-road for both continents, where Darius made his bridge of boats when he marched against the Scythians, and the Ottoman armies crossed in like manner prior to the fall of Constantinople. During the rule of the Janissaries, the Castle of Europe was the prison to which refractory members of that body were committed. An embrasure on the lower rampart is still filled by the large gun, which was fired on the execution of great criminals, to announce the event to the sultan in the capital. The Castle of Asia was the prison of the Bostanjis, or guards of the palace, who were immured or executed within its walls according to the nature of their offences. The term Bosphorus signifies the 'passage of the ox' — *Oxford*.

The channel of the Dardanelles connects the Sea of Marmora with the Archipelago, and has its name primarily from the city of Dardanus, on the Asiatic side. Two forts are at the southern entrance, one in Europe and the other in Asia, called the New Castles; two more, or the Old Castles, are similarly situated about midway through the strait; and between their sites are strong modern fortifications mounting guns of immense calibre. The strait extends about forty miles in length, by a breadth varying from four miles to less than one; and has always a strong current running through it from the Sea of Marmora. Close to the Old Castle on the European side is the barrow of Hecuba, where the Athenians erected a trophy after their victory towards the end of the Peloponnesian war. A



Bosphorus, with Plan of Constantinople.

little to the north, the site of Sestos is usually placed, to which, according to the legend, young Leander nightly swam from Abydos, on the opposite shore, to visit Hero. The breadth of the channel is at this point a mile and a half. Lord Byron performed one part of the exploit, after being an hour and ten minutes in the water, but did not attempt the other part, that of swimming back again. Near the northern extremity of the strait, the Turks effected their first passage into Europe, about a century before the fall of Constantinople. Soliman, the eldest son of the second sultan, having been appointed governor of the province on the opposite Asiatic shore, visited the spot where the populous and wealthy maritime city of Cyzicus had flourished. Its broken columns and marble edifices in ruins, scattered over the turf, filled him with awe and admiration. He loved to wander on the beach, lost in reverie, amid the remains of what seemed wondrous palaces built by the genii of the air. One evening, as he sat wrapped in contemplation, he beheld the pillars and porticoes of the desolate temples of Jupiter, Proserpine, and Cybele reflected by the light of the moon in the tranquil waters, while a few fleecy vapours hung over the waves. It seemed to him as if the city were emerging from the deep, restored to former beauty, girdled with the white sails of its ancient fleet. The murmuring waves and whispering winds broke upon his ear as mysterious voices from invisible beings, while the moon appeared to unite with her beams the opposite coasts of Asia and Europe. Immediately the purpose was formed to have both sides of the strait blended in his own inheritance. With a chosen band, on the following night, he crossed the channel on a raft, and seized the Castle of Tzympe, now Chini, near Gallipoli. In memory of the landing, a rocky strand or mole still bears the name of the Victor's Harbour; and at a little distance, a hill crowned with a scanty ruin is said to be the spot where the Turkish standard was first planted on the shore.

Constantinople, the capital of the empire, in latitude 41° north, longitude $28^{\circ} 55'$ east, commemorates by its name the founder, Constantine the Great, the first Christian emperor of the Roman world, who commenced the city on the site of Byzantium, 323 A.D. It fell into the hands of the Turks in 1453, and is invariably called by them Stamboul. No situation can be finer, washed on three sides by gleaming waters, the shores of which are hilly, studded with kiosks, and clothed with the freshest verdure. The city extends over the seven hills and intervening valleys of a triangular-shaped area, at the junction of the Bosphorus with the Sea of Marmora. An arm of the strait, called the Golden Horn, from its beauty and curving outline, which runs inland nearly five miles, forms the harbour. It has depth of water sufficient for the largest men-of-war, close inshore, and space for a thousand sail. The harbour separates the city from the suburb of Galata, the principal seat of commerce, and from that of Pera, which is mainly a continuation of it, the head-quarters of diplomacy, where the ambassadors and consuls reside. Across the Bosphorus is the Asiatic suburb of Scutari, the great rendezvous of caravans bound for inland Asia. Triple walls, rising one above the other, now largely dilapidated, enclose the city proper. Seven gates lead into it from the Sea of Marmora; seven from the Golden Horn; and six from the land. One of the latter, the Top Kapoussi, or Cannon Gate, formerly bore the name of St Romanus, and marks the spot where the last of the Paleologi fell in the defence of his capital, and where his conqueror, Mohammed I., entered.

Though in itself a confused mass of narrow, winding, dirty streets and wooden houses, the appearance of Constantinople at a distance is singularly imposing, as the principal mosques crown the summits of the seven hills; while the surrounding scenery is beautiful in the extreme. From the Seraskier's Tower in the city, or the Tower of Galata, or the heights above Scutari, the eye overlooks a fanciful mixture of domes, minarets, and cypress groves; glittering mosques, ruined aqueducts, and solemn cemeteries; graceful slopes and castled crags; with the windings of the blue and brilliant sea, over which thousands of boats are gliding; while eastward, the grand panorama is bounded by the hills of Mysia and Bithynia, amid which, and above all, rises the lofty head of the snow-crowned Olympus. The principal mosque, that of St Sophia, occupies the summit of the first of the seven hills reckoning from the Bosphorus, and adjoins the Seraglio. It was originally a Christian church, founded by the Emperor Constantine; re-erected in its present form in the reign of Justinian, and has preserved its principal features unaltered during thirteen centuries. It is a huge square building, surmounted with cupolas and a very flat dome, with a beautiful minaret at each of the four corners, added by the Turks, along with some highly-gilded crescents. The interior of the dome is inscribed with the text from the Koran in Arabic characters, 'God is the Light of the Heavens and the Earth.' During the nights of the sacred month Ramazan, this verse is illuminated by a sea of rays from some thousands of lamps. The flooring of the church is of waved marble, in imitation of the rolling of the sea. The interior

is covered with the richest Turkey and Persian carpets, and along the walls are recesses with white curtain screens, where the devout Turk can retire for prayer; while scattered here and there are small raised pulpits, where learned doctors expound the Koran. Six other mosques are dignified with the style of imperial. That of Sultan Achmet I. may be regarded as the Mohammedan cathedral of the city, for to it the sultans generally repair on the great festivals, with the officers of state. The Seraglio, or old imperial palace, a group of structures directly overlooking the Bosphorus, built at different times by successive rulers, was almost completely destroyed by fire in 1863. Its principal entrance, the Gate, where public business was formerly transacted, according to usage with the orientals, originated the name of the Sublime Porte, distinctive of the Turkish court. A new palace, similarly situated, erected by the late sultan, Abdul Medjid, is remarkable for being in the modern classical style, but not without blendings of oriental features.

Fountains are very numerous in the city, sometimes highly ornamental, often inscribed with a verse from the Koran. Baths abound for persons of all classes, with khans or inns for the reception of strangers, homely buildings suited to their purpose; and of coffee-houses there is no lack. Manufactures are chiefly limited to morocco leather, saddlery, shoes, and meerschaums. Trade is carried on in long covered streets of shops, or bazars, each of which is appropriated to some particular merchandise. These are the principal scenes of life and bustle, along with the harbour, which presents a very animated spectacle, crowded with ships, steamers, and caiques, or wherries which ply for hire. The latter are the ordinary passage-boats of Constantinople, as the gondolas are of Venice. Of these there are said to be not less than 80,000 on the waters in and around the city. They are of extremely light construction, built of thin planks of walnut-wood, polished, carved, and in parts gilt. Skimming the surface of the water, they are easily propelled with wonderful rapidity. The oars have a large bulb or swelling near the handle, the weight of which assists the rower in raising them. Passengers do not sit on cross-benches, but at the bottom upon cushions or carpets. The state-caique, in which the sultan is conveyed to the mosques, is gilt and painted with gandy colours, and has the figure of a large peacock at the prow. Here sits the sword-bearer; while in the stern, beneath a splendid canopy, is the magnate, with his body-guard behind him. The barge is propelled at a very swift rate by twenty-six caijees, or boatmen, in picturesque dresses, pulling a stroke of thirty seconds' interval. Every Friday, the Mohammedan Sabbath, the sultan attends the *namaz*, or noontide prayer, at one of the mosques, with the ministers of state and the great officers of the household. This is a religious duty imposed upon the sovereign for the time being, from which under no pretence, except that of dangerous illness, can he be exempt. About ten o'clock the particular mosque to be visited becomes known; and the road from the water-side is crowded by numbers of the faithful, and of foreigners in the city. The show by water, amid military music and the fire of artillery, is very imposing. Not less so is the spectacle by land, as the chief of Islamism and his grandees proceed slowly on richly-caparisoned steeds led by attendants, while the multitude maintain the most perfect silence. But perhaps the most delightful hours of the sojourner are those devoted to gliding up the winding haven, and visiting the Valley of Sweet Waters, which is only a short walk from its further end. This is a quiet and shady glen, with deep green grass and stately trees, much resorted to by pleasure-parties in the summer season, and occasionally the retreat of the sultan, who has here a kiosk. A stream flows through it in a canal lined with marble, the work of Achmet III., who also laid out the grounds. An enormous plane-tree rises in the centre of the valley, the trunk of which is 47 yards in circumference, while the branches afford a shade for 130 yards around it.

Among the European capitals, Constantinople ranks after London and Paris in the number of its inhabitants. Though not known with certainty, the population is probably not less than 700,000, including that of all the suburbs. After the Turks, the most numerous body are the Armenians, next the Jews, then the Greeks, with a very motley assemblage of Ionians, Germans, Italians, Maltese, Austrians, French, Russians, British, and Americans. What Lady Mary Wortley Montagu wrote at the spot more than a century ago is true of it at present. 'I live in a place,' said she, 'that very well resembles the Tower of Babel. In Pera they speak Turkish, Greek, Hebrew, Armenian, Arabic, Persian, Russian, Slavonian, Wallachian, German, Dutch, Italian, French, Hungarian, English; and what is worse, there are ten of these languages spoken in my own family.' The Turks are chiefly found in the city, though they are numerous also in the suburbs. The Armenians, Jews, and Greeks occupy distinct quarters in the capital, while diffused to some extent through it, and forming a considerable element without the walls. The Turks have their newspapers, of which the *Jerideh Hawadas*, the Record of News, is the most important, conducted by an Englishman. The Armenians have likewise their weekly chronicle, the *Mejmooi Hawadas*, the Collection of News. There is for the English the *Levant Herald*, and for the French the *Journal de Constantinople*.

However intermingled in life, each of the principal nations has a separate resting-place in death; and very extensive, beautiful, and picturesque sites are the cemeteries. The Turks plant the evergreen cypress, *Cupressus sempervirens*, near every new grave, and do not allow it to be employed for the same purpose by the other races. They adopted the practice from the conquered Greeks, who derived it from their ancestors, by whom the tree was considered an emblem of immortality, on account of its reputed longevity, and the durability of the wood. Their cemeteries have become in some instances extensive forest-like tracts, owing to the invariable usage of opening a new grave for every fresh corpse. The common memorials are truncated pillars, surmounted with sculptured representations of the turban or of the fez to distinguish the men; and inscriptions in Arabic letters, generally richly gilt, setting forth the name, titles, and merits of the deceased. The most important burial-grounds on the

European side of the Bosphorus are near Pera and at Eyub, close to the upper extremity of the harbour. But the great home of the dead is on the Asiatic shore, in the immediate vicinity of Scutari, where a magnificent forest slants towards the sea, and stretches away inland for miles, the cypresses of which have grown to an extraordinary size, while multitudes are still in their infancy. It is divided into various parts by alleys running through it, which present at almost every turn picturesque views of land and water. Great numbers of turtle-doves frequent these wooded abodes of departed generations, and hold a joint sway in them with owls and bats. This vast necropolis has been vividly described by the author of *Anastasis*. The Constantinopolitan Turks have a predilection for interment on the Asiatic shore, as the soil that was their fathers previous to the European conquest; the country of the Prophet, and of the cities deemed specially sacred by all true believers, Mecca, Medina, Jerusalem, and Damascus; and owing also to a presentiment that they are doomed one day to be driven out of Europe, when they will have secured their bones from disturbance by the hands of the infidels if buried across the water.

Adrianople, the capital of European Turkey from 1366 to 1453, north-west of Constantinople, ranks after it in extent and consequence, containing about 140,000 inhabitants. The name commemorates its founder, the Roman Emperor Hadrian. It stands on a beautiful plain, watered by the Maritza, and celebrated for its plantations of roses, from which a considerable quantity of attar of roses is made. The city is a collection of wooden houses and narrow streets, the latter darkened by projections from the opposite dwellings, and the whole besprinkled with mosques, baths, khans, bazaars, and gardens. Among the bazaars, that of Ali Pasha is remarkable for its size, being 300 yards long, built of alternate red and white bricks, and devoted to the sale of the more costly commodities, as shawls, muslins, and jewellery. Among the forty mosques, that of Sultan Selim is pre-eminent, one of the largest and most beautiful edifices of Mohammedanism, a monument of its founder's partiality for the city. It has four lofty fluted minarets of very elegant construction, ascended by spiral staircases, 1000 windows, and an exterior court paved with large slabs of white marble. Long after Adrianople ceased to be the capital, several of the sultans made it their residence, as Mohammed IV., Mustapha II., and Achmet III., a preference which so exasperated the Janissaries, that it was one considerable cause of the rebellions which led to their suppression. There are several towns of considerable size in this part of the country, but without any features of special interest, except a few on the coast which



Gallipoli.

are historical sites. *Gallipoli*, a port near the northern extremity of the Dardanelles, the Callipolis of ancient geography, is 130 miles west-south-west of Constantinople, and has a shipping trade in corn, wine, and oil, with manufactures of morocco leather. The town was the first European conquest of the Ottomans, and here, during the late Crimean war, the British and French troops first encamped on Turkish soil. In the town and neighbourhood are seen many remains of ancient sculpture and architecture, the most noteworthy of which are the magazine and cellars built by Justinian. *Cavalla*, a small port on the north coast of the Archipelago, is the ancient Neapolis, the landing-place of St Paul on his voyage to Macedonia. Here Mohammed Ali was born, who, after being engaged in its shipping trade, the export of cotton and tobacco, rose to be Pasha

of Egypt, and acquired such power that the intervention of the Western Powers was necessary to prevent him from subverting the Turkish empire. Ten miles inland is the plain which witnessed the memorable defeat of Brutus and Cassius by Augustus and Mark Antony, 42 B.C. A wretched village and a few ruins here represent Philippi, a city founded by Philip of Macedon, the scene of the Apostle's imprisonment, and the first place in Europe where Christianity was proclaimed. *Saloniki*, at the head of the gulf of that name, represents Thessalonica, associated with his life and labours; and now ranks after Adrianople in the number of its population, 70,000, and is next to Constantinople in the extent of its commerce. Monuments go back to primitive Christian times, and to the prior age of Greek and Roman heathenism. It has an imposing appearance from the sea, mosques, minarets, and domes rise up from the shore, tier above tier, to the summit of a hill, capped by a strongly-built citadel. Nearly half the population are Jews, who have a large scholastic establishment, numbering 1000 pupils. Greeks also are numerous. Previous to the Turkish capture of the city under Amurath II. many of the inhabitants left it, and, anticipating the permanent conquest of the country, they settled themselves in other lands. Among these refugees was the celebrated Theodore Gaza, who repaired to Italy, rapidly acquired the Latin language, became rector of the university of Ferrara, and contributed to the revival of letters in Western Europe.

A very remarkable region bounds the Gulf of Saloniki on the eastern side. This is a peninsula projecting into the Archipelago, which forms three minor peninsulas at its termination, advancing like a trident into the sea. The easternmost prong is of great interest, as the *Hagion Oros*, or Holy Mountain of the Greeks, the *Monte Santo* of the Italians, otherwise Mount Athos, the denomination, properly speaking, only of the high peak at the extremity. This minor peninsula is about forty miles in length, and on an average four miles in breadth. It is connected with the larger by a low narrow isthmus, through which Xerxes cut a canal for his fleet, to save some tedious and dangerous navigation, a few traces of which are still distinctly visible. From the isthmus the ground rises in undulations, until it forms a steep central ridge, which runs like a backbone through the entire tract. Towards the southern end it attains an elevation of about 4000 feet, and then, after a slight depression, suddenly throws up the vast conical peak of Mount Athos, 6400 feet high, the base of which is washed on three sides by the sea. Lateral valleys and deep gorges run down from the central ridge to the coast, with magnificent vegetation clothing their slopes. Above are forests of beech and chestnut; below are oaks and plane-trees, with the olive, cyprus, and arbutus, upon which luxuriant creepers have fastened, and hang in festoons from their branches. 'The peak itself,' says a recent visitor, 'is, from its height and solitary position, its conical form and delicate colour, a most impressive mountain. It rises several thousand feet above the region of firs in a steep mass of white marble, which, from exposure to the atmosphere, assumes a faint tender tint of gray, of the strange beauty of which some idea may be formed by those who have seen the dolomite peaks of the Tyrol. I have seen its pyramidal outline from the plains of Troy, nearly 100 miles off, towering up from the horizon, like a vast spirit of the waters, when the rest of the peninsula was concealed below. So great is the distance that it is only visible at sunset, when the faintness of the light allows it to appear. From its isolated position, it is a centre of attraction to the storms in the north of the *Ægean*; in consequence of which the Greek sailors have so great a dread of rounding it in winter, that it would be no unreasonable speculation for an enterprising government to renew the work of Xerxes.' Mount Athos was one of the stations of the fire-beacons which carried Agamemnon's telegram to Clytemnestra. The architect Dinocrates proposed to carve the huge peak into a statue of Alexander. Pliny reported that when the sun is going down, the shadow of the mountain stretched as far as Myrrhina in Lemnos; and the island of Skiathos is stated to derive its name from the fact that at the summer solstice, at sunrise, the shadow is projected to it over the intervening sea.

From a remote period this singular peninsula has been occupied by a large number of Greek monks, who discreetly came to terms with the sultans, prior to the conquest of Constantinople, and have ever since been tolerated in the exclusive possession of the territory, on payment of a tax (£4000 per annum), which a Turkish officer, the only Mohammedan within its bounds, collects. There are twenty monasteries, most of which have fine sea-views, and have far more the appearance of feudal strongholds than religious houses. They have libraries stored with manuscripts, abandoned to dust and neglect, from which hopes have been entertained, but have not yet been realised, of the recovery of literary treasures supposed to be lost. In the middle ages Mount Athos was the centre of Greek learning, and of Byzantine art. The monks, who follow the rule of Basilus, number about 8000. The general interests of the communities are governed by a representative body, with an annually elected president at its head, who has the style during his term of office of the 'First Man of Athos.' No woman is allowed on any account to step into the district; and the restriction is extended to female creatures of every kind. Not a hen, cow, sow, mare, or she-cat is tolerated; but all the monasteries have huge tom-cats, procured of course from the outlying world. Visitors who pass the night in the dormitories have unquestionable evidence of the fact that certain insects defy the prohibition, breed and multiply in alarming numbers to the disturbance of all rest. The communities are kept up by the admission of members from without, and as some of these have entered the peninsula in very early life, and have never quitted it, the image of womankind has faded completely from recollection. Mr Bowen, in 1850, was gravely asked by one of the fraternity: 'What sort of human creatures are women?' It was elicited from the inquirer that he had seen only his mother, and had forgotten even her appearance, as he had been placed when four years old under the care of an uncle in one of the monasteries, and had not since mingled with the outer world, a period of twenty-four years. The monks never eat meat, but subsist on fish, fruit, and vegetables. They are

engaged in agriculture, gardening, and the care of bees; and a considerable trade is carried on in amulets, images, crucifixes, and small articles of furniture, all of their own manufacture. These are also the pursuits of a fluctuating body of seculars, who seldom amount to less than 3000. They form the population of Karyæes, or 'The Hazels,' the only village in the district, centrally situated in the midst of gardens and vineyards, and certainly the only place in the world with the resemblance of a town where no marriage is celebrated, no birth occurs, the inhabitants being all bachelors. Here resides the Turkish officer who collects the annual tribute for the government, but even he is not allowed to have his wife with him. Once a year, on the festival of the Transfiguration, some of the monks go up Mount Athos, and celebrate mass at the summit. The peak rises to so sharp a point as only to have room for a little chapel on one side, from which the crags descend in tremendous precipices, and for a small platform on the other, a few feet wide, from which again the cliffs fall away rapidly.

THESSALY, on the western side of the Archipelago, is a spacious and luxuriant basin-shaped plain surrounded with grand highland barriers. On the north rise the Cambunian Mountains, on the west is the chain of Pindus, on the south are the ridges of Othrys and Ceta, on the east lies the sea, with the bold forms of Pelion and Ossa. At the north-east corner, the encircling heights are broken by the Vale of Tempe, which affords the only road from the plain northwards, which does not lead over a mountain-pass. This spot, so renowned for its beauty, is not a valley but a defile, separating the masses of Olympus and Ossa, through which the Salembria or Peneus flows to the Archipelago. It is about five miles long, lined on both sides with towering precipitous cliffs, which alternately advance and retreat, and leave only room for a narrow passage on the right bank of the stream, in the formation of which the rocks at various points have been cut away. The scenery has recalled the remembrance of Killiecrankie in Scotland and Dovedale in Derbyshire, but is upon a much grander scale. Ledges of the cliffs are covered with wood, and wherever space is afforded by the water-side, ivy-clad planes, oaks, and other forest-trees appear, of very remarkable size, which throw their branches over the river, and at intervals almost hide it from view. Mount Olympus, famous in antiquity as the fabled habitation of the gods, where Jupiter sat shrouded in mists and clouds from the eyes of mortals, rises to the height of 9754 feet. Fine woods of chestnut, beech, oak, and plane clothe the lower slopes, and dark forests of pines the upper. The brow is bare, and scarcely ever entirely free from snow. Once a year, on St John's Day, the 24th of June, some Greek priests from the neighbourhood go up to a small chapel near the highest point to perform mass.

Larissa (Turk. *Yenitschir*), the chief town of Thessaly, is delightfully situated towards the centre of the plain, environed with groves of oranges, lemons, citrons, and pomegranates, from which arise the slender and dazlingly white minarets of numerous mosques. It carries on an important transit-trade, with manufactures of silk and cotton goods, and Turkey-red dye-works. Population, 25,000. Twenty miles to the south, *Fersala*, a small place, represents Pharsalus, where Pompey was overthrown by Cæsar, 48 B.C., and did not rein in his steed in fleeing from the battle-field until he gained the Vale of Tempe. The Thessalian plain is still as celebrated for its breed of horses as when Alexander the Great received his famous charger, Bucephalus, from its pastures.

Remarkable monasteries, at Meteora, occupy a high lying valley on the eastern slope of the range of Pindus. Here a number of isolated rocks occur, which have a character perfectly unique to the eye, as if formed by the art of man, rather than by the more varied and irregular operations of nature. Some are quite conical in shape; others are single pillars of great height and very small diameter; others are nearly rhomboidal, and actually incline over their base; not a few are perfect oblongs, with perpendicular sides and level summits. They rise from the midst of splendid vegetation, which also partly fills up the intervals between them. Their elevation varies from 200 to 300 feet. It is on the tops of these pinnacles and towers, which seem unapproachable by the foot of man, that the religious houses are placed; and in some instances they so entirely cover them, that the precipices descend from every side of the buildings into the deep wooded hollows below. The only mode of gaining access to these aerial dwellings is either by nets in which the visitor is drawn up from above, or by ladders of wood and rope, made in separate joints, and let down over the face of the cliff. Mr Bowen preferred the former method, the least hazardous, though not without its trial to the nerves. 'I fired off a pistol,' he writes, 'to attract the attention of the monks, when long before the echo, reverberated by the cliffs around, had died away over Pindus, two or three cowed heads were thrust out from under the covered platform projecting from the summit of the rock, and which resembles the shed on the top story of a lofty London warehouse. The rope, too, is worked in a similar way, by a pulley and windlass. After reconnoitring us for a moment, and seeing that we were not strong enough to carry

their monastery by a *coup de main*, the monks threw down what seemed to be a strong cabbage-net, lowering at the same time a thick rope, with an iron hook at its end. My guide spread the net on the ground, and I seated myself in it cross-legged. He then gathered the meshes together over my head, and hung them on the hook. The monks above then worked their windlass, and in about three minutes and a half I reached the summit, a distance of between 200 and 300 feet, swinging to and fro in the breeze, and turning like a joint of meat before a slow fire. These remarkable rocks appear to have been known to the ancients, but are supposed to have undergone a considerable change in their size and form within a comparatively recent period. Formerly, twenty-four of the strangely-situated monastic dwellings were numbered, but not half of them exist at present, and only about four or five are inhabited. These are destined to perish in the lapse of time, as the rocks on which they are built are composed of a loose conglomerate, extremely liable to dilapidation and decay.

The province of ALBANIA, on the coast of the Adriatic, answers to the meaning of its name, 'mountain-region,' being traversed by a bold chain from north to south, intersected with gorges of extraordinary grandeur, sometimes gloomy and terrible. Gibbon wrote of this district as 'a country within sight of Italy less known than the interior of America.' But since his day it has been amply illustrated by the descriptive traveller, the classical antiquarian, the landscape painter, and the poet. Agriculture is not much prosecuted in spite of the excellence both of the climate and the soil, but herds of cattle and sheep are numerous, and the olive and mulberry are common. The inhabitants, mostly descended from the ancient Illyrians, mixed with Greeks and Slaves, are as rude as their native hills; of frank bearing, but of haughty, excitable, and vindictive temperament; with a picturesque costume. They are commonly called Arnauts, but they call themselves Skypetars, and generally profess Mohammedanism, but have never been scrupulous in the observance of its precepts, while they have ever been turbulent subjects of the sultan.

Janina, in the south, once a large and flourishing city, seated on the shore of a spacious mountain-lake of the same name, recalls to the memory of many European visitors the famous rebel governor Ali Pasha, at the commencement of the century, who made it his capital and stronghold. Commerce and population have both greatly declined. It has numerous mosques and Greek churches, and manufactures gold-brocade, gold-lace, morocco leather, and silk and cotton goods. The temple and grove of Dodona, the most famous oracle of antiquity, destroyed before the Christian era, stood at the south extremity of the lake. *Scutari*, in the north, is at present the principal town, and has considerable manufactures of firearms and cotton goods. *Durazzo*, a small fortified port on a rocky peninsula, is of interest as the Dyrrachium of the Romans, where Pompey was beleaguered by Cæsar, and where passengers ordinarily landed from Brundisium, in Italy, on their way to Greece. Brundisium and Dyrrachium have been appositely styled the Dover and Calais of antiquity.

A small but remarkable territory lies immediately on the north, with the Italian name of MONTENEGRO, but called Kara-tagh by the Turks, and Tzernagora by the natives. The three terms have the same meaning, 'black mountain,' alluding to the dark pine-forests which once almost entirely clothed the surface, some traces of which remain. It is only about sixty miles in length, by rather more than thirty in breadth, and corresponds in its area to that of our county of Westmoreland. The population does not exceed 100,000, all Slavonians, and members of the Greek Church. Yet such is the difficult nature of the country, that this small community, scarcely affording 20,000 men capable of bearing arms, successfully maintained its independence down to the present period. Only under the reigning sultan has the acknowledgment of allegiance been enforced by a powerful Turkish army. The surface presents a succession of wild limestone ridges, occasionally diversified with lofty peaks, but resembling in most parts a sea of enormous waves turned into stone. Its rugged aspect may be inferred from the traditions of the people, who say that 'when God was in the act of distributing stones over the earth, the bag that held them burst and let them all fall upon Montenegro.' There are fissures in the rocks like those of a glacier, which no horse could pass over without breaking its legs. Trees and bushes grow among the crags, and afford shelter for the inhabitants against an invading foe.

The government is vested in hereditary chieftains of the family of Petrovich, who take the title of Vladika, a 'prince' or 'ruler,' and are assisted by a council of elders. This dignity, instead of descending from father to son, has generally gone from uncle to nephew, in consequence of the prince being usually also the metropolitan bishop, and therefore incapable of contracting marriage. But in 1851, when a new chief succeeded, he refused to take holy orders, and the bishopric was conferred upon another member of the family. Except in times of public peril, the people have little respect for authority, but do that which is right in their own eyes, and are specially prompt to redress injuries with the strong hand. It is deemed imperative upon the eldest son to avenge the murder or violent death of a father. If of tender years, he is trained to consider himself the minister of retribution, to be executed on reaching maturity. The Montenegrins are a tall, good-looking race, excellent marksmen, and brave to excess. In cases of emergency, even the cripples are carried on the backs of women, and lodged behind bits of rock where they can load and discharge their guns. War is waged with most revolting ferocity, the heads of slain and wounded enemies being invariably cut off, and exhibited as trophies. *Cettigne*, or *Cettinje*, the residence of the Vladika, is a mountain village, a few miles to



Montenegro.

the south-east of the Austrian port of Cattaro. Sir Gardiner Wilkinson here counted upon a tower the heads of twenty Turks fixed upon stakes round the parapet. Below, scattered upon the rock, were the fragments of other skulls which had fallen to pieces—a strange spectacle in a Christian country, in Europe, and in the immediate vicinity of a convent and a bishop's palace.'

BOSNIA, with that part of CROATIA which belongs to Turkey, and the HERZEGOVINA, a district so called from the title of its ancient princes, *Herzog*, 'duke,' forms an eyalet of the empire, and is its most north-westerly section. It is largely traversed by more or less elevated ranges of the Dinaric Alps, and inhabited by a rude population, who, though Slavonians, profess Mohammedanism to the extent of about one-half their number. Like the Albanians, they adopted the religion of their conquerors from political motives, to preserve their social importance; and, like them, they have not been dutiful subjects either of the Sultan or the Prophet. Their women are less secluded than is common under the Moslem law, and have long enjoyed the liberty of appearing in public very slightly veiled. Still, while allowing themselves every licence that is convenient, the Mohammedan Bosniaks are much more intolerant to others than the Turks themselves; and have fiercely opposed the project of the government to put all subjects upon an equal

footing irrespective of race and religion. It was in quelling an insurrection in this district, in 1851, caused by the reforming policy of the authorities, that Omar Pasha first obtained prominence.

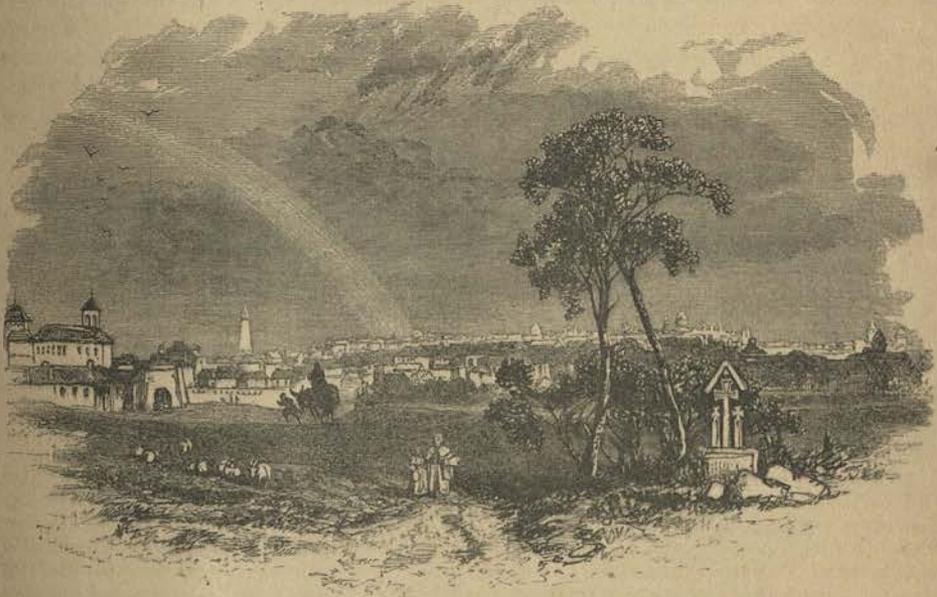
Bosna-Serai, the capital, nearly 500 miles north-west of Constantinople, and 122 south of Belgrade, stands on both sides of the Miglizza, an affluent of the Bosna, and contains 70,000 inhabitants, engaged in trade and various manufactures. Four handsome stone bridges cross the stream. A vast number of fine trees mingle with the houses, and give that garden-like aspect to the town which has caused it to be styled the Damascus of the North. Not less than 122 mosques, with their gilded domes and minarets, further orientalise the view which the eye commands from the lofty rock of the old castle. This building, now in ruins, was erected by the Hungarians prior to the Turkish conquest. Important iron-mines and mineral baths are in the neighbourhood. *Travnik*, a small town on the north-west, is the head-quarters of the military and the usual residence of the pasha, as the most central and advantageous position in the whole province. It is approached by a pretty glen, stands on a rapid stream, from which the high rock of the citadel rises up boldly, and possesses the gaudy tomb of Djelaludin Pasha, who, being defeated by the anti-reforming Mussulmans, destroyed himself by poison. An instance of suicide has rarely occurred in the past history of Turkey, and is very unusual in Mohammedan society anywhere.

The principality of *SERVIA*, nearly independent, lies along the south bank of the Danube, and embraces almost the whole basin of the Morava, one of its principal affluents. The surface has fine upland scenery, and presents a glorious panorama from the highest peak of the Kopaunik, being overlooked in nearly its whole extent from Bosnia to Bulgaria, from Roumelia to Hungary. There is also great sylvan beauty, even where habitations and enclosures are entirely wanting, the country looking like a garden in one place, a trim lawn and park in another. The people, Servians or Serbs, form one of the many branches of the Slavonic family, and have preserved their nationality in its full integrity. Mostly peasants, they occupy villages in the gorges of the mountains, or in the depths of the woods; rear their own dwellings, manufacture their own implements, and draw from the land the food they require, voluntarily assisting each other in getting in the grain as soon as it is ready, without fee or reward. The common fruit-tree is the plum, from which a kind of brandy, *slivovitza*, the ordinary beverage of the country, is made. Almost every village has a large plantation in its vicinity. Vast numbers of swine are reared, which fatten to an enormous size in the woods, and are sent to the markets of Pesth and Vienna. The people possess an extensive collection of popular songs, and a native literature of high class has been created in the present century.

After being an independent kingdom, the Turks obtained the mastery of Servia, under Amrath I., by the battle of Kossova, in 1363. But many of the people took refuge in the more difficult highlands, where they became freebooters, rather than submit to the foreign yoke. A race of outlaws was thus perpetuated by them under the name of *haiducks*, who successfully defied the whole power of the government to root them out of their retreats. They infested the roads and passes, levied contributions upon travellers of the dominant class, and found shelter in the cabins of the peasantry, with whom they were connected by the ties of a common descent and religion, during the severity of winter. One of this number, soon after the commencement of the present century, George Petrowitsch, commonly called Kara, or Black George, by the Turks, put himself at the head of a national party against them; and though temporarily overcome in the struggle for liberty, the object was eventually gained. In 1830 the country was constituted a principality, electing its own ruler and managing its internal affairs, but acknowledging the supremacy of the sultan by a small annual tribute, and submitting external relations to his control. Alexander, son of Kara George, reigned as third prince from 1842 to 1858. *Kragojevatz*, a small central town, is the principal seat of the government. The Turks retain the right of garrisoning some frontier places, and are in force at *Belgrade*, on account of the strategic importance of the site, at the confluence of the Save with the Danube, the most advanced post of the Mohammedan power in the direction of the heart of Europe. This city, of historic celebrity as the scene of many a bloody struggle between the soldiers of the Cross and the Crescent, though now decayed, still contains a population of 30,000. It has Servian and Turkish quarters, the former sloping down to the Save, and the latter to the Danube, with a strong fortress jutting out exactly at the point of confluence of the rivers, of which a pasha is the commandant, who represents the suzerainty of the Porte. A singular-looking street, the Lange Gasse, composed of dilapidated houses of ornamental architecture, commemorates the Austrian occupation of twenty-two years at the beginning of the last century. Most of the turbaned race lingering in the town are poor, and follow humble occupations—wood-splitting, water-carrying, portage on the quay, and boating on the river. They are also, with few exceptions, the barbers, and have that

superior dexterity which distinguishes the craft in the east. Belgrade has its name from the Slavonic *bielo*, 'white,' and *grad* or *grad*, a 'fort' or 'town;' but the Turks call it *Darol-Jihad*, the 'House of the Holy War,' in allusion to their repeated contests for its possession with the powers of Christendom. It has suffered from the extension of steam navigation on the Danube; for instead of being the stopping-place as formerly, proceeding overland to Constantinople, they go on by the great river and the Black Sea to the capital.

The two provinces of WALLACHIA and MOLDAVIA, frequently called the *Danubian Principalities*, situated north of the Danube, are enclosed in other directions by the Austrian and Russian dominions; and, like the preceding district, are little more than nominally subject to the Porte. They contribute a large number of tributaries to the frontier river, the Shyl, Aluta, Argish, Jalomnitza, Sereth, and Pruth, the last of which forms part of the boundary between Moldavia and the Russian province of Bessarabia. While intruded upon by the Carpathian Mountains on the side of Austria, they are chiefly great levels, including forests and pasture-lands, are abundantly fertile, and are capable of becoming one of the principal granaries of Europe. These provinces are identical in their inhabitants, language, and unfortunate history. The peasantry, who compose the

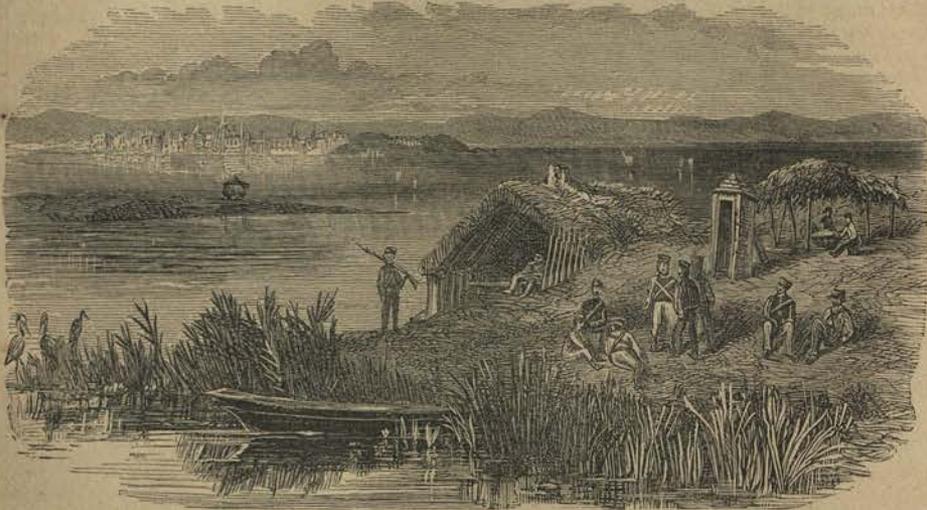


Bukharest.

bulk of the people, call themselves Roumani or Romans, style their native country *Tsara Roumaneska*, 'Roman Land.' They are a Greco-Latin race, descended from the ancient Dacians and the Roman colonists who settled in the region upon its conquest by the Emperor Trajan. Their language is derived from the Latin to the extent of more than half its words. The territorial proprietors, boyars or nobles, are of Slavonic origin, and obtained possession as conquerors. Gypsies, who travel as musicians, and are in constant attendance at all the fairs, are very numerous. The established religion is that of the Greek Church, but all forms of Christianity are tolerated, and their professors enjoy equal political rights. Monasteries are excessively numerous, and an immense amount of property is in the hands of the priesthood, which at present (1864) the government of Prince Couza is endeavouring to have secularised. The fate of these fine provinces has been wretched in the extreme, owing to their occupation by large Russian

armies during the frequent wars with Turkey. They are now politically united under the name of RUMANIA, have a native prince and a representative assembly, in which the great landholders have the complete ascendancy; though the unsettled condition of the principalities, and the slow but ceaseless spread of liberal opinions, render it doubtful how long they will be able to coerce the mass of the people. While perfectly independent in affairs of internal administration, the Sultan is recognised as the lord-paramount.

Bukharest, the capital of Wallachia and of the united provinces, about forty miles north of the Danube, contains a population of 60,000. The name, signifying 'city of enjoyment,' alludes to the agreeable environs; but the place is said to be one of the most dissolute in Europe; all classes being inveterate gamblers. It covers an immense area, owing to the houses straggling, and having large gardens interspersed among them. The trees, many-coloured roofs, with the towers and domes of more than sixty churches, render the distant view extremely pleasing. It is, however, mainly a collection of wooden tenements and mud hovels, divided by irregular and ill-paved streets, with very few dwellings of the better class, and scarcely a public building of importance except the churches. The commerce is extensive in the export of timber, grain, wool, salt, wax, and other raw produce, for which manufactures are received, chiefly from Germany. In 1812 the treaty by which Turkey ceded the province of Bessarabia to Russia was signed at Bukharest. *Giurgevo*, its port, a trading town on the Danube, opposite Rustchuk, is one of the principal steam-boat stations on the Wallachian side of the river. It was originally a Genoese mercantile settlement, called St George, whence the present name. Annually, on St Peter's Day, a great fair is held in the neighbourhood, upon a vast barren plain,



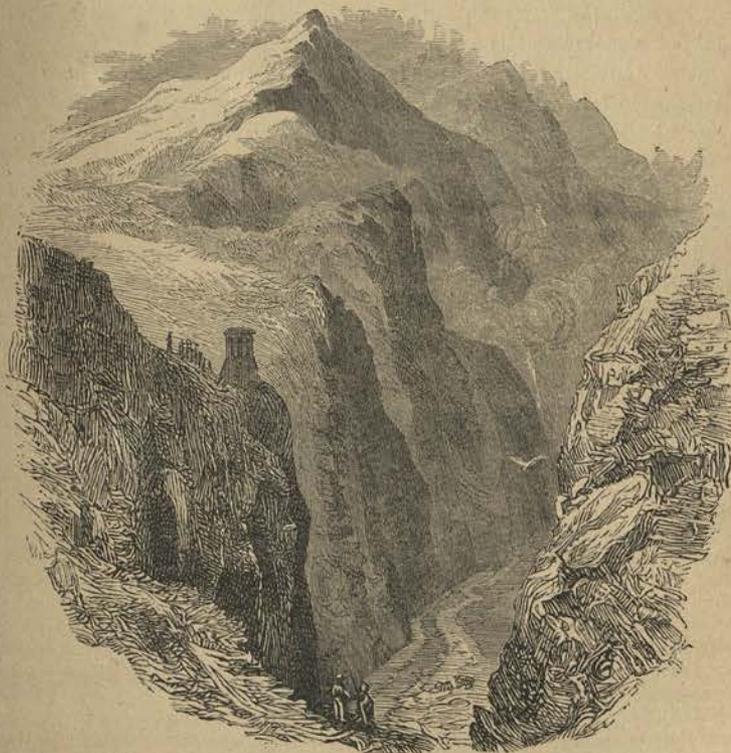
Giurgevo, opposite Rustchuk.

without verdure or shade. Coarse cloths, furs, and other articles of attire, with all descriptions of food, are the chief commodities with which the stalls are furnished, but pleasure is quite as much the object in view as business. This gathering presents a very wild scene, strikingly illustrative of the varieties of costume and habits among the inhabitants of the Danubian provinces. Whole towns and villages pour in their thousands to mix with gypsy musicians and mountebanks in rude hilarity. At Giurgevo the Russians were defeated by the Turks during the late war, in 1854, as also at Oltenitza, lower down the river, in the previous year. *Ibrail* or *Brahilova*, the chief shipping port for the native produce, is a fortified Danubian town towards the Moldavian frontier. *Krajova*, near the Shyl, in the opposite part of the province, is a handsome town, containing many residences of the boyars, and is commercial likewise, with an active trade in salt. It is considered the capital of Western or Little Wallachia.

Jassy, the Moldavian capital, a few miles from the Pruth and the Bessarabian frontier, is picturesquely seated on a steep slope of the Kopoberg Mountains, and presents an agreeable appearance to the approaching traveller, with its white houses in the midst of gardens, shining spires, and high buildings with green roofs. The churches are numerous. A few residences of the rich boyars are mansions, but the most wretched huts are to be seen in their immediate vicinity. The population is 70,000, nearly one-half of whom are Jews, who are the money-changers, brokers, and business-people, with all sorts of English and German hardwares, woollen goods, and stuffs in their shops. Large dealings take place in the agricultural produce of

the province. *Galatz*, the only port, of great commercial consequence, is situated on the Danube, about midway between the discharge into it of the Pruth and the Sereth. These streams bring down the grain from the interior, chiefly wheat, in the export of which a fleet of foreign merchantmen is employed. Nearly the whole business is in the hands of Greeks, who are generally under the protection of Greek, Russian, Austrian, or English passports. The place has no attractions, besides being very unhealthy through the summer-months, owing to exhalations from the adjoining marshes. Corn speculations offer the only inducement to a residence. By a simple arrangement ships are loaded and cleared while yet in quarantine. For half a mile in front of one portion of the town a brick wall separates it from the river. This is pierced by a number of holes through which the grain is thrown by means of spouts, and received in bags held by quarantine porters, who carry their loads through the shallows of the river to the vessels. *Ismail*, a fortified town, on the northern or Kilia mouth of the Danube, is of tragic notoriety, from its capture by the Russians under Suwarrow, in 1790, who mercilessly put the garrison to the sword, with many of the inhabitants, not sparing even the women and children. This cruelty procured for him the name of Muley Ismail, in allusion to the Emperor of Marocco so called, one of the most sanguinary monsters that ever existed. The town reverted to Turkey by the treaty of Paris in 1856, along with an adjoining portion of Bessarabia north of the Danube and east of the Pruth. Russia was thereby excluded from all command of the Danube.

Considering their fine natural advantages, in possession of a vast extent of fertile soil and ample river irrigation, few parts of Europe are in such a backward condition as the Molda-Wallachian provinces. This is the joint effect of frequent occupation by foreign armies, a long period of political insecurity, and exclusive attention to the interests of their class by the landholders. The roads are everywhere bad. Travelling is performed in the rudest manner, and is almost impracticable in unfavourable weather. The peasantry are hardy, inured to the most opposite extremes of temperature, but are in a very low social condition. In some parts they are semi-subterranean in their dwellings, living in holes scooped out of the ground, roofed over with branches of trees and earth. The existence of such villages is chiefly indicated to the traveller by the smoke rising from them.



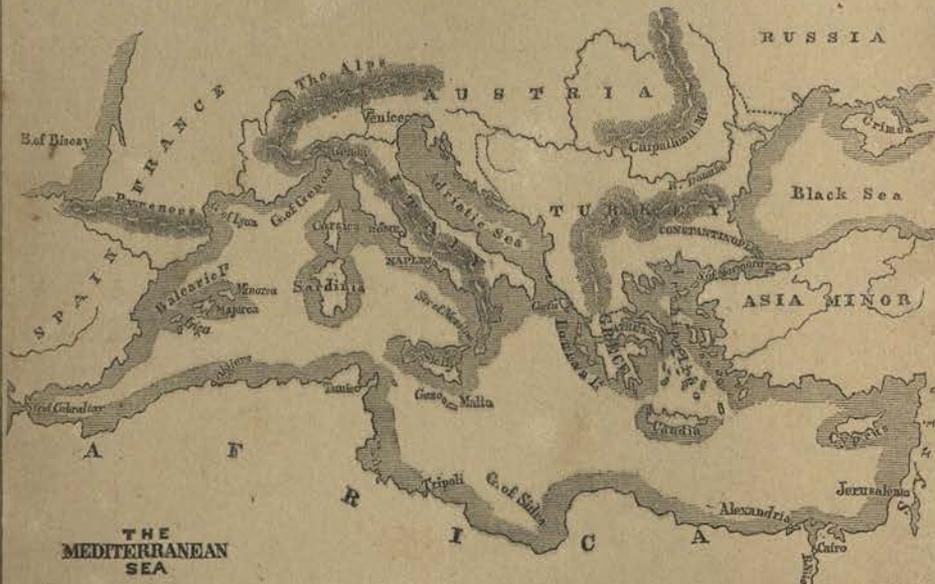
Guard-House in a Pass of the Balkan.

BULGARIA, an integral portion of the empire, representing the ancient *Mæsia Inferior*, extends from the Servian frontier to the Black Sea, between the southern bank of the

Danube and the range of the Balkan. The surface descends from the mountains by a succession of terraces, and assumes the character of a plain towards both the river and the sea. The majority of the population are of Tartar origin, analogous to that of the Turks. They migrated originally from the banks of the Volga, but have completely lost their nationality, and become Slavonised in customs, language, and religion, except that a number have recently abandoned Greek for Latin Christianity.

Sophia, the capital, in the western part of the province, is a handsome town of 30,000 inhabitants, environed with the northern declivities of the Balkan. It has manufactures of silks, woollens, leather, and tobacco; is well supplied with luxurious hot baths; and contains numerous khans, being nearly midway on the great route between Belgrade and Constantinople. The whole distance, 627 miles, was accomplished with post-horses in 1842, by Mr Layard, in the extraordinarily short space of five days, to the great admiration of the Turks, as the ordinary government couriers occupied seven in the journey. Traffic along this thoroughfare has since been extensively diminished by the Danubian steamers. *Shumla*, on the eastern side of the province, occupies an important strategic position, at the head of the valley which debouches into the Bay of Varna, and at the northern opening of the great pass through the Balkan, leading from Silistria or Rustchuk to Constantinople. It is therefore very strongly fortified, and has more than once arrested the progress of the Russians. Hence the Turks call it *Ghazi* or 'victorious' Shumla. The town is placed at the base of heights beautifully clothed with wood, and is the seat of flourishing manufactures in metals. *Varna*, the principal Turkish port on the Black Sea, is also a fortified town, the rendezvous of the Anglo-French armies in 1854, from which they sailed on the memorable expedition to Sebastopol. One of the great contests between Christian and Moslem took place in its neighbourhood in 1444, when the Turks, under Amurath II., signally defeated a large army of the Hungarians, led by their king, Ladislaus, who fell in the action. *Widdin*, *Rustchuk*, and *Silistria*, commercial places and strong fortresses on the Danube, guard the line of the river, and are often mentioned in the history of the wars with Russia.

The islands belonging to European Turkey consist of Thaso, Samothraki, Imbros, Lemnos, and a few others, situated in the northern part of the Archipelago, forming a separate province; and of Candia, with some bordering islets, at its entrance on the south, to which similar provincial distinctness belongs. The last-named island is the only one of important magnitude, as will be seen in the accompanying sketch-map of the



Mediterranean basin. *CANDIA* (the ancient *Crete*, called by the Turks *Kiri'd*), extends about 160 miles east and west, but is narrow throughout, and contracted in places to less than ten miles in breadth. It is traversed by a chain of high mountains, one of which,

IRELAND

BY J. H. COLEMAN, F.R.S.

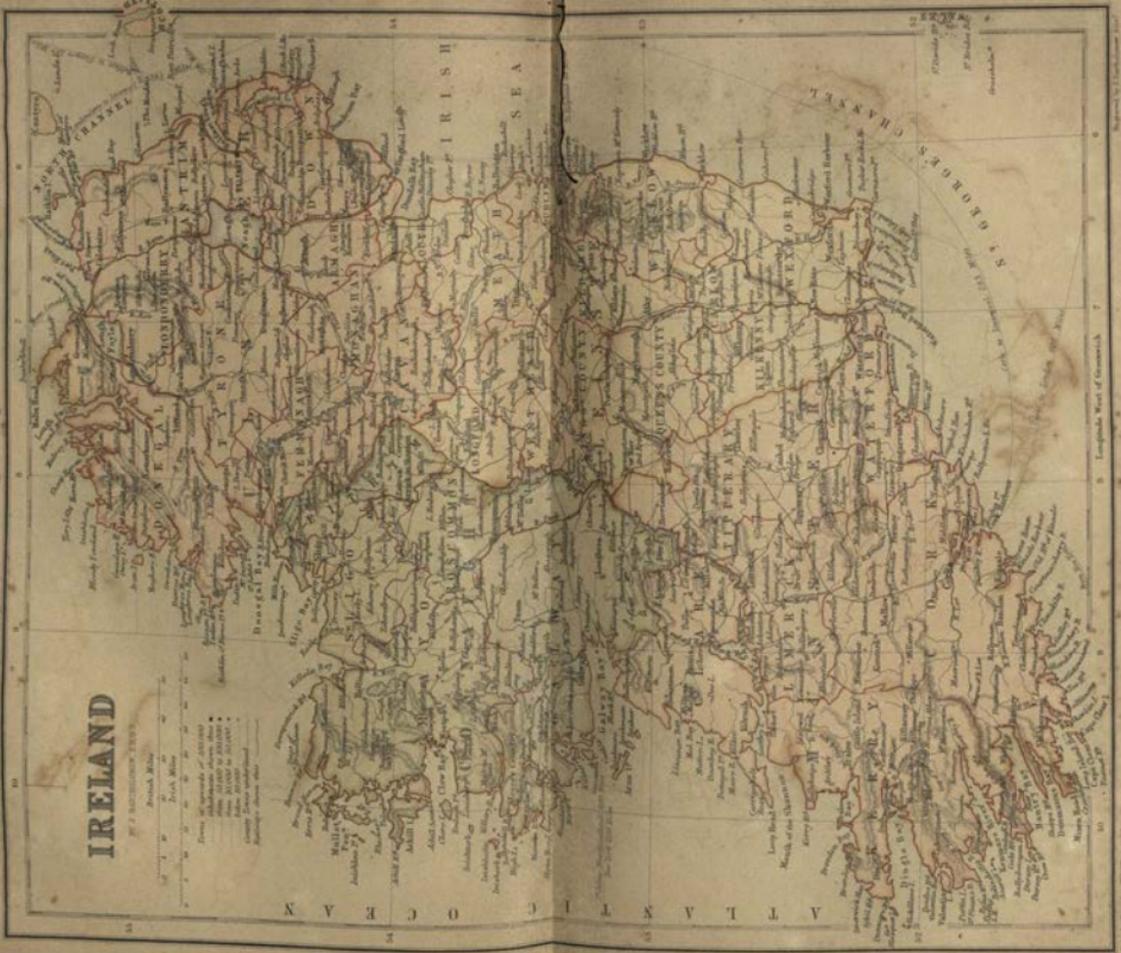
Scale of Miles
Scale of Feet

- Towns of 10,000 Inhabitants
- Towns of 5,000 to 10,000 Inhabitants
- Towns of 2,000 to 5,000 Inhabitants
- Towns of 1,000 to 2,000 Inhabitants
- Towns of 500 to 1,000 Inhabitants
- Towns of 200 to 500 Inhabitants
- Towns of 100 to 200 Inhabitants
- Towns of 50 to 100 Inhabitants
- Towns of 20 to 50 Inhabitants
- Towns of 10 to 20 Inhabitants
- Towns of 5 to 10 Inhabitants
- Towns of 2 to 5 Inhabitants
- Towns of 1 to 2 Inhabitants
- Towns of less than 1 Inhabitant

A T L A N T I C O C E A N

I R I S H S E A

S T G E O R G E S C H A N N E L



Mount Ida (now called *Upsilorites*), near the centre, rises to 7600 feet above the sea, and is mythologically associated with Jupiter as the scene in which he passed his youth. The soil is fertile; springs are very numerous for its irrigation; and a considerable quantity of grain and fruits of various kinds is raised, with olive oil, wax, and honey. During the present century, owing to civil distractions, the population has greatly decreased, and does not now number more than 150,000, most of whom are Greeks. In the rural districts many of the Greeks are Mohammedans, their ancestors having embraced the creed of the conquerors in order to secure the temporal advantages connected with it.

The town of *Candia*, the capital, contains about 12,000 inhabitants, and has fortifications raised by the Venetians. It is situated on the north coast, along with *Retimo* and *Canca*, the only other places above the rank of villages. Interesting sites are on the south coast, where the harbour of Lutro and that of Kalos Limenas correspond to the *Phenice* and the *Fair Havens* of St Paul's voyage in the Mediterranean. The island came into the possession of the Venetians in 1204, and was held through four centuries and a half. It was finally wrested from them by the capture of the capital in 1669, after the garrison had endured with heroic firmness a close blockade of two years and six months. The siege was conducted in person by Ahmed Kuprili, the greatest of all the Turkish grand-viziers. But the whole war lasted over a period of twenty-four years. A short time before its commencement, Cyril Lucar, a native, who had risen to the patriarchate of Constantinople, presented the Codex Alexandrinus to Charles I. of England, through the medium of the British ambassador. This is now one of the rarities in the library of the British Museum.

Mount Ida is a mass of gray limestone, scantily clothed with shrubs, and has a hill at its base in which are some curious excavations. They appear to correspond to the labyrinth for which ancient Crete was famed, often referred to by the classical writers, as by Virgil in the *Æneid*:

‘As the Cretan labyrinth of old,
With wand’ring ways, and many a winding fold,
Involved the weary feet without redress,
In a round error which denied recess.’

The excavations consist of a number of chambers, connected by low, narrow, and winding passages, which extend fully three-quarters of a mile, but formerly much further, many passages being now closed up by the falling in of the rock. Tournefort, who explored the place, found the entrance so low as not to be passable without stooping. Proceeding onward with torches, a ‘thousand twistings, twinings, sinuosities, and turn-again lanes’ appeared, defying the efforts of the traveller to penetrate to the further end, or, having done so, to find his way back without some precautions being observed. The method adopted was to scatter straw along the ground, and attach numbered scrolls to every difficult turning. Numerous inscriptions in the interior with dates shewed that the labyrinth had been often threaded, one of which, in Italian, commemorated a Venetian visitor—‘Here was the valiant Signor John de Como, captain of foot, 1526.’

The population of Turkey, though not known with any pretensions to exactness, is commonly stated at 15,500,000. But even this number, considered by some authorities as far too high, gives only a small proportion of inhabitants to the area of the country, many parts of which are solitudes, though bearing traces of great natural fertility. The nationalities of Slavonic origin, speaking various dialects, found in Serbia, Bulgaria, Bosnia, Croatia, the Herzegovina, and Montenegro, form the largest body of the people. The Molda-Wallachians rank next; and Greeks are numerous on the shores of the Bosphorus, the Archipelago, and in the islands. These races compose the greater part of the Christian subjects, who were cruelly oppressed in past times, and who are not yet free from heavy grievances in the provinces still under direct Turkish rule. They are mostly members of the Greek Church, in connection with the great see of Constantinople, the bishops of which rose to pre-eminence in the oriental world by favour of the early Greek emperors; assumed the style of patriarchs; took precedence of the older dignitaries of Antioch and Alexandria; disputed the pretensions of the Roman pontiffs to superiority; and, finally, renounced communion with them, constituting themselves the independent spiritual heads of Eastern Christendom. The Greek Church differs from the Latin in a multitude of particulars, doctrinal and ritual, yet they are chiefly of a very trifling nature; while it maintains as strongly, complete submission on the part of the laity to the priesthood. The papas or priests are very commonly illiterate

men, raised from the inferior ranks of life, who secure blind devotion from the ignorant masses, but often contribute to infidelity among the intelligent. Though persecution on religious grounds is prohibited, and impartial toleration is allowed to all classes, yet the government is too weak to restrain provincial officials, and secure obedience to its decrees at a distance from the capital. Hence insults and outrages are not uncommon, offered by a bigoted and fanatical Mohammedan party, of the old school, to their neighbours of a different faith. Only a small portion of the population consists of the dominant race, the Turks or Osmanli, who are probably over-estimated at 2,000,000, and are said to be decreasing in numbers. They live in and around Constantinople, are scattered generally through Roumelia, and are found to a less extent in most of the other towns, either as stated residents, or forming the garrisons. Their ascendancy is maintained entirely by military means, along with the jealousies of the leading European cabinets, who consider the integrity of the Turkish Empire essential to preserve the balance of power.

The Turks belong to the great family of nations thinly spread over the plains and table-lands of Central and Western Asia, known by a variety of names, but often comprehended under the general appellation of Tartars, pastoral in their occupations, and nomadic in their mode of life. They now differ in personal lineaments from the more eastern tribes of the same stock, and correspond to the European type, as the consequence of change of circumstances, settled habits, and marriage alliances with females from the Caucasus. Their language is identical with the Arabic in its alphabet, but has a few additional letters; and the vocabulary is interlarded with many foreign words. It is easy to speak, but difficult to read, the vowels being generally omitted in writing and printing, while no marks of punctuation are observed. The national costume is loose and flowing. That of the women differs but little from that of the men, with the exception of the white veil worn by the former in public, and the turban of the latter. But among the higher classes in the capital, the turban has been largely discarded for the round fez-cap, and tight-fitting clothes have been substituted for flowing robes. The houses are uniformly low, built of wood and sun-dried bricks, often painted over on the outside, with little furniture in the interiors, as chairs, tables, and bedsteads are alike dispensed with. Rice, fruits, coffee, and sherbet are the principal articles of food; baths and coffee-houses are the chief places of recreation; chess and draughts are the popular games; smoking is the universal habit. The Turks have a respectable literature, consisting of translated and original, poetical and historical, compositions, in manuscript and print. But letters are only cultivated to a limited extent, chiefly by the class intended for government employment, or for the purpose of expounding the Koran; and the general ignorance in high-life is profound in relation to topics of ordinary knowledge with the humblest grades among the Western nations. In religion, they are all Mohammedans, faithful to their creed, and attentive to the prescribed ritual of fasts, ablutions, and quintuple daily prayers. While allowed four wives by the law of the Prophet, this licence is now almost entirely restricted to the palaces of the rich and great. The form of government is an hereditary despotism, based upon the Koran, but somewhat modified in recent times as the consequence of political emergencies, and the representations of foreign powers.

The immediate ancestors of the European Turks appeared about the middle of the thirteenth century, as adventurers from the further east in Asia Minor, in search of a territory, under their chieftain Ertoghrl. He obtained possession of the rich plains around Shughut, called the 'Country of Pasture,' and of the Black Mountains on the borders of Phrygia and Bithynia. The former was for his winter abode, and the latter for his summer encampment. In this district, his son Othman or Osman was nurtured, who became the founder of a dynasty and an empire, enlarged his dominion by entering the territory held by the Greek emperors of

Constantinople, but confined himself to the soil of Asia. He began the invasion of Nicomedia, July 27, 1299, and from this era his reign is dated, with the commencement of the Ottoman power. Edward I. then sat upon the throne of England. The third sovereign or sultan, Amurath I., established himself in Europe by the capture of Adrianople in 1361.

The Turks have remarkably preserved their oriental characteristics during the five centuries of their intercourse with Western nations. Most of their usages are in direct opposition to our own. Some of the more prominent are quoted from the pages of Mr Urquhart. Shaving the head is with them a custom; with us a punishment. We take off our gloves before the sovereign; they cover the hands with their sleeves. We enter an apartment with the head uncovered; they enter with the feet bare. With us the women commonly appear in gay colours, and the men in sombre; with them it is exactly the reverse. In our rooms the roof is white, and the walls are coloured; in theirs the walls are white, and the ceiling coloured. Amongst us, masters require a character with their servants; in Turkey, servants inquire into the character of masters. In our fashionable circles, dancing is considered an accomplishment; they deem it a disgraceful employment. An Englishman will be astonished at what he calls the absence of public credit in Turkey; the Turk will be amazed at our public debt. The Englishman will esteem the Turk unhappy because he has no public amusements; the Turk will reckon the man miserable who wants amusements from home. But polygamy, and the seclusion of women, are the most important distinctions between Eastern and Western customs.

The first press for printing in Turkish was established at Constantinople under Achmet III., in 1728. The project encountered strong opposition, as thousands of scribes gained their subsistence by copying manuscripts. It was finally arranged that the *Koran* and theological works should still circulate only in manuscript, and printing be allowed for other books. In the first twenty-eight years, ending with 1756, the press produced eighteen works, and a total number of 16,500 copies. Through the next twenty-seven years it was entirely inactive, but was re-established in 1783 by Sultan Abdul Hamid, with new and better types. Though progress since has been very slow, yet the Turkish press has had a marked effect upon penmanship. The beautiful specimens for which the calligraphists were celebrated have almost wholly disappeared, but the handwriting has gained in distinctness by losing in ornament. During the present century, Mahmoud II. patronised the press, specially with the circulation of translated works on military science in view. In his reign, 1832, the first Turkish newspaper appeared, the Ottoman *Moniteur*. There are now several; and though not a reading people, the Turks now repair to the coffee-houses, many of which are also barbers' shops, to have the latest intelligence reported to them from the journals.

In common with all Mohammedans, the Turks compute from the time of the Hegira, or the flight of the Prophet from Mecca, on Friday, the 16th of July 622 A.D. Their year consists of twelve lunar months, and is therefore shorter than our own. They observe with the utmost strictness the month of Ramazan as a prescribed annual fast and festival, during which, from sunrise to sunset, no one eats, drinks, or smokes. The obligation is imposed upon all but children and invalids. Owing to the lunar reckoning, the sacred month runs through every season in the course of thirty-three years; and when it occurs in full summer, the labouring-classes suffer extremely from exhaustion and thirst, for not even a draught of water is taken. 'I have seen,' says one, 'the boatmen lean on their oars almost fainting; but I never saw, never met with any one who professed to have seen, an instance in which they yielded to the temptation of violating the fast.' But at the sunset hour, a moment anxiously expected and generally announced by the firing of cannon, all classes make up for abstemiousness through the day by revelry through the night. The streets are crowded and the coffee-houses thronged. The mosques are open and the minarets illuminated. Attached as functionaries to the principal mosques, are Imauns, Sheikhs, and Kiatibs, who are the Friday preachers; the Muezzims, or those who call to prayer; the Dewr Khuran, readers of the *Koran*; the Naat-shuran, singers of hymns; the Rewab, door-keepers; and other inferior officers. The small mosques are called *Mesjid*, places of prayer, from which, indeed, the word mosque is derived. In daily life the verbiage of the Turks has a strong religious tinge. The ordinary affirmation is *Inshallah*, 'Please God,' and the negative, *Stafarillah*, 'God forbid.' Astonishment is expressed by *Allah kerim!* 'God is great and merciful!' and gratitude by *Shukur Allah*, 'May God reward you,' or *Ev Allah*, 'Praise be to God,' or *Allah-raz olsun*, 'May God receive you.'

The highest title of the sultan is that of Padishah, father of sovereigns, or king of kings. He is also styled Vicar of God; Successor of the Prophet; Pontiff of Mussulmans, or Commander of the Faithful; Refuge of the World; Shadow of God; and *Unkiar*, the man-slayer, or blood-drinker. The last epithet alludes to the right once possessed of putting to death fourteen persons daily, without cause being assigned for the execution, in accordance with that unlimited power over the lives of their subjects which almost all oriental potentates have claimed. A site on the Asiatic side of the Bosphorus, scene of a famous treaty with Russia in the year 1833, has the name of Unkiar Skelessi, literally, 'the man-slayer's or blood-drinker's stairs.' This prerogative, if ever exercised, was renounced in 1839 by a hattı sherif, 'exalted writing,' as all edicts which have the imperial signature are called. The Salic Law fully regulates the succession to the throne, for the daughters of the sultan can transmit no right to it to their male offspring. A cabinet council conducts the executive government, to which the name of the *divan* is given, as the meetings were originally held in a room of the Seraglio, with no other furniture in it but a divan or bench, placed against the sides, covered

with cushions. Its most important members are the Grand Vizier, 'burden-bearer,' the prime-minister; the Seraskier, minister of war, and commander-in-chief of the army; the Capitan Pasha, or high-admiral; the Kharidchije-Naziri, minister of foreign affairs, formerly called the Reis Effendi; and the Mustechar, who acts as an adviser of the grand-vizier, and has the management of the home department.

The views expressed respecting the moral character of the Turks were once uniformly to their disadvantage, and scarcely allowed them the possession of a single virtue. But a more intimate acquaintance, the growth of the present century, has tended favourably to modify the general judgment; and perhaps their own fallen political fortunes has contributed to this result, by depriving them of the opportunity and the means to indulge in the fiery intolerance and licentious excesses of their conquering forefathers. They are undoubtedly a proud, sensual, phlegmatic, and indolent race, yet capable of vigorous exertion in great emergencies; and when tried by the events of the battle-field or the siege, they are not found wanting in bravery. Though not easily provoked to anger, owing to an apathetic temperament, yet when once thoroughly roused, their passions are furious and resentments deadly. On the other hand, temperance must be ascribed to them, both as it respects food and drink, the salutary effect of which is seen in a healthy, robust, and manly appearance. Travellers have frequently had occasion to remark upon their hospitality, honesty, and truthfulness; and humanity to animals is a graceful characteristic. The beasts of burden, horses and camels, are lightly laden, and kindly treated, being very rarely urged by any instrument of punishment. Those who have the means will buy captive birds of the bird-catchers for the mere pleasure of setting them at liberty; and purchase scraps from the *jiguerjis*, vendors of cats' and dogs' meat, in order to feed the animals in the streets. Great reciprocal affection subsists between mothers and children in families, tender in the one, respectful in the other, constant and indissoluble in both. These are some of the traits of character displayed by the followers of Mohammed, not as the exceptions, but prevalent, which may be commended to the notice and imitation of Christian nations.



Wallachian Travelling.



Athens.

CHAPTER V.

GREECE.

GREECE, the name given by the Romans to the country called by its ancient inhabitants Hellas, is one of the youngest, smallest, and least important of the states of Europe, but has a name of the highest renown in history, as the ancient seat of freedom, of art, and of civilisation in general, and as possessing a copious and brilliant literature, at a period when the remainder of Europe was occupied chiefly by barbarian tribes. Splendid scenery, a transparent atmosphere, and the brightest of skies render the region eminently attractive. Fine remains of temples, many scenes of patriotic struggles, and the memory of illustrious men associated with the soil in past ages—poets, historians, orators, philosophers, and artists—combine to invest it with peculiar interest, though unfortunately, in spite of some social and political advance, the contrast between the spirit of the present population and that of their ancestry justifies the expression of the sentiment, ‘Tis Greece, but *living* Greece no more.’ The modern kingdom, constituted in the year 1832, does not, however, exactly correspond in its dimensions to ancient Hellas. It embraces the south extremity of the peninsula occupied by Turkey through the greater part of its extent, and is washed by the *Ægean* Sea on the east, and by the Ionian on the west. It comprises also a multitude of islands closely adjoining the shores; but the total area very slightly exceeds 16,000 square miles, equal to rather more than the half of Scotland. The northern boundary is an artificial line drawn from the Gulf of Arta, on the western coast, to the Gulf of Volo,

on the eastern. From this frontier the mainland stretches to Cape Matapan, the extreme south point, a distance of not more than 200 miles. The greatest breadth falls far short of this measurement, while the contractions are numerous and considerable from deeply-penetrating bays and gulfs. In fact, they give to Greece a coast-line more extensive in proportion to the size of the country, than that of any other portion of the continent. These far-winding inlets of azure sea, with bold headlands at their mouths, sometimes column-crowned, and the many islets, render the shores indescribably beautiful.

The mainland consists of two principal portions, northern and southern, which are very nearly detached by the close approach of the Gulf of Lepanto from the west to that of *Ægina* from the east. Between these arms of opposite seas there is only a tract which narrows to three miles in width, forming the Isthmus of Corinth. On this neck of land stood in ancient times a famous temple of Neptune; and here was celebrated in his honour one of the four great national festivals of the Greeks, which obtained the name of the Isthmian Games from the site. The country north of the isthmus corresponds to Hellas Proper, and that on the south to the ancient Peloponnesus.

Though so small a country, Greece exhibits all the varied features of a natural landscape, with the exception of important rivers. There are commanding mountains, noble promontories, and grand defiles, along with gentle hills, fertile plains, and numerous basin-shaped valleys completely enclosed. In these circular hollows small lakes are formed, which increase in volume with the rains of autumn and winter, and diminish under the heat of summer, or degenerate into marshes, and give rise to malaria and disease. Lake Topolias, the largest example, has a length of sixteen miles by a breadth of eight in winter, but is partly converted in summer, into an extensive reed-grown swamp. The chain of Pindus reaches the northern frontier from Turkey, where it sends off a branch to the east, the extremity of which, forms, with the adjoining sea, the famous Pass of Thermopylae. The main range ramifies southward in various directions through the country, marked by summits well known by name to the classical student, as Mount Elatea, the ancient *Cithæron*, rising to the height of 4156 feet; Zagora, or *Helicon*, 4500; Lyakura, or *Parnassus*, 8068; and Guiona, or *Axiros*, 8620 feet, the culminating-point of Greece. A branch passes through the Isthmus of Corinth, and then divides into three short ridges, the central one of which terminates at the southern extremity in Cape Matapan. It rises in Mount St Elias, or *Taygetus*, to 7900 feet. The mountains, and indeed nearly the whole country, are chiefly of limestone. It frequently assumes the form of marble of the finest quality, and of various colours, which the ancients extensively quarried for buildings and statuary. No volcanic rocks are found on the mainland, but considerable masses occur in some of the islands, one of which, Santorin, is still a centre of volcanic action. Coal, sulphur, porcelain clay, salt, iron, and argentiferous lead, with some traces of gold, are noticed among the minerals, but the extent and value of these resources have not been developed. Mineral springs, cold and warm, some sulphureous, others saline, are extremely numerous. Those caves and fissures emitting mephitic vapours also abound, which fired the imagination of the old native poets, and intoxicated the priests and priestesses who uttered the divine oracles. The most important of the streams, the Aspropotamo, or *Achelous*, watering the western side of Northern Greece, rises beyond the frontier, and discharges in the Ionian Sea, at the mouth of the Gulf of Lepanto. The Hellada, or *Sperchius*, and the Gavrios, or *Cephalissus*, traverse the eastern side of the country. In the southerly division are the Vasilipotamo, or *Eurotas*, flowing through the plain of Sparta; and the Roufia, or *Alpheus*, by the banks of which the great Olympic games were held.

Though none of the mountains rise to the line of perpetual snow, yet it lingers on the

loftier summits till the summer is far advanced, and speedily returns to them again. Hence very distinctly-marked zones of vegetation are observed within a limited range, occupying the country ascendingly, from the vine and olive of the plains and valleys to the beech and pine of the grand elevations. The olive grows wild in all parts of Greece, as when it sheltered 'Plato's retirement,' and formed the grove of the Academy. Under cultivation, it yields excellent fruit, which the inhabitants preserve in various ways as a staple article of food. The mulberry-tree is raised for the silk-worm; oranges, citrons, lemons, pomegranates, almonds, and other fruits are largely produced; the figs of Attica are still, as aforesaid, celebrated for their quality; and Mount Hymettus, in the neighbourhood of Athens, vindicates its ancient fame for aromatic plants, bees, and honey. In parts of the mainland and some of the Ionian Islands, the dwarf-grape or currant is the prime object of culture, extensively exported in the dried state to England as an ingredient in well-known Christmas fare. The vine grows luxuriantly, and is cultivated in the island of Santorin for wines saleable in foreign countries, owing to the volcanic soil being specially favourable to it. Various kinds are prepared for the markets of Turkey and Russia, as the 'wine of Bacchus,' with the taste of nectar and the colour of liquid gold, and the colourless 'wine of night.' The latter has obtained its name from the fact of the vintage taking place during the night, and from the grapes being intentionally hidden under the leaves of the vine, instead of being exposed to the influence of the sun, by which means they produce colourless wine. With the exception of a few spots, the entire island is now a vineyard, under the management of a company of experienced French wine-growers.

The summer temperature is extremely high, but owing to the essentially maritime constitution of the country, the sea-breezes have extensive prevalence, and greatly modify the heat. Occasionally the 'black sirocco,' as it is called, is a disagreeable visitor. This is a hot southerly wind which shrivels the vegetation and oppresses the animal system, as in the days of yore, when it was described as

'Auster's sultry breath,
Pregnant with plagues, and shedding seeds of death.'

But the west wind—light, genial, and sometimes humid—has a remarkably reviving effect upon floral nature, and was hence styled *zephyrus* by the ancients, the 'bringer of life,' who ascribed to it the production of flowers and fruits. Rain is, however, rare in summer, and clouds are not much more common. Abundant showers fall during the short winter upon the plains, while frost and snow are chiefly restricted to the higher uplands. Generally, the climate is highly agreeable to the senses, the sky bright, and the atmosphere transparent. To the genial temperature, which allows the inhabitants to pass much of their time in the open air, with the great beauty of nature, modern writers refer, in order to account in part for the defective domestic architecture of the old Greeks, the badness of their streets, and the meanness of their houses, even of those belonging to the most wealthy and noble. In Athens, the people worshipped, legislated, witnessed dramatic representations, and listened to their orators, with no covering over their heads but the naked sky. Sunset adorns the horizon with the most varied and gorgeous hues, which are painted upon the objects below, and render the landscapes indescribably glorious. Dean Stanley speaks of the transparent clearness, the brilliant colouring of an Athenian sky; of the flood of fire with which the marble columns, the mountains, and the sea are all bathed and penetrated by the illumination of an Athenian sunset; of the violet hue which Hymettus assumes, in contrast with the glowing furnace of the rock of Lycabettus, and the rosy pyramid of Pentelicus.

Modern Greece is distributed into ten nomes or provinces, which are subdivided into

forty-nine eparchies or prefectures, and these again are parcelled out into cantons. This arrangement dates from the year 1852; but an additional province will be constituted of the Ionian Islands, of which Great Britain has recently resigned the protectorate,

	Provinces.	Principal Towns.
Northern Greece, } or Hellas, }	Acarmania and Ætolia,	Vrachori, Missolonghi, Vonitza, Lepanto.
"	Phthiotis and Phocis,	Lamia, Salona, Kastri.
"	Attica and Bœotia,	Athens, Piræus, Livadia, Thiva or Thebes.
Southern Greece, } or the Morea, }	Argolis and Corinthia,	Napoli di Romania, Argos, Corinth.
"	Achaia and Elis,	Patras, Kalavrita.
"	Arcadia,	Tripolitza, Megalopolis.
"	Messenia,	Calamata, Navarino, Modon.
"	Laconia,	Sparta, Mistra, Napoli di Malvasia.
Insular Greece, } or the Archipelago, }	Eubœa,	Chalcis or Negropont, Karysto.
"	Cyclades,	Syra, Andros, Naxia, Hydra, Spezzia.
"	Ionian Islands,	Corfu, Zante.

NORTHERN GREECE, bordering upon Turkey, comprehends the territories occupied by the ancient states, Attica, Mægaris, Acarmania, Ætolia, Doris, Locris, Phocis, and Bœotia.

Athens, the capital of the kingdom, on its eastern side, in latitude 37° 58' north, longitude 23° 46' east, is seated on a plain bounded by hills, watered by the Cephissus and Ilissus, small streams which flow to the Gulf of Ægina, about five miles distant, but are quite exhausted during the heat and drought of summer. Their banks are now treeless, and recall anything but the scene described by Plato in his dialogue of Phædrus with Socrates, as they sat under the high and spreading plantain, and enjoyed the fragrance of the agnus-cactus which then flourished in the channels. The plain itself is broken up by a series of abrupt limestone masses. The present city is almost wholly modern, and has a population of about 41,300. It contains a cathedral in the Byzantine style; a large royal palace, tasteless and heavy, built of the marble of Pentelicius for the recently dethroned sovereign; a university of respectable appearance, and attended by upwards of 500 students, several gymnasia and charitable foundations, but is otherwise a place of narrow streets and mean-looking houses. All the celebrity of Athens is derived from the hoary past, when it was

‘The eye of Greece, mother of arts
And eloquence,’

and all interest centres in its historic sites, and extant remnants of classical antiquity. Foremost among the latter is the Acropolis or citadel, built upon a rock abruptly rising out of the plain, which comprises within its enclosure the shattered white marble skeleton of the Parthenon, a temple dedicated to Minerva, the tutelary goddess of the ancient city. This building, upon the highest part of the hill, was erected under the administration of Pericles, and completed in 438 B.C. It was of the Doric order, of the purest kind, adorned within and without with exquisite sculptures, executed under the direction of Phidias by various artists. After becoming a Christian church, it was despoiled by Alaric the Goth, and subsequently converted into a mosque by the Turks, but remained tolerably entire down to the year 1687, when, during a siege by the Venetians, the greater part was reduced to a heap of ruins. Since that date wealthy antiquaries have largely carried away

‘What Goth, and Turk, and Time had spared.’

Many of the finest sculptures were removed to England by Lord Elgin in the early part of the present century, and now form the Elgin marbles in the British Museum. Immediately to the west of the Acropolis, separated from it by a narrow valley, is the Areopagus or Mar's Hill, another rocky height, of great interest in the annals of Christianity, as the spot on which the apostle Paul delivered his memorable address to the Athenians. It was also the place of meeting of the Areopagite judges, renowned for the integrity of their decisions. They sat in the open air. The judgment-seat remains, a bench of stones excavated out of the rock, with steps leading up to it, and there are two rude blocks supposed to have been assigned, the one to the accuser, the other to the criminal. The Pnyx, where the popular assemblies were held, is an adjoining hill, marked by a solid rectangular block, from which the orators appealed to the multitude. The traveller ascending it may with certainty say that he is standing where stood Demosthenes, Pericles, Themistocles, Aristides, and Solon. The temple of Theseus, a little older than the Parthenon, once used as a church, is the best preserved of all the ancient buildings, and is now occupied as the national museum. Over the plain still tower sixteen majestic columns of the temple of Jupiter Olympus, once one of the most magnificent structures in the world, begun by Pisistratus, 530 B.C., but only completed by Hadrian, 145 A.D.

The foundation of Athens is ascribed, in Greek legend, to Cecrops, a chieftain of the Pelasgic race, 1550 B.C. The city was burned by Xerxes, rebuilt by Themistocles, adorned by Pericles, and is supposed to have

contained 120,000 inhabitants at the close of the Peloponnesian war. It suffered severely during a siege by the Romans, but was partly rebuilt and embellished by Hadrian. Ravaged by the Goths, it gradually sunk into obscurity, and remained an almost deserted place through the greater part of the middle ages. Among the illustrious men of antiquity in the list of natives, the names of Socrates, Plato, Phidias, Pericles, and Alcibiades occur.

The *Piræus*, or port of Athens, is five miles to the south-west, on the Gulf of *Ægina*. It was formerly connected with the city by long walls built of stones of enormous size, sixty feet high, and broad enough at the top for two wagons to pass abreast. These have long since disappeared, though some vestiges may be traced. A good macadamised road now runs between the two, shaded by groves of olives. In modern times the place has been named *Porto Draco*, or *Porto Leone*, from the colossal lions of marble transported to Venice in 1687, and erected near the arsenal. The modern town of about 6430 inhabitants is entirely new, and has in its neighbourhood remains of the tomb of Themistocles, overlooking ancient *Salamis*, a small island close inshore, the scene of his glory in the naval triumph over the Persians, 480 B.C. Solon and Euripides were natives of the island. On the adjacent mainland, beautifully situated, is *Lepsina*, now a small village, representing the ancient Eleusis, which gave its name to the great festival held in honour of Ceres—known as the Eleusinian Mysteries—the most famous of all the religious ceremonies of the Greeks. Further to the west is *Magara*, similarly reduced, once the mother of colonies, in possession of a powerful fleet, and the seat of a celebrated school of philosophy. The plain of Marathon, scene of the battle in which the Athenians under Miltiades signally defeated the Persians, 490 B.C., is about twenty-five miles north-east of Athens, close to the sea, and partly under cultivation. A mound of earth rises in the centre which the conquerors piled over the remains of their countrymen who fell in the engagement. The Attic peninsula terminates to seaward with the promontory of Sunium, on which stood a splendid temple, some columns of which still exist, and have given to the headland its present name, Cape Colonna.

Thebes, the capital of Boeotia in the classic age, the birthplace of Pindar and Epaminondas, survives only as a wretched hamlet under the name of Thiva. *Livadia*, ancient *Lebadeia*, with 5000 inhabitants, is now the chief town of the district. Here are the famous oracular cave of Trophonius, and the fountains of Lethe and Mnemosyne. The Pass of Thermopylae, in which Leonidas and his band of Spartans perished while resisting the Persian host, 480 B.C., leads from Boeotia into Thessaly, between Mount *Ceta* on one side and the sea on the other. It is about five miles long and a hundred yards wide, chiefly occupied by a morass through which runs a narrow paved causeway. The name refers to some copious hot springs, *thermæ*, in the defile. Though called the 'Gates of Greece,' the pass has never opposed an effectual barrier to an invading army, owing to the existence of practicable routes across the mountains.

Within the limits of Phocis, the poor village of *Kastri*, at the base of Mount Parnassus, is all that remains of Delphi, a wealthy city in the time of Homer, distinguished by the temple and oracle of Apollo, and by the Castalian spring, which was accounted the source of poetic inspiration. The mountain rises in vast precipices immediately behind the humble cottages, and the fountain flows at a short distance from the village. It is 'ornamented with pendant ivy, moss, brambles, and flowering shrubs, and is overshadowed by a large fig-tree, the roots of which have penetrated the fissures of the rock, while its wide-spreading branches throw a cool and refreshing gloom over this most interesting spot. In front of the spring, a majestic plane-tree nearly defends it from the rays of the sun, which shines on it only a few hours in the day.' The copious spring forms a very picturesque brook, which passes through a rocky glen, fringed with olive and mulberry trees, and joins the little river *Pleistus*. Dr E. D. Clarke ascended Parnassus, and found all its higher region bleak in the extreme, and destitute of herbage, with the exception of a few rare plants. He was enraptured with the view from the summit. 'The Gulf of Corinth had long looked like an ordinary lake, and it was now reduced to a pond. Towards the north, beyond all the plain of Thessaly, appeared Olympus with its many tops, clad in shining snow, and expanding its vast breadth distinctly to the view. The other mountains of Greece, like the surface of the ocean in a rolling calm, rose in vast heaps; but the eye ranged over every one of them. Helicon was one of these, and it is certainly inferior in height to Parnassus. We looked down upon Achaia, Argolis, Elis, and Arcadia as upon a model.'

The small fortified seaports of *Mesolonghi* and *Lepanto* are in the western part of Northern Greece. The former acquired notoriety from its sieges during the war of independence, and as the scene of Lord Byron's death in 1824. The latter gives its name to the gulf it adjoins, also called the Gulf of Corinth; and to the great naval battle fought on the contiguous waters, in which the Turks were defeated by Don John of Austria in 1572, and their navy for a time annihilated.

SOUTHERN GREECE, or the ancient Peloponnesus, has been called in modern times the *Morea*, a term derived from the Greek word for the 'mulberry-tree.' It was applied to the district either owing to the common occurrence of the tree within its bounds, or to some fancied resemblance in its shape to that of the mulberry-leaf. In this division of the kingdom, the ancient states of Achaia, Elis, Messenia, Laconia, Argolis, and Arcadia were situated. Broken by numerous bays and projections, its coast-line was deemed difficult and dangerous in the inexperienced navigation of early times. Cape Matapan,

the south extremity, was reckoned one of the entrances into the infernal regions; and of a south-eastern headland, the proverb was current, 'Before the mariner doubles Cape Mala, he should forget all he holds dearest in the world.'

Napoli di Romania, or Nauplia, is seated on the east coast, at the head of a gulf to which its name is given. It contains about 10,000 inhabitants, and was for a short time the capital of the new kingdom, prior to the selection of Athens. A fortress erected by the Venetians on the top of a precipitous rock, 700 feet above the sea, is deemed impregnable, and has been called the Gibraltar of Greece. *Patras*, on the



Patras.

north-west, at the entrance of the Gulf of Lepanto, is the largest town, containing a population of 20,000. It is also a fortified seaport, and the principal seat of the foreign trade, from which large quantities of currants of the best quality are annually shipped. *Navarino*, a small port on the south-west, is memorable for the battle fought on its waters in 1827, when the Turkish and Egyptian fleets were destroyed by the combined British, French, and Russian squadrons. *Argos*, built on the site of the ancient city of the same name, is a thriving town of 11,000 inhabitants. In the vicinity cotton, vines, and rice are grown. *Mycene*—once famous and great—is now a mere city of ruins near the village of Krabata. *Sparta* has been restored in part from the same desolation, having been rebuilt. *Corinth*, 'the city of the two seas,' as both Horace and Ovid style it, on the isthmus between the Ægean and Ionian basins, exists as a small town of 2000 inhabitants with some remains of its ancient magnificence. The principal relic consists of seven fluted columns of the Doric order, with a part of the architrave still resting upon five of them, where the stork loves to build its rude nest. These columns are generally shewn in all engravings of modern Corinth.

INSULAR GREECE, or the Archipelago, on the eastern side of the mainland, embraces the island of Eubœa, the group of the Cyclades, and a portion of the Sporades. The recently-annexed Ionian series extends along the south and west coasts. These islets have a very varying character. Some are scorched and sterile volcanic masses, presenting nothing to the eye at a distance but verdureless acclivities, with scarcely a single tree to break the uniform barrenness; and it is only in nooks and corners, in deep dells and shaded retreats, that the ground has its grassy slopes and leafy copses. But others exhibit the soft yet grand features common to districts which have a rocky skeleton clothed with fertile soil; and no contrast can well be conceived more striking than that presented by

dark groups of tall and tufted cypresses, with the pale quivering foliage of luxuriant olive-groves, the white limestone-cliffs, and the blue sea gloriously lighted by an unclouded sun. With nature's attractive scenes there are often blended remains of once stately temples erected in honour of long dethroned gods and goddesses, imposing, or picturesque, or effective by their very insignificance in contrast with their past grandeur, while historical and poetic associations of the highest interest cling to many a cove and headland. EUBŒA, formerly called Negropont, a name bestowed by the Venetians, who were its masters from the year 1204 till they were dispossessed by the Turks in 1470, is the largest island in the Ægean Sea, remarkable for its length and scanty breadth. At one point, towards the centre, it so closely approaches the mainland as to admit of a bridge being thrown across the intervening channel. The pastures of the island are excellent, and the declivities of the mountains are covered with forests of fir. The chief products are cotton, oil, wine, wheat, fruit, and honey, and the inhabitants are engaged chiefly in the breeding of cattle. The CYCLADES, of which there are twenty of some size, form a cluster on the south, and were so called from the legend of their *circling* around Delos when that island was rendered stationary by the birth of Diana and Apollo. Three of the number are naturally remarkable—Santorin, an active volcanic centre; Paros, yielding the fine white marble of the statuary; and Antiparos, celebrated for its grotto in the limestone rock. The SPORADES, or 'scattered' islands, were so styled from their irregular distribution. Only a few of them now belong to the kingdom of Greece.

Egripo, the chief town of Eubœa, is a maritime place now of but little note, situated on the narrowest part of the channel, between the island and the continent. But it represents the Chalcis of the ancients, where Aristotle ended his days, 322 B. C., and the birthplace of the orators Isæus and Lycophron. The city became the mother of numerous colonies—that of Cumæ, in Italy, among others—and was of military importance from completely commanding the navigation of the strait.

Syra or Hermopolis, on the island of that name, with about 35,000 inhabitants, is the capital of the Cyclades, a busy and prosperous port, with a harbour generally crowded with vessels, and piles of merchandise lying on the quays. It is the great commercial entrepôt of the Archipelago, a principal station of the Mediterranean steamers going to and from Constantinople, the see of a Greek bishop, and the residence of various consuls. The town is built upon the shore, and ascends from thence to the summit of a steep conical hill situated between two high mountains. Its white houses present an imposing effect from the blue sea. The island, about ten miles in length by five in breadth, has an inhospitable aspect, consisting almost entirely of bold highlands bare of vegetation. But upon being explored, fertile tracts are met with in narrow valleys, in which the vine grows luxuriantly.

Among the other members of the group, Naxos is the largest and most beautiful. The central Delos, once the most famous, is one of the smallest and most desolate, possessing scarcely a vestige of the temple which attracted pilgrims from all parts of Greece. Tinos is celebrated for producing the best Malvasian or Malmsey wine, which derives its name from the town of Napoli de Malvasia, on the east coast of the Morea. Paros, and its neighbour Antiparos, are almost wholly composed of marble. The grotto or cavern, in the latter island, often visited by travellers, is entered on the side of a hill, about two miles inland. It consists of a series of passages and descents leading to a wonderful subterranean apartment, called the 'Great Hall,' 120 yards long, 113 broad, and 60 feet high. The sides and roof of this natural chamber are covered with immense incrustations of calcareous matter, beautifully white. They depend from the ceiling ten or twelve feet, as thick as a man's waist, with innumerable festoons of the same substance occupying the intervening spaces. They rise up from the floor with the appearance of broken columns, or the stumps of trees. One remarkably fine mass, termed the 'Altar,' is twenty feet in diameter and twenty-four feet high. This cavern, which was known to the ancient Greeks, seems to have been forgotten till the seventeenth century, when it was revived by the Marquis de Nointel, the French ambassador to the Porte. He passed the three Christmas holidays in it, in 1673, on his journey to Constantinople, accompanied by a train of domestics, merchants, and natives, who were anxious to explore it. The place was illuminated by 100 large wax-torches and 400 lamps; and high-mass was celebrated by the chaplains of the embassy at midnight.

Hydra, a town and port of modern date, is on an island of the name, one of the Sporades, a short distance from the east coast of the Morea. It became a highly-prosperous place during the war of independence, owing to the public spirit displayed by its inhabitants in the cause of national freedom, which attracted a concourse of patriots and refugees from all parts of the country. Though greatly injured by the rise of other seats of commerce more conveniently situated, it carries on an active trade, contains about 12,000 inhabitants, and is one of the most agreeable towns of the kingdom.

The chain of islands known by the collective term IONIAN, extending from the south extremity of the Greek peninsula along its western coast to that of Albania, consists of seven principal members—Corfu and Paxo, northern; Santa Maura, Thiaki, Cephalonia, and Zante, central; and Cerigo, southern. There are upwards of thirty subordinate islets in the series, some only of which are inhabited. All are near the mainland, and belong to the same great calcareous formation which prevails over Greece. Scarcely a parallel instance can be found of tracts so utterly insignificant in size, having a place of such long-standing on the page of history in association with so many stirring events and memorable names; the Peloponnesian wars and the battles of Actium and Lepanto; Ulysses and Alcinoüs in classic legend; Herodotus on his travels; Aristotle and Demosthenes in banishment; Cicero and Cato in flight; Antony and Cleopatra in marriage and defeat; Augustus in victory; Agrippina in widowhood; Robert Guiscard, the Norman viking, in his roving; Richard Cœur de Lion on his way from Palestine to an Austrian prison; Ali Pasha; and Lord Byron. Olives, vines, and the dwarf-grape or currant are the principal objects of cultivation. Earthquakes are of very frequent occurrence, especially in Zante and Santa Maura, and are occasionally destructive. Besides Greeks, who form the majority of the people, there are Italians, Maltese, Jews, and other aliens. For four centuries the islands were held by the Venetians, or down to the year 1797, when that republic succumbed to the arms of Napoleon. They have since been French, Russian, Turkish, and British; and were formally placed under the protectorate of Great Britain in 1815, but with power to regulate their internal organisation by a local legislature. This arrangement terminated in 1863 by a voluntary but conditional cession to the Greek kingdom.

The island of CORFU, the most northerly and important, opposite the coast of Albania, was considered by the ancients as identical with the Homeric insular kingdom of Alcinoüs. Nearly twenty-six centuries may be assigned to its authentic history, or from the year 734 B. C., when it was colonised by the Corinthians, and known for ages afterwards under the name of Corcyra. Corfu, the capital, on the eastern side, is built on the slope of an irregular promontory, with a semicircular bay on either hand, and contains a motley population variously estimated at from 15,000 to 25,000. It has little interest apart from the splendid situation, and an odd grouping of different styles, arcades and piazzas erected in the Venetian times, old bastions bearing the winged lion of St Mark, the university founded by Lord Guilford in 1824, the government house built by the English of white Malta stone, and the Church of St Spiridion, the patron saint. The assumed body of the saint, 'a neat black mummy,' without eyes and nose, is paraded through the principal streets three times a year for the benefit of the sick, and is held in the highest veneration.

The little islet of PAXO (ancient *Paavus*), is of interest as the scene of the wild old legend, related by Plutarch, that about the time of our Lord's Passion voices were heard in the night by seafarers, announcing that the great god Pan was dead, whereupon piteous outcries and dreadful shrieks were heard in all directions. Milton alludes to the legend in the lines:

'The lonely mountains o'er,
And the resounding shore,
A voice of weeping heard and loud lament.'

SANTA MAURA (anciently *Leucadia*, in allusion to its splendidly white cliffs) has a south-westerly promontory traditionally connected with the tale of Sappho and other despairing swains leaping into the sea to get rid of their sorrows. The headland is hence locally called Sappho's or the Lover's Leap. CEPHALONIA (ancient *Cephalonia*), is distinguished by the Black Mountain, rising 4500 feet above the sea, and clothed with a forest of dark pines, now crippled by accidental fires and conflagrations kindled by the factious inhabitants. Robert Guiscard ended his career in the island, and left his name attached to its north extremity, which is retained under the Italianised form of Cape *Viscardo*. THIAKI is the renowned Ithaca of Homer, and the paternal kingdom of Ulysses. Its natives are as familiar with the classic as with the modern name. A perennial spring represents the fountain of Arethusa. Consisting of a mountainous mass intersected by narrow ravines, and containing scarcely a hundred yards of continuous level ground, the little territory exactly answers to the description in the *Odyssey*:

*Our meagre land allows
Thin herbage for the mountain goat to browse,
But neither mead nor plain supplies, to feed
The sprightly courser, or indulge his speed.'

ZANTE (ancient *Zacinthus*), is famed for the profusion of its aromatic plants, the fragrance of which in

spring-time, with that of the flowering vineyards, is carried far out to sea on the wings of the wind. On the edge of a marshy valley, near the shore of a bay, away from human habitations, there are still the pitch springs, much as they were when Herodotus visited and described the spot. From its exquisite beauty and extreme fertility, praised by Theocritus, the island has long been proverbially styled the 'flower of the Levant.'

'Zante! Zante! fior di Levanti.'

The town of *Zante*, on the coast, with 20,000 inhabitants, contains many large handsome houses, built in the old Venetian style, which bespeak the occupiers to be men of substance. CERIGO, the most southerly island, the ancient Cythera, cradle of the Syrian goddess Aphrodite, abounds with natural caverns, and produces honey of fine quality.

After the fall of the Roman Empire with which Greece was incorporated, the country underwent a succession of changes, and suffered grievously from the invasion of Slavonian, Albanian, and other barbarous hordes. In the thirteenth century the Venetians became the predominant power within its limits; they were followed by the Turks in the fifteenth, under whose rule the people had to endure every kind of hardship which avarice could suggest and brutality inflict. Insurrections took place, but they were abortive. In 1820 a general war for independence broke out, which the intervention of Christian Europe rendered successful in 1829, when Greece was recognised as a free state. It became a kingdom in 1832 by the accession to the throne of a Bavarian prince, Otho I., who was deposed by a revolution in 1863, and succeeded by the Danish Prince George I., who bears the title of 'King of the Hellenes.' Violence and factiousness have unhappily been prominent in the conduct of the people, or their political leaders, since the date of independence, but not without provocation from the selfish policy and contemptible incapacity of the government.

The entire population, continental and insular, is estimated at 1,340,000, consisting for the most part of Greeks, though there are a considerable number of Arnauts or Albanians, and some descendants in the islands of the Latin invaders of the middle ages. The language of the Greeks proper bears a very close resemblance to the classical Greek, but is called the Romaic, owing to the people having acquired the name of Romans, while included in the Roman Empire. They style themselves Hellenes, proud of their ancestry, as if of pure descent from the old inhabitants of the country; and the Mainotes, who occupy the mountain-range of Taygetus, in the Morea, bold and independent, boast of being true sons of the ancient Spartans. But the mass of the people, especially of the continentals, are the offspring of a mixture of Hellenic with Slavonic and Latin blood. It is in the islands, especially in those of the smaller class, but little exposed to the ingress of foreigners, that the purest representatives of the old stock exist, and the closest approach is made by the moderns in personal appearance to the style and physiognomy of the ancient race. Still, an example of beauty in strict accordance with the classical model, which bordered on ideal perfection, in proportion, symmetry, and harmony of features, is now rarely met with. The forehead rises less perpendicularly; the cheek has a slight angularity; and between the eyebrows, which, in the beauty of antiquity, nearly met, there is a perceptible space. But the eyes, large, liquid, and dark; the small mouth, not smiling, but suggestive of smiles; and that exquisite oval outline, observable in the visages of the ancient statues, still belong to the race, where there has been little admixture of foreign blood.

It is also in insular Greece that we are left most alone with antiquity, as to manners and customs, and can best realise the days of Hesiod and Homer. Domestic habits have in many respects undergone little change among the peasantry; agricultural implements are much the same; salted olives, coarse bread, and a few common vegetables are now, as they were then, the ordinary fare; and superstitions survive which go back to the age when Zeus, or Jupiter, was revered as the Thunderer. The national dance, called the

Romaika, is a relic of the Pyrrhic dance of antiquity, as appears from its general correspondence to the descriptions of the classical writers, and to representations on marbles and vases. In an olive-grove on the summit of a hill near the town of Corfu, the peasantry assemble on Ascension Day attired in their picturesque attire, and this dance is a prime feature of the festival.

But whether insular or continental dwellers, the moral and intellectual character of the people ill accords with their personal beauty, the historic renown of the race, or the natural loveliness of the country. At the commencement of their struggle with the Turks, the nations of Western Europe simply considered them as the children of an illustrious ancestry, forming a part of Christendom, entitled to sympathy from having been abominably oppressed for upwards of three centuries by a Mohammedan government.

The inhabitants of the coast towns and of the islands are actively commercial, but notoriously addicted to sharp practices, rarely making a bargain without an effort to overreach those with whom they deal. They are also expert seamen, but prone to be piratical, and to act the part of wreckers as opportunity offers. In the inland districts, agricultural and pastoral pursuits are followed, but the mountaineers are averse to industrial pursuits, impatient of subordination, and apt to be predatory. The women excel in embroidery, like their ancestors, and in the art of dyeing in bright colours. In general, the Greeks are a race of quick perceptions; in gesture vivacious, intensely voluble, and ever prone to gossip. They are temperate both in eating and drinking, fond of water as a beverage, and critical respecting its taste and coolness. This last propensity, the indulgence of which is rarely restrained by any urgency of business, gave rise to the lines by Leigh Hunt :

'A merchant, while sailing from Greece to Triestè,
Grew vexed with the crew, and avowedly testy,
Because, as he said, being lazy and Greeks,
They were always for putting in harbours and creeks ;
And instead of conveying him quick with his lading,
As any men would who had due sense of trading,
Could never come near a green isle with a spring,
But smack ! they went to it like birds on the wing.'



Syra.



Copenhagen.

SECTION IV.—NORTHERN AND EASTERN EUROPE.

CHAPTER I.

DENMARK—HOLSTEIN-LAUBURG.*



DENMARK, or more properly, Dane-mark, one of the oldest states of Europe, consists of a peninsula projecting from the north-west of Germany, with an archipelago adjoining on the eastern side, and is thus in part an insular as well as a continental territory. The peninsula is the Cimbrica Chersonesus of the ancients, so called from its earliest known inhabitants, the Cymri, who made themselves formidable to the Romans prior to the Christian era. It is one of the few formations of the kind directed towards the north, for almost all important examples of the peninsular arrangement follow a southerly course. The Elbe forms the boundary of the country on the south; the North Sea on the west; its arm, the Skager-rack, on the north; and the maritime continuations, the Cattegat, the Sound, and the Baltic, on the east. From south to north, the mainland extends upwards of 300 miles; but from east to west, the distance is never more than one-third of that measure, and generally less, contracting to one-tenth, or about

* The description here given of Denmark refers to that kingdom as it stood prior to the war with Germany.

thirty miles. The area, including the archipelago, comprises very nearly 21,000 square miles, an extent somewhat less than three times that of the principality of Wales. The main divisions of the kingdom are from north to south as follows :

Provinces.	Principal Towns.
Denmark Proper { Jutland,	Aarhus, Aalborg, Viborg, Randers, Silkeborg.
{ The Archipelago,	Copenhagen, Elsinore, Roskilde, Odense.
Duchy of Slesvig,	Slesvig, Flensburg, Haderslev.
Duchy of Holstein,	Glückstadt, Rendsburg, Kiel, Altona.
Duchy of Lauenburg,	Lauenburg.

The province of Jutland embraces the northern and larger part of the peninsula, and is, with the Archipelago, an integral portion of the monarchy. That of Slesvig, semi-Germanic in its population, properly belongs to Denmark, but has been wrested from it by war, and its political fate is in abeyance. The two other duchies form a single state belonging to the Germanic Confederation, which gives to whoever holds the sovereignty of it, as Duke of Holstein-Lauenburg, a seat and three votes in the Diet. The Farøe Islands, Iceland, part of Greenland, and three of the West India Islands are Danish possessions.

The continental portion of the kingdom has a very irregular outline, owing to its being indented by a succession of far-penetrating inlets of the sea. The largest of these, the Liim Fiord, underwent a remarkable change in the month of February 1825. This is an arm of the Cattegat, narrow at the commencement, which becomes a winding expanse of considerable breadth as it proceeds inland. It encloses several islands, and formerly terminated within a short distance of the opposite coast. But at the time mentioned, during a storm of terrible violence, the North Sea cut through the intervening isthmus, and thus converted the inlet into a strait intersecting the peninsula. This channel was gradually deepened by the ingress of the sea in tempests, till it became navigable for vessels of small burden. The first passed through it in the year 1834. As many as 1710 vessels, inward and outward bound, used the route in the year 1856, when there was a clear depth of eight feet of water. It has since been reduced to four feet, and the channel appears to be closing altogether, but will probably be re-opened under the same juncture of circumstances, as both processes seem to have been repeated in the lapse of ages. It is said that upon the irruption of the real salt water, the herrings so preferred it to the brackish water of the fiord, that they went out in a body into the open sea, and have not since returned to the nets of the fishermen. These inlets give a very extensive coast-line to the peninsula, but it is largely unavailable for maritime purposes, and eminently dangerous. There is scarcely a good harbour along the whole of the west coast of Jutland, while shallows occur everywhere off shore. From the sandy hillocks which form the sea-board, shifting with the wind, and sometimes spreading a mantle of desolation over cultivated tracts, seldom is there a ship to be seen, except it be one drifting to destruction, or the masts of vessels which mark the spots where the hulls are buried in the sands. Incongruous articles are often met with among the fixtures of humble cabins. A recent traveller mentions finding in one an English patent-stove obtained from the wreck of the *Polyphemus*, an oil painting of some English ruined abbey procured from the stranded *North Sea* steamer, and splendid shutters, carved and gilt, from a hapless Russian brig.

The interior of the country is a gently undulating lowland, part of the great plain of Europe. Himmelbjerg, the highest hill, rises only to 550 feet. Small sheets of water are numerous, connected by a continuous stream, like birds' eggs strung upon a thread; but owing to every portion of the surface being slightly inclined, and within a very moderate distance of the sea, there are no large rivers. The most important, the *Fjord*, divides

Slesvig from Holstein, and is navigable for some distance from the North Sea. This stream was considered the northern limit of the empire of the Franks in the time of Charlemagne, as of the German Empire in later days. But Holstein participates in the commercial advantages offered by the frontier river Elbe. At no very distant date the peninsula was extensively clothed with forests, even where now there are sandy heaths; and in various parts fine woods of pine, oak, and beech remain, chiefly of the latter. Imbedded beneath the existing beech-trees have been found, first, trunks of oak, next of pines; and in these last, flint weapons and other implements of stone have been discovered. They are supposed to have belonged to a people who had no knowledge of metals, and inhabited the country prior to the Celtic and Germanic races, by whom they were expelled or destroyed. Peat lies under the pines, in which no indications of human life appear. The woods once sheltered the elk, wild ox, wild boar, and wolf. In 1694, Christian V. is said to have killed sixteen wild boars in one day's chase; but the animal is now quite extinct. Wolves were common in the middle of the last century, and lingered to the commencement of the present. The last of the race was destroyed in the year 1811. The fox, squirrel, marten, and pole-cat exist in great numbers; and the weasel enjoys himself among the poultry with impunity, being protected, not out of affection, but from fear. The peasant will take off his hat when he meets him on the road, and civilly say, 'Good-morrow,' believing that ill-luck would follow any offence offered to the animal. The otter abounds in the lakes and streams; salmon are so plentiful that by law in some towns no servant can be fed with the fish more than once a week; aquatic birds in vast flights visit the fiords and marshes, captured for their feathers; the black stork fishes in the waters, and, unlike his white-plumed congener, builds in the woods; plovers and black game are numerous on the moors.

The northern province, JUTLAND, is the least fertile district, and the most monotonous in its aspect. Still, in the widely-extended plains, the stranger marks with interest the irregular intermingling of patches of cultivation with tracts of heath, of black soil with white sand, and the endless tumuli defined on the horizon—the burial-mounds of bygone generations—which have enriched the cabinets and museums of the capital with curious memorials of ancient life. The people are principally engaged in seafaring and agriculture, with a little weaving of coarse linen and woollen articles for their own consumption. The towns are all small, but mostly of ancient date, and quaint primitive appearance.

Aarhuus, on the east coast, with pleasant enclosing woods, contains a population of 11,000, possesses a cathedral, and an interesting Frue Kirke. An epitaph in the former records the death of a Norwegian at the age of 146, who lived through seven different reigns. *Aalborg*, on the flat bank of the Liim Fiord, rather smaller but better regulated, consists of old houses in narrow streets, and was one of the first places in Denmark lighted with gas. The name, 'eel-town,' is now a misnomer, the eels having shifted their quarters, or been used up; and its herring-fishery has ceased, owing to the shoals quitting the waters. But the trade in grain is considerable, and a new small harbour has been constructed. In one of the antique gabled houses died King John in 1513, who changed the royal style from that of 'Your high-born Grace' to 'Your Majesty.' He had been betrothed to a daughter of Edward IV. of England, but she died at Greenwich previous to the marriage. *Viborg*, in the interior, dates from the times of paganism. Its public garden contains the stone on which Hans Tausen, the Danish Luther, proclaimed the Reformation. It bears the name of Tausensminde, and has the inscription: 'Upon this stone, in 1523, Hans Tausen first preached in Viborg, Luther's doctrine.' A scene sketched by Marryat at Viborg is to be seen in most Danish towns: 'I observe the weavers sit at their open windows, busily engaged at their looms: look in at that man, his house shaded by two clipped limes; how neat and tidy all appears about him! Look at his two bas-reliefs in biscuit—one of the present king; the other by Thorwaldsen, the Genius of the Year. Observe, too, his flowers—his oleanders, his carnations—how carefully cultivated! and, above all, his own healthy, well-fed appearance, and his thriving family. He sings as he throws his shuttle at his wool.' *Randers*, on the Guden stream, which flows into a long narrow eastern fiord, pleasant and prosperous, imports deals from Norway and Sweden, returning agricultural produce. *Silkeborg*, the youngest town in the Danish dominions, is in the upper part of the basin of this stream, on a site which, twenty years ago, was a waste. It has not yet

been marked on maps. About the period named, an eminently successful paper-manufacturer, Mr Drewsen, established works at the spot, and gained for his paper the great prize at the London and Paris Exhibitions, owing to its superior glazing, effected by a machine of his own invention.

The north extremity of the province is formed by the Skaw, a long, narrow, curving promontory of sand, the site of the village of Skagen, and of a light-house.

The *DUCHIES*, on the south of Jutland, have agreeable features, without any pretensions to the striking or the picturesque. They are interspersed with beech-woods, which are trimmed by the lopping off of the lower branches, and kept clear of underwood, thus providing for a thick canopy of foliage above and a free circulation of air below. Their appearance in spring is eminently beautiful, being carpeted with moss and wild-flowers, among which the lily of the valley, hepatica, and Solomon's-seal are prominent. The open country presents a succession of well-watered, luxuriant meadows, divided into farms, upon which herds of horses and oxen are reared for export, and vast quantities of dairy produce, well known in the London market. The homesteads, scrupulously clean, are models of concentration, and ornamental likewise, being built of brick and timber in panels, the bricks arranged in pattern, the wood painted and varnished. This description applies to the territories of Holstein and Slesvig, that of Lauenburg being a sandy waste.

Slesvig, the old capital of the duchy of that name, lying at the head of a river-like inlet on the east coast, has 12,000 inhabitants, but is in a decaying condition, owing to the silting up of the harbour. It contains the palace of Gottorp, the residence of the ancient dukes, now used as a barrack, and a cathedral remarkable for its unprepossessing exterior, while a crowd of really beautiful objects are within. Among these the black and white marble tomb of Frederic, and an altar-piece reputed to be one of the richest specimens of carvings in existence—the work of a pupil of Albert Dürer—are conspicuous. *Flensburg*, at the upper extremity of another fiord, generally deep and wide, has become much more important, having greater commercial facilities, as large vessels can come up to its quays. It is a clean, thriving, cheerful town of nearly 20,000 inhabitants. Between the two, the railway crosses the line of the Danewirke, an earth-work formed of an old wall, stones and rubbish formerly crowned with towers, constructed in early days for defensive purposes. It was recently stormed by the Prussian and Austrian troops, and is now in process of demolition. *Hadersleben*, a port further north for smaller vessels, is the cradle of the late Danish dynasty; its founder, Count Christian of Oldenburg born here, having been elevated to the throne of Denmark in 1448.

Glückstadt, the capital of Holstein, neat and regularly built, is on the Elbe below Hamburg, and possesses a high school, a naval seminary, and a safe port connected with the whale-fishery. It successfully withstood three sieges during the Thirty Years' War, but the fortifications were demolished in 1815. *Rendsburg* possesses a large arsenal. *Kiel*, more important, with 17,500 inhabitants, has an excellent harbour enclosed with finely-wooded and pleasing shores, connected with a magnificent bay of the Baltic. The most ancient of its churches, St Nicholai, dates from the 13th century. The castle has a good sculpture-gallery. It is the seat of a university of repute (founded in 1665), possessing a library of 80,000 volumes, which may not only be read on the spot, but are lent out, three volumes at a time, to parties properly recommended. Professors, students, and townsmen are intensely Germanic in their sympathies; and hence the institution is not in favour with the Danes, who have a proverb to the effect, that 'to lie is a science, as the devil said when he frequented the university of Kiel.' Charming environs attract inland visitors in summer intent on recreation and sea-bathing. The town has greatly advanced since a railway connected it with Altona, and from thence with Germany, Belgium, and France. It has manufactures of tobacco, oil-colours, sugar, machinery, and ironmongery. *Altona*, the largest and most commercial provincial town, with a population of 45,000, close to Hamburg, has the appearance of being a suburb of its huge neighbour, rather than a distinct place, for they are connected by lines of dwellings. A gateway, with a sentinel, and the Danish coat of arms, recently formed the chief distinction between the two. In allusion to its contiguity and mercantile prosperity the Hamburgers give the name the form of *All-zu-nah*, 'All too near.' Its great manufacture is tobacco—one factory working up 600,000 lbs. yearly, but its trade extends to England, France, the Mediterranean, and the West Indies. It possesses an astronomical observatory, which, under the superintendence of Schumacher, who died in 1851, acquired great celebrity.

Lauenburg, the capital of the duchy so called, is a very small place close upon the Elbe, dependent upon its transit trade. The territory was ceded to Denmark by the Congress of Vienna in 1815, by way of compensation for the loss of Norway, which was then annexed to Sweden.

Many small islands fringe the west coasts of Holstein and Slesvig, inhabited by a hardy, simple-minded people, of Frisian extraction, seamen at the whale-fishery during one part of the year, and husbandmen at the other. These isles have been formed by the deposits of the North Sea, which often inundates the low grounds, drowning the cattle, and carrying off the produce; and would make havoc with the very dwellings, were they not placed on artificial mounds, and also guarded by embankments. This position, with the

employment of the occupants, has given a somewhat serious cast to their character and habits. Wives generally attire themselves in black during the absence of their husbands. 'Sir,' said one, to an inquiring stranger, 'my neighbours would think strangely of me if, while my husband is at sea, I should go to church out of mourning, or with a gay kerchief on my head.' Widows, in erecting tombstones for their departed husbands, frequently anticipate the day of reunion in the grave by leaving a blank in the inscriptions—'Here rest the bones of a good seaman, N. N., born March 17, 1786 A.D.; died April 12, 1834 A.D.; also, in hope of a joyful resurrection, the bones of his wife, N. N., born May 1, 1797 A.D.; died . . .'. But the burial-grounds shew that the males have commonly the sea for a grave-yard, for by far the greater number of the inscriptions are for women. In the epitaphs of those who die at home, the analogy between human life and seafaring is often introduced, as in the lines

'Steer so across the sea of life,
As not to miss the port of Heaven.'

On another stone may be read, 'The voyage of the world brings sorrow, danger, and want; but a happy death floats us to rest in the haven of Paradise.' The stone-cutter has endeavoured to illustrate the latter sentiment by rudely carving, as a picture of heaven, a quiet little bay, partly surrounded by houses, resembling those of the harbours of Wyk, Husum, and Tondern.

Insular Denmark, or the Archipelago, lies off the east coast, between the peninsula and Sweden. It consists of the two comparatively large islands of Seeland and Funen; of four lesser, immediately to the south, Langeland, Laaland, Falster, and Møen; and of upwards of sixty others dwindling down to insignificant tracts. The entire group occupies an area not exceeding 100 miles from north to south by 130 miles from east to west. Thus crowded together, the separating channels are narrow, and are rendered still more confined by innumerable shoals and sand-banks. Many of these insulated spots were little known to each other, much less to the outlying world, prior to the establishment of steam-navigation, though contiguous to one of the great thoroughfares of European commerce—the Sound. The physiognomy of the more extensive is very uniform. There is no bold scenery, but it is often picturesque, and eminently beautiful, with tolerable summer weather. Striking blendings of land, water, and sky are to be seen in almost every direction, while the white sails of merchantmen, the boats of pilots and fishermen, rich meadows and noble beech woods, neat churches, wind-mills, and homesteads, give variety and life to the landscape. Vegetation is everywhere luxuriant, and long retains a vernal appearance, owing to the humidity of the atmosphere. When the plains of Germany are brown and ashy with the summer heat, the isles of Denmark delight the eye with a fresh bright green; and as truly deserve the title of 'emerald' as our sister-kingdom. But dense fogs and cold drenching rains are more common experiences than fine weather, marring out-of-doors enjoyment. Yet, when a gale from the westward drives up clouds of mist, alternately veiling and disclosing sea, shore, and sky, fine studies are afforded to the painter of marine scenery. The Archipelago closely blocks the passage between the Baltic and the North Seas, reducing communication to three confined channels—those of the Sound, the Great Belt, and the Little Belt.

The largest island, Seeland, corresponds in area to that of Lincolnshire, and contains on its east coast the capital of the kingdom. It is separated from the Swedish shore by the Sound, which, at the north entrance, the 'narrows,' is somewhat less than two miles and a half wide. In the year 1830, when the channel was choked with drift-ice, which a hard frost converted into a compact mass, an accurate measurement was made of the width. This was found to be 4602 yards between the harbour of Elsinore on the Danish, and that of Helsingborg on the Swedish side. But these towns are somewhat diagonal with reference to the strait, and a direct line across it, from the fortress of Cronberg, immediately above Elsinore, to a stone tower on the opposite shore, measured 4328 yards. The distance expands to upwards of twelve miles off Copenhagen, and to sixteen miles below it. The depth is very irregular, varying from three to nineteen fathoms, but the more considerable of these depths are rare and local. Shallows everywhere abound,

requiring careful pilotage in the instance of large merchantmen. Lord Nelson, with the inferior line-of-battle ships of his day, found it one of the most harassing tasks of his life to reach the Danish capital by this route; and was almost worn out with fatigue and anxiety on accomplishing it. After the battle of Copenhagen, on proceeding to the Baltic, he had the guns of his ships taken out, and carried in merchant vessels, in order to pass through the 'grounds,' or the shoals which stud the southern part of the channel. The annual number of vessels passing inwards and outwards averages very nearly 20,000.

On entering the Sound from the north, the Danish shores have a pleasant aspect, descend-



ing in light-green slopes to the water's edge, adorned with beech-woods almost all the way to Copenhagen. Elsinore, at the entrance, is the scene of

the tragedy of *Hamlet*. But using poetic licence, Shakspeare has transferred the locality of the Prince of Denmark thither from the peninsula of Jutland, where he lived, reigned, died, and was buried. With the same liberty, the dramatist did not concern himself to depict the natural features of the selected site, even supposing that he had any general information respecting them. No spot in the neighbourhood answers to the described place of Ophelia's death :

'There is a willow grows ascant the brook,
That shews his hoar leaves in the glassy stream.'

Or to the language of Horatio :

'The morn, in russet mantle clad,
Walks o'er the dew of yon high eastern hill.'

Or to the words of the same party when dissuading the prince from following his ghostly guide :

'What, if it tempt you to the flood, my lord,
Or to the dreadful summit of the cliff,
That beetles o'er his base into the sea?
And there assume some other horrible form,
Which might deprive your sovereignty of reason,
And draw you into madness? think of it:
The very place puts toys of desperation,
Without more motive, into every brain,
That looks so many fathoms to the sea,
And hears it roar beneath.'

Elsinore has no cliffs at all, nor is there a dizzy precipice to be found in the whole of Seeland. Beyond repeated mention of the town, there is nothing in the tragedy which we can identify with the place, except notices which are equally applicable to a thousand

maritime localities. Still, as the selected scene of a splendid work of genius, it will ever be associated in the minds of Englishmen with the bard of Avon, and the obscure Jutish prince he has immortalised. The line in Campbell's famous Ode on the battle of Copenhagen—'Thy wild and stormy steep, Elsinore!'—is equally a poetic fiction.

Between Elsinore and Copenhagen, in the mid-channel of the Sound, the island of Hveen rises with moderately high and steep shores, a dreary spot, but a site of interest, as the scene of Tycho Brahe's residence towards the close of the sixteenth century. The celebrated Danish astronomer, having received a grant of it from Frederic II., with an annual pension, erected a house and observatory on his insular domain, as fantastic in its architecture as in its name—Uranienborg, the Castle of the Heavens.

The spires and public buildings of the capital, with the masts of shipping in its roads and harbour, are distinctly visible from the astronomical island. In the full summer its aspect from the sea is extremely beautiful, owing to the dense masses of foliage which appear in connection with its material and marine features. But the interior is more suggestive of respectability and comfort than of elegance or grandeur, though by no means destitute of imposing edifices.

Copenhagen, or *Kjøbenhavn*, the Merchants's Harbour, in latitude 55° 40' north, longitude 12° 38' east, consists of an old and a new town, simply separated by a street, occupying a promontory of Seeland, with a smaller division built on the adjoining isle of Amak. The intervening channel is the port, across which there is communication by drawbridges. Both parts are fortified with immense earthen ramparts, flanked with bastions, and surrounded by a deep and broad wet ditch. A citadel and some forts, with the celebrated Trekoner battery, on a sand-bank off the entrance to the port, are further defences. The ramparts extend through a circuit of five miles, and being planted with double rows of lime-trees, they form an agreeable promenade. In the old town (*Gamle-By*), the trading part of the city, the streets are generally narrow, the shops small, and the houses plain; but it is rendered somewhat picturesque and Dutch-like by an old-fashioned style of building, and the occurrence of canals which penetrate it in various directions from the harbour. The new town, Frederikshavn, the residence of the court, has superior external arrangements. But the entire street-architecture is of very ordinary description, with wretched paving; and the greater part of the thoroughfares have an air of striking quietude, at variance with what is naturally expected in the capital of a European kingdom of renown in history. The Exchange is its pride, a fine old building, surmounted by a graceful twisted spire, appropriated to its present purpose in 1858, when it was purchased by the merchants from the government. In a modest mansion of the Amaliegade, a street connected with the best square, the present Princess of Wales was born. The population of the city slightly exceeds 155,000. Neither its manufactures nor its commerce can be said to be important.

Though there are few attractions for ordinary sight-seers in Copenhagen, some public exhibitions are of remarkable interest to the more limited class of instructed visitors; the Palace of Christiansborg, containing the two Chambers of Parliament and the Picture Gallery; the Museum of Northern Antiquities; the Museum of Natural History; the Royal Library; Thorwaldsen's Museum; the Palace of Charlottenborg, now the repository of the Academy of Arts; the old Castle of Rosenborg, containing the regalia and rarities collected by the various sovereigns; and the old Observatory. The Museum of Northern Antiquities, founded in 1807, occupies a large suite of rooms; and is quite unique of its kind for completeness and systematic arrangement. Illustrative monuments of the Scandinavian past are here stored, amounting to many thousands of articles, found by the peasant in turning up the soil, or obtained by exploring antiquarians from burial-mounds. There are relics of the age of stone, separately grouped, when the people, ignorant of metals, slew their game, felled trees, and had warlike implements of flint; also memorials of the age of bronze, similarly classified, when the uses of tin and copper became known. Thorwaldsen's Museum contains casts of the works of the great sculptor, as well as several of his statues in marble, which he bequeathed to his native city. The old Observatory occupies the *Rund Tårn*, or Round Tower, an immense round brick building rising to a great height, attached to the Trinity Church. An inclined plane of brick-work winds within the tower to the summit, up which Peter the Great is said to have driven his empress in a carriage and four. The feat is possible enough, though how he contrived to descend is not stated, except by backing, as there is not space for a vehicle of any description to turn. The summit commands a fine view of the capital, the Sound, the Swedish coast, and the Danish islands. No northern city of the same extent rivals Copenhagen in the richness of its literary and antique stores, or in the number of its societies for the encouragement of art, science, and general learning. These have long placed it at the head of the civilisation of Northern Europe; and together with the many illustrious names on the roll of citizenship, Niebuhr, Thorwaldsen, Oersted, Oehlenschläger, Rask, Magnusen, Grundtvig, and others, establish for it a claim to be regarded as the Athens of the North. The Royal Library contains 400,000 volumes, arranged on open shelves, so as to be accessible to the public; besides great treasures of Sanskrit and other MSS., amounting in all to 15,000.

There is likewise the accommodation of a reading-room, and books are lent out to respectable residents, and to strangers competently recommended. The University Library contains 100,000 volumes; and Classen's 40,000, bequeathed to the public by the general of that name.

In the island of Amak, on which part of the city is built, there is an interesting race of foreign extraction, still distinct from the Danes in dress, manners, and language, whose ancestors were imported from Holland, upwards of three centuries ago, in order to introduce more skilful husbandry. The name of their principal village, 'Hollander-byen,' commemorates their origin. Time has effected little change in the appearance of these colonists. They retain their picturesque, many-coloured national costume, which at once discriminates the girls of Amak from the more soberly-attired maidens of Seeland. They are preached to also in the Dutch language by their own ministers, though Danish is of course sufficiently well understood for all practical purposes; and have civil and criminal tribunals peculiar to themselves, but under the jurisdiction of higher courts in the city. With the characteristic industry of their race, the flat swampy island has been rendered very productive, so as to be at once the dairy and kitchen-garden of the capital. About the middle of the twelfth century, Copenhagen was an obscure fishing-village, in the neighbourhood of which Bishop Axel or Absalom built a castle. In 1254, it obtained the privileges of a town, and was constituted the metropolis by Christopher III. in 1443.

Elisnore, on the Sound, twenty-five miles north of the capital, with two old churches and a new town-hall, has been called the Wapping of Denmark, and the adjoining Castle of Cronborg its Windsor. Mariners, naval store-keepers, officers of customs or quarantine, and consular agents form the chief part of the population, engaged in victualling, clearing, and piloting ships. A company of incorporated ferrymen are ever on the alert, ready to go out to vessels in distress, whose skill and courage have been tested in many a wild tempest, and are as well known as in the instance of the boatmen of Deal. Many names of our countrymen who have died at sea by hapless shipwreck or natural causes, occur among the inscriptions in the public cemetery. Cronborg Castle, an immense pile washed by the sea, within ten minutes' walk of the town, is an imposing object viewed in any direction, but especially from the surface of the water, combining the strength of a fortress with the elegance and grandeur of a palace. The edifice was founded by Frederic II. in the year 1574, and completed in the reign of Christian IV. It remained a royal residence for some time, but has long been appropriated to other purposes, now being used for a prison and a sea-mark. The northern turret bears a fixed light, and commands a fine view of the channel, with its shipping, and the opposite Swedish shore. In this building, in 1772, Caroline Matilda, queen of Denmark, the sister of George III., was confined upon a charge of which she has been acquitted by the unanimous verdict of posterity, including that of the Danish royal family. The story of her misfortunes is a more than thrice-told tale, though not so familiar to the present generation as it was to their grandsires. She fell a victim to the ambition and malignity of her step-mother, the queen-dowager, who wished to secure the succession to her own son. Permitted, after an imprisonment of some months, to retire to Zell in Hanover, owing to the intervention of her brother, she went in sorrow to the grave three years afterwards, at the still youthful age of twenty-three. The ill-fated Matilda, in her misfortunes, wrote with a diamond on one of the windows of Fredericsborg Castle, the line—

'Lord, keep me innocent, make others great.'

A wire screen was placed over the pane of glass bearing the inscription, the better to preserve it from being effaced. The memorial was swept away by the great fire of December 1859, which destroyed Fredericsborg, and its splendid historic picture-gallery. *Roeskilde*, on the railway, sixteen miles west of Copenhagen, the old metropolis, is now insignificant, but of interest from its cathedral, the Westminster Abbey of Denmark, containing the tombs of the sovereigns for many generations. The Rothschild family have their patronymic from the name of the place, which was formerly so written. The founder emigrated in the last century. 'A Jew, on going to another land, where Solomons and Levis were plentiful as strawberries, was called, to distinguish himself, Solomon of Bamberg, Levi of Frankfurt, and so on, till he ended by assuming as a surname the birthplace of his ancestors.'

The island of Fünen or Fuhnen, smaller and less wooded, is separated from the metropolitan district by the Great Belt. This middle passage between the North Sea and the Baltic is the broadest, varying in width from eight to twenty miles. Though almost everywhere of intricate navigation, there is water deep enough to float the largest vessels, except near the shores. Nearly midway in the channel, the little island of Sprogö occasionally serves as a temporary halting-place, for frequently in winter the accumulation of drift-ice compels a stoppage. Though there is a house of public accommodation erected by the government, yet so well known is this detention for its discomfort, that the Danes commonly express their dislike of an obnoxious individual by wishing him at Sprogö. Fünen is separated from the continent by the Little Belt, a dangerous, unfrequented, and narrow channel, contracting to less than three-quarters of a mile in breadth.

Odense, the chief town, occupies an inland site, has a cathedral and 14,200 inhabitants. Hans Tausen, the Danish reformer, the son of a blacksmith, was brought up in a school here. Not many years ago some remains of his father's smithy could be pointed out. He became the second Protestant Bishop of Ribe, a town near the west coast of Slesvig, and lies buried in its cathedral, a large building of the earliest round period. Hans Christian Andersen, so well known to the English public as a popular writer, was born in the island capital.

Some eighty miles from the nearest point of the Archipelago, Bornholm and the Ertholms form the most advanced possessions of Denmark in the Baltic. The former island is but little more than a quarter of that distance from the south-eastern extremity of Sweden, and is often united to it in winter by the ice. It is a rhomboid, averaging twenty miles in length by eleven in breadth; and contains a population of Danish extraction, speaking the Danish language, but with a considerable infusion of German words. Building stone, dark-blue marble, potter's clay, and some coal are wrought for export to Copenhagen.

Ronne, the chief town, sends fishing vessels to the North Sea, and despatches fine salmon, taken along-shore, to the nearest Prussian port, whence the fish are sent off by express train to Paris. A few simple manufactures, as wooden clocks, earthenware, tiles, and bricks, with home-spun linens, are the other occupations. An ingenious native having taken to pieces a wooden clock saved from a wreck, attempted the construction of another from the model. He succeeded, and others followed the example, till wooden clocks began, and still continue, to be a prime article of export. The island, cut off from communication with the world in winter, is a very secluded spot, and was especially isolated prior to the age of steam. At present, in some of the villages, the inhabitants display extraordinary simplicity with reference to foreign objects. 'Yes,' said the oracle of one of them, an innkeeper, to his guest, 'all the people look up to me, except on Sundays, when the priest comes down to preach. Ah! he is a great man, that priest! But I have seen much of the world also. I have been three times in Elsinore, and once in Rostock; and few can say as much. Yes, upon my word, I have seen a great deal; so much, that the governor himself sometimes asks my opinion when he comes this way. And he is a greater man than the priest!' Upon the high functionary, the Lutheran parish minister, being visited, he was found in the back-yard of his dwelling, without coat or waistcoat, and with his striped shirt sleeves tucked up above the elbows, killing one of his pigs, though not for the supply of his own table, but for sale to the neighbouring garrison.

The Ertholms, ten miles further in the Baltic, are a cluster of small rocky islets, strongly fortified, each bearing a separate name. Christiansö, the principal, has a citadel, in the tower of which a revolving light is maintained. The common occurrence of the prefix *Christian* in Danish nomenclature is an honour paid to the memory of Christian IV., the ablest of all the rulers of the kingdom, who distinguished himself in many naval battles with the Swedes, and is the hero of several spirited ballads. He paid a visit to James I. of England, his brother-in-law, and became a popular personage in London. Both kings signalised the meeting with a boisterous revelry, more in harmony with the times of Scandinavian paganism than with the seventeenth century.

'King Christian stood by the high mast,
 'Mid smoke and spray;
 His fierce artillery flashed so fast,
 That Swedish wrecks were round him cast,
 And lost each hostile stern and mast,
 'Mid smoke and spray.
 Fly! Sweden, fly! nor hope to win,
 Where Christian dauntless mingles in
 The fray!'

Thus commences the national song of the Danes. Their national flag, the Dannebrog, is of crimson marked with a white cross.

The climate of Denmark is humid, owing to exposure to a vast surface of water. Fogs are frequent in summer; rain and snow in winter; and in the latter season, navigation is either impeded or suspended altogether by the ice. Winters of great severity are occasionally experienced, of which the following records occur in old chronicles:

In 1269, the Cattegat was frozen between Jutland and Norway.

In 1292, one sheet of ice extended between Jutland and Norway, so that travellers passed with ease.

In 1323, the winter was so severe that both horse and foot passengers travelled over the ice from Denmark to Lübeck and Dantzic. Communication was maintained for six weeks, and places of refreshment were established on the road.

In 1349, the sea was frozen over, and passable from Denmark to Stralsund.

In 1402, the Baltic was quite frozen over from Denmark to Pomerania.

In 1408, there was one of the coldest winters ever remembered. The whole sea was frozen over between

Denmark and Norway; and the wolves, driven by hunger from the northern forests, came over the ice into Jutland.

In 1423, both the North Sea and the Baltic were frozen. Travellers passed on foot from Denmark to Mecklenburg, and from Lübeck to Dantzic.

In 1460, the Baltic was frozen, and both horse and foot passengers crossed over the ice from Denmark to Sweden.

In 1548, the winter was very cold and protracted. Between Denmark and Rostock sledges drawn by horses or oxen travelled over the ice.

In more recent times, 1658, Charles X. of Sweden crossed both the Belts upon the ice, with his whole army, horse, foot, artillery, and baggage. He was on his way from Holstein to the attack of Copenhagen, and proceeded by the islands of Langeland, Laland, and Falster. His ablest officers endeavoured to dissuade him from the undertaking; but, though hazardous, it was performed in safety, and compelled the Danes to conclude the peace of Roeskilde. Drift-ice, which the currents convey from the Baltic through the straits into the Cattegat, rarely appears in the latter before the new year commences, and scarcely ever before Christmas. The period of its disappearance is more variable. It may be met with in April, is common in March, but generally ceases to be formidable to shipping by the close of February. As long as drift-ice continues to be seen from the light-house on the Scaw Point, at the north extremity of Jutland, a white flag with a vertical blue stripe is hoisted.

Denmark is one of the oldest states of Europe, now under an hereditary sovereignty, with a diet of two houses, upper and lower—the Landsthing and the Folkething. Including the duchies, the home population numbers 2,600,000, of whom only 241 out of every 1000 live in towns, the remainder in country districts, sufficiently indicating the agricultural occupations of the people. The great majority belong to the Scandinavian branch of the Teutonic family. These are the Danes proper, occupying Jutland, the north of Slesvig, and the Archipelago. They speak a dialect of the Norse, or Scandinavian Gothic, which abounds with consonants, many of which are slurred over in the pronunciation. The inhabitants of Holstein, Lauenburg, and the south of Slesvig belong to the Germanic division of the same stock, and speak the German language. The Danes are honest and hospitable, make excellent seamen, and have long held an honourable position in the intellectual world. Among the rural classes many old-world customs linger, some of which are not a little interesting and picturesque.

Lutheranism is the established form of religion, while toleration is extended to all sects. The clergy are in general well-educated men, of mild manners, and free from all pretension. Their money income is very moderate, but as they receive tithes, and have land to farm, there is no lack of the substantial comforts of life. A Jutland præstgaard, answering to our parsonage and manse, but one of the best class, seen in its summer dress, has been thus described: 'You first drive through an archway into the gaard, or square court—a yard surrounded with farm-buildings: opposite stands the house occupied by the family; a few lime-trees are planted in the centre; a house-dog barks violently, as though he'd break his chain; cocks and hens and chicks stalk about; carts and horses; but no manure—all clean, though somewhat untidy. The houses consist mostly of one story. You enter rooms scrupulously neat and clean; windows opening on the other side into a flower-garden; lots of roses, lilacs, and common flowers. Here the garden led into a hanging beech-wood, with walks and seats; a lake below—small, but large enough for the enjoyment of a boat, and fish in plenty. Then there is sure to be an orchard and vegetable garden, and a lime avenue leading somewhere.' But as the inevitable result of this system, at least in many cases, the clergy are not free from the charge of caring more for their farms than for their flocks. In the parishes, as once all over England—

'The curfew tolls the knell of parting day.'

Eight massive round churches of very early date, still in use, are remarkable objects, as originally intended to serve the double purpose of fortresses in time of need, and places of worship. Some are loop-holed like a castle turret for the discharge of arrows, having been erected previous to the age of musketry. There are two in Seeland, one in Fünen, one in Jutland, and four in Bornholm. Hour-glasses may still be seen suspended near the pulpits in several of the ordinary churches. They were introduced as a check on the lengthy homilies of the early Lutheran ministers.

The connection between Denmark and our own country is intimate, of long-standing, and striking interest. King Knut the Holy is the Canute of English history, who subscribed himself with 'truth, 'King of Denmark, England, Norway, and part of Sweden.' Gorm the Old, is the Guthrun who so sorely troubled Alfred; and had the Danelagh ceded to him, which embraced our eastern, midland, and northern counties. But much further back—before Britain was abandoned by its Roman masters, though more conspicuously after the complete withdrawal of imperial protection—bands of obscure adventurers, Jutes, Angles, and Saxons, appeared as conquering immigrants on our shores. The Jutes came from the peninsula of modern Jutland, and founded the diminutive kingdom of Kent. The Angles migrated from parts of the present duchies of Slesvig and Holstein, arrived in greater numbers, and spread over a wider area, originating the states of East Anglia, Mercia, and Northumbria. The Saxons left a more inland territory, south of the Elbe, and established themselves in the localities which retain their name, Essex, Middlesex, Sussex, and Wessex, respectively the kingdoms of the east, middle, south, and west Saxons. It is easy to recognise in the orthography of England and English slightly altered forms of Angle-land and Angles. A district in the Slesvig duchy still bears the name of Angeln, inhabited by a people distinct in physiognomy and speech from their neighbours. Dr E. D. Clarke thus writes of it in his travels: 'We were surprised at the number of English faces we met; and resemblance is not confined to features. Many articles of dress, and many customs, are common to the two countries. The method of cultivating and dividing the land is the same in both; the meadows, bounded by quickset hedges, or by fences made of interwisted boughs, reminded us of Kent, Surrey, and Sussex. The natural appearance of the country is also like the south of England, being diversified by numerous hills and valleys, adorned with flourishing woods and fertile fields.' Kohl, a recent visitor, makes a precisely similar remark. This interesting locality—truly Old England—lies on the Baltic coast, between the towns of Flensburg and Apenrade. The latter name, signifying an 'open road,' or station for shipping, is nearly English. There is a closely-adjointing tract, but on the shore of the North Sea, occupied by a Frisian race, where the people have traditionally preserved the memory of the immigration, and claim to be peculiarly of the same stock with the founders of England, appealing to the identity of their language in proof. Kohl quotes a distich current among them, 'Good bread and good cheese, is good English and good Friese.' Walking through one of the villages, he abruptly asked a child: 'Where did Hengist and Horsa sail from?' The answer was promptly returned: 'From Tondern on the Eyder.' Many names of persons are identical, or nearly so, with those in use in this country, the result of subsequent intercourse, as Smit, Pott, Thomsen, Locke, Burns, Green, and others.

The Farøe Islands form a bailiwick of Jutland, and though far out in the North Atlantic, are properly noticed in this place, as geographically belonging to Europe. The group consists of sixteen or seventeen strips of inhabited highlands, or mountains, separated by narrow sounds, nearly all basaltic, often columnar, besides outlying rocks only tenanted by the gull, puffin, and eider duck. They rise bold, bare, and bleak out of the deep ocean, here and there shewing cliffs with perfectly vertical faces of more

than 1000 feet in height. Not a tree or shrub exists. A few patches of soil are cultivated, devoted chiefly to potatoes and a coarse barley, while some sheep pick up a scanty subsistence on the hillside. The islanders number from 8000 to 9000. The men are fishermen, fowlers, and shepherds, while the women have grinding the corn for their ordinary duty. For this purpose, the *quern* or hand-mill is in use—the same implement which is mentioned in the Bible as employed in primitive times for preparing meal, where also grinding at the mill is referred to as the work of the females. Thorshavn, on the western side of Stromoe, is the chief town, one of the rudest of villages in appearance. ‘There are bright patches of green, mixed with one or two masses of black and white,’ remarks a tourist on approaching the spot; ‘and somehow a flag rises out from above these objects; and we strain our eyes, and wonder what the whole thing is, for as yet it appears entirely anomalous. It proves to be a town of the Farøe Islands: these green patches are the sod-covered roofs of houses; the spots of white and black resolve themselves into a merchant’s house and a church; and the flag is hoisted in a little fort, perched on the neighbouring hillside. Such a curiously-disguised, half-buried little town it is; such an odd huddle of cottages mixed with rocks, and rocks mixed with cottages, that in certain lights, if the flag were only to keep itself down, we believe an enemy’s ship might pass it without ever imagining that a town was there.’ It has spaces between the cottages, but nothing in the shape of street or lane, and possesses one baker. There is great interest in peeping into these out-of-the-way nooks of the world, and meeting with circumstances completely apart from our own experiences. In one of the islands ‘Paul Johnson’s *huus*’ is shewn as a wonder, as it is the only one with two stories. Great Dimon Island, occupied by a single family, can only be approached in favourable weather, and then parties have to be hauled up with ropes from the sea. Hence months sometimes pass away without any coming in or going out. It is on record that on one occasion having suffered the fire to go out, in the middle of winter, the family had to remain without fire or light for the rest of the season, not having the means to re-create the blaze. The Farøese very commonly depend for a new fire upon lighted tinder carried from house to house.



Fredericia.



Christiansund.

CHAPTER II.

SWEDEN AND NORWAY.



THE territories of Sweden and Norway, politically associated under the same crown, but with distinct estates, naturally compose a single geographical region to which the ancients gave the name of Scandinavia. This is a peninsula, the most extensive in Europe, occupying the north-western part of the continent, and connected by a comparatively narrow tract with Russian Lapland. The Baltic, and its great branch, the Gulf of Bothnia, form the boundary on the east and south; the Atlantic and Arctic Oceans on the west and north. Of the two districts, Norway, the western, extends most to the north, with a gradually diminishing breadth, and forms the extremity of Europe in that direction. Sweden, the eastern division, stretches most to the south, and maintains a much greater uniform breadth throughout its extent. Between the extreme points of the peninsula from north to south the distance is nearly 1200 miles. The greatest expansion is about 450 miles, in the latitude of Christiana and Upsal; but the average width is not more than 200 miles for Sweden, and from 60 to 70 for Norway. The area includes 292,000 square miles, which exceeds that of any other European state after Russia. Of this amount, Sweden has nearly one-sixth part, or 50,000 square miles, more than Norway.

The great northern limb of the Baltic, the Gulf of Bothnia, which separates Sweden from Finland, extends upwards of 400 miles, with an average width of 100, and terminates within a short distance of the Arctic Circle. But nearly midway the breadth contracts to less than 60 miles, and the distance across is frequently accomplished over

the ice in winter. This was effected for the purpose of invasion by the Russian general, Barclay de Tolly, at the head of his army, in the year 1809. Leaving Wasa on the Finnish side, 17th March, he arrived in three days at Umea on the Swedish, after a journey resembling in its details the narratives of polar expeditions. The troops bivouacked at night, with a clear sky and a bright moon aloft. Their guides often lost the way amid frightful masses of ice and snow which storms had confusedly heaped together. Stakes planted as marks by a reconnoitring-party sent beforehand could not be found, having been blown down by the winds. The sledges were continually stopped by broad chasms, which had to be crossed like rivers, or avoided by long detours. Fortunately, though the weather was intensely cold, the air was calm; for had a violent snow-storm occurred, the army must have perished. The perilous exploit was useless, for scarcely had the soldiers gained the Swedish coast, when they were recalled, owing to the conclusion of a truce. At the entrance of the gulf, the mainland of Sweden is within twenty miles of a Russian island, one of the Aland group.

The shores of Sweden have great peculiarities. On the eastern side, around Carlserona, but principally from the Sound of Kalmar into the interior of the Bothnian Gulf, there is along-shore an enormous assemblage of small rocky islands and insulated points of rock, forming a bewildering maze, which no map can represent owing to their number. The country, according to a common saying, has two coasts—one inner and the other outer. The inner is an integral part of the mainland; the outer is the islet fringe closely bordering upon it, in which there is smooth water when the sea beyond is tempest tost. Nothing like it occurs elsewhere in European scenery. Though all the members of this archipelago are of insignificant extent, and are never elevated, while rounded surfaces render the scene exceedingly monotonous, its aspect is singularly impressive to the stranger, from the apparently interminable extent of the labyrinth, and the want of life in connection with it. Isle after isle comes into view, more or less covered with dark stunted pines in the south, but generally destitute of wood in the north, while around and between the larger masses, myriads of naked hummocks of gneiss just rise above the water. For miles and miles the voyager may see no indication of human life, except on board his own vessel; and may fancy himself visiting a newly-created world on which animal existence has not yet been planted. Though contiguous to land in every direction, all is still and solitary. 'We never,' observes the Countess Hahn-Hahn, 'lost sight of the shore, and sometimes were so near it that it seemed as though we could leap to it from the boat. Yet I have never seen anything so desolate as the voyage during this first day. On the open sea we should not complain; but here, so near the land, and not a boat upon the water, not a living creature on the shore, not a garden, not a human being, not a dog, not even a fishing-net to shew that a man had been there—there was something awful in it!' This lifelessness does not belong to the main passages by which Stockholm is approached, which are enlivened by the transit of steamers and sailing-vessels, and by fishermen, pilots, and light-houses on the shores; but as there are innumerable sunk rocks, the navigation is usually suspended during the night. The whole labyrinth is locally called the *Skärgård*, signifying a rocky danger along the shore, or reef-defence; the intervening channels are the *Skärgård-sleden*; and the light craft which navigate them, vessels built for the particular purpose, the *Skärgårds-skutor*.

The shores of Sweden are also of great geological interest, owing to the remarkable proofs they afford of changes in the relative level of land and sea, in gradual process at the present moment. Celsius, a Swedish naturalist, about the commencement of the last century, avowed the opinion that the waters both of the Baltic and of the Northern Ocean were slowly subsiding. In confirmation of it, he quoted the testimony of inhabitants on the shores of the Gulf of Bothnia, that towns, formerly seaports, were then far inland, while the sea was still constantly leaving dry, new tracts along its borders. The same parties also affirmed that

insulated rocks in the gulf, and on parts of the coast, rose higher above the sea-level than they remembered them to have done in their youth; and it was alleged that marks had been cut on fixed rocks to indicate the water-stand, which already denoted its lower level. Celsius, from numerous observations, estimated the rate of depression at from three to four feet in the course of a century. Linnæus personally examined the facts, and adopted the same opinion. But as, by the laws of equilibrium, the level of the sea can neither sink nor rise permanently in one place, without proportionably sinking or rising over the whole surface of the earth, philosophers in general were content to discredit the alleged proofs of change till the commencement of the present century. Accurately to test the question, lines or grooves, at the ordinary level of the water on a calm day, with the date of the year, were chiseled out on the rocks in various localities.

Playfair, in 1802, who admitted the evidence, was the first to suggest the true solution of the phenomenon, referring it to the upward movement of the land, not to the depression of the water. But Leopold Von Buch, who passed more than two years in Scandinavia, from 1806 to 1808, and traversed it in every direction, was the first distinguished geologist to pronounce an opinion upon the subject, founded on personal observation. He sought information from intelligent pilots and fishermen, inspected the marks upon the rocks, observed upraised deposits of shells belonging to species now inhabiting the Baltic and the Bothnian Gulf, and announced his conviction 'that the whole country, from Fredericksshall in Norway, to Abo in Finland, and perhaps as far as St Petersburg, was slowly and insensibly rising.' He also conceived that 'Sweden may rise more in the northern than in the southern part.' All succeeding observers have come to the same general conclusion, and multiplied proofs of its correctness. In the years 1820-1821 the old rock-marks were carefully examined under the joint direction of the Swedish Academy and the Russian Minister of Marine. The officers reported that, on comparing the level of the sea at the time of their observations with the ancient indications, they found it lower relatively to the land in certain places, but the amount of change during equal periods of time had not been everywhere the same. They cut new marks for the guidance of future investigators. Fourteen years later, in 1834, Sir Charles Lyell, who had been sceptical relative to the phenomenon, fully satisfied himself of its reality in the course of a tour; and on examining even the new rock-marks, the sea was found to be sensibly below them at various points to the north of Stockholm. He marked, with the height of the water at the time of his visit, the celebrated stone at Löffsgrund, near Gelle, on the Gulf of Bothnia. Sir Charles's mark was two feet seven inches below one made in 1731; and the sea was found to be about seven inches below the fresh indication by Mr R. Chambers in 1849. The total change of relative level had therefore been more than three feet in 118 years, a confirmation of the accuracy of Celsius in his estimate of the rate of change. The hard texture of the rocks on this part of the coast, and the absence of tides, facilitate the accurate determination of the mean or ordinary height of the water.

On receding from the northern parts of the Gulf of Bothnia, the alteration of level diminishes, and is very slight around Stockholm. Further south, the rise of the land ceases altogether, and evidence is met with of an opposite movement, that of a gradual subsidence. No beds of marine silt containing the shells of mollusca identical with species now inhabiting the sea are found inland through the southern part of the peninsula, while well-known landmarks are at present nearer the water-line than formerly. Linnæus, in 1749, measured and marked the distance between the sea and a large stone near Trelleborg on the shore of Scania. In 1836, eighty-seven years afterwards, the distance had diminished to the extent of a hundred feet. Another conclusive proof of the subsidence appears in the circumstance, that houses and entire streets in the maritime towns occupy positions relative to the sea to which they would never have been exposed had the same relation existed between them when they were built. In many cases they are either at or below the lowest level of the water, and are liable to be overflowed when the wind raises the waves above their ordinary height. This oscillatory movement, upward in the north and downward in the south, is the more striking, as no part of the globe has been less subject to violent physical disturbances since the date of authentic history. However gradual the elevation and the subsidence, great changes must inevitably be produced in the configuration of the peninsula in the lapse of ages. Though quite inexplicable, the slow and silent oscillation seems like an expiring effort on the part of those forces by which the vastly greater geological changes of ancient epochs were effected.

Norway is distinguished by a very complicated coast-line. It presents an uninterrupted series of inlets called fiords, a name analogous to the Scottish firth, both having the same derivation from the old Norse. In a few instances they are spacious bay-like openings, but the great majority are elongated, comparatively narrow, and so tortuous as speedily to exclude all view of the open sea, rendering the appearance of the water lacustrine. It is beautifully clear. In fine weather the reflection of the bordering mountains is often as well defined upon the surface as the rocks themselves; and when viewed at a short distance it is no easy matter to decide where the line is which separates the water from the shore. Sometimes this uncertainty, when crossing one of the fiords in a boat, has a singular effect. Everything appears upside down; houses upset, trees growing the wrong way, men walking on their heads, cattle on their backs; the whole

appearance having an air of reality which for the moment beguiles the senses. Where the rocky walls are exposed to the wild gales of the ocean, they are sternly naked; but in sheltered situations tall pines clothe the sides and summits, with the wild raspberry and strawberry beneath them, the blossoms of which in spring offer an agreeable contrast to the sombre foliage. The scenery in these inlets varies frequently within confined limits from the pastoral and picturesque to the striking and sublime, occasionally to the terrific. Sixty miles to the south of Bergen, the Hardanger Fiord winds inland nearly a hundred miles, and sends off arms on the right and left. One of these branches is connected with the Matre Fiord. This is a tremendous cleft in a mountain mass, nowhere more than a quarter of a mile wide and four miles in length. The sides rise from 3000 to 5000 feet, and are in places literally perpendicular, with masses here and there overhanging the water. 'Though it was nearly eleven o'clock,' observes Mr Wittich, speaking of a midsummer day, 'the sun had not yet penetrated to the bottom of the cleft. The gloom which was spread over it, heightened by the dark rocky masses on its sides, excited a sensation in my breast of the most painful description. The view was not grand, it was not sublime—it was horrific. At the view of a truly grand scene our feelings expand, but at the sight of this cleft I felt that they were contracted. I could not breathe with common ease, and the sensation which filled my mind approached nearer to horror than to any other feeling I know. I was really glad when our boatmen turned their vessel away to continue their course to the Hardanger Fiord.' There, on the eastern shore, before the sunset hour, the traveller was gazing with delight upon Rosendal—the Vale of Roses—with its manor-house and bordering highlands enclosing a beautiful succession of fields, meadows, and groves of fruit-trees, interspersed with hamlets and cottages, bearing witness alike to the productive powers of nature and the industry of man.

The interior of the Scandinavian peninsula is traversed from south to north by a mountainous range, which overspreads nearly the whole of Norway, but only slightly intrudes into Sweden. It defines indeed to a great extent the boundary between the two regions. Boldly rising up from the deep waters of the Atlantic, the mountains attain their greatest elevation at an inconsiderable distance from the west coast of Norway, and decline gradually towards Sweden into the undulating lowlands which compose the chief part of its surface. The range bears the name of the Thulian in the south, the Dovre-field in the centre, and the Koelen in the north. Skagstolsfjnd, in the province of Bergen, the highest point, rises 8153 feet above the sea, or more than 3000 feet above the snow-line in that locality. Owing to the great general elevation of the country in the central and southern districts, and the high northern latitude to which it stretches, it is estimated that an area of not less than 3500 square miles is above the line of perpetual congelation, and is constantly covered with snow. The largest single snow-field, the Folge Fonden, eastward of Bergen, is about thirty miles in length, from six to eighteen miles in breadth, is elevated 5400 feet above the sea, and has a covering of permanent snow forty feet deep. When Pontoppidam, the Bishop of Bergen, published his *Account of Norway* in the last century, he suggested that improved roads might be laid out upon the top of the mountains with little difficulty, except from the snow. No idea could well appear more preposterous than this to readers unacquainted with these highlands. But their peculiar contour would render the suggestion feasible for considerable distances, were it not for the circumstance mentioned. Comparatively few peaked or rounded projections mark their upward outline. The summits consist of high plains, locally called *fjelds*, or 'fields,' with generally level surfaces of varying dimensions, forming an extensive series of tablelands. Thus the Dovre-field is an extensive tract of country, from forty to fifty miles

across in every direction, and between 3000 and 4000 feet above the sea-level, from which platform the pyramidal Sneehätten, or Hat of Snow, rises some 3000 feet more. The general surface of this high region merely undulates, and is sufficiently desolate, owing to the elevation and the latitude. Frost is almost continually experienced through nine months of the year, and snow occasionally falls in the middle of summer. Reindeer-moss and heath clothe the drier spots; grass springs up in some of the depressions; and there are a few patches of birch-trees, but never higher than from three to four yards, with willows and alders less frequent and more dwarfish. Total silence prevails over the scene, except when interrupted by the mournful notes of the whistling plover, as it flits at a distance. This cold and dreary district, devoid of everything necessary for the subsistence of man and beast, while visited with fearful snow-storms, has to be passed on proceeding from Christiana to Drontheim, the modern and ancient capitals of Norway; and very benevolently, to guard against loss of life by the way, King Egsdein, in the beginning of the twelfth century, caused stations to be erected, called *fieldstuer*, as places of refuge, endowed with a certain yearly revenue for their support. These stations are four in number, about ten miles distant from each other. They consist of houses of wood, containing two or three large rooms, one of which is set apart for travellers, with a large fire and requisite provision.

The valleys, though in some instances broad and open, are for the most part rents in the mountain masses: narrow at the bottom, not much wider at the top, and therefore steeply walled. One of these ravines proved fatal to a number of auxiliary Scots, raised for the service of Sweden, just after Gustavus Adolphus, who was then at war with Denmark, ascended the throne. They landed at Romsdale, on the coast of Norway, a hostile country, acknowledging the Danish sovereignty. This was with the view of gaining the Swedish frontier by a march across the mountains, as the passage by sea was guarded by the ships of the enemy. The detachment, 900 strong, under Colonel Sinclair, while in a narrow pass upon the road, was attacked by a band of peasants, who rolled huge masses of rock, stones, and trees upon the entrapped party from the bordering heights, and then rushed down to slaughter the confused and wounded men. All perished, with the exception of two individuals. This disaster occurred near Viig, on the 24th of August 1612, and is commemorated by an inscription on a wooden tablet at the spot. The commander was buried close by in the church of Quam. To reward this exploit, the peasants were formally exempted from paying any taxes, as well as from serving in the army. Though two centuries and a half have now elapsed, the name of Sinclair, pronounced *Zinclar*, is familiar in the district, and will remain so for ages to come. Another detachment landed at Stördal, and safely passed the Scandinavian Alps to Stockholm. Scotch auxiliaries crowded to the banner of the 'Snow King,' as Gustavus was contemptuously called by the imperialists during the struggle for the reformed faith which he conducted in Germany; and such names as Hamilton, Bruce, Colquhoun, Murray, and Seaton are not unknown at present as Swedish denominatives. Broad lowland Scotch is also to some extent intelligible in the south of Sweden.

The peninsula abounds with rivers formed and sustained by the snows and glaciers. The Gotha in Sweden, and the Glommen in Norway, are the most important. Though the Scandinavian rivers have generally but short courses, they have full channels and powerful currents in spring-time, when the deeply-accumulated wintry covering of the country is dissolving, except on the loftiest uplands. But they have very little navigable value, owing to the repeated occurrence of falls and rapids, though highly useful in floating down the timber from the interior to the coasts. The falls of the Gotha at Trolhätta in Sweden are the highest in Europe of the same body of water, and the most magnificent,

for a cataract depends for imposing effect more upon the volume it discharges than the extent of the descent. The river, broad and deep, plunges 130 feet in successive leaps. Its resistless power is illustrated to visitors by a log of wood being sent down by persons who expect a trifle for the exhibition. The log, which is of gigantic dimensions, is tossed like a feather on the surface of the water, and is borne almost in an instant to the foot. The Gotha is the only outlet of the Wenern Lake, which covers an area equal to that of the county of Norfolk, and is skirted with rich forests. This expanse and the adjoining Lake Wetter are the largest in Europe out of Russia. Both have long been traversed by steamers plying between Gothenburg and Stockholm, which are conducted by the Falls of Trollhätta through a lateral canal, aided by a series of locks. But their services are destined to be superseded by railway communication. The beautiful Lake Miosen in Norway, long and narrow, surrounded by fine pastoral scenery, is connected with the capital, Christiana, by a railway forty miles in length, executed by English engineers and contractors, and to a great extent their property. Small elongated lakes are as common as in the Highlands of Scotland. They abound with fish, as well as the streams, supply the people with their daily fare, and are annually visited by a number of our angling countrymen, who pay a rental for the right to fish to the neighbouring proprietor, and are expected to present him in addition with the 'lion's share' of the proofs of their skill. Smoked salmon is the commonest article of food in all the river-valleys, and it is invariably eaten raw.

The Dal is the historically-interesting Swedish river. It enters the Gulf of Bothnia to the north of Upsal, and gives its name to the district through which it flows, the old province of Dalecarlia. In this region the founder of the modern monarchy, Gustavus Vasa, took refuge in his temporary adversity, was sheltered from pursuers by its inhabitants, and roused the bold peasantry to assert triumphantly the liberties of their country. The common people still remember with pride how he wore the peasant's dress among their forefathers, plied axe and flail for daily hire, and many scenes of his adventures and perils are pointed out. The barn is indicated in which he thrashed at Rankhytta, and the one in the hamlet of Isola in which he similarly laboured. The latter has now a monument of porphyry, with the inscription: 'Here worked as a thrasher Gustavus Ericson, pursued by the foes of the realm, but selected by Providence to be the saviour of the country. His descendant in the sixth generation, Gustavus III., raised this memorial.' The barn still belongs to the family of the original proprietor, whose representative received an honorary medal in 1787. In like manner, the spot in the forest at Marness where the fugitive lay concealed three days under a fallen fir-tree, and the peasants brought him food; the hillock surrounded by marshes on Asby Moor, which also served him for some time as a place of refuge, and is now called the King's Hill; the cellar in the hamlet of Utmedland where he hid from his enemies; the site by the church of Mora where he harangued the people; all these are shewn by the descendants of those who shared his dangers, and are little likely to be forgotten by future generations. The Dalecarlians or Dalesmen of the present day are a peculiarly energetic race, and are conscious of it; according to a maxim current with them, one man of the district is equal to two Swedes of any other province. In summer, a large number of the girls migrate to Stockholm, where they are employed in working the boats. They are hardy, honest, industrious, and surprisingly strong, as may be seen by their toiling at the heavy oars from morning to night. Though with somewhat coarse features, their good-natured looks, blue eyes, and rosy cheeks, well set off by a very picturesque costume, render their appearance peculiarly prepossessing.

Woods cover a very large proportion of the surface of the whole country. They shelter the wolf, bear, and wolverine, now limited chiefly to the wilder and more northern districts, with the elk in the least frequented localities, the fox, lynx, and badger generally, and the wary capercaillie, 'cock of the woods,' or 'horse of the woods,' as the bird is called. The stillness of the forests is very remarkable and impressive to persons familiar with our own sylvan scenes. Songsters are wanting; small birds chirping and twittering among the branches are rare; and the solitude is rendered additionally solemn by the sombre foliage of the prevailing trees. But innumerable wild-flowers deck the ground, among which the beautiful *Linnaea borealis*, a favourite with the botanist, is conspicuous. It grows where the woods are most dense, shews its delicate twin blossoms

among the moss, through which its stems extend to the length of several feet. In the southern districts, the oak, elm, beech, and maple mingle with the generally diffused aspen, birch, mountain-ash, spruce, and Scotch firs, *Pinus sylvestris*. The latter are the characteristic trees, lofty, straight, and everywhere prominent. They are the most valuable also for commercial purposes, answering admirably for the masts of ships, while yielding tar, turpentine, and pitch. Hence Milton's lines in the splendid description of Satan :

'His spear, to equal which the tallest pine
Hewn on Norwegian hills to be the mast
Of some high ammiral, were but a wand.'

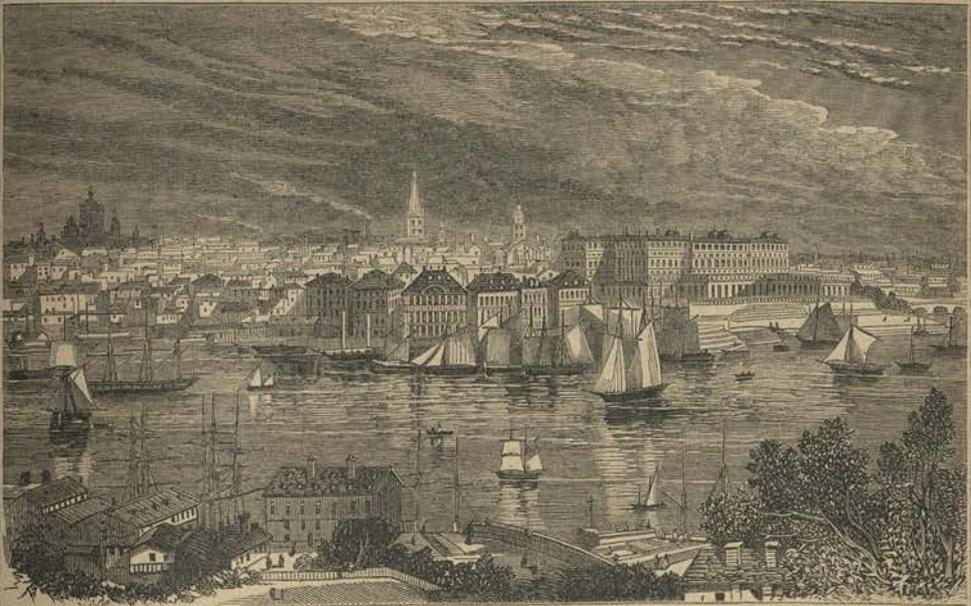
It is interesting to mark the change of vegetation on proceeding from south to north. Many species, after becoming scarce, entirely disappear, while the birch becomes more and more dwarfish and the pine stunted, till both degenerate into mere bushes under the pinching cold of the climate. The peasantry are expert woodmen, and bring large trees to the ground in a very short space of time. They are then stripped of the bark, the branches lopped off, and the logs laid in rows, till they are 'received,' as it is termed, by the merchant. Upon this being done, the timber is rolled to the bank of the nearest stream, and committed to a rough voyage with the current. But previously, each log is marked at both ends, so that if broken in going down the falls, the owner can recognise both pieces as his property. The precaution is indispensable, as timber belonging to different parties may be afloat at the same time. Strong booms are thrown across the mouths of the rivers, or at other convenient points, where the floats are intercepted. But it sometimes happens, when there is a strong flood, or an extraordinary accumulation of timber, that the booms give way, and thousands of logs are irrecoverably drifted out to sea. Besides being expert hewers of wood, the peasants are ingenious carpenters. They fabricate most of their own household furniture, and render ordinary articles ornamental, as bowls, the handles of forks and spoons, by beautifully minute carving.

The peninsula is remarkable for enormous stores of iron and copper, with some lead and silver, but the rugged character of the country, and the want of streams which admit of navigation, check the extraction of its metallic wealth, by rendering transport difficult or impossible. Iron ore occurs in Sweden in immense masses, occasionally forming entire hills, where the mines are open excavations. The iron produced in Dannemora is the best in the world, superior to any other in ductility and malleability; and has long been chiefly sent to England for the manufacture of the finest steel. Copper-mines have existed for several centuries at Falun in the same district, which Gustavus Adolphus was accustomed to call the 'treasury of Sweden' from the value of their produce. Though the yield is much less than formerly it is still considerable. Excavations extend here for miles underground, and comprise vast chambers, which were brilliantly lighted up for sumptuous banquets given by Bernadotte, king of Sweden. In Norway, extensive copper-works are carried on in the elevated region of Roraas, a town near the source of the Glommen, where the climate is almost a perpetual winter; and also at the high latitude of nearly 70°, in the neighbourhood of Alten, which give employment to several hundreds of persons, and are under an English director. The silver-mines at Kongsberg, discovered in 1623, once yielding gold, after a period of suspension are again worked at a profit. It was at this spot that the gold was found in 1647 of which Christian IV. caused the famous Billen ducats to be coined, bearing the legend *Vide mira Domini*, 'Behold the wonderful works of the Lord.' A mass of silver obtained in the seventeenth century, now in the royal collection at Copenhagen, weighs upwards of 560 lbs.

The littoral climate of Norway is comparatively mild for the latitude, and much more uniform than in the interior of the peninsula, owing to the influence of the adjacent ocean. But in the inland districts, two strongly-contrasted seasons divide the year generally between them, a long and rigorous winter, a short and hot summer. For six months and upwards hard snow covers the ground, while the lakes and rivers are firmly frozen; the thermometer frequently descends many degrees below zero; mercury solidifies; and in the far north, as the effect of the long cold winter, the mean temperature of the year is below the freezing-point. On the other hand, the brief summer has its excessive heat, with an ample population of tormenting mosquitoes. But, unlike the days of winter, which brighten as the cold sharpens, those of summer become dull as the heat increases, while the succeeding nights are magically clear. There is a haze aloft and all round the horizon, often with a bluish tinge, not moist, and therefore popularly called sun-smoke to discriminate it from ordinary fog. It saddens the sky, restricts vision, confuses objects, and tarnishes the landscape. The great summer heat arises from the long-continued presence of the sun above the horizon. From south to north the longest day varies from nineteen or twenty hours to several weeks in its length. A visit to Hammerfest or Tromsøe, within the Polar Circle, by steamer from Bergen, to see the sun at midnight, is now a midsummer excursion with strangers from southerly latitudes.



A Lapp Lady, from Lord Dufferin's Sketch.
By permission.



Stockholm.

I. SWEDEN.

SWEDEN comprises three principal districts, central, southern, and northern, which are subdivided into *läns*, or governments.

Districts.	Principal Towns.
Sveland or Sweden Proper,	Stockholm, Upsal, Falun, Orebro.
Gottland,	Gothenburg, Carlsrona, Kalmar, Malmo, Norrköping.
Norrland,	Gefle, Sundsvall, Hernosand, Umea, Pitea, Haparanda.

Stockholm, the capital, in latitude 59° 20' N., longitude 18° E., a city of 112,300 inhabitants, is situated upon a strait connecting the Mälars Lake with the Baltic through the multitudinous channels of the islet coast. On the seaward side of the strait, and in the centre of it, on an island, the strong fortress of Waxholm commands the passage to it, as all approaching ships must come within range of the guns. The site of the metropolis is one of the most remarkable in the world, varied with rock, ridge, wood, water, and island, which combine to render its summer appearance beautiful in the extreme. A profusion of freshly-green verdure, with gleaming expanses, intermingles with the buildings, while the whole is encircled by a wreath of forest foliage. But the interior, especially of the older part, is a labyrinth of narrow crooked streets, in want of a thorough reform as to paving and sewage. The city, properly so called, occupies three islands, so contiguous and connected by bridges as to appear but one. These are the Stockholm, or 'island of the castle,' which gives its name to the capital, and where the first buildings were planted; the Riddarholm, or 'knights' island;' and the Helge Ants Holm, or 'island of the Holy Ghost.' * This central division contains the royal palace, an edifice of great extent and remarkable architectural beauty; the seat of the legislature, a plain building; the cathedral of St Nicholas, where the kings are crowned; the Riddarholm Church, in which they are buried, along with many of the Swedish captains who served in the Thirty Years' War; and the offices of the principal merchants. Bridges connect this division with a more extensive portion on the southern mainland, the abode chiefly of artisans, and another on the northern, where the best streets and shops are to be found. The opera-house is in the northern, in which its founder, Gustavus III., in 1792, received his death-wound; and where in our own time Jenny Lind achieved her first triumphs. Though every part of the city may be reached on foot, yet this will often require long detours to the bridges; and hence the intervening waters are alive with boats and miniature steamers, the cabs and omnibuses of Stockholm. On fine summer evenings and on Sundays they are crowded with passengers proceeding to the Djurgården, or some other of the magnificent parks, which add so much to the beauty of the environs. Not less animated is the scene in winter when all the water-ways are firm streets of ice, on which pedestrians sport, and people of all classes are perpetually passing to and fro in sledges, the most delightful of all modes of conveyance.

* Hear the sledges with the bells—
Silver bells!

What a world of merriment their melody foretells!

Upsal, the old capital, readily reached by steamer up Lake Mälär, is some forty miles distant on the north-west, situated on the verge of a vast plain, and has a population of about 8700. A huge brick cathedral claims notice on account of the great names which appear upon tablets on the walls, those of Gustavus Vasa in the Lady Chapel, and Linnæus near the principal entrance. The house occupied by the botanist, where most of his works were written, is a neat dwelling of two stories, with an avenue of shady limes in front, planted by his own hand. The university here, with which he was connected, is the oldest and most important of the two in the kingdom. It was founded in 1477, and that of Lund in 1666. In one of these, all candidates for the clerical, medical, and legal professions must take a degree as a preliminary to official duty. The students are distinguished by white caps of jean, but wear no other academic dress. They lodge in the town, as there are no colleges for their accommodation, and being fond of chorus-singing, their boisterous melody is frequently heard in the streets late at night. Besides Linnæus, the names of Celsius, Bergmann, Scheele, and Berzelius occur in the list of distinguished professors. The library, of 100,000 volumes, contains the *Codex Argenteus*, a manuscript copy of the Gospels in Gothic, translated by Bishop Uphilas in the fourth century. *Falun*, a mining town further north, is locally called *Gamla Kopperberget*, the 'old copper-mine.' Its wooden houses are black with fumes from the smelting-furnaces, destructive of all vegetation, but not deemed unhealthy by the inhabitants. *Orebro*, with 7700 inhabitants, on Lake Hjelmar, west by south of Stockholm, was the first Swedish town in which the Reformation was formally established.

Gothenburg, on the river Gotha, about five miles above its entrance into the Cattegat, is by far the largest and most important provincial town, but contains little more than one-third the population of the capital, or 38,000. It is a handsome and rapidly-increasing place, with broad bustling streets, canals running up the centre of several of them. Some recent public buildings are of the first class, as well as manufacturing works. Owing to intimate trading communication with Hull, it is here that Englishmen commonly make acquaintance with Sweden, and with the usages of the natives, such as the triple bows and upliftings of the hat which accompany an introduction; 'snaps,' or various dishes before dinner, washed down by 'finkel,' a kind of home-made brandy, intended to prepare the stomach for operations on a larger scale; and the presence of the 'flicka,' or waiting-maid, by the bedside, betimes in the morning, with coffee to welcome the return of the sleeper to the region of conscious existence and reality. *Carlsrona*, with 15,500 inhabitants, the naval arsenal of Sweden, and the ordinary station of the fleet, is situated towards its south-east extremity, on several islands connected with each other by bridges, and with the mainland by an embankment. A citadel, with walls of granite mounting 200 pieces of cannon, and strong detached forts, render its position peculiarly formidable towards the sea. The town commemorates by its name Charles XI., who founded it in 1680. *Kalmar*, of only 8000 inhabitants, on the same coast to the northward—a decayed place, is conspicuous from afar by its remarkable cathedral and castle. In the palatial castle, June 1397, Queen Margaret assembled representatives of the three Scandinavian kingdoms, and effected the union of Denmark, Norway, and Sweden under one crown, a federation which was never cordial, and lasted little more than a century. On Stenö Point, a tongue of land in the neighbourhood, Gustavus Vasa disembarked in 1520, on returning from his exile at Lubeck to deliver his country from the yoke of a tyrant, and establish a new dynasty on the throne. As a memorial of the event, Louis XVIII. of France, during his temporary residence at Kalmar, caused a tablet to be erected at the spot. *Malmö*, a fortified town and port, is on the east side of the Sound, nearly opposite to Copenhagen. *Jönköping*, containing an arsenal and an arms-factory, is beautifully situated at the south extremity of Lake Wetter, with pine-clad hills rising in the background, and has a population of 7700. *Norrköping*, at the mouth of the Motala River, the outlet of the lake, is the third town of Sweden in size, with docks, building-yards, hardware and cloth manufactures, and a population of 20,000.

Gele, the principal port on the Swedish side of the Gulf of Bothnia, is at its south extremity a scene of great activity in summer as soon as the navigation opens. It ranks after Stockholm and Gothenburg in mercantile consequence; exports timber, tar, pitch, and iron from the forests and mines of Dalecarlia; and possesses one of the best court-houses in the country, with a gymnasium and good public library. Its population is about 11,000. *Sundsvall*, *Hernösand*, *Umeå*, and *Piteå* are small, neat-looking ports in the interior of the gulf, somewhat Swiss-like, far more actively commercial than would be inferred from their size and remote position. The inhabitants are engaged in fisheries, the preparation of forest produce for export, and ship-building. The vessels built are small-craft, cheaply built of fir, purchased by the shipmasters of Lubeck, Bremen, and Hamburg. Dr Solander, who accompanied Captain Cook on his first circumnavigation, was a native of Piteå. *Haparanda*, at the head of the gulf, of modern date, is opposite the Russian town of Tornea, separated from it by the river of that name. Upon the annexation of Finland to the Russian empire in 1809, those inhabitants of Tornea who wished to remain under Swedish government withdrew to the contiguous bank of the river, and founded Haparanda. It has become a thriving place, with churches, warehouses, and red painted dwellings, surpassing its older neighbour in appearance, but of smaller size. The two towns communicate by a bridge. The name signifies 'a shore covered with aspens,' which are abundant in the vicinity.

Two islands of some extent and interest belong to Sweden, that of Öland on the south-east coast, and of Gottland, *Goodland*, near the centre of the Baltic. The former,

separated by a narrow channel from the mainland, is singular from its very disproportionate size, extending ninety miles in length, parallel to the peninsula, but never more than ten miles in width. It is a great slab of limestone, so uniformly low and level, that the small churches on one side may be seen across it from the sea on the other.

Gottland, much more extensive, is of special importance from its geographical position and natural capabilities, for in a strategic point of view it has been styled 'a padlock upon the Gulfs of Finland and Bothnia,' by means of which a strong hand might lock up the Russian navy, and command the navigation of the Baltic. The island is watered by a number of small streams and lakes, has productive fisheries, woods of oak and pine, a soil capable of yielding abundant harvests, and harbours of sufficient depth of water for war-steamers. The climate is remarkably mild for the region, as the inhabitants do not calculate upon having more than eight days of sledge-driving in winter; horses and sheep remain abroad the whole season; and the grape, walnut, and mulberry ripen in favourable summers.

Borgholm, the chief town, on the west coast, has an old castle remarkable for its colossal architecture, which may be distinguished to seaward on the east. The island possesses a productive soil, abundance of game, fine woods, pleasing villages, and has long been celebrated for a race of diminutive and graceful ponies. One of the most beautiful was presented by a native peasant to Gustavus Adolphus while a boy. He was highly delighted with the gift, but with the thoughtfulness which distinguished him in after-life, immediately proposed to compensate the donor. 'I must not suffer you,' said he, 'to go away unpaid, for it cannot be your intention to give me this horse for nothing; at any rate, you may be in want of money.' So saying, he drew forth his little purse, filled with ducats, and emptied it in the peasant's hands.

Wisby, once the chief town, now a poor decayed place, on the west coast, has existing monuments of former consequence, which is frequently noticed in medieval chronicles. Its present aspect is unique in Northern Europe, not unlike that of a ruined city of the ancient world, which the traveller expects to encounter in a southern or oriental region, but views with surprise in the far north, amid the mists and waters of the Baltic. Prior to the Norman Conquest of England it was a prosperous commercial emporium. Some of its deserted but well-preserved churches were founded in the early part of the eleventh century. It was the parent city of the Hanseatic League, and one of its principal dépôts during the period of its ascendancy. The productions of the east, brought by caravan to Novgorod and conveyed across the sea, met in its marts the furs of the north and the buyers of Southern Europe. So numerous were the foreigners resorting to it, that each nation had its own church and house of assembly. *Olaüs Magnus* specifies among its visitors 'Gothi, Suedi, Russi seu Reuthini, Dani, Prussi, Angli, Scoti, Flandri, Galli, Finni, Vandali, Saxones, Hispani.' A code of laws, styled 'The Supreme Maritime Law of Wisby,' was long of paramount authority with seamen on the waters.

The town contains about 4300 inhabitants, lodged mostly in poor cabins, but within an ancient wall, by the side of costly buildings, and in connection with well-paved streets, provided for the accommodation of full 50,000. The wall, built in the year 1283, thirty feet high, is entire, as are nearly all the forty-five towers upon it. The ruined churches, eighteen in number, are most interesting objects to the antiquary; and supply models of the style of building, ornament, and workmanship of the eleventh and twelfth centuries. No specimens so entire of equal date are to be found in England. The *Helige Ánds Kirken*, or Church of the Holy Ghost, a small octagonal structure, built in 1046, has a round massive Saxon arch for the main entrance, with windows and other arches in the same style. A curious aperture occurs in the ceiling of the choir, the purpose of which has not been satisfactorily ascertained. *St Lawrence Church*, erected in the same year, has a transept, and exhibits the pointed arch used indiscriminately with the round. *St Drottens*, built in 1086, is a specimen of the Saxon style. *St Nicholas*, 1097, is altogether Norman, with very beautiful pointed arches. The only church now kept up for the use of the inhabitants, *St Mary's*, was built by the German merchants in 1190. Tombstones applied to strange purposes, forming stairs and pavements, are common objects. Many of these, though of comparatively modern date, exhibit marks resembling hieroglyphics or Runic characters. A lawyer of the place accounted to *Mr Laing* for the occurrence of these marks in an ingenious and plausible way. At a period when writing was not an ordinary accomplishment, even with the wealthiest inhabitants of Wisby and the Hanse Towns, every merchant had his particular mark or scratch, known to his customers and friends as well as if it had been his signature in letters. This countersign was transmitted in the family, and by it their wares were known and their communications recognised by all who dealt or corresponded with them. It was also inscribed on their tombstones to distinguish them from others. This is the tradition of the place respecting the marks. The most ancient tombstone observed by the traveller had the year 1236 inscribed upon it, and was stowed away in a summer-house. Coins from the east and west, Persian, Arabic, and Anglo-Saxon, found at Wisby, are memorials of the extremely foreign character of its visitors in the middle ages.



Falls of Feigumfoss.

II. NORWAY.

Three great geographical regions are distinguished in Norway, subdivided into *amts*, or bailiwicks.

		Principal Towns.
Sondenfields, the southern ranges of hills,	Christiana, Frederickshall.
Nordenfields, the northern ranges of hills,	Bergen, Drontheim.
Norrland, the north land,	Tromsøe, Alten, Hammerfest.

Christiana, the capital, stands at the head of a lovely fiord on the south coast, speckled with islands, and bordered with heights thickly clothed with pines. It is a small city of 39,000 inhabitants, remarkably clean, free from indications of squalor and vice, with broad streets, fresh-looking houses, and shops scarcely to be distinguished from private dwellings. A few samples of wares are placed in plain parlour-windows, many of which are without shutters, shewing no apprehension of the thief in the night. There is a university, a botanical garden, an astronomical observatory with which the celebrated Hanstein was long connected, a new storthing-house for the accommodation of the legislature, and a palace also of recent date. The great conflagration of 1853, by destroying many antiquated and irregularly-shaped buildings, opened a large field for the display of architectural taste, of which the authorities and the inhabitants have promptly availed themselves. In the tower of the principal church a fire guardian is constantly posted, who has to prove his vigilance by calling out every quarter of an hour from each of its four sides. Throughout Scandinavia, where the houses are so largely of wood, fire is the great enemy dreaded by the people. The night-watchmen do not forget this danger in their hourly call—

'The clock strikes twelve, may God still keep
The town from fire, while the citizens sleep!' The chant varies to 'Unless the Lord the city keep,
The watchmen watch in vain.'

Frederickshall, on a bay of the Christiana fiord, with an excellent harbour and a rock-seated castle, is close to the Swedish frontier. It has a population of 7400. An obelisk marks the spot where Charles XII. fell in 1718, while besieging the fortress. It was raised to his memory by command of Bernadotte, and is surrounded by a double row of cypress-trees. An avenue bordered with the same funeral shrub leads from it to the battery, from whence the cannon-ball that terminated his career is supposed to have come.

Bergen, the commercial capital, on the west coast, with about 26,000 inhabitants, has a very plain appearance, considering the wealth and enterprise of its merchants. They are chiefly engaged in the Lofoden fishery; export annually many thousands of tons of dried fish to the southern countries of Europe; import corn, which is not raised in the country sufficient for home consumption, with other articles of necessity and luxury; and carry on the trade in their own vessels. The neighbourhood of the town is very naked and sterile. No woods are to be seen, but only a few small clusters of stunted trees in sheltered situations. This is a feature of the whole coast where it is freely swept by the north-west gales from the ocean. They prevent the growth of timber to the distance of ten or twelve miles from the open sea, and have a marked influence upon the vegetation, rendering it dwarfish, to three times that extent inland. The harbour very rarely freezes, and is commonly accessible to vessels all the year round, though further north than St Petersburg, where the waters are ice-bound through the whole of the winter. This circumstance is important in connection with the Lofoden fishery, which is carried on in February and March, and upon which the prosperity of the whole west coast of Norway depends. *Drontheim* or *Trondhjem*, the old metropolis, on a large fiord further north, is chiefly built of wood, with 16,000 inhabitants. It has an ancient cathedral, once an object of veneration to all Scandinavia, but now simply an odd, irregular, quaint-looking building, having been repeatedly ravaged by fire and re-edified. Within the Arctic Circle are *Tromsøe*, on an island of the same name, where a dealer in smallwares, as the consul, hoists over his shop-door the royal standard of Great Britain; *Alten*, on the mainland, with copper-mines in its neighbourhood, under the direction of an Englishman; and *Hammerfest*, on the island of *Hvaloe*, the most northerly town in Europe, consisting of a single street of straggling, one-storied, wooden houses. An obelisk at the outskirts marks the terminus of a great meridian line drawn from the Danube near *Rustchuk*. It has an inscription signifying that here is 'the northern termination of the meridian line of 25° 20' from the Arctic Ocean to the River Danube, through Norway, Sweden, and Russia, which, after the ordination of his majesty King Oscar I., and the Emperors Alexander I. and Nicholas I., by uninterrupted labour from 1816 to 1852, was measured by the geometers of the three nations—latitude, 70° 40' 11.3". The Thief Mountain, in the vicinity, about 1500 feet high, exhibits in a remarkable manner the effect of altitude upon the vegetation. There are some dwarf birches at the foot of the hill, rising rather more than the human height, which are represented on ascending further by plants gradually diminishing to six or eight inches, yet still having the form of mature trees. The summit commands a view of the island of *Mageroe*, with the North Cape, the extremity of Europe towards the pole.

The whole west coast of Norway is fringed with an immense number of islands, all small, generally close inshore, and often assuming very fantastic shapes. The *Hestmann* or *Horseman* rears his head above the sea on the line of the Arctic Circle, a bold rocky mass, bearing a curious resemblance in one part to the head and ears of a horse. In the same locality are the *Seven Sisters*, a range of seven towering mountains with pointed summits, forming a single island, and making a glorious panorama. The insular granitic rock of *Torghatten* has the name from its outline corresponding to that of a 'wide-awake' or 'sou-wester' hat. It is remarkable for a huge natural tunnel which completely perforates the upper part, so that the daylight is seen through it. The *Lofoden Isles*, a northerly chain at some distance from the mainland, are granitic masses rising from 3000 to 4000 feet above the sea, which break at the summits into a multitude of jagged points, comparable to the jaw of a shark, and are covered with snow for the greater part of the year. Here is the famous *Maelström*, a whirlpool formed in certain states of the tide by the collision of opposite currents, the terrors of which seem to have been exaggerated. It is one of a series of 'grinding streams' or 'bad currents,' according to the meaning of the name, common in the locality, but only dangerous to small-craft. The great fishery at these islands commences in the beginning of February, and annually attracts a large number of vessels to the station. The fish principally taken are a kind of cod, the hake of our countrymen, which, after the necessary preparation, are hung up on poles ashore to dry. There they remain till the middle of June, when the process of curing is considered complete. Cargoes arrive at *Bergen* in August, which have been purchased by the merchants at the spot of the more needy fishermen, as well as obtained by their own vessels. The London market is largely supplied with lobsters from the *Naze* of Norway, its south extremity.

The Swedes number 3,856,000, the Norwegians 1,490,000, making a total of 5,346,000. Though of the same lineage, they are distinguished by difference of language, with those

distinctions of temperament and manners which so universally discriminate a highland from a lowland people. The praise of honesty, industry, and hospitality may be awarded to both, as well as the discredit of being addicted to the immoderate use of ardent spirits, though not to such an extent as in former times.

Corn-brandy is the favourite potation, which the farmer or proprietary peasant in Norway distils from his own crops for the use of his family; and hard drinking does not, as is ordinarily the case, lead to quarrels and fights. The liquor mentioned, believed to inspire strength and long life, is the subject of the old Norse song:

‘To the brim, young men, fill it up, fill again;
 Drain, drain, young men, ’tis to Norway you drain;
 Your fathers have sown it,
 Your fields they have grown it,
 Then quaff it, young men, for he’ll be the strongest
 Who drinks of it deepest, and sits at it longest.

To the brim, old men, fill it up, fill again, &c.

The greater intercommunication of nations, consequent on steam-navigation and the railway-system, has not been without effect in refining manners in Scandinavia, and will be extended to its more solitary populations as contact becomes more frequent with foreign visitors. Personal characteristics are most decisively marked among the Norwegian peasantry. They have the vigour and agility common to mountaineers; their free and independent bearing; their fiery patriotism; and their passionate vehemence when pride or prejudices are touched. Any company of natives will be excited by the mention of *Gamle Norge*, Old Norway; and the toast is sure to elicit a burst of exuberant enthusiasm. Marriages are high occasions, as elsewhere, and are almost invariably celebrated on a Sunday. A gilded coronal of paper distinguishes the bride. According to the circumstances of the parties, dancing and feasting antedate and follow the event; the services of fiddlers and drummers are in requisition; corn-brandy flows freely; and kegs of butter, or if the season is winter, salted or frozen meat, are acceptable bridal-presents. In all grades of society, guests on rising from table grasp hands with due deliberation, and say to hostess, *Tak for maden*—Thanks for your entertainment. Thus, at a dinner-party of sixteen persons, as every one shakes hands with fifteen, there will be 240 shakings. Large festal-parties are common, even in the wilder districts of the country, especially at midsummer and Christmas, the guests frequently coming from a distance of twenty or thirty miles.

The legislature of Sweden, called the Diet, consists of representatives of the nobles, clergy, burghers, and peasants, ordinarily meeting once every five years at Stockholm. The four estates of the kingdom assemble in a common chamber divided into four compartments. At one end sits the president; on his right hand are the nobles; on the left the clergy; with the burghers and peasants in front. The *Storting*, ‘Great Court,’ of Norway, is a representative body usually convened every third year at Christiania. It presents a very motley and almost ludicrous appearance to the stranger, owing to the different costume of the members, often apparently below the dignity of legislators. Inglis, who attended one of the sessions, saw several deputies with jackets and girdles. ‘These,’ he observes, ‘I recognised as the natives of Tellemarken, through which I had recently passed. Others, whose coats were as much beyond the length of an ordinary coat, as the jackets of the former were shorter, and who might be seen walking to the hall, their heads covered with something of the shape and colour of a Kilmarnock night-cap, I was informed were the deputies of Gulbrandsdalen, the mountainous district bounded on the north by the Dovre-field and its range. The appearance of the assembly altogether was not superior to that collected at a second-rate cattle-show in England, and infinitely more grotesque. Among the number, however, were several wealthy land-owners, chiefly from the country skirting the Miosen, and from the districts on both sides of the Christiania fiord. They seemed to conduct their deliberations with temper and decorum, although there were neither wigs nor black rods; and I will venture to say they stood in less need of reform than some other deliberative assemblies.’ In both countries Lutheranism is the established form of religion, and in Sweden intolerant laws are in force to check the rise of nonconformity.

Solitary churches, usually on gentle eminences, with red-tiled or white-boarded roofs, are common objects in Sweden, and, useful landmarks to the sailor when on the coast.

The custom is perhaps partly a relic of the northern paganism, for the altars of Odin invariably occupied such sites, as localities were supposed to acquire sanctity by distance from human habitations, and high situations were preferred to low for the same reason, being nearer the sky, the abode of the gods. But in Norway especially, where the parishes are very extensive, and consist of scattered homesteads, the churches are often isolated to suit the general convenience, being fixed at some point central to the more dispersed parishioners. Many have from ten to fifteen miles to traverse to attend public worship, and six or eight miles is a common distance. Hence church attendance is of necessity infrequent on the part of numbers, owing to bad weather, particularly in the more mountainous districts, as the streams and torrents by the way are rendered impassable by storms and floods. This cause operates against the attendance of children at school, and has given rise to the class of ambulatory schoolmasters who visit certain localities on different days to impart instruction. In some instances families remain cooped up in glens through the whole winter, never once being able to visit church, or communicate with a neighbour only a few miles distant, owing to the path out of them, always difficult, being rendered impracticable by accumulations of ice and snow.

Soon after the Rev. U. F. Borgesen was appointed to the charge of a parish in Bergenstift, he heard of Vettie's Giel, the residence of a farmer belonging to his flock, which he determined to visit. Vettie is the name of the farm, and *giel* denotes the narrow glen by which it is approached. It had never been visited by any previous incumbent. Men lived and died contiguous to the spot, without ever seeing it, owing to the extraordinary difficulty and peril of the route. In the middle of summer, M. Borgesen started on horseback, accompanied by guides. The steed was dismissed at the entrance of the glen, for though horses can traverse it, only such as are thoroughly accustomed to the path can be trusted. The whole district being at a great height above the level of the sea, snow and ice were still abundant on the sides and summits of the precipitous hills, notwithstanding the advance of the season. From a projecting mass of granite, a bridge of pliant trunks of trees, laid over with birch bark, turf, and gravel, spans a narrow chasm at an immense height above a roaring stream. The frail structure swings beneath the footfall of the passenger, and leads to a path cut out of a frightful wall of rock. 'You are now in the Giel,' remarks the clergyman; 'traveller, God be with you! The path here is not broader than that a person can just stand on it with both feet beside each other. Sometimes you have only room for one foot; nay, at times, from the quantity of loose earth and small stones which are frequently tumbling down here, you find no place at all to stand on, but must, with your foot, in a manner scrape out such a place in these loose materials, which here lie over the surface of the whole precipice, the upper part of which forms a very sharp angle with your body, while the part below approaches frightfully near to a perpendicular line.' This was the thoroughfare for the space of from four to five miles. 'With the utmost caution, your eye fixed steadily on the point where you are to tread, you set forward foot by foot, without stopping to draw your suppressed breath. A slip, an unsteady step, or giddiness itself, which always threatens to overwhelm the unaccustomed traveller, and in a moment the torrent becomes the grave of your mangled carcass! When overcome by the violence of the exertions I had to make, I stopped a moment. This rest, so far from being refreshing to me, was full of horror. It was better to go on, however exhausted. In doing so, your thoughts were so occupied with the place where you might find some footing, that you had but little time to observe the grimaces with which death seemed everywhere to gape around you. But set yourself down, you cannot avoid seeing yourself sitting on the brink of an abyss—I asked my guides if anybody had ever come to mischief on this way. They recollected only one person who, with a knapsack of birch-bark on his back, by a false step had tumbled over from about the very spot where we were standing. From an irresistible apprehension that I might be the second, I pushed forward from such a place, but yet I found no safer way.'

Having got over the perilous part of the route, the guides were dismissed. The glen began to open a little, and gradually widened till it enclosed the fields of Vettie, with the dwellings of the houseman and his master, where the clergyman was received with unbounded astonishment by the inmates of the homestead, and unsparing hospitality. He goes on to state, that observing the hostess near her confinement, 'I expressed my wishes for her safety, and asked her, "How she would get the child taken to church?" "Oh," answered she smiling, "when matters come that length, there will be no difficulty: the child is well wrapped up, and is carried to church, properly girt, on the shoulders of the servant-man." "By the same way I have come?" "Yes; we have no other." "Now, then, God be with both him and the child." "Oh, we are not afraid of the way, we are so accustomed to it; and after a few weeks it will be better, when all the ice will be away." The glen is an enormous gully prolonged far beyond this point, or to a total extent of more than thirty miles. It has openings and cross glens at intervals, where there are a few inhabitants, who have no means of enjoying other human intercourse than by similar paths along fearful steepes. During his stay, M. Borgesen learned that when a death occurred at Vettie the corpse was wrapped in linen, and laid on a plank, furnished

with holes at both ends, in which were fastened handles of cord. To this plank the body was lashed, and then carried by two men, one before and another behind, till having cleared the glen, it was put into a coffin, and conveyed in the usual way to the churchyard. If any one died in winter, when the route was impracticable, they endeavoured to preserve the body in a frozen state, till it could be carried to the tomb. A funeral, perhaps without a parallel, was related, which took place in an adjoining ravine of equal difficulty. As its occupiers had often changed, there had been no death within the experience of the existing inhabitants, to task ingenuity in the carriage of a corpse to consecrated ground. At last a young man died; a coffin was provided; the body was laid in it; and not till almost ready to set out did the utter impossibility strike any one of proceeding in this way to the grave-yard. 'What is to be done? Good counsel is here precious. They leave the coffin as a *memento mori* at home, and set the dead body astride on a horse. The legs are tied under the horse's belly, and a bag of hay is well fastened on the horse's shoulders, to which the body leans forward, and is made fast. In this manner rode the dead man over the mountains, to his resting-place in Forthuus Church, in Lyster—a fearful horseman!

Over the more northerly districts, both of Norway and Sweden, a few thousands of Lapps are thinly distributed, a totally distinct race from the general inhabitants, belonging to the Mongolian division of mankind. They are of uncouth appearance, and very diminutive stature; are clothed with the skins of animals or coarse woollen stuffs; live in huts rudely constructed of boughs overlaid with turf; occupy the mountains in summer, and the valleys in winter; depend for subsistence upon their reindeer and fish; and occur both in solitary families and small groups. Once notorious for an insatiable desire for brandy, and wild intemperance at the fairs, and other places of gathering, they have become to a great extent a sober and orderly people, owing to the efforts made to reclaim them. Professor Forbes, who visited a Lapp encampment, after remarking that first impressions made by their appearance were unprepossessing, observes that an attentive survey brought out some more favourable features. 'The countenance was altogether unlike any I had seen, but by no means devoid of intelligence, and even a certain sweetness of expression. Notwithstanding that our party was tolerably numerous, they exhibited no signs either of distrust or of shyness; and whilst some of them entered into conversation with one of the gentlemen from Tromsøe, who knew a little of their dialect, and others went attended by several small active dogs to fetch some reindeer for our inspection from the heights, the greater part remained quietly in their huts, as we had found them, quite regardless of our presence. On inquiring into their occupation, we were surprised to find them possessed of some excellently-printed and well-cared for books, particularly a Bible in the Finnish tongue, and a commentary, each forming a quarto volume. We found some of them also engaged in writing.' It is common for the poorest Lapps to possess a dozen reindeer, while a herd of a thousand, or more, occasionally constitutes a single property. To this magnificently antlered animal, the lemming, another inhabitant of the district, offers a striking contrast in size, not being larger than a mouse. But countless myriads appear at irregular intervals as migrants from the mountain solitudes. Streams, torrents, and gorges are crossed, while all vegetation in their way is consumed. Scarcity of food in their native haunts appears to cause the migration.





Moscow.

CHAPTER III.

EUROPEAN RUSSIA.



THE European portion of the Russian Empire embraces the entire east of the continent from the northern to the southern boundaries, contains more than half its area, with one-fourth of its population, and has a single government, that of Archangel, larger than any European kingdom. This vast country is bounded on the north by the Arctic Ocean; on the south by the mouth of the Danube, the Black Sea, and the ridge-line of the Caucasus; on the east by the shore of the Caspian, the Ural River and Mountains; and on the west by the territories of Turkey, Austria, and Prussia, with the Baltic and its gulfs. The extent measures nearly 2000 miles from north to south, by about 1500 from east to west, and the area is estimated to include more than 2,000,000 square miles. The whole is included between the parallels of 40° and 70° north latitude, and between the meridians of 18° and 60° east longitude. Two large islands, Nova Zembla or 'New Land,' and several smaller, are insular dependencies in the Arctic Ocean, only important on account of their cetaceous animals and birds, with the Aland group and a series of islets off the Gulf of Riga in the Baltic. The serviceable part of the coast-line belongs entirely to the inland seas, but it labours under disadvantages, besides being extensively closed to navigation through the winter months.

An arm of the Northern Ocean, the White Sea, is the only inland basin exclusively Russian. It penetrates the country to the extent of more than 200 miles, has a varying breadth, assuming a semicircular shape at its greatest expansion. It forms the Gulf of Kandalask on the north-west, called after an unimportant place at the extremity; and terminates on the south and south-east with the Gulfs of Onega and Dwina, the estuaries



of the rivers so denominated. Periodically the sea answers to its name, for ice clothes the surface from October till May, all the streams are frost-bound, and the region traversed by them is thickly crusted with hard snow. In crevices of the rocks and shaded places, with a northern exposure, the accumulated snow of winter is met with at midsummer, and in some years it remains permanent. Extremes of heat and cold are characteristic of the basin, the heat being limited to a very brief period, while the cold prevails uninterruptedly for six months or more. Mosquitoes are numerous on the coast in summer, and the temperature is at times oppressive. But the transitions are sudden and violent from the wind veering, so that an out-of-doors labourer perspiring at

his task one hour will be glad to resume his furs the next. Dense fogs occur, continued for days together, with furious transient storms. But the fogs are seldom hazardous to shipping, as they are commonly light towards the land, and thick only where there is ample sea-room. The White Sea contains several inhabited islands. Solovetz, the largest of a cluster at the entrance of the Gulf of Onega, contains a town celebrated for its isinglass, with an adjoining monastery, the reputed sanctity of which annually attracts pilgrims from an immense distance. Peter the Great, during his stay at Archangel, paid a visit to the place, and narrowly escaped shipwreck on his return.

The main part of the Baltic supplies only a maritime frontier of limited extent, but the eastern side of its northern arm, the Gulf of Bothnia, and all the coasts of the lesser branch, the Gulf of Finland, are Russian territory. The latter is the important marine highway, leading up to St Petersburg, by which the capital receives the luxuries of the tropics, retains what is wanted for its own consumption, and disperses the remainder far inland, chiefly by a connected system of rivers and canals. But it is rendered periodically useless by wintry bonds, and so strongly frozen at the upper extremity that high-roads are established on its surface between Cronstadt Island and the metropolis, a distance of eighteen miles, on which horses gallop, sledges fly, and houses of refreshment appear. In the opposite season, navigation is active, favoured by the light nights consequent upon the high latitude. 'I am writing at midnight,' observes the Marquis de Custine, 'without any lights, on board the steam-boat, *Nicholas the First*, in the Gulf of Finland. It is now the close of a day which has nearly the length of a month in these latitudes, beginning about the 8th of June and ending towards the 4th of July. About an hour ago I beheld the sun sinking in the ocean, between the north-north-west and north. He has left behind a long bright tract which continues to light me at this midnight hour, and enables me to write upon deck while my fellow-passengers are sleeping. As I lay down my pen to look around, I perceive already towards the north-north-east the first streaks of morning light. Yesterday is not ended, yet to-morrow is begun.' Light-houses in the gulf are lit in spring, as soon as the breaking up of the ice opens the navigation. But towards the close of May they cease

to be illuminated, owing to the brightness of the nights, and are not rekindled till the approach of August, from which period they are kept glowing till the return of congelation suspends maritime pursuits.

The Black Sea is Russian along its northern and eastern shores; and brings the southern provinces into communication with the Mediterranean by the channels which connect the two great basins. This expanse is distinguished by its vast size, compact form, and nearly unbroken surface, for only one small island off the mouth of the Danube, and two rocks off-shore in the Crimea, interrupt its continuity. The inland reservoir has been known under various and contradictory designations. The Greeks, in their earliest age, styled it *Azinus*, or 'inhospitable,' in allusion, probably, to the stormy weather common at certain times of the year, as well as to the barbarity of the rude Scythian hordes on the coast. But when their colonies were established upon the shores, they adopted for it the more auspicious title of *Euxinus*, 'hospitable,' 'friendly to strangers,' out of compliment to themselves, and as an inducement to emigration. The present name, the Black Sea, *Karadenghis*, originated with the Turks, and has no physical claim to appropriateness, the water being intensely blue, but metaphorically refers to real or supposed perils incident to the navigation. It has its dangers and demerits in common with other parts of the great realm of the ocean, but they supply no reason for the adoption of the specially sombre title. Tremendous storms from

the north occur about the equinoxes, and in the winter, tempests of blinding snow and sleet are not unusual. On the other hand, it is admirably adapted for nautical purposes through the greater part of the year, being generally deep, so that the largest vessels may



Caspian and Black Sea.

often sail close inshore, unobstructed by shoals and islands, affords ample sea-room, and possesses many excellent harbours. But down to very recent times, the expanse has not been traversed by expert mariners in efficient craft, and it has had to bear the blame of many a mishap which might have been avoided by ordinary seamanship. On the north, a large offset runs up into Southern Russia, forming the Sea of Azov, everywhere shallow, and blocked up with ice from November to March.

The Caspian Sea, the western shore of which belongs to European Russia, is entirely landlocked, and can only be the seat of very local commerce. Thus it is alone by circuitous routes through narrow channels, the coasts of which are held by other nations, or by waters rendered periodically unserviceable by the climate, that maritime commerce can be pursued—a disadvantage which cripples the relations of the country with the great markets of the world, both as to the export of its own produce and the import of foreign luxuries and manufactures.

The surface of Russia belongs generally to the great European plain, and includes the vast proportion of its area. Low rocky ranges of hills overspread much of Finland, Olonetz, and Russian Lapland; the Valdai plateau, on the south of Petersburg, where the Volga has its source, is of comparatively trifling elevation and very limited extent; spurs from the frontier Urals diversify the country in that direction; offsets stretch out from the mighty chain of the bordering Caucasus; and a bold and beautiful mountainous tract occupies the south-east coast of the Crimea. But apart from these exceptions, the united area of which is inconsiderable, the country is a gently-undulating plain, in many parts

a dead-level, comprehending natural forests, woodless steppes, dreary moorlands, and extensive marshes, with pastures and cultivated soil. These varying aspects are noticed in connection with the great territorial divisions. Three general inclinations of the surface are distinguished, northward, westward, and southward, divided from each other by low water-sheds. In these directions the drainage is conducted by upwards of thirty rivers, which directly enter the ocean or the inland seas, fed by an enormous number of affluents. But only eleven river-basins are of important magnitude, the most extensive of which incline towards the south. They consist of the Volga and Ural, entering the Caspian; the Dnieper, Don, Dniester, and Kuban belonging to the Black Sea; the Neva and Southern Dwina, connected with the Baltic; the Northern Dwina, Mezen, and Petchora, flowing to the Arctic Ocean. In addition, the Vistula is Russian in the middle part of its course, and the Niemen in the upper, while the Pruth, an affluent of the Danube, forms the border-line from the Turkish dominions, and the Tornea from Sweden.

The Volga is the largest river of Europe in the magnitude of its basin, the length of its course, and the extent of its navigation. It receives the drainage of nearly one-seventh of its area, and winds through 2200 miles, though the direct distance from source to mouth is not more than 900 miles. This amount of meandering is owing to the inconsiderable inclination of its bed, for the total fall of the river is under 700 feet, which gives it an average descent of less than four inches per mile. It issues from a small lake on the eastern slope of the Valdai plateau, forms an extensive delta at its termination, and is popularly said to enter the Caspian by seventy mouths. When in flood from the melting of the snow in spring, the stream spreads out to the width of from fifteen to twenty miles towards its embouchure, and appears to bear entire forests upon its bosom. Though gently undulating hills appear in places on either side of the channel, the banks have very rarely a touch of the picturesque, but commercial activity and well-peopled districts distinguish its course. Unobstructed by rapids, possessing considerable depth, navigable nearly up to its source, and employed as a great mercantile thoroughfare, the Volga is fondly called the 'nursing mother' of the empire, from the wealth and plenty it diffuses. Annually, at the junction of the Oka, the two streams present a very animated spectacle, owing to the hundreds of vessels with which they are crowded, in attendance upon the fair of Nijni-Novgorod, held on the triangular piece of land at the confluence.

The Dnieper, second of the Russian rivers in magnitude, known to the ancients as the *Borysthenes*, has a flow of 1200 miles from the government of Smolensk to the northern shore of the Black Sea, but has its navigation wholly interrupted for upwards of 100 miles below Kiev by rocks and rapids, where the scenery is extremely wild. In the vicinity of this impracticable part of its course, a wild, lawless race long had their stronghold, called the Zaporogian Cossacks, a name alluding to the locality, 'beyond the cataracts.' They consisted of fugitives and adventurers from various countries, had almost every language of Europe represented among them, formed an independent community, took part in the Russian, Polish, and Turkish wars of the last century, repeatedly changed sides as interest prompted, were admirable boatmen and bold pirates. Brought into subjection in the reign of the Empress Catherine, they were removed to the banks of the Kuban, to guard the frontier against the mountaineers of the Caucasus, where their descendants remain under the name of Tchernomorski, or Cossacks of the Black Sea. The Dnieper acquires considerable expansion, and discharges through a long and noble estuary, crowded with wooded islands, with but few signs of human life on their shores. 'After having spread out to the breadth of nearly a league, it parts into a multitude of

channels, which wind through forests of oak, alders, poplars, and aspens, whose vigorous growth bespeaks the richness of a virgin soil. The groups of islands capriciously breaking the surface of the waters, have a melancholy beauty, and a primitive character, scarcely to be seen except in those vast wildernesses where man has left no traces of his presence. Nothing in our country at all resembles this kind of landscape. With us, the creature has everywhere refashioned the works of the Creator; the mark of his hand appears even on the most inaccessible mountains; whereas in Russia, where the nobles are the sole proprietors, nature still remains in many places just as God created it.' The Don, ancient *Tanaïs*, third in rank, is scarcely inferior, but has its utility as a commercial artery restricted by turbulence during the spring floods, and sand-banks through the remainder of the year, formed by the immense quantities of mud brought down by the current, a portion of which, carried into the Sea of Azov, where it discharges, renders it so shallow as only to be navigable by vessels of small size.

Among the northern rivers, the Southern Dwina flows through the heart of the flax-producing districts to the Gulf of Riga; the Neva conveys the surplus water of the great lakes to the Gulf of Finland; the Northern Dwina and Mezen enter the White Sea; the Petchora travels direct to the Arctic Ocean, but through a region scarcely habitable by civilised man from the rigorous climate, and only occupied by a few hordes of wandering Samoiedes.

The Neva, of importance and interest from the position of St Petersburg on its banks, is remarkable for its volume of water, derived chiefly from four great lakes of which it is the outlet. These are the Onega, which has an area of 3280 square miles; the Ilmen, 3390; the Saima, 2000; and the Ladoga, with a superficial extent of 6330 square miles. The latter receives the drainage of the other three. Ten different streams flow into the Onega, eleven into the Ilmen, and thirteen into the Ladoga, besides those which convey the tribute of its lacustrine feeders. From such an accumulation of waters, it is natural to expect an immense outflowing, especially as the solar heat, upon which evaporation mainly depends, acts only with vigour through a brief portion of the year. Accordingly the Neva is found to discharge into the Gulf of Finland upwards of 116,000 cubic feet of water in a second, only a fraction of which proceeds from eight small streams which flow into it during its course from the lake to the gulf. This admeasurement, executed with great care and skill, was made in order to obtain data for devising means for protecting the capital from the inundations which have often threatened its existence. At the city, the river divides into several deltoidal branches, the largest of which bears along a mass of 74,000 cubic feet of water per second, while the Nile, in the same time, furnishes but 21,800 cubic feet. From the lake to the gulf the Neva has only a course of sixty-nine versts, or but little more than forty miles. It maintains a medium breadth of 1500 feet, and a considerable depth in the mid-channel, generally amounting to fifty feet. But it cannot be entered by large vessels, owing to a bar across the mouth with not more than nine feet of water upon it. The brimful stream is a fine object, the pride of the metropolitans, and the only ornament which nature has given to their locality. The water is beautifully blue and transparent, much lauded by the citizens for its quality, one reason for which may be found in the fact, apart from its merits, that there is no other supply of the first necessary of life fit for domestic use, not a single pure spring within leagues of the city.

Besides the lakes mentioned, an immense number of fresh-water expanses, some of which are of comparable extent, overspread the whole of the north-western district, while saline lacustrine waters are numerous in the region towards the Caspian. Both lakes and rivers are frozen in the winter season, though much more feebly, and for a far briefer

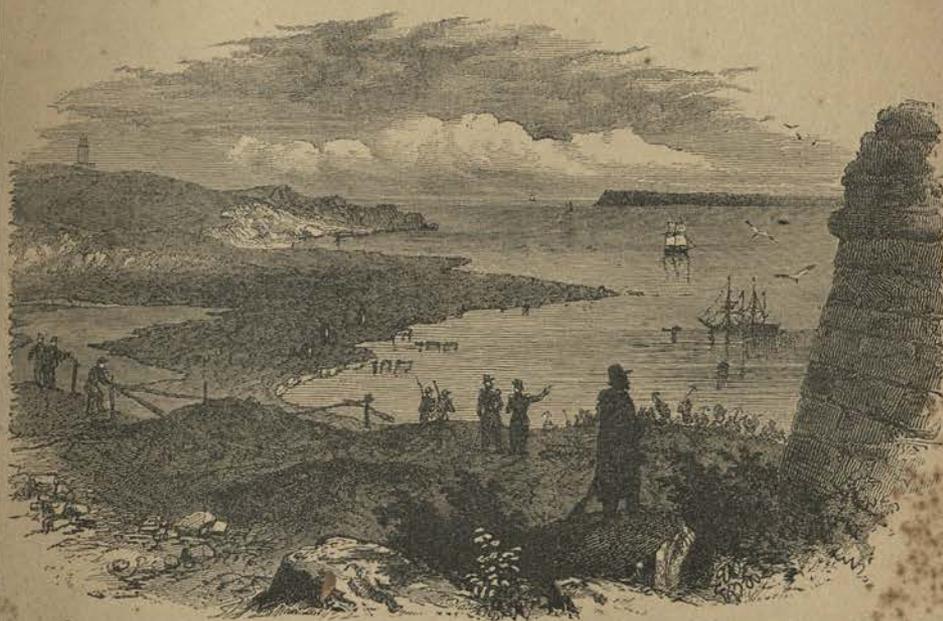
interval, in the south than in the north. Ranging through nearly thirty degrees of latitude, the climatic variations are considerable, but strongly contrasted temperatures in summer and winter are everywhere characteristic of the climate, with seasonal heat and cold much more excessive than is experienced under corresponding parallels of latitude in Western Europe. It appears from a record of the freezing of the Neva at St Petersburg, and the breaking of its wintry bonds, extending over an interval of 117 years, compiled by Colonel Jackson—*1st*, that out of 117 times the river has only been frozen up once so late as the 14th of December; *2dly*, that it has been frozen up 13 times in October, 95 in November, and 8 in December, the general period being from the 5th to the 20th of November; *3dly*, that out of 117 times, the ice has never broken up before the 6th of March, and only once at that early date; *4thly*, that it has broken up 18 times in March, and 99 in April, the general period being from the 5th to the 15th of April; and *lastly*, that one year with another, the navigation may be said to be open seven months, and closed the remaining five. Further north, the Dwina and the port of Archangel are blocked with ice for seven months out of twelve. But vegetation advances with remarkable rapidity as soon as the genial season returns, and scarcely has the spring revealed itself than it is summer. In little more than thirty days after the Neva has been covered with ice three feet and a half thick, the birch-trees have put forth their full complement of leaves, and in ten days afterwards the *Syringa vulgaris* is in flower. Observations upon the first manifestations of vegetable life, made by Erman and Goppart, serve to shew that while they are about a month later at St Petersburg than at Breslau, the various phenomena of development succeed one another with far greater rapidity at the northern capital, both with reference to native and acclimatised plants. Thus the budding of the birch is followed by that of the

Mountain-ash,	in 2 days at St Petersburg,	in 6 days at Breslau.
The Lime-tree,	5 " " " " " " " " " " " "	15 " " "
The flowering of the Syringa,	10 " " " " " " " " " " " "	39 " " "
Of Alchemilla Vulgaris,	18 " " " " " " " " " " " "	51 " " "

In the southerly districts the winter is short but severe, and the summer long, dry, and oppressively hot. But in the extreme south, on the coast of the Crimea, where there is a protecting range of mountains in the background, the climate is balmy; the tree-frog climbs; and both on the seaward slopes, and in the deep valleys of the chain, the vine, fig, olive, orange, pomegranate, mulberry, and plantain flourish luxuriantly. Here are imperial chateaux, and the villas of nobles, occupied by their owners in summer, at least before the outbreak of the Crimean war.

Russia has important natural resources in minerals, forests, fisheries, and a vast extent of fertile corn-growing land, only a comparatively small proportion of which has hitherto been brought under cultivation, though, besides the home consumption of grain, a large amount is raised for export to western markets. Iron occurs in various parts of the country, and is extensively worked in Finland and other provinces. Lead, copper, arsenic, nitre, alum, and salt are also yielded; but the metalliferous wealth of the empire is chiefly developed on the Asiatic side of the Urals. Coal, though generally wanting, is found on the banks of the Oka in association with iron; also in the valley of the Donetz, the principal tributary of the Don; and a rich field of great extent is a discovery of recent date in the government of Moscow. Immense forests clothe the central districts, chiefly between the parallels of 52° and 60°. In the southern part of this zone the beech and oak appear, but the predominant trees are the lime, birch, elm, ash, maple, alder, willow, Scotch fir, and various pines, with an undergrowth of hazel, juniper, and berry-bearing plants, the fruit of which serves the rustic as a substitute for orchard and garden produce.

Besides supplying fuel and materials for dwellings, the woods act as a protection against the biting blasts of the north, furnish timber for export, with pitch, tar, potash, and turpentine, the preparation of which goes back to a remote age. Hence the primitive Slavonic name for the month of April is *Beresosol*, or 'birch ashes,' in allusion to the period usually devoted to the production of potash. Wild bees abound in the forests, using the aged and hollow trees for hives, from which a considerable quantity of honey and wax is obtained; and wild animals, hunted for their skins and furs, are numerous, the bear, fox, lynx, ermine, squirrel, and otter. The wolf boldly roams the more open and unwooded districts; the polar bear appears on the shores abandoned to icy desolation in the north; reindeer browse upon the moss-grown treeless plains within the Arctic Circle; the auroch, a huge bovine species, lingers under imperial protection in one of the Lithuanian forests; semi-wild horses and cattle range in vast droves the southern steppes; the buffalo and Bactrian camel are employed for draught and burden in the Crimea and neighbouring districts. On the Volga, the Don, the Sea of Azov, and the Caspian the fisheries are highly valuable. Sturgeons of enormous size are taken, with the beluga, the largest known of all edible fish. Isinglass is prepared from the sounds or swimming-bladders, and caviare from the roes, an article of food in great demand, owing to the numerous fasts enjoined by the Russian Church.



Entrance to Sea of Azov.



Revel.

European Russia, exclusive of Finland and Poland, is distributed into forty-nine governments, but it is usual and most convenient, politically, to divide the country into the following territories, with which natives and foreigners are alike familiar :

	Cities and Towns.
The Baltic Provinces—Courland,	Mittau, Libau.
" " Livonia,	Riga, Dorpat, Pernau.
" " Esthonia,	Revel, Narva.
" " St Petersburg,	St Petersburg, Czarskœe-sloe, Cronstadt.
Grand Duchy of Finland,	Helsingfors, Sveaborg, Viborg, Abo, Uleaborg.
Great Russia, or Muscovy,	Moscow, Tula, Nijni Novgorod.
Little Russia, or the Ukraine,	Kiev, Pultowa, Kharkov.
West Russia, including Poland,	Grodno, Wilna, Warsaw, Vitepsk, Vola, Archangel.
South or New Russia,	Kertch, Anapa, Sebastopol, Odessa.
East Russia,	Kasan, Saratov, Simbirsk, Oufa.

I. THE BALTIC PROVINCES.

This region occupies the shores of the Baltic from the Prussian frontier in the neighbourhood of Memel to the far extremity of the Gulf of Finland, and consist, in order from south to north, of Courland, Livonia, Esthonia, and St Petersburg. The three provinces first named are frequently distinguished as the Germanic provinces, on account of the Teuton-Scandinavian origin of the towns, with the inhabitants and institutions. Their coast is indented by an arm of the sea, the Gulf of Livonia or Riga, the third in point of extent which it forms. No natural features of interest belong either to the sea-board or to the interior. Dark pine-woods, sandy heaths, swamps, and small lakes, with memorials of the northern drift, occupy a great proportion of the area. The remainder of the surface, under cultivation, produces large crops of rye, barley, flax, hemp, and linseed for exportation ; while the woods supply the outports with masts, deals, pitch, and tar for the foreign markets. The majority of the people are Lutheran Protestants.

Few parts of Europe have been more bandied about by different powers than the three provinces mentioned. In early times they were occupied by a branch of the Finnish family, now represented by the Esthonian peasantry. These aborigines were pagans, predatory and piratical in their habits. The Danes appear to have first intruded upon them. The Germans followed upon the rise of the Hanse Towns, and formed an association to repress piracy by Christianising, as it was called, the natives. Its members, men of Lübeck and Bremen, took the name of Schwert-brüder, Brethren of the Cross and Sword, a conjunction of means common in the dark times of the middle ages. The result of their establishment upon the coast was

the slaughter or slavery of the obdurate, and the hypocrisy of the yielding, temporarily assumed in order to concert schemes of vengeance. But soon after the commencement of the thirteenth century, the Lithuanians, another race of pagans of a different stock, the Slavonic, came pressing westward from the interior, established themselves in Southern Livonia and Courland, founding the present Lettish population of those provinces. The new-comers so shook the power of the Schwert-brüder, that the brotherhood was only preserved from a complete overthrow by calling in the aid of the Teutonic Knights. This order of military priests acquired predominant authority, erected castles, built palaces, and remained masters of the territory till the middle of the sixteenth century, when the Swedes and Poles became lords of the soil. Sweden obtained possession of Esthonia, and Poland acquired Livonia and Courland. But the Grand-Masters of the Teutonic Knights were allowed to hold the latter province as a duchy dependent upon the Polish crown, taking the title of Dukes of Courland. The Swedes, under Gustavus Adolphus, captured Riga in 1621, and deprived the Poles of Livonia. They remained the paramount power till the struggle between Charles XII. and Peter the Great terminated to the entire advantage of the latter. The peace of Nystadt in 1721 declared Esthonia and Livonia, with the adjacent islands, annexed to the empire of the czar; and Russia obtained Courland at the second partition of Poland in 1795.

COURLAND immediately adjoins the Prussian territory, to which its wild and pitiless snow-storms pass in winter, where they are familiarly styled 'Courland weather.' *Miltau*, the chief place of the province, with a majority of wooden houses, painted with staring colours, is of little importance. The population is 23,000, all of whom are Germans, except about 1000 Jews, and a few Russians. *Libau*, another wood-built town on the coast, with 10,000 inhabitants, is the principal port, of some consequence as the most southern harbour which Russia possesses in the Baltic, free from ice for some weeks before the other ports.

LIVONIA, northward, extends along the eastern side of the gulf of that name, and is traversed by the Southern Dwina, one of the most important rivers of the empire. On its banks, about five miles above its mouth, *Riga* is situated, the capital of the government, the church-spires of which are visible many miles off-shore. The river is here as broad as the Thames at London, and has a bridge of boats thrown across it, with a railway bridge opened in 1863, which rendered communication uninterrupted between Paris and St Petersburg. The Dwina is navigable for a distance of 400 miles, but, owing to shallows and rock-obstructions, the navigation is very difficult except during the spring and autumn floods. Riga is wholly German and Hanseatic in its interior appearance, consisting of old and lofty stone houses, terminating with pointed gable-ends, often turned towards the streets, which are narrow, crooked, and ill paved. The extensive suburbs are entirely modern, and Russian in their style. Among the public buildings, the Rathhaus, the Exchange, the Castle, and St Peter's Church are the principal. Riga has several colleges and schools, and a public library, with numerous rare and valuable MSS. As a commercial mart, it ranks next to the capital in the Baltic provinces, in the extent of its trade and the number of its population, which, in 1853, amounted to 72,000. While the navigation is open, a numerous array of vessels may be seen in the river, closely moored below bridge, and an equal number of flat-bottomed barges above it, laden with timber, corn, flax, and other produce of the interior for export. The Dwina flows through the heart of the flax-producing districts, where an article of the finest quality in the world is grown. All the great commercial houses are represented by foreigners; but a few branches of retail trade, and some industrial occupations, as the preparation of leather, are in the hands of Russians. *Dorpat* (called by the Russians *Guriev*), an agreeable inland town, with 14,000 inhabitants, on an affluent of the Great Lake Peipus, whose stormy surface may be seen from the suburbs, is the seat of a university founded by Gustavus Adolphus, with an observatory, which acquired distinction from the researches of Strüve. The university has about 70 professors, and is attended by about 600 students. It is also the chief school of the Protestant clergy in Russia.

ESTHONIA, called by the inhabitants *Wiroma* (Border-land), extends along the southern side of the Gulf of Finland, and has its seat of government at *Revel* (called by the Russians *Kolyvan*), a town on the coast, possessing regular fortifications, a fine harbour, and considerable commerce. It was founded by the Danes; remained long in the hands of the Swedes; and exhibits many features of an old Hanse Town—antique guild-halls with groined roofs, and arched doorways, approached by flights of steps, with stone benches adjoining, where neighbours sat conversing together on summer evenings in bygone days. The place consists of two distinct portions, upper and lower. The upper part occupies the Domberg, or hill of the cathedral, a singular reef of lofty rocks, circular in shape, and about a mile in circumference. It has at a distance the aspect of a citadel, being an insulated mass, with levels of deep sand around it. The vaults of the cathedral are curious for containing the remains of different trading corporations in the town in the middle ages, who preserved a kind of distinction in death as well as in life, by being separately grouped. Thus butcher slumbers with butcher, and shoemaker with shoemaker; but the men of the cleaver and the awl do not commingle. Insignia also denote the respective profession of the deceased. The bas-relief of a colossal boot in the pavement indicates the resting-place of the shoemakers, and an ox's head that of the butchers. *Narva*, the scene of the great victory of the Swedes under Charles XII. in the year 1700, over the army of Peter the Great, is a small town near the mouth of the Narova, which divides the province from the government of St Petersburg. Out of the towns, which are few in number, in each of these provinces, and contain but a fraction of the whole population, the people live in detached houses on the estates of the landholders which they cultivate, or in connection with the country residences of the nobles. Leagues may be traversed without meeting with a village or hamlet. The higher classes are, with few exceptions, of

German, Polish, or Swedish extraction; the town dwellers are mostly German, with a considerable number of Jews; the peasantry are Letts in the south, and Estonian Finns in the north.

Adjoining the mainland of Esthonia are the two large islands of Osel and Dagö, with several smaller ones adjacent, and many stragglers, Runö Kunö, Möön, Wormsö, Odinsholm, and Rogö. They have collectively the name of Sarri-ma, or the island-country. Some are wooded, all are low, and several have enormous boulders upon the surface, which might be mistaken for ruined towers at a distance. In this island-country, the inhabitants are neither Lettish nor Finnish; but Swedish blood predominates, and the Swedish language is exclusively spoken where the blood is the purest. The name of *Odinsholm* points directly to Scandinavia. As in the case of Sweden, Thursday is the unlucky day, and the almanacs of the people are Runic. They own no lord, but call themselves the 'free Swedish yeomen;' are pilots, fishermen, and seal-hunters. The islanders are all Lutherans, and have clergy so little acquainted with the ways of the world, owing to their seclusion, that 'the parson at Runö' is a common saying for simplicity.

The government of St PETERSBURG lies at the eastern extremity of the Gulf of Finland, extends from thence to the central region of the Ladoga Lake, and contains *St Petersburg*, in latitude 59° 56' N. and longitude 30° 20' E., with a population of 520,000. It is situated on both banks of the Neva, and several islands between them. It occupies an area of nearly twenty miles in circumference; but large open tracts, vast squares, gardens, and ornamental grounds are included within this space. The number of the streets is very limited, owing to their great length, and to the same name being retained from one extremity to another, however often interrupted by cross-streets. The Nevski Prospekt has an extent of more than two miles and a half, with a breadth of sixty yards. Both sides are lined with footways formed of granite pavement, and separated from the carriage-way by a row of lime-trees. It is the great thoroughfare, generally crowded with foot-passengers and vehicles of all kinds, from the four-in-hand of the noble to the dirtiest droshky, all gliding over the central wooden pavement at the furious pace common with Russian drivers, who announce their approach with wild halloos. Showy shops appear on either hand, with such a number of places of worship belonging to different confessions, as to acquire for it the sobriquet of Toleration Street. But no subject is at liberty to leave the established Russo-Greek communion throughout the empire, under pain of banishment to Siberia. The number of houses in proportion to the population is also very small, and is similarly explained by their vast size. The humblest classes are to be found in dwellings comparable to those of the great in magnitude, but are at once to be distinguished from them by the filthy odours they emit, as well as by the dingy appearance of the paint or stucco covering their walls and timbers. The houses of the opulent are chiefly of brick; many occupied by the lower ranks are of wood; but both are stuccoed or painted to hide the material. Owing to the frequency of destructive fires from the number of timber buildings, their erection has been properly prohibited. All have roofs inclined at a very small angle, and are therefore readily cleared of snow. St Petersburg has a respectable university founded in 1819, with celebrated surgical and military schools, schools of commerce and navigation, a famous observatory, an imperial library containing 420,000 volumes, and 7000 MSS., and numerous scientific and literary institutions.

By far the largest part of the capital is on the left or south bank of the Neva, with those imperial and government edifices which have won for it the style of the City of Palaces, the Palmyra of the North. This is, therefore, called the Great Side, and is also known as the Admiralty Quarter, from that building being prominent, and a central point from which the principal streets diverge. It is a vast structure, nearly half a mile in length, running parallel to the river, with a tower rising from the centre of the grand front, surmounted by a tall tapering spire, gilt with the finest ducat gold, which glitters brilliantly in the sunshine. Eastward is the Winter Palace, the ordinary residence of the emperor for seven or eight months of the year; the Hermitage, an imperial museum for works of art, the Louvre of St Petersburg; and the Column of Alexander. Westward is the equestrian statue of Peter the Great, and the Isaac Church, one of the grandest of temples, remarkable for simplicity of design combined with colossal proportions, and for profuse ornamentation, with polished granite, marble, malachite, and gold. The czar is represented riding up the steep face of a rock, and checking the steed so as to make him rear at the instant of having gained the summit, an expressive personification of the natural difficulties encountered and overcome in founding the city. A little above the Winter Palace, on an island across the river, stands the citadel, with the church of Peter and Paul, the burial-place of the imperial family, within its precincts. The tombs are plain sarcophagi, covered with a velvet pall, on which the names of the deceased appear, and sometimes only their initials. The remains of Suwarrow and other distinguished Russians are in the church of the Annunciation, attached to the monastery of St Alexander Nevski; Kutusoff lies in the Kasan Cathedral; and Moreau, the conqueror of Hohenlinden, in the Roman cathedral church.

Many peculiar features belong to St Petersburg. Its social aspect is eminently masculine, the males being immensely in excess of the females. This arises from the number of soldiers in garrison; the host of government employes who flock from the provinces in quest of higher posts, and remain unmarried till their aspirations are realised; and the multitude of peasants from the interior who sojourn in the capital for a term as servants and labourers, leaving their wives and families at home. Owing to these circumstances, few cities have such a fluctuating population, only a minority of the inhabitants remaining stationary. The whole number, in 1858, amounted to 520,000. It is, too, the coldest great capital in the world. In winter, the temperature often descends to -24° of Reaumur, equal to 54° below Fahrenheit's zero; and even a greater degree of cold has been registered.

Small circular buildings may be seen in various parts of the city, furnished with public fireplaces for the accommodation of coachmen and servants, whose profession compels them to stand still in the open air at night, waiting to take up parties from the ball or the theatre. In the Sennaia Ploschad, or Haymarket, a vast square where provisions of all kinds are sold, besides fodder for cattle, the scene is without a parallel elsewhere. The ground, deeply overlaid with snow, hardened by frost, is covered with an immense number of sledges, many from very distant parts of the empire, laden with oxen, pigs, sheep, calves, and other dead stock. The stiffly frozen carcasses stand upright as if in life; the flesh is as hard as the bone; and if a few pounds of meat are wanted, the quantity has to be detached by an axe or saw. While the coldest of all capitals, St Petersburg is one of the nearest to the haunts of savage life. Some of the islands at the mouth of the river have not yet been occupied by man, and remain as nature formed them, swampy, birch covered, and scarcely known to the citizens. They are visited by fishermen in summer, and by wolves in winter, who come over the ice to them. In severe seasons, when pressed by hunger, the wolves have been known to approach the suburbs, and prowl in the precincts of the houses. No European metropolis occupies a site so proximate to a cause of danger, with the single exception of Naples. Owing to its slight elevation above the ordinary level of the river, destructive inundations occur when a westerly gale blows for any length of time, as it opposes the exit of the stream, and drives up the waters of the Gulf of Finland into the channel. So certain is this result, under the circumstances, that when there is a prolonged gale from the westward, the state of the river is anxiously watched by the police authorities. For a brief period, in fine weather, at midsummer, St Petersburg is a very enjoyable place to the stranger, especially at night, which is but a softened continuation of the day, and when the moonbeams, mingling with the strongly-reflected sunlight, invest the river, the quays, and palaces with a kind of unearthly beauty. But when the scene has lost its novelty, and first emotions of astonishment are overexcited by imposing material features, the impression of the place upon most visitors is repelling rather than agreeable. It has no hoar antiquity and storied associations to interest the feelings. There is no Acropolis as at Athens; no Colosseum as at Rome; no Piazza as at Venice; no Kremlin as at Moscow; not a stone identified with those events and achievements which at least stir the imagination, if they fail to inspire respect and touch the heart.

Fifteen miles to the south, connected with the capital by railway, is *Czarskoe-selo*, an imperial palace, by which a town of some magnitude has sprung up, with *Pultova* intermediate, the site of an astronomical observatory. More attractive from its maritime site and elevated position is *Peterhoff*, the summer residence of the emperor, with a fine surrounding domain, on the chalk-cliffs which form the southern shore of the Gulf of Finland, commanding an extensive view of its waters, with the northern coast in the distance, and *Cronstadt* intermediate. This celebrated bulwark and seaward gate of St Petersburg, a town, fortress, and great naval station, occupies the eastern extremity of an island, and, with detached forts, completely commands the approach to the Neva. The intervening distance, about sixteen miles, is not navigable for large vessels, which therefore anchor at Cronstadt, while horses gallop and sledges fly over it in winter, when the entire surface is solidly frozen. The town has a large summer population, when trade is active, consisting of workmen, soldiers, sailors, merchants, and employes; but at the opposite season, when all maritime operations are at a stand, the number is reduced by more than two-thirds, and an aspect of utter dreariness is impressed upon the site. The chief exports are tallow, flax, hemp, timber, iron, and copper, oils, furs, hides, and canvas.



Riga.



Helsingfors.

II. FINLAND.

Finland, a very extensive province, but largely desolate, forms a north-western section of the empire, washed by the Finnish gulf on the south, and by the Gulf of Bothnia on the west. It is a rocky plateau of moderate elevation, upon which lakes, streams, and swamps are profusely distributed, which engender cold and unwholesome mists, render travelling circuitous in summer, but form a hard and easy pavement for the sledge in the opposite season. This copious water-supply, the great natural feature of the country, originated its native name, for the inhabitants style it Suomesimaa, the 'region of lakes and swamps,' and call themselves by a derivative signifying 'dwellers in the morasses.' The prevailing geological formation is granite, which has been quarried for the palaces, quays, public buildings, and monuments of St Petersburg. Besides being a component of the general surface, it is strewn over the lower sites in huge blocks and smaller boulders, seriously diminishing the extent of the cultivable ground. Many of these blocks are estimated to weigh from 100 to 200 tons. They are mostly coated with large lichens of green, purple, and yellow colours; and ferns of great size grow beneath the shelter of the masses. Occasionally the boulders lie heaped upon one another, and form a very wild spectacle. Some are imbedded in their own debris, owing to the granite rot, *la maladie du granite* of the French, a disintegration from atmospheric causes to which the rock is liable when its felspar constituent is in excess in its composition. The more elevated hills are bare, but the lesser heights and the lowlands abound with forests of pines and firs, with which the birch, ash, aspen, and alder intermingle. Woodland produce, as timber, deals, potash, pitch, tar, and resin, are hence important

articles of export, owing to which the maritime districts have been largely cleared, and the forests limited to the interior. Reindeer, wolves, elks, beavers, and various kinds of game abound; while the numerous lakes and the adjacent gulfs, supply the inhabitants with an abundance of salmon, herring, and other fish. Notwithstanding the northerly latitude, great heat is experienced in summer, and the temperature is higher than in much more southerly localities, owing to the longer continuance of the sun above the horizon. This hot weather comes suddenly, with no other precursor than grass and green leaves, when in myriads the flies awake from their torpor, and distress the traveller. Winter commences early in October, and lasts till the end of April; spring is confined to the month of May; summer begins in June, and terminates at the close of August; autumn, like spring, is limited to a single month, September. But even by the middle of August the night frosts are sharp. The progress of vegetation during the brief period allotted to it is astonishingly rapid. In the neighbourhood of Uleaborg grain has been sown and reaped in the space of six weeks.

About six centuries ago Finland was annexed to Sweden by Eric the Saint, and became exactly to it what Wales is to England, a district in which two nationalities blended, subject to the same laws, serving on common battle-fields, and rendered as much one as friendly intercourse and political union can amalgamate distinct races. Peter the Great obtained the south-eastern province of Viborg; and the rest of the country passed to Russia by conquest in the time of the Emperor Alexander. A considerable number of the inhabitants along the shores are of Swedish extraction; many Russians are in the long-occupied province; but the great bulk of the people are Finns, quite distinct from the Slavonic and Teutonic races in physiognomy, language, character, and manners. A short stature, sallow complexion, and flat face, with tawny hair, scanty beard, and small, lustreless eyes, are their personal characteristics. They are taciturn and grave, bold and hardy, make good seamen, and are numerous in the Russian fleet. Winter is their busiest season. The great fairs are then held, owing to the facility afforded by the ice and frozen snow for travelling and the transport of goods. Journeys of many hundred miles are made to dispose of produce, and procure commodities, performed in one-horse sledges, which accommodate a single individual, his few wares, and provender for his steed. Frozen fish, peltry, and corn are the chief articles brought, to be exchanged for salt, brandy, tobacco, and domestic utensils. The Finns are nearly all Lutherans, but retain many traces of ancient heathendom in popular sayings and usages. *Helsingfors*, the capital, of comparatively modern date, occupies a peninsula of the south coast, and contains 16,000 inhabitants. It has several handsome structures, a cathedral, senate-house, and university, with all the institutions which usually distinguish the head of an important province. The university was removed hither from Åbo in 1829, has 60 professors, and about 600 students. Population, 14,000. It has, since 1840, become a favourite bathing-place, and, during the summer months, attracts many visitors from St Petersburg. It is guarded by the fortifications of Sveaborg, within long-range cannon-shot of its quays. This renowned fortress extends over six islands or rocks, and commands the only channel to the town which has water deep enough for large vessels. It was bombarded with effect by the Anglo-French in the summer of 1855. It was shamefully surrendered to the Russians, during the invasion of the year 1808, by the Swedish commandant, Count Cronstedt, with all its vast munitions of war. Though never explained, the surrender was generally supposed to have been purchased by a bribe. Hence the indignant lines of the patriot poet Runeberg:

‘Conceal his lineage, hide his race—
The crime be his alone!
That none may blush for his disgrace—
Let it be all his own!
He who his country brings to shame,
Nor race, nor sire, nor son may claim.’

Åbo, the former metropolis, stands on a picturesque river three miles from its entrance into the Gulf of Bothnia, where the stream is overlooked by an old castle, now occupied by a detachment of infantry, and used as a prison. The city is the most ancient in Finland, dating from the twelfth century. Its history has been eminently one of disasters, chiefly from fires. One in November 1827 raged for two entire days, and was not extinguished till more than two-thirds of the houses had become a confused heap of ruins. A cathedral of coarse red brick is venerated as the cradle of Christianity in the country, and the place where repose the ashes of bishops, nobles, and captains, few of which are now distinguished by any memorial. The great fire referred to melted the bells, destroyed the altar and organ, with almost everything consumable in the interior.

Northward, the shores of the Gulf are dotted at intervals with small and neat wood-built towns, where coasting vessels are built, and forest produce prepared for export by the men, while knitting, spinning, and weaving are general branches of household industry with the women. The go-to-bed time is regularly

announced in these, as well as in the inland towns, by *klokans*, or night-criers, in a monotonous tone of voice. But at *Brakestadt*, in 1847, Prince Galitzin found the curfew proclaimed by beat of drum. The night-criers are appointed to take charge of the streets, and watch against fire. Instituted in the middle ages, they have preserved in several instances the singular costume of that period. They wear a long hanging gray cape, a felt-hat with an enormously broad brim, on which a metal plate exhibits the arms of the town, and carry in one hand a stout baton, in the other a rattle. Thus accoutred, they set out at nightfall, drawing a kind of civic psalmody. It consists of couplets, the burden of which commonly invites those who are abroad to make haste home, and those who are indoors to put out their fires. *Torneå*, at the head of the Bothnian Gulf, on an island of the river of the same name, is the frontier town of Russia towards Sweden, and communicates with it by a bridge. A detachment of from thirty to forty Cossacks keep watch and ward at this extremity of the empire; and the distance from the capital is painted in large letters on a wooden post: 'To St Petersburg, 1735 versts.' The town, a mean-looking place, is an old Swedish foundation of some interest and celebrity. Being within half a degree of the Arctic Circle, it has about two hours of daylight at midwinter; and even this brief day is often darkened by tremendous falls of snow, which is sometimes drifted in the streets to the very roofs of the houses. But at the opposite season, circumstances are reversed, for from an elevated position the sun may be seen just above the horizon at the midnight hour. In 1694, Charles XI. of Sweden visited *Torneå* for the purpose of enjoying the spectacle, and saw the midsummer midnight sun from the steeple of the church. In the summer of 1736, the French *savans*, Maupertuis, Clairaut, Lomonnier, and others, deputed by the Academy of Sciences, made the town their head-quarters while engaged in measuring an arc of the meridian. They fixed their trigonometrical stations in the valley of the *Torneå* River, and in the following winter commenced measuring a base-line on the frozen surface of the stream. The general result obtained confirmed the Newtonian doctrine, that the earth is a sphere flattened towards the poles, which the great philosopher inferred must be the case from the fact of its diurnal rotation.

THE ÅLAND ISLANDS, at the entrance of the Gulf, belong to Finland, and extend from thence to within twenty miles of the Swedish coast, separated by expanses of water so closely landlocked as to resemble a succession of inland lakes. The archipelago consists of about sixty inhabited isles; 200 more which are uninhabited. Though of Swedish origin, the islanders do not identify themselves with the Swedes more than with the Finns, but proudly call themselves Ålanders, regarding their chief island as a kind of continent. They subsist chiefly by fishing, seal-hunting, and piloting, are a hardy race, enjoy their isolated position and rigorous climate, hailing its phenomena with the expressions: 'Brave ice!' 'Fine snow!' 'Good winter!' Åland, properly so called, is somewhat smaller than the county of Middlesex, but is equal to more than half the area of the whole group. It acquired notoriety in the year 1854, owing to the total destruction of Bomarsund by the Anglo-French fleet, a strong fortress on the east coast, intended to be to Sweden like Sebastopol to Turkey, a menace and a means of aggression.

III. GREAT RUSSIA.

This section of the country, by far the largest, is an old portion of the empire, central and northern. It comprehends the most densely-peopled districts, the principal centres of agricultural produce and manufacturing industry, grouped around the former capital, which is still venerated as the 'Holy Mother' of the Russians, and it comprises also tracts which are among the most desolate as to population, where vegetable life is entirely confined to the production of mosses and lichens. Moscow, with its 380,000 inhabitants, is seated on the small river Moskva, 728 versts, or nearly 486 miles, south by east of St Petersburg, following the old road. Peter the Great made the journey in winter between the two places in forty-six hours. This was considered a feat. The Emperor Alexander, more than once, in an open sledge, in severe weather, passed between the two capitals in forty-two hours. The distance is now accomplished by an express train on the railway in twenty hours, with the allowance of ample time for refreshments on the way. The line runs almost as the crow flies, and hence the distance is less than as given above. It is said that upon the engineers, appointed to survey the best route, submitting their plans to the Emperor Nicholas, he terminated controversy by drawing a straight line upon the map between the cities, observing: 'Make it as I have drawn.' As the consequence, the shortest route has been obtained, but no important place is passed by with the single exception of Tver. No railway in existence intersects such an extent of unpicturesque scenery. Dark woods appear on either hand, cleared away on both sides for the space of

about 100 yards, except that the stumps of the trees have been left in the ground, which, with stagnant pools of water between them, form a most uninviting landscape. Here and there tracts of open country under cultivation occur, dotted with groups of log-built cabins, which afford no relief to the eye owing to their extreme ugliness, except when the green dome of a church appears in the larger villages above the other dwellings. This dreariness of the road renders the traveller impatient to reach the end of his journey, and undoubtedly adds to the attractions of the remarkable place at the terminus.

Moscow is pre-eminently a city of churches, convents, towers, and bells, of gilded domes and painted cupolas, of objects most magnificent and mean, massive and tiny, of styles Asiatic and European, confusedly intermingled so as to occur in the closest connection; and not a little picturesqueness is the result of this incongruity. It has a circuit of about twenty-six miles, and is seated on an extensive plain overlooked by the Sparrow Hills on the south-west. From their summit Napoleon and the French had their first view of the renowned old capital. After having traversed dreary wastes and sombre forests, the legions shouted, 'Moscow!' in the confident imagination, soon to be utterly dispelled, that one of earth's richest prizes was about to fall within their grasp, offering ample compensation for every march and fight. Towards the summer sunset, when the strong beams of the departing luminary fall full upon an endless series of golden and silvery domes and minarets, the spectacle from these hills is superb; and its effect is heightened on a festival-day, as the breeze bears along the varying tones of a thousand bells. A glorious panorama also meets the eye from the top of the tower of Ivan Veliki in the Kremlin, the loftiest and most remarkable in the city, the campanile to a church below. This tower contains thirty-three bells, which diminish in size from below upward. In the first story hangs the largest, a solitary giant, only allowed to speak three times a year, to which our Great Toms and Big Bells are pigmies, as it weighs rather more than sixty-four tons. But a much huger neighbour, the Monarch, *Czar Kolokol*, King of Bells, is unsuspected, and probably never has been hung. It is 21 feet high, 22 feet in diameter, and rests on a mass of granite close to the base of the tower. The extreme thickness of the metal is 23 inches; the length of the clapper 14 feet; the greatest circumference 67 feet; and the weight is estimated at about 180 tons. On one side there is a fracture large enough to admit the body of a man. 'I went inside, and called aloud,' says Stephens, 'and received an echo like the reverberations of thunder.'

Centrally seated on a hill, stands the Kremlin or fortress—the original nucleus of the city—its present head and heart, an immense assemblage of buildings, old and new, sacred and secular, civil and military, with which beautiful gardens intermingle. All travellers confess themselves at a loss to describe this prime feature of Moscow. 'I have frequently been asked: "What is the Kremlin?"' says a visitor in 1861, 'and confess I have experienced considerable difficulty in answering this question. It is everything at once—a maze of mighty temples, towers, ramparts, and palaces thrown promiscuously together, and looking more like some wild freak of nature in the Rocky Mountains than the work of human hands. Raised on a high elevation above the rest of the city, it seems, when viewed from the distant hills, like an immense island floating in a wavy sea of domes, the surface here and there broken by the massive walls of an ancient monastery with its silvered minarets sparkling in the sun, and resembling some bold rocks among which the bright breakers are playing. The Kremlin is a stupendous fortress surrounded by massive Tartar walls, raised some five centuries ago to resist the attacks of the Eastern barbarians, who waged a perpetual war against the infant Russia. Here are arranged numerous guns, standards, trophies, captured from conquered foes. The Kremlin is the nation's sanctuary. Within a space of not more than a mile in circumference rise the spires and gilded domes of above thirty churches, sometimes in such close proximity that in passing from one to the other you seem to be traversing the chapels of a huge cathedral. Here the emperors are crowned, here lie the remains of the ancient czars, and relics of the most revered Russian saints. The Kremlin is also an imperial residence, and contains magnificent palaces. Among countless treasures are the crowns worn by the rulers who swayed their sceptres over the kingdoms of Poland, the Crimea, and Kasan, before they were absorbed in the ever-encroaching gulf of Russian conquest. No city but the "Holy Mother" could form so rich a setting for so splendid a gem intertwined with the glittering chain of the silvery Moskva.' There are several entrances to this famous site. The most important is the Gate of our Saviour, a vaulted portal, over which hangs a picture of the Messiah, behind a glass, with a lamp kept constantly burning beside it. No person, prince or lackey, is allowed to pass without taking off his hat, and remaining uncovered till clear of the entire entrance, about twenty paces long. A sentinel rigidly enforces the act of reverence; and the greatest care is taken to keep dogs away from the threshold. Both Dr Clarke and Mr Stephens attempted to evade the observance, by way of testing its stringency, but were compelled to submit. Exterior to the Kremlin, on the east, is the Kitai-gorod, or Chinese Town, the finest and busiest part of the city, surrounded by a wall with battlements and towers. Both these divisions are enclosed by the Beloi-gorod, or White Town, so called from having been formerly encircled by a white wall, the site of which is now occupied by the inner boulevard. Beyond this, and bounded by the outer boulevard, is the Zmelnoi-gorod, or Earthen Town, once fenced with an earthen rampart. Further out are suburbs, and the country-seats of nobles, which are considered to belong to the city to the distance of twenty-five miles, and are called Podmoskuvi, or Moscow appurtenances.

The story of Moscow is crowded with calamities, rarely equalled, and never surpassed in any other place. The origin of the city is lost in obscurity. But early in the fourteenth century it became the capital, under Ivan I., and the primate removed his residence to it from Vladimir. 'My bones,' said he, 'shall rest in this city. Here will the primates fix their abode; it will overcome all its enemies.' Famine, pestilence, sword, and fire followed each other in quick succession soon after the middle of the sixteenth century. The two latter came together in 1571, brought by the Tartars under the khan of the Crimea. Having set fire to the suburbs, a furious wind rapidly carried the flames into the heart of the city. A Dutch merchant, an eye-witness, whose account is among the Harleian MSS., speaks of the event as a 'storm of fire,' owing not only to the wind, but to the oily and resinous fir-wood with which the streets were paved and the houses built. In 1771, the plague raged with fearful violence, and so maddened the populace that they rose against the primate, Ambrosius, who had ventured to interfere with their superstitions. Hearing of his danger, he fled to the Donskoi monastery without the city; but he was followed thither by the mob, and savagely murdered while officiating at the altar. The burning of Moscow upon the entrance of the French in 1812 is a tale of our own times, and a catastrophe unexampled in modern history. Towards the evening of Sunday the 13th of September, the advanced-guard of the enemy arrived under Murat; and before night Napoleon was in the Kremlin. But scarcely were the invaders established in their new quarters, when smoke and flames were observed issuing from houses closely shut up in different districts. By Tuesday the fires had assumed a menacing aspect, distracting the efforts made to quench them by their number, while a high wind rapidly connected them with each other, and wrapped the city in one vast sheet of flame. The conflagration raged till Saturday, when the wind fell, the smoke gradually cleared off, and revealed the extent of the desolation. It is supposed that 7000 principal edifices and 14,000 public buildings were consumed. More than two-thirds of the city were entirely destroyed, but it was restored by the inhabitants and the government with remarkable rapidity, and considerable improvement. The year after the fire, seedling aspen plants were observed springing up everywhere among the ruins. The tree is abundant in Russia, especially in the woods around Moscow. The seeds had been wafted by the winds, and if the people had not returned, the whole site would speedily have become a forest. Moscow has a university with upwards of 100 professors and 800 students, an observatory, and numerous literary and scientific institutions.

Around this heart of the country, but at considerable distances from it, there are many towns of important size, yet with few exceptions without any features of interest. *Tula*, on the south, commonly called the Russian Birmingham, with a population of 57,700, has large government works for the manufacture of firearms, which were originally erected, while the artisans were instructed, under the superintendence of Englishmen. Various fancy articles are also made of hardware, as platina snuff-boxes. At *Torjok*, on the north, embroidered leather goods are produced—shoes, slippers, belts, caps, and reticules; and the material is prepared in the peculiar way which has obtained for it the name of Russia leather. Oak bark is used in the tanning; cochineal gives the red colour; and a vegetable oil imparts the distinctive odour. *Nijni* or *Lower Novgorod*, on the east, is annually one of the most remarkable places in the world, owing to its great fair, which swells the population from 36,000 to 300,000. The fair, which lasts from July 1 to September 1, old style, was originally held at *Kasan*, but was finally fixed at its present site by the Emperor Alexander in 1817. The permanent stone-market consists of 2522 store-rooms. These are connected with as many chambers for the owners of goods to live in. A noble edifice rises in the centre for the official superintendents of the fair, the ground-floor of which is used as a post-office during its continuance. But the number of temporary shops, with dwelling-rooms attached to them, erected for the occasion, is enormous. They are not raised at random, but are regularly arranged in streets; and churches, barracks, hospitals, and theatres appear in connection with them, the whole vanishing in a few weeks as completely as if they had never been. The site of the fair is about a mile from the centre of the town, across the broad river *Oka*, which is passed by a bridge of boats, and close to its junction with the majestic *Volga*. Both rivers are then crowded with craft of all descriptions conveying merchandise, and have a floating population of perhaps 40,000 persons. Asiatic products are here exchanged for European goods. Closely grouped together are Chinese with tea, Persians with scents and amulets, Bokharians with precious stones, Siberians with furs, Cossacks with hides and caviare, German jewellers, Swiss watchmakers, Frankfurt wine merchants, Hamburg leech buyers, Dresden pipe makers, Warsaw furriers, French fancy dealers, and Manchester manufacturers. Apart from this great gathering, *Nijni Novgorod* has little to invite notice, but one of its natives distinguished himself by taking the lead in the revolution which placed the reigning dynasty on the throne. This man, named *Minin*, an obscure butcher, has a monument to his memory here and at *Moscow*.

The name of *Novgorod*, or *New Town*, without any prefix, is borne by one of the oldest places in Russia, situated about 100 miles south of *St Petersburg*, near the confluence of the river *Volkhof* with the great *Lake Imen*. A thousand years ago, or in 862, this was the seat of *Rurik*, the founder of the monarchy; and here, in 1862, Russia commemorated her thousandth anniversary by uncovering a monument raised in honour of the event. Favoured by geographical position in the north, which secured it from the Tartar invasions which harassed the centre and the south, while readily communicating with the Baltic, it became one of the leading factories of the Hanseatic League. Commerce fostered public spirit, and brought wealth to strengthen it. Hence the people acknowledged only a nominal allegiance, assumed an independent attitude, and adopted in the main a republican form of government. There was a municipal body who elected a burgomaster for a limited term; a boyar of the commons appointed to watch over their interests; and popular assemblies

were held to decide upon important questions in which every citizen had the right of voting. These public meetings were summoned by the sound of a famous bell, called the *vetchooi-kolokol*, or assembly bell, which the inhabitants regarded as a type of their independence, the palladium of the state, and dignified with the appellation of 'eternal.' In the days of its commercial and political glory the city occupied an area of sixty-three versts in circuit, and contained a population of from 300,000 to 400,000 souls. Its power originated the proverb, *Quis contra Deos et magnam Novgorodiam?*—'Who can resist the Gods, and Novgorod the Great?' Ivan III., in 1478, destroyed its liberties, and marred its fortunes. Upon the plea that one of the Hanse Towns had offered him an insult, he confiscated the property of the League in the city, and put the foreign merchants in irons. The place has now a melancholy appearance, containing scarcely a population of 16,000, surrounded by ruined churches and grass-grown streets.

Archangel, forty miles from the entrance of the Dwina into the White Sea, is the head of the most northerly province, bearing the same name, or, more correctly, that of Archangelskoe, 'the land of the Archangel.' St Michael is the celestial personage referred to, to whom a convent was dedicated at an early period on the north bank of the river. The province is the most extensive of the territorial divisions of European Russia, and the most thinly peopled. Though equal in extent to the united areas of Great Britain and France, its total population is far inferior to that of the borough of Liverpool, and does not give one individual to the square mile. A few Lapps and Finns, fishermen, hunters, and reindeer breeders occupy the peninsula of Russian Lapland on the north-west. The town occupies a low flat, 400 miles north-east of St Petersburg, and contains about 20,000 inhabitants. It is almost entirely built of wood, and the streets are paved with timber. Situated close to the line which marks the northern limit of cereal and garden culture, all its supplies of grain and vegetables are brought from a distance, as well as fodder for cattle. The port is the oldest in the empire, and was for nearly a century and a half its only channel of communication with the maritime nations. It is still frequented by many English-vessels, but is closed to navigation by the ice for six months in the year. *Cholmogory*, thirty-five miles further up the river, is of unimportant size, but of interest as the seat of one of the first English trading settlements. Here an enterprising factor set up a rope-manufactory, for which workmen were specially sent out from England; and at this spot, in 1578, Sylvester, a political agent of Queen Elizabeth to the court of Moscow, was killed by a flash of lightning, as he was preparing to prosecute his journey. The lightning set fire to the house and destroyed it, with the dispatches of the envoy. The town has also been used as a place of exile. To it the regent Anne was sent, along with her husband, Prince Anthony Ulric of Brunswick, upon the deposition of their infant son in favour of the Empress Elizabeth in 1742. They occupied a log-built house, surrounded with high palings, which enclosed a little garden containing a few birches, ferns, and nettles. Death soon delivered the princess from bondage; but her husband, at the time of his decease, had been for nearly twenty years exposed to the dreariness, cold, and snows of the Arctic Circle. *Kola*, the most northerly town in European Russia, between the Kola and its tributary the Tuloma, has a population of 800 Russians, Lapps, and Finns, chiefly occupied in the walrus, whale, and cod fishery.



Kola, in the White Sea.



Vladimir.

IV. LITTLE RUSSIA.

This south-western district, the original nucleus of the empire, lies along the middle course of the Dnieper. The river has on its banks one of the oldest and most remarkable of the Russian cities—Kiev—the cradle of the sovereignty and of the church. It was the capital for nearly three centuries; and the scene of extraordinary ceremonies in the reign of the Grand-Duke Vladimir, about the year 980. Having embraced Christianity, this prince signalled his zeal against idolatry. Perune, the thunder god, who occupied a place in Slavonic mythology analogous to the Zeus of the Greeks and the Jupiter of the Romans, was represented at Kiev by a huge image, with a trunk of the hardest wood, a head of silver, ears and whiskers of gold, and legs of iron. Deprived of ornaments, and reduced to the character of a naked log, the image was tied to the tail of a horse, dragged to the Dnieper, and thrown into the water, after being soundly cudgelled by twelve stout soldiers on its passage to the stream. All the inhabitants were then ordered to repair to the river at a particular time to be baptized. Men and women, old and young, bowed to the edict. But the royal children received the rite with greater ceremony. In a pretty romantic spot within the limits of the city, there now rises a lofty stone obelisk surmounted by a cross, built over a fountain where they were baptized. A wooden crucifix close to the base has the inscription, in Hebrew, Greek, and Latin, 'Jesus of Nazareth, the king of the Jews.'

Striking and welcome is the appearance of Kiev, especially to the traveller from the south, who has been passing over a country of monotonous steppes. Two divisions of it, the Old Town and the Petcherskoi, also called the New Fort, occupy two bold hills separated by a deep ravine. A third division, the Low Town, or Town of the Vale, the business quarter, stretches from the base of the hills to the river. A fine suspension-bridge, half a mile long, the work of Mr Vignolles, an English engineer, crosses the stream. The whole of the iron for this erection, upwards of 3000 tons, was wrought in England, with all the requisite machinery. Fifteen vessels conveyed it to Odessa, from whence it was transported in bullock-wagons over the steppes. 'On the opposite bank,' says Stephens, after crossing the old bridge of boats, 'I turned for the last time to

the sacred city, and I never saw anything more unique and strikingly beautiful than the high, commanding position of this "city on a hill," crowned with its golden cupolas and domes, that reflected the sun with dazzling brightness.' On the hill of the Old Town stands the cathedral of St Sophia, founded in 1037, with the palace of the metropolitan close by, shaded with venerable trees. The opposite hill has the Petcherskoi monastery, with the attached Church of the Assumption. This building has seven domes, gilt and coloured, connected with chains, and a belfry standing apart, which rises to the height of 300 feet, making with the hill a total of nearly 600 feet above the Dnieper. Kiev has a flourishing university, with mineralogical and zoological collections. But the catacombs—a great charnel-house of Russian saints—form the point of attraction here. They consist of two caverns behind the monastery, excavated in the precipitous cliff which faces the river. These caverns were occupied by living monks prior to the erection of the monastic edifice, and have since accommodated the remains of departed holy men of repute. The bodies are ranged along the sides in open coffins, but enveloped like Egyptian mummies in wrappers, so that no part, not even the face, is left visible. But the stiffened hands are so arranged as to receive the kisses of devotees, and on the breasts are written the names of the deceased, with occasionally a short record of their deeds. Kiev is hence the Jerusalem and Mecca of the empire, annually visited by multitudes, who seek an interest in the intercession of the defunct. They come from the remotest parts; the confines of Tartary, and the wilds of Siberia, as far as Kamtchatka; performing the whole journey on foot, seldom sleeping under a roof, and depending for subsistence by the way on precarious charity. The pilgrims have amounted in a single year to 50,000. 'I remember, as if they were before me now,' says Stephens, 'the groups of Russian pilgrims strewed along the road and sleeping under the pale moonlight, the bare earth their bed, the heavens their only covering.' The population of Kiev is 60,000.

The broad, deep, and beautiful Dnieper forms a series of rapids below Kiev, occurring at intervals through a course of more than 100 miles. They are caused by reefs of granite which diagonally cross its bed; and the navigation is impracticable to barges, except during the spring floods. Rocky islands rise here and there out of the channel, haunted by wild-fowl; and huge blocks of granite lie on the banks, as if piled at random by the hands of giants. In this scene of stern grandeur the Cossacks of the Ukraine were cradled, and it continued long to be their head-quarters. The islets of the river were kept as war establishments, supplied with arms, provisions, stores, and ammunition. Women were rigorously excluded from these strongholds, and death was the penalty of their intrusion. The islets were intrusted to the care of a corps selected from the bravest and most agile of the race, who formed a kind of aristocracy. These men, among the wildest that ever lived, acquired the name of Zaporogians, from the two Polish words, *za*, beyond, and *porog*, water-falls. In long light barks they descended the stream on piratical expeditions, sailing by night, and concealing themselves in the osier-beds by day, in order to take the villages by surprise. Their excursions extended to the Black Sea, and once they appeared within sight of Constantinople. In the wars on land they joined the Poles, the Turks, the Russians, as expediency dictated. A rock in the Dnieper, called the Brigand, commemorates the rude race who were once lords of its waters. One of their chief establishments was on the island of Cortetz, a natural fortress, rising upwards of 100 feet above the stream, and defended on all sides by masses of granite, now in the possession of peaceful and industrious German colonists. *Pultowa*, in the country eastward of the Dnieper, is about four miles from the field of battle, where Peter the Great signally defeated Charles XII. of Sweden in 1709. A tall mound of earth, surmounted by a cross, covers the remains of the Swedes who fell in the action, and the town has a monument of the czar. *Kharkov*, on some affluents of the Donetz, contains 45,000 inhabitants, a university, and has vast commerce in wool and corn carried on chiefly at four annual fairs.

V. WEST RUSSIA.

West Russia comprehends the territory which still retains the name of Poland, and the greater part of the provinces formerly belonging to the Polish crown, some of which formed the ancient and independent grand-duchy of Lithuania. The whole was annexed to the empire by the two infamous partitions of 1772 and 1795 with Prussia and Austria. The country is intersected by the Vistula, traversed by the Niemen, and sends a number of affluents to the Dnieper. It contains very extensive swamps and marshes, with vast woods, one of which, the forest of Bialowieza, is perhaps the largest single remnant of the primitive woods of Europe. The site is noteworthy also on account of its aurochs, of which about 1500 survive. This animal is supposed by Cuvier to be a distinct species of the genus *bos*, or ox, which man has never subdued, and is one of the most massive of all existing quadrupeds. As late as the reign of Charlemagne it was not uncommon in Germany, but is now fast following its extinct congener, the *urus* of Cæsar, from which the common ox has descended. No living specimens are known, except in this Lithuanian forest. Pallas observes that it is remarkable the auroch does not exist in

any of the vast forests of Russia Proper and Northern Asia, whence, if it had penetrated, hardly anything could have eradicated it. The preservation of the animal at this spot is entirely due to the protection afforded it, first by the Polish, and next by the Russian government. Not only has the slaughter been long prohibited under severe penalties, except by the royal and imperial owners, or parties duly authorised, but a certain number of the peasants and serfs of the neighbourhood have always been engaged to make hay for them at appointed places, to serve for winter fodder. On the 18th of October 1860, when the sovereigns of Russia, Austria, and Prussia met in conference at Warsaw, there was a grand chase, and nine aurochs were killed. The herd had not been similarly disturbed for more than a century, or since the 27th of September 1752, when Augustus Sigismund III., king of Poland, and elector of Saxony, took part in the hunt. A monumental stone commemorates the event. Besides these animals, the forest harbours elks, wild boars, red deer, lynxes, wolves, hares, badgers, beavers, grouse, woodcocks, and partridges. Formerly there were bears, but none have been seen since the year 1846, when one was shot.

The forest of Bialowicza, once the private patrimony of the Polish sovereigns, now a Russian imperial domain, is situated in the government of Grodno, and extends north and south from the river Bog to the heights near the town of Osla. There is here an expanse of wood 31 miles long, 27 broad, and 112 in circuit, with an estimated area of 135 square miles, nearly equal to the half of Middlesex. A village, two small hamlets, and a few cultivated spots, are almost the only interruption offered to the trees. The site is generally level, and the soil sandy, with here and there marshes and bogs. An intensely severe winter alternates with a hot summer. Several streams rise in the interior, feeders of the Vistula. The Narew issues from a true peat-bog, which extends several miles exterior to the forest; and the Narewska flows through it. Both are navigable for boats and timber-rafts, the former nearly to its origin. The village of Bialowicza, from which the forest has its name, is near the centre, and consists of a church, an inn, and some sixty dwellings. Augustus III. of Poland built here a hunting-seat, which was enlarged by Stanislaus Augustus. Round the exterior are several villages and hamlets, the inhabitants of which are all connected in some way or other with the wood, and under its local jurisdiction. They are of Russo-Polish descent, rude, and uncultivated, simply and poorly clad, having as the only covering for the feet sandals made of the wood of the lime-tree. Their dwellings consist of logs of timber piled one upon another, with boards or shingles for the roofs. In return for certain services, such as providing fodder in winter for the aurochs, they have free use of the timber for building and fuel. Preferring a wandering forest life to agricultural operations, they are very expert as foresters and hunters, on which account all the imperial huntsmen and foresters are selected from them. When requisite, a small army of 2000 men can be brought together for the chase—all true Nimrods—content for the time being with the honey, wild fruits, and edible mushrooms found in the forest.

The Scotch pine is the most common tree, as on all the sandy Sarmatian plains; and next to it the silver fir. Larches and the spruce fir are entirely absent. Oaks occur, and supply magnificent specimens; but beeches are more abundant, generally found in the vicinity of the oak. The birch is scattered throughout. Elder, both the black and white, with a great variety of grasses, grow along the sides of the streams, and in the low swampy situations. The lime-tree is very common, and attains vast dimensions. The poplar, elm, ash, and sycamore are met with, and also the wild apple and wild cherry. It appears from the stems of a number of the pines that the tree has here a duration of from 250 to 300 years; the birch reaches 120 years; the beech 220; and the life of the oak terminates in from five to six centuries. An innermost district of about 15,000 acres, or two square miles, has not yet been penetrated by the wood-cutter. It bears the name of Niezeanow, or the 'unknown region,' and is quite impassable till the axe clears the way, owing to the multitude of trunks of trees rooted up by the storms of ages crossing one another in all directions. Such is the old forest of Bialowicza, the last stronghold of the auroch, the bison of Europe. In 1845-1846 the whole domain was measured and appraised. It has since been divided into five districts, each of which is under the care of an officer of the forest corps, as highest inspector and conservator.

Grodno, the head of the government containing this interesting site, is of mournful celebrity in Polish history, as the place where the Diet, after withstanding Russian intimidation and violence for three weeks, assented, but under protest, to the second partition of their unhappy country in 1793. The record ran: 'Surrounded closely by foreign troops on the second of this month, threatened with further invasion, and oppressed by innumerable violences—thus situated, we do declare in the most solemn manner, that unable to prevent, even with the risk of our lives, the effect of the oppressive force, we leave to our posterity, happier perhaps than ourselves, those means of saving our dear country whereof we are bereft at present; and thus the project sent to us by the Russian ambassador, though contrary to our laws, wishes, and opinions, forced by the above means to accept, we do accept. Done at Grodno, the 24th September. Signed and engrossed in the public records, according to law.' Grodno carries on a flourishing trade, almost wholly in the hands of the Jews, who form three-fourths of the

population. *Wilna*, the old Lithuanian capital, with 51,000 inhabitants, still retains importance, but has nothing in its appearance to interest the stranger. The remark applies to all the towns of the ancient duchy, except it be those connected with the fatal march of the French to Moscow. The country, too, is dreary; and the villages, few and far between, are miserable collections of small straggling log-built huts, with holes to admit the light and let out the smoke. Near *Kovno*, the grand army crossed the frontier river Niemen, and within six months afterwards a wretched remnant came back to the same point, 'like ghosts returned from the infernal regions.' In the market-place of the town, an ugly monument commemorates the event, but it bears a neat inscription: 'In 1812, Russia was invaded by an army numbering 700,000 men. It recrossed the frontier numbering 70,000.' *Vitepsk*, on both banks of the Dwina, is memorable as the place of which Napoleon remarked on his advance: 'Do you think I have come so far to conquer these miserable huts?' and then changed his first determination to halt there for the winter, for which preparations had already been made, and pushed on to his ruin. Stephens, while traversing this region, observed with surprise the utter ignorance of the inhabitants in regard to circumstances so recent and momentous. At *Borizoff*, on the Berezina, close to the terrible scene of the passage of the river, one had merely heard of a great battle having been fought there; and the best informed referred to the scenes of struggles and tragedies without half the interest with which the Greek, even now, points the stranger to the field of Marathon, or the ruins of Argos.

Warsaw, once the capital of a great European kingdom, now the head of the comparatively small Russian government of Poland, is seated on the left or western bank of the Vistula, which is here much broader than the Thames at Westminster, and is crossed by a bridge of boats to the totally-decayed suburb of Praga on the opposite side. It has a population of 162,000. Few cities have a more imposing appearance at a distance, especially from the St Petersburg road, and most refreshing is the view to the traveller who has come from thence, after having passed over 650 miles of utterly uninteresting and dreary country. It stands upon an ascent rising up rather steeply from the river, which displays its huge public buildings to great advantage. But though many of the palaces are magnificent, and of colossal size, the greater portion of the private dwellings are mean, while the spacious streets and squares are dirty, badly lighted and paved, and almost entirely destitute of trottoirs for foot-passengers. All the houses are numbered, beginning from the government palace, a modern edifice of immense dimensions, which is reckoned number one, and mounting up to between 5000 and 6000. Conspicuous in the centre is the vast Zamek, the old palace of the kings of Poland, containing the Hall of the Diet, and a splendidly-gilt ball-room, now occupied by the Russian commandant. A statue of Copernicus, a Pole by birth, adorns one of the principal squares; and memorials are still numerous of the nation's kings and captains, though Poniatowski's statue by Thorwaldsen, one of his greatest works, has lost its place among them. The fashionable lounges are the *Jardin de Saxe*, in the interior of the city, and the *Ujazlov*, beyond the barriers, with its long and labyrinthine avenues branching off from a large central octagon, divided from each other by rows of lime and chestnut-trees. But Warsaw has long been a city of mourners and military; the former, the most inflexible of all patriots; the latter, the rudest of all soldiery. Gardens are deserted, theatres abandoned, public and private festivities suppressed. Every woman, until forbid by police order, dressed from head to foot in black; and a people gay by temperament, fond of show and pleasure, now totally refrain from such indulgences, intensely occupied with one subject, the fallen fortunes of their native land, from which lapse of time has failed to extract the bitterness, and the resurrection of which they believe to be possible. In Warsaw there are said to be more Jews at present than in any other city in Europe. Though excluded from all offices of honour, profit, and trust by the Russian government, they were exempt from military service on payment of a tax, down to the accession of the Emperor Nicholas, who made them subject to the regular conscription. Hence they are with the patriotic party to a man, and are Poles in everything but religion and physiognomy.

Three miles from the city, the Chateau of Willanow, with its finely-planted park, is a place of pilgrimage to native and foreigner. It was erected by the renowned King John Sobieski, and was his favourite residence, where most of his time was passed when away from the battle-field. To it he returned as the deliverer of Vienna from the Turks amid the shouts of his countrymen. Then,

'When his horse triumphant trod
The burghers richest robes upon,
The ancient words rose loud, "From God
A man was sent whose name was John."'

Within its walls he died, leaving an intriguing queen and unnatural children wrangling about his possessions; and the name of Sobieski has ceased to be inherited. Another celebrated place, five miles distant, is the field of *Volz*, the scene of the election of the Polish sovereigns. It was formerly surrounded by a ditch with three gates—one for Great Poland, a second for Little Poland, and a third for Lithuania. Here the nobles assembled, from 150,000 to 200,000 strong, to elect the sovereign from a list of candidates, and encamped in separate bodies under the banners of their respective palatinates. They did not vote individually, but by their palatines. The primate went round on horseback to collect their suffrages. Among the paintings by Canaletto, removed from Warsaw to Moscow, there is one beautifully executed which represents the election of Stanislaus Augustus in 1764. This mode of filling the vacant throne frequently divided the nobles into hostile bands, ready to use the sword in the cause of a favourite candidate, and it undoubtedly contributed not a little to the political extinction of the kingdom.



Fort of Kimburn.

VI. SOUTH RUSSIA.

This great natural division of the country consists of a series of steppes or plains, and embraces the greater part of the basins of the Dnieper and the Don, with that of the Kuban, and the interior of the Crimean peninsula. It is a portion of the vast similar tract stretching from the borders of Hungary into the heart of Asia, of which it has been said, though with obvious exaggeration, that a calf beginning to graze at the foot of the Carpathian Mountains might eat its way to the Wall of China, and arrive there a full-grown ox. The word *steppe* is of Russian origin, and strictly denotes a flat, open, and unwooded country, mantled with a rank, grassy, and herbaceous vegetation. This is the general character of the region, but it includes extensive swamps and marshes, with tracts of saline sand of the true desert description. Rubruquis, the Dutch traveller, who crossed the steppes in the fifteenth century, aptly describes them: *Nulla est sylva, nullus mons, nullus lapis*—‘Not a tree, not a hill, not a stone.’ ‘We journeyed,’ says he, ‘towards the east, with no other objects in view than earth and sky, and occasionally the sea upon our right, which is called the Sea of Tanais (Azov).’ Hundreds of miles may be passed on a soil remarkable for its richness and the luxuriance of its herbage, without a tree being encountered; although in a few favoured spots there are small copses known to the natives which shelter game, and are visited on that account. While almost perfectly flat through extensive spaces, the surface more generally gently undulates. Hollows, or slight rounded depressions, also occur, as if made by the stamp of a Titan on his passage across the plain. These places are of no small importance as natural troughs in which the rain collects. Though the water is speedily evaporated by the sun, and absorbed by the soil, they remain moist and verdant long after the adjoining lands are wholly parched; and are hence prized by the herdsmen. Tumuli, the *Khourgans* of the natives, are other diversities of the steppes, of an opposite character to the depressions. The tumuli are now

devoted to the practical purposes of life. Herdsmen, when they have to call together the horses and cattle under their charge, station themselves upon their summits to command a view of the surrounding plain.

In spring, when the grasses are rising, the steppes resemble an immeasurably verdant ocean of the freshest and brightest green. But this hue soon ceases to be uniform, and is almost entirely extinguished over extensive spaces, owing to flowering plants putting forth their floral glories, and waving to the wind their masses of varied colour. Thousands of acres may be seen covered with the purple larkspur, intermingled with patches of bright scarlet poppy and the pink-coloured wild peach-shrub. There are tulips, crocuses, pinks, hyacinths, and anemones innumerable, finely contrasting with each other; and there is mignonette in abundance, but without the odour which cultivation has given to it. While the vegetation is astonishingly luxuriant, it is not remarkable for variety. Botanists usually enumerate about 500 species of plants in these vast grazing-grounds, each species usually growing in large masses. The most common plant is the hair-grass, *Stipa capillata*, which often occupies more than half the surface. Next to it is the closely related feather-grass, *Stipa pennata*, called Schelkowi, or silk-weed, by the Russians, which generally covers a fourth of the land, and is frequently grown as an ornament in English gardens. Though these grasses are not esteemed with us as fodder for cattle and sheep, they form the principal food of the herds and flocks on the plains of Southern Russia. Thistles are also prominent, occasionally attaining the height of six or eight feet. Hence the relation may be credited of the Cossacks concealing themselves and their small horses in the thickets of the steppes. Wormwood rises to the height of six feet, and the cattle are compelled to feed upon it in specially dry summers, when milk and butter are rendered detestably bitter by the aliment.

Locusts are a terrible scourge to the vegetation, natural and cultivated, though fortunately their appearance in destructive swarms is only occasional. Years pass away without damage from them, owing to the limited number. Then for successive years a gradual increase is perceptible, till millions upon millions cover the ground, and darken the air when on the wing. The most common species, the *Gryllus devastator*, is also the most formidable, as the name implies, combining, according to a current saying, the bite of the horse, the greediness of the wolf, and unequalled powers of rapid digestion. In the beginning of May, when the eggs deposited in the ground the preceding autumn are hatched by the returning warmth of summer, the baby locusts crawl out of their holes, and immediately begin to feed. After remaining stationary a few days, they are compelled to migrate by the consumption of the grass. Not having wings, they creep slowly, or proceed by a series of leaps. They pause at night, and also in cold wet weather, but when on the march, no natural impediment or artificial obstruction arrests it. Though commonly proceeding in a straight line, they acquire a taste for the cultivated vegetation, and will move to the left or right to attack the plantations of a town or village. The Tartars endeavour to get rid of the enemy by beating the ground with branches of trees. Deep trenches are also dug, filled with lighted straw, to protect fields threatened with invasion; and at Odessa long iron rollers are dragged by horses over the invaded surface. But all the means resorted to are more plausible than effectual, as the living are not sensibly diminished by the numbers destroyed.

Dreary in the extreme is the appearance of the steppes in winter, when the snow is lord-paramount of the soil, and every trace of a road or trackway is obliterated, while storms of fearful violence occur. The Russians distinguish three classes of storms, and give them distinctive names. The mildest form, called the *Miatjel*, corresponds to the wildest weather to which we are accustomed, rain, sleet, or snow simply descending from the clouds. The second and severer kind of storm, the *Samet*, occurs more rarely, though the winter seldom passes without an example. It raises the snow from the ground with its whirl in vast masses, and drives it forward horizontally, filling up ravines, and sometimes burying men and cattle beneath the drift. Indoors, there is tolerable security from danger. Abroad, the traveller may protect himself by gaining the shelter of a forest; and a large number of men or beasts may withstand the blast in an open country by grouping together. But woe betide the solitary wayfarer with no shelter at hand. The driving shower of snow blinds him, and no horse will move though flogged and spurred to the utmost. But the third kind of storm, the *Wiuga*, far exceeds the second in violence, though still more rare, and always announcing its coming by unmistakable indications. When these have appeared, no one sets out upon a journey, not even to the next village, though only a verst or two distant, lest the dreaded hurricane should overtake him. Precautions are taken for the safety of the houses by protecting them on the north side with heavy stones, and propping them up on the south. Drovers of cattle, flocks of sheep, and troops of wild horses in the steppes gather in a compact circle to resist the gale, if no shelter is attainable. But entire groups have been driven before it with headlong speed, till blown over the edge of a precipice into a ravine, or swept from the cliffs into the Black Sea. There have been instances of men near the sea being surprised by the tempest, and forced into the water; while roofs, trees, stones, and other objects in its path are taken up from the earth like chaff from the thrashing-floor, and conveyed by the eddy air whole versts away. Government couriers are excused, if during the three days the *Wiuga* is abroad—its usual duration—they remain closely housed at the post stations.

Odessa, the head-quarters of the governor-general of Southern Russia, stands on the north-western shore of the Black Sea, at the distance of about 900 miles from Moscow, and 1200 from St Petersburg. It was founded on the site of an old Turkish fortress and a few fishermen's huts, by Catherine II. in 1792, and is now the third commercial port of the empire, while one of the most important in Europe for the export of

wheat. It has a population of 104,000. The capacious harbour, protected by two moles, has sufficient depth of water almost to the very shore for the largest men-of-war. The city is seen to great advantage from the sea. It occupies a high limestone cliff, along which runs a promenade. Then a long line of buildings occurs, with the Exchange at one extremity, and the princely palace built by the late Count Woronzow at the other. Some principal hotels are intermediate, all overlooking a broad expanse of intensely blue waters. From the centre of the promenade, a monster staircase descends the cliff to the beach, with a bronze statue at the top of the Duke de Richelieu, a French emigrant. He was made governor by the Emperor Alexander, and laid out most of the streets. Instead of amassing wealth, he devoted his income to public objects, and is said to have left the place, on relinquishing office, with a small portmanteau containing his uniform and two shirts. Such a Russian official deserved a monument. Odessa labours under great disadvantages as a place of residence, and would never have prospered but for its commercial position. The neighbouring country is of the tamest description, and can sustain no luxuriant timber, while owing to the friable texture of the limestone on which it is built, the dust forms an insufferable plague in dry weather, which rain converts into a sea of mud. *Nicolaief*, on the coast eastward, with 33,000 inhabitants, where the rivers Bug and Ingul blend in a common estuary, of equally modern origin, exhibits the outline of an immense naval port, not destined at present to be filled up, owing to the loss of the vocation for which it was designed, that of harbouring and recruiting the Russian Black Sea fleet. *Cherson*, near the mouth of the Dnieper, with 40,000 inhabitants, will ever have a name in history from its connection with Howard, the philanthropist, whose tomb is in the adjoining steppe. A small japanned hand-candlestick, much bruised, once his property, is now in the museum of Odessa. *Ekaterinostav*, on the Dnieper inland, founded by Catherine II., during her famous journey to the Crimea, has not prospered. Though planted upon a gigantic scale, as if intended to be the abode of a million of souls, it has only gathered a population of a few thousands in the space of threescore-years-and-ten. The palace provided at the spot for the imperial tourist was a splendid edifice, standing on a slope by the river, surrounded by an extensive park. The trees have grown up to be magnificent timber; the stream flows on with undiminished majesty and might; but the royal dwelling, spoiled by the peasantry for materials to erect or repair their cabins, is a heap of shapeless fragments—a ruin without the interest of history or the dignity of age.

Taganrog, on the north-east shore of the Sea of Azov, seated on a high cliff, is a thriving shipping port, subject to the disadvantage of shallow water, which compels vessels to lie off at a great distance to unload and receive their cargoes. It was founded by Peter the Great in 1706, whose sojourn at the spot is commemorated by an oak wood of his own planting, a suitable monument in a district naturally destitute of trees. At this place the Emperor Alexander ended his days, December 1, 1825, after a visit to the Crimea, during which he caught its intermittent fever. From hence to the decayed town of *Azov*, on the opposite shore, a shoal extends, or rather a continuation of shoals; and when violent east winds blow, the sea retires so remarkably, that the inhabitants are able to make the passage between the two points on foot, a distance of about fourteen miles. But the experiment is somewhat hazardous, as the wind shifts suddenly, and rapidly brings back the water. This singular kind of monsoon takes place almost every year after midsummer. The Sea of Azov is the *Palus Mæotis* of the classical geographers. It extends nearly 200 miles from north-east to south-west, by 100 miles in the opposite direction, but is more lacustrine than sea-like, as the water is everywhere shallow and comparatively fresh. It is supposed by the people on its shores to be filling up, and there seems to be no doubt of the fact. Pallas records in 1793 the launch of a large frigate where lighters now sail with difficulty. This is the consequence of the large amount of sediment brought down and deposited by the Don, which also renders the waters anything but blue and limpid. The great river gives its name to the Don Cossacks, who occupy the country around its mouth, which forms one of the governments, with *Novo-Teherkask* for the capital, at a short distance westward of the main stream. The town was founded in the year 1807 upon the recommendation of their celebrated ataman, Count Platow.

The SEA OF AZOV, with its arm, the Putrid Sea, washes the north-eastern side of the Crimea. At the commencement of the recent war with Russia, the latter name excited curiosity on the part of many who were led by passing events for the first time to pore over charts of the district. Ideas of the tragic or the horrible were suggested by it. But only very common-place features are indicated. The tract in question is one of shallows, lined with swamps and quagmires, scarcely passable by men or animals, which give off noxious exhalations in the heat of summer, and render the whole neighbourhood at that season highly insalubrious. Large beds of oysters jut out into it, and serve as a haunt for a quantity of moor-fowl. The ancients appreciated its true character when they called it an unwholesome marsh or lake, *Palus Putris*. These closely-landlocked basins communicate with the grand expanse of the Black Sea by the Strait of Kertch, the old Cimærian Bosphorus, at the eastern extremity of the Crimea. Both shores of this channel exhibit evidences of pseudo-volcanic action. Kertch has a mud volcano in its neighbourhood, but the most remarkable is on the opposite coast, at a short distance from Taman. The hill here in its ordinary state resembles a vast sore. Various apertures appear in a crater-like area, from which water is discharged, with dingy-looking mire and a fetid gas. But paroxysmal action has been sometimes displayed in a prodigious outpouring of mud, accompanied with grand columns of fire and smoke. One of these eruptions took place February 27, 1794, when the flames rose to the height of 300 feet, and the mud was thrown into the air. In a short time, according to the estimate of Pallas, who repaired to the spot, 100,000 cubic fathoms were ejected. The Cossacks distinguished the place by the name of Prekla, signifying 'Hell.' In 1799 an



Kertch.

island was thrown up in the Sea of Azov, which, after remaining visible some time, gradually subsided beneath the waves. Tremendous noises alarmed the inhabitants on the shore, and shocks of an earthquake were felt. It is not unlikely that in former ages igneous action might be far more intense or frequent in the district, and originate the fancy, common to all the ancients, that Cimmeric lay at the entrance to the subterranean kingdom of Hades.

The CRIMEA, formerly called Crim-Tartary, and in remoter times known by the designation of Taurica Chersonesus, is a peninsula on the northern shore of the Black Sea, projecting into it from the mainland of Southern Russia. This territory, now of celebrity in our annals, extends 130 miles from north to south by 170 from west to east; but the latter direction embraces a long narrow strip of country abutting eastward from the main mass. The area is estimated at 1050 square miles, which is equal to that of our own principality of Wales, with the addition to it of the English border counties. Travellers in the middle ages frequently styled the peninsula the island of Caffa, in allusion to its almost complete insulation, and the great commercial town of that name on the east coast. In fact, that it once was entirely detached from the continent, according to ancient opinion, is very probable from the character of the connecting neck of land. This is the Isthmus of Perekop, seventeen miles in length by five in breadth, and so low, that from the centre the seas on either hand are apparently above the level of the spectator, and seem only to require a slight impulse from the wind to unite their waters. Nature has distributed the surface into two very distinct regions. There is a highland range on the south coast, and a series of steppes lay to the north of it which comprehend by far the greater portion of the country. This highland range runs some seventy or eighty miles along the shore, and is from twelve to twenty miles broad. It culminates in the Tchadir-dagh, or Tent Mountain of the Tartars, the Table Mountain of the Greeks, and the Saddle Mountain of the Cossacks, upwards of 5000 feet above the sea. In the space between the crest of the main ridge and the beach, or the under-cliff, the climate is delightful, as it is open to the warm breezes of the south, while protected from the cold winds of the north. It has therefore been studded with chateaux and villas belonging to the great Russian nobles. Originally, a perfect chaos of rocky fragments, traversed by deep ravines, the stern and savage features have been toned down by art covering them with creepers; and the vegetation of a southern clime has been introduced, the almond, arbutus, olive, cypress, wild chestnut, and Judas-tree, which flourish with great luxuriance. The principal residence, Aloupka, called the Alhambra of the Crimea, was built by the late Count Woronzow, and is of rich greenstone in various styles. The Gothic and Saracenic predominate, and are somewhat typical of the site, on the confines of Europe and Asia, the west and the east, the land of the feudal baron and the oriental satrap.

No river occurs in the whole district worthy of the name throughout the year. The Salghir, the most considerable, descends from the northern slope of the mountains, enters the steppes, and creeps slowly

through them to the Putrid Sea. In nearly all parts of its course before reaching the plains, it may be passed dry-shod in summer, by simply stepping from one stone to another in its bed. The Alma, the scene of the victory of the Anglo-French in 1854, similarly changes its character with the season from a rapid stream to an insignificant rill. Among the members of the animal kingdom, the wolf, fox, stag, and roebuck are found in the wooded highlands. Hamsters, small burrowers, annoy the husbandman by making havoc with grain and vegetables. The harmless and graceful jerboas, 'earth-hares' of the Germans, feed upon the bulbous plants in the steppes, and divert the traveller by their frolics. Birds of prey are numerous, with birds of song and beauty, the nightingale and lark, the oriol, hoopoe, and brightly-coloured bee-eater. Reptiles include the tree-frog, so brightly green as to be scarcely distinguishable from the leaves of the trees it haunts, and peculiarly interesting from its habits and bird-like note. The creature is weather-wise, and is sometimes kept in large glass jars, half filled with water, to answer the purpose of a barometer. A little ladder being inserted, the frog ascends it to the upper half of the jar in fine weather, and indicates an approaching change by taking refuge in the water below. The scolopendra, or centipede, from six to eight inches long, and the tarantula spider, of huge size, are both common, and justly dreaded from the severe effects of their bite. The latter abounds in the vicinity of Sebastopol. Besides the usual domestic quadrupeds, Bactrian camels are employed for draught on the plains, and buffaloes in the mountain districts.



The Country round Sebastopol.

Sebastopol, lately the military capital, close to the south-west point of the peninsula, was founded in the year 1786, but received all its chief fortifications and public buildings during the reign of the Emperor Nicholas, while Woronzow was viceroy in the south. It is now rapidly rising from the heap of ruins to which it was reduced by the memorable siege of 1854-1855, but under treaty is not again to be made a formidable stronghold. In 1861, Alexander II., with the empress, paid a private visit to the place, and laid the foundation-stone of a new church. The noble harbour is a repetition of Malta on a larger scale, and of Sidney on a smaller. Previous to the appearance of the town, there were two humble hamlets on the shores, *Aktiar* on one of the creeks of the southern side, and *Inkermann* at the upper extremity. But the site was anciently occupied by Greek colonists from Heraclea, who founded a city, and gave it the name of the Heracleatic Chersonesus, in memory of their original home. It survived every storm down to a comparatively late period. Two strong towers were entire after the rise of Sebastopol, a little to the south. Vestiges of walls, gates, dwellings, and sepulchres, the shafts and capitals of columns, were also found strewn over the ground. The Tartars regarded them with wonder and reverence, but the Russians swept them away by using them up as building materials. A railway is also commencing which will connect Sebastopol with Moscow. It will be 963 miles in length, and is in the hands of English engineers. *Balaclava*, about eight miles to the south, with one of the most completely landlocked harbours that nature ever made, has likewise been a



Port of Balaklava.

long occupied site. The Genoese held it while they were lords of the shore; reared the fortress, the remains of which are on the heights; and originated the name, which is a corruption of *bella chiare*, 'beautiful port.' Very fancifully, Dubois de Montpereux fixed the wanderings of Ulysses in the Euxine; and regarded the harbour of Balaklava as the identical spot described in the tenth book of the *Odyssey*:

'Within a long recess a bay there lies,
Edged round with cliffs, high pointing to the skies;
The jutting shores that swell on either side,
Contract its mouth, and break the rushing tide.
Our eager sailors seize the fair retreat,
And bound within the port their crowded fleet;
For here, retired, the sinking billows sleep,
And smiling calmness silvered o'er the deep.
I only in the bay refused to moor,
And fixed, without, my hawsers to the shore.'

Excluding the theory from notice, a more exact description could scarcely be given of the harbour of Balaklava, about three-quarters of a mile long, from 300 to 400 yards wide, very deep, with lofty promontories at the mouth, which so closely approach each other that two large vessels can hardly pass in the intervening channel. *Kaffa*, on a convenient roadstead of the east coast, has gone to decay, but contains many memorials of former importance, when, as the capital of the Genoese colonies, it was popularly called Little Constantinople from its extent and prosperity. *Kertch*, on the strait leading into the Sea of Azov, with the distant summits of the Caucasus in view, is a small well-built town, entirely modern. It stands on the site of the ancient Panticapæum, founded by Greeks from Miletus, eventually the capital of Mithridates, and of the kingdom of the Bosphorus, from about 502 B. C. to 344 A. D. This district is mentioned by Demosthenes as the granary of Athens; and the buck-wheat of Kertch carried off the prize at the Great Exhibition in Hyde Park in 1851. The environs are of special interest. Huge cones of earth stud the surface, the tombs of the wealthy and gay of a long-departed generation, which have yielded gold ornaments and trinkets, gilt bronze vases, all of very fine workmanship. A hill fronting the sea has the name of Mount Mithridates, as the supposed site of his palace. The traveller may now have historical recollections revived at Kertch, not only by undoubted remains of antiquity, but by putting up at the *Bospheri Tractor*, the Bosphorus Hotel.

Simferopol, the civil capital of the peninsula, is inland, on the banks of the Salghir, in the hilly tract between the mountains and the plains, and has a population of 25,800. It has some handsome government buildings, with churches gay with pictures of saints in richly-gilt frames. But by far the most interesting place, a few miles distant, is *Bakchiserai*, the Palace of Gardens, the old metropolis of the khans of Crim-Tartary. The site is a Matlock-like valley, through which a small stream wends its way. The houses are on its banks and the

slopes of the hills on either side, interspersed with gardens, vineyards, and clumps of Lombardy poplars. The Serai, or palace, towards the centre, was restored as much as possible to its original condition by the Emperor Alexander.

VII. EAST RUSSIA.

This portion of the empire borders on the Ural Mountains, fringes part of the Caspian, and touches slightly upon the Black Sea and the Sea of Azov. It comprehends an extensive portion of the course of the Volga upward from its mouth, with a vast area of its basin, and stretches southward to the banks of the Kuban and the Terek, beyond which is Circassia and the other regions of the Caucasus. In its northerly extension the country has forests, pastures, and fertile cultivated soil. Corn is grown, cattle are bred, bees kept, woodland produce is abundantly obtained, and river fisheries are conducted. But the surface southerly consists chiefly of barren wastes, salt marshes, and lakes; and the aggregate population is altogether inconsiderable in comparison with the immense area. Bordering upon Asia, a large number of the people are much more Asiatic than European in features, dress, and habits. Mohammedanism is also the prevailing religious profession, while a species of Buddhism distinguishes some nomadic tribes. Nearly the whole of this part of Russia was included in the khanates of Kazan and Astrakhan, two of the divisions formed out of the old empire of the Mongols upon its dissolution. They remained independent till the middle of the sixteenth century, when they were reduced by the arms of the czar, Ivan the Terrible.

Kazan, containing 53,000 inhabitants, stands on an affluent of the Volga, at a short distance from the great river, about 200 miles eastward of Nijni-Novgorod, and 450 miles from Moscow. It has an oriental appearance, possesses numerous churches, nine mosques, and many educational establishments. There are various manufactures, and the city is an important dépôt for goods and produce passing to and from Siberia. *Perm*, comparatively small, towards the Urals, has metals extensively wrought in its neighbourhood, iron, copper, and platina. *Orenburg*, on the river Ural, close to the border of Asia, is the thoroughfare of the trade between Russia and Bokhara. *Saratov*, the largest town, seated on the right bank of the Volga, contains a population of 63,800. *Astrakhan*, with 44,700, occupies an island formed by the river at its mouth. Across the Caspian, costly embroidered goods, raw silk, drugs, rhubarb, and other articles are received from Persia, while leather, woollens, salted fish, caviar, and isinglass are exported. The town has a mean appearance, most of the houses being of wood, and the fish-curing, of which it is the great seat, renders it additionally unattractive. But the place is somewhat remarkable for the number and diversity of its religious buildings. These include thirty-seven Greek, two Roman Catholic, one Protestant, and two Arminian churches, with fifteen Mohammedan structures, and an Indian temple. *Stavropol*, a small fortified town in the direction of the Caucasus, is the head of the government of that name, about midway between the Caspian and the Black Sea. Nearer to the grand chain, with military appointments and Cossack garrisons, are *Ekaterinodar*, 'Catherine's Gift,' *Ekaterinograd*, and *Kizliar*, on the lines of the Kuban and Terek.

CIRCASSIA extends along the slope of the mountains from the Black Sea to about the meridian of 42 degrees, and, being on the northern side of the chain, is a border country of Europe. The people have no towns, but are distributed in villages seated high up the ravines, consisting of rudely-built cabins, and are physically among the finest specimens of the human race. Apart from their bravery and love of freedom, they have no claim to respect, having been accustomed to subsist in part by brigandage, and also by the sale of their female children to those who supply the slave-markets of Constantinople and other cities of the East. After a long struggle for independence, they have quitted their homes by thousands for the Turkish dominions. South of the Terek, on the side of the Caspian, extending thence to the Caucasus, is DAGHESTAN, another border European district, which has long been Russianised, and formed into a government. *Derbend*, a town and port, at its head, with about 12,000 inhabitants, occupies an important military position, at the entrance of a defile between the mountains and the shore, called by the ancients the 'Albanian Gates.'

European Russia contains a population of upwards of 65,000,000, a large aggregate, but a very small proportion to the vast area of the country, and irregularly distributed. Thus the northern province of Archangel, equal in extent to the whole of Great Britain and France, has a much smaller number of inhabitants than the borough of Liverpool, not amounting to one individual to the square mile. No European state contains such a variety of races, but they are mainly referrible to four principal stocks—the Slavonic, the Finnish, the Teutonic, and the Turkish. But in a general view of the population, the

three latter may be overlooked as of very inferior numerical importance, and attention fixed upon the Russians proper, the great branch of the Slavonic family, who alone number nearly 50,000,000. Though generally diffused, they are specially prominent in the central provinces, and speak a language subject to few dialectical variations considering the wide area over which it is spread, but one of extremely difficult attainment to the foreigner. It embraces thirty-six characters in its alphabet, some of which are Greek, with others peculiar to itself, and is the vehicle of only a very meagre literature. Modern Russian writers use the German or French languages, which are commonly understood by the reading classes of society, and thereby secure for themselves a hearing at home and abroad. Nobles, many of whom are in the possession of immense estates, held by hereditary right, but with no political privileges annexed, form a large body. Clergy of the dominant church compose an enormous proportion in comparison with the number in other states, and enjoy some special immunities, being exempt from taxation and corporal punishment. They are in general very ignorant, and often too much addicted, along with their flocks, to strong potations of corn-brandy. Citizens of the middle and lower classes, chiefly engaged in trade, with government officials and military, constitute a considerable section of the population. But the great bulk of the people are in the rural districts as agriculturists, the majority of whom were, till recent times, farm-labourers attached to the soil, and might be bought, sold, or exchanged with it, while completely under the dominion of the 'stick.' These serfs, after acquiring some legal protection from tyrannical masters, were emancipated by an imperial edict in 1861, subject to gradations of liberation. This grand social change is full of promise for the future. It must inevitably tend to reduce the prestige of the nobles; but unfortunately, so degraded is the mental and moral condition of the Russian peasant, while so few are the improving influences which can possibly gain access to him, that, under the most favourable circumstances, the hope of any speedy social and political advance cannot be indulged.

Religious forms are prominent in the everyday phases of Russian life, and whatever opinion may be formed of their character and influence, the sincerity of the observers of them in general admits of no dispute. The dominant and established faith is that of the Greek Church, of which the sovereign is the head. In the architecture of the sacred edifices, the Byzantine style, with its single or clustered domes, is more or less conspicuous. The interiors of those in the cities and great towns are splendidly ornamented, and the services are conducted with great pomp. But display is much more obvious than taste in the adornments, and after the novelty is over, the ceremonies are wearisome to the stranger, from the incessant crossings, bowings, and genuflexions, and the non-provision of seats. Each church has its inner sanctuary, shut off from the rest of the building by a screen, forming a kind of holy of holies, reserved for the use of the priests. It is subject to the singular regulation, that though laymen may enter, no woman, not even the empress, must intrude. Pictures of the Virgin and popular saints are suspended on the walls, to which the people pay great veneration, bowing to them, and lighting tapers before them, which are always on sale at the spot for the purpose. They are also hung up and similarly honoured in the thoroughfares, the shops, public offices, and dwellings. Easter is the grand festival, a carnival season. At a late hour on the eve of the Sunday, the streets are thronged with people proceeding to the different places of worship, where a kind of dramatic representation of the resurrection is the principal feature of the service. The buildings are only illuminated at one point, where the priests are stationed in full canonicals, while the congregations have unlighted tapers in their hand. After chanting litanies and repeating prayers, the officials retire into the inner sanctuary, and are supposed to be seeking the body of Christ. At the midnight

hour the screen is thrown open, and the announcement is made, *Christoss voskress!*—‘Christ is risen!’ Tapers are then rapidly lighted, bells ring, cannon thunder, and congratulations are afterwards general in the streets: Acquaintances meet with the greeting, ‘Christ is risen,’ and with the response, *Vo-istino voskress!*—‘He is risen indeed!’ Another rite observed with great state, the blessing of the waters, takes place in the depth of winter, on the day of the Epiphany, and is attended at St Petersburg by the emperor and the whole court. Over an opening made in the ice of the Neva, a stately canopy is erected, to which the archbishop and clergy proceed, followed by the secular dignitaries, while thousands of spectators are congregated on the frozen surface of the river. The act of blessing consists in the prelate taking the cross and plunging it into the water. The populace regard this ceremony with excessive superstition. Upon the retirement of the imperial cortege, they rush with eager haste to the opening, anxious to touch the consecrated stream, and fill pitchers from it to carry home. Even infants have been sent with their nurses to be plunged, under the idea that if the immersion is endured they will be fortified to bear all the perils of life. The last occasion on which Peter the Great appeared in public was at this celebration. He had been previously indisposed, and exposure to the severe weather of the season in a few days brought on his death. At Moscow, the waters blessed are those of the Moskva; at Simferopol, the consecrated stream is the Salghir.

There are Russians, properly so called, who do not belong to the church of the empire, and have been subject to most oppressive treatment. They were once numerous through the whole country from the shores of the White Sea to the southern provinces, but have vastly diminished, toleration having subdued the sectarian obstinacy which persecution seldom fails to strengthen. These parties are known by the general name of Raskolniks, a term which is exactly equivalent in its meaning to that of Dissenters in England. But their original dissidence from the establishment was the result of absurd ignorance and prejudice. They arose soon after the middle of the seventeenth century, when the Slavonic Scriptures and the liturgical books of the church, having become exceedingly corrupt in the process of transcription, were revised by an ecclesiastical council, and the purified texts were ordered to be alone used in the churches. This measure, wholesome in itself, met with opposition. Thousands, both of the clergy and laity, revered the antiquated copies, however corrupt, simply because they were ancient; and preferred separation to conformity. Hence arose the Raskolniks, an imposed and not an adopted title, as the seceders style themselves by terms signifying adherents to the ‘old faith,’ or the ‘old rite.’ They now number only 759,000. The Roman Catholics, who are chiefly Poles, are returned at 2,800,000; the Mohammedans or Turkish tribes in the south and east, at 2,320,000; the Protestants, principally Lutherans in Finland and the Baltic provinces, at 1,900,000; the Jews at 1,400,000; and the Greek Church includes the vast remainder. Though toleration is conceded, proselytism is dangerous. No member of the national communion can openly leave it for another fold without hazard of banishment to Siberia, while the government has long steadily aimed at securing as large an incorporation of subjects as possible within its pale. The object of this policy is obvious, as the hierarchy and priesthood maintain their temporal head to be a kind of vicegerent of the Deity, whose decisions are not to be disputed. In the ecclesiastical constitution of the empire, he has all the authority and prestige of the pope in the Roman Catholic communion, with the addition of wearing a military costume, and having more than half a million of soldiers at his command. ‘I believe in God in heaven, and in the Czar on earth,’ is part of the orthodox confession of faith. Hence as the power of the crown is strengthened in proportion as the personal ecclesiastical supremacy of its wearer is

admitted, the imperial government has pursued with no little zeal and unscrupulousness the work of proselytism to the national establishment. Upon the issue of an edict directing the conversion of the Samoiedes from heathenism, some of them were speedily brought by missionary priests under a guard of Cossacks as candidates for the waters of baptism.

The emperor is the only source of law recognised in the form of government. His authority is exercised by means of boards of administration which take cognizance of legislation, war, finance, and religion. His official style of *Samoderjetz* or autocrat, signifies that he governs simply by his own will. The title of Czar is an altered form of Caesar, adopted from the Roman emperors. It was first used by Ivan III., who married a princess of the imperial Byzantine line in 1472, and also introduced the double-headed black eagle of Byzantium as the national symbol. Her issue reigned till the year 1598, when the House of Rurik, the founder of the empire, became extinct. After a term of dreadful turmoil under an usurper, a Romanoff was raised to the throne, from whom the present dynasty descends.

THE SPITZBERGEN ARCHIPELAGO.

Spitzbergen, an extensive island, upwards of 200 miles from north to south, and three considerable isles adjoining, Edge's, Prince Charles's Foreland, and North-east Land, with many of smaller size, and a multitude of rocks, form an archipelago in the Arctic Ocean, between the parallels of 77° and 81° , and the meridians of 10° and 24° east of Greenwich. Its position will be better understood by the statement, that it deviates a little to the west from being due north of the North Cape of Europe; and the most southerly point is at the distance of more than 400 miles from that promontory. The cluster contains the most northerly known land of the globe, with the exception of the coasts recently explored by Captain Inglefield in Sir Thomas Smith's Sound, an inlet running up from the head of Baffin's Bay. Throughout the long winter, it is completely environed by the polar ice, in a compact field, which extends for miles to the southward, cutting off all communication with the external world; nor is there always an open sea in summer, so as to admit of the land being reached, though this is generally the case. On approaching the coast of this outlying region, the eye is arrested by a forest of peaks—the sharply-defined snow-capped tops of mountains—which rise to the height of from 3000 to 4000 feet, exhibit brown, lilac, and purple tints, as seen from a distance, giving them an unsubstantial appearance, as if the spires of fairyland. Hence the name, Spitzbergen, 'the peaked mountains.'

On further acquaintance with the scenery, its general desolation powerfully impresses the mind, though both animal and vegetable life have representatives on the shores. 'How shall I give you an idea,' remarks Lord Dufferin, on landing, past midnight, the 6th of August 1856, 'of the wonderful panorama in the midst of which we found ourselves? I think, perhaps, its most striking feature was the stillness—and deadness—and impassability of this new world: ice, and rock, and water surrounded us; not a sound of any kind interrupted the silence; the sea did not break upon the shore; no bird or any living thing was visible; the midnight sun—by this time muffled in a transparent mist—shed an awful, mysterious lustre on glacier and mountain; no atom of vegetation gave token of the earth's vitality; an universal numbness and dumbness seemed to pervade the solitude. I suppose in scarcely any other part of the world is this appearance of deadness so strikingly exhibited. On the stillest summer day in England there is always perceptible an under-tone of life thrilling through the atmosphere; and though no breeze should stir a single leaf, yet—in default of motion—there is always a sense of growth; but here

not so much as a blade of grass was to be seen on the sides of the bald excoriated hills. Primeval rocks—and eternal ice—constitute the landscape.' Upon closer examination, a scanty flora is observed near the level of the sea, but vegetation ceases at a very considerable elevation above it. It consists of moss and lichens, sixty-three species of flowering plants, and the dwarf willow creeping a few inches above the ground. The animals are reindeer, the Arctic fox, white hare, polar bear, the walrus, seal, and sea-fowl of many varieties.

Rivers of ice, or glaciers, occupy the valleys between the mountains, several of which, according to a careful estimate made by Dr Scoresby, were forty or fifty miles in length, by ten or twelve in breadth. They terminate seaward in crystal cliffs from 400 to 500 feet high. In the height of summer, the loftiest summits lose their winter covering of snow, owing perhaps to the accumulation of heat consequent on the sun being above the horizon for three or four months together, and their own elevation above the region of fogs and mists. Nothing is more remarkable than the contour of the mountain-tops, literally jagged spikes of stone, or steep narrow ridges on which a man might seat himself as if on the back of a horse. This feat was actually performed by Scoresby, who was rewarded with the view of a striking panorama. The ascent is toilsome and dangerous from the looseness of the surface, often schistose strata, which the frost has fractured and crumbled. No true volcanic rocks are known. Coal occurs, and is so readily procured that the Dutch whalers were formerly in the habit of laying in a stock for the homeward passage. On one occasion some walrus-fishers took as many as fifty tons to Hammerfest in Norway. Dolomite marble is found agreeing in colour, grain, and other characters, with the statuary marble of Italy. The precious garnet is not uncommon, and is therefore of all the gems the one which has the widest geographical range, extending in the northern hemisphere from the equator to within a few degrees of the pole. Among well-known localities on the west and north coasts, there are English Bay, a secure roadstead between Prince Charles's Foreland and the mainland; Mitre Cape, a singular cliff which Scoresby clambered up; Hakluyt's Headland, the north-west point; Cloven Cliff, named from its resemblance to a cloven hoof, so perpendicular that it is never covered with snow; Moffen Island, where Nelson had an adventure in his youth; and Hecla Cove, whence Parry started on his attempt to reach the pole.

Great interest belongs to the history of Spitzbergen. In 1633 the Dutch contemplated a permanent settlement there, and seven sailors volunteered to stay the winter. On the 30th of August, they were left in North Bay; and at once began to visit the neighbouring shores, looking out for fresh provisions. On the 27th of May next year, a boat was seen, to the great joy of the sojourners, which soon conveyed them to their countrymen in a neighbouring bay. It is evident that they were indebted for their preservation from scurvy, and endurance of the severity of the climate, to their prudence in securing the vegetable antiscorbutics, subsisting as much as possible on fresh provisions, and leading an active life.

Encouraged by this successful experiment, seven other seamen offered to renew it in the ensuing season, and were left apparently furnished with every facility to go through the dreary interval with the like result. But they had not the intelligence and energy of their predecessors. Disappointed in early attempts to procure fresh victuals, they shut themselves up in their hut, when the sun left them on the 20th of October, and scarcely ever stirred out of it. Attacked by scurvy, it soon assumed a malignant form, in the absence of fresh meat, vegetables, and requisite exercise, till three died, whose bodies were with difficulty enclosed in coffins by the others. Some relief was found by the survivors in killing a fox and a dog for food, but not enough to arrest the progress of the malady.

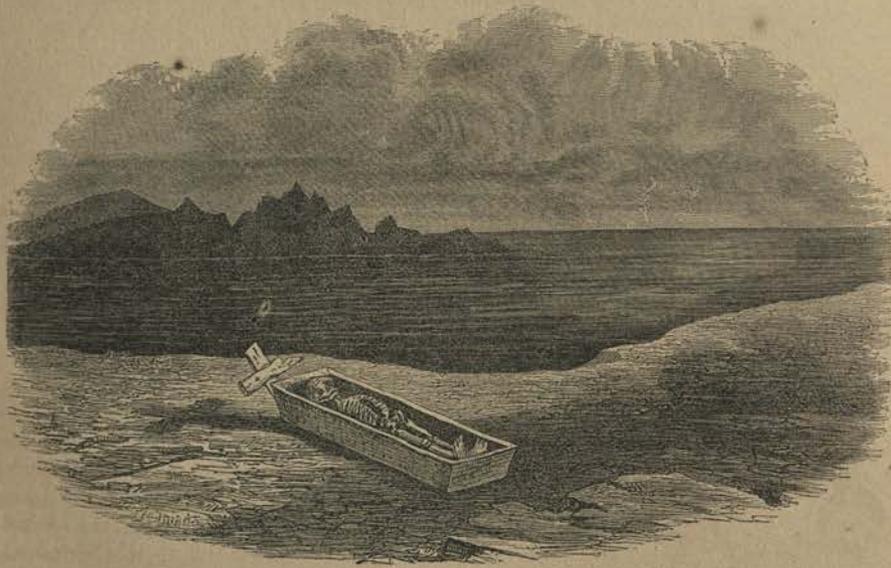
Their mouths became ulcerated; they could not chew their biscuit; and only one had power to rise from his bed, and kindle a fire. This was their miserable condition when the sun reappeared on the 24th of February. Their journal closes with the record: 'We are all four stretched on our beds, and are still alive, and would eat willingly, if any one of us were able to rise and light a fire. We implore the Almighty, with folded hands, to deliver us from this life, which it is impossible to prolong without food or anything to warm our frozen limbs. None of us can help the other; each must support his own misery.' In the early spring the fishing-vessels arrived, and a party repaired to the hut. They found it a sepulchre. Three of the men were enclosed in the coffins which had been framed for them; the other four lay dead, two in their beds, and two on a piece of sail spread upon the floor. These last had perished from sheer inability to make the effort necessary for reaching and dressing their food, and the gripe of the frost had brought knees and chin together, so that they lay rolled up like a ball.

More than a century elapsed before another instance of wintering at the spot is on record. This was a most extraordinary adventure, wholly inadvertent. In 1743 a Russian vessel from Archangel visited the shore, and four seamen landed, soon to find themselves imprisoned, for a violent tempest arose, which drove the ship out of sight, and it was never heard of afterwards. Thus abandoned, without the slightest preparation for a stay, the unfortunate men did not despair. They had a gun, with which twelve deer were killed, before their small stock of powder was expended. Then finding some pieces of iron on the beach, they contrived to fashion them into pikes. With these weapons, just as their store of flesh was beginning to be exhausted, they attacked a polar bear, and despatched him after a formidable struggle. The animal supplied food, his skin clothing, and the entrails, duly prepared, furnished the string for a bow, with which they could once more assail the reindeer. By the activity which the necessities of their position imposed, and subsisting on fresh meat, these hardy men preserved their health, and endured the hardships of a wearisome sojourn through the extraordinary period of *six years*, looking often but in vain for deliverance. During that time they killed 10 bears, 250 reindeer, and a multitude of foxes. At last one of them died, and the three survivors, regarding his fate as significant of their own, were sinking into despondency, when, on the 15th of August 1749, a vessel was descried. They lighted fires on the heights, hoisted a flag made of skins, and were discovered by the ship, which proved to belong to their own countrymen. Since that period Russian hunters have repeatedly wintered in huts on the coast, taking care to provide themselves with fresh provisions, and collecting those plants from under the snow which act as antidotes to scurvy, often making their way out by the chimney, when the snow-drift has blocked up the door. But it is not uncommon for human skeletons to be found, scantily sepulchred, or not at all, either struck down by ordinary disease, or accident, or unable to endure the climate.

The archipelago, so dreary and so isolated, was brought within the range of yachting by Lord Dufferin, in the *Foam*, in August 1856, who, in the course of a ramble on shore, unexpectedly stumbled upon a human relic. 'Half imbedded in the black moss, there lay a gray deal coffin, falling almost to pieces with age; the lid was gone—blown off probably by the wind—and within were stretched the bleaching bones of a human skeleton. A rude cross at the head of the grave still stood partially upright, and a half-obliterated Dutch inscription preserved a record of the dead man's name and age: "Vander Schelling Comman Jacob Moor Ob 2 June 1758 Æt 44." It was evidently some poor whaler of the last century to whom his companions had given the only burial possible in this frost-hardened earth, which even the summer sun has no

force to penetrate beyond a couple of inches, and which will not afford to man the shallowest grave. A bleak resting-place for that hundred years, I thought, as I gazed on the dead mariner's remains! It was no brother-mortal that lay at our feet—softly folded in the embraces of “Mother-Earth”—but a poor scarecrow, gibbeted for ages on this bare rock, like a dead Prometheus; the vulture, frost, gnawing for ever on his bleaching relics, and yet eternally preserving them!’

A Swedish scientific expedition under Mr Torell visited Spitzbergen in the year 1861, when many positions were astronomically determined for the correction of maps, while new harbours were discovered, and numerous zoological, botanical, and geological specimens were brought away. It was ascertained beyond doubt that the Gulf Stream impinges upon the coast—its utmost limit in a northerly direction. Not only was the seed of *Mimosa scandens* discovered there, but also quantities of glass bottles, which the inhabitants of the Norwegian shores use as floats for nets in their cod-fisheries. The pumice-stone found in abundance upon the strand, in all probability, is drifted thither by this stream from Iceland, as a branch of it sweeps the southern coast of that island, while the drift-timber common to both Iceland and Spitzbergen is conveyed by an opposite current from the northern shores of Asia, to which it is carried from the interior by the Siberian rivers. Birch bark was met with, rolled together in a peculiar form, evidently manufactured by man, which the fishermen of Siberia use as net-floats. Upon examining a white bear that was shot, the stomach was found full of plants, thus proving that these animals can be herbivorous. A curious fact was ascertained relative to the walrus, that among other uses the tusks are employed to dig up food from the bottom of the sea, as the stomach of one contained a quantity of the *Myn truncata*, a species of sand-mussel. It lies buried at least one foot below the surface of the mud, and could only have been reached by the walrus using his tusks like a dung-fork. Deep-sea soundings yielded interesting results. Several species of living mollusca and crustacea were brought up from the depth of 1300 fathoms. The nominal sovereignty of the Spitzbergen group is claimed by Russia.



Sea-shore, Spitzbergen, after Lord Dufferin's Sketch.



The Gausriankar Peak, Himalaya range.

PART II.

DESCRIPTIVE GEOGRAPHY OF ASIA.

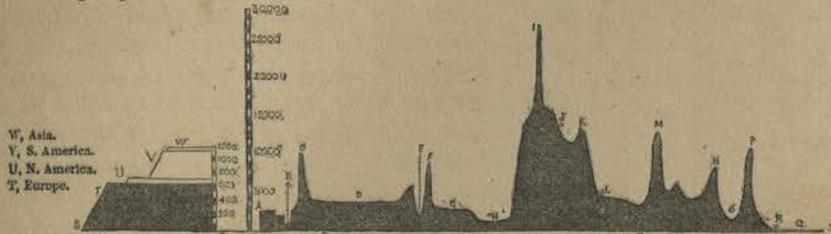
INTRODUCTORY CHAPTER.—GENERAL VIEW OF ASIA.



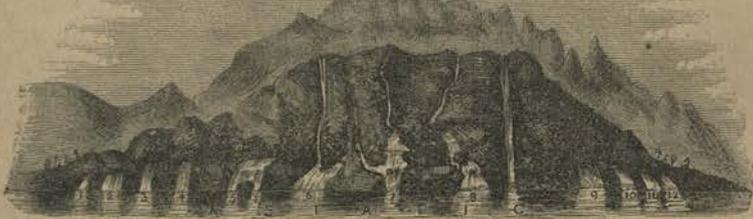
ASIA, the largest of the great land divisions of the globe, and the most populous, takes the lead also in diversity of surface, variety of organic forms, and historical antiquity. It is nearly five times the size of Europe, considerably exceeds that of Africa and Europe taken together, and surpasses the joint masses of North and South America. Within its limits are found more than half of the whole population of the earth, yet so little proportion is there between this vast number of inhabitants and the magnitude of their dwelling-place, that Europe is three times more densely peopled. The immense region contains the loftiest elevations and the deepest depressions of the terrestrial surface, with the most varied and highly-developed forms of animal and vegetable life;

while from its plains, valleys, and hills have been distributed to other parts of the world the most valuable of the domesticated quadrupeds, the choicest fruits, and those food-plants which are most important to the daily sustenance of mankind.

The mainland of Asia is situated entirely in the northern hemisphere, but it makes a very close approach to the equator, within a hundred miles, and the insular appendages advance southward of the line. In the opposite direction it passes far into the depths of the north polar zone. While conterminous with Europe, and attached to Africa by the slender Isthmus of Suez, its eastern extremity is only separated from America by the narrow channel of Behring Strait. The other boundaries are the Caspian and Black Seas, the Archipelago, Mediterranean, and Red Sea, on the west; the Indian Ocean on the



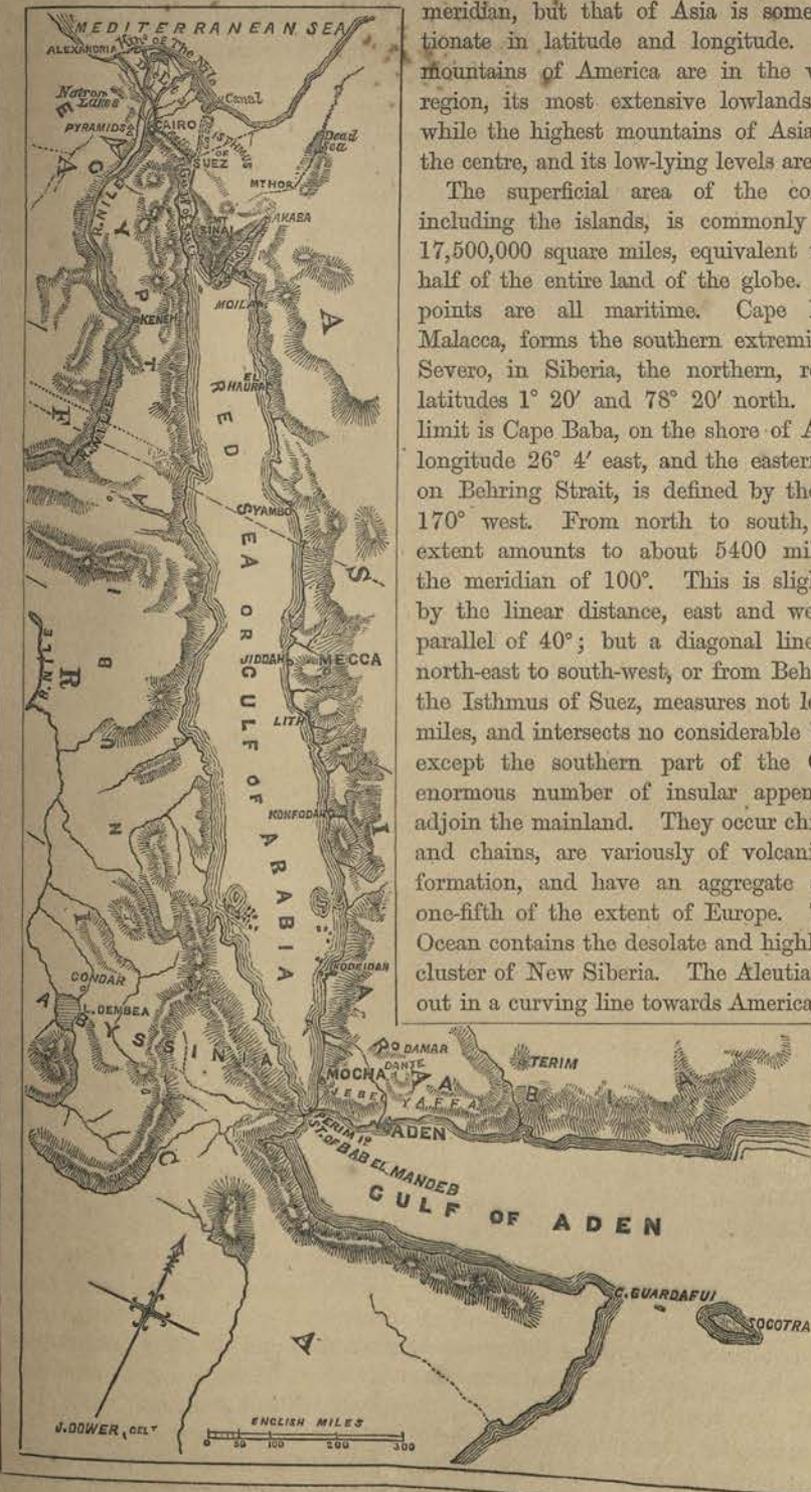
Section of Asia on the Meridian of Comorin.
A, Cape Comorin; B, Chirs Gap; C, Nilgheries, 9971; D, Tableland of the Deccan, 2200; E, Valley of Nerbudda; F, Vindhya Chain; G, Table-land of Malra, 1800; H, Plains of India, 1000; I, Himalayas, 23,000; J, Ladak, 12,700; K, Koon-Loo; L, Khatun; M, Tan-Shan Mountains; N, Tarragata, 7410; O, Salsan Lake, 850; P, Altai Mountains, 11,000; Q, Plains of Siberia; R, Barnaul, 394; S, Sea-level.



Waterfalls, 1, 2, 3, 4, 5, of Bondelkund; 6, of the Himalaya Ghauts; 7, of the Jumna; 8, of the Ganges; 9, of the Gutsupah; 10, 11, 12, of the Godavery.

south; the Pacific on the east; and the Arctic on the north. These ocean-basins advance to some extent inland, forming minor seas, fringed and dotted with numerous islands. The most important are the Arabian Sea and Bay of Bengal, southern; the China, Yellow, and Japanese Seas, with that of Okhotsk, eastern, each of which has its subordinate gulfs. On the northern side the indentations are numerous, but upon an inferior scale, and have more the character of river estuaries than oceanic inlets.

Generally speaking, Asia is distinguished by great compactness. It has therefore a smaller extent of coast-line in proportion to its magnitude, though reckoned at 35,000 miles, with fewer maritime advantages than the other continents, Africa alone excepted. The main mass forms a trapezium, from which there are huge projections. Those on the southern side remarkably correspond to the projections of Southern Europe. Thus, peninsular Arabia, on the west, is the gigantic counterpart of the Western Spanish peninsula; India, with the adjoining island of Ceylon, central, has a family-likeness, but with broader features, to Italy and the insular Sicilian dependency, similarly placed; and India beyond the Ganges, with its multitudinous islands, eastern, may be taken for a magnified representation of the eastward Turko-Hellenic tract and the bordering Greek archipelago. But there are striking differences between Asia and the other great masses of land, both as it respects horizontal and vertical configuration. Europe may be compared to a body with very prominent limbs; Africa, to a body without members; while Asia has arms of enormous magnitude, with a body preponderating conspicuously in its dimensions. Glancing at America, its extension is principally in the direction of the



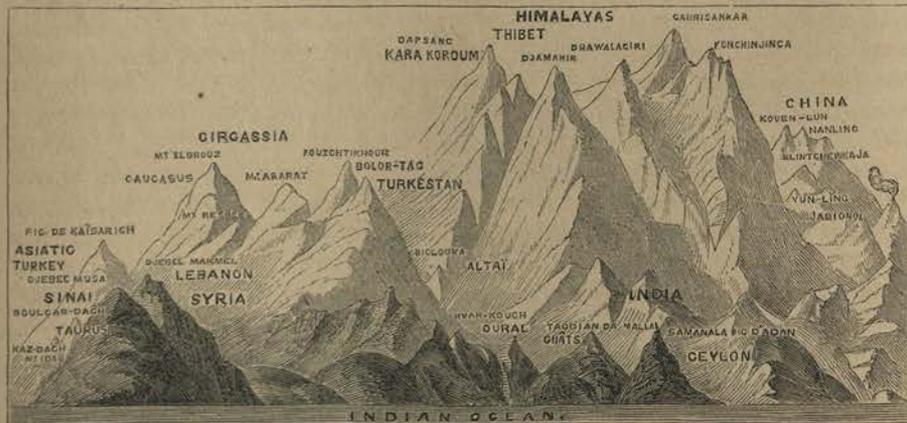
meridian, but that of Asia is somewhat proportionate in latitude and longitude. The highest mountains of America are in the western coast region, its most extensive lowlands are central, while the highest mountains of Asia are towards the centre, and its low-lying levels are maritime.

The superficial area of the continent, not including the islands, is commonly reckoned at 17,500,000 square miles, equivalent to nearly one half of the entire land of the globe. Its extreme points are all maritime. Cape Romania, in Malacca, forms the southern extremity, and Cape Severo, in Siberia, the northern, respectively in latitudes $1^{\circ} 20'$ and $78^{\circ} 20'$ north. The western limit is Cape Baba, on the shore of Asia Minor, in longitude $26^{\circ} 4'$ east, and the eastern, a headland on Behring Strait, is defined by the meridian of 170° west. From north to south, the greatest extent amounts to about 5400 miles, following the meridian of 100° . This is slightly exceeded by the linear distance, east and west, along the parallel of 40° ; but a diagonal line drawn from north-east to south-west, or from Behring Strait to the Isthmus of Suez, measures not less than 6700 miles, and intersects no considerable body of water except the southern part of the Caspian. An enormous number of insular appendages closely adjoin the mainland. They occur chiefly in groups and chains, are variously of volcanic or coralline formation, and have an aggregate area equal to one-fifth of the extent of Europe. The Northern Ocean contains the desolate and highly fossiliferous cluster of New Siberia. The Aleutians, stretching out in a curving line towards America, the long and

narrow tract of Sagalien, of the Kurile and of the Japanese series, Formosa and Hainan, are off the eastern coast. Off the southern shores of the continent lies Ceylon, with

the Andaman and Nicobar, the Maldivé and Laccadive groups. Westward, in the Mediterranean, are Cyprus, Rhodes, and other dependencies of the Lesser Asia. But the grand insular examples are on the south-east, where the large masses of Sumatra, Java, Borneo, Celebes, the Philippines, and a world of contiguous isles, compose the East Indian or Malayan Archipelago. This splendid region—the ‘gardens of the sun’ in eastern speech—divides the basin of the Indian from that of the Pacific Ocean, leads by a series of huge stepping-stones to within hail of Australian lands, and forms part of a separate division of the globe under the name of Oceania.

The interior of Asia embraces lowlands, plateaus, chains and groups of mountains, developed upon a scale in harmony with its colossal proportions. Six great lowlands are prominent in the vertical configuration of the surface—namely, the Siberian, by far the largest; the Chinese; the Indo-Chinese; the North Indian; the Syrian, comprehending the historically-renowned basin of the Euphrates; and the plain of Turkestan, part of which is an area of actual depression, being below the level of the sea. These low-lying levels are of vast extent, and vary in their character, from dreary and desolate wastes, true sandy or gravelly deserts, nearly rainless and waterless, to districts of the richest soil, clothed with continually exuberant vegetation, which are visited periodically with copious showers, and irrigated by rivers of ample volume. Great extremes of temperature occur in these regions, some districts being subject to a burning heat for the greater part of the year, while others are carpeted with deep snow for as long an interval, and the subsoil constantly remains so firmly frozen, that, in order to excavate a grave of any depth, fire is commonly employed to thaw it, even in the midst of summer. Densely-crowded cities and large village populations occupy the plains of China and Bengal, but the signs of human life are few and far between on those of Siberia and Turkestan. Two principal highland systems are likewise distinguished in the continental interior. The one is south-western, sometimes called the Tauro-Caucasian; the other is central, generally styled High Asia, on account of its stupendous elevations, with which extensive ranges of subordinate mountains and intervening high grounds, on the east and north-east, are connected.



Mountains of Asia.

The south-western highland system includes the table-lands of Iran or Persia, Armenia, and Asia Minor, which range in altitude above the sea from 3000 to 7000 feet—the Armenian being the loftiest. It forms a grand platform for the volcanic cone of Ararat, which attains a total height of 17,323 feet, and is the colossal boundary-stone of three

great empires, standing at the convergence of the Russian, Persian, and Turkish dominions. This generally highly-elevated region is a kind of mountain nucleus, with which several chains are more or less directly connected, while some immediately radiate from it. They include the Zagros Mountains, in Kurdistan, running parallel to the Tigris, as the eastward boundary of its basin; the range of Taurus, extending into Asia Minor in several branches, and sending off Lebanon as a southerly prolongation into Syria and Palestine; the bolder Caspian Mountains which skirt the southern shores of that sea; and the still more majestic Caucasus, intersecting diagonally the isthmus between it and the Black Sea, the ridge-line of which is part of the boundary between Asia and Europe. Near the centre of the last-named grand chain is Mount Elburz, crowned with snow and clad with glaciers, untrodden by the foot of man, which attains the height of 18,493 feet, and may be regarded, from its position on the frontier, as at once the culminating-point of Europe and of Western Asia. The table-lands of this region differ widely in their character. Those of Persia are sternly desolate, consisting of sandy and salt deserts, with the blast of utter barrenness upon them, while those of Asia Minor, though treeless, afford fine pasturage, and are the summer camping-grounds of nomadic tribes. Several of the mountain-passes present fine scenery, and were celebrated in ancient times as the routes of armies, as well as the thoroughfares of commerce. Alexander the Great, in his wild eastern campaigns, crossed the Taurus by the *Pylæ Ciliciae*, or Cilician Gates, a defile which connected the old provinces of Cappadocia and Cilicia, now called the Pass of Gölek Bógház. He proceeded from Asia Minor into Syria by the *Pylæ Syriae*, now the Pass of Beilan, in the range of Amanus, close to which Darius was overthrown on the battle-field of Issus. In pursuit of the fugitive monarch, he threaded the *Pylæ Caspiae*, a rent in the high mountain-wall south of the Caspian, in the neighbourhood of the modern Persian capital. In a central part of the Caucasus, the present Pass of Dariel, converted into a military-road by the Russians, represents the *Portæ Caucasiae*, or Caucasian Gates of the Romans. Their *Portæ Albanice*, at the eastern extremity of the range, between it and the Caspian, is now called the Pass of Derbend.

The central highland system is an immense region of table-lands and mountains, occupying an area much larger than the whole of Europe, and containing the most elevated points of the terrestrial surface. It forms the core of the continent, and exerts a natural influence which is felt at the opposite extremities. The parallels of 28° and 53°, and the meridians of 73° and 120°, generally define the extreme limits, equal to a linear distance of 1730 miles from north to south by 2400 miles from east to west. This remarkable district, High Asia, many parts of which are still very obscurely known, appears to be a four-sided protuberance, with chains of mountains on its borders, all of which rise far above the line of perpetual snow; while some ascend to that elevation, on the exterior, rising from the zone of apricot and pomegranate trees, of rice and cotton, of sultry heat and tropical jungle. The southern side is formed by the gigantic Himalaya rampart; the western by the Bolar-Tagh or Cloudy Mountains; the northern by the Altaï chain; and the eastern by the Khing-Khan, In-Shan, Yung-Ling, and other Chinese ranges. Intermediate to the Himalaya and Altaï—the southern and northern walls—parallel to them and to each other, are the equally grand chains of the Kuen-Lun and the Thian-Shan or Celestial Mountains. The country, thus bordered and intersected, consists of high plains, diversified with valleys, streams, and lakes, but by no means of uniform elevation, though the general level is high in relation to that of the sea. Between the Himalaya and the Kuen-Lun, comprehending the whole of Tibet, the plateau ranges in altitude from 10,000 feet to a height exceeding that of Mont Blanc, and is the loftiest in the world. The table-land of Pamir, on the north-west, has a mean elevation of 15,000 feet. From west to east the surface

generally declines, but probably the lowest part, including the whole of Mongolia, a region of sandy deserts, has an average elevation of from 3000 to 4000 feet, and is the most extensive table-land of the globe.

The Himalaya Mountains form a magnificent frontier to the north of India, and separate its low plains from the high plateau of Tibet. They follow a curving course of considerably more than 1000 miles, contain the greatest elevations of the earth's surface, and answer to the meaning of their name, 'the abode of snow.' Upwards of forty peaks have been ascertained to exceed the altitude of 23,000 feet; several rise to a much greater height; and one, Mount Everest, or Gausriankar, represented at the head of this chapter, copied from the magnificent atlas of the Brothers Schlagintmeit, attains to very nearly 29,000 feet, the highest known point on the globe. On the southern slope of the range, mosquitoes go up to 8000 feet; monkeys and tigers to 11,000; the leopard to 13,000; and snakes to 15,000 feet; while the dog follows his master over the loftiest passes. The main masses are separated by deep gorges, which furnish routes between India and Tibet, but all of them above 16,000 feet are closed with snow from November till May. The Parang Pass, in Spiti, ascends to 18,500 feet, and is the loftiest used as a commercial thoroughfare; but the Ibi-Gamin Pass, leading into Gurhwal, reaches the elevation of 20,450 feet. Glaciers abound in the higher parts of the mountains, many of which are of great magnitude, and appear to correspond to the icy masses of the Alps in their rate of movement. Their lower extremities are found at the height of from 11,500 to 12,000 feet, south of the great peaks, but on the northern side, where the snow-line is higher, they are not met with below 16,000 feet. The illustration of these stupendous mountains has been chiefly effected by English expeditions from India, while that of the Altai, the opposite northern wall, has been accomplished by Russian men of science and travellers from Siberia.



The high central mass of the continent has mountainous connections on the north-east, stretching out to the shores of the Pacific Ocean and Behring Strait. In the opposite direction, it is linked with the south-western highland system by the Hindu-Kush, a prolongation of the Himalaya, extending through Afghanistan to the plateaus of Persia. But besides these two systems wholly distinct from them, the Asian highlands include the eastern slope of the Urals on the frontier of Europe, the lofty table-lands and ranges of the Arabian peninsula, the elevated ground of the Deccan in India, walled by the Eastern and Western Ghauts, and the scantily known chains of China and the Indo-Chinese countries. The region of the Caspian offers a striking contrast to the uplands, and a singular exception to general terrestrial arrangements, as the expanse occupies an area of actual depression, its surface being below the level of the Black Sea. Active volcanic mountains are very rare except in the peninsula of Kamchatka, and in the islands, where they are numerous and formidable. Two examples in the continental interior, connected with the Thian-Shan, apparently feeble, are remarkable as variations from the prevailing rule of such sites being proximate to the sea, as they are upwards of 1500 miles from the nearest point of the ocean. Earthquakes are frequent and often violent in the southern region, especially in the

south-west, as in ancient times, when the Hebrew writers graphically described their terrible phenomena by the bowing down of the perpetual hills, the wilderness shaking, the earth reeling to and fro like a drunkard, and being removed like a cottage. These are not altogether the highly-coloured pictures of imagination, but refer to dread phenomena which have their counterpart in the modern age within the bounds of Syria, Palestine, and Asia Minor.

Magnitude and diversity mark the hydrography of Asia. The snows and glaciers of the high uplands are the sources of magnificent rivers, which, though not equal in length and volume to those of the western world, owing to the different disposition of the mountains, make a very close approach to them, while the lakes are remarkable for their number, size, and varied attributes. At the same time vast tracts of the surface are waterless wastes. In the northern half of the continent the great streams have a very languid current in their mean state, owing to the vast extent of country between the central highlands in which they rise, and the Arctic Ocean to which they flow. So slight is the declination of the surface, that Tobolsk, on the Irtish, though 550 miles from the sea, is little more than a hundred feet above its level. For the same reason the rivers overflow their banks, and spread out in wide inundations, upon the melting of the snows which deeply cover the whole of their basins in winter; and in that season they are useless as navigable channels, being strongly frozen. In Southern Asia the rivers are generally rapid, having a considerable fall, consequent on the comparative proximity of the highlands from which they descend, to the ocean. They are subject to an annual or a semi-annual rise, from the melting of the snow in spring towards their sources, and from the deluges of rain which periodically visit the countries they traverse.

Binary rivers are characteristic of the hydrographic condition of the continent, and are nowhere else exhibited in such a prominent manner. The components of the double systems rise not far apart from each other; pursue, with a variously-divergent course, the same general direction; and either finally come to a confluence, or converge to a common delta, or enter the ocean in comparative proximity. Thus the colossal streams of the Chinese Empire, the Hoang-ho and Yang-tse-kiang, are in near neighbourhood at the beginning of their course, but separate to the distance of 1000 miles on their eastward flow, and again approach, having their outlets in the Yellow Sea, very little more than 100 miles asunder. The Indo-Chinese peninsula is traversed by a series of great parallel rivers, which pour down from the central table-land, the Irawaddy and Salween, the Meinam and Cambodia, forming conspicuous pairs, the former having a common estuary in the Gulf of Martaban, the latter entering the Chinese Sea. From opposite slopes of the Himalaya Mountains, but not far apart at their rise, the Ganges and Brahmaputra descend to mingle their waters in the same vast delta, at the head of the Bay of Bengal. The twin streams of the Euphrates and Tigris issue from contiguous sources in the highlands of Armenia, diverge to a considerable distance, and then gradually approach to an actual confluence, flowing in one channel to the Persian Gulf. But a considerable proportion of the river-drainage of Asia never reaches the ocean, being discharged in inland seas or lakes, which are without any outlet, and yet experience little change of level, as the strong evaporation fully counterbalances the supplies received. Among the rivers which are thus wholly continental in their course, the principal examples are the Amu or Jihun (ancient *Oxus*) and the Sir or Sihun (*Jaxartes*), entering the Sea of Aral; the Kur (*Cyrus*) and the Aras (*Araxes*), received by the Caspian; the Helmund, descending from the Afghan highlands to the Lake of Zurrah; the Yarkand, which terminates in Lake Lob, on the great central plateau; and the Jordan, which flows into the Dead Sea. Several of the Asiatic rivers are of older historical date and celebrity than

any others, with the exception of the Nile. The Tigris and the Euphrates recall the memory of the Assyrian and Babylonian monarchies, which arose upon their banks; the latter is associated with the wanderings of Hebrew patriarchs; and the Jordan, with the passage of Israel into the Land of Promise.

The following table presents approximate estimates of the course of the principal rivers.

Principal Rivets.	Course.	Termination.	Length in Miles.	Area of Basin in Square Miles.
Obi,	Western Siberia, . . .	Arctic Ocean, . . .	2500	1,250,000
Yenesei,	Central Siberia, . . .	"	2900	1,110,000
Lena,	Eastern Siberia, . . .	"	2400	960,000
Amoor,	Eastern Asia,	Pacific Ocean, . . .	2300	900,000
Hoang-ho,	China,	Yellow Sea,	2600	400,000
Yang-tse-kiang,	"	"	3200	760,000
Brahmaputra,	Tibet,	Bay of Bengal, . . .	1300	350,000
Ganges,	Northern India, . . .	"	1491	420,000
Indus,	"	Indian Ocean, . . .	1700	400,000
Tigris, }	Western Asia,	Persian Gulf, . . .	{ 1140 }	230,000
Euphrates, }			{ 1780 }	

Lakes are extremely numerous, both on the high table-lands and in the low plains, and have very diversified features. They offer indeed more striking contrasts as to extent, position in relation to the level of the sea, and the physical quality of the water, than lakes in any other part of the globe. The Caspian Sea, situated on the European frontier, but chiefly within the limits of Asia, is a true lake, and is called a sea from its vast magnitude. It is the largest inland body of water in the world, considerably exceeding the united area of the lakes of Canada, spreading over a surface of 140,000 square miles. In the direction of its length, from north to south, it extends about 700 miles, by an average of 200 from east to west, and has great central depth, amounting in places to 500 fathoms, though shallow along the shores, which are extensively fringed with sheets of ice on the north every winter. The water is salt, though less so than that of the ocean. While receiving the great stream of the Volga, and other rivers, the Caspian has no outlet, yet its level, instead of rising, appears to be sinking, owing to the strong evaporation during the summer months. Its depression below the surface of the Black Sea may be regarded as an ascertained element, but is probably more moderate than was formerly supposed. The navigation, almost wholly in the hands of the Russians, is now conducted by steamers, and the fisheries are valuable. The Sea of Aral, to the eastward, is similarly a lake without an outlet, though receiving river contributions, and has an area of 26,000 square miles. It is less salt than its neighbour, and being comparatively shallow, the surface is largely frozen over in winter. Little was known of this expanse previous to the years 1846—1848, when it was explored by the Russian government by means of schooners built at Orenburg, and transported in pieces across the intervening steppe. Towards the centre some islands were discovered, before unknown even to the Kirghiz wanderers on the shores, which received the name of the Islands of the Czar. The Lake Sir-i-kol, on one of the central plateaus, where the Oxus rises,

‘ In his high mountain cradle in Pamere,’

is the most elevated sheet of water on the terrestrial surface, at the height of 15,600 feet above the sea-level, or nearly as high as the top of Mont Blanc. It is crescent shaped, about fourteen miles long, by an average breadth of one mile, frozen, and deeply covered with snow during the winter months. By the end of June the ice has broken up; the snow has entirely cleared away from the neighbourhood; swarms of aquatic birds appear

upon the water; and the natives drive up their horses and sheep from the lower grounds, to pasture on its banks till the inclement season returns. As a contrast to this high lake, the Dead Sea in Palestine is 1300 feet below the level of the Mediterranean, and is remarkable for the intensely saline quality of the water, though it is not, as sometimes stated, the saltiest water in the world, being exceeded by that of the Lakes Elton in Russia, and Urumiah in Persia. The largest Asiatic fresh-water expanse, Lake Baikal, in Siberia, has an area of about 15,000 square miles, with peculiarities of a different kind. It is the Holy Sea of the Russians, who regard it with superstitious feelings, owing to an apparently mysterious movement of its waters in calm weather, apparently occasioned by the earthquake shocks which are common on its shores. The navigation is highly dangerous, arising from the excessive violence of the winds, their unsteadiness, and sudden shifting. It is a proverbial saying, that it is only upon the Baikal in autumn, when its surface is most vexed by the rude and inconstant gales, that a man learns to pray from his heart. In winter the lake is covered with ice four feet thick, and is then traversed by sledges, laden with tea and other products from China.

Ranging in its latitude from the equatorial to the polar zone, and varying in its elevation from sites actually depressed below the level of the sea, to mountains rising five miles above it, the continent has every diversity of climate within its bounds, the extremes of heat and cold, of aridity and moisture, of rain in torrents, causing the hot earth to steam, and snow in clouds, covering the frozen surface to the depth of several feet through more than half the year. In the southern countries, embracing the two Indian peninsulas, the south-west of China, and some maritime parts of Persia and Arabia, the climate may be generally characterised as hot and moist. No real cold is experienced except in the more elevated districts, to which the phenomena of winter, frost, and snow are exclusively confined. At Calcutta the mean temperature of summer is $86^{\circ}7$, that of winter $72^{\circ}2$, and that of the year $82^{\circ}4$. The rains are seasonal and regular, often falling with tremendous violence, so that in the course of a few days, sometimes of a few hours, the amount precipitated is equal to the whole annual quantity received in higher latitudes. The winds, over a large proportion of the area, are periodical or monsoons, blowing from the north-east and the south-west alternately, and maintaining each direction for six months together. In the more easterly localities, as at Canton, the average annual amount of heat is considerably less, and the difference between the temperatures of opposite seasons much greater. In the middle Asiatic zone, on the lofty plateaus, the temperature is low, the wind biting, and the air dry, as the high wall of the Himalayan range prevents the northerly progress of warm moist currents from the tropics. Through the entire north the climate is extremely rigorous; and the coldest in the world in the basin of the Lena, in the eastern division of Siberia. A short, warm summer alternates with a winter extending from the middle of September to that of the following May, during which, in ordinary seasons, mercury remains a solid body for two months, all the rivers are frozen up through seven months, and the whole country is covered with a deep layer of hard snow. This rigour is occasioned partly by the obstruction offered by High Asia to the advance of warm air from the south, and in part by the great levels on the shores of the Arctic Ocean, which freely admit the polar blasts.

Great range of latitude and difference of level, with the connected diversity of climate, render the vegetable features of Asia extremely varied. Dense jungles of arborescent ferns, orchidaceous plants in profusion, and forests of stately timber, characterises the warm and watered southern zone. Entire treelessness, where there is only a temporary supply of trailing plants, coarse grass and rushes, mosses and lichens, when the dissolving

snows permit the surface of the ground to be exposed, distinguishes the extreme northern. In the less inclement parts of Siberia, pines, birches, and willows form enormous woodlands, and make the furthest advances to the north, assuming gradually a stunted appearance, and occurring only as stragglers. Berry-bearing plants are abundant, as the crowberry and bilberry, with some herbaceous species of culinary value. In the middle zone, comprehending the high table-lands, trees of large growth are scarce; vast districts are almost entirely bare of arborescent forms; but succulent grasses abound as pastures for flocks and herds, wild and domesticated. Vegetation in the southern zone, including India, the greater part of China, and specially the Indo-Chinese peninsula, with the Indian Archipelago, is remarkable for its exuberance, beauty, varieties, and utility, not only to human subsistence, but the arts of life. Forest trees furnish timber prized for ship-building in the Indian teak, with a profusion of ornamental and dye woods, and the substances caoutchouc and gutta-percha, very extensively applied in arts and manufactures. The caoutchouc or India-rubber tree is of large size and great beauty, one of the fig family, to which the banyan-tree belongs, so peculiar from the lateral branches sending down shoots to the ground, which take root, and become stems—

‘And daughters grow
About the mother-tree.’

In the warm and temperate region generally, the botany is rich in products which supply food, luxuries, and medicines, besides a vast variety of plants distinguished for their floral ornaments. Palms of different species in the tropical districts furnish dates,



Banana Tree.

cocoa-nuts, and sago, where also the banana, plantain, and yam contribute largely to sustenance. The sugar-cane is a native of India and China; the tea-plant, wild and cultivated, is common to China, Japan, and Assam; the coffee-bush clothes the highlands of Yemen; the cinnamon laurel flourishes in Ceylon; the pepper vine grows on the coast of Malabar, and in the islands of the Archipelago; nutmegs and cloves are the crops of the Moluccas; the camphor-tree is found in China and Japan; the rhubarb of the druggist occurs throughout most of the temperate zone; and so distinctive of the warmer parts of Arabia, Persia, and adjoining localities, are plants yielding odoriferous gum-resins,

that the countries are grouped together as the Region of Balsam-trees. While the native seat of the vine, orange, lemon, olive, peach, nectarine, apricot, damson, cherry, fig, and mulberry, it is probable that the important cereals, wheat, barley, and oats are of Asiatic origin, like rice. Beautiful flowering-plants, now widely diffused—camellias, azaleas, and China-asters, the China rose, the damask rose, the common jasmine, the peony, hydrangea, and chrysanthemum—have their home in Asia, where they flourish in wild luxuriance.

The animal kingdom is also distinguished by the diversity and importance of its forms, more so than in any other division of the globe, especially in relation to the larger quadrupeds. Asia alone possesses the tiger, and has in common with Africa, but of different species, the lion, elephant, and rhinoceros. The tiger, though eminently the tyrant of the jungles in the warm regions around the Bay of Bengal, bears a cool atmosphere, and hence is found high on the mountains, and far to the north, even to the confines of Siberia, but does not appear in the south-western countries. The lion has a much more restricted northerly range, but advances further west, to the banks of the Euphrates, and not so anciently—in Aristotle's time—the lion was found more westerly still, in Thrace and Macedonia. The elephant and the rhinoceros are not known north of the Himalaya or west of the Indus. On the shores of the Arctic Ocean the white bear growls, and the walrus splashes in the waters. Formidable species of the bear family inhabit the northern pine-woods, and a comparatively harmless race appears in the tropical forests, intent upon insects, fruit, and honey. The reindeer and elk, the wolf and fox, with the small fur-bearing animals, are characteristic of Siberia. Troops of the wild horse and ass, with goats, sheep, and varieties of the ox tribe, are prominent on the upland plains and mountains of the central region, some of which never leave the highlands, while others pass between them and the lowlands, according to the season, almost all occurring also, reduced to a state of domestication. The wild ass, high-spirited, fleet, and wary, scours the levels of Turkestan as a summer pasture, and appears on the shores of Lake Aral, but migrates southward in vast troops on the approach of winter to Persia and the borders of India, being impatient of cold. On the contrary, impatient of warmth, the yaik, or Tibetan ox, never quits the keen air of the mountains, can scarcely exist in summer at the height of 8000 feet, and has been met with in small herds at the elevation of 19,000. The camel is distinctive of the lands of great heat, where there is often great drought—India, Persia, Syria, Arabia—though it is met with far to the north, on the confines of Siberia, close to the southern limit of the reindeer. Through all the warmer parts of the continent the hyena and jackal are common, with numerous species of monkeys, the largest of which, the orang-outang, is limited to the Malayan peninsula, and the adjoining islands. The ostrich, king of the birds, inhabits the south-western deserts; the nightingale sings in Persia; but birds of song are generally scarce, while those of splendid plumage abound in the south-eastern districts. All our domestic poultry, except the turkey, originally came from Asia, where they run wild in the woods, with the peacock and pheasant. Both the temperate and the warm regions have dangerous reptiles. The largest saurian, the gavial or crocodile, infests the Indian rivers; the python, an ophidian, sometimes of enormous length, crushing its prey with its folds, haunts the forests and swamps; the smaller cobra-de-capello bites with deadly venom. In the countries of the south-west, locusts occasionally display the power of agents—feeble singly—to commit dreadful ravages by the combined action of myriads. They obscure the sky as with a cloud when on the wing, and alighting upon the fields, destroy the subsistence of villagers, in a few hours, by consuming the crops, with every green thing in their way.

The mineralogy of Asia is rich and varied. Mines were opened within its limits in far remote ages. The mountains of Kurdistan, on the eastern border of the old

Assyrian Empire, have ancient workings from which supplies of copper, iron, and lead were drawn. Mr Layard, during his interesting explorations in the region, visited a disused copper-mine, only known to a few mountaineers, nearly blocked up with earth and rubbish. He found the metal occurring in veins, small crystals, compact masses, and powder, and recognised at once in the latter the material used to colour the bricks and ornaments in the exhumed palaces of Nineveh. Inscriptions on copper, various utensils, figures of lions in the solid metal found in the long-buried halls, bear witness to its extensive use, while it is the ordinary material of tools, daggers, arrow-heads, and armour. Gold, copper, and iron are now obtained from mines in connection with the Ural Mountains; gold, silver, iron, lead, and the finest porphyries from the Altai chain. Tin has been supplied for centuries by Banca Island, in the Indian Archipelago; quicksilver occurs in Tibet, China, and Japan; kaolin, or porcelain earth, and zinc are abundant in China; coal is found in Asia Minor, India, China, and Japan; salt is extensively distributed; the best lapis lazuli, used for ornamental purposes, from which also ultramarine is made, is procured in Bokhara; and Asia has furnished a greater number of precious stones of the more costly kind than any other part of the world. The largest topazes come from Siberia, the finest sapphires from Ceylon, the best rubies from Burmah, and the most valuable diamonds, which are European crown jewels, are of Asiatic origin. The great Russian diamond, placed at the top of the imperial sceptre, formerly adorned the throne of Nadir Shah, and passed from Persia to St Petersburg for 450,000 rubles, about £70,000. The Regent diamond, the property of France, at first set in the crown, and then affixed to the sword of state, was purchased in India by a governor of Madras, and re-sold to the Regent, Duke of Orleans, for about £80,000. But these are exceeded in size and value by the Koh-i-nür, 'mountain of light,' the property of the English Sovereign, originally found in the year 1550, on the banks of the Godavery, in the Deccan. This was long the pride of the Mogul emperors, from whom it passed to Runjeet Sing, ruler of the Punjab, and became British upon the annexation of that territory to the Anglo-Indian Empire.

The inhabitants of this vast continent are supposed to number 650,000,000, equal to nearly two-thirds of the population of the globe, according to the ordinary estimate. They consist almost exclusively of indigenous races, for the descendants of the old Greeks who colonised the shores of Asia Minor, with the Russians, British, and other Europeans in their respective possessions, form comparatively a very insignificant fraction. From the inhospitality of the climate through the entire north, and the large area occupied by towering mountains, chill plateaus, and dry sandy deserts, the people are very irregularly distributed, being thinly sprinkled over Siberia, High Asia, Turkestan, Persia, and Arabia, while densely massed on the rich alluvial plains of China and Bengal. Discriminated by differences of physical conformation, the Asiatics generally are divisible into two great groups of nations. A line drawn from the delta of the Brahmaputra along the Himalaya Mountains, and thence passed westward by the Hindu-Kush to the Caspian Sea and the Caucasus, will generally define their respective geographical positions. South and west of the line are nations belonging to the variety of mankind, commonly, but improperly, called the Caucasian, consisting of the Hindus, Afghans, Persians, Syrians, Jews, and Arabs. On the north and east are populations corresponding to the Mongolian type, embracing the Chinese, Indo-Chinese, Japanese, Mongols proper, Kirghis, and other branches of the Turkish family, with the semi-barbarous native tribes scattered through Siberia. The Malays, in the extreme southern peninsula, and prominent also in the Indian Archipelago, are mainly a Mongolian subdivision.

The first great group embraces two widely-distinct linguistic families—the Indo-

European or Aryan, and the Syro-Arabian or Shemitic. To the former belong the inhabitants of Northern India, Afghanistan, Persia, and Armenia, whose different languages (springing, however, from the same root) are distinguished by a highly-developed system of inflections; to the latter the inhabitants of Syria, Palestine, Mesopotamia, and Arabia, in whose kindred tongues inflections are much fewer. The second group branch likewise into two divisions—the Chinese and Indo-Chinese languages, monosyllabic and wholly destitute of inflections; and the other tongues of the Mongolian nations which are more or less inflexional and polysyllabic.

Among the various forms of religion in Asia, two systems, inveterately hostile, prevail in the south and south-east, where population is the densest, and are remarkable as governing the thoughts and actions of more than half the human race, Buddhism, with perhaps not less than 400,000,000 professors, and Brahmanism, with 120,000,000. The former holds sway in Ceylon, Burmah, Siam, Tibet, Nepaul, the Japanese empire, and over the Mongols generally. The latter is the national creed of India. Yet there is reason to believe that Buddhism was once extensively prevalent for a long period even in India, till uprooted by persecution from the priesthood of the other creed. Among the monuments of past time in that country, cavern-temples occur belonging to both religions, which curiously illustrate their difference, and prove their former contiguity. The deities of Brahmanism are supposed to have often become incarnate, under a variety of forms, sometimes appearing with many heads and hands, or with the heads of animals, and other unnatural combinations, of which there are sculptured representations in the cave-temple of Elephanta, near Bombay. Buddhism, on the contrary, does not recognise a god at all—even in the Pantheistic sense. It is a system of utter Atheism; it knows no beings with greater supernatural power than any man is supposed capable of attaining to by virtue of austerity and science; and a remarkable indication of this startling fact is to be seen in the circumstance that some at least of the Buddhist nations—the Chinese, Mongols, and Tibetans—have no word in their languages to express the notion of God. No Buddhist believes that even Buddha any longer exists. He has reached the blessed goal of existence, and has passed away into *Nirvana*, or Annihilation. The essential idea of this strange religion, which finds no place either for a god, or for the doctrine of Immortality, is that existence is, on the whole, a restless, insecure, unhappy thing, to escape from which is the consummation of felicity, and Buddhism only professes to teach a way to escape—the path to Nirvana. In temples of this faith there are no many-headed and many-handed monsters sculptured, no combinations of man and beast, but simply the images of men in various attitudes, sometimes standing upright, but usually sitting crosslegged in a meditative posture. At no great distance from Bombay, the caves of Kanara, in the island of Salsette, and those of Karli on the mainland, belong to Buddhism; those of Amboli, also in Salsette, and of Elephanta adjoining, belong to Brahmanism; while examples of both kinds occur at Ellora, in the territory of Hyderabad.

The creed of Islam ranks next in the number of its adherents within Asian limits, reckoned at 60,000,000, consisting of all the Arabs, the Turkish tribes, the Persians, the Afghans, and a considerable number of the Hindus, upon whom it was enforced by the sword of invaders. Christianity and Judaism divide a comparative remnant between them. Forms of heathenism linger among the rude natives of Siberia; and Guebres, descendants of the followers of Zoroaster, remain in India and Persia, addicted to sun-worship—

‘Those slaves of fire, who, morn and even,
Hail their Creator’s dwelling-place
Among the living lights of Heaven.’

Communities exist in the basin of the Euphrates and Tigris whose usages have a mixed Pagan, Jewish, Mohammedan, and Christian complexion.

The principal countries of Asia are enumerated in the table, with their area and population, but in most instances these elements are approximations merely :

	Area in Sq. Miles.	Population.	Capitals or Chief Towns.
Russian Asia—Siberia and Trans-Caucasia,	5,486,750	8,328,000	Tobolsk, Teflis.
Ottoman Asia—Asia Minor, Turkish Armenia and Kurdi- stan, Mesopotamia and Babylonia, Syria and Palestine, }	508,800	16,050,000	{ Smyrna, Aleppo, Damascus.
Arabia,	1,200,000	8,000,000	Mecca.
Persia or Iran,	450,000	8,000,000	Teheran.
Beloochistan, Afghanistan, Kafiristan,	390,000	5,600,000	Kelat, Cabûl.
Turkestan, comprising Bokhara, Khokan, Kündûz, } Khirghis Territory,	720,000	1,700,000	Bokhara, Khiva.
India—British, Protected, and Independent States,	1,383,600	90,000,000	Calcutta.
Further India—British Possessions, Burmah, Siam, }	668,000	18,905,000	Moulmein, Bankok.
Anam or Cochin China, Malaya,			
Chinese Empire, comprising China Proper, Corea, Mant- churia, Mongolia, Tibet,	5,393,000	415,500,000	Pekin.
Japanese Empire,	210,000	30,000,000	Jeddo.



Burial-place of the English and French killed at Petropaulovsk.



Desert of Gobi.

CHAPTER I.

ASIATIC RUSSIA.



USSIAN ASIA comprehends two unconnected tracts, very dissimilar in size, climate, superficial features, and inhabitants.—Siberia, in the north, a vast, monotonous, and dreary region—Trans-Caucasia, in the south-west, a comparatively small district, highly diversified, and splendidly luxuriant. They are separated from each other by a portion of Turkestan and the basin of the Caspian Sea.

I. SIBERIA.

SIBERIA embraces the whole northern part of the continent, extending from Turkestan and the Chinese Empire on the south to the Arctic Ocean on the north, and from the chain of the Urals on the west to the coast of the Pacific on the east. A linear distance of 1900 miles may be traversed, due north and south, and one of nearly 4000 miles, east and west. The total area is computed not to be less than 5,000,000 square miles, thus exceeding by one-third that of the entire surface of Europe, while the population does not equal that of Scotland. On the western side, a portion of the country is included in the European governments of Perm and Orenburg. Southerly, in the direction of Turkestan,

no frontier exists; and the policy steadily pursued by Russia is to appropriate as much as is desirable, and can be accomplished. From the Chinese dominions, the general boundary is defined eastward by the river Amur, and westward by the Altai Mountains. This chain, or rather series of ranges, though of moderate elevation generally, rises above the line of perpetual snow in Mount Bielukha, which attains the height of 11,000 feet. Further west, the border has recently been advanced to the northern range of the Thian-Shan, or Celestial Mountains, towards which, settlements of Cossacks and immigrant peasants now make a close approach, all of them dating since the year 1854, when the Russian colonisation of the district commenced.

Lowland plains, declining very gradually from south to north, or towards the Arctic Ocean, occupy an immense proportion of the surface. Some are clothed with dense forests of pine, aspen, larch, and birch. Others, in the west and south-west, are true steppes, with no vegetation for hundreds of miles except a few bushes, willows, and saline plants, but plentifully besprinkled with salt lakes and marshes. The whole northern zone consists of the mossy, rush-grown levels, called *tundras*, swampy in summer, hard bound with ice and snow in winter, which have been styled 'the types of everlasting rest,' from the invariable sameness of their seasonal features, and the impossibility of altering them by introducing cultivation. In the eastern portion of the country, there is greater superficial diversity. Ranges of mountains occur, which are finely clothed with woods in the southerly districts, and enclose fertile valleys. These features are specially characteristic of the region of the Baikal and the Amur. Three great river-systems ramify over the whole surface from south to north, and discharge in the Polar Ocean. The Obi, with its principal arm, the Irtysh, is western; the Yenesei, with its chief affluent, the Angara, is central; the Lena, with its leading tributary, the Aldan, eastern. Further east is the Kolima, with a shorter course, belonging to the same basin, and on the south-east the frontier river Amur flows to the Pacific. A melancholy interest is attached to the Irtysh, on which stands Tobolsk. Its passage is considered the entrance into Siberia Proper, and hence the ferry is the symbol of political death to the exile. In this river perished Yermak, an adventurous Cossack, who began the conquest of the country in the last half of the sixteenth century, during the reign of Ivan the Terrible.

The central Yenesei is distinguished by Lake Baikal, in the upper part of its basin, the drainage of which is conveyed to its channel by the Angara. This crescent-shaped expanse of fresh-water covers an area of 14,000 square miles, and has great depth, with rugged granitic mountains on its borders. The water is remarkable for its clearness and low temperature. It forms part of the great line of communication between the Russian and Chinese Empires, being navigated in summer, and traversed by sledges in the winter season. Though receiving upwards of a hundred rivers, it has only the single outlet mentioned. Lake Balkash, and its neighbour the Issikul, the latter at the base of the Thian-Shan, with many others, have also important magnitude, and the number of smaller dimensions is immense. Both lakes and rivers swarm with fish, while the woods and waters are haunted by myriads of gallinaceous and aquatic birds. The zoology embraces the white and black bear, the wolf and glutton, the reindeer and elk, the fur-bearing species, as the sable, ermine, marmot, marten, beaver, fox, and squirrel, with a valuable race of dogs. Coniferous trees compose the main mass of the forests, and make the furthest advances to the north of the arboresecent vegetation. The undergrowth of the woods consists extensively of edible berry-bearing shrubs; and herbaceous plants of large size are common in the less frigid regions, as the species of rhubarb cultivated in Europe for the table, which was originally derived from the temperate zone of Asia.

A Siberian climate has become a proverbial expression for the extremity of rigour.

Over the whole country the reign of winter is long and severe; mercury remains a solid body for two or three months together in ordinary seasons through the north-eastern districts; and snow-hurricanes occur, as sudden as they are violent, which endanger the traveller by completely obstructing his view and obliterating the track. The lower part of the valley of the Lena is the coldest region of the globe. At Yakutsk, in this basin, only a little further north than the Shetlands, the first night-frost, announcing the advent of winter, and withering the leaves of the birch, occurs usually by the 17th of September. The frost becomes unabating day and night by the middle of October, and the river is frozen up by November 2. Throughout January the mean temperature is 45° below zero; breathing becomes difficult; and the reindeer hides himself in the depths of the forest. About the beginning of April the first symptoms of thaw in the shade are observed. The last night-frost occurs about 12th May, and the Lena is free from ice by 25th May. During a brief summer, in July, the hottest month, the mean temperature is 68° ; and the surface is completely thawed. Scanty crops of the hardy cereals and useful vegetables are then raised. But the heat only penetrates the ground to an inconsiderable depth, three or four feet, below which the soil is perpetually frozen. Though the climate has not this extreme character in the western and southern parts of the country, yet rigour is everywhere its invariable feature, and hence agriculture can only be prosecuted to a very limited extent. In the milder region a few fruit-trees succeed, the gooseberry and cherry. Wheat is grown in the upper part of the basin of the Irtysh, but rye, barley, and oats are principally cultivated, and have in general their northern limit at the parallel of 60° .

In compensation for an inhospitable climate and restricted husbandry, nature has been lavish in supplying various kinds of produce independent of the arts of cultivation, such as fish, furs, peltry, metals and precious stones. According to Erman, the minimum amount of the annual take in the fisheries of the Obi may be estimated at 26,000,000, consisting of sturgeons, salmon, herrings, and other migratory species. Great havoc has been made among the animals valued for their furs and skins by the exterminating warfare of the hunter. Some of the most important have nearly disappeared from the western districts, and are chiefly captured in the remote eastern region. Sable furs rank with the most valuable, according to the deepness of their colour; also ermine furs, purely white; fiery-fox furs, of a brilliantly glowing hue; silver-fox furs, of a lustrous gray; and sea-otter furs, remarkably fine, soft, and glossy, are obtained along the shores of the Pacific Ocean. Tribute furs for the emperor are exacted from the native tribes as an acknowledgment of allegiance; and they are rendered of the finest kind by the simple people, under the idea that they will reach St Petersburg. But as they pass through the hands of many individuals, each substitutes an article of an inferior quality, and the tribute rapidly deteriorates in value.

In the variety and amount of its mineral wealth, Siberia is unrivalled, embracing the precious and the useful metals, with some of the rarest gems. The great sites of mining industry are along the base and slopes of the Ural and Altai Mountains. In the former locality, gold is obtained by washing from the sands and gravel on the borders of the streams; copper-ores abound, with noble specimens of the green carbonate, or malachite; but iron, bulging out at the surface, is the first product in point of quantity, and of financial importance. The precious metal is also occasionally met with in considerable masses. Upon the auriferous deposits of the river Miass seeming to be exhausted, new explorations were made in the neighbourhood; particularly along a little stream, the Targana. The search for gold was attended with great success in the marshy plain through which it flows, and the surface was completely turned over, except that part of it occupied by the buildings in which the washing operations were conducted. In 1842 it

was resolved to take down these workshops, and examine the soil, when sands of extreme richness were met with, and a 'nugget' was found weighing ninety-six and a half pounds troy. This mass, of the estimated value of £4000, now in the collection of the *Corps des Mines* at St Petersburg, was the largest known example of native gold prior to the Australian discoveries. The mining prosperity of the Ural dates from the reign of Peter the Great; and originated with Nikita Demidoff, ancestor of the present noble family of that name. His portrait is a favourite subject with humble artists, who usually represent him grasping a sturdy staff as the untiring explorer of the mountains. The woods of the Demidoffs, near Nevyansk, so essential to the smelting of the metals, cover an immense area, and are still untouched to a wide extent, where the elk has not been disturbed. Russians, Germans, English, and other foreigners, are the miners and artisans, as the native Bashkirs and Veguls look upon such employments with aversion. Their only concern, on the arrival of the first adventurers, was to have the fossil remains of the huge animals respected, which were found imbedded in the soil, under a misconception of their character. 'Take from us,' said they, 'our gold, if you will; but leave us the bones of our great ancestors.'

The riches of the Altaï, principally silver, with gold from the sands, copper and lead ores, were not fully disclosed till a comparatively recent date, though the first mine was commenced by the son of the Demidoff mentioned, in the year 1728. It is remarkable that in both the mining districts, decisive evidence exists, in pits and galleries, sometimes containing relics of implements, of their treasures having been freely drawn upon in remote antiquity. Near the silver-mines of the Schlangenberg, or Snake Mountain, there is an ancient excavation extending 1000 feet, plainly artificial; and a stone sphinx, discovered in one of the old workings, of rude construction, is now preserved in the museum of Barnaul. These monuments appear to throw light upon a statement of Herodotus, who, speaking of the Arimaspes, the most easterly Scythians of whom he could obtain any account, refers to their mines of gold, guarded by griffins and monsters, which Humboldt identified with the bones of elephants and other animals at present to be found in the steppes between the Ural and the Altaï. Both districts supply precious stones of great beauty and value, and of many varieties; the emerald, amethyst, beryl, topaz, rose-tourmaline, and garnet; jaspers, deep green, dark purple, dark violet, cream coloured, and striped; porphyries of equally variegated hue, which are made into columns, pedestals, vases, and tables in the establishments of the government. The Alexandrite, a species of beryl, shewing the Russian colours, green and red, received that name from having been discovered in the Urals on the birthday of the Emperor Alexander. A fine topaz from the same locality, in the museum of St Petersburg, measures nearly five inches in length. All precious stones, wherever found in Siberia, are the property of the emperor, but do not always find their way into the imperial cabinets and jewel-cases. Instances of gem smuggling and gold stealing have repeatedly been detected at the mines, in which officials have not infrequently been implicated.

There is a third great mining region, the district of Nertchinsk, in the country beyond the Baikal, rich in lead, quicksilver, tin, zinc, and iron. At quite a recent date, discovery has added plumbago or graphite of the finest quality, highly prized for making lead-pencils, and very rarely found in considerable quantity in any condition, whether fine or coarse, to the known minerals of the country. An extensive bed occurs on the summit of the mountain of Batongul, not far from the Chinese border. To work the mines, criminals convicted of the highest crimes are sent from European Russia, chiefly to those situated in the remotest districts. Minor delinquents, and political offenders generally, are established by themselves in little knots as agricultural

colonists, under regular supervision, restricted as to distance and the use of firearms. This system of deportation dates from the reign of Peter the Great. Not a few statesmen, generals, and authors have shared the banishment, with a host of unfortunate Poles of the middle ranks, guilty of patriotism. The number of exiles is estimated at about 10,000 annually, including the wives who choose to share the lot of their husbands. One-fifth die in the first ten years, owing to change of climate and general hardships.

Fossil ivory is a valuable and curious part of the produce of the country. It consists of the tusks of mammoths, elephants, and rhinoceroses of extinct species, found imbedded in the frozen soil in the lower part of the valley of the Lena, but occurring more abundantly in the islands of New Siberia, or the Liakhov group, in the Arctic Ocean. It is remarkable that the tusks decrease in size and weight from south to north, as if they had been borne to their present sites by some great drift in that direction, which carried the lighter ones the furthest. Those of the islands are the smallest, but are much whiter, and apparently fresher, than those of the continent. The ivory, though of inferior quality to that obtained from the living species, is used in the arts.

The foreign commerce is almost exclusively with China, and is very extensively carried on entirely by barter. Merchants from Pekin bring to the frontier teas, raw and manufactured silk and cotton, all kinds of porcelain, lacquered ware, artificial flowers, toys, ginger, rhubarb, musk, sugar-candy, and other sweets. The greater part of the raw cotton is employed in packing up the porcelain. Camels are chiefly used in the transport of this merchandise across the Mongolian desert to Maimatchin, one of the principal trading



Kasan.

stations on the Chinese side of the border, a journey of about forty-six days from the Great Wall. Furs, skins, metal wares, and other native produce, with European manufactures, are brought to the adjoining Kiachta on the Russian side. These goods are conveyed along the rivers in summer, and overland on sledges, drawn by dogs or reindeer, in winter. They might be transmitted all the way from Kasan, Nijni-Novgorod,

or St Petersburg by water, but owing to the long intervals during which the frost suspends navigation, three summers would be required for the transit. The interior trade is largely conducted at fairs, to which the natives bring their furs, and exchange them for the articles they require.

Siberia is distributed into two vast regions, western and eastern, each of which has a governor-general at its head, and is subdivided into minor governments.

	Governments.	Chief Towns.
Western Division, . . .	Tobolsk, . . .	Tobolsk, Omsk, Tiumen, Beresov, Ekaterinburg.
" " . . .	Tomsk, . . .	Tomsk, Barnaul, Kolyvan, Semipolatsinsk.
" " . . .	Yeneseisk, . . .	Yeneseisk, Krasnoiarisk, Abakansk.
Eastern Division, . . .	Irkutsk, . . .	Irkutsk, Kiachta, Nertchinsk.
" " . . .	Yakutsk, . . .	Yakutsk, Aldanska, Nijni-Kolimsk.
" " . . .	Amur, . . .	Blagoveshensk, Aigun, Nicolaevsk.
" " . . .	Okhotsk, . . .	Okhotsk, Kamenoi-Ostrog.
" " . . .	Kamchatka, . . .	Petropaulovski, Nijni-Kamchatsk.
" " . . .	Tchoukchi Country, . . .	Ostrovnoi, Anadirsk.

With two or three exceptions, these places are of unimportant size. They are chiefly built of timber, and would be utterly insignificant but for the public offices and works established by the government, with the barracks of the military.

WESTERN SIBERIA includes the whole basin of the Obi, and the greater part of that belonging to the Yenesei. Enormous forests of coniferous trees are spread over the central and north-western parts of the surface, in which last direction the larch extends to the mouth of the Obi, and the utmost limit of arborescent forms, though the tree is only known in Europe as a native at a southerly latitude, on the mountains of Austria. On the south and south-west, extending to the Caspian and the Aral Lake, are vast steppes, apparently interminable and dismally monotonous, with no elevations but a few low hills, and with scarcely any vegetation except tall rank grass, occupied by wandering hordes of the Kirghis. On the south-east, a change of scenery awaits the traveller in the newly-colonised Trans-Ilian region, as the basin of the Ili, one of the feeders of Lake Balkash, is called. This expanse separates the uniform steppe from the mountain-ranges which lead up to High Asia, in the midst of which Lake Issikul, bounded by the chain of the Alatau on the north, and the Thian-Shan on the south, is cradled. The valleys here contain scenes of surprising beauty and richness; the apricot, pear, apple, plum, and the vine flourish; and while, on the one hand, the landscape fades away from a considerable elevation into the silvery surface of Lake Balkash, and what seems a boundless plain beyond, the eye catches in the opposite direction the dazzling whiteness of perpetually snow-clad heights.

Tobolsk, though not the capital, is the largest town, with 20,000 inhabitants, seated on the Irtish, near its confluence with the Tobol. It is much frequented, being on the commercial thoroughfare between European Russia, Further Siberia, and China. The streets are regular and spacious, but the buildings are of wood, with the exception of the cathedral and a few public edifices. It contains a monument to the memory of Yermak, the founder of Russian influence in the country. Tanneries and soap manufactures are the principal industries. *Omsk*, higher up the Irtish, at its junction with the Om, is the most important military station, and the capital of Western Siberia, being the residence of the governor-general. It has only a population of about 11,000, trading with the Kirghis in furs, brandy, and tobacco. A short distance below the town, the Irtish is broader than the Rhine at Cologne, though with a course of 1000 miles still to run. *Tomsk*, a smaller place, on the route eastward, is on an affluent of the Obi, contains a military-school, and is largely connected with the mines of the Altai. *Kolyvan*, in the same district, is remarkable for the extensive jasper quarries in its neighbourhood. There is here a great government establishment for cutting and polishing the jaspers and porphyries, which are worked into tables, vases, chimney-pieces, columns, and ornamental objects for European palaces and mansions. *Barnaul*, an actively industrial town on the south, is the chief smelting-place for the ores of the Altai, the seat of the mining administration, and contains a magnetic and meteorological observatory. *Krasnoiarisk*, on the Yenesei, and the great eastward road, marks the distance of 3197 miles from St Petersburg. The town contains 7000 inhabitants, in possession of herds of cattle and horses; and has a large number of tanneries, a considerable fur trade, and a good collection of Siberian antiquities.



U.S. GEOLOGICAL SURVEY

U.S. GEOLOGICAL SURVEY

Berezov has a mournful interest attached to it, as a common place of exile for prisoners of rank, male and female. The small town lies far down the course of the Obi, 400 miles north of Tobolsk, in a cold and dreary region, surrounded with pine woods. At this spot the sun just peeps above the horizon at the winter-solstice, and a day of four hours alternates with a night of twenty, while the light prevailing through seven months of the year is that of the 'half-dark day,' as the Russians call the sombreness occasioned by clouds of mist, sleef, or snow-flakes in the atmosphere. Here, in 1727, when the place was a miserable group of log-houses, Prince Menzikoff, the powerful favourite of Peter I. and Catherine I., was deported. Becoming a devotee, the fallen minister helped with his own hands to erect a little wooden church now gone to decay. He went to the forest, axe on shoulder, to fell trees for the work, then served as bell-ringer in it, and was finally buried before the door of the building, having sunk in little more than two years under the shock of his political overthrow. His resting-place, not marked by any monument, but known through tradition, remained undisturbed to the year 1821, when the governor of Tobolsk had the grave opened. The coffin was found to be imbedded in frozen soil; and owing to this circumstance, after the lapse of ninety-two years, its contents had undergone so little change that pieces of the clothing which wrapped the body were sent to the descendants of the deceased as relics. The site of the wooden hut he occupied is still pointed out near the Spaska Church, the dwelling itself having been destroyed by a fire. A few years afterwards, Osterman and Dolgorouki, both the colleagues of Menzikoff, were banished to the same place, and both like him ended their days at it. It has been said that the flower of the Russian court and army lie buried beneath the snows of Berezov.

Ekaterinburg, the first town which the traveller usually enters on passing from Europe into Asia, is perhaps the most interesting, but is included in the European government of Perm. It is the capital of the Ural mining district, founded by Catherine, wife of Peter the Great, and bears her name. It stands at the foot of the mountains, on the banks of a beautiful lake, from the surface of which it is seen to great advantage. The towers, spires, and domes of eight churches, a monastery and a convent, rise with pleasing effect over the public and private buildings, while pine-clad hills appear in the background. The town contains about 16,000 inhabitants, most of whom find employment, as officials or workmen, in connection with the works for smelting and coining metals, polishing and cutting ornamental stones, erected by the government on an enormous scale, and fitted up with machinery and tools from the best English makers. In the *Granitnoi Fabrique*, the sumptuous jasper tables are made, inlaid with different coloured stones representing birds, flowers, and foliage, which adorn the palaces of St Petersburg. The machines in use are moved by water-power, and worked by peasants, who display great imitative genius, and acquire admirable skill in their calling. An amount of labour is bestowed upon a single article, the cost of which would effectually prevent its execution with us, even if the materials were at hand. But owing to the excessively low rate of wages, it is not uncommon for four or five men to be employed upon a table or a vase for several years. In 1853, Mr Atkinson saw a man engaged in carving foliage in a style not to be excelled, whose wages were three shillings and eightpence a month, with two poods or thirty-six pounds of rye-flour for the same period—meat he was never supposed to eat. Another, who received the same remuneration, was cutting a head of Ajax after the antique, in jasper of two colours, in very high relief, intended for a brooch. *Ekaterinburg* has in its neighbourhood the remarkable hill of *Blagodot*, a name signifying 'benefit' or 'blessing,' which is almost entirely composed of magnetic iron ore. This hill rises out of a plain, and presents two rugged naked peaks. A wooden bridge spans the cleft between them, and appears to hang in the air. The lower peak is ascended by a flight of narrow steps, cut in the rock, whence, passing over the bridge, the path conducts to a neat stone chapel on the other eminence. It is related that one of the *Voguls*—the aborigines of the district, communicated the knowledge of this metallic mass to the Russians. The result was the immediate irruption of mining adventurers, whose presence proved so unwelcome to the old inhabitants that they burned their communicative countryman alive on the hill, and erected the chapel, having repented of their cruelty. Very powerful magnets, capable of raising a hundred times their weight, were once procured at this spot, but few now are met with exerting more than a sustaining power of forty times their weight. *Trumen*, on the road to Tobolsk, has a population of 10,000 engaged in various manufactures, Russia leather, woollen fabrics, and soap, being the principal.

A very rich collection of mineralogical specimens from the Ural and Altai Mountains, with an interesting model of a mine, upon a scale large enough for visitors to enter, is exhibited in the museum of the *Comps des Mines* at St Petersburg. The more remarkable treasures include a single crystal of beryl, weighing more than six pounds, supposed to be the finest specimen in existence, valued at £6500; a piece of native platina, from the mines of *Nuovo Demidoff*, weighing ten and a half pounds, valued at £4300; a block of malachite from *Ekaterinburg*, weighing 4000 pounds, valued at £18,400; and a piece of native gold from the sands near *Miask*, eight inches long and five broad, valued at £26,000. There is also the mass of meteoric iron, discovered by *Pallas* in the last century, on the summit of a mountain in the valley of the *Yenesei*, which, after having supplied specimens to many European museums, still exceeds three cubic feet in bulk.

Fort Vernoe, in the Trans-Ilian region, the most advanced post towards the *Thian-Shan*, founded in 1855, has 4000 inhabitants, consisting of immigrant peasants and Cossacks. Timber for building is supplied from the mountain slopes, which, at elevations of from 4000 to 7500 feet, are overgrown with the Siberian fir. The settlement stands at the emergence of a rapid stream from its mountain-bed, which thenceforth flows to join the *Ili*, through a valley clad with natural orchards of apple and apricot. This river descends from the

highlands on the Chinese frontier, and enters Lake Balkash, where it forms a low delta, clothed with reeds of impenetrable thickness, in some places from seventeen to eighteen feet high. From Fort Vernoe, in 1858, M. Sevenof, of the Russian Geographical Society, started to visit the Thian-Shan, and was the first European to ascend the Celestial Mountains. At the foot of the lower range, on the high marshy plain of Santash, or the 'numbered stones,' a pile of them was observed, evidently an artificial heap. A legend of the Kirghis connects it with Tamerlane, who certainly marched his army through the district. Wishing to ascertain the number of his warriors, it is stated that he directed each to take a stone, and deposit it in one place. Thus a colossal pile was formed. On re-crossing the plateau, after a battle, in which, though victorious, his army suffered severely, he directed each survivor to remove a stone, in order to ascertain his loss. To the plateau of the 'numbered stones,' the lower range of the Thian-Shan slopes abruptly, covered with a luxuriant light-green verdure, bright flowers of the sub-alpine zone, with many bushy species, as the mountain-barberry, varieties of the honeysuckle, and the tasteless alpine currant. A hot spring, shaded with trees, was reached at a considerable elevation. It was deemed sacred by the Kirghis, and hence covered with rags of every variety of colour, as offerings to the spirit of the fountain.

The immediate ascent of M. Sevenof was made by the Zauku Pass, a thoroughfare from time immemorial, but a perilous route through the sternest wilds, of which incontestable evidence was observed. 'The horror of the scene,' remarks the traveller, 'was increased by the countless carcasses of camels, horses, oxen, sheep, goats, and dogs that strewed the path in every direction. They occurred by thousands, stretched in every imaginable posture. This frightful picture of death was in harmony with the sublime though fearful character of the scenery, and the icy atmosphere that surrounded us. We were now not more than an hour's journey from the summit, but the principal difficulties of the ascent were still before us. We were soon enveloped by a cloud of snow, and our horses, trembling with fear, continually stumbled over sharp stones and rocky masses, making a dead-stand at the sight of each new carcass. We were at last obliged to dismount and lead them by the bridle. The guide assured us that the difficulty of breathing at the summit was so great, that existence beyond half an hour was impossible. At last we obtained the object of our journey, and found ourselves on the summit of the mountain-pass, where a landscape of unexpected beauty spread out before us. Directly in front were two lakes, covered with ice, already dissolving round their edges. Here I found myself in the very heart of Asia, rather nearer to Cashmere than to Semipalatinsk, to Delhi than to Omsk, to the Indian than to the Northern Ocean, and midway between the Pacific and the Euxine, in about $41\frac{1}{2}^{\circ}$ north latitude. The fire which we kindled cracked and burned unequally; but I experienced no particular oppression in breathing. Around the lake, flowers of the most brilliant colours, and of the highest alpine zone peeped out from under the newly-fallen and dissolving snow.' The height of the Tengri-Khan, one of the gigantic peaks of the Celestial Mountains, is approximately estimated at not less than 21,000 feet.

The native tribes of Western Siberia consist of Samoiedes in the extreme north, who are thinly sprinkled on the shores of the Arctic Ocean, and belong to the same family as the Finns of Europe. They subsist chiefly by fishing, are an extremely ignorant and degraded race, addicted to forms of the grossest heathenism. South of these, spread over a wide area, are Ostiaks and Voguls, fishers and hunters, who probably belong to the same stock, and are only to a slight extent more advanced. Some have been made by baptism members of the Russo-Greek Church; others profess a mongrel kind of Mohammedanism; but the idlest superstitions are prevalent respecting the power of evil spirits, the effect of charms and magical incantations, while the bear is occasionally honoured with propitiatory rites before the hunter will go out into the woods upon an expedition to destroy him. The immense southern steppes are occupied by the Kirghis, who extend into the Trans-Ilian region, Chinese Tartary, and Turkestan. They belong to the Turkish race, and profess a corrupt form of Islamism. Though claimed as subjects of the Czar, only a few have adopted a settled life as agriculturalists under his protection, and acknowledge allegiance. The majority are completely independent, have their own khans or chiefs, are nomadic in their habits, and wander at will in the territory as their own, which is delineated on maps as Russian ground. For many centuries these nomades have been discriminated as the Great, the Middle, and the Little Hordes, each of which has a particular general location. But the titles have now lost their numerical significance, as the Great Horde has become the least, and the Little Horde the largest. They are supposed to number together 400,000 tents, or to form an aggregate of 1,500,000 persons. Their wealth consists in horses, cattle, sheep, and camels. But they attack merchant caravans, and sell their captives in the slave-markets of Turkestan. A wild

mountain tribe south of Lake Issikul, called the Dikokamanni Kirghises, make war upon their neighbours indiscriminately for the sake of spoil.

EASTERN SIBERIA, a region of immense extent, comprehends the river-valleys of the Lena and Kolyma, the expanse of Lake Baikal, great part of the basin of the Amur, and a vast maritime tract on the Pacific Ocean. The country is mountainous in many parts. It comprises the eastern portion of the Altaï series, with the chain of Saian, and the Jablonovy or Apple range, towards the southern border, while parallel generally to the east coast, the Stanovoi Mountains stretch northward to the shore of Behring Strait. Forests of gloomy pines largely clothe the central portions of the surface. Other trees prominently mingle with them southerly, especially in the direction of the Amur, or the 'Great River,' as the Tunguses call it, while their Mantchu neighbours apply the name of Sagalientula, 'River of the Black Water,' to the stream. This is the most naturally fertile part of the vast province, but it has only become Russian by cession from the Chinese, at a recent date, and is therefore very little colonised. Northward, with every advance, the general aspect of the country becomes increasingly cheerless and desolate, while subject to a winter cold, terrible in its rigour and long duration. Thousands of square miles of this area are very imperfectly known to the authorities, and are not worth exploration, except by the fur-hunter. The most remarkable district is the extensive peninsula of Kamchatka, occupied by a series of lofty active volcanoes, one of which attains the great elevation of 16,000 feet. It now emits smoke and ashes, but was formerly distinguished after brief intervals by grand explosions. The northern members of the Kurile Isles, which stretch out from the peninsula towards Japan, with the north part of Sagalien Island, off the mouth of the Amur, and the singular ivory-bearing Liakov group, opposite to the mouth of the Lena, are included in this division of Siberia.

Irkutsk, the seat of the general government, and the head of a bishopric, is an agreeable town, situated on the Angara, the river which drains the Baikal, close to its confluence with the mountain stream of the Irkut, from which the name is derived. It is surrounded with remarkably fine scenery, contains the residence of the governor-general, with the official establishments, a handsome cathedral, various churches, a public library, a museum of natural history, and other institutions. The population amounts to about 19,000, and includes many wealthy merchants, with the best society in Siberia, as it respects educational accomplishments. The climate is healthy, but severe, as mercury freezes in the winter, though the latitude is only 52° 17', corresponding to that of the centre of England. Some manufactures are carried on for the supply of the native tribes, and an oil is prepared from the nuts of the stone-pine. There is also an imperial factory of woollens for the supply of the troops. The first settlement was made at this place by Ivan Pochapof, a Cossack leader, in the year 1661. The town is 3842 miles from St Petersburg; and hence its Russian inhabitants are nearly equidistant from their own capital and the earth's centre. The transmission of letters by post requires twenty-four days; but telegraphic communication was opened throughout in December 1863. The first dispatches left *Irkutsk* at noon, and reached St Petersburg at 8.30 P.M. *Kiachta*, about 200 miles on the south-east, is close to the Chinese frontier-town of Maimatchin. The place is small, but a highly-important seat of trade, fitted with storehouses for the reception of goods. A mart on neutral ground denotes the actual frontier of the two empires. A door on the northern side opens into the Russian dominions, and an opposite one into the Chinese. At sunset a bell is rung when transactions terminate, and both parties retire within their respective boundaries. Intercourse is maintained between them by the use of a Mongolian *patois*. No money passes. Tea, made up into bricks or cakes, called 'brick-tea,' is the standard of value. An immense quantity is imported into Russia by this overland route, of better quality than what is known in Europe generally, being the first crop, undeteriorated in flavour by a long sea voyage, but of a higher price, owing to the expense of the land transit. *Nertchinsk*, in the Trans-Baikal district, is in the midst of lead and quicksilver mines, to which the worst criminals are consigned.

Yakutsk, on the left bank of the Lena, is nearly 5000 miles distant by road from St Petersburg, 1100 miles north-east of *Irkutsk*, and 700 miles from *Okhotsk* on the shore of the Pacific Ocean. It is surrounded by extensive forests and marshes, remarkable for the intensity and duration of its wintry cold, which political offenders of rank have been doomed to experience by exile in this dreary site also. Of M. Mouravioff, who was sent here for his share in the conspiracy at the accession of the Emperor Nicholas, the officer in charge of him reported, in reply to an inquiry from the governor-general as to how he spent his time, 'He sleeps—he walks—he thinks.' The town is small, containing only 3400 inhabitants. But it is the centre of the fur

trade of Eastern Siberia, and has important traffic in ivory obtained from the walrus of the Arctic Ocean, as well as in the fossil kind procured from the remains of extinct animals found imbedded in the frozen soil of the Lena valley. The place puts on an animated appearance in the summer months when annual fairs are held. The native hunters then bring in their tusks, skins, and furs; and manufactured goods arrive from Irkutsk by the river to be exchanged for them. A month is required for their passage. They reach the Lena by an overland transit of about 100 miles, and are embarked at a point where the river is as broad as the Thames at London, though with a course of more than 2000 miles still to be accomplished. Butter is also brought by the natives to the Yakutsk market, which is forwarded on horseback through 700 miles of swamps and woods to Okhotsk, wholly dependent upon this distant supply.

Okhotsk, a naval port and trading station of the Russo-American Fur Company, on a vast arm of the Pacific, contains government offices, a church, ship-yard, and log-built houses, the whole forming a mere village in size. It rests upon a mass of shingles, one effect of which was not foreseen by its founders, but is related by a visitor. 'The church is the most lone and wretched imaginable. It stands apart from the houses upon a little elevation of the shingles, and has a burial-ground attached to it, the rails of which were however falling down for want of solid earth to sustain them. Moreover, we heard afterwards that it was impossible to place the remains of the dead out of reach of the wolves, by which they were continually raked from the shingles amidst which they were laid.' *Port Aian*, another station of the Fur Company, is further to the south. *Nicolaevsk*, a settlement at the mouth of the Amur, dates from the reign of the Emperor Nicholas, founded with the design of making it the principal Russian station on the Pacific Ocean. *Blagoveshensk*, far inland up the river, is the seat of government for the territory of the Amur, but has not yet gained the slightest consequence. Great recklessness has been displayed in attempting to open up the navigation of the river, and by it establish easier communication between the interior of Siberia and the Pacific. In 1855 about 400 infantry were ordered to ascend the stream in barges, as far as possible, and make their way to *Kiaichta*. They set out late in the season, furnished with an insufficient supply of provisions, and soon found themselves in a very sparsely peopled country, wholly solitary through great distances, when they were overtaken by the winter. They all perished of hunger, exhaustion, and cold, except eleven, who survived by subsisting on the bodies of their fallen comrades. *Sagalien* island, off the mouth of the Amur and the coast of Manchuria, separated by a narrow channel, is upwards of 500 miles long, but very contracted; and is apparently a valuable territory. The northern half is Russian, and the southern Japanese. Its native population are an abject race grovelling in the depths of barbarism. Of the *Kurile* islet-chain, extending between Japan and Kamchatka, twenty-two in number, the three southernmost belong to Japan, and the remaining nineteen to Russia. They are all volcanic, and possess fur-bearing animals.

Petropaulovski, the 'Port of Peter and Paul,' on the east coast of Kamchatka, is the Russian headquarters, naval and military, in that peninsula. It occupies an agreeable nook adorned with pine-woods, possesses an excellent harbour, but is often disturbed by earthquakes, and has an active volcanic crater in the background. Three interesting memorials of distinguished navigators are erected at this remote spot—one to La Perouse, the Frenchman, who sailed on the adjoining waters, and perished in the southern seas; a second to Behring the Dane, who discovered the strait which bears his name, and died after shipwreck on a neighbouring island; a third to Captain Clerke, the companion of Cook in his last voyage, who, after the violent death of his superior, here succumbed to disease, and was interred. The officers of Sir John Franklin's unfortunate expedition, in their last communications home, fully expecting to make the Northwest Passage, requested future letters to be addressed to them at *Petropaulovski*, via *St Petersburg*. In 1854, during the war, the place was unsuccessfully attacked by the Anglo-French fleet. It was afterwards abandoned by the Russians in expectation of the arrival of a larger force, and the fortifications were destroyed, but they have since been restored. The Kamchatkan peninsula has a milder climate than the interior of the continent at the same latitude. It has been held by Russia since the close of the sixteenth century, contains a very sparse native population, and possesses a peculiar breed of dogs, half mastiff and half wolf in their appearance and habits, but differing from both in the sound of the voice, which can scarcely be described, except as not corresponding either to the bark of the one or the howl of the other. They are tractable to their masters, but are not so much won by kindness as restrained by authority. In winter they cheerfully work hard, drawing the sledges for journeys of several days or even weeks in succession, with very little food; and are thus as valuable to the Kamchadales as the horse or the bullock to the civilised nations.

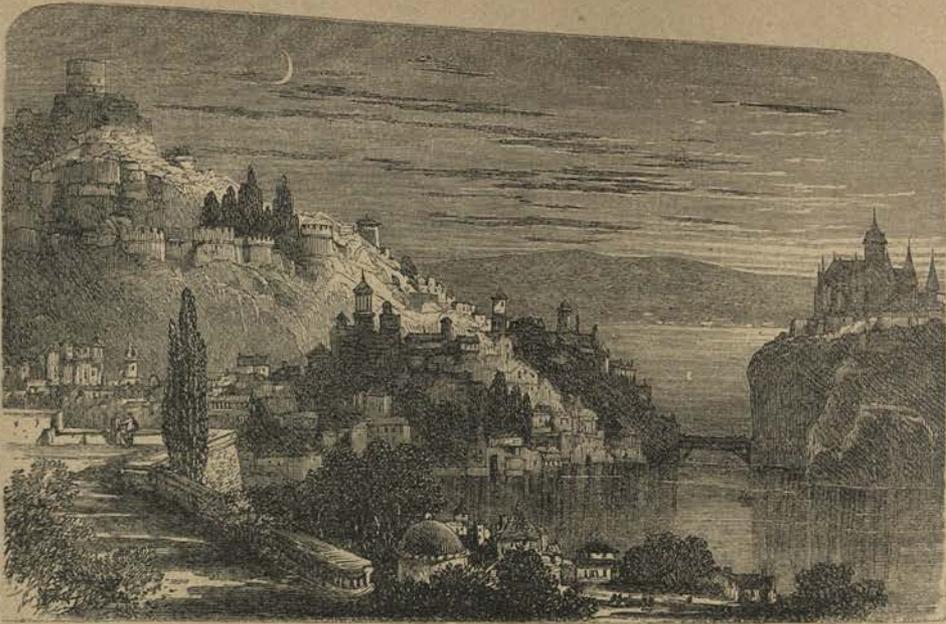
The aborigines of Eastern Siberia belong to various tribes like those in the western division, and correspond to them in modes of subsistence, wandering habits, paucity of numbers, gross ignorance, and low social condition. Though generally following fishing and the chase, yet many possess large herds of reindeer, and lead a more settled life. The *Buriats*, dwelling around Lake Baikal, are of Mongol origin, and are said to be the most numerous, though only reckoned at 150,000. They adhere to forms of Buddhism, as do the *Tunguses*, who are spread over the country eastward of the Lena, blending with

them rites analogous to fire-worship. Upon assembling at the annual fairs, they light enormous bonfires by night, and dance wildly around them, while the priests perform religious ceremonies as if to propitiate favourable commercial transactions. Some of the Yakutes in the lower part of the Lena valley, and the Kamchadales in their peninsula, have nominally embraced Christianity, but retain old superstitions, and cling to ancestral habits in all their rudeness. The Tehukchi, who occupy the extreme north-eastern angle of the continent, are pagans, bold and warlike, completely independent of Russian control. They occasionally visit the post of Anadirsk for the purpose of barter, but all attempts to subdue them, and occupy the country beyond this station, have hitherto been repulsed with loss. The name of these people is said to signify a confederation or brotherhood. But less is really known respecting them than of almost any other race on the face of the globe, considering that Behring communicated with them nearly a century and a half ago, and Cook touched on the coast. Lieutenant Hooper a recent visitor, discriminates two races, the Reindeer Tehukchi, or natives proper, chiefly in the interior, and the Fishing Tehukchi, an alien tribe, limited to the shores, with a dialect allied to that of the Esquimaux.

The climate of the regions of the Amur is influenced by two causes; first, its position at the eastern extremity of a large continent; and, secondly, by its being washed, towards its lower part, by the Pacific Ocean. The features of a continental and maritime climate being thus blended, the cold during winter is less severe, nor is the summer so warm as in other places under the same parallel. At the confluence of the Bureya, in 130° east longitude and 48° north latitude, thick fogs hang upon the river in August, and the nights are cold. In 1857, the first snow fell on the 6th October, and the temperature on the 24th was 23 degrees Fahrenheit; but by the 2d November, the snow had disappeared; by the 13th November, the river was frozen, and the glass had fallen to 10 degrees.



The Bureya Range, at the Mouth of the River Bureya.



Tiflis.

II. TRANS-CAUCASIAN PROVINCES.

Trans-Caucasia, or the country beyond the Caucasus, as viewed from the European side of the range, is situated between the Black Sea and the Caspian, and is subject to the sway of Russia as far to the southward as the borders of the Turkish and the Persian Empires. The grand mountain-chain runs in a very diagonal line from the one sea-basin to the other, north-west and south-east, which gives it an extent of about 700 miles, while its peaks rise to a stupendous elevation, the loftiest, Mount Elburz, nearly central, attaining the altitude of 18,400 feet. The next highest, Mount Kasbeck, to the eastward, is 16,500 feet. A military road is carried through a defile on its slope, and is the only carriage-way across the Caucasus, but is traversed with great difficulty in the winter season. This great range sends off numerous spurs and branches southerly, which ramify over the country, enclose lovely river-valleys, which almost link themselves with the mountains of Armenia. The whole region is eminently beautiful and fertile, with the exception of tracts on the Caspian, which are sterile plains, sandy, saline, or bituminous. Vegetation is very diversified and vigorous; and magnificent trees appear at an extraordinary elevation. Oaks, beeches, elms, and limes, of great size, crown the summits of dizzy heights, which, in less favoured climes, would exhibit the dark foliage of the pine. The yew, chestnut, and cherry are rarely seen elsewhere of equal magnitude; the common box-tree is a perfect giant of the forest; the juniper attains such dimensions as to be fifteen feet in circumference; and rich varieties of fruits and flowers grow in wild luxuriance on the lower grounds. The stag, antelope, wild boar, and wild goat are common animals. Nothing seems wanting in the outward aspect of the country but the picturesque moss-grown castle, the ivy-clad abbey, and the neat English-looking village, with its church tower or spire, in connection with a well-governed and instructed people, to render it one of the most charming in the world.

The largest river, the Kur, ancient *Cyrus*, enters the Caspian, after receiving the Aras or *Araxes*, which, for a considerable distance, forms the frontier line from Persia. On the side of the Black Sea the principal streams are the Ingur and the Rion. The latter is the *Phasis* of antiquity, which had a temple at its mouth, with cities and bridges on its banks. No remains of by-gone civilisation are extant at the spot, which is now occupied by the small modern village and fort of Poti. But, says Lieutenant-general Monteith, 'there was formerly here a preserve of pheasants, which birds derive their European name from the river Phasis, the present Rion.' The neighbouring district represents the Colchis of the pre-historic age, which the Argonauts are said to have visited in order to obtain the golden fleece, a relation which may have historical basis in some real voyage, commercial or piratical, of the early Greeks.

The Trans-Caucasian provinces form the four modern governments of Kutais, Tiflis, Shamaki, and Derbend; and embrace an area of about 80,000 square miles. But the names of the old divisions of the country maintain their hold on local remembrance, and are most familiar generally—Abassia, Mingrelia, Imeritia, Georgia, Shirwan, and that part of Armenia which has been absorbed by the Russian Empire.

ABASSIA is a narrow slip of territory lying along the north-east coast of the Black Sea, intersected by ridges sloping from the inland mountains, everywhere presenting the finest scenery, especially as seen from a little distance off shore. There are no towns, and only a few Russian posts on the coast, with highland villages in the interior, now largely deserted by the martial mountaineers, who have retired into Turkey rather than submit to the power which has so long oppressed them. In the defile of Jagra, the house occupied by Elijah Mansur is pointed out, who so strenuously exerted himself, towards the close of the last century, to unite the tribes of the highland isthmus in a common league, in order to cope with their northern antagonists with the greater chance of success. This extraordinary man, like his successor Schamyl, united the character of warrior, prophet, and priest, but was far superior to him in capacity and power. To this favourite cot in the defile he retired, when not engaged in war, where multitudes visited him to hear his discourses, which taught a more tolerant form of Islamism than that announced in the Koran, as well as to profit by his skill in medicine. His memory lives in songs; and a wild legend is current, that because he was not a true Mussulman, he has been condemned to imprisonment in the bowels of a mountain, but is to re-appear at the expiration of a hundred years, and wave his conquering sword to the terror of the Muscovites.

'He was born to tread the Moscov's pride
Down to the lowly dust;
He fought, he conquered, near and wide
That northern race accurst.

The swift deer bounds from hill to hill,
No arrow like its flight;
But Mansur's step was swifter still,
When he led on the fight.'

MINGRELIA, a maritime district immediately to the south, and IMERITIA, inland on the east, are comprised within the basin of the Rion. The fine region of GEORGIA extends southward from the central and highest portion of the Caucasus, and is entirely inland.

Kutais, in Imeritia, the head of the government, is a small town containing many Armenians and Jews, who monopolise the trade. *Tiflis*, the capital of Georgia, and of Trans-Caucasia in general, occupies both banks of the Kur, the best or Russian portion being on the western side. It contains about 37,900 inhabitants, but is enlivened with the noise and bustle of crowds of people from the neighbourhood. There are manufactures of carpets, silks, and shawls, celebrated hot baths, and an ample supply in season of exquisite fruits, as peaches, apricots, almonds, figs, and grapes. In many houses of the natives, common

paper, or oiled paper, may be seen as a substitute for glass in the windows, or the doorway answers the purpose of a window. Tiflis is about 1750 miles from St Petersburg. From hence starts the military road across the Caucasus, following the valley of the Kur, and its affluent the Aragna, until it enters the mountain region, which is traversed by the pass known to the ancients as the *Porta Caucasica*, now commonly called the Pass of Dariel. This is a series of tremendous defiles, extending altogether not far short of 100 miles, often so contracted as scarcely to afford room for the waters of the Terek to foam through on the northern side. Dariel is a miserable fortress, on a nearly isolated rock at one of the narrowest points, but a position which might easily be defended against any force that could be brought to bear against it. At the summit of the pass, the Kreuzberg, or Mountain of the Cross, 8000 feet above the sea, a stone monument commemorates the completion of the road in the year 1809. But the route was taken by General Toklabene in 1768 with a convoy of ammunition and stores. The descent of avalanches, torrents, and masses of schistose rock, are the natural dangers to be apprehended in this pass, especially after a thaw.

The imbecility of the native princes of Georgia threw them into the toils of Russia as suppliants for help in political difficulty, and they ceded their independence to gain it. Upon the death of Gourgheen Khan, sometimes styled George XI., in 1801, the Emperor Alexander incorporated the country as a province of his empire, appointed a governor-general, and to secure quiet submission he directed the widowed queen and other branches of the royal family to be sent to reside in Russia. This event did not transpire without a tragedy. General Lazaroff, charged with the execution of the office, found the queen obstinate; and when the carriages were ready, she refused to move. Placing his hand upon her to enforce compliance, the indignant woman drew a dagger, and stabbed him to the heart. A few months afterwards, she was on the banks of the Neva, with her sons and daughters, prisoners of state, and objects of curiosity to the people. Imeritia and Mingrelia were occupied in 1808, and subsequently incorporated.

The Georgians, like the Circassians, have long been celebrated for the athletic frames of the men and the beauty of the women. Hence there was formerly a large demand for both sexes, the males to serve in the armies, and the females to occupy the harems of the Turks. Nor has the traffic in the women ceased, or is it objected to by the parties concerned, though opposed by the Russian government. The girls, fascinated by the thought of a luxurious life in Constantinople, are reconciled to appear in the slave-market, while the consent of parents is won by a stipulated money value. A local legend at Gori, north-west of Tiflis, oddly refers the beauty of the women in part to an English origin. Allah, it is said, wished to stock his celestial harem with the fairest daughters of earth. He therefore commissioned an Imam, who was a good connoisseur in female beauty, to cull for him forty of the loveliest women he could find. The Imam journeyed into Frankistan, into the country of the *Inglics*, whence he carried off the king's daughter. The English monarch pursued him, but Allah, who protected his servant, threw dust in the eyes of the pursuer, and thus checked him. From England the Imam proceeded to Germany, where he selected many lovely maidens; but when he came to Gori, he fell in love with one of the beauties he had chosen for the celestial harem, and remained there with the whole bevy. Allah punished the treachery of the Imam by death, but the beautiful maidens all remained in Gori, and became the mothers of a splendid race of mortals.

The majority of the Georgians are not Mohammedans, as might be inferred from the legend, but only some of the mountain tribes. They belong to the Greek Church, and both clergy and people are abundantly ignorant and superstitious. Their old sovereigns lie buried in the cathedral of Msket, the place of their coronation. Over the grave of the last, Alexander caused a monument to be erected, with an inscription mentioning the cession of his territory. The emperor likewise restored to the people the cross of their patroness, St Nino, by way of conciliating them. According to ecclesiastical tradition, this female missionary came into the country, in the fourth century, to diffuse the true faith, bearing a cross made of the vine bound with her hair. Holding this symbol in her hand, she preached the doctrine of the evangelists. The cross was afterwards carefully preserved by the kings, who, when absent, deposited it in the cathedral of Msket, and in times of invasion retired with it to the mountains. The venerated relic found its way to Moscow at an early stage of the intercourse between Georgia and Russia; and its return had been solicited without success, till upon the annexation the emperor sent it back as a cheap benefaction to his new subjects, and a prized offering.

The province of SHIRVAN, formerly part of Persia, extends along the shores of the Caspian, and consists generally of a series of plains, well watered in the south by the lower course of the Kur, but in many places very unhealthy. The summer temperature is remarkably high. When Peter the Great made his ineffective campaign in this district, his soldiers suffered so grievously on the march from the intolerable heat that many of them dropped in the ranks. Wearing a dimity waistcoat, a white night-cap, with a plain flapped hat over it, the czar shared their fatigues, and trudged at their head, occasionally mounting an English pony.

Baku, a small walled town on the coast, defended by two forts, is one of the principal ports on the Caspian. At its gates, in 1806, Prince Zizianof, the first governor-general of Georgia, was shot dead by the treacherous commandant, who had invited him to a conference, with the expectation of delivering up the place into his

hands. The body was removed to Tiflis, and interred in the cathedral. The town stands on the southern shore of the peninsula of Apsheron, celebrated for its mud volcanoes and springs of naphtha, which yield annually upwards of 4000 tons. The naphtha issues from natural crevices in the ground, as well as artificial holes, and readily ignites. These springs are the

‘Fountains of blue flame
That burn into the Caspian.’

In their vicinity is the Field of Fire, about half a square mile in extent, from which inflammable gas is continually escaping. From remote antiquity to the present, this spot has been held in the highest veneration by the Guebres or Parsees, fire-worshippers, and visited by thousands of the race. There are still fire-temples at the place, and a few pilgrims from Persia and India.

RUSSIAN ARMENIA, sometimes called the district of Erivan, lies to the south of Georgia, extends to the Aras, and has a small south-western portion beyond the river. This last embraces the highest point of the colossal mass of Mount Ararat, where the Russian, Persian, and Turkish Empires are in contact. The country is for the most part a high plateau, and contains the large fresh-water lake of Sevan. Rapidly overrun by Prince Paskiewitch, the Persian part was ceded in the year 1828, and the Turkish in 1829.

Erivan, the capital, a poor town, but with an extensive caravan trade, and an important military position, occupies an elevated plain upwards of 3000 feet above the sea. Taken by storm by the general mentioned, he received in consequence the surname of Erivanski. About thirty miles to the south, Ararat, traditionally called the mountain of Noah, and regarded as the resting-place of the ark, but without the slightest authority from Scripture, rises majestically 14,320 feet above the plain, far above the snow-line, and has a total elevation of 17,323 feet above the sea. In harmony with the tradition referred to, a small town on the south-east has the name of *Nakhitchivan*, ‘first place of descent,’ as the spot where the patriarch fixed his first residence after the subsidence of the waters. Turks and Persians know nothing of Ararat by that denomination, but call it *Agri-dagh*, supposed by some to mean ‘the painful mountain.’

From its isolated position on the plain, which in comparison with itself has but a moderate elevation, this celebrated mountain reveals by far the greater part of its height and mass at once to the spectator, and is a sublime object. There are two summits, Great Ararat and Little Ararat, the latter upwards of 4000 feet lower than the former. They gradually slope to a blending in a common mass, while the peaks are seven miles apart in a direct line. For a short time the snow annually disappears from the top of the lower, but never from that of the higher. Great Ararat was ascended for the first time by Professor Parrot, October 9, 1829, who found the summit a gently-vaulted surface, about 200 paces in circuit, formed of eternal ice, without rock or stone to interrupt its continuity. It was next scaled by M. Abich, July 29, 1845, with six companions, who remained a full hour at the elevated point. The north-east slope of the mountain is the shortest, measuring about fourteen miles, on which there is a deep, gloomy, crater-like chasm, which can be seen from Erivan. Near this chasm, previous to a grave disaster, stood the large and beautiful village of Arguri. Its inhabitants cultivated the vine, believing, according to tradition, that Noah first planted it at the spot, and hence the Armenian name of the place, *argh*, ‘he planted,’ *urri*, ‘the vine.’ At a short distance, but higher up, was the monastery and chapel of St James, on a grassy platform.

The chronicles of adjoining monasteries extend back over a period of eight centuries, but are silent as to disturbance in the instance of Ararat, though the volcanic character of the mountain is not doubted by travellers, owing to the products on its slopes, consisting of trachytic porphyry, pumice-stone, and varieties of lava. The complete demonstration came on the 2d of July 1840, when a rent was formed at the upper end of the great chasm, which played the part of a crater. A little before sunset, with the atmosphere clear and calm, the inhabitants through a wide extent of Armenia were alarmed by a thundering noise, which was loudest in the vicinity of Great Ararat. An undulating motion of the earth was felt. Pillars of vapour or smoke rose from the point indicated, and quickly overtopped the mountain. Stones, earth, and mud were projected over its slopes, and fell into the plain. The vapour exhibited prevailing blue and red tints for a time. Its colour then changed to the deepest black, and a strong smell of sulphur was diffused through the air. Masses of rock were discharged upwards of fifty tons in weight. The eruption continued a full hour, accompanied by subterranean explosive sounds, and the noise caused by the stones whizzing with immense force through the air, crashing against each other, and falling to the ground. The village of Arguri and the monastery of St James perished, through being overwhelmed by the projectiles. Of their inhabitants, consisting of 1500 Armenians, 400 Kurdish servants, and 8 monks, only 114 escaped, who were at a distance from the immediate scene of the calamity. Erivan, Nakhitchivan, and other towns were injured severely by the earthquake; and 6000 houses were laid in ruins.

The Armenians of this district, like their brethren elsewhere, are addicted to trade, generally honest in their dealings, and though great ignorance prevails among them, it is not so gross as that in which their neighbours of the Greek communion are involved.

The ecclesiastical capital of the entire community, Etchmiadzin, is thirteen miles to the east of Erivan, in the valley of the Aras. This is a monastery where the head of their church resides, the primate, patriarch, or catholicus, near a considerable village. Externally it has the appearance of a quadrangular fortress, being surrounded with a lofty wall, entered by four gates, and flanked by towers, which, as well as the walls, are furnished with loopholes. It contains a church said to date from the time of St Gregory, 'the enlightener,' with a seminary, printing-press, and library, the latter to some extent useless, as it includes Latin and Greek books, which none of the monks and priests are able to read. A remarkable people, some of the Yezidis, who are reputed to be devil-worshippers, wander in summer in the region around Ararat, live in tents, but resort to the villages in the winter season. They deny the imputation, but maintain secrecy respecting their usages, and hence may have had practices ascribed to them of which they are innocent. It seems true, that believing in the existence of two powerful agents, the one good, the other evil, they carefully abjure the use of those expressions in relation to the latter, which are in common use, and convey ideas of horror or contempt.



Anapa, with the Abasian Mountains.



Coast of Anatolia.

CHAPTER II.

ASIATIC TURKEY.



THE Asiatic portion of the Turkish Empire is far more extensive than the European, embracing at least double its area, but containing a much smaller proportionate population, as vast tracts have no permanent inhabitants, though they are the temporary camping-grounds of nomadic tribes. It includes countries situated at the upper extremity of the Mediterranean, which form also the eastern side of the Greek Archipelago, the southern shore of the Black Sea, and extend thence to the north coast of the Persian Gulf. The region thus lies between the arms of two great oceans, the Atlantic and the Indian; and is of geographical interest as a central part of the Old World, while of the highest historical distinction as the theatre of most of the important events which mark the early annals of the human race. Trans-Caucasia, Persia, and Arabia form the inland limits, but on the side of the latter countries the frontier is very indefinite. The greatest linear distance, east and west, between Mount Ararat and Cape Baba on the Archipelago, measures 950 miles; in the opposite direction, the Black Sea and the south of Palestine are separated by an interval somewhat exceeding 800 miles; but a diagonal line, drawn from north-west to south-east, or from Scutari on the Bosphorus, to the head of the Persian Gulf, will extend over 1400

miles. The entire area embraces considerably more than 500,000 square miles, and is included between latitude 30° and 42° N., longitude 26° and 48° E. This territory is commonly supposed to contain the natal seat of mankind, as well as the centre from which the post-diluvians dispersed themselves. The great events which distinguish the annals of Judaism and the rise of Christianity transpired within its bounds, where also the old Assyrian and Babylonian empires—with their renowned capitals, Nineveh and Babylon, whose remains excite the curiosity and wonder of the present age—rose and perished. Cyrus and Alexander triumphed in decisive battles upon the soil. The ancient Greeks extensively colonised the maritime districts, where their degenerate descendants are now numerous in the ports, as well as in many inland towns and villages, by the side of ruined monuments of the taste and art of their forefathers, the fragments of temples and sepulchres.

Ottoman or Turkish Asia consists of four principal geographical regions—Asia Minor, Turkish Armenia and Kurdistan, Al-Jezireh and Irak-Arabi (corresponding to ancient Mesopotamia and Babylonia), Syria and Palestine.

I. ASIA MINOR.

The Lesser Asia, one of the finest countries in the world, is a peninsula projecting from the main mass of the continent towards Europe, which is very closely approached at the channels of the Bosphorus and the Dardanelles. It is enclosed by the waters of the Black Sea on the northern side, and has the Archipelago on the west, with the Mediterranean on the south. The coast-line abounds with gulfs and bays, bold headlands, and striking rock scenery. But generally the maritime region consists of a belt of fertile lowlands, of varying breadth, frequently very narrow, at the foot of high table-lands which occupy great part of the interior, and are both intersected and bounded by chains of mountains. The best defined range, that of Taurus, runs from east to west, parallel to the Mediterranean, and sends out offsets in its direction, against some of which the waves play or dash in hours of calm or storm. One of these points, on the south-west, anciently bore the name of Climax, or the 'Ladder,' in allusion to the regular gradation with which the heights rise one above another as they recede from the shore. The place figures in the campaigns of Alexander the Great, and can be identified. In ordinary circumstances there was no passage along the beach, but when the wind blew strongly from the land, causing a retirement of the waters, it might be traversed, though the enterprise was perilous. Availing himself of a favourable breeze, the king pursued this course in order to avoid a tedious journey across the ridge. The adventure was safely conducted, but the soldiers had to wade in places deeply through the water, and had an adverse gale arisen, the victor at the Granicus would never have seen another battle-field. An eastward interior outlier of the Taurus, near the modern town of Kaisariyeh, is the highest point of the peninsula. This is the volcanic snow-crowned cone of Mount Arjish, the ancient *Argæus*, which rises from a broad and extensive base to the height of 13,100 feet above the sea. It was ascended by Mr Hamilton in 1837, who met with the effects of volcanic action all the way up, and found at the summit two large and contiguous craters, containing deep unbroken snow. In the western part of the country, which has been shaken by earthquakes in the modern epoch, the evidences of volcanic action are very decisive, in numerous hot springs, and the remarkable 'burned region,' so styled by the Greeks from its monuments of fiery activity in past ages.

The table-lands have a mean elevation of from 3000 to 4000 feet above the sea, but the plain of Kutaiah attains the height of 6000 feet. These are dry and treeless tracts, in many parts sterile, in others clothed with excellent pasturage. But the slopes of the high

mountains, with the crests of the inferior ridges, and also a considerable extent of the maritime lowlands, are forest clad. A range parallel to the coast of the Black Sea has noble woods of ash, elm, plane, poplar, larch, beech, and oak, called by the Turks *Agatch Degnis*, 'the Sea of Trees,' extending through more than a hundred miles in length by forty in breadth, which supplies timber for their navy. The rivers are numerous, but have generally short courses, owing to the close approach of the highland interior to the sea; and their volume is not considerable, except during the winter rains, when they become ungovernable torrents. In the heat of summer they mostly dwindle to insignificance, and the channels of many are in places wholly dry. The largest example, the Kizil-Irmak, 'Red River,' is the *Halys* of antiquity, and flows to the Black Sea, which receives also the *Bartin* (*Parthenius*) and the *Sakaria* (*Sangarius*). On the side of the Archipelago are the *Bakir* (*Caicus*), the *Kodus* (*Hermus*), and the *Mendere* (*Meander*). The Mediterranean has connected with it the *Tersus* (*Cydnus*), the *Sihun* (*Sarus*), and the *Jihun* (*Pyramus*).

Several of these rivers, with some of their affluents, and other very minor streams, are celebrated in history under their old classical names. The *Halys* was the boundary between the Lydian monarchy under *Cresus* and the Median under *Cyrus*, on the banks of which the first battle was fought in the struggle between the potentates, which eventually transferred the sceptre of Asiatic dominion from the former to the latter. The defeated king had interpreted an oracle in his own favour, which stated, 'By crossing the *Halys*, *Cresus* will destroy a mighty power'—an ambiguous response as much susceptible of an adverse as of an auspicious signification. From the *Pactolus*, a gold-bearing runlet, which descended from adjoining heights to his capital, *Sardis*, he is said to have derived much of the wealth now proverbially associated with his name. The rivulet still flows to join the *Hermus*, but its auriferous sands have vanished, along with the city on its banks. The *Granicus*, a stream of no natural importance, which *Mount Ida* contributes to the *Sea of Marmora*, witnessed the first triumph of *Alexander* over the army of *Darius*. Bathing in the *Cydnus*, while oppressed with heat and overcome with fatigue, the conqueror contracted a fever, which for a time threatened to prove fatal. On the plains through which it flows, the heat of summer is fiercely felt, while the cold and snow of winter still mark its sources on the *Tauric highlands*. Hence till the warm season is sufficiently advanced it descends with a temperature in striking contrast with that of the atmosphere at the lower level. The *Cydnus* actually occasioned the death of the Emperor *Frederick Barbarossa* during the *Crusades*, but no property belongs to it except what is common to rivers which descend quickly from cold elevated uplands into burning plains. Modern travellers have sustained no inconvenience from repeating the experiment. 'We found the water,' remarks *Captain Beaufort*, 'undoubtedly cold, but no more so than that of other rivers which carry down the melted snow of *Mount Taurus*; and we bathed in it without feeling any pernicious effects.'

Salt-lakes and beautiful fresh-water expanses are numerous distributed over the surface of *Asia Minor*. On the plain of *Konieh*, the shallow salt-lake of *Koch Hissar*, with a circuit of about ninety miles, is one of the most remarkable of its class. The water is so extremely saline that no fish can live in it; no aquatic birds visit it, as their wings would become stiffened by the mineral; and anything thrown in is speedily coated. The remains of a causeway, built across the lake by *Sultan Selim*, are now almost concealed by an incrustation. The salt is a government monopoly, farmed by the *Pasha of Konieh*, who disposes of it. Among the other minerals are copper and argentiferous lead, productive mines of which are worked. Coal of excellent quality occurs in abundance near the shore of the *Black Sea*, in the vicinity of *Erekli*, which represents the ancient *Heraclea*. The field extends from seventy to eighty miles, and belongs to the true carboniferous formation. It was opened and wrought under English direction during the *Crimean war*, for the supply of the steam navy, and is of obvious importance to navigation on the adjoining waters. In the neighbourhood of *Konieh*, the peculiar earth, the *meerschaum*, literally 'sea-foam,' of the Germans is quarried, and is locally used like fuller's-earth with ourselves, in addition to its well-known appliance to the manufacture of tobacco-pipes. *Loadstones*, found near *Magnesia ad Sipylum*, first received the name of magnets after that of the town. *Jet*, the bituminous mineral, was similarly named from a river in the *Lycian province*, the *Gages*, on the banks of which it was collected by the ancients. It was originally called *gagates*, which passed by successive corruptions into *gagat* and *jet*. The most valuable animal native to the country—the *Angora goat*, has a limited range on one of the high upland plains, west of the *Kizil-Irmak*, where the winters are very cold and the summers excessively hot. This climatic contrast is supposed to contribute to the fineness of the hair, made into shawls and camlets, for which the breed is celebrated. The wild boar and hyena are common; with troops of jackals, making the night hideous with their cries, and dogs are a pest in all the cities, towns, and villages. The camel is the principal beast of burden; caravans of them are formed in long files for the transport of goods and merchandise; but a general change in the old eastern mode of locomotion is betokened by the *Smyrna and Aidin Railway*. Fruits in vast abundance, wax and honey, drugs and dyes,

silk, wool, cotton, leather, and goats' hides are the important commercial products. The insular dependencies consist of Cyprus in the Mediterranean; Rhodes at the entrance of the Archipelago; Mitylene, Scio, Samos, Cos, and many others, off its coast.

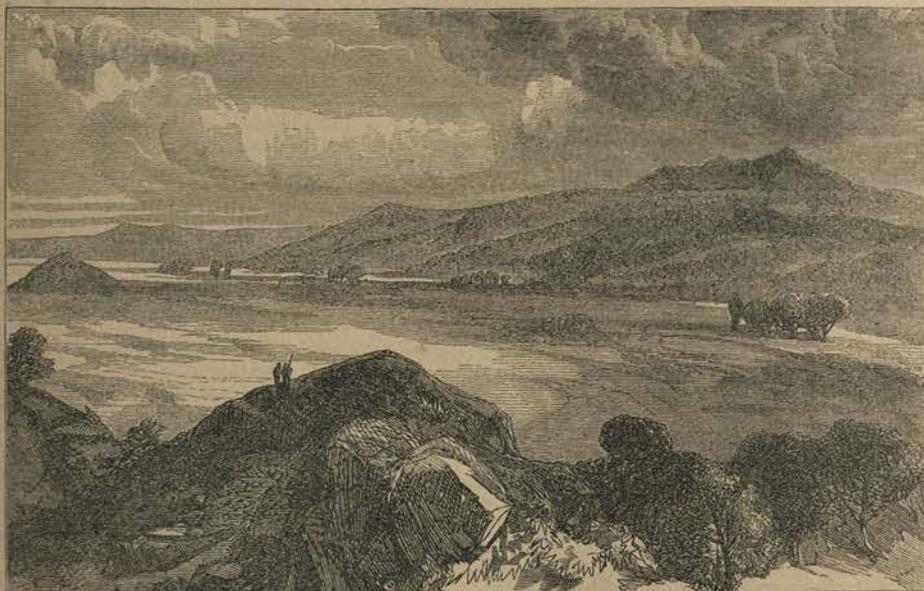
The political divisions include six eyalets or governments, under pashas of varying rank :

Governments.	Cities and Towns.
Anatolia,	Kutaiah, Smyrna, Aidin, Budrun, Brusa, Scutari, Angora.
Rumili, or Sivas,	Sivas, Tokat, Amasia, Mersivan, Samsun.
Trebisond,	Trebisond, Kerasun.
Marash,	Marash, Malatiah.
Karamania,	Kaisarieh, Konieh, Karaman.
Adana,	Adana, Tarsus.

In ancient times Asia Minor comprehended nine maritime and five interior provinces, many of which were at intervals distinct states. Their names are therefore introduced as of common occurrence on the page of history.

Ancient Divisions.	
Northern,	Bithynia, Paphlagonia, Pontus.
Western,	Mysia, Lydia or Mæonia, Caria.
Southern,	Lycia, Pamphylia, Cilicia.
Central,	Phrygia, Pisidia, Lycaonia, Galatia, Cappadocia.

ANATOLIA, the largest and most important part of the peninsula, is immediately contiguous to Europe, and has its position in that connection defined by the name, which signifies the 'sun rising,' or the 'east,' equivalent to the Levant of the Italians and French. Rich plains extend along the coasts, but a considerable portion of the high central plateau region is embraced, with the western part of the range of Taurus on the south, and of the chain which skirts the shores of the Black Sea on the north. The narrow waters thence to the Archipelago are overlooked by the peaks of the Bithynian Olympus and Mount Ida. The wooded heights of the latter enclose the famous Troad



Mount Ida, from the Plains of Troy.

on one side, which the sea directly south of the Dardanelles washes on the other. This renowned scene of the struggle commemorated in the *Iliad* is a level peninsular plain, watered by the Mendere and the Bunarbashi, which are supposed to represent the Simois and Scamander of antiquity. Three miles from the shore, a hill called Hissarlik has claims to be considered the true site of Homer's *Ilium*; and artificial mounds on an adjoining promontory have had the names of Achilles and Patroclus traditionally associated with them as their tombs from a very ancient date. The entire plain has now few noticeable features; and it must have undergone great changes from natural causes in the lapse of ages, as the rivers named, inconsiderable in summer, overspread it with torrent-like floods when swelled by the winter rains.

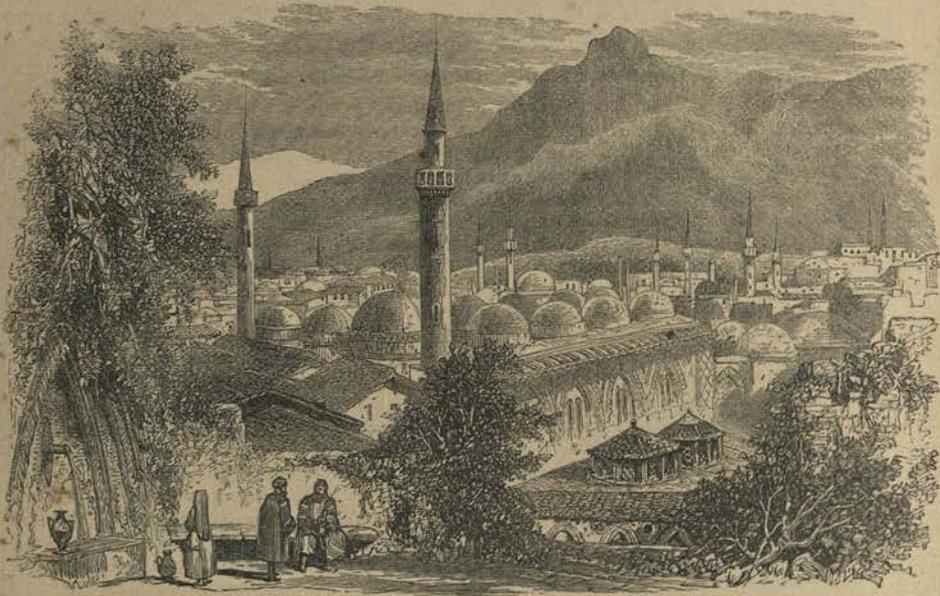
Kutaiah, the ancient *Cotyceum*, is an inland city on a branch of the Sakaria, on the great route between Constantinople and Aleppo, said to contain 50,000 inhabitants. It possesses no ancient remains or objects of interest, but ranks as the capital, being the residence of the Pasha of Anatolia, who has military command of the whole country on the west of the Euphrates. This place was the residence of Kossuth, and other Hungarians under mild restraint as refugees in the Turkish dominions. *Afium Kara-Hissar*, 'Opium Black Castle,' further inland, on the south-east, is a considerable town, deriving its name from the extensive production of opium in the neighbourhood.

Smyrna, by far the largest city of Asia Minor, and the most important commercial port of the east, after Constantinople, is finely situated at the head of a gulf of the Archipelago, partly on a plain by the shore, and partly on the slope of the ancient Mount Pagus, the summit of which is crowned by a citadel in ruins. It is of high antiquity, has traditional claims to be considered the birthplace of Homer, and was celebrated in the classical ages as 'the crown of Ionia,' 'the ornament of Asia.' In modern times it has been eulogised as 'Izmir the lovely,' its Turkish name, and denounced as 'Izmir the infidel,' in allusion to the large number of its non-Mohammedan inhabitants. The population is estimated at about 150,000, consisting to the extent of at least one half of Greeks, Armenians, Jews, and Franks belonging to most European states, with their consuls. The Greek and Frank quarters stretch two miles along the shore, in the midst of which is the Casino or Merchant's Club, an establishment worthy of Western Europe, well supplied with papers and magazines, access to which is readily granted to strangers. Six newspapers are published in five different languages. Street scenes are full of interest from the varied appearance of the motley population, embracing the long-bearded Turk, the classically-dressed Greek women, sailors from all parts of the Levant, dervishes, Greek priests, camel-drivers, and camels. The trade, in the export of figs, raisins, and gall-nuts; silk, raw cotton, goat's hair, and skins; madder, olive oil, valonia, drugs, and gums, is immense. Cotton and woollen goods and hosiery, are the important imports from England. Coffee-houses and pleasure-gardens are scattered along the banks of the Meles, which enters the gulf outside the city. Its caravan bridge is a picturesque spot. Files of camels are constantly passing over it, with packs of merchandise brought from far-off places; while others, having discharged their burden and returned, are seen reposing in groups by the side of the stream, in the shade of enormous cypresses. The railway to Aidin, partly opened in 1860, now brings up the fruit crop, with other produce, from the southerly districts. Old Smyrna chiefly occupied the slope of Mount Pagus. An excavation on one side of the hill marks the site of the Stadium, and is traditionally regarded as the spot where Polycarp suffered martyrdom in the first age of Christianity.

The city was the seat of one of the 'seven churches' of the early Christian period addressed in the Apocalypse; and it alone has flourished. Of the remaining six, *Pergamos*, now *Bergama*, 48 miles on the north; *Thyatira*, now *Ak-Hissar*, 'White Castle,' 60 miles on the north-east; and *Philadelphia*, now *Allah-Shehr*, 85 miles on the east, are inconsiderable places. *Sardis*, 50 miles on the east, has no representative but the nodding walls of its Acropolis, and a few mud-built huts; *Laodicea*, 120 miles on the south-east, has only the poor village of *Eski-Hissar*, 'Old Castle,' by its site; and little appears at *Ephesus*, 40 miles on the south, but a ruin-strewed malarious plain, abandoned to desolation and silence, except that the rattle of the railway from Smyrna to Aidin, which passes over it, occasionally mingles with the sea-bird's cry, the howl of dogs and jackals, and peasant voices from the adjoining hamlet of Aiasaluk. Yet vast substractions and some mighty fragments, half entombed in sand and rubbish, attest the grandeur of the ancient city, which have been recently illustrated by the industry of Mr Falkener. Its temple of Diana, one of the seven wonders of the world, has utterly perished, and its site has not been identified. But traces of the theatre, the scene of a memorable incident in the history of St Paul, are distinct on the slope of a lofty hill, and shew its immense extent, capable of accommodating upwards of 50,000 spectators. *Aidin*, a commercial town, is 60 miles south of Smyrna, in the fruitful valley of the Meander.

Budrun, a small port and fortress, on an inlet of the south-west coast, occupies the site of Halicarnassus, the capital of Caria, and the birthplace of Herodotus. The city was famous for a splendid tomb erected for Mausolus, one of the rulers, from whose name the word mausoleum is derived. This structure, long concealed by the rubbish of ages, has been discovered in the present day, and fragments of it transported to the British Museum. Striking sepulchral remains of the ancient Greeks abound in this part of Asia Minor. The site of Telmessus, now occupied by a small village port, has its 'mountain of tombs,' consisting of

excavations in the hill, the exterior of which present the appearance of finely-built temples, having porticoes, columns, gates, and doors beautifully sculptured, but in a more or less ruined condition. The interiors are small rooms, with benches running along three sides, upon which the coffins or urns have been placed. Some are larger, affording accommodation for mourners within them. The tombs are of several styles and various dates, but none are thought to be more recent than about 370 B.C. Extant inscriptions shew that the domestic affections were fondly cherished by the old Greeks. *Adalia*, at the head of the gulf to which its name is given, is a thriving port on the Mediterranean.

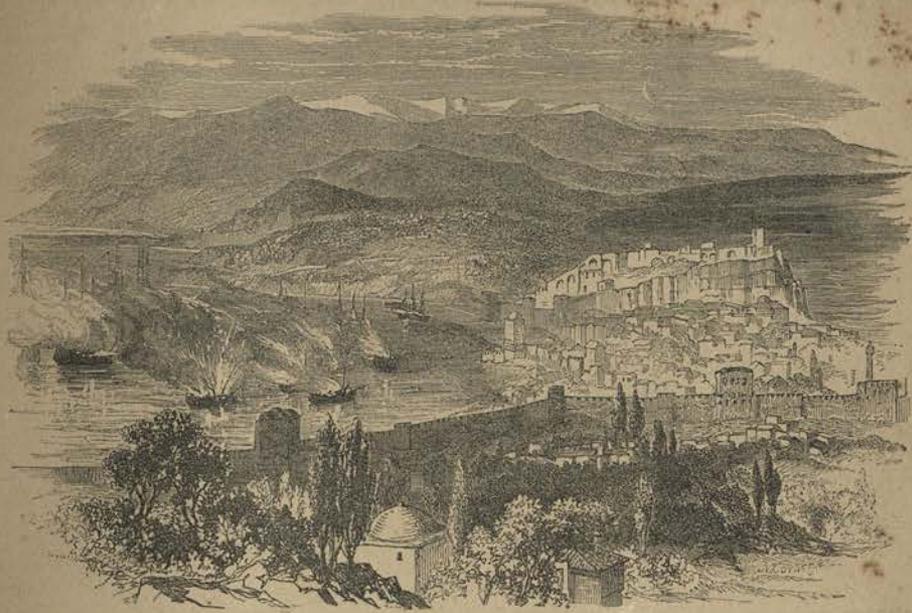


Brusa.

Brusa, formerly *Prusa*, in the northern part of the peninsula, about twelve miles from the Sea of Marmora, ranks next to Smyrna in importance and population, 60,000. It is renowned for its splendid situation, the number of its warm springs and of its mosques, 365 large and small, some of which are magnificent erections, but the majority are woefully dilapidated. The city occupies a plain sparkling with streams, gay with flowers, and diversified with meadows, gardens, and mulberry woods, the whole surrounded by a framework of mountains, among which the noble head of Olympus is conspicuous from afar, silvered with snow through the greater part of the year. The site is eminent for historical associations as well as natural beauty. Here, at a remote period, the kings of Bithynia kept their court, one of whom gave an asylum to the illustrious Hannibal in his misfortunes, who probably ended his days in the locality. Here Pliny, as the Roman governor, noted the early progress of Christianity, and illustrated the piety of the primitive believers. Here likewise Othman, the founder of the Ottoman dynasty, fixed his residence, and was interred in one of the mosques, originally a Byzantine church, where some curious relics of him were preserved down to the first year of the present century. A fire then desolated the city and ravaged the mosque. The dome fell in, and covered the tomb with a heap of rubbish. This event, happening at the beginning of a century, was popularly regarded by the Turks as ominous of the speedy downfall of the empire. The remains of Amurath I., third sultan of the Ottomans, and the first who died upon the soil of Europe, repose at a village in the neighbourhood, where he had caused his own mausoleum to be prepared. This edifice is a beautifully-proportioned domed structure, still in good preservation, with the funeral arrangements just as they were nearly five centuries ago. In our own day Brusa became the residence of the celebrated Arab emir, Abd-el-Kader, when allowed to withdraw from France. It suffered severely from an earthquake in 1855. Silk is extensively raised on the adjoining plain, the preparation and spinning of which is the chief industry of the inhabitants. On the north-east, bordering a spacious lake, the poor village of Isnik occupies the site of *Nicaea*, where the ecclesiastical council was held which drew up the Nicene Creed, 325 A.D.; and in the same direction, at the head of a long inlet of the Sea of Marmora, the inconsiderable but pleasant town of Ismid represents *Nicomedia*, once a splendid city, made by Diocletian, for a time the capital of the Roman world.

Scutari, on the Asiatic side of the Bosphorus, a suburb of Constantinople, is celebrated for its vast Moslem cemetery, constantly replenished from the great city. It has now a conspicuous Protestant burying-ground,

containing the graves of many of our countrymen who died of sickness or wounds in the hospitals here provided for their reception during the Crimean war. The name of the place is a corrupt Persian word signifying a courier; and Soutari is the starting-point of couriers and caravans from the capital bound for inland Asia. *Sinope*, a port of the Black Sea, of ancient fame, founded by a Milesian colony, acquired notoriety in



Sinope.

1853 from the merciless destruction of a Turkish squadron at anchor in the roadstead by the Russian fleet from Sebastopol. *Angora*, formerly *Ancyra*, occupies a high interior site on a branch of the Sakaria, and contains a great number of khans and mosques, with many antiquities, and a considerable population. The fine silky hair of the goats of this upland region, an effect of the climate, distinguishes to some extent the cats and the shepherds' dogs, whose fleeces are used for the purpose of adulteration. On the plain of Angora, in 1403, the fiery Ottoman sultan, Bajazet I., was overthrown and taken prisoner by the invading Mongols under Tamerlane. The city was the capital of Galatia, a district named after its inhabitants, who branched off from the great Gaulish emigration which crossed the Hellespont under Brennus, 270 B.C. From the mingling of these settlers with Greek colonists, the country obtained the name of Gallo-Græcia, whence Galatia. A Celtic dialect was spoken in the time of Jerome, six centuries after the immigration. The apostle Paul visited Galatia, and addressed an epistle to the Christian part of the population.

The pashalics of RUMILI and TREBISOND extend along the Black Sea, and have shores possessing great scenic attractions, with a history dating from the days of Grecian fable. Vines and fruit trees clothe the lower slopes of the mountains, above which, up to the summits, are noble beeches and pines. Among the undergrowth is the pale-yellow honeysuckle on which feed the bees, whose honey had an intoxicating effect, amounting almost to temporary madness, upon the Greeks under the command of Xenophon, described in his history of the Retreat of the Ten Thousand. This deleterious property, noticed by the moderns, is supposed to be consequent on the bees extracting the honey from the *Azalea Pontica*.

Sivas, ancient *Sebaste*, an inland town of 30,000 inhabitants, is situated in the valley of the Kizil-Irmak, not far from the sources of the river; and has many elegant mosques and minarets, well-stocked bazaars, and a considerable transit trade. *Pokat*, on a branch of the Yeshil-Irmak, or Green River, another centre of inland commerce, is a somewhat larger town, with a cheerful appearance, owing to extensive groves and gardens, the former made musical by nightingales, the latter teeming with odorous flowers. Copper-mines are in the mountainous vicinity; and copper refining, with dyeing, and printing cottons, are prevailing industries. *Amasia*, nearer to the coast, is distinguished by antiquities, as the capital of ancient Pontus, the

birthplace of Mithridates and Strabo the geographer. It has only one mosque, as the greater part of the inhabitants are Christians. *Mersivan*, more important, with a population of 30,000, is surrounded by a region of wooded mountains, and luxuriant well-watered valleys. The country abounds in corn and fruit; the vineyards are extensive; and an excellent red wine is made from the grapes. All the preceding towns are on the great route leading from Constantinople to Mosul on the Tigris, a distance of about 1000 miles. *Samsun*, on the coast, though only a small place, has an active commerce as the shipping port of Sivas and Tokat.



Trebisond.

Trebisond, a principal port of the Black Sea, situated near its south-eastern extremity, about 600 miles from Constantinople, is the natural entrepôt of merchandise destined for Armenia and Persia. It contains a population of 25,000, has enclosing walls passed by six gates which are shut at sunset, with a dilapidated citadel, and considerable suburbs. There are eighteen large mosques, the handsomest of which, Saint Sophia, formerly a Christian church, is built of hewn stone, and has four white marble Corinthian columns at the principal entrance. The other public buildings are Greek and Catholic churches, khans and baths, with a beautiful aqueduct carried on arches across a valley conveying cool and refreshing water to the inhabitants. Though without any proper harbour, the roadstead has good holding-ground for vessels, and the remains of an ancient mole still serve the purpose for which it was made. The imports are largely British manufactures, purchased and shipped at Constantinople, conveyed inland on the backs of mules, asses, oxen, or camels, and also in rude native carts. The exports are silks, wool, hides, tobacco, wax, nut-galls, and various gums. Few places are so magnificently situated, or have a more pleasing aspect at a little distance. A range of lofty mountains forms the background umbrageous from base to summit. Viewed from the sea, white houses are seen with red tops peeping out from the foliage of trees and shrubberies. But the interior has its proportion of poor hovels, ragged beldames, and sinister-looking beggars. The climate is very genial. Figs, olives, pomegranates, and lemons are abundant; and the atmosphere is wonderfully transparent, but so humid, that no metals can be left about, even for a day, without contracting rust. Trebisond is the *Trapezus* of antiquity, so called from its shape corresponding to that of a parallelogram or trapezium. It was from the adjoining heights that the immortal Ten Thousand, after their severe winter march through the Armenian highlands, first caught sight of the waters of the Euxine, communicating with their homes, and rapturously exclaimed, 'The sea—the sea!' *Kerasun*, westward on the coast, wholly insignificant, answers to *Cerasus*, from whence Lucullus introduced the first cherries into Italy. Hence their German name *Kirschen*.

The provinces of MARASH and KARAMANIA are wholly inland, on the eastern side of the peninsula. That of ADANA is maritime, and forms the extreme north-eastern coast of the Mediterranean, indented by the Gulf of Iskenderun. It coincides with ancient Cilicia,

and is chiefly a fertile plain, separated from the interior table-lands by the range of Taurus, which is crossed by the pass of Golek-Boghas, the old Cilician Gates.

Marash, a flourishing town, is beautifully situated at the southern base of Taurus, immediately overlooked by its wooded heights. *Malatiah* is on the northern side, within a short distance of the banks of the Euphrates. On the neighbouring plain the general of the Emperor Justinian defeated the Persian Chosroës, who crossed the river on an elephant, and escaped on a camel, abandoning his army to its fate.

Kaisariëh, a walled, dilapidated, but still considerable city, a few miles south of the Kizil-Irmak, is the *Cæsarea* of the Romans, the capital of Cappadocia, once containing a vast population. *Koniëh*, seated on the route between Smyrna and Aleppo, occupies a rich and well-watered plain, and is rendered by its position a great emporium for the produce of the interior. It has manufactures of carpets and morocco leather, and contains 30,000 inhabitants, besides a suburban population. In 1832, on the adjoining plain, the Turkish army was signally defeated by the Egyptian under Ibrahim Pasha, a disaster which laid the road to Constantinople quite open to the invader. The city, under its ancient name, *Iconium*, was visited by St Paul. In the middle ages it was the capital of a dynasty of Seljukian princes. Here Mollah Hunkiar, a Moslem saint of high repute, and an author of eminence, founded the order of the Mevlevi Dervishes, one of the most venerated in the Turkish Empire. It contains his tomb, and the most celebrated monastery of the community. *Koniëh* retains its walls, now half in ruins, and has some interesting fragments of Saracenic architecture, with substructions of the palace of the Seljukian sultans.

Adana, on the banks of the Sihun, a town of 10,000 inhabitants, is in a richly luxuriant neighbourhood, with vineyards around it, and intermingling groves of mulberry, olive, fig, apricot, and peach trees. *Tarsus*, near the waters of the old Cydnus, is smaller and decayed, but has great historical distinction. It was once a flourishing city, connected with Alexander, Cicero, Cæsar, Mark Antony, and Cleopatra, but most distinguished as the birthplace of the apostle Paul, who described himself on a memorable occasion as 'a Jew of Tarsus, a city in Cilicia, a citizen of no mean city.'

Among the insular adjuncts of the peninsula, *CYPRUS*, the largest, is situated opposite the shore of Cilicia, and forms a separate pashalic. Its greatest extent is from north-east to south-west, upwards of 120 miles, in which direction two chains of mountains run respectively along the northern and southern coasts, which attain the height of 8900 feet above the sea in Mount Santa Croce. Between them lies a fertile plain extensively abandoned to neglect, but rich with flowering plants, myrtles, and bright-leaved shrubs, which ascend high up the bordering slopes, and load the air with their perfume.

Nicosia, the capital of Cyprus, in the interior, contains 12,000 inhabitants. The general population consists of Greeks in the largest proportion, with the dominant Turks. The island has successively belonged to various masters, the Phœnicians, Persians, Greeks, Romans, Crusaders, and Venetians, from whom it was wrested by Selim II. in 1570. It was anciently celebrated for female beauty and licentiousness; and had a famous shrine of Venus at Paphos, a site on the south-west coast, now occupied by a few fragments of prostrate columns and a poor village.

RHODES, also an island of considerable extent, the 'lovely island of the sun,' as it was fondly styled by the old inhabitants, is a south-easterly member of the Greek Archipelago. It enjoys a delicious climate, possesses great natural fertility, and has high historical distinction, though now reduced to comparative desolation. In classical times it was the seat of commerce, navigation, literature, and the arts, while the stronghold in the middle ages of the Knights of St John. Many remains of both epochs invite the traveller to the shores. *Rhodes*, a town of 10,000 inhabitants, at the north extremity of the island, is of ancient date, celebrated for its brazen Colossus, reputed to be one of the seven wonders of the world, erected 238 B.C. and thrown down by an earthquake 227 B.C. It became the capital of the Knights of St John in 1308 A.D., an order of military monks founded in the crusading age, who held the island for rather more than two centuries. They successfully defied the arms of Mohammed II., the conqueror of Constantinople; but were compelled to yield to the immense force brought against them by Soliman the Magnificent, after a long and terrible struggle. The siege is remarkable in military annals for the first use of bombs, which were employed by the besiegers, and the invention of counter-mines by an Italian engineer. On Christmas Day 1522, the sultan entered the city, and the members of the order were finally put in possession of Malta. Rhodes retains splendid memorials of its chivalrous defenders, and nearly perfect remains of its ancient fortifications. Houses still bear on their front the arms of noble families in France, Spain, Italy, and Germany, the former residences of the knights, which are now converted into wretched shops. Towers and gates, warlike and massive, but beautiful and aristocratic, survive as relics of their high-born builders. The chief field of battle, a plain extending from the ramparts to Mount St Stephen, is now covered with the tombs of those who fell in the contest.

The other islands of the Archipelago are beautiful, fertile, and more or less celebrated. The principal include *Cos*, the birthplace of Hippocrates and Apelles; *Samos*, of which Pythagoras was a native, once renowned for its pottery, one of the chief seats of ancient civilisation; *Chios* or *Scio*, a lovely spot, the scene of a dreadful tragedy in 1822, at the commencement of the Greek revolution, when the whole of the inhabitants, 120,000, were either massacred by the Turks or sold into slavery; and *Mytilene*, or *Lesbos*, famed in antiquity for its wine, the native place of Alceus, Sappho, and Theophrastus. It produced also Barbarossa, the pirate of the sixteenth century, who made himself master of Algiers, and established there that system of

piracy of which it was the seat to a comparatively recent date. *Patmos*, a small rocky islet, is memorable as the spot to which the apostle John was banished, and as the scene of the Apocalyptic visions.

Throughout Asia Minor, the great majority of the population consist of Turks, the ruling race, differing in nothing from their European brethren except in being more Asiatic in appearance and habits, while more ignorant and intolerant as Moslems. Under their misgovernment, a region possessed of splendid natural resources, which flourished under successive Persian, Greek, and Roman masters, in spite of campaigns and battles, has had its fortunes sadly marred. They are now reviving as the effect of foreign enterprise, and may be expected to improve rapidly, should the scheme, often proposed, be adopted, of intersecting the country with a railway from Scutari to the valley of the Euphrates, thence extending to the Persian Gulf, as part of the great line of communication between England and India. The wires of the telegraph stretch through it to Bagdad, and will shortly by extension establish daily intercourse between the two far-distant realms. Turkomans, a branch of the same family as the Ottomans, who speak a kindred dialect, but retain the nomadic usages of their ancestors, are numerous on the high plains, where they live in tents during the summer, frequently shifting their camps in search of pasturage, and generally spend the winter in fixed villages. They possess large herds of camels, buffaloes, goats, and sheep, and breed horses for sale; while the women spin wool, make carpets, and articles of clothing. Each camp is under the government of a chief, and pays a tax to the pashas of the respective districts proportioned to the number of tents, for the privilege of pasturing their flocks and herds. While adhering to Mohammedanism, they have little acquaintance with its dogmas and precepts, and have no mosques or priests. The Turkomans are variously spread further east, over the high grounds of Armenia, the wavy downs of Upper Mesopotamia, and the northern plains of the Syrian desert.



Fishing Huts on the Bosphorus.



Erzerum.

II. TURKISH ARMENIA AND KURDISTAN.

ARMENIA, an old historical country, to the east of Asia Minor, is not defined in its extent by any permanent natural boundaries, except on the south, where the chain of Taurus sinks into the plains of Mesopotamia; and its limits have repeatedly fluctuated. Though probably the first peopled district of the post-diluvian world, it has seldom been the seat of an independent kingdom. Shortly before our era, it was the head of one of those vast oriental monarchies which rise and perish in a lifetime, formed by Tigranes, who found a conqueror in the Roman Lucullus; and afterwards, the Romans and Parthians were engaged in constant struggles for predominance in the region, alternately installing and dethroning its rulers. The largest portion of the country belongs at present to Turkey; another section is included in Persia; and a third in the Russian dominions. Lofty plateaus, overtopped by vast ridges of granite, gneiss, and mica-schist, and intersected with deep valleys, occupy nearly the whole surface, forming the grand nucleus of the Western Asiatic or Tauro-Caucasian mountain-system. Numerous traces of volcanic agency in past ages are met with, and still at present the fiery internal force occasionally displays its activity.

Owing to the great elevation of the country, the winters are long and severe, attended with immense falls of snow. The sufferings of the Ten Thousand Greeks from the rigorous temperature, while traversing the uplands, are well known to the readers of Xenophon. It was the French retreat from Moscow upon a small scale. The north wind parched and benumbed the men, which caused the priests to offer sacrifices to it. The snow was a fathom deep; and many of the slaves, soldiers, and baggage-horses perished in it. Some of the troops contracted a disease from exposure, attended with excessive hunger and faintness; others lost their sight by the snow; and many their limbs by mortification, while the infuriated natives harassed them by attacks, and cut off every straggler. All travellers have borne testimony to the rigour of the climate. Mr Ainsworth left the

plains of Mesopotamia in the latter end of August, where the mid-day heat was almost insupportable, and the nights were passed in the open air, on the grass or on the house-tops; but on reaching the table-land of Mush, a fire was a welcome refuge, and on the road from that place to Erzerum, in the early part of September, there was keen frost every night. Schulz, on his route from Trebisond into the interior, passed over districts covered with deep snow in the month of June. Tournefort found the springs thinly frozen over during the night in July; the corn only a foot high; and vegetation no further advanced than it is wont to be at Paris towards the close of April. Mr Southgate, the American missionary, remarks upon more temperate nights being desirable at Erzerum in June, and upon one great occupation of the summer—by way of preparation apparently for preserving warmth in winter—most of the houses have cakes of fresh dung plastered upon the walls and spread upon the roofs to dry for fuel. The same practice prevailed in the heart of England not more than half a century ago, before increased means of intercommunication brought coal within reach of the peasantry. Xenophon describes the villages as consisting of underground dwellings, containing horses, cows, goats, sheep, and fowls, in addition to one or two families, who resorted to this protection from the severity of the climate, with an ample stock of provisions and fodder. There was a sloping entrance dug for the cattle, the owners themselves descending by ladders. The description applies to many Armenian villages in the present day. In exposed elevated situations the dwellings are uniformly underground or semi-subterraneous, entered by as small an aperture as possible, to prevent the cold getting in, or rather the escape of heat. Domestic animals participate with the household in the warmth and protection afforded by them.

The Euphrates and Tigris, sacred and classic streams, have their sources in the highlands, and periodically overflow their banks in the level countries to which they descend, in consequence of the melting of the snow in spring. The former river has its principal spring on the southern slope of the Ala Tagh, or 'Beautiful Mountain,' which rises nearly midway between Ararat and the great Lake Van. It has a course of 1700 miles from thence to its confluence with the Tigris, when the joint streams take the name of the *Shat-el-Arab*, or 'River of the Arabs,' and proceed to the Persian Gulf. But the direct distance between the two points is not more than 600 miles, thus giving 1100 miles for the amount of meandering. This great development of the stream is due to the Armenian Mountains, which oppose its passage to the south, and give it a westward flow, as if making for the Mediterranean; and also to the flatness of the country afterwards entered, which favours a tortuous course. The Tigris rises in Central Armenia, on the southern slope of the Anti-Taurus, which forms the water-shed between its tributaries and those which descend the northern slope to feed the Euphrates. It has a course of about 1000 miles, following the windings; a more rapid current than the sister-river; and brings down to the junction a greater quantity of water, as less is drawn off for the purpose of irrigation, and more received from affluents. Their total average discharge is more than one-third less than that of the Danube. At the Castle of Felujah, on the Euphrates, nearly due west of Bagdad on the Tigris, their channels are only thirty miles apart, yet the confluence does not take place till the former river has accomplished a further course of 380 miles. Lake Van, a highland expanse more than 200 miles in circuit, renowned among the orientals for its beauty, is on the frontier of Armenia and Kurdistan, and belongs about equally to the two regions.

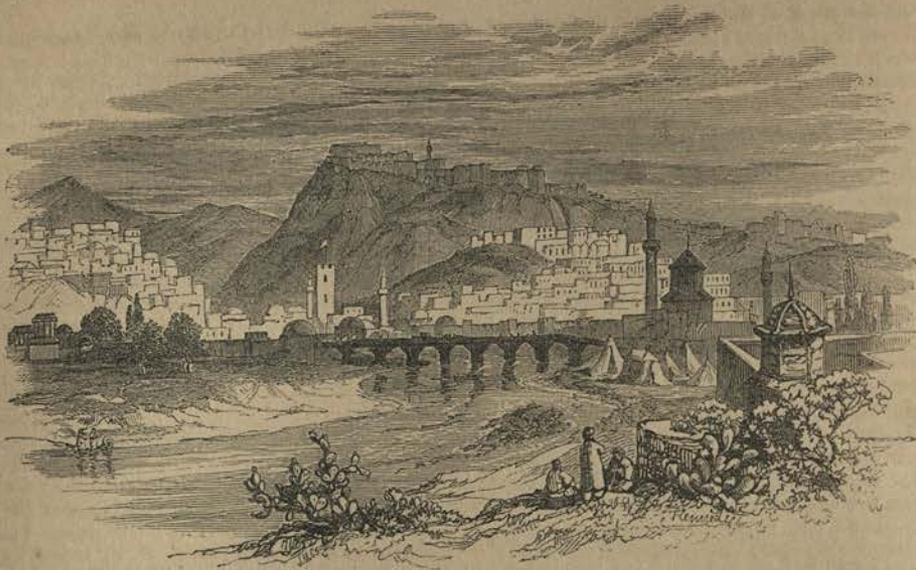
The country is in general bare of wood, and in many parts sterile. In the watered valleys, hemp, flax, tobacco, wine, cotton, and fruits of various kinds are raised in abundance; but grazing husbandry is followed much more extensively than tillage. Copper,

lead, iron, salt, and naphtha occur among the minerals. Some of the mines appear to have been worked from remote antiquity, and perhaps formed the chief source from which the metals were supplied to the ancient Assyrians, as illustrated by ornaments and implements found among the remains of Nineveh. Xenophon in his day noticed that the deserted houses encountered in the country were well furnished with all sorts of brass or copper utensils. The Tigris flows from its source in a deep valley, through a region of grand and rugged highlands, to the mines of Arghana, a site as wild as imagination can conceive, to which a Turkish, Greek, and Armenian population has been drawn by the mineral wealth of the bleak and barren mountains. Magharat, 'the Hill of Caves,' which contains the principal mine, has been so called from the numerous galleries carried into the rock. The annual produce of copper ores, which are sent to Tokat to be smelted, is considerable. Near the junction of the two head streams of the Euphrates, in a dreary ravine producing neither tree nor shrub, nor vegetation of any kind, argentiferous lead ore is obtained. The name of the little adjoining town refers to the site, Keban Maden, 'Mine of the Gorge or Pass.'

KURDISTAN is a southerly continuation of the Armenian highlands, eastward of the Tigris, from which the river receives affluents equal to itself in volume, the Greater Zab and the Diyaleh. The former is the *Lycus* and the latter the *Gyndes* of antiquity. The lower slopes of the hills are clothed with different kinds of oaks, some of which furnish the finest gall-nuts of commerce, used in medicine, the arts, and as a chemical test. The district also yields the remarkable vegetable substance known to us by the name of manna, but expressively called in Turkish, *Kudret-halvassiz*, 'the Divine Sweetmeat.' It is found on the leaves of the dwarf-oak, the flowering ash, and other plants.

'The manna on each leaf did pearlèd lie.'

Occasionally it occurs on the sand, rocks, and stones. The Kurds go out before sunrise, after rainy or dewy nights, to collect it, spreading cloths under the trees, and shaking down the manna from the branches. It is not only an article of food in its natural state, but employed in the preparation of sweetmeats, and hence carried for sale to the Mosul market. The castor-oil shrub, *Ricinus communis*, abounds near the Tigris, the region of the prophet Jonah's mission to Nineveh, and is probably the 'gourd' mentioned in the history of it. The plant grows rapidly, attains a considerable height, has a thick hollow stem, yellow mossy flowers, broad palmate leaves of a deep green colour, which afford an agreeable shade. A sultry and 'vehement east wind' is also characteristic of the country. It resembles the sirocco of Italy and the solano of Spain, but is more intense, and greatly dreaded in the district. The points from which it blows are east, north-east, and those intermediate. Hence the Arabs call it *Sherki*, or Easterly, while the Kurds denominate it from its painful effects, *Baya-rish*, or the Black Wind. It occurs by night as well as by day, and the singular fact is asserted by numerous authorities, that though violent, its influence is not felt at the same time more than two hours off in any direction. 'Last night,' Mr Rich states, referring to his stay in Sulimania, 'while I was sitting with a large company at Omar Khaznadar's, the evening having previously been calm and warm, and we were all busily employed in talking, just as the moon rose about ten, an intolerable hot puff of wind came from the north-east. All were immediately silent, as if they had suddenly felt an earthquake, and then exclaimed in a dismal tone, "The sherki has come!" This was indeed the so much dreaded sherki, and it has continued blowing ever since with great violence from the east and north-east. This wind is the terror of these parts, and without it the climate of Sulimania would be very agreeable.'



Kars.

Pashalics,	Chief Towns.
Erzerum,	Erzerum, Erzinjan, Ardahan.
Kars,	Kars, Kaghizman.
Bayazid,	Bayazid, Uch Kilisa.
Van,	Van, Julamerk.
Mush,	Mush, Melasgerd, Bitlis.
Diarbekr,	Diarbekr, Sert, Mardin.
Mosul,	Mosul, Erbil, Kerkuk, Altyn Kopri.

Erzerum, the ancient capital of Armenia, occupies a central position in the country, on one side of an extensive plain, at the great elevation of 5800 feet above the sea. It is protected by a citadel surrounded by a double wall, but the fortress is overlooked by adjoining hills, and is of no great strength, having been built before the age of artillery. In the Russian invasion of 1828—1829 it surrendered to Paskiewitch after the first few guns were fired. The fortifications were probably constructed by the Genoese, when the enterprising merchants of that republic were allowed to erect buildings for the protection of their trade to India by the way of Trebisonde, Erzerum, Tabriz, and Ispahan. In many parts of the country there still exist, more or less perfect, remains of khans, bridges, causeways, castles, and other buildings, of hewn stone, so massive and imposing in their proportions as to proclaim the energy of the traders, and the vast wealth derived from their commerce. The town lost great part of its population at the time of the Russian campaign, owing to a large number of Armenian families being either compelled or induced to emigrate from it and the surrounding district to become settlers in Georgia. But it soon recovered, contains about 30,000 inhabitants, and profits by the transit of British and European produce, landed at Trebisonde, to the northern parts of Persia. As the roads are not to any extent fit for vehicles, the usual means of transport are on mule or horseback, but camels, asses, and oxen are also employed. There are not less than thirty-six khans in Erzerum, and one of the largest custom-houses in the Ottoman empire. *Kars*, upwards of 100 miles to the north-east of Erzerum, is seated on a high plain more than 6000 feet above the sea, and is almost wholly built of black basalt. It attracted the attention of Europe in 1855 from June to December, owing to its heroic defence under General Williams, whom famine alone compelled to surrender it to the Russians. *Bayazid*, a decayed place, is near the foot of Mount Ararat, and contains the ruins of a magnificent monastery. *Uch Kilisa*, or the 'Three Churches,' derives its name from three Armenian monasteries, only one of which survives, a massive stone building surrounded by a lofty wall.

The Armenians, properly so called, are a widely-scattered race, rivalling the Jews in that respect, while resembling them in mercantile character; but are still considerable in number in their original seat. Though once of independent spirit and martial habits, ages of subjection have extinguished these qualities, and have rendered them passive and enduring, often servile and cringing, moulding themselves according to the will of their masters, whether Turk, Russian, Persian, or Kurd. A somewhat cumbersome frame, long moustaches and beard, a high cylindrical cap, with a flowing robe and coloured shawl, distinguish them in the towns;

and the attire of the peasantry is similar, but of homelier material. The villagers are agricultural, and possess large stocks of cattle, sheep, and horses, occupying the semi-subterranean dwellings previously referred to. The town-dwellers are commercial, and engross nearly all the trade of their respective localities. They frequently amass great wealth, and are generally liberal. Hence it has been said that the inscription might properly be put upon almost every tomb beneath which sleeps the rich Armenian: 'He hath dispersed and given to the poor.' However despised and oppressed by the Moslem, their passive fidelity and ready obedience are appreciated, so that they are frequently selected by the authorities to discharge offices of trust. The Armenians embraced Christianity soon after the commencement of the fourth century; but towards the close of the fifth, a synod of their bishops rejected the decrees of the Council of Chalcedon, and by that act cut themselves off from communion with the rest of Christendom. Their patriarch and bishops are vowed to celibacy, while the priests are not only allowed but compelled to marry.

Van, in Kurdistan, on the south-eastern side of its great lake, much dilapidated, is locally distinguished as the town of Semiramis, in memory of the Assyrian queen. *Mush*, on the Ak-su, or 'White River,' an affluent of the Euphrates, is a confused group of streets, houses, and bazaars, with a Turkish and Armenian population, under a pasha of the second rank. Crops of grain and tobacco are raised on the neighbouring plain, which is studded with villages, built in the usual underground manner. *Bitlis*, on the south-east, not far from the western side of Lake Van, is very romantically seated in a mountain valley, 5156 feet above the sea, above which limestone rocks rise on every hand to the further elevation of 2000 feet. Several ravines converge to the valley, each the bed of a little stream, which unite and flow off to the Tigris. The town stands at the point of junction, and extends partly up the ravines. Its streets line the banks of the streams, and are interspersed with flourishing gardens and orchards. In the centre rises a perpendicular rock, crowned with the ruins of a castle, formerly the residence of Kurdish chieftains, who down to a recent date preserved their independence, and struck a small copper coin, which is still current in the place. The streams are crossed by single-arched bridges built of a volcanic rock, of which almost all the houses are composed. The population consists of about 2000 Mohammedan and 1000 Armenian families. Bitlis contains three mosques with minarets, large and well-stocked bazaars, several khans for the accommodation of foreign traders, who bring British calicoes and woollens, East Indian indigo, and Mocha coffee to this secluded spot. It has manufactures of cotton cloths celebrated for their bright-red dyes. The remarkable situation of the town, the severe aspect of the mountains, with the contrast offered to them by the cheerful vegetation of the valley, combine to form a scene of singular interest.

Diarbekr, 'the tents or dwellings of Bekir,' its Arabic style, alluding to a chieftain of that name, is the *Amida* of the Romans, frequently called by the Turks *Kara*, or the Black Amid, from the dark-coloured basalt of which the walls and houses are largely built. It stands on the Upper Tigris, at a short distance from the river, and elevated above it on a mass of basaltic rock. The town was formerly one of the largest and most flourishing in the east, had numerous cotton looms constantly at work, and an extensive trade with Bagdad in Indian, and with Aleppo in European produce. It is still a considerable place, though ruinous, with many baths and caravansaries, fifteen mosques with minarets, and numerous mesjids with domes. The great mosque was once a Christian church, probably the cathedral of ancient Amida, the square tower of which is now used as a minaret. *Sert*, a small town on the east, is supposed to represent the *Tigranocerta* of the campaigns of Lucullus, 69 B.C. *Mardin*, a place of some importance on the south, occupies a remarkable site, being built on the steep sides of a high hill, the summit of which is crowned with a citadel, exceedingly difficult of access. The houses are placed in ranges above each other, like the seats of an amphitheatre. The streets, running round the hill, form successive terraces, and are connected laterally by flights of steps like similar cross-streets at Malta. The town has produced many Mohammedan authors, who have been called Mardini from the place of their birth, in addition to their other names. It is deemed the capital of the Jacobite Christians, many thousands of whom are found within the circle of a few days' journey. They derive their name from Jacob Baradaeus, who, towards the middle of the sixth century, propagated the tenets condemned by the Council of Chalcedon, united those who held them, and organised a hierarchy. There is also a small community called Shemsiah, or, as the name implies, worshippers of the sun. They live principally in a distinct quarter by themselves, refuse to marry out of their own number, and practise some ancient rites respecting which the strictest secrecy is observed. In neighbouring villages, Yezidis are found, whose religious system appears to be a monstrous combination of Sabæism, Judaism, Manicheism, Mohammedanism, and Christianity. They are sometimes called *Sheitan purist*, or worshippers of Satan; and though not perhaps guilty of the practice in the gross form, it is certain that all epithets commonly applied to the evil one are carefully abjured, nor will they suffer them to be used in their presence. To such an extent is this carried, that names are even avoided resembling Sheitan in sound, as *shat*, a river, for which the Kurdish *ave*, or the Arabic *ma*, is substituted, in referring to a stream. *Sheikh maazen*, the exalted doctor or chief, is their ordinary phrase for the devil. This is the most marked peculiarity of the Yezid tribes. They venerate Moses, Christ, and Mohammed; adore the sun as the symbol of the divinity; use baptism, the sign of the cross, and in some instances practise circumcision; abstain from pork, wine, and spirituous liquors; and are accustomed to kindle great fires of bitumen and naphtha on the night of an annual festival.

Mosul, on the western bank of the Tigris, a walled city with eight gates, and about 40,000 inhabitants, is the seat of a pasha, who, though of the second rank, receives investiture immediately from the sultan, and is

therefore independent of the great pashas of Erzerum and Bagdad. It is the centre of a considerable caravan trade, and was formerly a great commercial mart, with some important manufactures. Those textile fabrics which first received the name of muslins, including gold tissue, silks, as well as fine cottons, were so called, either from being made at Mosul in great perfection, or because they were conspicuous in its commerce. Marco Polo, the Venetian traveller, who was here in the thirteenth century, says that 'all the cloths of silk and gold which are called *mosulin*' are the produce of Mosul; but he also denominates the great merchants of the city *mosulin*, who imported Indian goods. Alabaster, commonly called Mosul marble, is the predominant formation in the immediate vicinity. It consists of calcareous gypsum, non-fossiliferous, disposed in solid massive beds lying near the surface, or actually protruding, and therefore easily obtained. The uncovered buildings of Nineveh, close at hand, shew slabs of this material lining the interior walls, bearing the records of victories and triumphs in sculptures and inscriptions. Having undergone the action of fire in the conflagration of the palaces, the gypsum slabs, reduced to lime, rapidly fell to pieces on exposure to the air, but not before the pencil of the artist had preserved faithful representations of many of the originals. Modern Mosul has no interest apart from its position, contiguous to the site of the once mighty Assyrian capital, in the country on the opposite bank of the river.

Classical writers are not consistent with each other respecting the position of Nineveh. Ctesias places it on the Euphrates, where we know it could not have been, an error into which Diodorus Siculus was also betrayed. Herodotus, Strabo, Pliny, and Ptolemy assign its site to the region of the Tigris. Strabo and Ptolemy more particularly define it in the country between the Tigris and the Lycus, now the Greater Zab, one of its principal affluents, and not far from their junction, which takes place about eighteen miles below Mosul, and is the southern limit of the pashalic. Here oriental tradition fixes it, and indicating mounds of ruins occur. It is remarkable that though remains of the city must long have been considerable and prominent, no reference is made to them by the most ancient profane writers by name, so soon and completely was it forgotten. Gibbon, in relating the triumph of the Emperor Heraclius over the troops of Chosroes, styles it 'the battle of Nineveh,' because fought on the vacant site of the city, which afforded a spacious field for the operations of the two armies. In a note he adds that Niebuhr passed over Nineveh without perceiving any traces of it. An old English traveller quaintly remarks: 'Now it is destroyed, as God foretold it should be by the Chaldeans, being nothing else than a sepulchre of her selfe.'

Travellers were long familiar with numerous lonely mounds, scattered through the country on the east of the Tigris, to some distance from Mosul. Owing to an active research directed to these sites in the present age, their true character has been disclosed, as the tombs of palaces, halls, and temples, containing works of art in admirable preservation, hitherto hid from notice by accumulated earth and rubbish. Through twenty-five centuries, the Greek and Roman, Parthian and Persian, Arab and Tartar, successively trod them under foot with ignorant indifference, not dreaming of any memorials of powerful kings and a mighty empire beneath the green-sward or the corn crop on the surface. More enlightened Europeans viewed them with interest and curiosity, as monumental remains of a departed race, conscious of their artificial structure, though wearing the semblance of nature; but it was not deemed likely that anything would be found in the interior, beyond confused heaps of building materials, till actual excavation revealed their secret treasures. The mounds occur at Kouyunjik, opposite Mosul; at Khorsabad, about fourteen miles north-north-east; at Nimrud, eighteen miles south-south-east; at Yaramles, Husseini, Yaramjeh, Karakush, and other places in the neighbourhood. Excavations were first commenced by M. Botta, the French consul, at Khorsabad, in the summer of the year 1843. His example was followed by Mr Layard at Nimrud in the autumn of 1845. Other mounds have since been subject to systematic examination. As the general result, the chambers of ancient palaces, long buried from the playful breeze and genial sunlight, deep beneath the verdant sod, were laid open, with elaborate sculptures decorating the walls, and inscriptions in the cuneiform character. Scenes of war and of the chase—monstrous combinations of the human and animal, as human-headed winged bulls and lions, eagle-headed winged human forms of colossal proportions—kings and great men, in costume which betrays the fondness for ornament characteristic of the Shemitic race—are the subjects of the sculptures, and intimate the barbaric pomp and power of a great old-world oriental state. The history of Assyria, so long wanted to supersede the few unsatisfactory fragments handed down by ancient writers—the work which Herodotus contemplated, but which has perished, if ever it was produced—may now be said to be in process of composition, from materials gathered out of the recesses of the silent hills, inscriptions containing the names of kings, with the records of their victories, bas-reliefs representing their regal state and martial prowess, and implements or ornaments illustrating the social condition of the people.

At some distance to the south, on the right bank of the river, directly washed by its waters, there is one of the greatest monuments of ancient Assyria, enclosed by the jungle, but visible from afar. The Turks call the place Toprak Kalaa, and the Arabs, Kalah Sherghat. Both names signify the 'Castle of the Earth.' It is a colossal mass which strikes every one with surprise by its vastness, as the total circumference is 4685 yards, or rather more than two miles and a half. Though unquestionably the ruin of a great city, evidence is wanting to connect it with any of those mentioned by ancient historians. Westward in the desert about twenty-eight miles, the remains of Al-Hadr rise to view, the Atræ of the Roman campaigns, comparable to Tadmor in the wilderness, owing to their magnificent appearance and secluded site.

Erbil, a small town, in the country eastward of Mosul, represents ancient *Arbela*. The name is given to one of the world's decisive battles, 331 B.C., which transferred the empire of Asia from Darius to Alexander

the Great. It was the nearest important place to the scene of action, which lay at an insignificant village from forty to fifty miles distant, called Guagamela (the camel's house). Darius reached Arbela as a fugitive at midnight. The victor was there the next day, and proceeded across the Lesser Zab to the modern *Kerkuk*, a town mentioned under a different name in the narrative of his wars. Here he admired the perpetual fires which from time immemorial had issued from a spot in its vicinity. There was also nigh at hand fountains of liquid naphtha. The natives, eager to shew its powers to the conqueror, formed a long train of the combustible in front of the king's lodgings, and as soon as it was dark set fire to one end, when the whole street was illuminated by the blaze. These fountains are situated in low gypseous hills, about three miles north of *Kerkuk*. They are nearly three feet in diameter, some of them eight or ten feet deep, emitting a disagreeable odour. The naphtha, which is perfectly black, liquid, and in quantity inexhaustible, is sent all over the country for various purposes besides that of giving light. The other site, where the subterranean fire bursts forth, is a little hollow, of a cinereous aspect in broad daylight. The flames are only visible then upon a near approach, though distinct at night. They are sufficiently powerful to boil water or cook meat, and hence the place is called *Abu Geger* by the Arabs, and *Kerkuk Baba* by the Turks, both meaning the 'father of boiling.'

The Kurds or Koords proper, though widely dispersed, occurring in Asia Minor, Armenia, and Syria, are principally found in their old ancestral seat. They are descended from the wild mountaineers mentioned by Xenophon as the Karduchi, who so severely harassed the Ten Thousand Greeks during their retreat. Afterwards they were conspicuous in history under the name of Parthians, the formidable antagonists of the Roman generals; and at a more recent date they sent forth one of the greatest of eastern conquerors, Saladin, celebrated in the wars of the Crusades. They have no knowledge of the name by which in Europe they are distinguished, but style themselves *Kermanj*, and attribute their origin to the Jins, or genii of the air. There are two classes of the race, the peasantry who cultivate the soil, and are in a state of grievous serfdom; and the military, who are their masters, commonly disdaining industrial occupations, and therefore predatory in their habits. The military Kurds are divided into a great number of small clans or septs, forming separate patriarchal governments, each having an hereditary chief, often styled the *derch-bag*, or lord of the valley. The clansmen are remarkable for that blind devotion to their chiefs which distinguished the Scotch Highlanders in former days. They are also as strongly attached to their native mountains as the Swiss. 'It is true,' said the chief of Sulimania, when offered the government of Bagdad, 'that I should become a pasha of the first rank; but one draught of the snow-water of my own mountains is worth all the honours of the empire.' While mostly Mohammedans, uncivilised, fierce, and lawless, Kurdistan numbers among its inhabitants an interesting body of Chaldean or Nestorian Christians, occupying a very difficult part of the country.

In the upper part of the basin of the Zab, where narrow vales and deep ravines are hemmed in by towering mountains whose summits are mantled with the storm-cloud, the members of the Christian community referred to are found, though not confined to it. In bygone ages their fathers are supposed to have fled to the highlands to escape the sword of the persecutor; but heavily has it descended upon the race in modern times. In the early part of the summer of 1843 rumours of war and massacre in the mountains reached Mosul, which were soon confirmed by the appearance of fugitives from the scene of conflict, whose homes had been destroyed and relatives slaughtered. The Chaldean patriarch was one of the refugees. Influenced by Mohammedan fanaticism and the prospect of plunder, the Kurdish chiefs secretly prepared to invade the territory, with the knowledge, as was supposed, of the Pashas of Erzerum and Mosul, whose connivance was purchased by the offer of a portion of the spoil. Taken by surprise, and assailed simultaneously at various points, the unfortunate people were soon overpowered, and put to death in various ways without mercy. Three years before the massacre, in 1840, Mr Ainsworth visited Lizan, a village on the right bank of the Zab, which there flows through a valley guarded by stupendous cliffs, and is crossed by a bridge of wicker-work. He found a neat whitewashed church, embosomed in a grove of mulberry and pomegranate trees, with equally neat cottages, built in the Swiss style, which presented a very pleasing appearance. Three years after the massacre, in 1846, Mr Layard visited the same spot, descending to the village through scenery of extraordinary beauty and grandeur, but exhibiting on every hand memorials of dreadful outrage.

Rowandiz, containing about 1300 houses, defended by a wall with round towers, is one of the largest strongholds of the military Kurds. It occupies a naked plain, at a high elevation, only approached by difficult ravines, and therefore easy to be defended against an enemy. At some distance, the peak of *Rowandiz* rises to the height of 10,568 feet, as determined by the boiling-point of water. Mr Ainsworth scaled its summit, after passing over glaciers and immense piles of snow, here and there broken through by bold and sharp pinnacles of the subjacent mass. The crest commands a view of the noble expanse of Lake Urumiah in Persia, the plains spreading along the Tigris, and an intervening country of awful chasms and stern declivities. 'It was with regret,' he observes, 'that we tore ourselves from this magnificent prospect, added to which the mountain itself had a charm which was deeply felt by all. It perhaps more particularly originated in the deep silence which reigned upon this lofty summit, and which appeared as if for ever unbroken on the spot which thus rose up to the region of the clouds—so perfectly alone, so pure in its canopy of white, and with an atmosphere so substantially deep and blue, that it seemed a cloud of itself, and the spectator shuddered to think himself upon its bosom.'



Urfah.

II. AL-JEZIRAH AND IRAK-ARABI.

The region between the Euphrates and Tigris, after they leave the mountains, and begin to wander most apart, down to the point where they approach each other, answers to the Mesopotamia of the Greeks, or 'the country between the rivers.' This is the Greek translation of the Hebrew *Aram-Naharaim*, or 'Syria of the two rivers,' called also *Padan-aram*, or 'the plain of Syria.' The region now bears the Arabic denomination of AL-JEZIRAH, the island or peninsula, referring to its almost complete environment by water. IRAK-ARABI denotes the territory from thence to the confluence of the streams, stretching southward also along their common channel, and corresponds in general to ancient Babylonia. The two districts form one great geographical region, hilly and undulating where it borders on Armenia, clothed with forests of oak, maple, chestnut, and terebinth, but for the most part consisting of a series of levels, the renowned plains of Assyria and Babylonia. The character of these plains varies from alluvial deposits on the banks of the rivers periodically overflowed, to permanent marshes, sandy or stony tracts often impregnated with salt and bitumen—true deserts, inhabited by the roving Arab, wild ass, and ostrich. The greater part of the territory is now included in the pashalics of Urfah (ancient *Orphah*) and Bagdad. Throughout the whole district the summer heat is excessive, but in the northern part, during the autumnal and spring months, the strongly-contrasted temperature of day and night is the chief peculiarity of the climate. The patriarch Jacob correctly characterised it at these intervals, when stating his own experience in Padan-aram, while serving in the fields of Laban, 'In the day the drought consumed me, and the frost by night.' In summer, vegetation entirely ceases; everything is burned up; but with the moderate showers which descend after this period, grasses, herbaceous and flowering plants awake to life, to flourish till the dry and scorching season returns. So high is the temperature

then, that the inhabitants commonly pass the night either altogether in the open air, or quite exposed to its influence.

Pashalies.	Chief Towns.
Urfah,	Urfah, Bir, Sumeisat, Rakka.
Bagdad,	Bagdad, Hillah, Kurnah, Bassorah.

Urfah, is one of the oldest historic sites connected with the Euphrates, apart from the main stream, but in the northern portion of its basin. By the Jews and all orientals it is regarded as identical with Ur of the Chaldees, the birthplace of Abraham, Sarah, and Lot. A pool within the walls, filled from a clear and copious fountain, commemorates the patriarch by its name, *Birket ul Ibrahim ul Khalil*, 'the Lake of Abraham the Beloved or Friend of God.' A mosque attached to it is similarly entitled. This is one of the most elegant edifices of Asiatic Turkey, a square building, surmounted by three domes of equal size, with a slender minaret rising up from a grove of tall cypresses. The adjacent waters, overshadowed with trees, and surrounded with structures full of Saracenic grace, ripple through clean white marble basins, forming a scene of peculiar beauty. The Pool of Abraham, about 200 yards long by 20 broad, is slightly thermal, beautifully clear, and has its water distributed by various channels through the town for the convenience of the inhabitants. It contains an incredible number of fish, which are traditionally connected with the patriarch. They are hence forbidden to be caught or molested, and the visitor seldom fails to see parties on the brink feeding them as a meritorious act. Lovely gardens are in the environs, and within the walls there are many bazaars, khans, baths, with some manufactories, and a considerable population, upwards of 30,000. The houses are all of stone; the streets are constructed with a paved causeway on each side of a central channel for a running stream; and trees are common in them, affording an agreeable shade in the hot season, of which the people avail themselves for repose, or to take ice brought from the summits of Taurus. The transit is accomplished in about twenty-four hours; and the ice being cheaply sold, is within reach of the poorest classes. Urfah was known to the Greeks and Romans by the name of *Edessa*. Seized by the Crusaders, it became the head of a principality under one of the branches of the house of Courtney, who took the title of Counts of Edessa, and from whom the Courtneys of England are descended. Twenty miles to the south-east, *Carrha*, now a desolation, is identified with the *Charran* or *Haran* of sacred story, the home of Rebekah, of Leah and Rachel, and of Jacob during his sojourn in Padanaram. In its neighbourhood, the Romans were signally defeated by the Parthians, and their general, Crassus, was slain.

Bir, the *Birtha* of antiquity, is on the Euphrates, near the point where it makes the closest approach to the Mediterranean, being only eighty miles distant from it. The small town has a fine old castle crowning a perpendicular cliff of chalk by the water-side. It lies on the great line of communication between Aleppo and Upper Mesopotamia, and is one of the most frequented points of passage across the river. *Sumeisat*, a poverty-stricken place, higher up the stream, at its emergence from the Tauric highlands, represents Samosata, the birthplace of Lucian and the heretic Paul. *Rakka*, a flourishing city under the califs, and the favourite residence of Harun-al-Raschid, of whose palace there are some remains, is lower down, and now insignificant. At a short distance stood ancient *Thapsacus*, a site now known as the ferry of Hammam or the ford of the Bedouins, where the river is fordable when the water is low. Xerxes, the younger Cyrus, Darius, Alexander, and Crassus, here successively conducted armies from bank to bank. From this point downwards, Arab tents are prominent in the landscapes of the Euphrates. Copses of tamarisk, poplar, white mulberry, clematis, line its borders, sheltering wild boars, landrails, quails, and other game, while wolves and jackals prowl among the ruins which bestrew its plains.

Bagdad, on the Lower Tigris, familiar by name from the days of childhood as the scene of the *Arabian Nights' Entertainments*, occupies both banks of the river, but by far the largest part is on the eastern side. A high wall of brick and earth surrounds both portions, flanked at regular distances with round towers, and passed by six gates, three in each division. It has a total circuit of about five miles, but is now greatly dilapidated. Seen from a distance the aspect of the place is highly pleasing. Surrounding groves of date-trees conceal the meanness of the buildings, while lofty minarets and beautifully-shaped domes rise above them, ornamented with glazed tiles, painted chiefly green and white, which reflect the rays of the sun with brilliant effect. The interior is a labyrinth of narrow unpaved streets and crooked lanes, rendered noxious by the filth and offal cast into them, which a tribe of half-savage dogs, without owners, alone clear away. There are a few imposing mosques, some extensive khans and bazaars, the latter well stocked with merchandise, and open spaces devoted to the sale of particular kinds of goods, hence named after them, the 'Thread Market,' the 'Muslin Market,' and the 'Corn Market.' The scene by the water-side is pleasing and animated, owing to the palm groves which intermingle with the buildings along the banks, the number of keleks, coracles, rafts, and other kinds of craft afloat upon the surface, and the constant transit of men, horses, camels, and caravans across the bridge of boats. But scarcely any traces of its former glory appear, when, as the capital of Harun-al-Raschid, it was styled the 'dwelling of peace,' the 'tower of the saints,' and was in reality the Mohammedan Athens. The palace of the califs is no more, nor has the memory of its site survived. The celebrated *medressch* or college still exists as a building, with part of it transformed into a khan, while another part is used as a custom-house. Though vastly decayed, the city still contains a population of 60,000, but it had nearly twice that number prior to the year 1831, when the triple calamity of

plague, flood, and famine swept off two-thirds of the inhabitants. Bagdad was founded by the Calif Almansur, 762—766 A.D. It was greatly enlarged in the ninth century by Harun-al-Raschid, who erected numerous edifices on the east side of the Tigris, and connected its two banks by a bridge of boats. Bagdad was taken by Timur in 1393, and was long a bone of contention between Turks and Persians. Considerably below Bagdad, the sites of *Seleucia* and *Ctesiphon* occur, on opposite sides of the river. Of the former, a Greek city, on the west bank, there are only a few insignificant remains; but of the latter, a Parthian foundation, the stupendous *Tauk e Kesra*, or Arch of Khusru survives as a majestic fragment of the past, probably a remnant of the white palace of Khusru, which was pillaged at the time of the Arab conquest.

The Lower Euphrates has the town of *Hillah* upon both its banks, occupying a remarkable site, being within the area over which Babylon was spread, and built of materials derived from its ruins. The remains of the ancient city, once the queen of nations and mistress of the east, consist of immense masses of brick-work, in some instances more or less changed into a vitrified state; of mounds of earth formed by the decomposition of buildings under the action of the elements, channeled and furrowed by the weather; and of fragments of brick, bitumen, and pottery, strewn upon the surface. On the eastern side of the river is an immense confused mass called by the Arabs the *Mujellibeh*, or 'the Overturned,' and a mound at some distance from it, with which conspicuous vestiges of building are connected, styled *Al-Kasr*, 'the Palace,' composed of the finest furnace-baked bricks. General opinion considers this a relic of the new royal palace of Nebuchadnezzar, with which the celebrated Hanging Gardens were associated. Those gardens rose in terraces resting on immense buttresses, each of which was supplied with mould deep enough for large trees, and received water by hydraulic machinery from the neighbouring river. They were designed to gratify the queen, a Median princess, who wished to behold a picture of the physical diversity of her native country on the flat alluvial plain of Babylonia, and would of course be stocked with exotics, rather than with plants common to the region. It is a curious fact that there is now an ancient tree in the locality, of a species quite unknown in the neighbourhood, which has arrested the attention of all travellers, owing to its unique character, solitariness, and venerable age. The tree is an evergreen, with leaves like those of the pine and cedar, but of a lighter green, and with boughs almost as flexible as those of the willow. 'Its present height,' says Captain Mignan, 'is only twenty-three feet; its trunk has been of great circumference; though now rugged and rifled, it still stands proudly up; and although nearly worn away, has still sufficient strength to bear the burden of its evergreen branches, which stretch out their arms in the stern grandeur of decaying greatness. The fluttering and rustling sound produced by the wind sweeping through its delicate branches has an indescribably melancholy effect, and seems as if it were entreating the traveller to remain, to unite in mourning over fallen grandeur.' The Arabs regard this vegetable relic of the past with veneration, believing that it flourished in ancient Babylon, from the destruction of which it was specially preserved, in order to afford the Calif Ali a convenient resting-place after the battle of Hillah. It is a species of tamarisk, frequently observed overshadowing wells in various parts of Persia.

Besides these mounds, there is one of much larger dimensions, on the opposite side of the river, about six miles south by west of Hillah. It bears the name of *Birs Nimrud*, and is the most remarkable feature of the plain of Babylon. The hill, in itself a ruin, is of oblong form, 2286 feet in circuit, rising in a conical shape to the height of 198 feet, and surrounded by a distinct quadrangular enclosure. The sides are deeply furrowed by the violence of the wind and rain to which for thousands of years they have been exposed. The summit is surmounted by a tower thirty-seven feet in height by twenty-eight in breadth, diminishing in thickness towards the top where it assumes a pyramidal form. It is a solid mass of beautiful brick-work, so firmly cemented as to be inseparable without damage. But it has been riven or split from the top nearly half-way down; and at the base there are several immense brown and black masses, of irregular shape, changed to a vitrified state, looking at a distance like so many edifices torn up from their foundations. Mignan took them for fragments of real rock, previous to examination. The change exhibited by these vitrified masses shews them to have undergone the action of the fiercest fire. The aspect of the *Birs Nimrud* is sublime, and in connection with its isolation, the impression made by it is solemn. Clouds play around the summit. Its cavities are the dens of wild beasts. Three lions were quietly basking on its heights when Porter approached, and scarcely intimidated by the cries of his Arabs, slowly descended into the plain. This ruined pile has been deemed a memorial of the temple of Belus, one of the wonders of the ancient city, though its distance from the other remains present a difficulty.

Some places famous in the annals of Mohammedanism lie in the desert westward at no great distance; *Kufa*, for a time the residence of the early califs, but now totally decayed; *Meshed Ali* contains the tomb of Ali, son-in-law of the Prophet, to which the town, often visited by Persian devotees, owes its origin; *Meshed Hussein*, with the tomb of Hussein, eldest son of Ali, is likewise a venerated shrine, was ravaged with fire and sword at the commencement of the present century by the Wahabi sectaries. Hamlets of mud huts appear on both banks of the Euphrates as it flows southerly, rendered pleasing to the eye by the date groves and pomegranate gardens in which they are imbedded. Villages also of neatly-formed reed dwellings occur, generally surrounded with an earthen rampart, crowned with rude towers and battlements, intended to secure the grain and property of the inhabitants from marauding hordes. There is likewise the largest permanently occupied Arab town on the entire line of the stream, called *Sheikh el Shuyukh*, the 'Sheikh's Market-town,' containing about 3000 houses. Soon after the influence of the tide becomes perceptible in the Euphrates, it joins the Tigris. On the peninsula formed by the confluence stands *Kurnah*, an

insignificant place, but occupying the site of the ancient *Apamea*, a city founded by Seleucus Nicator in honour of his wife. The combined rivers form the *Shat el Arab*, which has a course of 100 miles to the Persian Gulf, with *Bassorah* or *Basra* on the west bank, a foundation of the Calif Omar, governed by a subordinate of the Pasha of Bagdad. Seated on a majestic stream, commanding an extensive navigation, this town soon became one of the largest and most flourishing places in the east, and it is still the great emporium of commerce between Asiatic Turkey and India. The walls have a circuit of more than seven miles, and enclose 50,000 inhabitants, about a tenth of the former population, with extensive gardens and date plantations. In the adjoining country, whole fields of roses are cultivated for distillation; large quantities of rice are grown in the marshes; and the liquorice plant flourishes on the borders of the river.

The most numerous people in the region under review are Arabs, who bear a general resemblance in character, appearance, and habits to their brethren in the Arabian peninsula, from whence their ancestors came at various periods, at first under the generals of the early califs of Mecca. They are divided into tribes more or less extensive, each consisting of numerous clans. The latter are known by various names, that of the clan itself, the place at which it resides, the great tribe to which it belongs, as the Aniza, Shammar, Montefige, or Aggiel, and that of its own sheikh, which is used on ordinary occasions. The powerful tribe of Aniza, a word signifying union or assemblage, rate themselves at a million, and are spread from Arabia as far as the borders of Persia. The Shammar, often at variance with the preceding, are found in almost every part of Mesopotamia. The Montefige are on the Lower Euphrates and the *Shat el Arab*. The Aggiel are widely dispersed, as the most general carriers of the desert, enlisting also as soldiers in the service of the different pashas. This tribe, according to their own account, was one of those engaged in the conquest of Spain, and they still bear the standard of that nation.

The attention of mercantile men in Europe has frequently been directed to the Euphrates, as a favourable channel for commerce and communication with India, *via* Aleppo and the Levant. In 1574, Leonhart Rauwolf, a German, descended the stream from Bir to Babylon with this object in view. Gasparo Balbi, a Venetian jeweller, followed him four years later with merchandise. In 1583, Messrs Fitch and Newbery, agents of the merchants of London, bearing letters of credit from Queen Elizabeth, pursued the same route. But attention was diverted from it by the opening of trade to India by sea, in the hands of the East India Company. In our own time the river has been deemed a suitable channel for communicating with the far east by steam navigation, and an expedition was sent out by the British government, under the command of Colonel Chesney (1835-1837), to try its practicability. The materials for two iron steamers having been conveyed overland from the Mediterranean to Bir, a distance of about eighty miles, the boats were built, and the descent of the stream was accomplished. But the ineffectiveness of the Turkish authorities in the district, and the barbarism of the Arab tribes, with other disadvantages, led to the preference being given to the passage to India by Egypt and the Red Sea. The Euphrates route is, however, the shortest, and has since been surveyed for a railway, which will probably at no distant period be executed. A vast body of information was collected by the Chesney expedition, of the highest interest to the geographer; and for the first time the great historic streams of Western Asia were fully illustrated.



Rebecca's Well at Charran.



The Dead Sea.

III. SYRIA AND PALESTINE.

This region, skirting the eastern side of the Mediterranean, is called SYRIA; the southern portion of which, PALESTINE, or the Holy Land, far surpasses all other parts of the globe in the interest and importance of its associations, as the promised inheritance of the seed of Abraham, and the scene of the birth, life, and death of the Messiah. Syria comprises a narrow strip of maritime lowland, expanding at intervals into spacious plains; grand mountains or hilly ranges running north and south at a varying distance from the sea; and the vast expanse stretching from their eastern base towards the basin of the Euphrates, known as the Syrian desert. The Lebanon, the name of the bold highlands, whose towering summits are seen by mariners from the sea around Cyprus, forms a single chain along the coast for some distance, and then divides into two great parallel ridges, which enclose between them the beautiful longitudinal valley, called by the ancients Coele-Syria or Hollow Syria. The western range, Lebanon proper, follows the coast, gradually inclines to it, and terminates at the sea a little to the north of Tyre. The eastern or inland range, Anti-Lebanon, pursues the same direction to the sources of the Jordan, where it forms the north portion of Palestine, and is continued southwards by the high countries which line on both sides the valley of the river. The highest point is the peak of Dahrel-Khotib, in the range called Jebel-Makmel, which attains an elevation of 10,050 feet. In the crevices and crater-like hollows of Jebel Sunnim (8555 feet) perpetual snow lies in immense quantities, forming a compact mass; and from May to November the business of cutting it up with hatchets, and conveying it to Beirout for cooling drinks, is actively carried on. Jebel-esh-Sheikh, the Hermon of the Scriptures

(8376 feet), likewise retains snow at the summit throughout the year. The Arabic name, signifying Old Man's Mountain, is said to be taken from the resemblance of the top in summer, clothed with snow, descending in streaks some distance down the slopes, to the hoary head and beard of a venerable sheikh. Ascending the mountains from Tripoli or Beyrout, on the way to Damascus, the traveller passes warm, temperate, and cold zones; and leaves oranges, figs, vines, roses, and a profusion of flowers, for oaks, aspens, willows, firs, and cedars, till, at about two hours' distance from the summit, utter barrenness prevails. 'The Lebanon,' say the Arabian poets, with truth and beauty, 'bears winter on his head, spring on his shoulders, and autumn in his bosom, while summer lies sleeping at his feet.'

In ancient times these highlands were extensively clothed along their slopes with forests of cedar and other trees, which furnished materials for the Phœnician merchant-vessels and the Jewish temple. A few venerable cedars remain, among a total number of about 400. They form a beautiful grove, one of the most picturesque productions of the vegetable world, on the line of route from the coast to Baalbec. No cedars of the same antiquity are found in any other part of the Lebanon. The patriarchs are large and massy, rear their heads to an enormous height, spread their branches afar, but have a strangely wild aspect, as if wrestling with some invisible power bent on their destruction, while life is still strong in them all. Rauwolff, in 1575, found twenty-four standing in a circle. Fernel, in 1630, counted twenty-two, and one which had recently fallen, having been accidentally set on fire by some shepherds. La Roque, in 1688, found twenty; Maundrell, in 1696, only sixteen; Pococke, in 1738, fifteen, the sixteenth having been blown down shortly before his visit. Two more perished during the last century. There are now seven representatives of ancient days standing very near each other; three more, at a short distance, almost in a line with them; and a few others of great age are reckoned. According to the mountaineers, the cedars anticipate the change of seasons, and prepare to receive the coming snow by inclining their branches upwards the better to sustain its weight, resuming an horizontal direction as it melts. Southey has poetically adopted the idea:

'It was a cedar-tree
That woke him from the deadly drowsiness;
Its broad, round-spreading branches, when they felt
The snow, rose upward in a point to heaven,
And standing in their strength erect
Defied the battled storm.'

Great care is now taken of these remnants of the old forests of Lebanon. A solemn mass is annually performed under their shade on the feast of the Transfiguration. Lord Lindsay observed the names of Laborde and Lamartine cut on one of the largest trees, and properly deemed this customary commemoration of a visit 'more honoured in the breach than the observance.'

The high countries which precipitously wall in the Jordan valley are the mountains of Gilead of former times on the eastern side—the mountains of Ephraim and Judah on the western. The latter and best known tract is continuous through the whole of Palestine from north to south, passing from a wooded and fertile character to one bare and sterile, in its southerly prolongation, where it blends with the desert. The greatest breadth is about thirty miles. This upland mass is intersected by deep valleys, and crowned with hilly ridges, which have echoed the voice of prophets and been the scenes of miracle. Most of the scenes of our Lord's life lie within its limits. It attains an elevation of from 1000 to 3000 feet above the sea, as in the table.

	Feet.		Feet.
Hill of Nazareth,	1237	Mount Tabor,	1905
Ridge of Gilboa,	1300	Mount Gerizim,	2000
El Makerka, } summits of Carmel,	{ 1598	Mount of Olives,	2398
Essefia,	1725	Hill of Bethlehem,	2705
Little Hermon,	1862	Hill of Hebron,	3029

In this district the climate is temperate, for while the summer heat is great, cold is rendered a decided element of the winter by the elevation of the country. At Jerusalem thin ice is occasionally formed for one or two days upon the pools, though the frost never bites the ground. Snow is more common, but quickly passes away.

The maritime lowlands are mere strips of territory in the neighbourhood of the Lebanon, but at its southerly termination they spread out into extensive plains, as those



Natural Bridge of Ain-el-Lebanon.

of Acre, Sharon, and Sephala, where the more distant hills of Judea form the inland boundary. Winter is here so genial that the orange, banana, and other delicate trees flourish in the open air, while at Beyrout or Tripoli, in the month of January, the picturesque spectacle may be seen by the European of orange-trees laden with flowers and fruit beneath his windows, with grand highlands in the background white with ice and snow. In the opposite season, along the coast, the sea-breeze relieves the high temperature, but in the more interior districts, apart from its influence, the summer heat is excessive, and renders well-known figures of speech peculiarly significant, 'a shadow in the daytime from the heat,' 'the shadow of a great rock in a weary land.' No rain falls during the specially hot months, or from the beginning of May to the close of August, and showers are rare in September. During this interval, the mornings break without clouds, and the days pass away without them, except some of the wisp-like and feathery, or the soft and fleecy description. A few cirri occasionally spread their delicate filaments aloft at noon, feebly and transiently intercepting the sun's rays, but not diminishing their fierceness. Small flocculent masses also form, but are more common at night, appearing when the moon is present,

'The beauteous semblance of a flock at rest.'

Towards the middle of August, larger and denser masses may be seen drifting from the

south-west, but without bringing rain. These are the Nile clouds, so called from their supposed cause, the inundation of Egypt by the Nile. Owing to the combined influence of heat and drought, the spontaneous herbage is shrivelled. Every flower fades, every green thing vanishes, except in the immediate neighbourhood of permanent springs and streams. The only verdant objects remaining are the scattered fruit-trees, the occasional vineyards, and fields of millet, which experience the care of man, for the foliage of the olive, with its dull grayish hue, scarcely deserves the name of verdure.

The period in which rain may be expected extends from the autumnal equinox to a month or six weeks after the vernal. The autumnal rains are the 'first' or 'former' rains of Scripture; the vernal are the 'latter;' and are probably so called in allusion to the order of agricultural operations. The showers of autumn do not commence suddenly, but by degrees, and give opportunity for the husbandman to sow his wheat and barley, while the showers of spring serve to refresh and forward both the ripening and the sprouting products of the field. Prominence is given to rain falling at the two periods because of its importance to the agriculturist. But the whole interval from the one to the other is the rainy season, and has no regularly recurring term of prolonged fair weather. If drought rapidly produces a marked effect upon the face of nature, so does the rain, especially in the spring months, when the daily accelerating heat combines with the moisture to force vegetation. The young grass covers the plains and meadows with a mantle of the freshest verdure; wild anemones, ranunculuses, verbenas, and other flowering plants, exhibit their varied colours by the wayside, in clefts of the rocks, and by the renewed rivulets; tall thistles, with gorgeous purple hues, rise up on every hand; the hawthorn and jasmine put on their blossoms; the myrtle and laurel temper their dark winter green with leaflets of a lighter hue; the fir-trees powerfully exhale their resinous particles; and the so-called juniper bushes, with their slim, feathery stalks, exhibit their clusters of pendent white and yellow-coloured flowers, perfuming the air with balsamic odours. A thousand rills are put in motion on the highlands, which, uniting in their descent, form powerful streams, and refill the exhausted water-courses in the plains, while the permanent rivers, which have dwindled in their volume, are swollen to overflowing by these temporary feeders.

The principal rivers have their sources in the great mountain system. From hence the Orontes flows northerly by Antioch to the Mediterranean; the Leontes runs westward to the same basin; the Barada descends eastward to Damascus, losing itself in the desert beyond; and the Jordan proceeds southerly to its termination in the Dead Sea, centrally intersecting the Holy Land from north to south. They are comparatively of inconsiderable magnitude; but the latter, while imperishably linked with the memory of grand transactions, is physically remarkable for the great and rapid declination of its bed. In a total course of about 117 miles the Jordan falls 1849 feet, and the greater part of this descent takes place between the Lake of Tiberias and the Dead Sea, the direct distance from the one to the other being about sixty-five miles. This steep decline renders the current correspondingly strong. A host of pilgrims annually repair to the Jordan for the purpose of bathing at the supposed spot of our Lord's baptism.

The Ghor or Valley of the Jordan is bounded on both sides by a chain of steep and lofty highlands, from five to six miles asunder in the northern part, but receding to three or four times that distance in the southern, where the plain of Moab lies on the eastern, and that of Jericho on the western bank. There is a much narrower valley let into this larger, through which the river winds its way. Repeated allusion is made in sacred story to the altered level of the stream. In the account of its first passage by the Israelites, it is spoken of as overflowing 'all its banks in the time of harvest.' An enraged enemy is also compared by one of the prophets to a lion coming up from the 'swellings of Jordan,' dislodged from his lair among the reeds and brushwood along the margin by the annual flood, and compelled to seek a shelter elsewhere. The river at present periodically overflows the banks of its immediate channel, but its highest water-mark is considerably below the level of the upper or great valley. If this was inundated in former times, the stream has since excavated for itself a deeper bed. In the northerly part of its course, the Jordan forms the Lake of Tiberias, often styled the Sea of Galilee, and also the Lake of Gennesaret. It extends from twelve to fifteen miles in length by from six to nine in breadth, and has a mountainous shore, on which stood the cities of Capernaum, Bethsaida, and Chorazin, whose sites can scarcely be identified, while their names have entirely perished in the district. The expanse is a very lovely one. It abounds with fish, and is subject to sudden changes from calm to disturbance, owing to

the strong gusts of wind which rush at intervals through the gorges of the mountains. Fishing is now entirely conducted by casting the net from the shore. No boat or sail appears upon the surface, except at very rare intervals, when some enterprising traveller from the west makes the venture, and provides the conveyance. The feathered tribes are numerously represented in water-fowl, birds of prey, and small warblers. But hours may be passed without seeing a human being upon the strand once occupied by flourishing towns.

The remarkable expanse of the Dead Sea, which the Jordan mainly contributes to form, and in which it terminates, has an extent of about forty-five miles in length, by ten in breadth, and exhibits generally profound depths, amounting in many places to not less than 1000 or 1300 feet. It has been known by various names, as the Sea of the Plain, in allusion to the ancient and beautiful plain of Siddim, the site of the cities of Sodom and Gomorrah, over which its waves are supposed to roll; the East Sea, in reference to its position with respect to the Mediterranean; the Salt Sea, from the intensely saline quality of its waters; and the Lake Asphaltites, from the quantities of bitumen found in it and on its borders. The Arabs of the district now style it *Bahr Lot*, the Sea of Lot, and sometimes *Bahr Mutneh*, the Stinking Sea. Its common European name, *Mare Mortuum*, or the Dead Sea, alludes to the sluggishness of the surface, which, owing to the density of the water, only yields to the action of violent winds, and to the absence of fish, with the treeless and herbless desolation of the greater part of the shores. The lake belongs to the class which have affluents, but are without an outlet, yet generally maintain the same level, for such formations occur in regions of great heat, where the excessive evaporation to which they are subject, is quite sufficient to account for the disposal of the accessions they receive. The water is far saltier than that of the ocean, a quality derived from the saline tracts which form the south-eastern shore, and have doubtless a subaqueous extension. It is found by analysis to contain one-fourth of its weight of salt ingredients. Though beautifully clear and transparent, the taste is indescribably nauseous, being not only saline but bitter beyond bitterness. Experimentalists compare it to sea-water mixed with Epsom salts and quinine, or to a solution of nitre mixed with an infusion of quassia. It affects the eyes pungently like smoke, irritates the skin, and leaves a white deposit upon the person of the bather.

Wild fictions have been circulated respecting the Dead Sea. It was affirmed by some old travellers to smoke, and exhale deleterious vapours, so that no bird could fly over the surface, or venture upon its bosom without hazard of perishing, while no object could be made to sink in its waters. Statements of this description, which led many a pilgrim to cast an eye of wonder and awe upon the lake, involve in the main distorted or exaggerated representations of certain physical characteristics. In common with other expanses, dense mists form at intervals, which the summer sun dispels soon after its rising; and during the hot season, in the middle of the day, the active evaporation is often visible to the eye. Irby and Mangles, from a spot which commanded an extensive prospect of the lake, observed this effect, in broad transparent columns of vapour, not unlike water-spouts in appearance, but very much larger. The fresh-water fish of the Jordan, which the river in its floods may force down, must of course perish in a salt-lake, and it appears to have no fish whatever of its own. This circumstance would satisfactorily explain the entire absence of aquatic birds, were that the case. During the summer heats, when all the vegetation, which is somewhat plentiful in places along the western border, is scorched, land birds also are scarce or altogether wanting. The truth seems to be, that at certain times of the year utter lifelessness reigns upon the shores and surface. But this is only a temporary seasonal effect, though the feathered tribes are naturally rare at any time, owing to the general barrenness of the adjoining lands, deficiency of shelter, and the entire want of food in the water. Stephens saw a flock of gulls floating quietly on the waves, and when disturbed by him, they flew along the lake, skimming the surface till they were out of sight. Elliot watched some wild ducks cross the sea from Moab to the hills of Judah. Irby and Mangles witnessed a pair of Egyptian ducks and a flight of pigeons make the passage. Dr Robinson speaks of the carols of the lark at early dawn, the cheerful whistle of the quail, the call of the partridge, and the screaming of birds of prey on the wing about the cliffs. Miss Martineau remarks: 'It is said that small birds do not fly over the lake on account of the deleterious nature of the atmosphere. About small birds I cannot speak: but I saw two or three vultures winging their way

obliquely down it.' Salt, deposited by the Dead Sea, collected on the western side, is now and has long been used at Jerusalem for culinary purposes.

Owing to the quantity of briny matter held in solution, and the great specific gravity of the water, it is remarkably buoyant. Ancient representations of its capacity in this respect only require limitation. The testimony of all bathers is uniform and explicit. 'There is some truth,' says Paxton, 'in the saying that it requires an effort to keep the feet and legs under, so as to use them to advantage in swimming. I could lie on my back in the water, with my head, hands, and feet all out at the same time, and remain thus as long as I pleased without making any motion whatever. This I could not do in any other water that I have been in.' Stephens has given a lively description of his bath. 'From my own experience,' remarks the traveller, 'I can almost corroborate the most extravagant accounts of the ancients. I know, in reference to my own specific gravity, that in the Atlantic and Mediterranean I cannot float without some little movement of the hands, and even then my body is almost totally submerged; but here, when I threw myself upon my back, my body was half out of the water. It was an exertion even for my lank Arabs to keep themselves under. When I struck out in swimming it was extremely awkward, for my legs were continually rising to the surface, and even above the water. I could have lain and read there with perfect ease. In fact I could have slept, and it would have been a much easier bed than the bushes at Jericho.' A fruit, pleasing to the eye but of deceptive appearance, 'the apples on the Dead Sea shore,' mentioned by Josephus and Tacitus,

* Which grew

Near that bituminous lake where Sodom stood,'

is very probably the produce of the 'osher or asheyr tree, found in the district. It resembles externally a smooth apple or orange, hangs in clusters of three or four upon the branches, and is of a yellow colour when ripe. Upon being struck or pressed, it explodes with a puff, and is reduced to the rind and a few fibres, being chiefly filled with air.

The district of the Dead Sea, and of the whole valley of the Jordan northward to the Lake of Tiberias, is quite a phenomenon in physical geography, being below the level of the ocean. No other example of similar depression is known, for that of the Caspian Sea, if admitted, is comparatively inconsiderable. The Lake of Tiberias is 328 feet below the level of the Mediterranean; and from thence the river-valley declines to the Dead Sea, the surface of which is very nearly 1400 feet below the same level. This is the mean of barometrical and trigonometrical measurements executed by the Count de Bertou in 1838—1839, Von Russegger in 1838, Lieutenant Symonds in 1841, and Von Wildenbruch in 1845. Owing to the great depression of the surface, together with the heights which wall in the valley, heat powerfully accumulates by the concentration and reflection of the solar rays, while the bordering highlands prevent the admission of external breezes to relieve the temperature. The climate is therefore tropical. Travellers on descending into this low country feel as if they had entered another zone. They confirm the accuracy of Josephus, who reports that winter in the plain of Jericho resembled spring, and that the inhabitants wore linen garments at the time when the people in other parts of Judea were shivering in the midst of snow. Snow, indeed, is almost entirely unknown in the valley. The mean annual temperature, in the southern and lower portions, is probably 75 degrees, while that of Cairo, a more southerly latitude, is 72 degrees. Hence dates ripen earlier than in Egypt. Indigo, which requires a high temperature, grows wild, and is also cultivated, the product commanding a higher price than Egyptian indigo, being of superior quality. The balsam-tree, a tropical plant, which yields the medicinal gum, now called the balm of Mecca, and is now limited to Arabia, once flourished in groves near Jericho, and furnished the renowned balm of Gilead. The vegetation is still luxuriant and abundant wherever there is moisture. Tamarisks, willows, oleanders, and tall reeds line the borders of the Jordan, and in many places almost hide its waters. But apart from the margin of the river, the surface has the aspect of a parched desert through the months of the summer. During the early part of May, and in the morning, a recent traveller found the thermometer standing at 92 degrees, in the shade of a clump of wild fig-trees overhanging a copious spring, and near its edge.

Pashalics.	Chief Towns.
Aleppo,	Aleppo, Iskenderun, Antakia, Aintab.
Tripoli,	Tripoli, Latakia, Tartus, Zebail.
Acre,	Acre, Beyrout, Saida, Nazareth.
Damascus,	Damascus, Hamah, Homs, Jerusalem, Hebron.
Gaza,	Gaza, Jaffa.

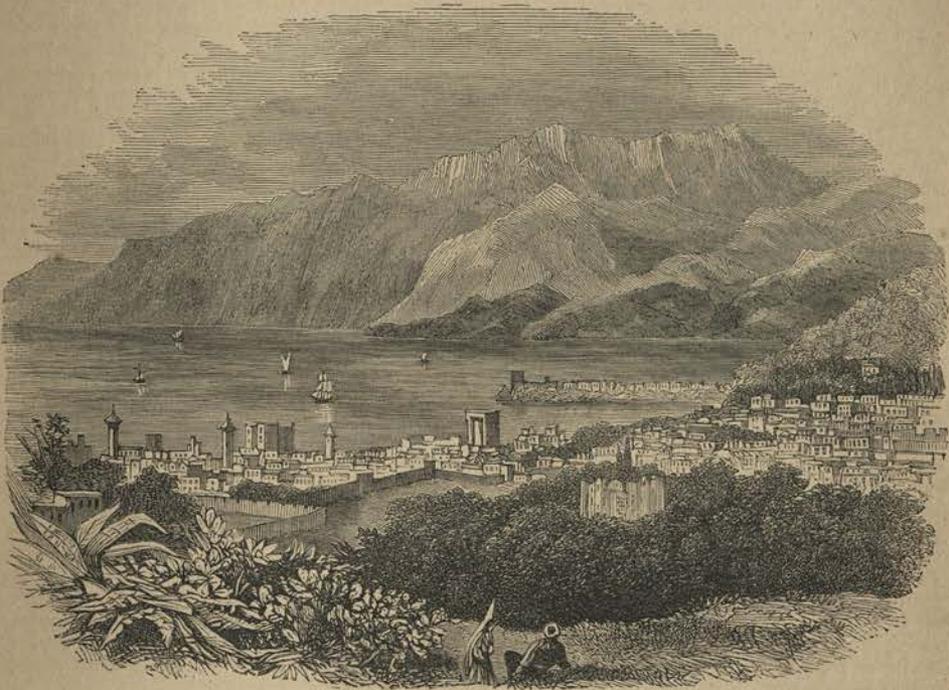
Aleppo, in Northern Syria, is an inland city situated nearly equidistant from the Mediterranean and the Euphrates. Though on the edge of the great Syro-Arabian desert, it occupies a well-watered and delightful locality, which has obtained the name of the Syrian Gardens from its numerous plantations of fruit and forest trees, with various kinds of esculent plants and flowering shrubs, blended with patches of cotton and tobacco. Twice desolated in the present century by terrible earthquakes, it is still one of the most busy commercial places of the Ottoman Empire, possesses good houses of freestone, well-supplied bazaars, numerous khans, baths, fountains, and mosques, a substantial wall, with a population of 80,000; while riven and ruined buildings, in every stage of destruction, proclaim the fearful nature of the visitations incident to the neighbourhood. On the last occasion, August 13, 1822, the sun went down, and the day closed peacefully; but at half-past nine o'clock the ground rocked, the whole pashalic was shaken, and in a few seconds the city was reduced to a heap of ruins. The next morning all the surviving inhabitants were scattered homeless over the open country; while the dead, to the number of 20,000, among whom was the Austrian consul, lay beneath piles of prostrate masonry and brick. The plague in 1827, the cholera in 1832, and the oppression of the temporary Egyptian government were further disasters. But as a great centre of inland trade, the place has rallied from these misfortunes. The merchant-citizens are distinguished for refinement, and are hence styled by the Arabs *Halepi tshelabi*—the 'foppish Aleppines.' *Iskenderun*, or *Scanderoon*, the port of Aleppo, seventy miles distant, on a fine inlet of the Mediterranean, has considerable trade, but is a wretched town, surrounded with swamps, notoriously unhealthy. *Antakia*, on the left bank of the Orontes, about twenty miles from the sea, is the poor modern representative of the vast and splendid Antioch of former times. This city, for several centuries the favourite residence of the Syro-Macedonian kings, and afterwards of Roman governors, was built partly on the plain through which the river winds its way, and partly on the rugged ascent towards Mount Casius, the slopes of which were once covered with vineyards. It was as large as Paris, celebrated for stately buildings and luxurious embellishments, which won for it the style of 'Antioch the Beautiful,' 'the Crown of the East.' The Jews were partial to it, owing to the *jus civitatum*, or right of citizenship, which the founder, Seleucus, gave them, in common with the Greeks. In the early history of Christianity it is noted as the place where the name of Christians was first applied to its professors. In later times, it was commonly denoted the 'Eye of the Eastern Church,' and witnessed ten ecclesiastical councils held within its walls. The Temple of Daphne stood in the neighbourhood, embosomed in thick groves of laurels and cypresses, through which numerous streams were led, forming a cool summer retreat for the inhabitants of the city. But nothing now remains of the glory of Antioch, beyond what history relates, except the fragments of massive walls which lie around the crazily-built houses of Antakia, and those gifts of nature in fruits, flowers, and foliage to the site which wars and earthquakes may ravage, but cannot permanently destroy.

Tripoli, on the coast, is one of the chief ports, with 18,000 inhabitants, and an important shipping trade in raw silk, and other produce. The name, signifying 'three cities,' refers to its origin as the offspring of colonies from the three cities of Tyre, Sidon, and Aradus. The town is environed with delightful gardens, has many agreeable features, and contains striking architectural monuments of the age of the Crusades. *Latakia*, ancient *Laodicea*, another seat of maritime commerce, is a smaller place on the north, with a flourishing trade in the export of tobacco and sponge of the finest quality. *Beyrout*, on the south, the port of Damascus and Central Syria, is magnificently situated, the blue sea on the one hand, the lower slopes of the Lebanon on the other, with the higher parts of the range in the background, whose snow-covered peaks are in view of the inhabitants. The town is walled on the land-side, and surrounded with mulberry groves for the cultivation of silk, along with rich gardens of fruits and flowers, divided generally by hedges of the prickly pear. It prospered in former times under the name of *Berytus*, sunk for ages into obscurity, and has only recently gained consequence owing to the extended growth of silk and wine in the neighbourhood. The population, about 12,000, consists chiefly of Christians, many of whom represent European mercantile firms, or are connected with Protestant mission establishments. Coal and iron occur in the vicinity, and hills of red sand are prominent on the shore. From some examples of the latter, a small stream to the northward, the *Nahr Ibrahim*, *Adonis* of antiquity, probably derived a real discoloration which mythology interpreted in the manner described by Milton:

'Thammuz came next behind,
Whose annual wound in Lebanon allured
The Syrian damsels to lament his fate
In amorous ditties all a summer's day;
While smooth *Adonis* from his native rock
Ran purple to the sea, supposed with blood
Of Thammuz yearly wounded.'

The coast of Syria, with a narrow strip of territory inland, the breadth of which perhaps nowhere exceeded

twenty miles, corresponds to the limits of Phœnicia Proper. This region was early studded with flourishing cities, for the most part well fortified, and situated on islets adjacent to the shore. The insular position rendered them more secure, and was suited to the habits of a maritime people. They were equally the abodes of industry and the arts, celebrated for their fleets, and for naval and commercial enterprise. The more important had a section of the neighbouring country under immediate control, with an independent government, which, though monarchical, was so strictly limited as to be almost republican. *Aradus*, the *Arpad* of sacred history, on the north, occupied the small island of Ruâd, about two miles from the coast, of which cisterns cut in the solid rock and some masses of masonry are the principal remains. The few islanders now rear poultry and



Beyrout and Mount Lebanon.

vegetables, and are engaged in the sponge-fisheries, a laborious and perilous calling. They dive for the product, remain under water for a wonderful length of time, and are often in a state of complete exhaustion on regaining the surface. The best season for the fishery is during the month of August and September, when the regular sea-breezes are to be depended on. The sponges are bartered to merchants for grain, clothes, and other necessaries of life. Only very few of the best quality find their way to the markets of Western Europe, as the home demand for them at a remunerating price is very great, owing to the frequent use of the bath. Turkish ladies are as fastidious respecting the shape and size of the sponge, as the men are in relation to the mouth-pieces of their pipes. *Tartus*, an insignificant place on the adjoining mainland, is the *Tolosa* of the middle ages, the *Ant-aradus* of the Greeks, with Phœnician antiquities and Gothic remains, which bespeak its former consequence. *Sidon*, the mother city of the country, celebrated in the time of Homer for the artistic skill of its inhabitants, and often mentioned in the Scriptures, exists as a small town on a southerly part of the coast with the name of *Saida*, but has had its commerce transferred to the northern ports. There are very few traces of the Phœnician past at the spot, but many memorials of the Crusaders. *Sâr*, further south, towards the border of Palestine, little more than a mean hamlet, is all that survives of *Tyre*. This ancient daughter of Sidon soon surpassed the parent in prosperity, and became the greatest commercial mart of the ancient world.

The position of *Tyre* was originally confined to the mainland, but gradually its buildings were extended to a rocky isle, separated from it by a narrow arm of the sea. Eventually, for the sake of security, the inhabitants became wholly insular, and strongly fortified their home. It fell into the hands of Alexander the Great after a long siege, 332 B.C., owing to his construction of an enormous causeway or pier from the main shore to the island, over which his troops marched with their engines to the assault of the walls. Though sacked, the city revived, and was populous at the commencement of the Christian era. It was taken by the Saracens in the seventh century; recovered by the Crusaders in the twelfth, and made an archiepiscopal see, of which

William of Tyre, an Englishman, the well-known chronicler, was the first prelate. Mastered finally by the Turks, it sank rapidly into complete insignificance, and became by the seventeenth century a miserable village, inhabited by a few fishermen. Still, its present Arab name, now occupies a peninsula, accumulations of sand having converted the causeway of Alexander into an isthmus more than a quarter of a mile in width. The ruins of an old church—some tottering walls of ancient date, and towers that mark the time of the Crusades—a white domed mosque—a few unconnected houses, jumbled together on the sea-washed rock—and rising above all, some waving palms, whose plummy tops seem to mourn over the surrounding desolation, are all the objects that now present themselves to the traveller on a spot once 'glorious in the midst of the seas,' whose 'merchants were princes, and whose traffickers were the honourable of the earth.'

Damascus, locally called *El-Sham*, is an inland city, situated on an extensive plain at the eastern base of Anti-Lebanon, highly fertile, being watered by numerous streams which descend from the mountains, of which the Barada and Awaj are the most important, representing 'Abana and Pharpar, rivers of Damascus,' mentioned in the Jewish annals. Completely encompassed with gardens and orchards, the distant view of the place from the mountain slopes is very charming. It is one of the oldest of existing cities, and also one of the very few which has not dwindled from its ancient importance, nor changed its aspect for centuries, remaining thoroughly oriental in the appearance of its houses and inhabitants. The population exceeds 100,000, consisting chiefly of Turks, who have not yielded to modern influences, who cling like their ancestors to the dignity of high turbans and flowing robes, and are strongly tinctured with Moslem pride and fanaticism. There are an immense number of coffee-houses and cook-shops, of smiths and jewellers, but manufactures of leather are the most extensive, with coarse woollen cloths for the cloaks universally worn by the Syrian peasants. Formerly the artisans were famed for the production of sword blades, which appear to have been made of thin sheets of steel and iron welded together, so as to unite great flexibility with a keen edge. Tamerlane carried off the workmen into Persia; but sabres of inferior quality continue to be made. The mosques amount to two hundred. One of the finest was once a Christian structure, built upon the site of a pagan temple, some columns of which are extant. Damascus, under the Saracens, was the head of a califate, and several of the mosques were erected as mausolea for the califs. It was taken by the Turks in 1516, and is now the true capital of Syria, and head-quarters of the army, with a pasha who is always one of the highest officers of the empire. *Hamah*, the *Hamath* of Scripture, and *Homs*, the *Emesa* of the Greeks and Romans, are considerable towns on the north, in the direction of Aleppo. *Baalbec*, or *Heliopolis*, 'City of the Sun,' in the great valley between the ranges of Lebanon, now a mere village, is remarkable for splendid remains of a huge temple of the sun-god, the erection of which is commonly ascribed to the Emperor Antoninus Pius. Single blocks of stone lying prostrate are of colossal proportions, amounting in one instance to sixty-nine feet in length, and in some others to fifty-three feet each. *Palmyra*, 'the City of Palms,' exhibits an equally striking spectacle of fallen grandeur. It was originally founded by Solomon as *Tadmor* in the wilderness, 'for the accommodation of caravans,' and became in the Roman age the capital of the renowned Queen Zenobia, conquered and taken captive of the Emperor Aurelian. The site is an oasis in the desert, nearly midway between the Mediterranean and the Euphrates, about 120 miles north-east of Damascus. Here are now a few mud-built cottages, by the side of perennial springs and shady palms, along with sixty Corinthian columns of white marble, and other ruins covering an extensive space, which surprise the visitor by their appearance in a wilderness destitute of a single building, and contrast strikingly in their snowy whiteness with the yellow sands. English merchants at Aleppo first made known the remains of Palmyra to the western nations. The Arabs still apply the name of *Tadmor* to the spot.

Acre, ancient *Acco-Ptolemæis* (now *Akka*), a small seaport, marks the southern limit of old Phœnicia, and the northern border of the Holy Land. It occupies the shore of a semicircular bay, the only prominent inlet of the whole coast-line. Its position, walls, and fortress rendered it the key of Palestine when a vigorous ruler was its lord, like Djezzar Pasha at the commencement of the present century. Fierce have been the struggles for its possession between the Christian and Mohammedan powers. Fortifications and town are now utterly dilapidated, but exhibit evidences of former strength. The place, though still containing 10,000 inhabitants, belongs essentially to the past, and has a history memorable for its many sieges—by Baldwin, Saladin, Richard Cœur de Lion, Napoleon, Ibrahim Pasha, and Sir C. Napier. The peculiarity belongs to its annals that at the close of the Crusades, within the narrow circuit of its walls, between the hosts of the Saracens on the one hand and the waters of the Mediterranean on the other, there were cooped up a greater number of chieftains, exercising authority, than ever appeared at the same time in any other stronghold. Within that circuit, destined to be driven from it, having lost every other part of Palestine, 'the kings of Jerusalem and Cyprus, of the House of Lusignan; the princes of Antioch; the counts of Tripoli and Sidon; the grand masters of the Hospital, the Temple, and the Teutonic Orders; the chiefs of the republics of Venice, Genoa, and Pisa; the Pope's legate; and the kings of France and England, each assumed an independent command. Seventeen tribunals exercised the power of life and death.'

The Bay of Acre has Mount Carmel on the southern side, a range of hills from four to five miles in breadth, and running eighteen miles inland, bounding on the south-west the great plain of Esdraelon. Through this plain 'that ancient river, the river Kishon,' winds its way to the sea, skirting the foot of the range—an inconsiderable stream in the dry season, with its upper channels dry, but a furious and overflowing torrent after heavy rains. Ascending from the lowlands, where the summer heat is oppressive, the traveller meets with a cool and bracing air on the hills, especially on the brow of the terminating headland—a bluff

promontory fully exposed to the refreshing sea-breeze. This summit is completely devoid of verdure. But, further inland, beautiful vegetation clothes the slopes and fills the dells, giving them a garden-like appearance. There are copses of the evergreen oak, with dense underwood of hawthorn, myrtle, and acacia; picturesque green glens spangled with bright flowers, and fragrant with aromatic plants; while wild vines and olive-trees remain amid the spontaneous produce of the soil to bear testimony of ancient cultivation. This fertility constituted the 'excellency of Carmel' in former times, the evidence of which has survived the neglect of ages; and the hand of industry is alone needed to renew it in all its glory on the spot. On the side of the sea, half-way up the hill, stands the convent, a foundation of the celebrated order of the barefooted monks who have carried the name of Carmelite to the extremities of Europe. The building is quite new, a handsome structure of three stories, with nine windows looking towards Acre, and thirteen towards the Mediterranean, containing rooms fitted up for the reception of European visitors. The view from the roof is very extensive, but fatiguing from its uniformity, as a sail but rarely appears on the adjoining waters. But occasionally the cloud is seen, as aforesaid, not 'bigger than a man's hand,' which increases in volume, overspreads the sky, and discharges itself in deluging torrents. In this manner the commencement of the autumnal rains in Palestine is often announced. When sailing along the coast on a bright and beautiful morning, the approach of a squall was intimated to Mr Emerson. On looking out he saw no indication of it till his attention was directed to a small black cloud on the verge of the horizon, which every instant drew nearer the vessel, and enlarged its bulk. Orders were immediately given to take in sail, and prepare the ship for scudding before the hurricane. It came on with tremendous violence; the rain poured down in torrents upon the deck; and in little more than a quarter of an hour, the sky cleared, the sun shone out, and all was peaceful except the rough and billowy deep.

Southward on the coast some thirty-six miles, masses of masonry and prostrate columns, partly washed by the waves, are the only remains of *Cesarea*, the capital of Roman Palestine. No village, habitation, or hovel marks the site, but the Arabs preserve the memory of the city in the equivalent name of *Kaisaria*, applied to the spot. About the same distance in the like direction leads to *Jaffa*, or *Joppa*, a town of 5000 inhabitants, the old port of Jerusalem, from thirty to forty miles north-west of the city. It stands directly on the beach, and answers to the meaning of its name, 'Beautiful,' occupying a little rounded hill which dips on the west into the waves, and is encompassed on the land-side with orchards of oranges, lemons, pomegranates, and apricots, scarcely surpassed in the world. Steamers are occasionally in sight plying between Alexandria and Beyrout, but they rarely stop, as there is little or no accommodation for the landing and embarkation of passengers, while the harbour is nearly sanded up. The site has been occupied from a very remote antiquity, and been the scene of many interesting transactions. To this port the cedar and pine woods of the Lebanon were brought on floats which were used in the building of Solomon's Temple. Here for a time the apostle Peter resided with Simon the tanner, whose house is described as 'by the sea-side,' on the flat roof of which he saw the vision which corrected his Jewish prejudices against the Gentiles. The prominent incident in the modern history of Jaffa is the infamous massacre of his prisoners in the neighbourhood by Napoleon.

Jerusalem, the modern representative of the city of David and Solomon, of Herod and Pilate, is situated between the shores of the Mediterranean and the head of the Dead Sea, nearer the latter than the former, in latitude 31° 46' north, longitude 35° 13' east, a place now humbled and forlorn, no longer the capital of a kingdom, though in one sense the metropolis of the world. It stands on the edge of a rocky plateau, part of the extensive table-land or backbone of Judea, which is broken into several eminences, and nearly surrounded by valleys, or rather deep ravines. On the north the site is open to the high plains. But eastward it is limited by the Valley of the Kedron, the bed of a winter torrent, completely dry for the greater part of the year, which separates it from the Mount of Olives. Southward is the Valley of Hinnom, likewise traversed by a stream in the rainy season, which joins that of the Kedron, and is itself a continuation of the shallower Valley of Gihon on the western side. The ground thus enclosed on three sides by natural fosses includes the two hills known by the names of Acre and Zion, the last of which is only embraced in part by the present walls. The highest point of Zion, the south-western brow, is about 300 feet above the lowest portion of the adjoining valleys, 2535 feet above the level of the Mediterranean, and 3835 feet above that of the Dead Sea. The Gothic embattled wall around the city is about two miles and a half in circuit, and is passed by four principal gates. It encloses narrow, unpaved, and irregular streets, gloomy prison-like houses, and a population of perhaps 20,000, consisting of Moslems in the proportion of full one-half, with Jews, Armenians, Latin and Greek Christians. The most conspicuous edifice, the so-called Mosque of Omar, occupies the site of Solomon's Temple, and is considered by the Mohammedans as only inferior in sanctity to the Kaaba at Mecca. Latin, Greek, and Armenian Christians venerate the Church of the Holy Sepulchre, believing it to stand on the very site of the Messiah's death, burial, and resurrection. They have their separate chapels in the Byzantine building, re-constructed in the present century; but have often been involved in the fiercest quarrels by the clashing of their respective pretensions. A Protestant bishopric, with a church on Mount Zion, is jointly sustained by England and Prussia, the appointment to which rests alternately with the two governments. The only prominent industry in the city is the manufacture of crucifixes, beads, artificial shells and reliquaries, which are disposed of in immense quantities to the crowds of pilgrims.

In the view of Jerusalem, looking westward, northward, or southward, it is seen on an elevation higher than the hills in the immediate neighbourhood, with its walls and towers projected against the sky. But facing the

east, the ridge of the Mount of Olives forms a background, the highest peak of which rises to 2724 feet above the Mediterranean, or nearly 200 feet above the top of Mount Zion. These summits are familiar objects in every view from the roofs of the city, and so near are they as to seem almost within its bounds. The olive, from which the name of the first is derived, still grows in patches at the base, but must have clothed the slopes more completely to have originated the distinctive title. The Roman general, Titus, cut down all the wood in the vicinity of the city in order to facilitate operations during his famous siege; but there would seem to have been constantly springing up a succession of the denominative trees. As spontaneous produce,



Jerusalem, from Mount of Olives.

uninterruptedly resulting from the original growth, the existing venerable examples are of high interest. It appears from allusions that the site had once myrtles, figs, pines, and palms, all of which have passed away except the fig, which lingers here and there along with the olive. Thus clothed with shady vegetation, and close at hand, Olivet was the favourite resort of the old inhabitants—their open ground to ancient Jerusalem; it was as the Campus

Martius to ancient Rome, or as the Prater is at present to Vienna, and the Parks to London. The ridge has four distinct summits distinguished by traditional names. The first in order, proceeding from north to south, is the lowest, called the 'Galilee,' from the supposition that the angels appeared over it who said, 'Ye men of Galilee.' The next is the 'Ascension,' so entitled as the presumed scene of that event, which has the site indicated as the Garden of Gethsemane at its base. The third is the 'Prophets,' with a catacomb called the 'Prophets' Tombs' on its side. The last is the 'Mount of Offence,' so styled from Solomon's idol worship. The third summit is the most elevated, and has the direct route to Bethany and Jericho on its southern shoulder. This is a rough, broad, and well-defined mountain-track, winding over rock and loose stones, undoubtedly the path followed by the Saviour on his triumphant progress to the city. Lieutenant Lynch, who approached by this tract, coming up from his adventurous expedition in the Valley of the Jordan, was surprised at the magnificence of the first view. Bartlett, who beheld the same prospect at eventide, which no other modern traveller seems to have done, owing to the gates being closed at sunset, remarks: 'Beautiful as this view was in the morning, it was far more striking when the sun, about to sink into the west, cast a rich slanting glow along the level grassy area and marble platform of the Temple enclosure, touching with gold the edge of the Dome of the Rock, and the light arabesque fountains with which the area is studded; while the eastern walls and the valley below are thrown into a deep and solemn shadow, creeping, as the orb sinks lower, further and further towards the summit (of Olivet), irradiated with one parting gleam of roseate light, after all below was sunk in obscurity.' Most visitors confess to a strong feeling of disappointment at the first sight of Jerusalem, as Richardson, Buckingham, and Chateaubriand, owing to their arriving either from the west or south, by the road from Jaffa or Hebron. It is from the Olive mount on the east, the road from Bethany and Jericho, the approach by which the army of Pompey advanced, that the appearance is grand, though all, upon further acquaintance, will be disposed to say: 'How doth the city sit solitary, that was full of people! How is she become as a widow! she that was great among the nations, and princess among the provinces!'

Close to the city of the living there is a city of the dead, a long series of ancient sepulchres, chiefly on the sloping sides of the adjoining ravines. The great majority of the tombs exhibit the same general mode of construction. A small doorway, usually simple and unadorned, has been cut in the face of the rock, leading to one or more chambers excavated out of it, commonly upon the same level with the entrance, though sometimes having a descent of several steps. In some instances advantage has been taken of a spot where the stone has been quarried for building purposes, in order to obtain a perpendicular face for the door. Many of the doors and fronts have been broken away by violence, so as to leave the interior of the chambers quite exposed. Most of the sepulchres seem to have been simply secured by large stones or blocks at the doors, easily removed and replaced upon a fresh tenant being brought to the family grave. It was the general custom to deposit the body in a chamber, or in a niche, without any sort of coffin, but wrapped round with grave-clothes, though, in the case of the noble and wealthy, stone coffins with sculptured lids, or sarcophagi, were used. In striking contrast with the habits of the Egyptians, Greeks, and Romans, from whose funereal monuments whole acres of inscriptions have been gathered, not a single letter has been found in any ancient sepulchre of Palestine. There are a few remarkable exceptions to this description of the old abodes of the dead contiguous to Jerusalem. One called the 'Tombs of the Judges,' a name supposed to refer to the members of the Jewish Sanhedrim, presents a portico surmounted with a fine pediment, sculptured with flowers and leaves. Another, styled the 'Tombs of the Kings,' consists of a large square court sunk in the solid rock. A portico on one side leading to many excavated chambers, with crypts, is ornamented with carved clusters of grapes between groups of flowers, intermingled with Corinthian capitals, and forms the finest specimen of ancient sculpture extant in the neighbourhood. This sepulchre, from its extent and magnificence, has most likely been a royal burial-place, perhaps of the princes of the line of Herod.

An account of the relative position of the renowned city, 'written by Henry Timbérlake,' in 1601, is quaint and curious.

'Now concerning how the country about Jerusalem lyeth, for your more easy and perfect understanding, I will familiarly compare their several of our native English towns and villages, according to such true estimation as I have heard made of them.

The river Jordan, the very nearest part thereof, is from Jerusalem as Epping is from London.

Jericho, the nearest part of the plains thereof, is from Jerusalem, as Lowton Hall, Sir Robert Wrath's house, is from London.

The Lake of Sodom and Gomorrah is from Jerusalem as Gravesend is from London.

The fields where the angels brought tidings unto the shepherds, lye from Jerusalem as Greenwich doth from London.

Mount Olivet lyeth from Jerusalem as Bow from London.

Bethania is from Jerusalem as Blackwall is from London.

Bethphage is from Jerusalem as Mile End is from London.

The valley Gethsemane is from Jerusalem as Ratcliffe Fields lye from London.

Brook Cedron is from Jerusalem as the ditch without Aldgate is from London.

The distances of Bethlehem, Beersheba, Gaza, Joppa, Samaria, and Nazareth, from Jerusalem, are similarly estimated by those of Wandsworth, Alton, Salisbury, Aylesbury, Royston, and Norwich from London.'

Nazareth, or *En Nasireh*, included in the pashalic of Acre, is a small inland town of 3000 inhabitants, full two thirds of whom are Greek, Latin, and Maronite Christians. This place has an enduring high association. It was the residence of 'Jesus of Nazareth,' before he entered upon his ministry, the abode of his parents Joseph and Mary. The site is a sweetly sequestered valley enclosed by barren hills, but clothed itself with rich grass, dotted with fig-trees and small gardens lined with hedges of the prickly pear. A spring outside the town, arched over with stone, is traditionally regarded as having been visited by the Virgin to draw water, one of the legends which may be received without distrust, for daily at present, women and girls with long white veils and bands of coins over their heads may be seen at the spot filling their graceful water-jars. Nazareth is on the northern side of the plain of Esdraelon, about twenty miles west of the Lake of Tiberias. Between the two, the wooded and conical Mount Tabor rises boldly, from the summit of which the eye overlooks the lake and the greater part of Galilee, hails the snow-capped heights of Hermon, and catches sight of the country of Bashan and Gilead beyond Jordan, where primeval oak forests alternate with rich pastures and fertile corn-lands. *Safed*, a neighbouring town, is built round the slopes of a mountain, the brow of which is crowned by the massive ruins of a castle. It had formerly a large Jewish population, with many learned rabbis and celebrated schools, but was dreadfully injured by an earthquake in 1837. Nearly every house was overthrown, and more than half of the inhabitants perished. *Nablous*, southward in ancient Samaria, is the *Shechem* and *Sychar* of the Scriptures, called in later times *Neapolis*, of which the present name is a corruption. It occupies a narrow, watered and luxuriant valley between Mounts Ebal and Gerizim, but is chiefly built at the base of the latter, and has a population of 8000, mostly Mohammedans. The town is one of the prosperous places in Palestine, with the production of cotton fabrics, soap, and olive oil for its industries. A few Samaritans remain at the spot, the old metropolis of their faith, who revere the summit of Gerizim as the place where 'men ought to worship.' In the vicinity is Jacob's Well, the scene of a memorable interview, an excavation in the rock usually furnishing an abundant supply of water.

Bethlehem, 'House of Bread,' in which the royal line of David dwelt, and the Messiah was born, is six miles from Jerusalem on the south, reached by a dreary road. It stands upon a limestone ridge, the slopes of which

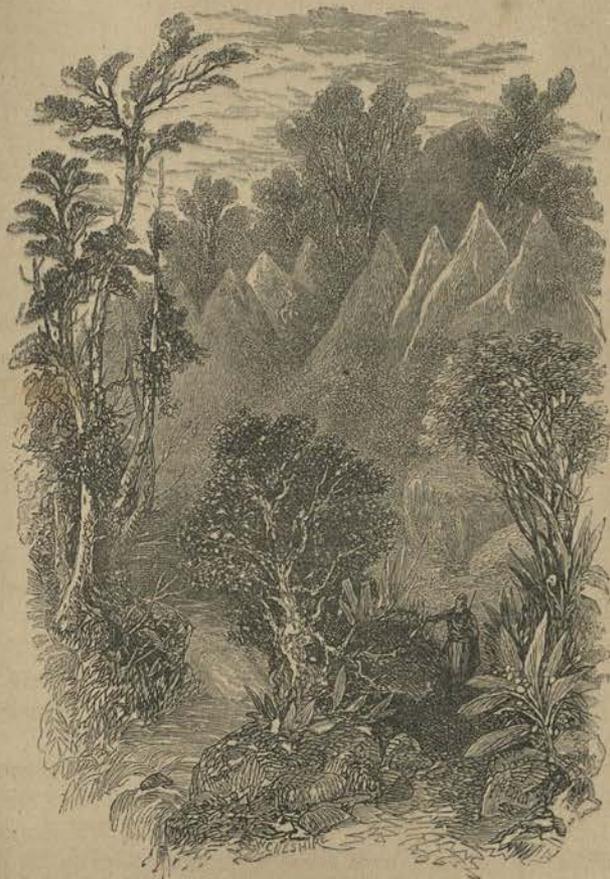
have the vine, the fig, and the olive flourishing in the dark-red loam found in clefts and furrows of the rock. The place is simply a village of about 2000 inhabitants, busy with the manufacture of beads, crucifixes, and rosaries, vended to the pilgrims who repair to it as a sacred shrine. A monastery of great extent accommodates Greek, Latin, and Armenian monks, who have the joint use of the church. They profit by offerings from visitors of their own communions, to whom a crypt beneath the building, paved and lined with marble, is shewn as the Grotto of the Nativity, with the very spot where the birth took place indicated by a Latin inscription on the floor. *Hebron*, in the same direction, 21 miles from Jerusalem, is a town of 5000 inhabitants, almost all Moslems. It has the modern name of *El-Khalil*, 'the Friend of God,' in allusion to the patriarch Abraham, who was here interred, along with Isaac, Jacob, and other members of the patriarchal family. The principal mosque, once a Byzantine church, contains the so-called tombs. No Christian in modern times has entered this building, except one or two, in disguise or by stealth, till the Prince of Wales's visit in 1862, when curiosity was gratified, but no result of interest appears to have been gained. 'We passed,' says one of the party, 'without our shoes, through an open court into the mosque. In the recess on the right is the alleged tomb of Abraham, on the left that of Sarah, each guarded by silver gates. The shrine containing the tomb of Sarah we were requested not to enter, as being that of a woman. The shrine of Abraham, after a momentary hesitation and a prayer offered to the patriarch for permission to enter, was thrown open. The chamber is cased in marble. The tomb consists of a coffin-like structure, like most Moslem tombs, built up of plastered stone or marble, and hung with carpets—green, embroidered with gold. The three which cover this tomb are said to have been presented by Mohammed II, Selim I., and the late Sultan Abdul Medjid. I need hardly say that this tomb (and the same remark applies to all the others) does not profess to be more than a cenotaph, raised above the actual grave which lies beneath.' Within the area of the mosque were shewn, in like manner, the tombs of Isaac and Rebekah, in separate chapels, and closed with iron gates.

Gaza, or *Guzzeh*, the head of a pashalic in the south-west of Palestine, contains a population of 15,000, and enjoys considerable trade both by land and sea, being on the caravan route to Egypt, while only about three miles from the Mediterranean. The present town is not upon the spot once occupied by the lordly city of the Philistines, connected with the story of Samson. The ancient site is desolate. Scarcely a shrub, plant, or blade of grass interrupts and relieves its monotonous barrenness, or anything but the jackal stealing over it, with a few ruins half buried in the sand.

The population of Syria and Palestine consists of Turks, Arabs, and Greeks, in the largest proportion, with examples of nearly all the races found in Asiatic Turkey, forming a supposed total for the whole region of Ottoman Asia of 16,000,000, of whom the great majority are in Asia Minor. But two communities in close proximity, yet of different habits and religion, the Maronites and Druses, are peculiar, or nearly so, to the Lebanon, and at deadly variance with each other, engaged in a horrible civil war in the year 1860. The Maronites occupy the hill-country between Beyrout and Tripoli, live in villages on spots apparently inaccessible, perched on the edges of ravines and frightful chasms, many of which, though within pistol-shot of each other, are separated by hours of toilsome march. The great valley which extends like a funnel from the sea-shore at Tripoli, to the snow above the mountain-cedars, is their principal home. They are Christians by profession, deriving their name from Maron, who advocated opinions denounced in the fifth century as heretical; and hence his followers were compelled to seek a retreat from persecution in the difficult highlands. Though now in communion with the Church of Rome, they are allowed by the papacy, as the price of adhesion in general, to elect their own ecclesiastical chief, reject the celibacy of the priests, and have the sacrament in both kinds administered. They have many convents, with which villages are commonly associated. Kanobin, fifteen miles on the south-east of Tripoli, is the seat of their patriarch. The Maronites cultivate the vine and mulberry, raise raw silk at a fixed price for the merchants of Marseille and Lyon, and are considered to be under the protection of France.

The Druses are chiefly found in the higher parts of the Lebanon between Beyrout and Acre, and round the roots of Mount Hermon, and the interior tract of the Hauran, a vast level plain on the south of Damascus. They are heretical Mohammedans, but their tenets and practices are involved in as much mystery as possible by a priestly class. With them, Hakem, the calif of Egypt, in the early part of the eleventh century, is honoured as the last medium of communication between the Deity and mankind. Darazi,

a zealous supporter of his pretensions to this character, proclaimed them in the Lebanon; and his disciples, by a natural and easy change in etymology, obtained from him the distinguishing epithet of Druses. The origin of these mountaineers is uncertain, though, with some probability, they are supposed to be descended from the ancient Iturei, who possessed the district in the time of the Romans. Their long standing may be inferred from some beautiful usages of primitive times, in strict accordance with the law of Moses. Thus, in the season of fruit-gathering, when a man has once descended from a tree, having shaken off as much of the produce as his strength permitted, he will upon no consideration shake the tree again, however much fruit may tenaciously adhere to the branches. What is left falls to the lot of the poor and the gleaner. 'When thou beatest thine olive-tree, thou shalt not go over the boughs again; it shall be for the stranger, for the fatherless, and for the widow.' In the same spirit they never reap the fields without leaving a full measure for the gleaners; rarely muzzle the ox that treadeth out the corn; and will not yoke a bullock and a mule together. Owing to the feuds between the two races, the Lebanon was constituted a special government in 1861, and placed under the charge of Davoud Pasha, an Armenian—the first Christian raised to the rank of pasha by the Turkish sultans.



Natural Pyramids of Koumbet, in the Forest of Kasrif Pacha Khan.



Aden.

CHAPTER III.

ARABIA.



THE island or peninsula of the Arabs, *Jezira-al-Arab*, so called by the natives in allusion to its extended enclosure by the sea, is the Arabistân of the Turks and Persians, a great south-western peninsula of Asia, connected with Africa on the north-west by the narrow Isthmus of Suez. The name is variously derived by etymologists from Semitic roots referring either to its physical features, the habits of its inhabitants, or its relative position, as *Arâbah*, a barren place or wilderness, *Eber*, a nomade or wanderer, and *Arab*, to go down, that is, the west, or to the region in which the sun appeared to set to the early dwellers on the Euphrates, which would, however, only be true of the most northerly portion of the country. It extends about 1500 miles from north to south, by 800 miles, at the greatest breadth, from

east to west, and comprehends an area of more than 1,000,000 square miles, considerably exceeding one-fourth of the entire area of Europe. The Syrian Desert lies on the north, the Persian Gulf on the east, the Indian Ocean on the south, and the Red Sea on the west. This vast peninsula is of sacred celebrity, as the land of Ishmael, whose predicted lawlessness and independence is now reflected by the tribes within its bounds; and as the scene of the great transactions which immediately followed the exodus of Israel. It is of historical fame, as the original seat of those fanatical hosts sent forth by the early successors of Mohammed to propagate his faith with the sword, who finally extended their conquests, religion, and language to the shores of Spain, the banks of the Ganges, the wilds of Tartary, and the heart of Africa. It is, too, of interest in the annals of literature, for while Arabian learning followed the decline of letters in Europe, it stimulated their revival; and its influence is decisively indicated by the fact that the nomenclature of modern science is largely indebted to the Arabic for its terms in almost every department.

The Red Sea is the prime maritime feature of the country, for the greater part of its coast-line belongs to the peninsula, and hence it is still frequently styled the Arabian Gulf, *Sinus Arabicus*, after the example of the ancients. At a more remote antiquity, the historian of the exodus referred to it as the 'weedy sea,' or 'sea of rushes,' *Yam Suph*, an allusion to the patches of reedy vegetation which appear on the northern shores. Its present common name is one out of many instances supplied by the nomenclature of seas and shores, of a general title being grafted on very partial and evanescent features, or upon appearances which are by no means peculiar to the localities they denominate. Thus, the White Sea is not whiter than at the same interval is Baffin's Bay; the Vermilion Sea is not more rosy than parts of the Levant; the Black Sea is not duskier than all other expanses under a darkened sky; the Red Sea is not ruddier than portions of the Persian Gulf; and the Pacific Ocean roars just as terribly as the Atlantic, and quite as often. Such epithets are unfortunate, as they make a false impression upon the mind in early life, which subsequent knowledge may correct, but seldom entirely effaces. Most travellers have described the Red Sea as exhibiting the brightest blue. But a pilgrim of the olden time has the discriminating remark, 'The Rede Sea is not more rede than any other sea, but in some places thereof is the *gravelle* rede, and therefore men clepen it the Rede Sea.' Coralline formations line the shores. Within their range, especially in the spring months, animalculæ are developed in patches of varying extent, which give to the coral below, of itself chiefly white, a blood-red hue, as well as to the superincumbent water. But distant from land, where the water is deep, the colour is the intensest blue imaginable, varying to greenish-blue, green, and light-green, as the shallows increase. 'Through the bright blue and pellucid water,' observes a voyager, 'we could discern the minutest objects at an immense depth, and the secrets of the deep thus laid open to us afforded the most magnificent spectacle which can be conceived. Although there were neither

"Wedges of gold, vast anchors, heaps of pearls,
Nor other treasures of the vasty deep,"

yet the productions of nature, valueless but far more beautiful, were before us. Every formation of the coral was exposed to view. On the one hand we had a huge and shapeless pile formed by their horizontal layers, on the other a ponderous and widely-spread mass, like a huge blossoming plant supported by a thin cylinder or stem. Successive circular fragments reared themselves aloft, or assumed the fantastic tortuous forms of gnarled and knotted forest-trees. How varied, how beautiful was their colouring! sometimes appearing of a brilliant red, blue, or purple; sometimes gorgeously



The Red Sea, from Ras Mohammed.

diversified with orange, crimson, or the deepest black. By a well-known delusion, as we glided along, the vast ocean caverns seemed to pass away from beneath us. Now they were partially illumined by the beams of the sun glancing thereon from the undulations of the waves, and at the next moment sinking into their former gloom.'

The basin of the sea is a rocky cavity, long and narrow, extending about 1400 miles from north to south, but never exceeding 200 miles in breadth, and averaging much less. It does not receive a single tributary stream. The navigation is highly dangerous near the coasts, owing to the coral-reefs; but centrally, through its entire course, there is a hollow, about forty miles wide, with a mean depth of a hundred fathoms. Islands are numerous, all near the shores, and of unimportant size. One, towards the south, *Jebel Tor*, exhibits volcanic appearances, and continually emits smoke. The prevalent direction of the wind is from north to south for eight months of the year, and from south to north through the remaining four. This is of great importance to the Egyptian side of the channel, for a strong prevailing breeze from the east would enable the vast locust armies of the Arabian peninsula to pass over it, to the destruction of the crops in the Valley of the Nile. At the north extremity the sea divides into two branches, the westernmost and largest of which is the Gulf of Suez, *Sinus Heroopolites*, and the eastern the Gulf of Akaba, *Sinus Ælanites*, enclosing between them the region of Sinai. Burckhardt makes the curious remark, that the coral in the western branch is chiefly white, and red in the eastern. At the south extremity, the inland sea communicates with the Indian Ocean by the Strait of Bab-el-Mandeb, an Arabic phrase signifying the Gate of Tears, and alluding doubtless to maritime disasters in the neighbourhood. In the narrowest part, the strait is about seventeen miles wide, but is divided into two channels by the small, bare, and rocky island of Perim, now a station of the British. It lies much nearer the Arabian than the African coast. The latter has a cluster closely adjoining its wall-like strand,



of engraving

SYDNEY

Drawn by H. Sargent

called from the number the Eight Brothers. As the great thoroughfare of passengers between England and India, some sketches of the features of sky, sea, and shore, at different hours of a summer's day, will be read with interest. The sketcher is Captain Burton, coasting the northern waters on the Arabian side in a native vessel.

Morning.—The air is mild and balmy as that of an Italian spring; thick mists roll down the valleys along the sea, and a haze like mother-of-pearl crowns the headlands. The distant rocks shew Titanic walls, lofty donjons, huge projecting bastions, and moats full of deep shade. At their base runs a sea of amethyst, and as earth receives the first touches of light, their summits, almost transparent, mingle with the jasper tints of the sky. But morning soon fades. The sun bursts up from behind the main, a foe that will compel every one to crouch before him. He dyes the sky orange, and the sea "incarnadine," where its violet surface is stained by his rays, and mercilessly puts to flight the mists and haze, and the little agate-coloured masses of cloud that were before floating in the firmament; the atmosphere is so clear that now and then a planet is visible. For the two hours following sunrise, the rays are endurable; after that they become a fiery ordeal. The morning beams oppress you with a feeling of sickness; their steady glow, reflected by the glaring waters, blinds your eyes, blisters your skin, and parches your mouth; you now become a monomaniac; you do nothing but count the slow hours that must "minute by" before you can be relieved.

Noon.—The wind, reverberated by the glowing hills, is like the blast of a lime-kiln. All colour melts away with the canescence from above. The sky is a dead milk-white, and the mirror-like sea so reflects the tint that you can scarcely distinguish the line of the horizon. After noon the wind sleeps upon the reeking shore; there is a deep stillness; the only sound heard is the melancholy flapping of the sail. Men are not so much sleeping as half senseless: they feel as if a few more degrees of heat would be death.

Sunset.—The enemy sinks behind the deep cerulean sea, under a canopy of gigantic rainbow which covers half the face of heaven. Nearest to the horizon is an arch of tawny orange; above it, another of the brightest gold; and based upon these, a semicircle of tender sea-green blends with a score of delicious gradations into the sapphire sky. Across the rainbow the sun throws its rays in the form of spokes, tinged with a beautiful pink. The eastern sky is mantled with a purple flush, that picks out the forms of the hazy desert, and the sharp-cut hills. Language is a thing too cold, too poor, to express the harmony and the majesty of this hour, which is evanescent, however, as it is lovely. Night falls rapidly, when suddenly the zodiacal light restores the scene to what it was. Again the gray hills and the grim rocks become rosy or golden, the palms green, the sands saffron, and the sea wears a lilac surface of dimpling waves. But after a quarter of an hour all fades once more; the cliffs are naked and ghastly under the moon, whose light falling upon this wilderness of white crags and pinnacles is most strange—most mysterious.

Night.—The horizon is all of darkness, and the sea reflects the white visage of the moon as in a mirror of steel. In the air we see giant columns of pallid light, distinct, based upon the indigo-coloured waves, and standing with their heads lost in endless space. The stars glitter with exceeding brilliance. At this hour—

"River, and hill, and wood,
With all the numberless goings on of life,
Inaudible as dreams"—

the planets look down upon you with the faces of smiling friends. You feel the "sweet influence of the Pleiades." You are bound by the bond of Orion. Hesperus bears with him a thousand things. In communion with them your hours pass swiftly by, till the heavy dews warn you to cover up your face and sleep. And with one look at a certain little star in the north, under which lies all that makes life worth living through—surely it is a venial superstition to sleep with your face towards that Kiblah!

Inland Arabia is still very imperfectly known in detail, no European having traversed either its entire length or breadth; but its general characteristics appear to be ascertained. A narrow belt of flat ground, chiefly of sand, with saline incrustations at intervals, called the Tehama, or 'Low Land,' runs round the whole coast, and forms an intensely hot region. This is backed, at the distance generally of from ten to thirty miles from the shore, by a range of mountains, which in some places attain a very considerable elevation. These highlands are the walls and crests of lofty interior plateaus, scantily covered with grasses and other herbage, serving as pasture-grounds, while the intervening mountain-tracts contain cultivable soil in watered valleys and on terraced districts, which exhibit the verdure of date groves, orchards and gardens, grain crops and spice plants. In many parts rain is so rare that the surface is condemned to eternal sterility, but along the west coast, for a brief season during our summer months, it periodically descends, converts the dry wadys into real water-courses, and originates for the time powerful torrents. Storms of great violence are also common in this region, occasioning destructive inundations,

several of which are mentioned by the historians of Mecca. But a constantly serene sky overhanging utterly barren tracts of rock or sand is much more general. No river worthy of the name exists, only temporary streams and perennial springs, few and far between. No forests appear even in the watered districts, only groves and coppices. In the cultivable localities, tobacco, indigo, cotton, and coffee are raised, with many aromatic and spice plants, as opobalsamum, yielding the balm of Mecca, the acacia, producing gum-arabic, and the frankincense-tree.

Scantly supplied with water, and without forests or jungles, large wild animals are rare. They include the panther, hyena, wolf, and jackal, gazelles and ostriches, with the ibex on the rocky heights. Flights of locusts occasionally make sad havoc with the vegetation, but they are eaten by the natives, both dried and roasted; and are devoured in immense numbers by a species of thrush, *Turdus Seleucus*, a migrant from Persia, for the purpose of partaking of the repast. The country seems to be the special home of the ass, wild and domesticated; the camel, both poetically and justly styled 'the ship of the Desert;' and the horse, the pride of the Arab. Some breeds of camels are famed for their beauty and swiftness, as those of Yemen, a southern district, and of Oman in the east. They have not the uncouth appearance or shuffling gait common with their congeners, but carry their heads erect, throw out the legs with as much freedom and boldness as the horse, and their progress, at what appears their natural pace, according to Wellsted, cannot be less than twelve or fourteen miles an hour. Breeds of horses, cultivated for several thousand years, celebrated for fleetness, sagacity, and attachment to their masters, are of almost fabulous price. In fact, nothing but the direst necessity will induce an owner to part with a thoroughbred steed; and no event diffuses greater joy through a family than the birth of a colt or a camel. Goats are common; poultry scarce; oxen extremely rare and poor. Sheep are numerous, and it is not unusual to find gazelles mingling with the flocks, and being gradually tamed by the association. Thin succulent grasses, sprinkled with aromatic herbs, on the interior plateaus, form excellent pasturage for sheep and horses.

The old geographers made a triple division of the peninsula into Arabia Petrea, Arabia Deserta, and Arabia Felix, the credit of which is usually assigned to Ptolemy. The first comprised the north-west; the second, the centre; and the third, the south-west. The denomination applied to the latter, Felix or Happy — 'Araby the blest,' in the style of the poet — arose out of the unfounded idea that precious commodities of India, which the European nations received through the medium of Arab traders, were the growth of their own soil. The arrangement is vague and arbitrary; and was never recognised by the native geographers. In fact, the country has never had any systematic civil divisions. But certain portions of territory, with very indefinite limits, are distinguished by particular names. The principal districts are as follow: 1, *Bahr-el-Tour Sinai*, Desert of Mount Sinai; 2, *El-Hejaz*, Land of Pilgrimage; 3, A group of independent states, such as *Yemen*, a south-western tract; *Hadramaut*, extending along the southern coast; *Oman*, the kingdom of Muscat, a south-eastern territory; *El-Hassa* or *Lahsa*, on the Persian Gulf; *Nedjed* or *Nejd*, the high plains of the interior.

I. BAHR-EL-TOUR SINAI.

This region is a triangular peninsula, lying between the two northern arms of the Red Sea, and embraces also the country from thence to the borders of Palestine. Eastward is the Gulf of Akaba, long a deserted channel, but once traversed by the fleets of Solomon and Jehoshaphat. Westward is the Gulf of Suez, to which the commerce of the former was diverted upon the rise of Alexandria, now the great thoroughfare of communications between England and India. The intervening space and its northerly continuation, a desert of rocks, pebbles, and gravel, with but few tracts of drifting sand, has been the scene of events perfectly unique in the history of nations, for it is the actual wilderness in which the host of Israel wandered after the departure from Egypt. Yet though desolate, it is not altogether barren. A few living perennial springs are the centres of verdure; aromatic shrubs grow on the high hillsides; and a thin coating of vegetation is seldom entirely withdrawn.

In an interesting passage Dean Stanley refers to the botanical products, which are still those mentioned in sacred annals relating to the district. 'The wild acacia, *Mimosa Nilotica*, under the name of "sont," everywhere represents the "seneh" or "senna" of the Burning Bush. A slightly different form of the tree, equally common under the name of "sayal," is the ancient "shittah," or, as more usually expressed in the plural form, from the tangled thickets into which its stem expands, the "shittim," of which the tabernacle was made — an incidental proof, it may be observed, of the antiquity of the institution, inasmuch as the acacia, though the chief growth of the Desert, is very rare in Palestine. The "retem," or wild broom, with its high canopy and white blossoms, gives its name to one of the stations of the Israelites (Rithmah), and is the

very shrub under which—in the only subsequent passage which connects the Desert with the history of Israel—Elijah slept in his wanderings. The “palms,” not the graceful trees of Egypt, but the hardly less picturesque wild palms of uncultivated regions, with their dwarf trunks and shaggy branches, vindicate by their very appearance the title of being emphatically the “trees” of the Desert; and therefore, whether in the cluster of the seventy palm-trees of the second station of the wanderings, or in the grove which still exists, at the head of the Gulf of Akaba, were known by the generic name of “Elim,” “Elath,” or “Eloth,” “the trees.” The “lasaf” or “asaf,” the caper plant, the bright-green creeper which climbs out of the fissures of the rocks in the Sinaitic valleys, has been identified on grounds of great probability with the “hysop” or “ezob” of Scripture, and thus explains whence came the green branches used, even in the Desert, for sprinkling the water over the tents of the Israelites.’

The northern portion of the peninsula is a table-land of limestone, skirted by horizontal ranges of hills of the same formation, to both of which the name of *Tih*, the ‘Wandering,’ is attached by the Arabs, in memory of the pilgrimage of a long bygone era. The southern portion is almost entirely filled up by the remarkable cluster of the Sinaitic Mountains, which are of primitive rock, granite, or porphyry, flanked with sandstone, both of which are of a deep red or reddish-brown hue, which gives a very peculiar character to the landscape. These two sections of the peninsula, thus geologically distinct, are separated by a belt of pure yellow sand, which the roaring wind drives before it in clouds, compelling the traveller to halt till the storm is over. The southern section is the region specially celebrated in Hebrew poetry.

‘God came from Teman,
And the Holy One from Mount Paran—
He stood—and measured the earth,
He beheld—and drave asunder the nations,
And the everlasting mountains were scattered,
The perpetual hills did bow—
The eternal paths were trodden by Him.’

The whole land is rife with traditionary memorials of the exodus. Besides the plateau of the Wandering, there are the ‘Wells of Moses,’ *Ayoum Mousa*, on the shore of the Gulf of Suez, and the ‘Baths of Pharaoh,’ *Hammam Farouan*, lower down on the same coast. The gulf itself is called by the Arabs the ‘Sea of Destruction,’ *Bahr-el-Kolzoum*, in whose roaring waters they pretend still to hear the cries and wailings of the ghosts of the drowned Egyptians. There is a valley styled the ‘Path of the Israelites,’ *Tiah-Beni-Israel*; and a bold ridge bears the name of the ‘Mountain of Deliverance,’ *Jebel Attaka*. There is the ‘Seat of Moses,’ in the Wady Feiran; the ‘Mountain of Moses,’ in the cluster of Sinai; the ‘Cleft of Moses,’ in Mount St Catherine; the ‘Hill of Aaron,’ at the base of the traditional Horeb; and the ‘Tomb of Aaron,’ at the top of the ‘Mountain of Aaron,’ overhanging Petra; with the ‘Island of Pharaoh,’ in the Gulf of Akaba. A romantic story was told to Burekhardt of a pass leading down to that gulf. In summer, when the wind is strong, a hollow moaning sound is sometimes heard, as if coming from the upper country. The natives say that the spirit of Moses then descends from Sinai, and in flying across the sea, bids a sorrowful farewell to his beloved mountains.

The Wells of Moses are small springs of indifferent water lying close along-shore, which are speedily lost in the sands, but form an agreeable halting-place, having several palm-trees scattered around them. The sea, from eight to ten miles wide, is here overlooked westward to the heights of Africa, and northward to the roadstead of Suez. The route usually followed by modern travellers from this point, and doubtless that taken by the emancipated people, lies along the shore. It is alternately a stony and sandy track, with the sea of the deepest blue on the right, overhung with an azure and spotless sky, the plateau of the Wandering on the left, and a vast amphitheatre of mountains gradually rising up on the southern horizon as progress is made in that direction. At the distance of about forty miles, the Well of Howara is commonly identified with the bitter Well of *Marah*, which was sweetened by Moses. It rises within an elevated mound, surrounded by sand-hills, and two small date-trees grow near it. The Arabs never drink of it themselves, and there is said to be no other water on the whole coast absolutely undrinkable. Lord Lindsay tasted, and at first thought it insipid rather than bitter, but held in the mouth it became excessively nauseous. The

complaints of its quality made by the Israelites, who had been accustomed to the sweet water of the Nile, as Burckhardt observes, are such as may be daily heard from the Egyptian servants and peasants who travel in Arabia. Familiar with it from their youth, there is nothing which they so much regret as its loss. Further on, Wady Gharandel, with its springs, tamarisks, acacias, and palms, is probably the *Elim* of Scripture, with its twelve wells and seventy palm-trees. The country here assumes a more picturesque character, becomes rugged, and the grandest of the sacred mountains is soon in full view. This is Jebel Serbal, a vast mass of granite, with five column-like peaks, which, like its fellows, is streaked from head to foot as if with boiling streams of dark red matter, really the igneous fluid squirted upwards as they were heaved from the ground. Stanley thought it one of the finest forms he had ever seen. 'The Serbal,' says Professor Lepsius, 'here rises at once majestically several thousand feet. Its splendid peaks towered up to heaven like flames of fire in the setting sun, and made upon me an almost overpowering impression. It is impossible to describe the sublimity and majesty of these black mountain masses—rising, as they do, not in a wild and irregular form, but on a grand and imposing scale—at the foot of which I was standing, not separated from it by any projecting promontory or ledge, so abruptly does the whole body of the mountain start up from this point.' It has been ascended by Burckhardt, Rüppel, and Stanley; and has claims to be regarded as the mount on which the law was delivered, to which Dr Kitto, with some others, has given the great weight of his authority. Though for many centuries, certainly since the age of the Emperor Justinian, another height, that of Jebel Mousa, has been invested with this distinction, yet prior to that date tradition pointed to Jebel Serbal as the true scene of the event, and it was then a place of pilgrimage. Hence Sinaitic inscriptions are found on the top of the mountain, and a ruined edifice appears on its central summit. Rüppel states that the Bedouins who accompanied him deemed the summit a sacred place, to which at certain times they repaired with sacrifices.

These highlands, the Alps of Arabia, have been styled 'the Alps unclothed,' in allusion to the general absence of vegetation, which is so characteristic of the Swiss mountains up to the snow-line. They present a very distinct contour when seen from a distance, but are really a confused and intricate assemblage of jagged peaks and tortuous ridges. Sir Frederick Henniker states that if he had to represent the end of the world, he would take the view from Jebel Mousa for a model, adding, that 'it would seem as if Arabia Petraea had once been an ocean of lava, which, while its waves were literally running mountains high, had been suddenly commanded to stand still. In a region which is without the roar of torrents, the trickling of brooks, the rustle of leaves, and the cries of animal life, the stillness is profound and impressive, causing the human voice and other noises to be heard with unusual distinctness at a great distance. Hence a slide of sand or the fall of a stone, arrest attention, and become to the superstitious Arabs sounds of mysterious origin and significant import. To the south of Serbal, at a short distance from the sea, the remarkable mountain of Nakus, or the Bell, is so called from the sounds emitted from it, which the Arabs believe to be produced by the bell of a convent entombed in the interior. They are variously soft and loud, sometimes resemble the tones of musical glasses, and at other times are like the clang of pieces of metal struck against each other. Some refer the phenomenon to the rush of different quantities of sand down the slopes. Others, perhaps with greater probability, conceive of interior cavities communicating with each other, and with the atmosphere, by means of small apertures, through which, under control of considerable changes of temperature, currents of air pass with sufficient velocity to produce sonorous vibrations. Striking features of the landscape are the wadis, or valleys, which separate and surround the mountains. For a few days in winter, or a few weeks, they have their thundering torrents, then become absolutely dry and waste, but still give tantalising indications in their deeply-cut channels, rounded pebbles, and fringe of shrubs and rushes, of

'Water, water everywhere, and not a drop to drink.'

The most important sites in the peninsula are as follows: Convent of St Catherine, 5452 feet above the sea; Jebel Serbal—Mountain of Myrrh (*ser*)—Sinai of old tradition, also of Kitto and Lepsius, 9759 feet; Jebel Mousa—Mountain of Moses—Sinai of modern tradition, 7564 feet; Jebel Katerin—Mountain of St Catherine—Horeb of Rüppel, 8705 feet; Um-Shomer—the Mother of Fennel, 8850 feet. None of these particular points answer to the Scriptural account of the giving of the law 'on the top of the mount,' 'in the eyes of the children of Israel,' 'in the sight of *all* the people.' There is not space enough in the narrow precipitous ravines immediately adjoining for the vast host to have encamped with the order and comfort so clearly intimated, though undoubtedly these are the mountains which quaked when Jehovah came down in fire to make known his will, and these are the valleys which then heard his voice. But a site every way suited for the assemblage is found in the plain of Er-Raha, a noble expanse, and the only large convenient area in the entire district. This is overlooked by a northerly prolongation of Jebel Mousa, the cliffs of the Ras Sasafeh, or the 'Willow Head,' which rise with great magnificence, and have the yellow plain sweeping down directly to their base. 'That such a plain,' observes Stanley, 'should exist at all in front of such a cliff is so remarkable a coincidence with the sacred narrative, as to furnish a strong internal argument, not merely of its identity with the scene, but of the scene itself having been described by an eye-witness. The awful and lengthened approach, as to some natural sanctuary, would have been the fittest preparation for the coming scene. The low line of alluvial mounds at the foot of the cliff exactly answer to the "bounds" which were to keep the people off from "touching the mount." The plain itself is not broken and uneven and narrowly shut in, like almost all others in the range, but presents a long retiring sweep, against which the

people could "remove and stand afar off." The cliff, rising like a huge altar, in front of the whole congregation, and visible against the sky in lonely grandeur from end to end of the whole plain, is the very image of "the mount that might be touched," and from which the voice of God might be heard far and wide over the stillness of the plain below, widened at that point to its utmost extent by the confluence of all the contiguous valleys.' Ras Sasafeh is literally 'the nether part of the mount,' in relation to Jebel Mousa, as the spot is described, to which Moses brought forth the people 'out of the camp to meet with God.'

In early Christian times the solitudes of the Sinaitic district drew to a site invested with such sanctity a large number of anchorites. A host of cells and convents arose in clefts of the rocks and at the base of the mountains; the town of Feiran was founded in the wady of that name, close to the precipices of Jebel Serbal, and became the seat of a bishopric, and not less than 6000 monks or hermits were in the neighbourhood at the time of the Saracen conquests. Some ruins of the town, overgrown with tarfa-trees, crown a lofty rock in the middle of the valley, and on both sides of it are seen deserted houses, several perched at a great height, with ancient excavated tombs. Wady Feiran, the most pleasant spot in the peninsula, and possibly the scene of the long halt of Israel prior to the one at Sinai, has a generally constant brook, and therefore vegetation of luxuriant palms and feathery tamarisks. 'For two hours and a half,' writes Lord Lindsay, 'every winding of the valley revealed new loveliness; it would be beautiful even without a single tree. At the first turning, after passing the ruined town, a most superb view of Jebel Serbal opened on us—every crag and pinnacle of his five peaks relieved clearly against a sky of the most delicious blue, and perfectly cloudless—the pale moon, about half full, sailing in the pure ether above us—the eye could pierce far beyond her. Jebel Serbal was of a bluish-gray, but the jagged rocks of the valley, forming the foreground of the picture, were black, the bright lights and deep broad shadows rendering them perfectly beautiful. I sat on my



Defiles of Mount Sinai.

dromedary under a tarfa-tree, enjoying the shade and a delightful breeze, and talked with the Bedouins.' Of all the establishments of the old Christian population of the highlands, the only important one remaining is the convent of St Catherine, its vice-patroness, but really dedicated to the Transfiguration. It stands at the base of Jebel Mousa, and partly on its steep slope, in a valley so narrow that little room is left between its walls and the mountains opposite. It was founded by the Emperor Justinian, at the traditional site of Jethro's Well and the Burning Bush. According to a stupid legend, one of its early inmates was informed in his sleep that the body of St Catherine, who suffered martyrdom at Alexandria, had been conveyed by angels to the top of the highest peak in the vicinity. The monks therefore ascended in procession, found the corpse, and deposited it in their church; and hence arose the common name of the convent, with that of Jebel Katerin. The building is a regular monastic fortress, being enclosed with high and solid walls of granite, surmounted with small towers, and defended by guns against the Arabs. In the interior are several courts planted with flowers and vines. Balconies with wooden balustrades run round each area, on which the doors of the several apartments open. The inmates, from twenty to thirty in number, are all foreigners, chiefly

from the Greek islands, and are employed in some profession—baking, shoemaking, or carpentry—in addition to their religious duties. No natives of the wilderness are allowed to enter the convent, except those who are retained as servants, but a supply of bread is lowered down to them from the walls as often as it is demanded; and as there is no door, visitors from distant lands are hoisted up to the battlements by a windlass. The interior of the church has a richly-ornamented roof, supported by rows of granite pillars; walls hung with portraits of saints; and a floor paved with beautiful slabs of marble. From 5000 to 6000 wandering Arabs constitute the present population of the Desert of Sinai, some of whom are engaged in furnishing travellers with guidance and safe-conduct, while the rest subsist by flocks and herds, claiming at pleasure the hospitality of the monks.

Northward from the head of the Gulf of Akaba a broad valley extends, bounded on the eastern side by a belt of hills, the Biblical mountains of Seir, the tallest summit of which is Mount Hor, or Jebel Haroun, the 'Mountain of Aaron,' as it is now called, from being the scene of his death and burial, and of the inauguration of his successor in the high-priesthood. This is one of the few sites connected with the wanderings of the Israelites, the identity of which admits of no reasonable doubt. It is a conspicuous landmark from afar to the wayfarer, remarkable for its double summit, the upper rising from the lower in the form of a huge castellated building. A small and plain Mohammedan chapel marks the supposed sepulchre, in which the Arabs suspend ragged shawls, ostrich eggs, and beads as votive offerings. The view—the last landscape overlooked by Aaron, as that from Pisgah was afterwards to his brother—is very extensive, but consists chiefly of bald sandstone rocks and intervening ravines. 'If I had never stood on the top of Mount Sinai,' says Mr Stephens, 'I should say that nothing could exceed the desolation of the view from the summit of Mount Hor, its most striking objects being the dreary and rugged mountains of Seir, bare and naked of trees and verdure, and heaving their lofty summits to the skies, as if in vain and fruitless effort to excel the mighty pile on the top of which the high-priest of Israel was buried.' But all is not really barren. There is freshly beautiful vegetation in the deep-shaded ravines, where there is the sound of running waters. This is the case with the remarkable *Sik*, or 'Cleft,' forming the entrance of Wady Mousa, or Valley of Moses, so called from the belief of the Arabs that the gorge was made by the rod of the legislator, in order to accommodate the brook that ripples through it. In this valley are the extraordinary remains of Petra, the rock-hewn capital of ancient Idumea, enclosed as in a kind of *cul de sac*, to which the usual approach was by the Cleft.

This famous defile, perhaps the most magnificent in existence, is about a mile and a half long, and so narrow that there is in general not more than sufficient space for the passage of two horsemen abreast. Through the bottom winds the brook that watered the ancient city. It follows now its own wild way, but was formerly protected and regulated in its course, as of vital importance to the inhabitants. The channel seems to have been covered by a stone pavement, vestiges of which remain, and parapets at intervals gave the current a proper direction, as well as prevented it from running to waste. On each side of the ravine rises a wall of perpendicular red sandstone rocks, varying from 100 to 500 feet in height, often overhanging so as to intercept the sky, and leave but little more light below than that of a cavern. Nourished by the rivulet, and protected by the shade, the tamarisk, the wild-fig, the oleander, and the green caper plant, with grasses and flowers, flourish with a luxuriance that almost chokes the path. Near the entrance of the pass a bold ruined arch is thrown across it at a great height, meant apparently to indicate the immediate boundary of the city. Without changing much its general direction, the chasm winds as if it were the most flexible of rivers, so that the eye sometimes cannot penetrate more than a few paces forwards. At every step, as the traveller proceeds, the solitude is disturbed by the screaming of eagles, hawks, owls, and ravens, soaring aloft, alarmed by the sound of his footfall or his voice. 'The character of this wonderful spot,' remarks Dr Robinson, 'and the impression which it makes, are utterly indescribable, and I know of nothing which can present even a faint idea of them. I had visited the strange sandstone lanes and streets of Adersbach, and wandered with delight through the romantic dells of the Saxon Switzerland, both of which scenes might be supposed to afford the nearest parallel, yet they exhibit few points of comparison. All here is on a grander scale of savage yet magnificent sublimity.' Passing on, the Cleft widens into Wady Mousa, containing the remains of *Petra*. These consist of temples, habitations, and tombs cut out of the surrounding cliffs; a theatre similarly excavated, with complete rows of benches capable of seating above 3000 spectators; vast heaps of hewn stones, foundations of buildings, fragments of pillars, and vestiges of paved streets. All visitors

mention with wonder and admiration the rich and variegated colouring of the rocks. 'They present,' according to Robinson, 'not a dead mass of dull monotonous red, but an endless variety of bright and living hues, from the deepest crimson to the softest pink, verging also sometimes to orange and yellow. These varying shades are often distinctly marked by waving lines, imparting to the surface of the rock a succession of brilliant and changing tints, like the hues of watered silk, and adding greatly to the imposing effect of the sculptured monuments.' Stephens makes a similar remark. 'The whole stony rampart that encircled the city,' he states, 'was of a peculiarity and beauty which I never saw elsewhere, being a dark ground with veins of white, blue, red, purple, and sometimes scarlet and light orange, running through it in rainbow streaks; and within the chambers, where there had been no exposure to the action of the elements, the freshness and beauty of the colours, in which these waving lines were drawn, gave an effect hardly inferior to that of the paintings in the tombs of the kings at Thebes.' These descriptions, though correct in the main, have a tinge of error. Observing apparently with greater precision, Stanley objects to *bright* hues being spoken of, and mentions as the two predominant colours a gorgeous though *dull* crimson, streaked and suffused with purple, with an occasional veining of yellow and blue. Of the three comparisons usually employed by describers to illustrate the appearance—"mahogany, raw flesh, and watered silk"—he deems the last the best.

The origin of Petra dates from the very infancy of commerce. It was a flourishing emporium seventeen centuries before the Christian era, a central point to which all the trade of the vast Arabian peninsula tended, and from which it branched out to Egypt, Palestine, and Syria. The caravans of India threaded its defile, and the precious commodities brought by them were thence diffused through the countries of the Mediterranean. It was the impregnable nature of the site that rendered it so celebrated as a commercial *dépôt*; for while it admitted of easy access to beasts of burden, it could defy the attacks of marauders and enemies. Roman generals assailed the place, and failed to capture the formidable stronghold. But it was reduced under the later emperors, and continued to be the seat of wealth till the fall of the empire. During the wars of the Crusades, its possession was fiercely contested by the Saracens and Christians. The Latin kings of Jerusalem were for a time its masters, and it became the seat of a Latin bishop. It then ceased to be the mart of nations, obscurity covered its ruins, and the very place where it stood became a subject of controversy. Its site was first ascertained by Burckhardt in 1812. Repeated failures in gaining access to this remarkable spot, or in being permitted to examine at leisure its monuments, owing to the extortion or hostility of the surrounding tribes, add not a little to the interest which the place inspires. 'It is literally,' as Stanley remarks, 'paved with the good intentions of travellers unfulfilled. There was Mount Hor, which Robinson and Laborde in vain wished to ascend; there the plain half-way, where Burckhardt was obliged to halt without reaching the top; here the temple, which Irby and Mangles only saw through their telescope; here the platform from which the Martineau party were unable to stir without an armed guard; and, lastly, on the very plain of our encampment, at the entrance of the pass, travellers with our own dragoman were driven back last year, without even a glimpse of the famous city.'



Mountains of Seir.



Entrance to the Red Sea.

II. EL-HEJAZ.

This district, the Land of Pilgrimage to the followers of Mohammed, lies on the eastern side of the Red Sea, and is somewhat centrally intersected by the line of the northern tropic. It is the Holy Land of the Moslem, *Belled-el-Haram*, containing the two sacred cities of Mecca and Medina, respectively the birthplace and burial-place of the Prophet, with their ports, Jiddah and Yambo, which specially enjoy the title of 'Gate of the Holy City.' Jealously guarded against the intrusion of unbelievers, the territory has been penetrated by very few of the Western Europeans, who have only succeeded in the adventure either under extraordinary circumstances, or by adopting the most complete disguise, at the hazard of life from the fanaticism of the natives, in the event of the imposition being detected. The region has no natural inland boundary, nor has it any definite political limits; and though claimed as a dependency by the Turkish government, its authority is only respected in the towns, and would be resisted if exercised over the wandering population in the country.

'Our notions of Mecca,' observed Gibbon in his day, 'must be drawn from the Arabians. As no unbeliever is permitted to enter the city, our travellers are silent.' The historian was not aware of two visits having been paid to the place long before his time, one by an Italian, the other by an Englishman, both of whom published brief narratives of the journey on their return home. The first of these, Lodovico Bartema, 'gentleman of the citie of Rome,' in April 1503, made the pilgrimage with the caravan from Damascus, 'in familiaritie and friendshyppe with a certayne captayne Mameluke,' and in the garb of a renegado. His account appeared at Milan in 1511, and was translated into English in 1555. The next visitor was Joseph Pitts, a native of Exeter, about the year 1690. Going to sea in early life, he had the misfortune to be captured by an Algerine pirate, and was sold into slavery. His master, a profligate ruffian, having determined to proselytize a Christian as an atonement for his past iniquities, succeeded in making him profess himself a convert to Mohammedanism, by mercilessly applying a great cudgel to his bare feet. Pitts afterwards attended him to Mecca and Medina, but made his escape on his return, and reached Exeter safely, where he compiled an account of his wanderings, with a description of the pilgrimage. It closes with the prayer, in allusion to his enforced apostasy, which he ever regretted, 'God be merciful to me a sinner.'

During the present century all mystery has been removed from the sacred cities, chiefly by M. Badhin, a Spaniard, who travelled thither in 1807, under the name of Ali Bey, and was everywhere received as a true Mussulman; by Burckhardt, the able and enterprising Swiss traveller, in 1814, who adopted a similar disguise; and by Captain Burton, in 1853, in the service of the Royal Geographical Society, London, who professed himself to be an Indian physician and dervish, with the title of Sheikh Abdullah. The latter took great pains to qualify himself to act in character, but did not escape suspicion, being pronounced to be an Ajemi, or a kind of Mohammedan, not a good one, but still better than nothing. He mentions M. Bertolucci, Swedish consul at Cairo, as the only European who ever visited Mecca without apostatising, but adds that, though in disguise, his terror of discovery prevented him making any observations.

The *haj*, or pilgrimage, is obligatory upon all the faithful, according to the law of the Koran, at least once in their lives. But it is only binding in relation to Mecca, though being at no great distance, and an equally sacred city, Medina is commonly visited, and additional repute acquired thereby. The first instance occurred under Abubekr, in the ninth year of the Hegira, who proceeded at the head of 300 believers from Medina to Mecca, and purified the city by the expulsion of all idolaters and infidels from it. The journey may be made at any time, but the great concourse of travellers takes place in Zu'l Hijjah, the pilgrimage month. Two great caravans are formed. One is popularly known as the Haj El-Shami, or 'Damascus Pilgrimage,' where contingents assemble from Constantinople, Smyrna, Erzerum, Bagdad, and places further east, starting thence in a common body. The other is the Haj El-Misir, or 'Cairo Pilgrimage,' a main stream from that city in which the minor African currents are united. Trade, quite as much as religion, has long been an impelling motive to the expedition. Almost all the pilgrims convert it into a matter of speculation. On leaving their own country, they load themselves with its peculiar products, either to sell on the road, or at the end of the journey. Carpets and silks are brought by the Turks of Asia Minor; amber, hardware, embroidered stuffs, trinkets, shoes and slippers, by the Turks of Europe; shawls and silk handkerchiefs by the Persians; precious stones, muslins, and costly manufactures by the Hindus; woollen cloaks and red bonnets by the Mogrebins. The strange association, with the change of scene, has not contributed to good manners, judging from a current Arab proverb: 'Distrust thy neighbour if he has made a *haj*; but if he has made two, make haste to leave thy house.' In former times the number of devotee tourists was enormous, but for a considerable period it has been annually decreasing. At Constantinople the starting of the caravan was once one of the great ceremonials of Islamism. The sultan was present, and with his own lips deputed to the Sunni Emiri, or chief of the pilgrims, an officer appointed by himself, the task of conducting the faithful to the sacred shrines. The late sultan, Abdul Medjid, observed the custom of his forefathers till the year 1855, when he was absent without pretence of indisposition, and the ceremony excited comparatively little interest. But his successor, in January 1862, the first year of a new reign, deemed it prudent to revive the practice.

Mecca, the cradle and capital of Mohammedanism, sixty miles inland from the Red Sea, is situated in a narrow sandy valley, bounded by rocky hills of moderate height, perfectly treeless and barren. The city is without walls; the houses are generally substantially built of dark-gray coloured stone. The streets are unpaved and unlighted, choked with dust in dry weather, and with mud after rains. No trees, gardens, or pleasure-grounds enliven the neighbourhood; the desert forms the precincts; and though described by native writers under a variety of imposing titles, as the 'noble,' the 'mother of towns,' no public building exists with any pretensions to architectural grace. The Beitullah, 'House of God,' the great point of attraction, consists of an oblong court, with a covered colonnade on one side, and of the Kaaba, a kind of holy of holies, in the centre. This is simply a massive structure of rough stone, containing at the north-east corner the famous 'black stone,' said to have been brought from heaven by the archangel Gabriel, a lava-like block, smoothed by the millions of touches and kisses it has received from the faithful. The Kaaba is covered with curtains of black silk stuff along the sides, which are renewed at the expense of the Turkish sultans. Not being tightly fastened down, the slightest breeze causes them to move in slow undulations, which are hailed with rapture by the congregation around the building as a sign of the presence of its guardian angels, whose wings, by their motion, are supposed to cause the waving of the covering. Seventy

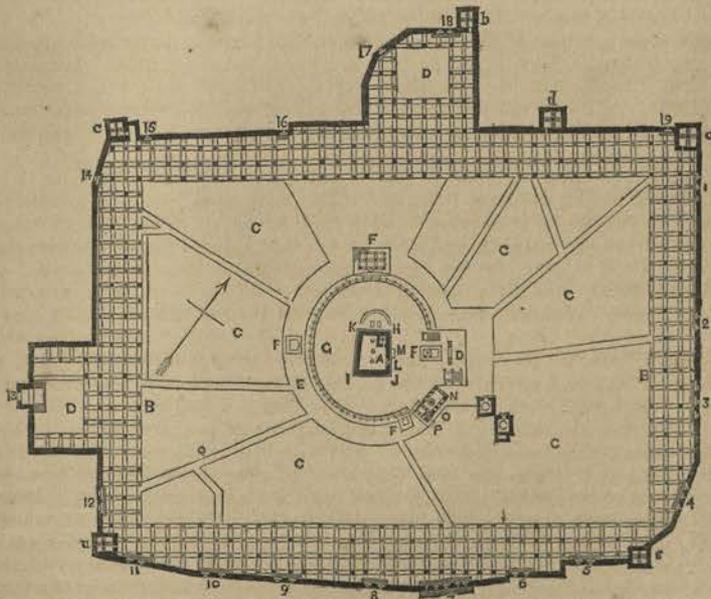
thousand angels are said to have charge of this spot, and to be under orders to transport it to Paradise when the last trumpet shall be sounded. A copious and never-failing spring rises within the enclosure of the mosque, the Well of Zemzem, to which a small building is appropriated, the interior of which is beautifully ornamented with marbles of various colours. Pilgrims eagerly drink the water as a sacred beverage, regarding it also as an infallible cure for all diseases; and there is scarcely a family in the town that does not send a jar daily to be filled. It is reserved for drinking and ablutions.

The ordinary population of the city is perhaps under 30,000, of a most mongrel description, consisting chiefly of the descendants of pilgrims from various countries, who have been induced to settle permanently and intermarry. The most numerous class refer their paternal ancestry to Yemen and Hadramaut; next are the Meccawys of Hindu, Egyptian, Syrian, Mogrebbin, and Turkish origin; with some of Persian, Kurdish, Tartar, and Bokharian extraction. In short, representatives are to be found of every part of the Mohammedan world. The greatest number of passengers is seen in the Mesaa, the longest and best built street. This is the scene of the 'holy walk,' one of the duties of the haj; and the place where capital offenders are put to death, in a less barbarous manner now than formerly. Here, during Burckhardt's stay, a man was beheaded for robbery by order of the *cadi*. But in 1624, in this street, two thieves were flayed alive; and a few years later, a military chief of Yemen had his body perforated, and lighted tapers put into the wounds till he slowly expired. All the streets abound with pigeons, and especially the great mosque, which are considered to be the inviolable property of the temple. Hence no one harms them even when they enter the private houses, but small stone basins are regularly filled with water for their use, and women expose for sale corn and dourra on straw mats for the pilgrims to purchase in order to feed the birds. Under the pretence also of selling corn for the sacred pigeons, the public women exhibit themselves. Streets and mosques resound with the cries of beggars, who address their appeals to strangers, as the ordinary inhabitants are not disposed to give alms, though enjoined by the Koran to do so as one of the first duties of religion. Mecca has been called the paradise of the fraternity. They lay hold of the foreigner with the injunction of the Prophet, as if resolved to enjoy the full benefit of it. A few are modest, simply accosting the passenger with *Ya Allah! ya Kerim*—'O God, O bounteous God!'—repeating the words if refused, and passing on. But the majority follow the profession with matchless importunity and impudence. 'Think of your duty as a pilgrim,' cries one; 'God does not like the cold-hearted. Will you reject the blessings of the faithful? Give, and it shall be given unto thee.' 'I ask from God fifty dollars,' exclaims another, 'a suit of clothes, and a copy of the Koran. O faithful, hear me! I ask of you fifty dollars.' 'O brethren,' shouts a third, 'O faithful, hear me! I ask twenty dollars from God to pay my passage home; twenty dollars only. You know that God is all-bountiful, and may give me a hundred dollars; but it is twenty dollars only that I ask. Remember that charity is the sure road to paradise.' When successful, alms will commonly be received without a word of thanks, 'It is God, and not you, who gives it me.'

About the time of the equinoxes at Mecca, occasionally at other intervals, the sky is often suddenly overcast, and violent storms of thunder, lightning, hail, and rain give rise to destructive floods. The native chroniclers record many dreadful inundations, when the whole place was laid under water, houses were destroyed, and lives lost. In 1039 of the Hegira, answering to the year 1626 of our era, a torrent rushed so rapidly down into the valley that 500 of the inhabitants were drowned; the great mosque was filled; three sides of it were swept away, and every human being within perished. When Burckhardt and his party were on the road to the city a tempest came on which speedily covered the Wady Noman with water three feet deep, while furious streams, crossing the route before and behind, rendered it impossible to advance or retreat. They took refuge on the side of a mountain till the flood subsided. On the 16th of December 1861, a dreadful storm visited the city, and inundated it to such an extent that the inhabitants were obliged to seek their upper rooms. Great numbers fled for safety to the mosque, but that too was invaded, and eighteen were drowned. The library was almost entirely destroyed. Gold and silver vases, with other valuable objects, were carried away; 300 houses were thrown down; and the flood did not entirely disappear till the third day.

Jiddah, the port of Mecca, is built on rising-ground washed by the sea, and enclosed by the desert in other directions. The town has a small population of traders, some of whom are wealthy, and who export coffee, and import products from Egypt, Abyssinia, and India. The Moslem inhabitants are fanatical. They rose against the Christian residents, British and French, in 1858, murdered several of them, for which they were chastised by the British fleet. *Yambo by the Sea*, the port of Medina, on the north, is so called to distinguish it from an inland village, *Yambo of the Palm Grounds*. The place profits by the pilgrimage, and has a regular shipping trade of importance. *Medina*, containing the tomb of the Prophet, is 130 miles inland, seated upon the high plateau of Arabia, 250 miles nearly due north of Mecca. It is a much smaller town, contains a similar great mosque, in which the tomb is an object of veneration. The place has an agreeable appearance as it comes suddenly into view, being surrounded with date groves. Medina is enclosed by a strong wall, provided with towers and loopholes, passed by four gates. Its great mosque contains four tombs—those of Mohammed, his daughter Fatima, and his two immediate successors, Abubekr and Omar. They are screened from vulgar gaze by a curtain of brocaded silk, supplied from Constantinople as often as one is needed. Owing to the high situation of the town, the winter is very cold, while the summer is hot. Storms are as common and violent as at Mecca. The date-trees in the neighbourhood are of large size, very productive, and the fruit is highly esteemed. Packets of the best dates are sent as presents to the remotest parts of the Moslem world.

A great day is the Day of Arafat. The place named is a granite hill about fourteen miles on the east of Mecca. The time is the close of the annual pilgrimage, when, having gone through the prescribed ceremonies in the city, attendance at the spot completes the ritual observances, constitutes every man a perfect *hadj*, authorises him thenceforth to assume the title, and return to his home, it may be to the shores of the Bosphorus, the rose gardens of Shiraz, or the burning sands of Nubia, to receive the congratulations of his friends. The hill is rather more than a mile in circuit, and rises gradually from the plain to the height of 200 feet. At one point of the ascent, Moslem tradition says that Adam was instructed by the archangel Gabriel how to adore his Creator. It therefore bears the name of *Modaa Seidna Adam*, or 'Place of Prayer of our Lord Adam.' At another point, the Prophet is said to have addressed his followers, a practice in which he was imitated by his successors, the early califs. The hill is therefore an object of special veneration, to which the whole concourse of visitors repair at an appointed time from the city. Some are on camels, others on mules or asses, but the greater number walk barefooted, which is esteemed the most pious mode of travelling. The chief ceremonial of the day commences about three o'clock in the afternoon, when a sermon is preached from a stone platform near the top of the hill, while the multitude are on the slopes, and at the base. The discourse lasts till sunset, but is wisely interrupted at intervals by the preacher stretching forth his hands to implore blessings on his hearers, while they rend the air with shouts of *Lebeik Allabuma lebeik*—'Here we are at thy command, O God.' The spectacle is wild and striking, but not without its disorderly scenes. Burckhardt, when he was present, counted about 3000 tents; computed the camels scattered over the plain at upwards of 20,000; and estimated the whole number of persons at 70,000, speaking more than forty different languages.



Plan of the Prophet's Mosque, Mecca.

a b c d e, Minarets; 1 to 19, Babs or gates; A, Kaaban; B B, Cloisters; o c, Gravel; d, Bab-el-Salem; e, Outer step; FFFF, Makam Hanafy, north—M. Maleky, west—M. Kanbaty, south—M. Ibrahim, east; g, Oval circuit; h, Irak corner; i, Yemani corner; j, Black stone; k, Shami corner; l, Door; m, Maajan; n, El Daraj; o, Zem zem; p, Staircase; q, Raised pavement.

III. YEMEN—ADEN—HADRAMAUT—OMAN—LACHSA—NEDJ.

YEMEN, an extensive district in the south-west of the peninsula, consists of a low, arid, and burning coast region, with interior highlands at no great distance from the shore, rising up in successive terraces to a considerable elevation. On these uplands the temperature is more moderate; rain descends violently, though long intervals often elapse between the showers; and there is a rich natural vegetation, embracing fine timber, fruit-trees, and gum-yielding plants. The coffee-bush is here the principal object of culture, with the fig, plantain, orange, citron, and indigo, frequently in the same plantation. This region forms a native sovereignty, under the government of an imaum or sultan, who has a standing army and a regular revenue.

Sana, the capital, is an inland town situated in a beautiful valley on the table-land, and contains two royal palaces, many good houses, numerous gardens and fountains, with a population of 40,000, in the centre of the coffee district. The merchants of the town are rich; but they affect the appearance of poverty, especially the Jews, who are about 3000 in number, and live, a despised and ill-treated race, in a special district of the town. *Mocha*, the most strongly fortified port on the low coast of the Red Sea, has about 5000 inhabitants, and gives its name to the best coffee, the great article of export. About 10,000 tons are shipped annually, besides large quantities of dates, gums, senna, balm, ivory, and gold-dust.

The coffee shrub is not a native of Yemen, but was transplanted thither from Abyssinia in the early part of the fifteenth century. The berry was not known at Mecca until the year 1454. Into Turkey the beverage was introduced during the reign of Soliman the Magnificent, 1520-1566. It was first made known in Italy in 1615, and in England during the closing years of the reign of Charles I. It came through the medium of Turkish subjects. Hence the name, 'coffee,' is a form of the Turkish *kahve*, derived from the Arabic *kahwah*, both signifying the same thing, 'wine.' One of the first coffee-houses in London, in Exchange Alley, had the sign of the Great Turk, with the inscription, 'Morat the Great,' a corrupt abbreviation of the name of the sultan, Amurath IV., who died in 1640.

ADEN, a small peninsula of Southern Arabia, rather more than a hundred miles east of the entrance to the Red Sea, consists of a range of barren and wild hills, connected with the mainland by a narrow sandy isthmus. It does not include more than an area of eighteen square miles. The hills are of conical shape, composed of a bluish coloured rock, and are evidently of volcanic origin. One of the highest, Signal Hill, used as a signalling station, rises to the height of about 1770 feet above the sea. This is a British possession, obtained in 1839 from a neighbouring sultan or sheikh, in the first instance by cession, but secured by force of arms, with the view of facilitating steam communication between England and India.

The town of *Aden* occupies a remarkable site. It stands in a valley or hollow enclosed with rocky walls, which is really the crater of an extinct volcano. The place is of great importance as a coaling station for the steamers passing to and fro between Suez and Bombay, the Mauritius, and the further East. Sailing vessels take out immense quantities of coal from England, and then pass on to India or Australia in search of homeward freights. Upon the arrival of steamers in the offing, boats manned by red-haired, wild-looking Arabs are at hand to carry passengers ashore while the vessels receive their lading, who make their frail craft skim the surface with astonishing celerity. A good hotel on the sandy beach offers accommodation, consisting of one immense ground-floor with a verandah around it. The town, recently a village, now contains a population of 40,000, of a most miscellaneous description. It is defended by a garrison in a fortified camp in the vicinity, and has generally one or two men-of-war at anchor in the roads. Considerable trade is carried on with the interior of Arabia by means of asses and camels. Though disposed to be predatory, the native tribes bring fruit, rice, mutton, coffee, and other articles from the mainland to the peninsula. Aden, signifying Eden, or Paradise, received the name from the sons of Ishmael, in allusion to the climate and the rich commerce it once commanded. In the middle ages, before the maritime route to India was known, it was a large and wealthy place, as a chief mart for the produce received from the Oriental world by the Western nations; but gradually declined to a wretched hamlet upon the passage by the Cape being discovered. Vast cisterns for collecting the rain-water, constructed centuries ago, have been restored, and are applied to their original purpose. The climate is salubrious; the summer heat great, but pleasantly tempered by the sea-breezes.

The remaining portion of the south coast region, which passes under the general name of HADRAMAUT, is a territory of immense extent. Hardly anything is known of its interior, but it appears to be scantily occupied by small settled tribes and wandering Bedouins, with

fishermen on the shores, who are ichthyophagi, exclusively subsisting upon the produce of their calling. OMAN, a maritime district on the east, at the entrance of the Persian Gulf, is a regularly constituted and powerful state, under an imaum or sultan, with a mixed patriarchal and despotic form of government. Apart from a belt of land on the coast, the country is a desert, but interspersed with watered valleys or oases, of which a glowing account is given by the natives, founded chiefly upon their rarity, though really productive. The same description applies to LACHSA, a tract on the western side of the gulf, held by a number of petty sheikhs, the shores of which are besprinkled with islands, the seat of a valuable pearl-fishery. NEJD, or the vast interior of Arabia, is a region which has only been subject on its skirts to limited European observation, but may be inferred from report to be generally a wilderness of rocks and sands, in many parts utterly sterile, and with only a scanty desert vegetation in the most favoured sites.

Muscat, the capital of Oman, a highly-important port, is perhaps the largest city in Arabia, containing about 60,000 inhabitants, who belong to various nationalities—Arabs, Persians, Kurds, Syrians, Indians, Belochees, Afghans, are attracted to the spot by maritime commerce, as well as by the security which a stable and generally just government offers to person and property. While the master of a fleet and army, the sultan is bound to attend to the summons of any inhabitant who calls him to a court of justice. Muscat stands at the head of a cove, which communicates with the sea by a narrow entrance, and is girded by bare rocks of considerable height, so as to overhang the town and harbour. Thus shut out from every breeze except the one blowing directly into the mouth of the inlet, there is seldom a breath of air, and the summer heat is oppressive, while the reflection of the sun from the naked hills is distressing. Commercial activity is the prominent feature of the place. Silk and cotton sashes, canvas, and arms are manufactured; hides, horses, asses, dates, and salt are exported; cloths and various kinds of grain are imported. A northerly headland, Ras Mussendum, at the narrow entrance of the Persian Gulf, is 'Selama's sainted cape,' on passing which the native seamen throw offerings of fruits and flowers into the sea to propitiate a favourable voyage. Within the Persian Gulf, the Bahrein islet group, close to the shore of Lachsa, is the centre of the pearl-fishery. It has been carried on from early times, and is mentioned by Pliny. A considerable number of vessels and small-craft are employed, in the hot season of the year, chiefly by merchants resident at *Manama*, the chief town of Bahrein, who reap the profits of the fishery, giving only a miserable pittance to the divers. Its annual value is said to be about £150,000. The pearl-oyster occurs generally along the whole coast of Arabia, but can only be obtained where the water is comparatively shallow.

Derayeh, the chief town of Nejd, in the heart of the country, seventeen days journey from Medina, is principally known from its connection with the Wahabees, the Puritans of Mohammedanism. They derive their name from the founder, Abdel Wahab, a Bedouin sheikh, who, towards the close of the last century, having travelled extensively, declared that the faith of Islam had become corrupted in practice, assumed the character of a reformer, and brought entire tribes, with their chiefs, to adopt his views. While believing in the divine mission of the Prophet, they objected to pay religious veneration to him; deemed it specially sinful to honour the tombs of saints; denounced luxury in food and dress; forbade the use of spirituous liquors, smoking tobacco, and wearing silk; and proceeded to enforce this creed by the sword. Mecca was taken after a long siege in 1803; Medina fell in the following year; and nearly the whole of the peninsula was reduced. But the power of the Wahabees was finally broken by Mohammed Ali, the pasha of Egypt, whose army recovered the holy cities, and penetrated to Derayeh in 1819, which was nearly destroyed. The sectaries remain in the remote interior of the country.



Arab Tents.



Falls of Bund-a-Mer.

CHAPTER IV.

IRAN OR PERSIA.



IRAN is the name which the Persians give to their country, and which has been in use from remote antiquity; it formerly denoted the whole region between the basins of the Tigris and the Indus, which, at more than one period, has been comprised within the limits of a single empire. The eastern portion of this extensive district is now held by various independent tribes, and modern Iran, the Persia of European geography, is confined to the western division. Its boundaries are formed by Russian Armenia, the Caspian Sea, and Turkestan, on the north; the Persian Gulf and part of the Arabian Sea on the south; Asiatic Turkey on the west; Afghanistan and Beloochistan on the east. No natural landmarks form a border on the east and north-east, nor can any artificial frontier line there be drawn, for the surface is

largely a desert waste in those directions, freely wandered over by nomadic hordes. But the extreme extent is defined by the parallels of 26° and 40° north latitude, and the meridians of 44° and 61° east longitude. Within these bounds, direct linear distances of from 700 to 800 miles may be traversed, while an area, roughly estimated at 500,000 square miles, is included. The Persian Gulf, the chief maritime feature of the country, is an extensive arm of the Indian Ocean, closely land-locked, forming the only inland sea, properly so called, which exclusively belongs to the Asiatic continent. This expanse sweeps in the form of a crescent through 600 miles from its mouth to the far extremity, and has a breadth varying from 100 to 230 miles. It is numerously studded with islands, one of which, at the entrance, a few miles from the mainland, is the historically famous Ormuz, to which Milton refers :

‘ High on a throne of royal state, which far
Outshone the wealth of Ormuz or of Ind ;
Or where the gorgeous east, with richest hand,
Showers on her kings barbaric gold and pearl,
Satan exalted sat.’

This was in the hands of the Portuguese from 1507 to 1622, who founded the town of Ormuz as a commercial emporium, where the produce of Persia, India, and China was exchanged for the manufactures of Europe. They were dispossessed in the latter year by Shah Abbas, assisted by the English; the town and port were ruined; and the island is now nearly desolate, and would be entirely so but for its rock-salt and sulphur.

The interior of Persia varies in its aspect from stern desolation to luxuriant beauty; but sterile features so far preponderate as to be characteristic of the surface. The maritime region is low, flat, and arid, subject to excessive heat, where the date-palm is almost the only sign of vegetable life, and cultivation is limited to the neighbourhood of a few springs. Centrally and easterly, embracing the vast proportion of the area, the country consists of an enormous highland or plateau, ranging from 3000 to 4000 feet in its mean elevation, baked by a burning sun in summer, and swept by piercing winds in winter. It comprises deserts of sand, gravel, and clay, covered with salt and nitre, doomed to everlasting barrenness; with landscapes in other parts exhibiting masses of bare rock, and intervening valleys, streamless, treeless, and uninhabited, league after league, where an encounter with a single caravan in the course of a day's journey is as much evidence of human life as is ordinarily met with. Northward, the lofty chain of Elburz hems in the plateau; and from thence to the Caspian a narrow lowland tract extends of a totally different character. Here an exuberant vegetation appears, fostered by the combined influence of humidity and heat. Westward, the table-land is also walled by high ranges, the Zagros Mountains of the ancients, from which streams and rivers descend into the adjoining valleys and plains, where a prodigal display is made of the riches of vegetative nature. The Elburz chain culminates in the Peak of Demavend. This is the highest point of the country, the summit of which is described by the national epic poet, Firdousi, as ‘far from the abode of man, and near to Heaven.’ It rises capped with eternal snow to the height of 21,500 feet above the level of the sea. The mountain is a conspicuous object from Teheran, and a noted landmark to seamen on the Caspian, the subject of many a wild legend. High up amid rocks and snow, as the worshippers of fire believe, dwells Zohâk, the most wicked of kings, surrounded by a court of magicians and sorcerers. From the top, says tradition, the arrow was shot with such miraculous prowess as to reach the banks of the Oxus, which caused the whole of the intervening country to be ceded to Persia,

and led the followers of Zoroaster to institute the annual 'Festival of the Arrow,' in commemoration of the event.

Scarcity of water is the great natural disadvantage of the country. The hydrography embraces a number of streams with short courses generally, which discharge into the Caspian, and some important tributaries flowing to the Tigris and the Shat-el-Arab. But tracts of immense extent are either entirely waterless, or are only supplied with salt-lakes, while a large proportion of the running streams are not perennial in their flow, but dry up during the heat of summer. Hence the 'bed of a stream,' *rood-ichanch*, is the common phrase for a river in Persia, an idiom which has probably arisen from the fact stated. Forests are therefore only prominent in the humid lowland tract, between Elburz and the Caspian, where the oak, beech, elm, walnut, cyprus, and box are found, while the mulberry, sugar-cane, and vine are cultivated. More sparingly, timber-trees clothe the slopes of the western mountains, and adorn the irrigated plains and valleys at their base. But in this last region, every species of fruit-tree known to Europeans grows in wild luxuriance; roses of many varieties occur in profusion, from which the well-known otto of roses is prepared; and the loveliest flowers, tulips, anemones, hyacinths, ranunculuses, pinks, jasmines, and violets flourish untended by the wayside and in the fields. In the dry districts the vegetation consists principally of the date, the camel's thorn, saline and gum-yielding plants, among which the perennial *Ferula assafetida* is very abundant. From the milky juice of the root the gum-resin called after it is obtained, and forms an important article of commerce. The wild animals include the lion, panther, bear, hyena, jackal, wolf, wild boar, and wild ass, with various kinds of antelopes, and other game, which sportsmen pursue with hawk and hound. Among the domesticated stock, several breeds of horses are highly valuable, some for their beauty, others for their speed and power of endurance. Thoroughbred Arab steeds are distinguished as of 'pure veins,' *regee pak*, and receive as much attention to preserve the original blood as could be shewn in the first race-studs in England. The Persians are admirable horsemen, and will despise the foreigner unable to ride well more than for any other failing. There is considerable mineral wealth in the country, but very little developed. Besides the useful metals, it comprises celebrated mines of turquoise, a beautiful sky-blue gem, of very rare occurrence elsewhere.

Ancient *Persis*, called in the Old Testament *Paras*, is represented in its general limits by the modern province of Fars. This is Persia Proper, and the present name is simply Paras or Pharas abbreviated into Phars or Fars. The word in the Zend, or old Persian language, is said to signify 'clear,' 'bright,' 'pure as ether,' and the particular region designated by it probably received the name from its generally pure atmosphere and clear serene sky.

Though modern Persia is a state of very subordinate political consequence, it has been the central seat of powerful and widely-extended empires. Cyrus, about 559 B.C., united his native Persians with the neighbouring Medes, and founded the Medo-Persian monarchy, which included the whole of Western Asia, subdued part of Northern Africa, aspired to conquest in Southern Europe, and was overthrown by Alexander the Great, 331 B.C. A Parthian empire soon afterwards succeeded, which resisted the attacks of the Romans, and inflicted upon them some signal reverses. During the early centuries of the Christian era, under several of the Sassanide sovereigns, the monarchy was again extended from the Red Sea to the Indus. In modern times, 1586—1628, under a Mohammedan dynasty, represented by Shah Abbas I., a magnificent barbarian, Persia was once more formidable. Two Englishmen, brothers, Sir Anthony and Sir Robert Shirley, at the head of some followers, presented themselves at his court as soldiers of fortune, and were graciously received. By their instructions an army was disciplined after the European model; the use of artillery was introduced; and the Shah triumphed over the Portuguese and the Turks. 'The Persian,' curiously remarks a contemporary writer, 'hath learned Shirleian arts of war, and he which before knew not the use of ordnance, hath now 500 pieces of brass and 60,000 musketeers; so that they which at hand with the sword were before dreadful to the Turks, now also in remoter blows and sulphurean arts are grown terrible.' In the last century Nadir Shah reduced the Afghans, and extended his power over part of Northern India. But by the rise of small independent states eastward, and successive losses of territory to the Russians in the direction of the Caucasus, the Persian monarchy has been reduced to its present limits. There is

little in the present state of the country to inspire hope of civilisation advancing, or to interest the mind apart from the monuments of ancient times. The government, administered by a Shah, or emperor, is perfectly despotic, though controlled by the apprehension of revolts.

The political divisions of Persia have repeatedly fluctuated in number and extent. Nine provinces are generally enumerated, but their limits are not strictly defined.

Provinces.	Cities and Towns.
Irak-Ajemi,	Teheran, Kasbin, Kashan, Ispahan, Hamadan.
Azerbaijan,	Tabriz, Maragha, Urumiah, Miana.
Ghilan,	Resht, Lahijan, Enzeli.
Mazanderan,	Sari, Balfurush, Amol.
Khuzistan,	Shuster, Dizful, Hawiza, Mohammerah.
Fars,	Shiraz, Bushire.
Laristan,	Lar.
Kerman,	Kerman, Gombroon.
Khorasan,	Meshid, Nishapur, Astrabad, Yezd.

Each of the provinces has a governor, usually a prince of the blood-royal, with the style of *beglerbeg*, who is represented in districts by subordinates, and by still more inferior officers in the towns. The chief business of these officials is not so much to maintain order, and see to the proper administration of justice, as to extract as large a revenue for the crown as possible from the people, not forgetting their own profit.

IRAK-AJEMI, one of the most extensive of the sectional divisions, and the first in rank from containing the former and the present capital, is central and western in its position, and has very different natural features in the two directions. The central portion, though not without many fertile tracts, consists principally of desert table-lands, where the streams lose themselves in sandy wastes, and intermit their flow in summer, and where ridges of naked rock on the borders of verdureless valleys offer a dismal diversity to the monotony of the scene. On the route from Ispahan to Teheran the traveller passes through a series of stony ravines, so utterly desolate and frightfully savage as to be called the Valley of the Angel of Death, traditionally said to be one of the resting-places upon earth of the dread minister, where ghouls attend upon him, whose voices are heard in the howl and sighing of the wind. But the western portion of the province, traversed by the Zagros Mountains, is rife with scenes of luxuriant beauty in the glens, perennially watered by streams from the highlands, which unite to form rivers in the plains, and render them spontaneously fruitful. Of these streams, the Holvan, which finally reaches the Tigris, is a lovely example. It flows through the romantic dell of Rijab, which contributes copious rivulets to its current. This dell, extending through a distance of nearly eight miles, has a medium width of not more than a hundred yards, and is shut in on both sides by a wall of tremendous precipices. Yet from one end to the other it is filled with gardens and orchards, through which the stream rushes impetuously, until it emerges into the plain below. The dell takes its name from that of a little village in it, occupying a nook, where the defile widens into something like a dale. The peaches and figs, which are the produce of its gardens, are celebrated throughout Persia. Their excellence has given rise to a proverbial saying, 'The figs of Holvan are not to be equalled in the whole world.'

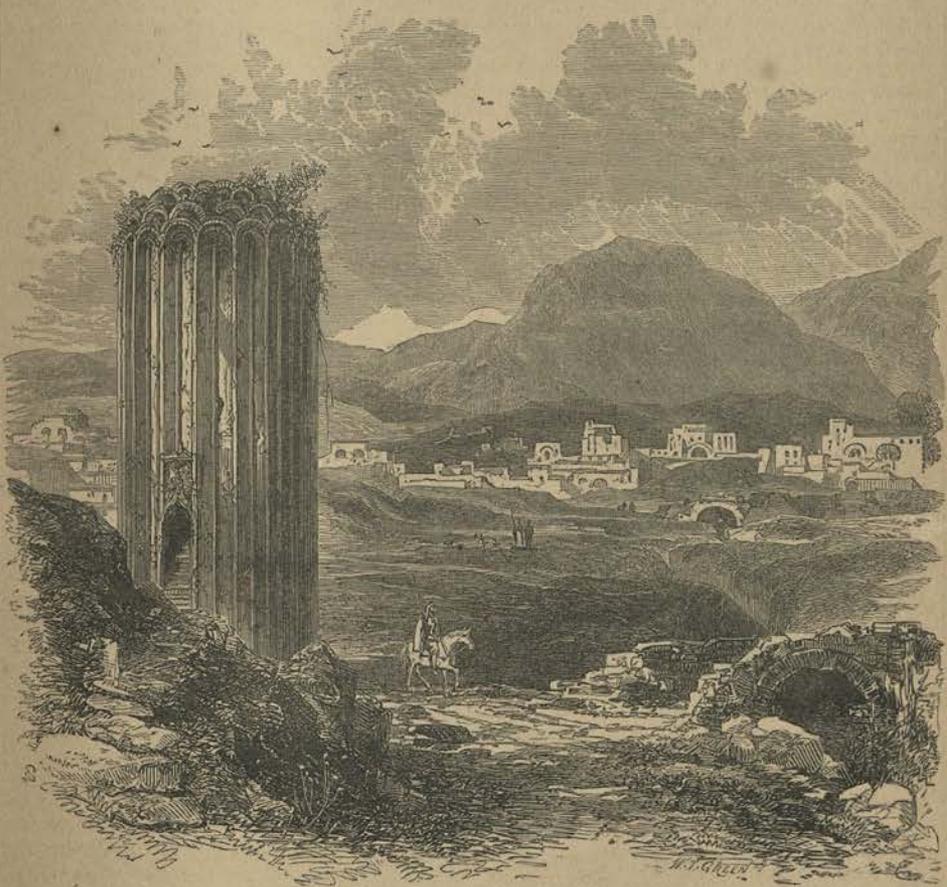
Teheran, the present capital, in latitude 35° 40' north, longitude 51° 30' east, stands on a barren elevated plain, near the southern base of Elburz, about seventy miles from the Caspian. It is almost entirely contained within an embattled mud wall, four miles in circuit, flanked by numerous round towers in very tolerable repair, preceded by a ditch. The four gates are ornamented with figures of tigers and other animals. Royal palaces and gardens of great extent and beauty occupy a considerable space in the interior. The bazaars are large, surmounted with domes, and roofed with variegated coloured tiles. But the dwelling-houses are chiefly mud-built huts. The population, at its greatest about 120,000, fluctuates remarkably, for, owing to the intolerable heat in summer, the court, with all who have the means, retire to a cooler site, and encamp on the plain of Sultaniah. Teheran became the capital of the kingdom in 1788, owing to its proximity

to the native possessions of the reigning dynasty. About twenty-five miles distant, on the east, are the extensive ruins of *Rhagez*, a city contemporary with Persepolis and Ecbatana, the metropolis of the Parthian kings, and the birthplace of Harun-al-Raschid, still important in the middle ages. *Kasbin*, one of the trading towns on the north-west, about ninety miles from Teheran, is celebrated for its grapes, pistachio-nuts, and manufacture of ornamental tiles. Before the time of Shah Abbas, it was for a brief period the capital of Persia, and had a population of 200,000, but has now probably not more than a fifth of that number. *Kum*, on the south, ancient and once populous, now almost a mass of ruins, is venerated as one of the holy cities, to which many of the wealthy are conveyed for interment on their death, in coffins carried on the backs of mules and camels, from distant parts of the country. The place has gardens luxuriant with fruits and flowers; storks sitting on their nests on the roofs of the buildings; nightingales singing day and night, so domesticated as freely to approach the houses; and the custom is observed by the inhabitants of strewing the apartment with roses destined to receive a welcome guest. *Kashan*, further south, highly industrial, is famed for the manufacture of silk brocades for garments, shawls of the same texture, of exquisite design, and also velvets. Scorpions, large and venomous, are here numerous, but rarely injure the natives. 'May you be stung by a scorpion of Kashan' is a common malediction in Persia. The silk-weavers, along with the artisans of Ispahan, are reputed to be poor warriors. Population, 30,000.

Ispahan, once a splendid metropolis, is situated in the southern part of the province, 226 miles from Teheran. It stands on a fertile and beautiful plain, watered by the Zenderud, a broad river crossed by three noble bridges, the banks of which are lined with groves, avenues, gardens, and spreading orchards, which intermingle with the buildings, and render the distant view of the place extremely delightful. The city is, however, a wreck, presenting on almost every hand the melancholy spectacle of deserted palaces, ruined houses, tenantless streets, and neglected parterres; yet still exhibiting scenes of animation along with the evidences of decay. The most noteworthy building is a palace, called the *Chehel Sittun*, or 'Forty Columns.' The pillars are inlaid with mirrors, and the walls and roof are profusely decorated with glass and gilding. In the days of its prosperity, under Shah Abbas I., the walls had a circuit of twenty-four miles, and the population was so great as to be proverbially accounted 'half the world.' It no doubt considerably exceeded half a million; and Ispahan is still the largest city of Persia, and of Western Asia, containing upwards of 180,000 inhabitants. Manufactures are extensively conducted of woven fabrics, rich gold brocades, calicoes, chintzes, and other cotton goods, from the cotton raised in the neighbourhood, with firearms, sword-blades, glass, and earthenware. Stone and seal cutters are famed for their workmanship. Many bazaars are crowded with all kinds of goods, and daily thronged with merchants. In the vicinity immense flocks of pigeons appear, bred for the profit derived from their manure, which is prized for rearing melons of the finest quality. *Hamadan*, in the western part of Irak, 180 miles west-south-west of Teheran, is a mean-looking but important commercial town, with a considerable transit trade, as the centre to which caravan routes converge, from Teheran, Ispahan, Bagdad, and Erivan. It occupies a high site at the northern base of Mount Elwund, and has therefore an agreeable summer, with a very cold winter. Hence the Medo-Persian kings selected the spot for their usual summer residence, for Hamadan stands on the same ground where stood the Median *Ecbatana*, the *Achmetha* of the sacred writings. Nothing of interest remains of the ancient capital; but a sepulchre exists reputed to be that of Esther and Mordecai, venerated as such by a resident Jewish remnant.

Kermanshah, a modern town of 30,000 inhabitants, is on the south-west of Hamadan, rendered of some political importance as the seat of a government frequently held by princes of the blood-royal. It has manufactures of carpets, swords, and firearms. About twenty miles distant on the east, the little hamlet of *Bisitun*, or *Behistun*, adjoins a locality very remarkable on account of its natural aspect, and as a memorial of ancient times in sculptures and inscriptions. A range of barren limestone mountains, presenting on their sides and summits the boldest and sharpest outlines, here terminates so abruptly as to form a naturally scarped precipice 1700 feet high, in appearance as if the hand of man had been employed in giving a perpendicular face to the mass. On this surface a very perfect piece of sculpture appears, accompanied by cuneiform writing. It represents a line of nine persons united by a cord tied round their necks, and having their hands bound behind them, obviously captives. They approach a personage of more majestic stature, who, holding up his right hand, treads upon a prostrate body, evidently a king or commander. Behind him stand two warriors as his body-guard, with long spears in their hands. Above all, in the centre, floats as if in the air, the winged personage, so often seen at Persepolis, the attendant guardian angel of the monarch. The position of the sculpture proclaims the care taken by the author to insure the permanence of the monument. It is at least 300 feet above the ground, and could only have been executed with the aid of scaffolding. The inscriptions are trilingual, or engraved in the three great classes of the cuneiform character, the Babylonian, Median, and Persian. Sir H. Rawlinson has deciphered the Persian record, from which it appears that the principal personage sculptured is Darius Hystaspes. The prostrate body represents Gomates, a Magian pretender to the throne. The nine captives are rebel leaders who raised the standard of revolt in the empire, and were subdued. This monument is referred to about the year 516 B.C. *Bisitun* is the *Baghistan* of ancient history, or 'Place of Gardens,' where Alexander lingered for thirty days while on his march from Susa to Ecbatana. It had a palace, park, pleasure-grounds, and reservoirs, traditionally ascribed to the Assyrian Queen Semiramis.

AZERBIJAN, a north-western province, borders on Russian Armenia, from which it is separated by the river Aras. The name, signifying 'Land of Fire,' refers to the fire-fields of Baku, now beyond the frontier, as well as to the circumstance of the district having been the original seat of the Guebres, or fire-worshippers. The surface is very strikingly diversified with mountain and lake. It rises in the peak of Savalan to the height of 13,000 feet, and embraces the remarkable lake of Urumiah, the largest in Persia. This expanse measures from eighty to ninety miles in length, and has a medium breadth of twenty-five miles, but with only an average depth of about twelve feet. The water is very clear, intensely salt, and has a sulphureous smell. Owing to its great specific gravity, the winds have comparatively little effect upon the surface, and the waves are speedily at rest after the strongest gale. No fish can live in it, but zoophytes are abundant and curious.



Tower of Yazd, near Teheran.

Tabriz about thirty miles from the north-eastern shore of the great lake, and built on very high ground, is a city of 160,000 inhabitants, surrounded with fruitful gardens and orchards. It is the emporium of the trade of Persia with Europe through Turkey, which amounted to the value of nearly £2,000,000 in 1859, and has silk and cloth manufactures. British calicoes were formerly extensively imported, then dyed blue, and sent out as native products. Indigo, an article of great consumption, is obtained direct

from India. Several streets are devoted to the sale of particular goods, as one for saddlery, another for silks. The climate is remarkable for extremes of temperature, great heat in summer, severe cold in winter. According to a register of the weather, Fahrenheit's thermometer, which stood frequently at 94 degrees in June, never rose above zero when exposed to the open air at night, from the middle of December to the close of January, and was seldom above 18 degrees within doors at mid-day. But Tabriz is accounted healthy, and has therefore been rebuilt after repeated demolition by earthquakes. It is rarely free for a twelvemonth from slight shocks, and lost nearly all its inhabitants by a tremendous convulsion in 1792. *Maragha*, eighteen miles from the south-eastern shore of the lake, was once more important, as the capital of Hulagu, grandson of Ghengis Khan, where he relaxed from warlike toils, and assembled men of science around him. The foundations of the observatory may be traced on the top of a hill, where the astronomer of the thirteenth century, Nasir-ud-Deen, watched the heavens. A white marble is obtained in the neighbourhood, which, when cut thin, is capable of being used as a substitute for window glass. *Urumiah*, a few miles from the western side of the lake, a considerable town and an American mission station, has also some Nestorian Christians among its inhabitants, found in the adjoining villages, employed as agricultural labourers on the estates of Mohammedan landholders. Two of this interesting community, called the 'Protestants of Asia,' Priest Yohanan and Deacon Yishlak, travelled on foot nearly all the way from the plain of Urumiah to London in 1862, and were hospitably entertained during their stay in the Home for Asiatics at Limehouse. *Miana*, a small place towards the southern border of the province, is remarkable for its poisonous bug. This pest is not known apart from the town and its immediate environs, and only causes ordinary annoyance to the natives. But the bite is usually mortal to strangers, sometimes causing speedy death, but generally producing a fatal wasting of the frame. Russian embassies, having had occasion to pass, have pitched their tents at the distance of three miles, on account of the terrible bugs. Azerbaijan has near its extreme southern frontier an extraordinary structure, called *Takhti-Suteimán*, or 'Solomon's Throne,' consisting of a hoary mass of crumbling walls and buildings on the top of a hill. They enclose a small sheet of water of the deepest azure, and are bounded by a strong line of wall supported by numerous bastions. These ruins have not been identified with the least certainty as those of any known place.

The districts of GHILAN and MAZANDERAN are of very small extent, lying on the southern shores of the Caspian, with the range of Elburz in the background. They differ in every respect from the rest of the country, being low and swampy, drenched with summer rains, and covered with wood and jungle. The clouds, borne along by the prevailing north-west winds, are arrested by the high mountain rampart, and discharge themselves in violent showers, and the surface being a dead level, the streams rapidly overflow, originating extensive marshes. Hence this region is notoriously insalubrious, rife with fever and ague, to which a common proverb refers, 'Whoever is tired of his life, let him go to Ghilan.' Still, it contains large and flourishing towns, owing to the exuberant vegetable produce. Rice is grown on the moist soil; the sugar-cane thrives; and the mulberry-tree is cultivated in extensive plantations for the silkworm.

Resht, in Ghilan, at a short distance from the Caspian, is a well-built town, possesses many bazaars, and contains 50,000 inhabitants, in commercial communication with Russia, but is one of the most unhealthy spots in Persia. *Sari*, the capital of Mazanderan, similarly situated, has good brick houses, neatly tiled, with paved streets, and about 20,000 inhabitants; *Balfurush*, stragglingly built over an extensive woodland area, has a total population of at least 60,000. Both places were formerly more populous, but have suffered from cholera and the plague.

KHUZISTAN, on the south of Irak-Ajemi, extends thence to the head of the Persian Gulf, and is a beautiful and highly-fertile district naturally. The surface rises inland into lofty hills and mountains, but consists of great alluvial plains in the maritime region, suited to the cultivation of rice, cotton, the sugar-cane, and indigo. It is traversed by the Kerkah and the Karun, both of which flow to the Shat-el-Arab. The Kerkah, the largest river, is the ancient *Choaspes*, so celebrated for the excellence of its water, that the Persian monarchs generally carried a sufficient quantity of it with them when journeying, so that recourse might not be had to any other supply. Hence Milton's reference,

'There Susa by Choaspes' amber stream,
The drink of none but kings.'

The province is historic ground. It represents generally the *Susiana* of antiquity, which comprised within its limits *Susa*, the *Shushan* of the Books of Esther and Daniel—one of

the old royal cities of the Persian kings, and chosen as their winter residence, owing to the warmth of the climate.

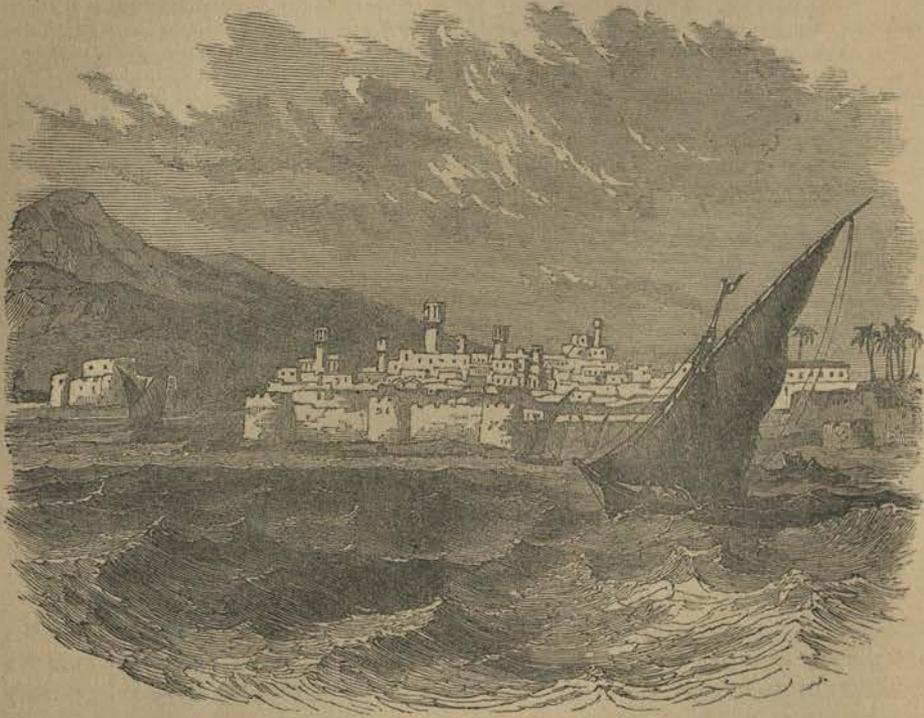
Shuster, the present provincial capital, stands on the Karun, enclosed by a wall of unburned bricks, and is a decayed place, largely depopulated in 1832 by cholera and the plague. It is supposed to have been founded by Sapor, the second of the Sassanide dynasty, who is stated to have had it built under the direction of his prisoner, the Roman emperor Valerian, and to have employed the captive soldiers as the workmen. Its castle, seated on a bluff hill of sandstone, was the reputed abode of the unhappy emperor. Part of the ancient structure is still standing, and has a gate in the Roman fashion, furnished with a drawbridge, still entire. The Karun here is crossed by a bridge of forty-four arches, called Puli-Kaisar, or 'Cæsar's Bridge;' and at a short distance from it, the summit of a hill is crowned by the ruins of an edifice, named Takhti-Kaisar, or 'Cæsar's Throne.' These works have doubtless been so styled from a traditionary remembrance of the unfortunate Roman. *Dizful*, seated on an affluent of the Karun, is a larger town of the same date, with about 15,000 inhabitants.

Of ancient *Susa* there are no remains but the mounds of Sus, on the Kerkah, which is very closely approached at the spot, within a mile and a half, by another river, the Shapur, believed to be the Ulai of the Book of Daniel. The mounds cover an immense space, are high and imposing. They extend not less than twelve miles from one extremity to the other. Large bricks are observed among the rubbish, both sundried and burned, with bitumen as cement, and pieces of marble inscribed with cuneiform characters. A plain dome-like building, comparatively modern, shaded by very graceful palm-trees, stands on the edge of the Shapur, and has received the name of the Tomb of Daniel. It has usually a dervise for a tenant, who shews the spot with as much reverence as if it contained the bones of Mohammed himself. The entire vicinity is now a gloomy wilderness. Lions, hyenas, and jackals haunt the tall reeds and thickets by the rivers. But Sir H. Rawlinson noticed the beautiful natural herbage of the whole district. It was difficult to ride along the banks of the streams owing to the luxuriance of the grasses, and the entire plain was covered with a carpet of the richest verdure. Hence, perhaps, the designation of the city, Sus being the Hebrew and Persian name for the lily, a flower which abounds in the neighbourhood, and has always been considered the emblem of purity. The Jews applied the name to their daughters, and it is with us a familiar female denominative; Susan, 'white lily;' Susannah, 'my white lily.'

FARS and LARISTAN are districts on the eastern side of the Persian Gulf, embracing a considerable interior space, which agreeably changes its aspect as the hot arid region of the shore is left behind. At the distance of from fifty to sixty miles from the coast, an ascent by successive terraces, through watered, fertile, and wooded valleys, leads to the high table-lands, on the surface of which the features of sterility are again presented. Here occurs Lake Bakhtegan, sixty miles long by an average of eight broad, from which a considerable quantity of salt is obtained. The towns of importance are few, but many are the sites of interest.

Shiraz, the chief city of Fars, and at one time the capital of the kingdom, 118 miles inland from Bushire, stands on a site elevated 4200 feet above the sea, in a lovely neighbourhood. The walls are four miles in circuit, but the place has little consequence at present in comparison with its past renown. It was formerly celebrated for its grapes, wines, and rose gardens; its commerce and manufactures; and had a large population. But the inhabitants had dwindled to 20,000, when nearly half of them perished by earthquake shocks on five successive days in the year 1853, and many of its finest features were utterly destroyed. It will be long before the effects of this blow disappear. About two miles from the city is the tomb of Hafiz, the native lyric poet of the fourteenth century, sumptuously adorned, and frequently resorted to by pilgrims from a distance. On the swampy solitary plain of the Merdasht, twenty-five miles to the north-east, are the striking fragments of Persepolis, one of the royal cities of Persia, and its capital, when 'Macedonia's madman,' Alexander, entered it as a conqueror, to revel in its halls, and fire the palace with his own hand. Here there is a terrace or platform of masonry, faced with enormous blocks of dark-gray marble, exquisitely polished, and without cement. It rises above the plain from twenty-five to fifty feet, according to the inequalities of the ground. The west side is more than a quarter of a mile in length, and is ascended by a magnificent staircase formed of a double flight of steps, of so easy an inclination that Sir R. K. Porter rode his horse up and down it. From the first terrace there rises a second, ascended by a corresponding staircase, but remarkable for a superb display of bas-reliefs of colossal bulls and other objects. This platform supports what is now called the Chchel Minar, or Palace of Forty Pillars, consisting of a series of columns, still erect, sixty feet high, with finely-fluted shafts. Della Valle, in 1621, saw twenty-five pillars standing; Herbert, in 1627, and Olearius, in 1638, saw nineteen; Kempfer in 1696, and Niebuhr in 1765, saw seventeen. Only thirteen remain at present. But judging from the fragments that lie prostrate in the accumulated dust of ages, as well as from indications of structure respecting the edifice, the total number belonging to the original building is estimated at upwards of 200. At fifty miles on the north-east of Persepolis, the plain of Mourgaub has remains identified as those of Pasargada; the city founded by Cyrus on the scene of his victory over the Medes, where he caused his own tomb to be erected, which was visited by Alexander and rifled by

his officers. A particular structure, now called by the natives Musjed Madre-i-Suleiman, the Tomb of the Mother of Solomon, is generally recognised as the mausoleum of Cyrus. *Bushire*, 'father of cities,' the principal port on the Persian Gulf, trades chiefly with British India, and is a station of the Anglo-Indian telegraphic line. It occupies the extremity of a sandy peninsula, and is nearly surrounded by the sea, fortified with towers or forts on the sea-wall. The town looks well from the roadstead, being built of



Bushire.

a whitish sandstone, while skirted with tall palm-trees and the dark-blue water. But the interior is only a collection of mean low dwellings. The inhabitants are almost all of Arab race, with a few Persian and Armenian merchants. Though tempted by the hope of gain to the shore, the Persians of all classes have an unconquerable antipathy to the sea, while the Arabs delight in it.

KERMAN and KHORASAN embrace between them the entire east of the country, and are jointly as extensive as the united area of the other provinces. But a vast proportion of the surface is a frightful wilderness, where not a blade of grass is to be seen, consisting of plains of shifting sand, or of sea-like plains white with crystallised salt, across which communication by caravan is rare and difficult. Mules are seldom permitted to travel by their owners, being less enduring than the camel. Where springs occur on the leading routes, they are usually met with covered in with a dome-like roof, and an entrance-door is at the side. Small towers at intervals are significant of other dangers besides the natural. They are built as a protection against the marauding Turkomans, and have a confined hole at the base, which allows only one man to enter at a time. Not content with plunder, the robbers, when successful, secure captives also for the slave-markets of Bokhara. The Desert of Kerman, the Great Salt Desert of Khorasan, are appropriate titles. The country improves in the northern part of the last-named province, owing to spurs of the Elburz Mountains running through it, among which the valleys are water-courses. Artificial channels are connected with them, constructed in past ages to lead off

supplies for the irrigation of distant plains, but these works of industry have now become for the most part unserviceable, from the neglect incident to an insecure social condition.

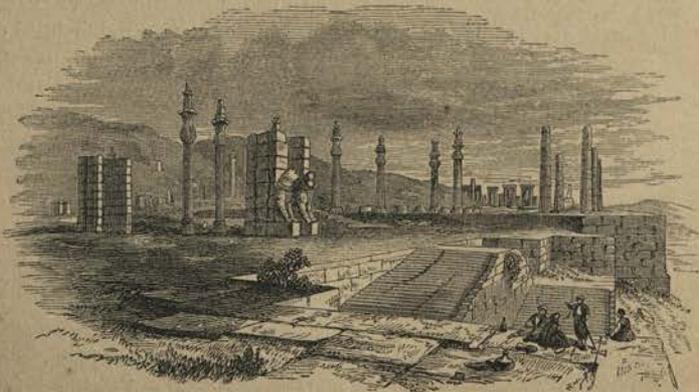
Kerman, centrally placed in its province, occupies one of the exceptionally fertile tracts, and is a walled town of 30,000 inhabitants, with manufactures of shawls, coarse woollens, and matchlocks. *Gombroon*, its port, is on the Persian Gulf, opposite the isle of Ormuz. It attained great prosperity for a time, succeeding to the Portuguese insular settlement, in becoming the chief seat of maritime commerce. But it has now declined to a small place, owing to the foreign trade being transferred to Bushire. Town and isle are subject to the sultan of Muscat. *Meshid*, in the northern and favoured part of Khorasan, is seated on a fruitful plain, enclosed by strong walls about seven miles in circuit. But the interior embraces gardens, cornfields, and ruins; the population is 100,000. The tomb of Imam Riza, with the gilded dome and minarets of the mosque adjoining, is a striking object. As the chief seat of the great sect of the Shiites, Meshid is of nearly equal importance with Mecca, the sacred city of orthodox Mohammedans, and hence it abounds in 'holy' men, arrayed in green turbans and sashes, who instruct the pilgrims visiting the city. The town carries on manufactures of woollen goods and metal wares, especially sword-blades, gold-work, and articles of jewellery. *Nishapur*, fifty miles on the west, occupies likewise a well-watered and cultivated plain, celebrated for its fine climate and fruits, and has the turquoise mines in its vicinity. *Astrabad*, at the south-east corner of the Caspian, some miles inland, fluctuates in the number of its inhabitants owing to the unhealthiness of the site. It was once important as the seat of the Kajar princes, from whom the present royal family of Persia descend, which led to the establishment of the capital at Teheran, as a proximate position across the Elburz. *Yezd*, in the southern part of the province, is situated in an oasis of the Great Salt Desert, and is an important commercial station between Central and Western Asia. Caravans meet here from the east and west for the exchange of commodities. The town is the only place in Persia where the fire-worshippers are at all numerous.

Persia is supposed to contain a population of at least 10,000,000, consisting of two great classes, the one fixed, the other erratic. The fixed class reside in cities, towns, and villages; and are conceived to amount to 7,500,000 of the whole. The erratic class change their locality according to the season, or other exigencies of their condition. These two divisions of the people differ further on religious grounds, while both adhere to the creed of Islam. The stationary inhabitants are Mohammedans of the Shiah sect, who reject the authority of the first three califs, Abubekr, Omar, and Osman; stigmatise them as usurpers, and begin the true ecclesiastical succession with the fourth, Ali, who, they consider, ought to have been immediately chosen to follow the Prophet, as the commander of the faithful. But the wandering tribes are generally Mohammedans of the Sunni community, which embraces the Turks and Arabs, who recognise what the others repudiate.

The erratic class includes various nationalities, as Kurds, Arabs, Turkomans, Uzbeks, and Afghans; but they are all comprehended under the general name of *Illyats*, signifying 'families' or 'tribes.' However various their origin, they agree in being pastoral, martial, and more or less predatory, constituting the strength of the government, when friendly, but its plague and terror, if hostile. They claim the lordship of certain uninhabited districts—are completely uninstructed—enjoy a consideration in their own community which they would not have if merged in the mass of society—derive subsistence principally from their flocks, and eat hard black bread of barley or rye with their cheese and curds. But some have departed from the habits of their ancestors; and hence the distinction has arisen among themselves denoted by the terms *Shehr-nishin*, 'dwellers in cities,' referring to those who have adopted a changed life, and *Sahra-nishin*, or 'dwellers in the field.' The latter abide in tents all the year round, and despise the former as a degenerate race. They keep in the winter to tracts which enjoy a warm climate, or to low grounds, then journey to the boundary between the hot and the cold region, ascend in summer to the high lands where they find pasture, and as the season advances, return to their former location to pass the winter. These are regularly defined tracts to which particular tribes claim exclusive right, open of course to appropriation by the shah, the princes, and nobles. Intrusion by their compeers would lead to a fatal feud. A patriarchal kind of government is recognised

among them, disputes being submitted to the decision of elders, *Rishsefeeds*; literally 'white beards.'

The fixed class represent the old inhabitants of the country, but with a strong admixture of foreign blood. These are the Persians proper, a remarkably handsome race, lively, affable, and courteous—hence styled the French of the east—but insincere, treacherous, and cruel, vices with which cowardice is commonly allied. Among no people are the forms and ceremonies conceived to be proper, more strictly observed on public occasions, as well as in the intercourse of private life. Etiquette has the rank of a science, denominated *Kâida-e-nishest-oo-berkhâst*, or 'the art of sitting and rising,' in which is included a knowledge of the manners of good society. Instruction commences in early life, and hence a mere boy will receive visitors of distinction with surprising manliness and grace in the absence of his father, using the same delicately-worded phrases of compliment and inquiry which the head of the household would have employed. Where to ride in a procession, and to stand or sit within doors, when to rise, and how far to advance to meet a guest are points of importance, along with the time and manner of smoking and taking coffee. A welcome, and its opposite, may be signified by the mode in which these favourite refreshments are offered. Court ceremonials are specially prolix, as well as offensive to western notions of propriety. British envoys have had stoutly to resist their observance, and have only conquered by accepting the alternative of refusing to approach the footstool of royalty rather than comply with them. The Shah is honoured by his subjects as *Kibla-e-Alem*, which some render 'centre of the universe,' and others, 'point of the world's adoration.' He possesses a pair of bracelets valued at nearly a million sterling. One is remarkable for the *Deria-e-Nur*, or 'Sea of Light,' a diamond said to be of unequalled lustre, but nearly rivalled by the *Taj-e-Mah*, or 'Crown of the Moon,' upon the other. His peacock throne, one of the spoils of India, carried off by Nadir Shah, is an object of barbaric magnificence. Yet with all their respect for forms, the Persians are not a formal people, but highly cheerful and social, applying themselves to recreation with an appetite apparently sharpened by the occasional restraints to which their customs condemn them. They delight in flowers and gardens, which are commonly plantations of shady trees and ornamental shrubs, particularly roses—are refreshed by streams or fountains, and have elegant garden-houses. Their language, founded upon the ancient dialects of the country, and the modern Arabic, is distinguished as the Italian of Asia, owing to its harmony of sound, facility of versification, and adaptation for the lighter forms of poetry.



Persepolis.



Madzai and Bodeen Peak, Cabul.

CHAPTER V.

BELOOCHISTAN—AFGHANISTAN—TURKESTAN.



THE territory which forms the northern shore of the Arabian Sea, or Indian Ocean, is known by the general name of BELOOCHISTAN, referring to a portion of its inhabitants, and has Persia on the west, India on the east, and Afghanistan on the north for its inland frontiers. Though of considerable extent, it is, with the exception of a few limited spaces, rough with barren highlands, blighted with intervening sterile plains, and therefore very thinly peopled, while imperfectly known to Europeans. The Hala Mountains on the eastern side—parallel to the course of the Indus—separate the district of Cutch Gundava, which lies in the valley of the river, and has some well-watered tracts where rice and cotton are cultivated, from the larger portion of the country. This range, lofty and of considerable breadth, is intersected by narrow defiles, through which communication is maintained between the borders of India and the regions westward. They are occupied by small streams which swell to overwhelming torrents when rain falls on the heights above, and altogether interrupt transit for a time, or render it difficult and dangerous. One of these clefts, the Bolan Pass, was traversed by a column of the British army, with artillery, when on its way to Cabul, in the year 1839. The crest of the pass is 5793 feet above the sea; its total length, about fifty-four miles; the average ascent, ninety feet in the mile; and six days were required for the troops to march through. 'The minutest descriptions,' says Lieutenant Conolly, 'could hardly convey a just idea of its strength. It is a defile which a regiment of brave men could defend against an army.' There are

points where the opposite walls approach each other so closely at their bases as to leave scarcely room for but a few men to pass abreast; and there are other points where the basements of the cliffs are more apart, while the summits so far overhang as to render the path below gloomy in the extreme by excluding the light of day. The other mountain-ranges run in an inverse direction, or parallel to the coast, and have tracts of loose red sand between them, furrowed by a few water-courses, which are visited by sudden torrents in the rainy season, but remain dry through the greater part of the year. These sandy levels are terraces or table-lands, which become more elevated with their distance from the coast.

The maritime region, to which the name of Makran is given, is one of the hottest portions of the globe. Between March and November the heat is overpowering on the low grounds and in the valleys. According to the natives, the unburned bricks are made red by the scorching rays of the sun. This district is the *Gedrosia* of the ancients, memorable in history, owing to the march of Alexander through it, with part of his army, on returning from India; while another portion sailed along the shore under the admiral, Nearchus. The accounts given of the country and people by the historians of the expedition are fully verified by the reports of modern travellers. Both will become better known, as *Gwadel*, on the coast of Makran, is the station to which the Anglo-Indian telegraphic line passes by submarine cable from the Persian Gulf, and is from thence conducted by land to Kurrachee in Scinde.

Several half-barbarous tribes occupy this region, mostly nomadic and pastoral, all Mohammedans, but referrible to two principal branches, called Belooches and Brahoos, who differ in language, appearance, and habits. The former are tall and well proportioned, martial and predatory, excellent marksmen, fond of field-sports, and speak a corrupt Persian dialect. The latter are of shorter stature, milder disposition, and speak a dialect of Sanscrit origin. A miserable race of ichthyophagi, sparingly occupy the coast. No chieftain aspires to paramount authority, or is more than very locally influential, except the Khan of Kelat, whose territory is in the north-east, towards the Afghan border.

Kelat, a town of mud-built houses, surrounded by a mud wall, occupies a high plain, upwards of 7000 feet above the sea. It contains about 12,000 inhabitants, and is the seat of a considerable transit trade, carried on by Afghan merchants. A watered and cultivated tract in the neighbourhood supplies very fine fruits. Melons of extraordinary size are raised, with almonds, apricots, peaches, pomegranates, and figs. The place was taken by the British after emerging from the Bolan Pass in 1839, when the Khan fell fighting bravely in defence of his capital. Left with a small Sepoy garrison, it was captured by the Belooches in the following year; re-occupied before its close by the army under General Nott; and relinquished with the retirement of the troops to the banks of the Indus.

Alexander commenced his march through Beloochistan towards the close of the summer 325 B.C., when the earth had been baking for months under the fiery sun; and according to the unanimous testimony of the soldiers, all former labours and privations were surpassed by the perils and hardships of this homeward expedition. Nature shewed a wild vigour in the districts immediately bordering the Indus. Aromatic trees and shrubs, particularly the myrrh-bearing plants, and the nardus, from which spikenard was extracted, flourished in great abundance and perfection. A grateful fragrance was diffused through the air as the plants were crushed by the tramp of the advancing columns. But as the country further west was penetrated, all vegetation disappeared, and perfectly desert plains of fine soft sand alone met the eye, so hot by day as to blister the feet. The sand was perpetually shifted by the wind, and drifted into ridges, obliterating all traces of a road, and the guides were compelled to steer their course by the stars. Sir H. Pottinger, in modern times, has described the high waves of sand which he had to cross in this region for a distance of seventy miles. The army marched in the night owing to the tremendous heat, but it often happened that they were far from a watering-place at daybreak, and had to travel to it, exposed to the full solar glare. The beasts sank beneath their burdens and perished; the baggage was abandoned; the men in great numbers died of fatigue and thirst; and but for the indomitable bearing of the commander, despair would probably have seized upon the whole force to its destruction. On one occasion a small quantity of brackish water was carefully brought in a helmet for his refreshment. Alexander accepted the offering, and thanking those who had procured it for him, poured the water out on the sand. The action, it has been justly said, marks not only the great man, able to control the cravings of nature, but the great general, for every soldier who witnessed it would receive a far stronger stimulant to endurance than if he had himself partaken of the draught.

The admiral, Nearchus, on his part, found the shore he coasted utterly destitute of supplies. No meat or corn could be obtained, and but little water. Famine thus threatened the crews. Fine turtle were to be had in abundance, but the Greeks never conceived it possible to feed upon such a creature, and the natives of the shore at present reject the diet. The habits of the race are precisely as they were nearly twenty-two centuries

ago, both as to their food, the fodder of their cattle, and the construction of their cabins. They live entirely upon fish, as described by the historian, chiefly crabs, oysters, and other molluscs. These are picked up on the recession of the tide in hollows on the beach, for proper sea-fishing is beyond their art, owing to the want of boats and implements. In the absence of meadows and grass, the cattle have much the same food as their owners, or a compound of dried fish and dates. When the Greeks arrived at a part of the coast clothed with date-trees, they expressed their joy at the prospect of obtaining vegetable diet.

AFGHANISTAN, the land of the Afghans, a people whose name revives the memory of a sad disaster to the British arms, is situated immediately north of the preceding district, and is a more extensive territory, with very varied physical features, and a climate remarkable for its strongly-contrasted seasons. It measures about 450 miles from north to south, a distance which is slightly exceeded by that from east to west; and comprehends an area of at least 210,000 square miles. On the west and south-west the country is a sandy wilderness, comparable to the most sterile parts of Beloochistan and Persia, yet studded with a few smiling oases. But on the east and north-east, the surface rises in a series of elevated terraces, from which majestic mountains ascend to the region of the ever-during snow, and send down streams into the subjacent valleys, clothing them with beauty and fruitfulness. The Sulaiman Mountains, on the eastern border, form the frontier on the side of India. The grander chain of the Hindu-Kush, a westerly continuation of the Himalaya, extends over the north-east, and forms the boundary from Turkestan. Many peaks of this range exceed the height of 18,000 feet, while the only pass across it practicable for artillery ascends to 13,000 feet. These protecting highlands, with scarcely passable deserts on the borders in other directions, render the country peculiarly difficult of access, and give it the character of a strong natural citadel. This consideration mainly induced the Anglo-Indian government to make its unfortunate attempt to place an ally upon the Afghan throne, in the person of Shah Sujah, in the year 1839, in order to guard against the bulwark of India towards the west being held by an enemy. The mistaken policy had a brief term of success, but led to a general rising of the natives, the murder of the British representatives, the winter retreat of the occupying army, and its wholesale massacre by the way, when the troops were paralysed by the cold and impeded by the snow in the savage wilds of the Khurd-Cabul defile.

None of the rivers are of important magnitude, though numerous and highly valuable. The Cabul, which passes the city of that name, flows with a strong current beyond the frontier, and joins the Indus nearly opposite the town of Atak or Attock. The Helmund has a longer course, chiefly through the western desert region, where it is lost in the large salt-lake of Hamoon, more properly a brackish, shallow, and reedy morass. While varying with differences of elevation, the climate is everywhere distinguished by extremes of heat and cold. In the oases of the sandy wilderness on the west, the date-palm flourishes, and in the deeper valleys of the mountains on the east, cotton and sugar are raised. The summer heat admits of the culture of the vine with great success, on the high terraces. Fine fruits of various kinds, tobacco, rhubarb, asafetida, and other aromatic plants, with the mulberry-tree in vast plantations, are grown in the watered highland vales, where also an extraordinary variety of roses, stocks, jessamines, hyacinths, and tulips, both wild and cultivated, display their beauty. The loftier uplands are well clad with pines, oaks, cedars, cypresses, pistachio, and walnut trees. At Ghizni, though at the elevation of 7700 feet, the high summer temperature is indicated by the common saying, 'Great God, why hast thou made hell, when there is Ghizni?' But it alternates with the severest cold in winter, marked by 20° below the zero of Fahrenheit, when the inhabitants rarely quit their dwellings. Snow falls in heavy showers, and lies deeply upon the ground, sometimes remaining till the vernal equinox has passed. Three times, according to tradition, the place has been visited with tremendous snow-storms, when most of the



The Khyber Pass.

houses were covered, and the people perished. The lion is found in the warm valleys, but is not often seen; tigers and leopards are more numerous; the bear is common in all the wooded mountains; the wolf, hyena, and jackal are generally distributed. The country is rich in minerals, iron, copper, and lead, but the natives neglect these resources, and are so jealous of strangers that they will admit of no mining attempts being made by them. Whole cliffs of *lapis lazuli* occur among the rocks.

The political divisions of Afghanistan include three states without any definite limits, under rulers respectively at Cabul, Kandahar, and Herat, whose authority is merely nominal over tribes in their immediate neighbourhood.

Cabul, in the north-east, on the river of the same name, is seated on a plain 6400 feet above the sea, surrounded by ramparts which are said to enclose a population of 60,000. It possesses a citadel, called the Bala Hissar, which contains within its circuit the residence of the Khan, and has several bazaars, with an extensive transit trade. Orchards and gardens in the vicinity are very celebrated for their fruits. In the centre of one of the gardens, two erect slabs connected with a chaste mosque of marble, mark the grave of Baber, the founder of the Mogul Empire in India. The native outbreak against the British, in 1841, commenced in this city, when Sir W. Macnaughten and Sir A. Burnes were murdered, and 4700 troops, with 7500 camp-followers, perished in the retreat. Fresh forces poured into the country, re-occupied the capital, and ravaged the citadel and the great bazaar, as a punishment for the treacherous proceedings. The Cabul River descends to *Jelalabad*, 78 miles distant, a small place distinguished by Sir R. Sale's successful defence of it during the insurrection. Further east is the Khyber Pass, leading through slate mountains to the plain of Peshawur, within the limits of British India. This pass is a ravine about thirty miles in length, the bed of a torrent, in places very narrow, with high and almost perpendicular rocks on either hand. *Ghizni*, south-west of Cabul,

a fortress and small town, is remarkable for its site, climate, and history. It stands on a very elevated plain, and occupies a scarpd rock which rises 280 feet above the general surface. High walls and a wet ditch add to the natural strength. Its strongly-contrasted summer and winter has been already mentioned. The place was once a large and splendid city, the capital and stronghold of the Ghiznevites, a line of princes who held it from about 961 to 1150 A. D., whose empire extended eastward to the Ganges and westward to the Tigris. Among its famous buildings was the 'Palace of Felicity,' and a mosque called the 'Celestial Bride.' Sultan Mahmoud, conqueror of India, the greatest of the Ghiznevite sovereigns, reigned from 998 to 1030. His tomb remains. From its doorway, the sandal-wood gates, brought from the temple of Somnauth, were taken by order of Lord Ellenborough in 1842, and returned to Gujerat, after an absence of seven centuries. Ghizmi was captured by storm by the British under Lord Kane in 1839, then recovered by the Afghans, but retaken by General Nott, and restored with the fortifications dismantled. The citadel has since been rebuilt, but the town itself has gone to decay.

Kandahar, about 280 miles south-west of Cabul, is of considerable extent, surrounded by a mud wall, fortified with towers and bastions; and is further defended by a fortress in the vicinity, which crowns the summit of a precipitous rock. It is regularly built, has intersecting canals which bring water to the inhabitants from a neighbouring river, and serve to irrigate the orchards and gardens, which are very fruitful. Manufactures of arms, silks, and woollens are carried on, and the trade is considerable with Persia, Bokhara, and India. From the latter country, the approach is through the Bolan Pass in Beloochistan, before described. The population is variously estimated from 25,000 to 100,000, and probably fluctuates greatly. The place is of ancient date, is said to have been founded by Alexander the Great, and has had a checkered history. It was taken by Tamerlane in 1384, and by Shah Abbas in 1620. The adjoining fortress was held by the British through the whole of the Afghan war. Great part of the present town was built in the middle of the last century by Ahmed Shah, whose tomb is one of the principal public buildings.

Herat, in the north-west, 390 miles from Cabul, is a town of perhaps 45,000 inhabitants, protected by a wall and ditch. The site is very delightful, though it can only be gained by the traveller from any direction by passing over miles of desert. This is a valley watered by several streams, irrigated by many canals, abounding with villages, gardens, and vineyards. The place itself is highly industrial, producing carpets, cloaks, caps, and leather goods, with saffron and asafetida, extensively grown in the vicinity. Herat was formerly the capital of princes of the house of Tamerlane, and has not lost its political importance. Situated near the Persian province of Khorasan, it is considered the key to Afghanistan from the west, which itself affords the only route by which a military force can advance by land towards India. Hence its conquest by the Persians, who might let in the Russians, has always been resisted by the British government, and was the occasion of a brief war in 1856.

Afghanistan is not without its remarkable monuments of antiquity, which the natives call 'topes,' an equivalent expression to our own barrows or mounds. They are most numerous in the north-eastern districts, towards Cabul and Jelalabad, and from thence to the banks of the Indus. These monuments are round towers of stone, or of brick with a stone or stucco facing, the largest of which have a circuit of about 200 feet at the base, and rise to the height of 60 feet. The favourite sites selected for them are at the skirts of hills, on elevations separated from each other by ravines. In the neighbourhood are invariably found a number of caves, varying as to extent and arrangement, but all originally lined with cement, and doubtless occupied by persons in charge of the buildings. Water is always to be found at a convenient distance, pure and flowing from the rock. Upon the topes being opened, small square chambers are met with in the interior, containing vases of copper, brass, and steatite, some of globular form, others cylindrical. In these appear ashes, coins, rings, and other relics. Sir A. Burnes considered these monuments to be the tombs of princes, either of the Bactrian kings, or of their Indo-Scythic successors, but most probably they are Buddhist memorials.

One of these, with sculptured colossal figures, occurs at Bamian, upon which no gleam of light can be thrown. The place gives its name to the principal pass across the Hindu-Kush. Here the hills on each side consist of a conglomerate, composed of indurated clay and pebbles, which renders their excavation a work of easy performance. For about eight miles, innumerable caves have been scooped out, in which the greater part of the present population dwell. A detached hill in the middle of the valley is honeycombed by them, and is called the city of Ghulghula. The deserted caves, partially choked up with accumulations of rubbish, are occasionally dug into by labourers, who find rings, coins, and other relics of their former occupants, which generally bear Cufic inscriptions, of a later date than the age of Mohammed. The mass of these cave-houses have no pretensions to architectural ornament, being only squared holes in the hills. Some of them are finished in the shape of a dome, and have a carved frieze below the point from which the cupola springs. The inhabitants, says Burnes, tell remarkable tales of the caves of Bamian; one in particular, that a mother had lost her child among them, and recovered it after the lapse of twelve years. The tale, he remarks, need not be believed, but it will convey some idea of the extent of the works. At one point, two colossal figures, a male and a female, are cut in alto-relievo on the face of a hill, with excavations around them in which half a regiment of soldiers might find quarters. The male is the larger of the two, about 120 feet high, and is somewhat mutilated. The lips are very large, the ears long and pendent, and there appears to have been a tiara on the head. The female figure is more perfect, and about half the size. There is nothing in the execution of the sculpture indicative of much advance in the arts. Neither images

nor caves are mentioned by the annalists of Alexander's expedition, who certainly passed this way. But they are noticed by the historian of Tamerlane.

The country is supposed to contain a population of at least 5,000,000, consisting of a proportion of Hindus in the east, Persians in the west, and Huzarehs—an inoffensive pastoral race, apparently of Mongol descent—in the north, in addition to the proper Afghans. The latter are strangers to the name by which they are known to foreigners, and style themselves Pushtaneh; they are divided into numerous clans or tribes, and resemble in many respects the Scottish Highlanders. But their attachment is to the community rather than to a chieftain, and forms a strong bond of union for common defensive purposes. They are proud of their race, carefully keep their genealogies, and will think lightly of the man who cannot prove at least six descents. Of fiery temper, they are capable of acting the part of fiends under strong excitement, but contrast favourably with the majority of orientals in various traits of character. They are completely indifferent to rank, treat women with respect, pay reverence to age, have in general the virtue of truthfulness, and are tolerant Mohammedans. Their features are harsh, strongly aquiline, but not unpleasing. They delight in all kinds of field-sports, especially falconry. Many are nomadic, live in tents, chiefly occupied with flocks, but the greater number are house-dwellers, following various pursuits, and supplying the ranks of the army. The Afghan language, called the Pushtu, is allied in its vocabulary both to the Sanscrit and the Persian. It has a literature of lyrics and ballads, mystical, amatory, and moral. Poems of the latter class correspond to the sayings of the Preacher in the Book of Ecclesiastes :

'Since thou art occupied in giving ear to envy and covetousness,
Though thou shouldst the possessor of treasures become, a poor beggar art thou.'

'Safety from hell's burning flames cannot be effected by this,
That thou shouldst gay clothes don, eat delicacies, and extol thyself.'

Afghanistan was included in the Persian Empire under Nadir Shah, but became independent on his death in 1747, when the dynasty of the Dourani princes was founded, one of whom was the exiled Shah Sujah, in whose cause a British army perished.

TURKESTAN, or INDEPENDENT TARTARY, a region of immense extent, but of little natural interest, and no political importance, is enclosed by Afghanistan and Persia on the south, and has Asiatic Russia on the north, with the Caspian Sea on the west, and the high lands of Central Asia, included in the Chinese Empire, on the east. These limits are separated by linear distances of nearly 1000 miles, and comprise an area approaching to 1,000,000 square miles. Towards the eastern and south-eastern borders, the surface is varied by spurs and offsets from the high ranges of the Thian-Shan, the Bolor-Tagh, and the Hindu-Kush, where there are watered valleys smiling with luxuriance and beauty. Apart from these limited spaces, the country consists of low, open, unwooded, and undulating plains, declining westward to the great cavity occupied by the Caspian, but chiefly north-westward to the Sea of Aral, in which direction the two principal rivers proceed. These are the Amu and the Syr, which respectively represent the *Oxus* and the *Jaxartes* of the ancients. The Amu is the largest of the interior rivers of Asia, and descends from the lofty lake Sir-i-Kol, on the table-land of Pamir, at the height of 15,600 feet. Its banks were visited by Alexander the Great, in the early summer of 329 B.C., when the snow was melting in the highlands towards its source. The channel of the river was tolerably full, the current rapid, and the water deep. Sir A. Burnes, who saw it for the first time in June, and who was in the line of the conqueror's route, describes it rolling in the grandeur of solitude, about 800 yards wide and 20 feet deep, the flow swift, and the water loaded with the soil of the uplands. The Macedonians lighted fires on some elevated ground,

that the distressed in the rear might perceive they were not far from their comrades; and sand-hillocks are still common along its course, with outer banks, which limit the extent of the inundations. No boats or rafts being procurable, nor materials for constructing them, the soldiers passed over by means of floats made of the tent skins stuffed with dry grass and reeds. The hazardous operation was safely performed in five days. Burnes made the passage in a singular manner, now common, but quite peculiar to the country. A pair of horses swam across, drawing a boat after them, to which they were yoked by a rope fastened to the hair of the mane. The description of the population of the river in remote ages, given by Arrian, correctly pictures the habits of the wandering tribes on its banks in the present day—'they exercised robbery and lived by spoil.'

Tall reeds and sedges, with patches of woodland, line both the rivers, but apart from the borders of lakes and streams, a tree is rarely met with, and the only vegetation is the thin grass common to a desert region. Wastes of loose sand continually shifting with the winds, small salt-pools, and saline marshes are characteristic of the general surface. Between the Amu and the Syr, extends the desert of Kizil-Kum, or 'red sand,' with that of Kara-Kum, or 'black sand,' northward of the latter river, each of which is several days' journey across. The climate is dry and healthy; the sky is usually clear, and of the brightest azure; but great extremes distinguish the temperature, and hurricanes of tremendous violence sweep over the plains, driving the sand or the snow along in clouds, according to the season. In summer the thermometer rises to 108° in the shade, and to 144° in the sun; in winter it sinks to from 12° to 25° below zero, and the cold is aggravated by strong blasts, and the general want of wood for fuel. The troops of Tamerlane were frozen to death on the banks of the Syr; and in 1839 a Russian expedition against Khiva was completely frustrated by the climatic rigour. Most of the camels and many of the soldiers perished, while the entire armament was lost. The inhabitants are a medley of races, Kirghis in the north, Turkomans in the west and south-west, Uzbeks in the east and south-east, all Mohammedans, with whom Persians, Arabs, Afghans, Jews, and others, are variously associated. Many lead a wandering life, rear sheep, goats, and horses, and are addicted to slave-dealing. Others are stationary, attend to agriculture, are highly commercial, and have various manufactures. The districts of Bokhara, Khiva, and Kokan form separate political divisions, without any precise limits, each under the government of an Emir or Khan, subject to no restrictions in the exercise of authority, but the influence of the Mohammedan priesthood.

Bokhara, a large, ancient, and celebrated city, is the head of an extensive territory on the middle course of the Amu, watered also by several streams which are absorbed in the sands, or terminate in small salt-lakes. The inhabitants, at the lowest estimate, are stated to number 70,000, which is only half the return made by some authorities. It has a circuit of more than eight miles, and is surrounded by a wall of earth, about twenty feet high, pierced by twelve gates. Few important buildings are to be seen from the exterior, but when the gates are passed, massive structures appear, colleges, mosques, bazaars, and caravansaries for the merchants of different nations frequenting the place. The city is styled the 'Treasury of Sciences,' and contains upwards of 100 large colleges, besides small schools, attended by some thousands of students from a distance. They are only open for half the year, impart no instruction except on Mohammedan dogmas, and when closed, the students add to their means of living by working in the fields. The mosques are equally numerous. A dome distinguishes the largest, of very costly appearance, being covered with enamelled tiles of an azure-blue colour. Attached to it is a lofty minaret, from which criminals are thrown. The priesthood are fiercely fanatical. They control the Khan, and probably induced him to order the execution of Colonel Stoddart and Captain Conolly, while on a political mission, on the ground of difference of religion. Dr Wolff, in 1845, sent to ascertain their fate, narrowly escaped sharing it. Bokhara is a place of immense commerce, visited by merchants from Cabul, India, China, Russia, and Turkey. Water is conveyed by a canal from the river of Samarcand, six miles distant, but it is often dried up in summer, and the inhabitants suffer greatly. They are subject to ophthalmia, and to the attacks of the guinea-worm, which inserts itself in the flesh, and causes extreme distress. *Samarcand*, 120 miles on the east, the capital of the vast empire of Tamerlane, is now insignificant, with scarcely 10,000 inhabitants. The tomb of the conqueror remains, an octagonal building paved with white marble, as well as the observatory of the astronomer Ulugh Begh. *Balkh*, on the south-east, of high

antiquity, venerated as the 'mother of cities,' consists of a small town in the midst of ruins—those of mosques, tombs, aqueducts, and dwellings—which extend over a circuit of nearly twenty miles. Under a mud wall, outside the town, lie the remains of the English travellers, Moorcroft and Guthrie. *Merve*, towards the frontier of Persia, formerly a capital of the Seljukian princes, is more completely fallen, having scarcely a single stated inhabitant.

Khiva, the head of a Khanate on the lower course of the Amu, is a small wretched place surrounded with an embankment of earth. The neighbourhood is well cultivated and fruitful, forming an oasis along the river. The Khans have long been notorious for slave-dealing in the unfortunates kidnapped by the roving Turkomans. But in 1854 a treaty with Russia stipulated for the abandonment of the practice, in the case of Russian subjects.

Khokan, the capital of a district on the Syr, is a large town on the river, with a population of 60,000, upwards of 300 mosques, many bazaars and baths, some silk and cotton manufactures, and a considerable trade in cattle. *Khojend*, lower down the stream, contains 30,000 inhabitants, and has active commerce with the Russian dominions; so has *Tashkend*, a somewhat larger place, surrounded with cotton and mulberry plantations. The Khanate borders on Chinese Tartary, in which direction the country is mountainous, contains many well-watered valleys, in which the finest fruits are produced. The vine and mulberry-tree are cultivated generally; water-melons of enormous size are raised; and sheep are extensively reared. In the opposite direction, the whole surface is a frightful sandy waste.

Turkestan, the 'land of the Turks,' may not have been the original home of the great race, but it was the locality from which they issued to make their power formidable and their name notorious. Passing westward, they came into contact with Mohammedanism, gradually embraced it, entered the service of the califs, swelled their armies, and at length compelled them to resign the temporal supremacy. The first chief who became a convert called his people Turk-imams, or Turks of the faith, to distinguish them from those who continued in heathenism, a name since corrupted into Turkomans. The first tribe conspicuous in history, the Seljukian Turks, founded an empire embracing nearly the whole of Western Asia, which broke up into minor principedoms, and paved the way for the rise of the Ottoman branch of the race to dominion.



Valley of the Yarkand.



Government House and Ochterlony Monument, Calcutta, from Chouringhee.

CHAPTER VI.

INDIA OR HINDUSTAN.



INDIA, in the widest acceptation of the term, denotes an immense region of Southern Asia, embracing the two peninsulas separated by the Bay of Bengal, with an enormous number of insular appendages. The easternmost of these tracts is commonly distinguished as Further India, or India beyond the Ganges, in allusion to its position relative to western nations, and is also known as the Indo-Chinese Peninsula, while its islands constitute the great Indian Archipelago. The western portion is Hither India, situated within the river-boundary named, and is often called Hindustán, the Country of the Hindus. This territory, the subject of the present chapter, is remarkable alike for its magnificent scenery and rich natural productions, its early civilisation and wonderful antiquities, as well as for its modern history. Few facts in the annals of nations are more surprising than the rapid subjection of its native empires and states, populous and once powerful, to British authority and influence, effected by a company of British traders, whose first visit to the land dates no further back than the beginning of the seventeenth century, and whose means were long limited to a handful of ships, forts, and factories. A queen reigned on the banks of the Thames when the East India Company received its charter of incorporation; but Elizabeth had gone to the grave at Westminster before her subjects themselves had imported an ounce of spice, a stick of cinnamon, or a yard of silk. Akbar the Great, greatest of all the Mogul emperors, ruled

on the banks of the Jumna; but he too had been borne to a mausoleum at Agra before his people had any dealings with the visitors from the far-away west. 'The most enlightened Englishmen,' observes Macaulay, referring to the views of distant contemporaries at the period, 'looked on India with ignorant admiration. The most enlightened natives of India were scarcely aware that England existed. Our ancestors had a dim notion of endless bazaars, swarming with buyers and sellers, and blazing with cloth of gold, with variegated silks, and with precious stones; of treasuries where diamonds were piled in heaps, and sequins in mountains; of palaces, compared with which Whitehall and Hampton Court were hovels; of armies, ten times as numerous as that which they had seen assembled at Tilbury to repel the Armada. On the other hand, it was probably not known to one of the statesmen in the Durbar of Agra that there was, near the setting sun, a great city of infidels, called London, where a woman reigned, and that she had given to an association of Frank merchants the exclusive privilege of freighting ships from her dominions for the Indian seas. That this association would one day rule all India from the ocean to the everlasting snow, would have seemed to the wisest of European or of Oriental politicians as impossible as that inhabitants of our globe should find an empire in Venus or Jupiter.'

India or Hindustán consists of an extensive section of the main mass of the continent on the north, to which both terms are restricted by the natives; and of a triangular peninsula, called from its relative position the Deccan, or the 'south,' which has the large island of Ceylon off the south-east extremity. On the south-western side are the Laccadive and Maldive Archipelagoes. The country has strongly-marked natural frontiers, formed by the lower course of the Brahmaputra and the Bay of Bengal on the east; the Sulaiman Mountains and the Arabian Sea on the west; and the range of the Himalaya on the north. Southward the opposite coasts of the peninsula converge, and meet at the same point, breasting the Indian Ocean at Cape Comorin. These limits lie between latitude 8° — 35° north, and between longitude 67° — 92° east. The extreme linear extent amounts to about 1900 miles from north to south, by 1500 from east to west; the coast-line measures 4000 miles; the whole external boundary is estimated at 11,260 miles; and the area, as deduced from the trigonometrical survey, contains 1,309,200 square miles. This survey, suggested by the late Duke of Wellington, and commenced shortly after the fall of Seringapatam, has recently been brought to a conclusion, and is without a parallel for extensiveness and accuracy. It has been carried on frequently under considerable physical difficulties, arising from the necessity of occupying unhealthy swamps and jungles nearly at the sea-level, and of ascending and encamping on snowy mountains of great elevation. Out of sixteen principal trigonometric stations connected with the Himalaya, fourteen were above 15,000 feet, and two exceeded 18,000. Occasionally, in consequence of clouds and storms, the surveying party had to remain pitched upon the snow for upwards of a week together. Another difficulty arose on the Pir Punjal peaks in Cashmere, where the electricity was frequently so troublesome, even when there were no storms, that it was found necessary to carry a portable lightning-conductor for the protection of the theodolite.

NORTHERN INDIA, the more strictly continental portion of the country, is comprised between the river Nerbudda on the south, and the chain of the Himalaya. It has very varied superficial features—mountain, plateau, and lowland—forest, river, and waste—each developed upon a scale of great magnitude. There are plains of the richest alluvial soil, intersected by a net-work of grand streams, refreshed seasonally with abundant rains, bathed in the intensest sunshine, and clothed with brightly-green verdure; and there are sandy or stony tracts, flats of hard-baked clay, where the mirage is often observed, and

the wild ass has its dwelling, with salt-morasses, the haunt of porcupines and vast flocks of aquatic birds.

The high mountains are on the borders, as the Himalaya, the natural boundary between India and Tibet. These are the loftiest highlands of the globe, culminating at the height of nearly five miles and a half, or 29,000 feet, above the level of the sea. A grass-covered marshy tract, followed by a belt of dry forest land above it, mark the approach to the outer edge of the elevated region. Both districts are extremely unhealthy, inhabited by countless wild animals. They skirt the Sivalik Hills, and other sub-Himalayan ranges, of moderate elevation, on which are placed the sanitarium for troops. Passing these, the

surface ascends rapidly, but the stupendous heights of the great northern barrier are eighty or ninety miles from the exterior ridge. Their aspect in the distant view is often not more magnificent than extraordinary, owing to clouds completely hiding the lower slopes from sight. Hence the peaks appear projected against the clear blue sky without a visible solid basement, either wholly silvered with snow, or partly patched and tipped, or, where the inclination is too precipitous for snow to find a resting-place, their naked pyramidal masses of gneiss and granite are exhibited. Other important highlands, but of far inferior elevation, the Sulaiman Mountains, run from north to south beyond the Indus, with the Hala range, and form the western boundary of the country from the Belocchee and Afghan territories. Their loftiest summit, Takht-i-Sulaiman, or 'Solomon's Throne,' rises to 11,000 feet. On the southern side, parallel to the river Nerbudda,



Bridge at Biram Ghati, near the Source of the Ganges.

the Vindhya Mountains form a line of separation between Northern and Southern India, but nowhere exceed the height of 6000 feet. These natural boundaries, respectively on the north, west, and south, enclose minor ridges, with the table-lands of Malwa and Rajasthan, and the vast lowland plains which stretch in a huge curve between the mouths of the Ganges and the Indus, along the course of the rivers. Of these plains, the Gangetic is a region of exuberant fertility, while that of the Indus has a very varying

character, and embraces the sterile district of the Indian desert, extending from the Punjab to the Runn of Cutch.

Among the rivers, the first place is due to the Ganges, as well from its utility as its magnitude, and from being within the limits of India from source to mouth, while the rival systems of the Brahmaputra and the Indus have a foreign origin. It chiefly traverses a north-eastern alluvial flat, stretching from the Punjab to the Bay of Bengal, on which the great water-course and its numerous tributaries, some of which exceed the Rhine in length and volume, are spread out like the intersecting veins of a leaf. Its basin is the best cultivated and most densely-peopled portion of the whole country. The river is deemed specially sacred by the natives, whose dreams of an auspicious future existence are closely connected with the consignment of their ashes to its bosom. It issues from a bed of snow in the Himalaya, at the height of 13,800 feet above the sea, and makes a very rapid descent to a low level. This is gained at Hurdwar, upwards of 1300 miles from the mouth, where the river begins to be navigable for the light passenger-boats, and for larger craft about 100 miles lower down. But the navigation is carried on with difficulty, owing to rapids and shifting shoals, to avoid which, as well as to irrigate a district which has often been scourged with drought and famine, the great Ganges Canal has been constructed. At Allahabad, 840 miles from the sea, where the stream receives the Jumna, it is about a mile across, but varies greatly in breadth and depth through the whole of its course according to the season. At about 280 miles from the coast, branches are thrown off on the right bank, several of which unite to form the Hooghly, on which Calcutta is seated, while the grand trunk passes on to link itself with the system of the Brahmaputra. The two great rivers commingle in a highly complex manner, ramify in numerous channels over an extensive area, divide it into islands by their intersection, and discharge themselves by at least twenty mouths. This deltoidal region is swampy and unhealthy, densely clothed with trees and jungle, hence called the *Sonderbunds*, or *Woods*. In these the tiger prowls, the rhinoceros roams, while the waters swarm with huge crocodiles. The Brahmaputra, 'offspring of Brahma,' has the upper part of its course in Tibet, and only forms in the lower the eastern frontier in relation to India Proper. Owing to the periodical rains, and coincident meltings of the snow in the Himalaya, both rivers are annually in flood, inundate vast tracts of country, and bring down an enormous quantity of sediment, which discolours the sea to the distance of sixty miles from the shore. It has been calculated that the Ganges annually discharges an amount of earthy matter equal in bulk to forty-two such structures as the Great Pyramid of Egypt.

The Indus traverses the north-western side of the country, and has a longer flow than the Ganges, with a less extensive basin, somewhat prominently distinguished by arid features. It rises on the northern side of the Himalaya, at the height of 18,000 feet, proceeds at first to the north-west, but breaking through the mountains, inverts its course to the south-west, receives the waters of the Punjab, or 'five rivers,' collected into a single channel, and descends to the Arabian Sea through several mouths. The river has a lengthened navigation, but, owing to its inconstancy and general want of depth, its navigable value is far inferior to that of streams of scarcely half the magnitude. The lower course is invested with interest from having been traversed more than 2000 years ago by the hastily-constructed galleys of Alexander. Upon his fleet gaining the delta, great dangers were experienced from the violence of the waters. The monsoon blew from the sea, and drove up its billows against the impetuous current of the river, producing an angry swell, while the rapid flow and ebb of the tide astonished and alarmed the Macedonians, whose maritime experience had been solely acquired from the Mediterranean,

where tidal influence is scarcely perceptible. Into the modern as into the ancient Indus the flood-tide rushes with impetuosity, and forms a *bore*, owing to the confined space. The water rises in a ridge of several feet, which is swept along with great violence, endangering craft on the surface, and inundating the low grounds on the margin. The ebb takes place as suddenly; and thus vast tracts are rapidly converted into navigable expanses and flats of mud. Quintus Curtius states, that the fields skirting the stream were overflowed, and only 'tops of knolls' were seen on either hand, like 'little islands.' This is exactly the appearance now presented by the mangrove patches on the banks at high-water. Parallel with the river on the eastern side, and diverging from it hundreds of miles, is the Indian Desert, which embraces upwards of 150,000 square miles. It is not entirely sterile, but contains at intervals tracts of cultivable land; and the sandy portions are generally overgrown with coarse grass and jungle shrubs after the rains. But this vegetation perishes completely in the hot months, and the true desert aspect is exhibited. Southward lies the Runn of Cutch, a remarkable flat district bordering the Gulf of Cutch, arid through the greater part of the year, without weeds or grass, sustaining only a few tamarisks. But during the monsoon, when the sea runs high, its waters are driven over it, leaving shallow salt-lakes behind; and the general surface receives a saline incrustation from the subsequent evaporation.

SOUTHERN INDIA, the peninsular portion of the country, consists of an immense central plateau, broken by river-valleys into a series of table-lands, which range in elevation from 2000 to 3000 feet. They advance in height from north to south, and have a gradual slope from west to east, in which direction the important rivers have their course. Between this high country and the sea are lowland tracts, commonly distinguished as the coast of Coromandel on the eastern side, and the Malabar coast on the western. The plateau has chains of mountains on its edges, called the Eastern and Western Ghauts, which run parallel to the shores, and converge southerly in the wild tract of the Neilgherries, or Blue Mountains. This district contains the highest point of the peninsula, the peak of Dodabetta, which rises to 8760 feet, and is the seat of the principal sanitarium owing to the temperate climate. Further south, the highland region is broken by the sharply-defined valley or gap of Palghat, beyond which hilly ridges rise again, clothed with woods, and are continuous to Cape Comorin. The word *ghaut*, 'gate,' is of Sanserit origin, and refers to the terrace-like passes by which the ranges are crossed. The upland country is denoted by the phrase, *Bala-ghaut*, 'above the passes,' and the maritime lowlands by *Payan-ghaut*, 'below the passes.' The Western Ghauts form a lofty and persistent chain, through which no streams of the slightest consequence find their way from the central region to the sea. They present a very steep face towards the ocean, press closely to its border at various points, and contribute to give a bold character to the coast-line, which has many convenient harbours. The Eastern Ghauts are lower, and are much less continuous, offering channels through which nearly all the drainage of the interior is poured. They are also at a much greater distance from the shore, which is uniformly low and without harbours, exposed to the roll of a violent and dangerous surf. The Godavery (Godávári), the largest river, has a course of rather more than 850 miles. It rises on the inland face of the Western Ghauts, and passes to the Eastern, flowing through them with such a gentle descent that the navigation is not interrupted, either up or down. The Kistna and the Kaveri are next in importance, following the same general direction. The Nerbudda, on the north border of the peninsula, is the largest westward-bound stream, entering the Gulf of Cambay after a course of 800 miles. Neither Northern nor Southern India have any extensive lakes, and the number of small size is few compared with the magnitude of the area. This is the chief exception

to the oft-repeated remark, that the country may be regarded as 'an epitome of the whole earth.'

The valleys and mountain-slopes are profusely adorned with splendid vegetation, varying from tropical to alpine forms according to the elevation, and combining all the materials requisite for utility, beauty, and luxury. The cocoa-nut palm, the palmyra palm, the betel palm, and other varieties of the tribe, with shady mango topes, tall bamboos, jungle grasses, tree-ferns, arborescent flowering-plants, and the members of the fig family, which include the banyan-tree, are eminently characteristic of the flora at the lower levels, where heat and humidity combine their influence. Timber of the highest value is supplied by the teak, sandal-wood, satin-wood, ebony, and sappan trees; and in the belt of forest which skirts the southern base of the Himalaya remarkably handsome forms appear. The eye marks with delight 'the exquisitely-cut foliage of the acacias and moringa, the gracefully-drooping clumps of bamboo, the *saul* with its tall erect trunk and brilliant dark-green leaves, the *semal* with its deep red cup-shaped flower and curiously-buttressed stem, and the *huldoe* with its magnificently-drooping branches spreading from the summit of its huge columnar trunk, while from the limbs of these lords of the forest trail gigantic climbers.' The greatest botanical variety is of course seen in the grand mountain-region, owing to the different climates met with ascendingly. It is not, however, so strikingly exhibited on the exterior face of the highlands as in the interior, where the valleys are watered, deep, and warm. Here a tropical flora is carried up to intermingle with the temperate forms of vegetable life, and a strangely-contrasted picture is produced by the admixture of palms with pines, orchids with oaks or maples, and bamboos with ivy. From the height of 5000 to 8000 feet, oaks and rhododendrons compose the main mass of the forest—the latter, not shrubs, as with us, but trees of considerable size bearing their splendid purple flowers. In association with them are the cypress, ash, birch, elm, holly, hornbeam, alder, and several laurels. Still higher, up to 11,500 feet, most of the preceding occur, but other objects are more prominent, as pines, yew, horse-chestnut, walnut, several maples, hazel, and the magnificent deodar. At a greater elevation, a few trees struggle for existence in a stunted condition, and with a deformed aspect. Shrubs go up to 15,200 feet, with herbaceous plants to a loftier altitude, till all vegetable life ceases, and the eternal snow and azure sky alone are present.

The objects of cultivation to supply the daily wants of the natives, and meet the demands of commerce, illustrate by their diversity the bounty of nature in supplying vast tracts of deep black vegetable soil, with the other conditions of seasonal rains and a high temperature to render it prolific. They include rice, the staple food, with other cereals; the sugar-cane, cotton plant, mulberry-tree for the silkworm, poppy for opium, tobacco, indigo, coffee, and cinnamon; various medicinal shrubs, and flowering-plants for perfumes; with an immense variety of fruits, among which the pine-apple, custard-apple, pomegranate, plantain, guava, melon, mango, banana, and cocoa-nut are the most common. Several of these are known ancient products of Indian agriculture. The Greeks of Alexander's expedition noticed that garments of fine cotton were ordinarily worn by the great men of the country, either wrapped round the shoulders, or enveloping the head as turbans. The general food, pillaus made of rice, attracted attention, as well as the mode of planting the rice in water, with the distillation of a strong spirit from it, the arrack of the natives. They remarked also the sugar, calling it honey, made from canes, without the assistance of bees. We have the word 'sugar' from its Sanscrit name *sukkhar*, as also 'sugar-candy' from *sukkhar kund*. In our own time the objects of culture have been increased by the growth of tea on the southern face of the Himalaya, with a success which has changed the aspect of entire districts, and is likely to convert a belt of country

along the whole range into a large tea-plantation. The plant there occurs in the wild state, and was noticed in Nepal as far back as the year 1816, but was pronounced by some to be a camellia. It is probably the parent stock of all the varieties raised in the old tea-producing districts, China and Japan, since the wild shrub is not known in either of those countries. More recently, the Peruvian bark trees have been introduced, in order to secure a supply of quinine independent of South America, where the woods are in danger of being totally destroyed by the ruthless habits of the natives. The plantations, on the Neilgherry Hills, succeed perfectly; and the bark thus artificially grown is found to contain precisely the same alkaloids as the natural produce on the slopes of the Andes.

The fauna, like the flora, is distinguished by a great number of species, and the profusion of individuals. It includes also a remarkable proportion of animals of large size, and of the dangerous class. The elephant roams wild, but is very generally domesticated, carrying rajahs on state occasions, and obediently drudging in the service of the humblest menials. The rhinoceros is found in the secluded forests of Bengal; the lion occurs chiefly in the north-western provinces, Rajpootana and Guzerat; the tiger is general, from the jungles of the lowest levels up to the region of the snows and glaciers. Leopards, panthers, bears, hyenas, wolves, lynxes, and jackals are the more ordinary beasts of prey. The wild ass, shy and fleet, inhabits the great sandy desert, with varieties of antelopes; and the camel is there the usual beast of burden, an office which the ox performs elsewhere. Monkeys abound everywhere, being held in religious respect by the natives, a distinction enjoyed also by the buffalo, wild and tame. The goat of Cashmere, a variety of the common species, but chiefly in the adjoining highlands, is renowned for its very long, fine, and silky hair, of which the high-priced shawls are made. Reptiles comprise the poisonous cobra da capello, or black-hooded snake, the formidable python in the woods, and the gavial, or Gangetic crocodile. The birds, many of which are noted for splendid plumage or curious habits, are extremely numerous. The argala, commonly called the adjutant, is one of the most useful, and enjoys protection as a scavenger, visiting the towns on the look-out for offal, in the absence of snakes and lizards; this bird, a kind of heron, with very long legs, is full five feet high; and stands like a sentinel on the watch for prey, furnished with an enormous bill and a voracious appetite, quite competent to make a mouthful of a stray cat or a leg of mutton, if the chance is afforded. Insect life is intensely developed as a consequence of the profuse vegetation, and includes myriads of the annoying or destructive class, such as locusts, white ants, and mosquitoes; the butterflies display the most gorgeous colours and forms.

From the earliest historic date India has been renowned for its mineral wealth, but entirely in relation to the possession of gold and gems. The precious metal occurs in a state of minute diffusion in many alluvial soils and in the sands of many rivers; and some richly-auriferous reefs of quartz rock are known. Precious stones of great beauty and variety are also occasionally found, as diamonds, rubies, amethysts, chrysolites, the topaz, beryl, and many others. But these valuables, while they excited the cupidity of orientals and westerns, in ancient and modern times, are of inferior importance as regards public prosperity in comparison with homelier products, the useful metals and coal. Both iron and copper ores appear to be abundant along the base of the Himalaya. Iron of the finest quality is widely diffused, as well as lead. Rock-salt is plentiful in the Punjab. Coal is obtained in seven different localities, but the only field of importance at present known is the Burdwan, in the lower part of the valley of the Ganges. No field has yet been discovered in the North-West Provinces, or in Oude, the Punjab, or the Presidencies of Bombay and Madras, where it will be prudential to conserve the forests in the absence of native fossil fuel. But it is

not unlikely that the geological survey of the country, now in progress, will develop within its limits a coal-producing power in some degree commensurate with its area, and adequate to the supply of its wants. The annual consumption at present, chiefly in manufactures and by vessels leaving the ports, may be estimated at 800,000 tons, towards which India contributes rather more than one-half, and the remainder is sent out from England.

The climate generally is distinguished by three well-marked seasons, the cool, the hot, and the rainy, which divide the year. The cool season extends from October till towards the close of February; the dry hot season follows, and continues till the beginning of June; the great rainy season succeeds, and lasts with occasional intermissions till October. But during the cool period the heat is still great by day, though slight frosts occur in the elevated districts for an hour or two before sunrise, and a thin ice is formed. The greatest heat prevails on the lowlands of the Coromandel and Malabar coasts, and through the north-western sandy region. At Bombay the mean annual temperature is 84°; at Madras, 83°; at Calcutta, 79°; and at Delhi, 72°. The monsoon winds are the peculiar features of the climate, but are common to the neighbouring regions from Africa to the Malay peninsula. They blow periodically from the south-west and north-east, maintain the same direction for nearly half the year, and regularly succeed each other. The south-west monsoon commences about the middle of April, but later from south to north, and continues till September. It brings on the great rainy season to the Malabar coast and the Gangetic plain, owing to the masses of vapour blown up from the ocean being arrested by the Western Ghauts and the Himalaya Mountains. The showers descend in deluges, and commence with violent thunder-storms. The north-east monsoon follows with less decided features, and brings a rainy season to the Coromandel coast, usually lasting about two months. At different stations the rain-fall varies greatly in its amount. In the valley of the Ganges it does not differ much from that of Great Britain, being 64 inches annually at Calcutta, 41 at Benares, 27 at Allahabad, 20 at Delhi, and 32 inches at Meerut. But the quantity in other situations is enormous, amounting at Darjeeling, among the sub-Himalayas, to 122 inches, and at Mahabaleshwar, a sanitarium connected with Bombay, to 250 inches. Among the Cossya Hills, in the valley of the Brahmaputra, but beyond the bounds of India Proper, the annual fall is ascertained to be 610 inches, equal to fifty feet!

The political divisions of this great region, though extremely numerous and complex, may be arranged in five main sections: 1. The British Territory under the direct government of the Crown; 2. Protected or Tributary States, which have native rulers, but are entirely subject to British control; 3. Independent States; 4. French and Portuguese Possessions; 5. The island of Ceylon, a separate colony of Great Britain. The territory subject to direct British rule embraces considerably more than half the entire area of the country. It is distributed into the three Presidencies of Bengal, Bombay, and Madras, each of which is under a governor appointed by the Crown, whose supreme representative is the governor of Bengal, with the style of Viceroy. Each presidency has a certain number of the Protected States attached to it for purposes of superintendence; and hence the first and second of the sections may be merged in one grand division, constituting BRITISH INDIA, which comprehends the whole region from Cape Comorin to the cyclopean walls of the Himalaya, with the exception of the comparatively insignificant tracts which are independent, or held by the French and Portuguese.

The modern history of India commences with the Mohammedan conquest under Mahmoud of Ghizni in 1001, who permanently established the profession of that faith in the country. After the extinction of his dynasty three Mongol invasions occurred, followed by the inroad of Timur in 1397. Baber, the fifth in descent from him, appeared as an invader in 1525, established himself upon the throne of Delhi, and founded

the empire of the Great Moguls. It attained great power and splendour under a few vigorous sovereigns, to whom succeeded princes who abandoned themselves to a life of indolence and luxury in their palaces. Meanwhile, western commercialists, Portuguese and Dutch, made their appearance in the land, and the English, represented by the East India Company, who founded their first settlement at Madras in 1639. This body, powerful as it afterwards became, held its first meetings in the room of an obscure inn, opposite to Bishopgate Church, London. In the early stages of its history, while proprietors at home amassed wealth, their agents abroad were confined to the precincts of a factory or fort, where they were viewed as pedlers trading on sufferance, obliged to approach the native princes with lowly salaams. But circumstances rapidly changed after the middle of the last century, when Lord Clive drew the sword in the service of the merchants, followed by Coote, Cornwallis, and others. Showers of prize-money from the sack of treasuries ensued upon conquest; vast sums were obtained in the shape of indemnifications; an untold amount of 'barbaric pearl and gold' was accepted from frightened rajahs as the price of amicable relations; and at length the original foreign tenants of a few acres became lords of the soil over more than 1,000,000 of square miles. Grievous wrongs were unquestionably committed, and with little scruple too by the corporate body. The British government, in 1773, identified itself with the Company, and appointed the first governor-general, Warren Hastings. In 1833 its commercial monopoly terminated, and the trade to India was thrown open. In 1857-1858 the Indian mutiny, a rebellion of the native troops, occurred, upon the suppression of which the political existence of the Company terminated, by the administration of affairs being transferred to the Queen, now practically Empress of Hindustan.

I. PRESIDENCY OF BENGAL AND ITS DEPENDENCIES.

The Bengal Presidency, with the dependent states attached to it, embraces nearly the whole northern and central region of the country. The following are the main divisions :

	General Divisions.	Cities and Towns.
Presidency Proper.	The Lower Provinces,	Calcutta, Serampore, Murshedabad, Patna.
" "	The North-West Provinces,	Agra, Cawnpore, Allahabad, Benares, Delhi.
" "	Oude,	Lucknow, Fyzabad, Oude.
" "	The Punjab,	Lahore, Umritsir, Mooltan, Peshawur, Attock.
" "	Nagpur, or Berar,	Nagpur, Chanda.
Attached Dependencies.	Hydrabad Territory,	Hydrabad, Secunderabad, Aurungabad.
" "	Holkar's and Scindia's Dominions,	Indore, Mhow, Gwalior, Jhansi, Oojein.
" "	Territory of Dhar and Bhopal, &c.,	Dhar, Bhopal, Bhurtpoor.
" "	Bundelcund States and Rewah, . .	Band, Callinger, Rewah.
" "	Rajpootana,	Jhodpore, Kotah, Boundee, Jeypur.
" "	Bahawalpore,	Bahawalpore.
" "	Small Sikh States,	Puttiala, Sirhind, Belaspur.

THE LOWER PROVINCES are so called from being situated on the lower course of the Ganges. They consist of Bengal Proper, which embraces the delta of the river, and of the district of Behar, higher up the stream. A large portion of Orissa is also included, extending southward along the coast to the Chilka Lake, a shallow expanse separated from the sea by low ridges of sand, which forms the northern border of the Madras presidency. Noble water-courses intersect Bengal. The most commercially important, the Hooghly, is formed by the junction of two arms of the Ganges, and is ascended to Calcutta by the finest merchantmen in the world. During the south-west monsoon, it remarkably displays the phenomenon known as the Bore, caused by the impetuosity with which the tidal wave enters the estuary. Upon reaching the more confined part of the channel, the water accumulates in a ridge from five to eight feet in height, and the liquid wall rushes up violently at the rate of twenty miles an hour. Ships often part their cables. Small-craft make for the deep centre of the stream, where the wave does not curl and break over. Both in the dry and in the rainy season the banks of all the rivers are richly verdant, displaying the gracefully drooping bamboo, and the magnolia with its flowers, while the babool fills the air with its fragrant perfume. The luxuriant foliage of a tree, and the welcome shade it offered to a travelling party of commercialists, led to the

establishment of a factory at the spot, which has now grown up into Calcutta. Periodically, towards the close of July, the rivers are in flood, and more or less overflow. A vast portion of the delta of the Ganges is then a sheet of water, interspersed with villages and trees, among which are craft of every description. Rice is the product most extensively cultivated, but large quantities of sugar, cotton, indigo, tobacco, and opium are raised. The more maritime portion of the Orissa province is low and sterile. Hills rise in the interior covered with dense bamboo and other jungle, inhabited by the wild tribes of the Khonds, among whom, after the abominable rite of Sutte had been suppressed, and Thuggism hunted down, the practice of infanticide and of human sacrifice was found to exist. The discovery of these crimes was made in the year 1836. Owing to a silly



View from the summit of Pierre-pahar, near Monghyr, looking towards Jumalpoore.

superstition, every female infant was stifled at birth, and women were imported from abroad. It was quite common, with the view of securing a favourable crop and averting calamity, to obtain a victim by kidnapping, an adult being preferred, and propitiate the earth-god by a public barbarous immolation. All the energy of the British government was at once exerted to put an end to these horrors. No less than 1506 victims had been rescued by the year 1854, when it was believed that the abolition of the frightful practice had been secured.

Calcutta, the capital of Bengal and of British India, is situated on the east bank of the Hooghly, about 100 miles from the sea, in latitude $22^{\circ} 35'$ north, longitude $88^{\circ} 30'$ east, and is supposed to contain nearly 500,000 inhabitants, chiefly Hindus, but with a considerable number of other Asiatics and Europeans. The river, about half a mile broad, has well-wooded banks on both sides, which shut out the view of the city on ascending the stream, till the steamer approaches its anchorage, when the prospect is magnificent. Fort William is seen on the margin, constructed by Lord Clive, capable of containing a garrison of 15,000, with 619

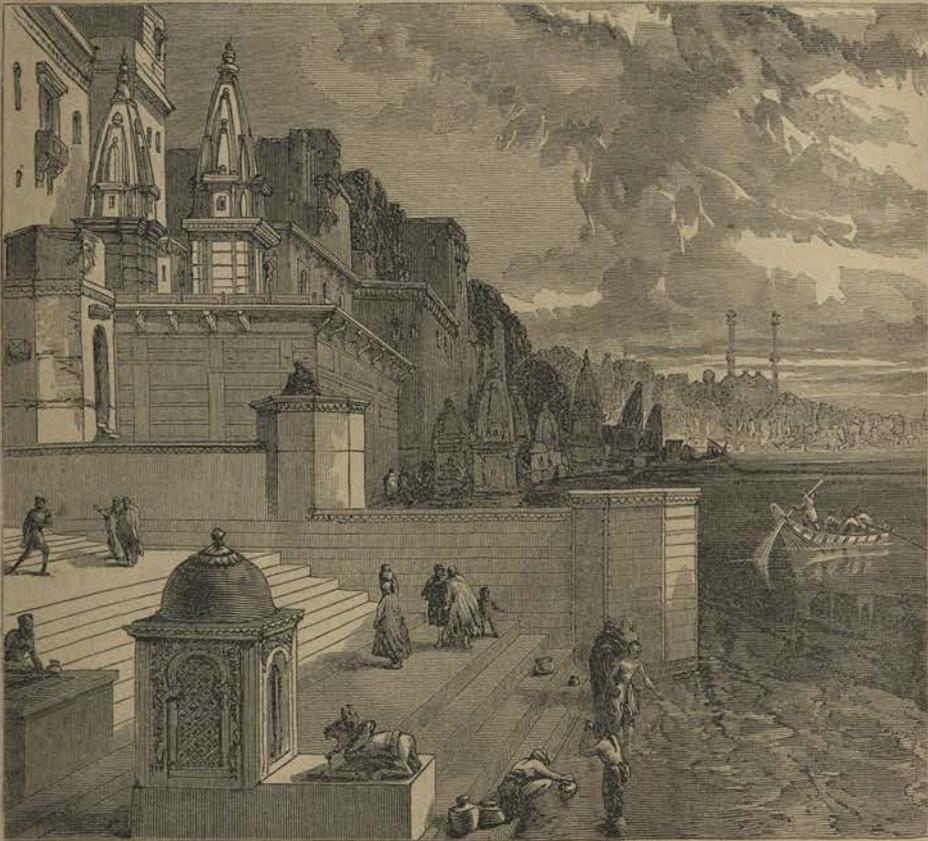
guns and 80,000 stand of arms. Northward, beyond the esplanade, is the Government House, a splendid pile. Eastward, is the quarter occupied by European and native merchants, with its Wellesley Street and Hastings Place, lined with stately residences, worthy of the title of the 'City of Palaces.' But a far larger portion, forming the native or 'black town,' is repulsive from its filth and noise. The public institutions are numerous, and the commerce immense. Ice and pale ale figure largely among the imports. The ice arrives in large blocks from America. Yachting, horse-racing, wild-boar hunting, antelope coursing with the cheetah or hunting leopard, and bustard shooting are the amusements of the Europeans. On the opposite side of the river, the suburb of Howrah is rapidly becoming a large town. It contains the Custom House, through which merchandise of the value of £20,000,000 passes annually; and also the East Indian Railway Station, a line nearly open throughout to Delhi, a distance of 900 miles. The name of Calcutta is compounded of *Kali*, that of a goddess, and *cuttah*, 'a temple,' once at the spot. The first English factory was established at the site in the year 1690, by permission of the reigning Mogul emperor Aurungzebe. In 1756 it was taken by Suraja Dowla, a Bengal prince, who caused 146 of its defenders to be confined in a small close dungeon, which acquired the name of the Black Hole, for only twenty-three survived till the morning. *Serampore*, a short distance higher up the river, on the west bank, is a small beautiful town with a well-known name, as a mission station of the Baptists, from which many translations of the Scriptures into the languages of India have issued. It was a possession of the Danes down to the year 1845, when it was purchased from them for £120,000. *Barrackpore*, opposite, with a military cantonment, is the country-seat of the viceroy. The park, which offers a pleasant display of turf, tree, and flowering shrub, contains the remains of Lady Canning, interred there by her own request. *Plassy*, eighty miles north of Calcutta, a small place, is memorable as the scene of Clive's decisive victory in 1757, which established British supremacy in Bengal. *Murshedabad*, further north, a large but unhealthy native town, contains 147,000 inhabitants, who produce silks, carpets, and embroidery. *Monghyr*, the capital of a district of the same name, with a population of 800,000, carries on extensive manufactures of firearms and hardware of an inferior quality. *Dacca*, on a branch of the Brahmaputra, has a reduced population of 60,000, and is rapidly becoming a heap of ruins. It was formerly the principal seat of the native muslin manufacture, and of light cotton fabrics, industries still carried on by a race of patient weavers.

The East Indian Railway, which runs up the valley of the Ganges, with its continuations in the Punjab, will have a total length of 1364 miles. A short branch from the grand trunk in the Bengal division runs from Burdwan to the most important of the coal-fields at Ranigunje, and brings down its produce to Calcutta, distant 121 miles. The whole of this district formerly swarmed with bears, which have been largely driven away by the cutting down of the jungle. There are about thirty collieries, with as many steam-engines at work. Men and women belonging to a tribe native to the locality are chiefly employed. The pits descend to the depth of 134 feet, and pass under the bed of the river Damuda, which joins the estuary of the Hooghly. The coal-bearing strata consists of beds of coal and iron ore, with limestone suitable for flux, and hard sandstone for building purposes. The field is supposed to extend over an area of 500 square miles.

Patna, the chief town in the province of Bahar, is an immense assemblage of mud huts, with 280,000 inhabitants, on the south bank of the Ganges, a great emporium of the trade in rice, opium, indigo, saltpetre, sugar, and other products. *Gaya*, a town on the south, is a noted place of pilgrimage on account of its connection with Siddhartha, known in Indian history as Buddha, the founder of the Buddhist religion, either as his birthplace, or the scene of his ascetic life. Modern inquirers deem his existence as certain as that of Confucius or Socrates, and agree in fixing his death about 543 B.C. *Juggernaut*, a town on the coast of Orissa, is another great place of pilgrimage, on account of the temple of Vishnu, one of the objects of Hindu idolatry, at the spot.

THE NORTH-WEST PROVINCES extend along the middle and upper course of the Ganges, include the country between it and its affluent the Jumna, called the Do-ab, or 'two rivers,' and embrace also some high grounds towards the Himalayan border. They consist, from south to north, of the districts of Benares, Allahabad, Agra, Delhi, Meerut, and Rohilcund, which form a lieutenant-governorship. Through the whole of this region the soil is much less damp than in Bengal, and there are large tracts of sandy surface in the northern portion, while the two rivers are of little avail for irrigation, owing to the depth of their channels. Hence any deficiency in the seasonal rains is a calamity to the crops, and occasionally the people have severely felt the scourge of famine. The Mogul emperors caused canals to be constructed to promote the water supply, but their works were inadequate at the best, and speedily became unserviceable from neglect. The same object, with more convenient navigation also in view than that afforded by the fluctuating streams, is now contemplated by the great Ganges Canal, opened in 1854, but not completed. This stupendous undertaking commences at Hurdwar, near the issue of the

river from the mountains, extends through the country on the right bank, and has numerous branches, one of which returns to the channel again at Cawnpore, while another communicates with the Jumna. The total length measures 810 miles, of which 350 miles belong to the grand trunk, and 460 miles to the offsets. In the upper part of its course, the canal is carried over the river Solani by one of the most magnificent aqueducts in the world, consisting of an earthen embankment about three miles long, protected throughout with walls of masonry, and of a bridge of fifteen arches, each of fifty feet span. Owing to the general aridity of the surface, it becomes parched, brown, and grassless in the dry months, while Bengal remains green as an emerald. The temperature



Benares.

forms another point of difference. It takes a wider range, being intolerably high during the hot winds of May and June, while sharp night-frosts occur in January, though the thermometer may mark great heat at midday. But in the appearance of the cities, the North-West Provinces have the decided advantage. They are largely built of stone, while those of Bengal are masses of soft brick and plaster, to which the heavy periodical rains speedily give an unsightly or ruinous aspect. Bright, gay colours are also worn by the inhabitants, which are more picturesque than the unvarying white clothing of the Bengali. To the vegetation of these districts the tallow-tree of China has of late years been extensively added. It grows equally well in sandy soils, on the rich mould of canals, on

low alluvial plains, and on the acclivities of mountains. From its seeds tallow and oil are procured; the leaves yield a black dye; the wood is hard and durable; and the culture is likely to be commercially worthy of attention.

Benares, a fine, large, and remarkable city, containing 186,000 inhabitants, is seated on the left or north bank of the Ganges, and occupies it for nearly three miles. The river makes a picturesque bend at the site, which gives a crescent shape to the mass of houses and temples grouped on the border. A bridge of boats crosses the channel. Such are the fluctuations of the stream, at different times of the year, that it ranges from 1400 to 3000 feet in breadth, and from 35 to 78 feet in depth. The city side is lined with ghâts, buildings erected to give bathers convenient access to the water, which are almost peculiar to the rivers of Northern India, and are specially distinctive of the sacred Ganges. They consist of several flights of steps, surmounted at the top by a roofed structure for protection from the rays of the sun, which serves as a lounging-place, and has commonly one or more little temples attached to it. 'Upon these ghâts are passed the busiest and happiest hours of a Hindu's day. Escaping from the narrow unwholesome streets, it is a luxury for him to sit upon the open steps, and taste the fresh air of the river; so that on the ghâts are concentrated the pastimes of the idler, the duties of the devout, and the necessary intercourse of business.' Many have been erected by rajahs and powerful natives as a meritorious act, and with the view also of being brought themselves in old age or sickness to expire by the side of the heaven-sprung stream.

From the water's edge the ground on which the city is built rises gradually, and is crowned at the summit by the great mosque built by the Emperor Aurungzebe, on the site of a former temple of Vishnu. The whole number of mosques is 333. Still, Benares is not Mohammedan but Hindu, and the head-quarters of Hinduism, possessing 1000 temples, large and small. It is visited, as one of the holiest places in the world, by crowds of pilgrims, many of whom are rich and aged, and who come on purpose to die within its precincts. Beggars and priests swarm, who subsist upon their offerings. Huge Brahman bulls are its other inhabitants, protected and revered as sacred animals. They freely roam the streets and bazaars, take what they like from the



Simla.

vegetable stalls, but whom they choose, and are certain of expiring only of old age, unless kidnapped by some unscrupulous Mohammedan butcher to be turned into beef for the English. These are the peculiar features of the place. It is the seat of extensive general industry, and has numerous bankers and diamond dealers. Many of this class, who have risen to great wealth, commenced life as money-changers of the humblest grade, sitting cross-legged upon old rugs in the bazaars, with piles of copper coins before them, and rupees upon their persons. This is borrowed capital generally in the first instance, upon the exchange of which for gold or notes a small commission is charged. There are two great colleges in which natives are instructed, one connected with the British government, and the other administered by the Church Missionary Society. This last is called Jay Narain's, from a rich Hindu, who inclined to Christianity, but was never baptised, and founded the institution in 1818 for the benefit of his countrymen. Benares, like all the other Anglo-Indian towns, consists of the city proper, occupied by the natives, and the station in which the English are settled. The two parts are quite distinct, and generally but at a short distance, though sometimes it amounts to two or three miles. Each station, if upon a large scale, is divided into *civil lines*, where the commissioner, judge, magistrate, with other officials reside; and into *cantonments*, furnished with barracks for the troops, hospitals, magazines, parade-grounds, and rows of white bungalows or houses for the officers, enclosed with gardens. During the great Indian mutiny most of the outbreaks commenced in the cantonments. *Mirzapur*, twenty-seven miles above Benares, on the opposite bank of the river, contains about 80,000 inhabitants, and is a great mart for cotton, and a place of extensive general commerce.

Allahabad, 'God's house,' at the confluence of the Jumna with the Ganges, another of the sacred cities of the Hindus, is resorted to annually by a host of pilgrims, as one of the *prayagas*, or holy junctions. It is a great military *dépôt*, and contains a population of 72,000. *Cawnpore*, 140 miles further up the great river, has about the same number of inhabitants, but including the cantonments, with which a large native town is associated, 108,000. The Ganges here varies, according to the season, from 500 yards to more than a mile in breadth. Though at an inconsiderable elevation above the sea, water exposed at night in shallow vessels freezes in winter, and a large quantity of ice is collected for use in the hot season. Cawnpore will be ever memorable in Anglo-Indian history as the place where Nana Sahib, after the murder of his English captives, consummated his treachery by the massacre of the women and children, when he heard of Havelock's advance from Allahabad.

Bareilly, the chief town of the old province of Rohileund, now divided into three districts, is an important site of manufactures, with more than 100,000 inhabitants, producing hardwares, carpets, cabinet-work, and embroidery. The province lies eastward of the Ganges, and embraces a sub-Himalayan region within its limits. It is bordered by the territory of Kumaon, the greater part of which is a mass of mountains and forests, where upwards of thirty peaks rise to heights varying from 18,000 to 26,000 feet. But the lower slopes have been covered in our own time with the leaves and silver blossoms of the tea-shrub, and only roads are wanted as an outlet for the produce to enable the growers to compete successfully with others in the markets of the world, their tea being of the finest quality. A district westward contains the small town and station of *Simla*, 7866 feet above the sea, with a delightfully temperate and invigorating climate, the favourite temporary residence for many years of the governors-general, and likely to become their permanent home. The place is not far from the south bank of the Sutlej, 170 miles north-east of Delhi, and 900 miles in a direct line from Calcutta.

Agra, on the west bank of the Jumna, is the seat of the lieutenant-governor, 783 miles above Calcutta, and 139 miles below Delhi. It is built of the red sandstone of the neighbouring hills, has a clean appearance, and contained previous to the mutiny a population of 70,000. As the early capital of the Mogul emperors, it retains several monuments of their magnificence, with ruins which extend far beyond the limits of the present city. Within the walls of the fortress, built by Akbar, now the British Residency, are the palace and audience-hall of Shah Jehan, and the Pearl Mosque, so called from its great beauty. Immediately without the city, on the bank of the Jumna, is the Taj-Mahal, a mausoleum which the emperor last named erected for himself and his favourite wife. This is one of the most splendid specimens of Mohammedan architecture extant. Tavernier, the traveller, who saw the work while in progress, states that 20,000 men were employed upon it for twenty-two years. The building is constructed or overlaid, outside and in, with white marble; and the sepulchral apartment is adorned with mosaic work of precious stones, especially of lapis-lazuli. The fort of Agra, more than a mile in circuit, accommodated thousands of refugees during the late rebellion, besides the usual European residents, who held it through the whole struggle, while the city itself was in the hands of the mutineers, and was sacked by them.

Delhi, the Mogul capital after Agra, stands on the right bank of the Jumna, in a sandy district studded with many remains of a more extensive city, the precursor of the present, which was chiefly built by Shah Jehan, subsequent to the year 1631. It remained the residence of his feeble descendants, as the titular sovereigns, pensioned by the British, down to the time of the late revolt. Upon its suppression, the representative of the Great Moguls was transported beyond seas as a felon, for his share in the mutiny and massacre. The city, after being for several months in the hands of the insurgents, was taken by storm in September 1857. It is surrounded by walls, contains the imperial palace, close to the river, now shattered, with many mosques, among which the Jumna Masjid, a royal foundation, is conspicuous. The population numbered 160,000 prior to the disturbances, engaged with the production of cotton cloths, shawls, jewellery, and other manufactures. In the vicinity a handsome Saracenic structure marks the grave of Humayun, the

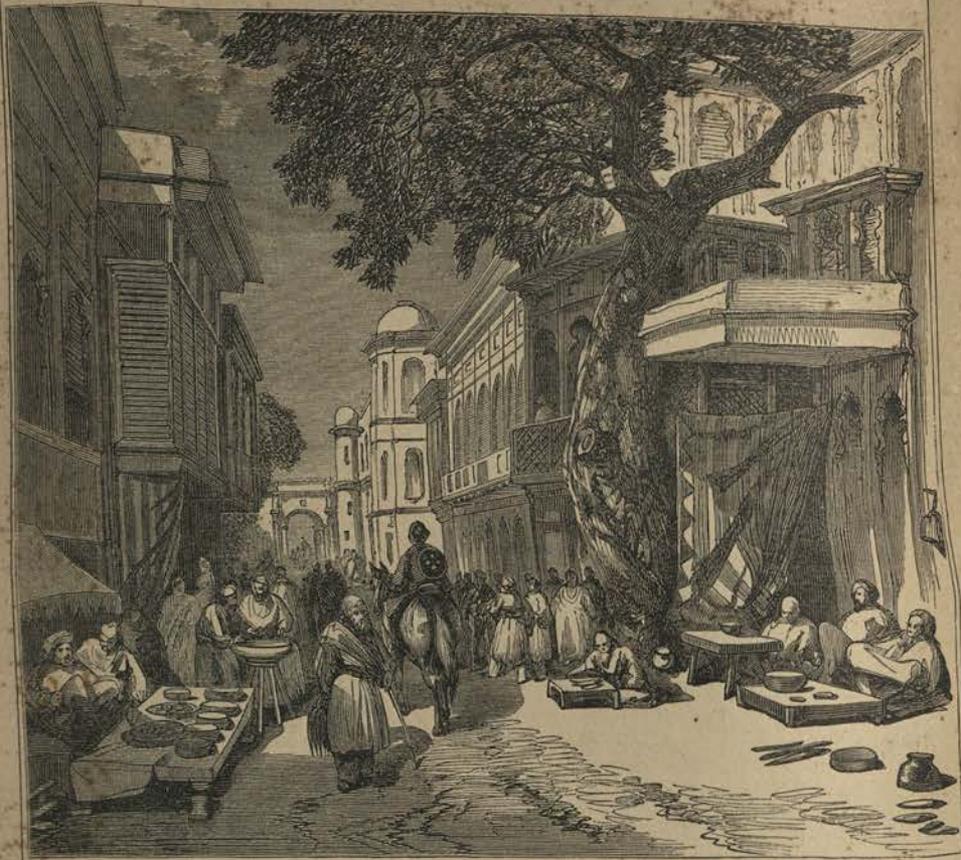
second of the Mogul emperors, and father of the celebrated Akbar. A graceful circular tower, the work of an unknown designer, called the *Cuttub Minar*, rising to the height of 265 feet, is also a prominent object.

Meerut, 32 miles north-east of Delhi, is a chief military station, and the head of a district, with 29,000 inhabitants. It was considered one of the most agreeable and cheerful residences in India, when an unhappy notoriety was acquired. At this place, after a few premonitory symptoms of rebellion in other quarters, the first terrible outbreak occurred, on the 10th of May 1857, when the native troops shot their officers, and the station was surrendered to bloodshed and desolation. *Hardwar*, close to the emergence of the Ganges from the mountains, on the right or west bank of the river, is deemed from its position one of the most sacred sites on the stream, and changes its aspect remarkably by an annual influx of visitors under the twofold influence of religion and trade. At the end of March and the beginning of April a great fair is held; and this being accounted the season most proper for ablutions, there is a prodigious gathering of pilgrims, merchants, pedlars, and beggars from a wide area of Asia. The ordinary attendance averages from 200,000 to 300,000. But every twelfth year, when a particular festival is held, the number is said to mount up to 2,000,000. The merchandise collected is of the most varied description, embracing the products of European and Asiatic industry; and a vast number of animals are brought both for sale and exhibition.

Cawnpore, a district of the Doab, occupying its entire breadth, touching at once on the Ganges at the city of the same name and the *Jumna* at *Culpee*. Besides these two mighty rivers and their tributaries, it is traversed by the Ganges Canal for about sixty miles, through alluvial plains of great fertility, where the vine is cultivated and the indigo grows wild. The city is on the right bank of the Ganges, about 140 miles above Allahabad, with a population of about 50,000 in the city, and a similar number connected with the cantonments; the whole population of the district is estimated at a million.



Bridge between the Palace and Selimghur, Delhi.



Chandy Chouk or Bazaar, Lucknow.

ODE, a territory included between the middle course of the Ganges and the high mountain region of Nepaul, is well watered with affluents of the river derived from the highland border. It smiles with refreshing verdure in every season through the greater part of its extent like Bengal, and forms one of the gardens of India. Though not without brown and dreary tracts, yet day after day the traveller may pass through park-like scenery, and repose in the shade afforded by the wide-spreading branches of mango-trees, screened from the burning sun. This fine district was a province of the Mogul empire, long under the government of lieutenants with the title of Subahdar, then with the style of Nawáb Wuzeer, with which we are familiar in the slightly-altered form of Nabob, formerly applied to all Englishmen who returned from India with long full purses and sallow complexions. The lieutenants assumed the name and state of kings, abandoned themselves to misrule, selfish luxury, and outrageous licentiousness, became dependents on British influence, till the last was deposed by the Marquis Dalhousie in 1847, and his country absorbed in British India.

Lucknow, the capital, 53 miles north-east of Cawnpore, is situated on the Gumti, an affluent of the Ganges, surrounded by a belt of fine wood-land country, and contains a population of 300,000. The city is spread over an immense space of ground, and is as purely Mohammedan in its aspect as Benares is Hindu. No pagoda-shaped spires meet the eye in the distant view, but minarets, domes, and other outward

expressions of Islam. It is remarkable for the size of its palaces, which are of a light and elegant, but fantastic style of architecture, and of extremely showy appearance. Each sovereign seems to have shared the absurd passion common to oriental potentates of perpetuating his name by some building larger and costlier than any precursor. The Kaiserbagh, erected by the last king, is an enormous mass of stucco, longer than the palace of Versailles, and consists of many courts, with gardens, basins, fountains, water-courses, now dry, silent, and useless. 'Let us mount some good height,' says a visitor, 'and look down upon Lucknow, which has been created by the Nawábs and kings. It is of immense size, as large as Paris, and also, like Paris, of fairy-like beauty, spreading itself out mainly on the right bank of the Gunti, but with a few striking buildings on the left. From the midst of a mass of green trees of glorious foliage, rise domes, towers, and minarets; some white, some golden, some painted in many colours, gleaming in the setting sun, and displaying a light vision of oriental splendour. But our impression of the magnificence of Lucknow was diminished, when we got into a carriage, and made a closer investigation of the actual buildings, for they are deficient in strength, solidity, reality: brick, plaster, and other gimerack materials take the place of stone and marble; they are the work, not of the great days of Akbar and Shah Jehan, but of a degraded and effete dynasty, who had no thought beyond the selfish shams which would most conduce to present splendour and self-indulgence. Their style is generally bad, a mixture of French, Italian, and Turkish; but they are redeemed by their fine position, their admirable grouping, their size, their number, and their variety.' The siege of the British Residency by a swarm of rebels in 1857, the unconquerable energy displayed by the garrison through three months of hope deferred, the first relief by Havelock and Outram, the renewed siege of the victorious army, and the final deliverance by Lord Clyde in 1858, clouded by the death of Havelock, are memorable passages in the story of the Indian mutiny. The city has since been much improved, by the removal of useless buildings, the construction of good streets, lined with bazaars, English built, but in the true eastern style, while a wise statesmanship has been displayed in opening posts of honour and influence to the natives, and training them to independent action. *Oude*, the ancient capital, from which the country took its name, is now utterly decayed, but the site is revered by the Hindus from its being the residence of the famous Ráma of pre-Christian times. *Fyzabad*, the second capital, though still retaining a considerable population, is said to be rapidly declining.

The PUNJAB, or country of the 'five rivers,' is a large north-western district, formerly the kingdom of the Sikhs, from whom it was wrested after severely-contested battles in the course of a provoked struggle, and annexed to the Anglo-Indian Empire in the year 1849. The name refers to the number of principal streams by which it is watered, all descending from the boundary mountains of the Himalaya, and following a south-westerly direction to the great current of the Indus. These affluents, enumerated from north to south, are the Jhelum, the Chenab, the Ravi, the Beas, and the Sutlej, which successively represent the *Hydaspes*, the *Acesines*, the *Hydraotes*, the *Hyphasis*, and the *Hesudrus* of ancient geography. The first and second unite; the third flows into the joint stream; the fourth and fifth blend their waters; and then merge in the common channel of the other three, which, under the name of the Ghara, enters the grand trunk of the Indus. The country intersected by these rivers was traversed by Alexander the Great; but the Sutlej, the southernmost, was the limit of his extraordinary advance. A district not naturally part of the Punjab is incorporated with the province, lying west of the Indus, and formerly included in the kingdom of Cabul. The surface embraces large tracts of sand and clay, but though not so fertile generally as the basin of the Ganges, the soil is highly productive on the borders of the rivers. A wavy ridge of hills between the Indus and the Jhelum is distinguished as the Salt Range from the abundance of the mineral. This last-named stream, the 'cedar-fringed Hydaspes,' deserves the epithet in the upper part of its course, where it breaks from the Himalayan valley of Cashmere, through one of the grandest defiles in the world. The bed is a succession of rapids and a mass of foam, offering a fine contrast to the dense forests and thick undergrowth of jungle clothing the banks, from the edge of the water to a high elevation. Oaks, pines, and the gigantic deodar or cedar are prominent up to 11,500 feet, above which a low bushy juniper is the chief variety of tree foliage met with. These forests supply the Punjab with timber; and furnished the materials for the fleet of Alexander, which were floated down the river to the spot where the vessels

were built. The historian states that, in felling the timber, troops of monkeys and baboons were disturbed in their haunts, and congregated on the summit of a hill, which the workmen mistook from a distance for a detachment of hostile natives.

Lahore, the chief city, stands on the left bank of the Ravi, the central one of the five rivers, and contains about 100,000 inhabitants. It is surrounded by a brick wall seven miles in circuit, which encloses magnificent gardens and numerous wells. The place has no prominent feature besides the citadel. It was one of the favourite residences of the Mogul emperors, under whom it is said to have contained 1,000,000 inhabitants, and it is surrounded for several miles with extensive ruins. At the close of the last century it became the capital of the Sikhs, under Runjeet Singh, but declined upon his court being established at *Umritsir*. This town, thirty-two miles east of Lahore, and connected with that city by rail, is more wealthy and commercial, possesses manufactures of cottons, silks, and fine shawls, carries on a great transit trade with Central Asia, and contains 90,000 inhabitants. It is the head-quarters of the Sikh religion, but the inhabitants are mostly Hindus or Mohammedans. *Ferozapore*, south of the Sutlej, ancient and once ruinous, has been renovated under British rule; possesses convenient streets and bazaars; and is an important military station. It contains a monumental church in memory of the officers and privates who fell in the course of the Sikh campaigns. The fiercely-disputed battles of Ferozeshah, Moodkee, Sohraon, and Aliwal were fought in the adjoining country; and northward, between the Chenab and the Jhelum, the decisive victories of Gujerat and Chillianwallah were gained, all named after the nearest towns or villages. *Jhelum*, a British cantonment on the north bank of that river, marks the site of Bucephalia, the city which Alexander founded in honour of his celebrated charger. Many interesting relics have been found in the vicinity. The steed died of fatigue or wounds received in the action with the native prince, Porus, the scene of which is fixed, according to recent surveys, where the Jhelum debouches from the mountains into the plains. The river there flows through a rocky bed, which has so little changed its aspect that the description given of the site by the Greek historian Arrian and present features correspond almost minutely.

Mooltan, near the left bank of the Chenab, in a south-western district, is the third city of the Punjab in population, having 80,000 inhabitants. It formerly possessed a strong fortress, taken by the British after an obstinate defence in 1849. The name is a corruption of *Malli-than*, 'place of the Malli,' in local use at present, referring to an ancient people through whose territory Alexander marched on leaving the country. The tribe assumed a hostile attitude, and military preparations were necessary to secure a passage. In the neighbourhood an officer killed the largest snake which the Greeks saw in India, a python, twenty-four feet long. It is remarkable that the tiger was not seen by them, though the skin of one was shewn, and many reports were heard of the ferocity of the animal. *Peshawur*, on the north-west, in the trans-Indus region, is an important frontier town towards Afghanistan, containing a population of nearly 60,000. It stands a few miles south of the river Cabul, and east of the great Khyber Pass. The grand trunk road from Calcutta, broad, and excellently constructed, extending through a distance of 1400 miles, has here its northern terminus. Between Peshawur and Lahore, 264 miles, 'it passes upon 103 great bridges, and 459 smaller ones, penetrates the height of six mountainous chains, and crosses on immense embankments the *morais* of two great rivers.' *Atak* (or *Attock*), a fort, with an adjoining mean small town, is situated on the left bank of the Indus, nearly opposite the entrance of the river Cabul, and marks the site where the great stream has been crossed for ages by invading armies. It was here passed by Alexander in the spring of the year 326 B.C., as also by Timur in 1398 A.D., Nadir Shah in 1738, and Runjeet Singh in his Afghan wars, who maintained constantly a fleet of thirty-seven boats, ready to be thrown across when required by his troops. The river is contracted at this point to a breadth of not more than 260 yards before its periodical rise. The current is then strong, but not tumultuous, the water very deep, and of an azure-blue colour, while the rocks which confine it are black, and polished like marble by the action of the stream. *Kalabagh*, lower down on the opposite bank, presents an extraordinary spectacle. The Indus cuts through the Salt Range for about two miles, and is bounded on each side by steep cliffs. The town is built up on their face, street rising above street in terraces, connected by steps. Brine springs issue from the base of the rocks, and incrust the ground. These incrustations are brilliantly white, while the general colour of the earth around is almost a blood red, and the river is blue, or of a dusky yellow, according to the season. *Murri*, the principal sanitarium in the Punjab, is pleasantly seated on a hill of the sub-Himalayas, at the height of more than 5000 feet above the sea. It was established in 1851, and has attracted a considerable population. The lieutenant-governor, most of the higher officials, and numbers of the military, resort to it in the hot season. The scenery is very beautiful, and the wild-flowers in the spring are lovely, especially the roses, which, after a shower, fill the air with their perfume. There are barracks for the reception of invalid troops, a neat English church, besides a chapel for the use of the soldiers. A reading-room, club, and ball-room are among the other appointments of the place, with archery, picnic, croquet parties, and bear shooting in the adjoining Black Forest, for the amusements. The Lawrence Asylum, for the children of the European soldiers in India, founded in honour of the lamented Sir H. Lawrence, who fell at Lucknow, is built on a spur of the hill on which Murri stands.

The territory of **NAGPUR**, an extensive province of Central India, is almost wholly within the plateau of the Deccan, and generally level, except on the northern side, which is penetrated by spurs of the Vindhya Mountains. The upper course of the Mahanadi

lies within its limits, but the chief part of the drainage is carried off by an affluent of the Godavari, and conducted by both channels to the Bay of Bengal. A considerable proportion of the surface on the south-east, covered with the densest jungle, the haunt of numerous tigers, is occupied by an aboriginal race, the Khonds, before mentioned, addicted to human sacrifice, as a propitiatory rite. The small adjoining district of BERAR, on the western side, is watered by a tributary of the Tapti, flowing to the opposite sea-board. It raises a large amount of cotton, and has railway communication with Bombay, either wholly completed or nearly so, for its transport to the coast. The SAGAR and NERBUDDA territory, on the north of Nagpur, extends partly along the upper course of the river Nerbudda, in the valley of which there are workable coal-fields, and belongs partly to the basin of the Ganges.

Nagpur, 'Town of Serpents,' 430 miles north-east of Bombay, is an unhealthy town of 115,000 inhabitants, with manufactures of hardwares, and various textile fabrics. The houses are mostly huts of earth, thatched with straw. *Kampti* is a large British cantonment, ten miles distant. *Ellichpur* is officially the chief town of Berar, but a smaller place than *Amrawati*, the principal dépôt for its raw cotton. *Sagar*, on an affluent of the Ganges, is a town of 50,000 inhabitants, with a fort, military cantonment, and government school. *Jabalpur*, on the Nerbudda, contains a population of 30,000, and is on the northern branch of the Great Indian Peninsular Railway, extending from Bombay to the East Indian line from Calcutta.

The territory of Nagpur was governed by native rajahs down to the year 1853, when the dynasty became extinct. That of Berar was ceded by the Nizam, as a part of his dominions, for the maintenance of his contingent. These two districts, with the Sagar and Nerbudda Territory, now form a single province governed by a British commissioner.

Dependencies of the Presidency.—The kingdom of HYDERABAD, under a native ruler called the Nizam, is the largest of the Protected States, separately considered. It embraces a central portion of the Deccan, watered by the Godavari, with its numerous tributaries, and has the Kistna flowing along the southern frontier, to which several affluents are contributed. This region contains some of the most wonderful monuments of Hindu antiquity. It is renowned for its diamonds and other gems, but has a more valuable possession in the famous black soil, so favourable to the growth of cotton, which forms a large proportion of the surface to a very considerable depth. In the last century the Nizams, in alliance with the celebrated Hyder Ali and his son Tippoo Sultan, aided by the French, exercised a dangerous influence against the British power in the peninsula, but afterwards promoted its ascendancy in the campaigns of Cornwallis and Wellesley.

Hyderabad, 'Lion's Town,' the capital, is seated on the right bank of the Mussi, a tributary of the Kistna, and contains a population of 200,000, including the suburbs. It is a Moslem city, distinguished by a mosque built after the model of the Kaaba at Mecca. Among the artisans are lapidaries noted for their skill in cutting precious stones. On the opposite side of the river, spanned by a granite bridge, stands the British Residency, a large handsome building, with apartments for state receptions hung with scarlet cloth, bordered with gold, ornamented with gorgeous chandeliers and gigantic mirrors. Each step of the grand staircase is formed of a block of the finest granite. In the days of the old Company's power and pride, on a single reception night, the lighting of the whole establishment used to cost £1000; and at entertainments, Nauch or dancing girls were commonly introduced, some of whom have been known to wear jewels of the value of £30,000. The city has been called the Sodom of India, from the beautiful gardens in the neighbourhood and the depravity of the inhabitants. A late Nizam maintained a regiment of females, accoutred as soldiers, who were paraded, and trained in all the evolutions of the men. *Sikandarabad*, four miles on the north, is a British cantonment, and chief military station. *Golconda*, seven miles westward, is simply a strong fort where the treasury of the Nizam is kept, but directly adjoins the ruins of an ancient city, once the metropolis of an independent kingdom, which was absorbed by the Mogul empire under Aurungzebe. Mausolea of the sovereigns, dome-crowned structures of gray granite, each with a mosque attached to it, are the conspicuous remains. Though proverbially famous for diamonds, Golconda was merely the place where they were cut, polished, and stored. The diamonds themselves were principally found at the base of the Nelha Malla Mountains, a part of the Eastern Ghauts. Though occasionally met with in that neighbourhood, the celebrated mines are exhausted and deserted. *Aurungabad*, 'Throne Town,' on the north-western side of the territory, has 60,000 inhabitants, but is supposed to be declining. The name is derived from Aurungzebe, 'Ornament of the Throne,' the powerful Mogul, with whom it was a favourite residence. His palace is in ruins. The tomb of his daughter remains. *Ellora*, a little rural village, twenty miles on the north, is remarkable for its rock-temples, ranged along the side of a gently-sloping crescent-shaped granite mountain,

about a mile in length, resembling a desolate religious city. Some are cave-temples, properly so called, being excavations cut in the rock, one of which, styled the Dumarheyna, or the 'Nuptial Palace,' derives its name from a sculpture supposed to represent the marriage of Siva and Parivati. The roof, 19 feet high, is supported by 23 pillars and 20 pilasters. The area is larger than that of Westminster Hall by upwards of 7000 square feet. Others are huge monolithic buildings cut out of the rock, furnished with chambers, pillars, and colossal elephants, having an advanced and rich exterior architecture. *Assaye*, a hamlet, claims notice as the scene of the decisive overthrow of the Mahratta power by Wellington (then Wellesley) in September 1803 by a very inferior force.

The principalities of **INDORE** and **GWALIOR**, respectively Holkar's and Scindia's dominions, consist of several detached tracts, partly in the valley of the river Nerbudda, but chiefly on the northern side of the adjacent Vindhya Mountains, and are ruled by the representatives of two powerful Mahratta families, with the style of Maharajah. The petty district of **DHAR**, and the territory of **BHOPAL**, are in the same part of Central India, with the **BUNDELCUND** states, thirty-two in number, and those of **REWAH**, belonging to the basin of the Jumna and the Ganges. More northerly, adjoining the province of Agra, are the small chieftainships of **DHOLPUR** and **BHURTPUR**. On the north-west, enclosed by the old province of Rohileund, is the territory of **RAMPUR**.

Indore, on the elevated plain north of the Vindhya Mountains, 2000 feet above the sea, is a modern mean-looking town of 15,000 inhabitants. The principality contains many of the Bheels, one of the most savage of the aboriginal tribes of India. Holkar, the reigning prince, educated under the direction of the British government, took the field in its support on the breaking out of the mutiny, but could render no assistance owing to the revolt of his troops, who held him in durance, while they massacred many of the Europeans. The first of the family who reigned, Mulha Rao Holkar, was a native of the Deccan, and died in 1768. *Mhow*, a small town and British cantonment, acquired some notoriety as the scene of the proceedings which led to the Crawley court-martial, belongs to this state.

Gwalior, the capital of Scindia, about 60 miles south of Agra, has a population of 50,000, grouped around a rock-fortress of remarkable strength, said to have been a stronghold for more than a thousand years. The rock rises almost perpendicularly to the height of 300 feet, and is completely isolated. The spacious summit is crowned by a citadel, which can accommodate a garrison 15,000 strong, and is provided with large tanks of water. It is hence impregnable to native troops. But their revolt during the troubles of 1857—1858 placed it in the hands of the rebels, and the rajah was compelled to fly to Agra. It became for a time the headquarters of the notorious Tantia Topce and his coadjutor, the Ranece of Jhansi, a princess of high spirit and dauntless courage. The place was recovered by Sir Hugh Rose. Upon the approach of his troops, the Ranece, with an attendant lady, both in military attire, mounted their horses and fled. Their sex being concealed, she received a shot in the side, and a sabre-cut on the head, but rode on till she fell dead from the saddle. Her guards raised a funeral pyre, and burned the body according to custom. *Jhansi*, recently the head of a small protected state, now transferred to the rule of Scindia, is a fortified town on the south of Gwalior, with considerable trade, and a large population. Upon the death of the rajah in 1853, he left a letter written to the governor-general, entreating that his adopted child might be accepted as his successor, while the Ranece might officiate as regent during the minority, according to the custom of the country. A recommendation to comply from the British agent was forwarded along with it. The appeal was rejected, upon which the disappointed woman made a vow of vengeance, and kept it. All the Europeans fell by the hands of the native troops in 1857, men, women, and children, not one being left alive to tell the story of their fate. The town was taken by storm in the following year by Sir H. Rose, after a desperate defence. Women were seen carrying ammunition to the batteries, one of which was fought under the black flag of the fakirs. The Ranece escaped by night to Gwalior. *Oojein*, or *Ujein*, an ancient capital, in a southern part of the country, contains 130,000 inhabitants, and has many mosques, mausolea, and temples, with extensive trade. It is one of the seven sacred cities of the Hindus.

Dhar, about 30 miles south-west of Indore, and 25 west of Mhow, is the chief town of a principedom not so large as the county of Durham, the interests of which have recently been the theme of speeches in the British parliament, and of sundry pamphlets. Relations remained amicable with this little state down to the year of the mutiny, when the old rajah died, and his troops joined the revolt. On this ground, his heir, a boy-prince, was set aside by the Bengal government, and the confiscation of the state decreed. The supreme home authorities, represented by Lord Stanley, reversed the decree, and directed the restoration of the prince, a youth of very good abilities, but the counter-order had not been executed in the year 1864.

Bhopal, near the northern base of the Vindhya range, is the seat of a Mohammedan government, understood to be well administered, but the mass of the people are Hindus. The Ranece controlled her subjects with remarkable sagacity during the insurrection. The town is enclosed by a decayed wall, two miles in circuit, exterior to which is a fort on a huge rock, in which the court resides. Enormous tanks are in the neighbourhood, formed apparently by the damming up and embankment of streams. The largest measures four and a half miles in one direction by one and a half in another. *Bhurtpur*, thirty-one miles on the west

of Agra, is said to contain 100,000 inhabitants, within a circuit of about eight miles, and was once strongly defended by an earthen wall and a wet ditch. The town long baffled the assaults of Lord Lake in 1805, but finally capitulated. In 1826 it was taken by storm out of the hands of a usurping chief by Lord Combermere, and the fortifications destroyed. An extensive trade is carried on in salt obtained from a neighbouring lake.

RAJPOOTANA, a region of great extent, consists of the country between the basin of the Jumna on the east and the border of Scinde on the west, and is nearly equal in size to the area of the United Kingdom. The chain of the Aravulli Hills is included within its limits, culminating in Mount Abu at the height of 5000 feet. But the vast proportion of the territory belongs to the Indian desert, with only sand-hillocks for its superficial diversities, which shift their position and change their shape under the direction of the winds, and are often seen in the dry season, when the gale blows strong, moving in huge columns over the surface. Villages of small wretched-looking huts occur at intervals, grouped in the neighbourhood of wells, from which only a scanty supply of brackish water can be obtained. The wild ass is met with, solitary and in droves, with antelopes, foxes, and the desert rat in prodigious numbers. The latter resembles the squirrel, and has the habit of sitting upright like the kangaroo. In many parts the ground is so perforated with the burrows of the animal that the surface yields to the slightest pressure, impedes progress on horseback, and distresses the steed. These features distinguish the western and northern portions of the country. In the opposite directions are productive districts, being watered by affluents of the Jumna, and streams which descend to the Gulf of Cambay. Rajpootana embraces fifteen states, in which the dominant people are the Rajpoots, 'sons of kings,' haughty and warlike, who occupy the more favoured localities; while the lower classes and the dwellers in the sandy wastes are a puny race of Jauts. BAHAWALPORE, a considerable district further north, extends along the banks of the Ghara, the river formed by the junction of the Sutlej and the Beas, with the stream of the Chenab, which is called the Ghara, thence to the Indus. This territory is mainly a continuation of the desert region, irreclaimably barren, but has a remarkably productive alluvial soil, on the borders of the rivers, on which cotton, sugar, tobacco, indigo, corn, fruits, and provisions in general are raised in large quantities. The ruler is a Mohammedan prince with the style of Khan.

Jeypore, the capital of the most populous Rajpoot state, large and regularly built, is said to be the handsomest native town in India. It forms a rectangle, has a palace and gardens in the centre, contains many mosques and temples, an arsenal, and a fully-equipped native observatory. The other principal towns are *Kotah*, on the right bank of the Chumbul, strongly fortified; *Bundi*, possessing a palace of great beauty; *Joudpore*, distinguished by an immense citadel; and *Bikanir*, of striking external appearance from being walled and battlemented, while situated in one of the dreariest parts of the desert.

Bahawalpur, a few miles from the south bank of the Ghara, is a prosperous commercial town, with manufactures of chintzes and other cottons, scarfs and turbans, and a great trade in provisions. It has a population of 20,000, and spreads over an extensive space, owing to groves of trees being intermingled with the houses. Grain, butter, fruits, and other agricultural produce, are raised in the neighbourhood for export.

II. PRESIDENCY OF BOMBAY.

The Bombay Presidency is the smallest of the three main divisions of British India, and wholly confined to the western side of the country. It has a coast-line extending from the territory of Canara on the south to beyond the mouths of the Indus on the north, including that of protected states, or from 16° to 25° of north latitude; and stretches inland from 200 to 300 miles from the sea-board. The northern half of the Western Ghauts is included within its limits, along with the lower course of four important rivers, the Indus, the Mhye, the Nerbudda, and the Tapti. Different races and languages are numerous among the population, while extensive tracts are uninhabited, covered with jungle, and tenanted by wild beasts. In this part of India the Parsees are principally found, settled in considerable numbers in most of the towns, especially on the coast.

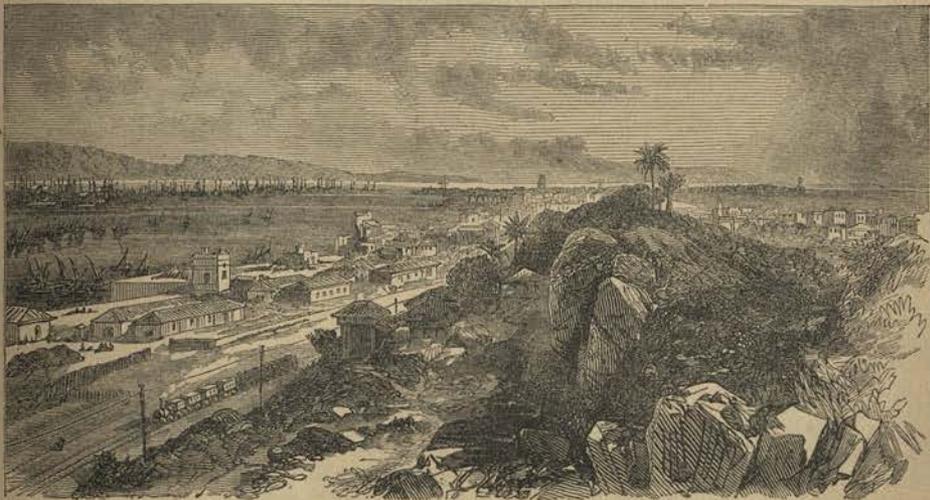
They are descended from the ancient fire-worshippers of Persia, who were driven from thence by Mohammedan intolerance; and are distinguished by their mechanical skill, mercantile habits, general probity, and unbounded munificence. Many are extensive shipowners, who have risen by their own industry to the rank of merchant-princes, and are represented by partners or agents on the Exchanges of London and Liverpool. The late Sir Jamsetjee Jeejeebhoy, the first native of India made a baronet of the United Kingdom, eminent in the annals of philanthropy, belonged to this body. Its members adhere to the religious faith and habits of their ancestors. They venerate the fiery element kept constantly burning in temples, being fed with sandal-wood; and pay adoration to the solar luminary, assembling in groups by the sea-shore at sunrise and sunset, to make prostrations and repeat prayers before the ascending and declining orb. The Parsees are far outnumbered in the presidency by the Mohammedans, while the great majority of the people are Hindus. Males preponderate over females, but not so conspicuously as in other parts of India, a disparity between the sexes occasioned partly, it is to be feared, by the practice of female infanticide.



Viaduct on the Bhor Ghaut Incline.

	General Divisions.	Cities and Towns.
Presidency Proper.	North and South Concan,	Bombay, Tannah.
" "	Districts of Punah, Ahmednuggur, &c.,	Punah, Ahmednuggur, Bijapur, Sattara.
" "	Khandesh, and part of Guzerat,	Surat, Baroche, Ahmedabad.
" "	Scinde,	Hyderabad, Tattah, Kurachee, Shikapore.
Attached Dependencies.	Guzerat States, Guicowar's Dominions,	Baroda, Cambay.
" "	Cutch,	Bhooj, Mandavi.
" "	Kolhapur,	Kolhapur.

The two CONCANS embrace the narrow strip of country between the ridge of the Ghauts and the ocean, the coast of which supplies several excellent harbours, and is begirt with small rocky islets containing monuments of ancient India—cave-temples and rock-sculptures—in close connection with those wonderful expressions of modern civilisation and commercial enterprise, railways and canals.



Bombay.

Bombay, the capital, is seated on the southern side of the island so called, a name which originated with the Portuguese, and is a compound of *bom*, 'good,' and *bahia*, 'harbour,' in allusion to the splendid anchoring ground, available for vessels of the largest class, extending over an area of fifty square miles. The island passed to the English by cession in 1661, as part of the dowry of the Infanta Catherine, the bride of Charles II, who surrendered it to the East India Company. It is connected with adjoining islets, and with the mainland by artificial causeways. At one time the site was so unhealthy that three years were reckoned the average duration of European life at the place. But the gradual recession of the ocean, the exclusion by artificial means of the tidal water, and an improved system of drainage, have rendered the surface dry, and the rate of mortality at present is said not greatly to exceed that of London. The city has rapidly enlarged since the establishment of communication with England by the Red Sea route, as the first port of India reached by outward-bound steamers, and the last left on the homeward voyage. It consists of a strongly-fortified European town, and a much larger native or black town at a little distance, with the villas of merchants on heights in the suburbs, commanding fine views of the sea and of the distant Ghauts. The total population exceeds 600,000. In the dockyard, which embraces 200 acres, and is in a high state of efficiency, frigates and line-of-battle ships are built. Ship-building is also extensively prosecuted in private yards. Engineering establishments and other factories are large and numerous. The principal exports are raw cotton, shawls, opium, coffee, pepper, ivory, and gums; the imports are chiefly cotton twist, piece goods, metals, wine, pale ale, tea, raw silk, and timber. Motley groups are to be seen walking about in the cool of the day, in their national costume, conversing in a variety of tongues, English, French, Germans, Americans, Portuguese, Chinese, Parsees, Arabs, Armenians, Hindus, Greeks, and Persians. *Bombay*, by the route of the Peninsular and Oriental Company's Steamers, is 1636 miles from Aden, 2977 miles from Suez, and 6167 miles from Southampton. The Great Indian Peninsular Railway diverges from it in two branches, north-east and south-east, to communicate with lines respectively from Calcutta and Madras. Great works have been

requisite to effect the ascent of the mountain barriers from the low sea-coast, and there are still gaps at the Bhore and the Thull Ghauts, but in process of being filled up by steep inclines. The first turf for the first railway in India was turned up at Bombay on the 31st of October 1850. In preparing the permanent ways, cobras and other deadly snakes, lurking among stones and grass, have endangered the workmen.

Picnic-parties frequently proceed from Bombay to the small and beautiful island of Elephanta, celebrated for its cave-temples, about seven miles distant from the city. The name refers to the colossal statue of an elephant cut out of the solid black rock on the acclivity of a hill, which the religious zeal of the early Portuguese led them to mutilate, and which is now a complete ruin. Three temples have been excavated, the largest of which is 130 feet long by 123 broad. Fluted columns, arranged in rows, some of which are broken, support the roof, and bulge out in the middle, as if under the weight of the superincumbent rock. From forty to fifty colossal figures appear on the sides without being quite detached from the wall. But the principal object is immediately opposite the entrance, consisting of an enormous bust with three faces, one of which fronts the spectator, while the others look to the right and left. This is a representation of Siva, to whom the temple is supposed to have been dedicated, the whole carved out of a dark-gray basaltic rock. Though still frequently visited by devotees, it has no establishment of priests, nor is any care bestowed upon its preservation from injury and decay. Brushwood and wild shrubs overhang the entrance, and pools of water collect upon the floor. Caves of similar character, but of larger size, are found in the island of Salsette, with which that of Bombay is welded by a causeway, situated in a wild country of great beauty. They contain boldly-carved colossal statues of Buddha, placed in arched recesses, and represented both standing and sitting, with his legs bent under him, and his hands joined as if in prayer. Around are jungles in which the tiger lurks, and the animal sometimes visits these deserted shrines, leaving his footprints on the floor.

The district of PUNAH, and other adjoining collectorates, with the province of SATTARA, form part of the table-land interior to the Ghauts. They enjoy a more temperate climate than the coast region, and remarkably contrast with it in being liable to droughts, while deluges of rain descend on the maritime lowlands. This arises from the high mountains intercepting the inland passage of the vapours of the south-west monsoon. The country is watered by the upper course of the Godavari, but chiefly by the Kistna and its affluents.

Punah, formerly the capital of the Mahratta Empire, is a large and important town of 75,000 inhabitants, on the south-eastern railway from Bombay, at the distance of 112 miles. It possesses a Sanscrit college, founded for the cultivation of the ancient literature of India, a government law school, an engineering and mechanical school, and is the principal military cantonment of the Deccan. Its water-works were constructed at great cost by Sir Jamssetjee Jeejeebhoy. A botanical and medicinal garden, established by the government, is at Dapuri, in the neighbourhood. It yields colocynth, croton and castor oils, senna, taraxacum, and other drugs for the use of the public hospitals. In many parts of the adjacent country the hill-forts, often mentioned in the annals of Indian warfare, are to be seen. In 1816, by the treaty of Punah, the head of the Mahratta confederacy was reduced to a state of vassalage, and in the following year he was compelled to retire into private life with an allowance of £80,000 a year. *Ahmednuggur*, seventy miles on the north-east, once the head of a native kingdom, still prosperous, preserves the mould used for casting the largest piece of brass ordnance in existence. This is shewn as one of the wonders of *Bijapur*, a deserted city on the south-east, called, from its vast and grand remains, the 'Palmyra of the Deccan.' It was the metropolis of an independent state for centuries, under Hindu and Mohammedan rulers, till it was captured by Aurungzebe in 1686, and thenceforth began to dwindle to its present condition. In the days of its prosperity it is said to have contained 100,000 dwellings, and was divided into quarters of several miles in extent. Massive and lofty walls of hewn stone remain entire. They enclose temples, tombs, palaces, and mosques, abandoned to silence, more or less ruinous, but now preserved by order of the British government as much as possible from further decay. The fort has a circuit of six miles, and an inner citadel containing the colossal piece of ordnance. *Sattara* and *Belgaum* are principally military stations. The former was the head of a protected native principedom down to the year 1843, when it was annexed on the death of the rajah.

KHANDESH, a territory on the middle course of the Tapti, and GUZERAT, which embraces the mouth of the river, with that of the Nerbudda and the Mhye, extending round the Gulf of Cambay, are rich alluvial tracts, largely cotton grounds, from which the finest Indian staple is procured. The three rivers are crossed by the Baroda and Bombay Railway. Being broad and rapid, subject to sudden floods, which have been known to raise the level fifty feet in a single night, the bridges and viaducts required involved great engineering difficulties in their construction, are of extraordinary magnitude, and rank with the finest structures of the kind in the world.

Surat, near the outlet of the Tapti, a large and meanly-built city, contains a population of 135,000, but is declining, having been superseded extensively in its commerce by Bombay. It has a remarkable feature in a hospital for sick, maimed, and aged animals. At this place the East India Company had their first mercantile

establishment. The Mogul Emperor Jehangire granted the imperial permission to settle at Surat in 1612, when Captain Best formed the factory, and left ten persons there, with £4000 for the purchase of goods. *Baroche*, near the mouth of the Nerbudda, a celebrated commercial emporium in ancient times under the name of *Barygaza*, is still a shipping port for grain and cotton. An island in the river is distinguished by a banyan-tree which must have stood for ages. It has a circuit of more than 2000 feet, measured around the subsidiary trunks, and overshadows several acres.

The extensive province of SCINDE forms the most westerly part of India, and embraces the lower portion of the Indus valley, from a short distance below the influx of the waters of the Punjab to the mouth of the river. Along its banks, and within the area of its inundations, the soil rewards the labours of the cultivator with rich crops of rice, barley, and other grain, with indigo and sugar; but apart from these districts the surface is sandy, and falls on the eastern side within the limits of the irreclaimable Indian desert. Buffaloes are reared in large herds in the swampy tracts, and a considerable number of camels are bred. The population is everywhere thin, but varied in character, very wild in some localities, and consists of a larger proportion of Mohammedans to Hindus than is found in any other part of India.

Hyderabad, the former native capital, about four miles from the east bank of the Indus, and 120 miles from the sea, has a military appearance, standing on a steep height surrounded by a rampart flanked by round towers. It was military also in the chief occupation of the inhabitants, who number 24,000, the manufacture being swords, spears, and matchlocks. Six miles on the north is the village of Meeanee, the scene of Sir C. Napier's decisive defeat of the Ameers of Scinde, as its old rulers were called, in 1843, which led to the annexation of the province. *Tattah*, at the head of the delta of the river, is an ancient place, once important, now decayed, apparently on or near the site of Pattala, a city existing in the time of Alexander, which he strengthened, and intended to make a great naval station. *Shikarpoor*, in the northern part of the province west of the Indus, is the most populous town, containing 30,000 inhabitants, in active commercial intercourse with Afghanistan and Bokhara through the Bolan Pass. *Kurachee*, the only seaport of Scinde, and the most western port of India, has advanced rapidly from an obscure to an important town since it became British in 1839. It will probably rise to great prosperity, as the seat of the provincial government, the principal military station, and the focal point of telegraphic communication between England and India. A railway extends from the place to Kotah on the Indus, near Hyderabad, 105 miles; and thence the traffic is extended to Mooltan in the Punjab, by means of a regular bi-monthly postal line of steamers.

Among the dependencies attached to the presidency, GUZERAT is by far the largest and the most important. It is accounted one of the gardens of India from its general productiveness, has cotton for its staple, but possesses an unhealthy climate. The territory extends around the Gulf of Cambay, but has little direct communication with it owing to intervening districts. On the Arabian Sea an extensive coast-line is supplied by the peninsula of Kattywar. In this province a large number of petty chieftains, who reside in villages, exercise authority. Many of them are tributary to a ruler styled the Guicowar, who represents one of the old Mahratta families, while all are subject to British control.

CAMBAY, at the head of the gulf, forms a small native principality. Cutch, an extensive peninsula, has an ocean boundary on the south in the Gulf of Cutch, with the singular tracts of the Runn, which are alternately, with the dry and rainy seasons, sandy and watery wastes, separating it from Guzerat and Scinde. Earthquakes, permanently altering the face of nature, occur in this region, and numerous traces of volcanic action are met with. It is politically held by feudatories under a chief called the Rao. KOLAPORE and SAWUNT-WARREE, each under a native rajah, are remains of the Mahratta confederacy, bordering each other on the southern side of the presidency, and nearly enclosed by it.

Baroda, the capital of the Guicowar, is a populous trading city, in the country between the two rivers, the Myhe and Nerbudda, said to contain upwards of 140,000 inhabitants. It is connected by the Central Indian Railway, in course of extension to Bombay, with Ahmedabad on the north and Surat on the south. Insurrectionary movements, of frequent occurrence in the Guicowar's territories, led to the general disarmament of the natives, in 1858, by Sir R. Shakespear. From 8000 villages there were taken 160 cannon, 21,000 fire-arms, about 118,000 swords, and 307,000 weapons of a miscellaneous description. *Cambay*, on the estuary of the Myhe, formerly celebrated for its manufactures of silk, chintz, and gold stuffs, exhibits evidences of bygone prosperity in ruinous palaces, mosques, and tombs. The gradual growth of incumbrances to its maritime

communications led to the decline of the city. But it is still a shipping port, and is noted also for the cutting of precious stones. *Bhoj*, the chief town of Cutch, in the heart of the peninsula, contains a population of 20,000, and is widely renowned for its manufactures in gold and silver. It is seated on a plain at the foot of a fortified hill, remarkable for having a temple erected to the cobra da capello. Pagodas, mosques, and interspersing palms, give a pleasing appearance to the town at a distance.

III. PRESIDENCY OF MADRAS.

The Madras Presidency embraces the whole southern part of the Indian peninsula from sea to sea, with the exception of three insignificant tracts held by the French. It extends northward along the western coast to the latitude of 14°, or to the border of North Canara, belonging to the Bombay territory; but reaches on the eastern side of the country to nearly latitude 20°, or to the Chilka Lake, which forms the division from Bengal. Though a dreadful act of sepoy mutiny transpired within its limits, at Vellore, as far back as the year 1806, yet during the recent outrages in Bengal, both the military and the civil population remained remarkably peaceful and loyal, while the sister-presidency of Bombay was agitated. The opposite coast regions remarkably contrast in their climate. On the eastern side there is more continuous and intense dry heat than in almost any other part of India. At the midnight hour the thermometer is not unfrequently above 100°. Wood-work shrinks and warps; nails are loosened, and fall out of doors and tables; glass globes and shades are cracked. But on the western shore, while the temperature is not so fierce, the humidity is immense, and anything like protracted drought is unknown. Owing to the incredibly heavy rains which dash against the Western Ghauts, that singular feature of the coast has been formed called the 'backwater.' This is an enormous lagoon, 120 miles in length, and of every width from a few hundred yards to ten miles, from one to two feet deep after the longest suspension of a shower, communicating at only three points with the ocean. Intervening table-lands have the genial climate of the temperate zone, varying from warm to cool, according to the elevation. The people differ in character and appearance in harmony with these climatic diversities. In general, the complexion is of the deepest black on the low burning eastern coast, but on the highlands it is not uncommon to meet with countenances as fair as many Spaniards or Portuguese; and the women especially have pleasing features, with finely-proportioned figures.

	General Divisions.	Cities and Towns.
Presidency Proper.	The Carnatic,	Madras, Arcot, Tanjore, Trichinopoly, Madura.
" "	Northern Circars,	Ganjam, Chicacole, Masulipatam, Coringa.
" "	South Canara and Malabar,	Mangalore, Cannanore, Calicut, Cranganore.
" "	Coimbatore,	Coimbatore, Utacamund, Jackatalla.
" "	The Mysore,	Mysore, Bangalore, Sreringapatam.
" "	Coorg,	Mercara.
Attached Dependencies.	Cochin,	Cochin.
" "	Travancore,	Trivandrum.
" "	Jeypoor and the Hill Zemindars,	Jeypoor.

THE CARNATIC, though no longer a recognised geographical division, is a familiar term from its historical use for the greater part of the presidency, or that portion which was the battle-ground of the French and English for ascendancy in India in the last century. It may be defined to extend from Cape Comorin along the eastern shore to near the mouth of the Kistna, but with a very uncertain inland limit, though embracing two naturally distinct regions, called the Upper and Lower Carnatic, or the country above and below the Ghauts.

Madras, the capital of the presidency, is seated on the Coromandel coast, in latitude 13° 4' north, longitude 80° 14' east, 763 miles south-east of Bombay, 1063 miles south-west of Calcutta, and contains a population of 720,000, including the suburbs, according to the return for 1862. It bears the native name of Chennapatnam, the 'City of Chennappa,' an Indian prince, who granted the site to the British, on which a settlement was first planted in the year 1639. The number of Europeans, excluding those employed in the service of the government, or in connection with the railways, is very small; and the variety of races is less than in Calcutta and

Bombay. Fort St George, the citadel, directly on the shore, has the sea flowing within a few feet of the ramparts. It is defended by heavy guns on the coast face, has bomb-proof fortifications on the land-side, and usually contains a large garrison. Northward, beyond a broad esplanade, on which stands the light-house, is the native or black town, occupying a low site, but protected by a strong stone bulwark from the high-water waves. Southward, along the beach, are public offices and residences of the wealthy, with intervening gardens which have a pleasing effect. A good road, shaded with trees and lined with handsome villas, leads to the



Madras.

cantonment on St Thomas's Mount, a gentle rising-ground about six miles distant. The public edifices and institutions include a government house, a mint, a university, with library and museum, a botanic garden, an astronomical and magnetic observatory in working-order; schools, asylums, and hospitals; a club, which supersedes the necessity of hotels; eleven places of worship belonging to the Church of England, and many dissenting chapels. The oldest church, St Mary's, connected with the Fort, dates from the year 1680; but this was preceded by the Roman Catholic cathedral, in the native town, founded in 1642. A People's Park, provided with aviaries, enclosures for deer and other wild animals, walks, trees, and green-sward, has been opened since 1859. The climate renders a large supply of ice essential to the health and comfort of the inhabitants. It has been hitherto furnished by America, to the amount of from 2000 to 3000 tons annually; but war having rendered the import precarious, an Ice Company has been formed for its artificial production after the example afforded at Calcutta, Bombay, Suez, and Melbourne. Eleven newspapers are published, nine of which are English, and include three dailies. The other two are in Telugu and Tamil.

No city in the world of equal extent and commerce is so unfavourably situated as Madras, especially for maritime trade. It stands on no navigable stream, has only soil of moderate fertility in the neighbourhood, and occupies a harbourless strand upon which the surf rolls with tremendous violence. Large vessels can anchor in the roadstead, but it is exposed to every wind except from the west, and upon the occurrence of a sudden squall they have to make in all haste for the open sea. Passengers and goods are landed in light craft, dexterously handled by native boatmen, but not without frequent danger in addition to the inconvenience. An attempt to construct a breakwater was unsuccessful. But at the commencement of 1864, a screw pile-pier, running out to an extreme length of 1000 feet, was nearly complete. The Madras Railway has its station on the beach, and extends in a single line across the peninsula to Beypore on the Malabar coast, a distance of 405 miles, open throughout. About thirty miles on the south, *Mahabalipoor*, 'City of the great Bali,' utterly ruined and partly engulfed, presents an extraordinary spectacle. It contains seven monolith pagodas, of which only one at present is on dry land, the other six being visible at low-water, rising up like rocks, and extending a considerable way into the sea. Every building of this enormous town, whose remains are spread over an extent of twelve miles, was hewn out of the rock, and then the interior of each was excavated, a work which involved the cutting up of a whole mountain into temples, palaces, and houses. It is conjectured, from a great rent in one of the temples, that an earthquake occurred, which let in the sea, and destroyed this city of giants.

Arcot, an inland city on the railway from Madras, the former capital of the Carnatic, has its name associated with that of Lord Clive, as the place where his military reputation was firmly established. It was taken by him with a very small force in 1751, and then successfully held through nearly two months against a host of

assailants, under circumstances of the greatest hardship. The adjoining country is bestrewn with tanks, many of which are of immense size, constructed to afford a water-supply in the dry season when the streams fail. The largest measures eight miles in one direction by three in another. *Vellore*, a neighbouring town, is chiefly noticeable as the scene where the native troops rose against their European officers in 1806, owing to the issue of regulations which interfered with their prejudices. *Tanjore*, on a branch of the Kaveri, 212 miles south of Madras, is a large manufacturing city, with a population of 80,000, distinguished also as a seat of Hindu learning and religion. It is particularly celebrated for its great pagoda, dedicated to the god Siva, considered the finest specimen of the pyramidal temple in India, and is resorted to by vast multitudes on days of public festival. The building, about 200 feet in height, stands within an area enclosed by high walls, the top of which, along their whole extent, is decorated with bulls sacred to the divinity. The interior contains a chamber or hall, which has no light except from lamps. *Tanjore* is passed by the Great South of India Railway from *Negapatam*, 49 miles distant on the coast, which runs along the Valley of the Kaveri. It proceeds further west to *Trichinopoly*, a fortified town of 30,000 inhabitants, noted for its hardwares, jewellery, and cheroots of the finest quality. *Madura*, a smaller place further south, is the head of a district containing the Pulney or 'Fruit' Hills, the highest peaks of which are supposed to rise more than 8000 feet. The general summit is an extensive undulating plateau, covered with grass, and fine woods appear in sheltered hollows and ravines. Elk and bison abound. The scenery resembles that of the Scottish Highlands; European fruits, flowers, and vegetables flourish; and the nettle stings, which it will not do at Simla on the Himalaya. These hills are now occupied by a sanitary station, which is 7200 feet above the sea, where the sweltering heat of the plains is exchanged for a climate in which good fires, carpets, and curtains are often acceptable.

The NORTHERN CIRCARS consist of a narrow tract continuing the coast region of the Carnatic from the southernmost outlet of the Kistna to the Chilka Lake. This district includes the mouths of the Godavery. It has a low and generally insalubrious shore, but the surface rises in bold hills in the interior, and the chain of the Eastern Ghats forms the inland boundary.

Ganjam, once a maritime town of consequence, with very handsome buildings, has fallen into complete decay, owing to the unhealthiness of the site. Fatal fevers in 1815 led the British residents to retire from the place; and the public establishments being removed, the fort and cantonments speedily became ruins. *Chicacote*, southward on an inlet of the coast, profited by the decline of *Ganjam*, and has now a population of 50,000, exclusive of military and European civilians. *Masulipatam*, a fortified town near the mouth of the Kistna, has long been celebrated for its chintzes and richly-worked muslins.

SOUTH CANARA and MALABAR are continuous tracts on the opposite coast, between the Western Ghats and the sea. The mountains occupy a large extent of the surface, and have slopes richly clad with teak-trees, sandal-wood, and other valuable timber. They enclose many well-cultivated valleys, while a sandy plain forms the immediate shore. Betel and cocoa nuts, rice and other grain, with various spices, as pepper, ginger, and cardamoms, are the principal products. The latter, known in commerce as Malabar cardamoms, are the capsules of plants native to the highlands, the seeds of which form an aromatic pungent spice, with stimulant properties and an agreeable taste, hence used in medicine and confectionary. The plants require careful cultivation; and great vigilance is necessary on the part of the natives to secure the crop, which ants, and snakes especially, are eager to devour.

Mangalore, a small town in South Canara, is the principal shipping port for rice, inconvenienced by the silting up of the harbour, with a healthy cantonment adjoining, on an elevated site, open to the sea-breeze. *Calicut*, on the Malabar coast, is historically distinguished as the first spot in India touched at by Vasco de Gama. It was then a populous and powerful city under a native ruler, with stately pagodas, and twice repulsed the Portuguese. Owing to war, the competition of other localities, and a gradually sand-choked harbour, the town became a miserable ruin. It has somewhat recovered, and now contains a population of 25,000, but large vessels cannot approach nearer than two or three miles from shore. The fabric *calico* is supposed to have derived its name from that of the town. *Beypore*, the terminus of the Madras Railway, is in the vicinity. *Cannanore*, a place of great antiquity, and a considerable shipping port, occupies the head of a bay which forms a convenient harbour, fifty miles north of Calicut. Spices, grain, and vast quantities of cocoa-nuts raised in the neighbourhood, are exported. A headland on one side of the bay is the site of a military station.

The province of COIMBATOR, wholly inland, lies between Malabar and the Carnatic, and has some interesting natural features. It embraces the great gap of Palghat which

cuts through the Ghauts, opens a free passage for the monsoon winds from either of their seasonal directions, and is now the route of the Madras Railway between the opposite coasts. On the northern side of the gorge, the Neilgherries, or Blue Mountains, rise abruptly in mural precipices, form a plateau broken by ridges and eminences, which declines gradually into the table-land of Mysore. The soil of the plateau is highly productive; the surface is grassy, interspersed with patches of woodland; and the climate is famed for its salubrity and for remarkable evenness in its seasons. Coorg, a small territory on the north-west, formerly a native principality of ancient date and larger proportions, lies almost wholly in the bosom of the Ghauts, and is beautifully diversified with well-cultivated valleys, and hills crowned with forests. This district is singularly traversed by artificial ramparts, from fifteen to twenty-five feet in height, with ditches in front from eight to ten feet wide, and the same in depth. In many places they are double, triple, and even quadruple; and are estimated to have a total linear extent of not less than 500 miles. These ramparts, obviously constructed for defensive purposes, like the Picts' Wall in Britain, are of great antiquity, being at various points crowned with enormous trees.

Coimbatore, a small town near the gap of Palghat, is one of the stations on the Madras Railway where passengers for the whole route of 405 miles have to remain a night. *Utacamund*, abbreviated by Anglo-Indians into Ooty, founded as a sanitarium in 1822, is visited both from Madras and Bombay. The settlement is on the Neilgherries, 7300 feet above the sea. In the warmest period of the year, April and May, the thermometer rarely reaches 75°. In the coldest months, December and January, the mercury descends to the freezing-point. The mean temperature for the year is 57°; and the average rain-fall about sixty inches. A Lawrence Asylum for the children of the European soldiery, founded in honour of Sir H. Lawrence, was established here in 1853. There are also private high and middle class schools for the English, and a benevolent scholastic foundation for natives. Two minor stations, each 6000 feet above the sea, afford a different climate, and a third recently planted at Jackatalla, now Wellington, occupies a well-sheltered valley, exempt from the cutting north winds which are frequently felt at Ooty.

Mercara, the chief town of Coorg, is among the mountains, more than 4000 feet above the sea, and was long the seat of a line of native sovereigns. The principality is mentioned by the historian Ferishta as an independent state in 1583. Its people contrast favourably with other Hindus in appearance and habits, being a handsome, athletic, warlike race of mountaineers, usually above the middle size, cleanly in their persons and habitations, and very industrious. In 1792 the Rajah of Coorg marched with Lord Cornwallis against Seringapatam. The last prince, deposed in 1834 by the British authorities, who then took formal possession of the country, would not allow his subjects to fight against the powerful allies of his ancestors, but quietly submitted to his fate. In 1850 he came to England to obtain restitution of money invested in the government funds, and died in 1859 at London without having succeeded in his suit.

The territory of Mysore, ruled in the last century by the renowned Hyder Ali and his son Tippoo Saib, is an extensive central province, larger than the mainland of Scotland. It consists of a triangular-shaped plateau, skirted by the Ghauts on the east and west, and by the convergence of the two ranges on the south. The enclosed district has generally a considerable elevation, which renders the climate temperate through a great portion of the year. Isolated rocks, called *droogs*, rising up abruptly from the table-land to the height of 1000 or 2000 feet, with broad bases, are striking features of the surface. These gigantic columns are composed of granite, gneiss, and hornblende; and were in former times crowned with nearly inaccessible fortresses. Exposed by altitude to the influence of both monsoons, the annual rain-fall is heavy, and favours agricultural pursuits, in which all classes of the population are engaged. In 1832, upon the plea of incompetency, the native ruler was set aside, but received an ample stipend, and the country has since been governed directly by a British commissioner.

Mysore, the capital of Hyder Ali, contains the British Residency, the palace of the deprived rajah, and a large number of teak-built dwellings, with probably a population of 55,000. *Seringapatam*, made by Tippoo Saib the capital of his kingdom, and strongly fortified by him, occupies an island in the river Kaveri, and has declined from its former consequence. It was taken by storm by the British in 1799, when Tippoo fell fighting bravely in its defence. His descendants receive a pension. The deprived Maharajah is also allowed

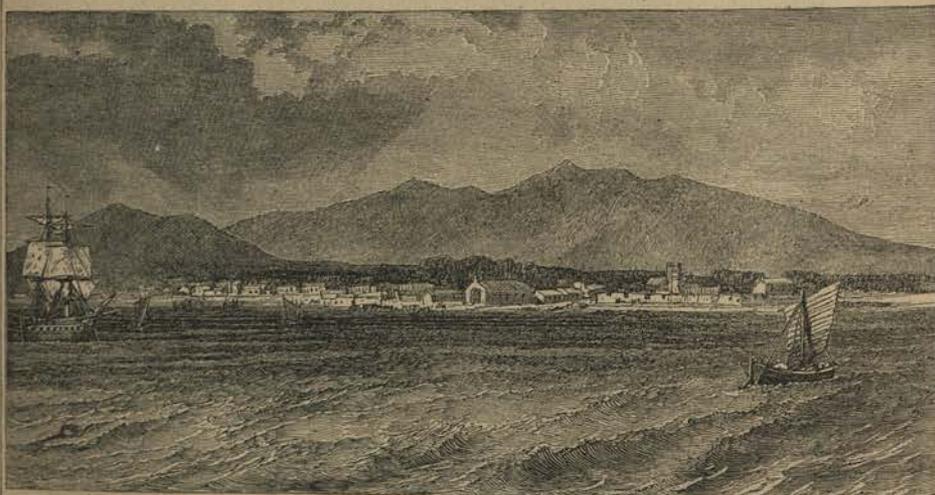
a stipend of £35,000 a year, with a fifth part of the net revenues of Mysore, which made his income £114,000 in 1860-61. *Bangalore*, the largest town, has 60,000 inhabitants, an extensive trade, with some silk and cotton manufactures. It is nearly due west of Madras, at the distance of 205 miles, and is much visited by Europeans on account of its comparatively cool climate, being 3000 feet above the sea.

The protected states of COCHIN and TRAVANCORE are contiguous, and form the extreme south-western section of peninsular India. They are naturally among its finest regions, abound with picturesque scenery, have vast forests of teak and pine on the hills and mountains, luxuriant rice-grounds in the valleys, with a large assortment of wild animals in the woods. The population is remarkable for its variety. It includes Hindus, Mohammedans, White and Black Jews, Native Christians, with outcasts who are fishermen on the coast, and Hill-people who are described as so degraded as scarcely to deserve the name of human, and may be regarded as descendants of the aborigines.

Cochin, a seaport, is included in the British province of Malabar, while the territory is ruled by a native prince. It contains a population of 30,000, is highly commercial, and the only port south of Bombay where large ships are built. The teak forests supply abundant materials, and the peon, a kind of pine, is as well adapted as the Norwegian species to be 'the mast of some tall admiral.' Not only merchant-vessels but men-of-war have been constructed here. The harbour labours under the disadvantage of being obstructed by a bar, which is open to the south-west monsoon, and often renders ingress and egress impossible during its prevalence. Cochin was occupied by the Portuguese in 1503, their first station in India. It was taken by the Dutch in 1663, and fell into the hands of the British in 1796.

Trivandrum, the chief town of Travancore, is on the coast at the outlet of the Karamany, over which a handsome stone bridge was thrown by the late rajah. This prince, a very remarkable man, was well acquainted with European science, a good practical chemist, and maintained for many years in complete order an astronomical and magnetical observatory. He presented a splendid ivory throne to the Queen, which attracted attention at the Great Exhibition of 1851, and illustrated the skill of the native carvers. The style of his successor is thus given in the Madras Almanac for 1864: 'His Highness Sree Palmanabha Dausa Vunchee Baula Rama Vurmah Koolashagara Kireeda Padu Munnay Sultan Maharauj Rajah Rama Rajah Bahadur Shamsheer Jung, Maha Rajah of Travancore; born 14th March 1832; ascended the Musnud 19th October 1860.' He appears on state occasions in a magnificent car, in comparison with which the old regal carriages of Versailles and the Lord Mayor's coach are puny vehicles. Troops of elephants attend His Highness.

The native Christians of Cochin and Travancore are of three denominations: first, Syriac, who refer their origin, but without authority, to St Thomas the apostle, and recognise the Patriarch of Antioch as their ecclesiastical head; second, Roman Catholics, the descendants of converts made by the Portuguese; third, Protestants, descended from converts made by the Dutch. The White Jews spring from true immigrants of the race, settled in India at an early period. The so-called 'Black' Jews are Hindu proselytes, who venerate their white brethren as the genuine sons of Israel.



Penang.



Cashmere Lake.

IV. INDEPENDENT STATES.

	Area in Square Miles.	Principal Towns.
Cashmere,	2,000	Serinagur, Islamabad, Baramula.
Nepaul,	54,000	Khatmandu, Ghorka.
Bhotan,	64,500	Tassisudon.

CASHMERE, in the extreme north of India, bordering the Punjab, consists of an elevated valley, and a belt of enclosing mountains, among which are some of the loftiest summits of the Himalaya. It is one of the most interesting and beautiful portions of the earth, embracing almost every variety of scenery and climate, rich in fruits and flowers, while offering objects on every hand to arrest the attention of the man of science, whether botanist, geologist, or antiquary. The valley itself is of a somewhat oval form. It extends about ninety miles from north-west to south-east, and has a breadth varying from ten to thirty-five miles. The lowest part, occupied by the Wuller Lake, is 5189 feet above the sea, but the average height is 5500 feet. Thrice that altitude is attained by several peaks of the mountain-wall immediately adjacent, but in the distance northward rises the magnificent mass of Nanga Parbat, or 'Naked Mountain,' so called from being bare of snow, owing to the remarkable steepness of the sides. It attains the elevation of 26,629 feet above the sea, and ranks fourth among the highest measured summits on the globe. There are several passes by which this secluded region is reached from the plains of the Punjab, but with one exception, that through which the Jhelum effects its escape, they are too lofty to be practicable in winter, and this single opening will not admit of a wheeled vehicle. The river named drains the whole valley. Its remotest source is a small pool on the further side, from which it flows with a gentle current in snake-like curves, spreading out in

places into several lakes, the largest of which, Lake Wuller, is about ten miles in length by five in breadth. The low grounds have the mulberry, chestnut, walnut, poplar, and plane tree, groves of which were planted by the Mogul emperors, who made this region their summer residence, adorned it with palaces, gardens, summer-houses, and luxurious retreats, the ruins of which attest their taste by the picturesqueness of the sites. Orchards of apples, pears, and cherries abound; and almost every variety of fruit known in Europe flourishes, with the exception of the orange, the lemon, the fig, and the olive. Rice and maize are the principal objects of cultivation. The wild animals include the ibex, stag, and bear, the first of which is found only in the wildest and most inaccessible parts of the country. In various localities the shrill whistle of the marmot is almost constantly heard over the barren rocks. The beautiful menal and other pheasants are abundant, with the red-legged and snow partridge. In winter the temperature is severe, and the snow lies deep. In summer the heat is occasionally oppressive, but generally moderate. Leather manufactures, weaving the famed Cashmere shawls, and the preparation of ottar of roses, with bee-keeping, are prevailing industries. In recent times the story of this highland district has not been that of the Happy Valley. It fell under the power of the Sikhs in 1819, and was soon afterwards terribly desolated by an earthquake, a pestilence, and a famine caused by the failure of the rice harvest. Upon the conquest of the Sikh kingdom by the British, it was ceded by them as a separate state to Gholab Singh, who had conquered an adjoining portion of Tibet. The people are a fine race in personal appearance, and consist chiefly of Mohammedan Hindus.

Serinaur, the capital, often called *Cashmere*, near the centre of the valley, is seated on both banks of the *Jhelum*, and contains a population of 40,000. Immediately eastward, the hill of *Takht-i-Sulaiman* rises abruptly, the summit of which is crowned by an ancient temple, still in an almost perfect state of preservation. It commands a view of snowy mountains, grassy plains, river, lake, forest, and almost every element of the fine landscape, exhibited on a grand scale. *Islamabad*, higher up the river, is a seat of the shawl manufacture, producing also chintzes, coarse cottons, and woollens. *Baramula*, a small place, stands on the inner side of the pass by which the *Jhelum* breaks through the outer range of the Himalaya. This is a grand cleft, upwards of 7000 feet in depth, with almost perpendicular sides, very narrow at the bottom, which is almost wholly occupied by the river. The natural sluice extends from twenty to thirty miles, and presents successive scenes of striking grandeur. It can only be traversed by the foot-passenger.

The entire Valley of Cashmere is traditionally believed to have once been a great upland lake, a persuasion which various natural appearances confirm. Small lakes are numerous at present, especially around the capital, liable to inundation from the joint effect of the melting of the winter's snow and the copious spring rains. To counteract in some degree this disadvantage, the curious expedient is resorted to of forming floating gardens on the surface of the water, which rise and fall with it, and thereby place the produce out of danger from any overflow. They are made by cutting through the reeds, sedges, lilies, and other aquatic plants, about two feet below the surface, which are pressed into closer connection, become matted together, are arranged into a number of small beds, upon which a thin coating of mud is laid. The beds float, but are kept in place by willow stakes, which admit of a change of level according to the action of the water. These gardens are cultivated by men in boats, who in the same manner gather the crop, chiefly cucumbers and melons, though they are often compact enough to bear the weight of a man.

Genuine Cashmere shawls, though not in such demand as formerly in Europe, owing to excellent French and other imitations, are still in repute, and furnish employment to a large proportion of the population. The number annually produced, plain and variegated, fine and inferior, is stated to be 30,000, the work of 16,000 looms. Those of the best quality, which have realised prices of £100 and upwards, owe their superiority to the fineness of the texture, the firmness of the colour, and the patient industry of the workmen, for they are woven in rudely-constructed looms. Three or four men will be engaged a whole twelvemonth in weaving a single pair. The shawl-goat which yields the material in its long silky hair inhabits the high table-lands of Tibet, and is distinguished by horns of great length, flattened, and wavy. Our word 'shawl' is a corruption of the native name of the fabric *duschala*.

The history of Cashmere goes back to an early age. Herodotus states that it formed, along with a portion of Upper India, the twentieth satrapy of the Persian Empire in the reign of Darius Hystaspes. It is mentioned by Strabo, Pliny, and Ptolemy. The last very accurately describes the position of the valley. It appears to have long remained the seat of an independent Hindu kingdom, and had next a series of Mohammedan rulers, who held possession down to the year 1586, when it was reduced by the Mogul emperor, Akbar, and added to the empire of Delhi. That prince, and his consort, the peerless Noor Mahal,



Kunchinjunga Peak.

favoured the district, and strove to render it paradisiacal, as did their successors. Shah Jehan constructed the celebrated Shalimar Gardens, eulogised by poets and travellers. Scrais, or halting-places, were established on the way at convenient distances. The royal progresses required providing for. Bernier, the French physician, who accompanied Aurungzebe in 1664, states that the imperial cortege consisted of 35,000 horse and 10,000 foot, with 70 pieces of heavy cannon, and from 50 to 60 pieces of stirrup artillery, as it was called. The route commonly taken was that of the Pir Punjal Pass, the most direct, but one of the loftiest, 11,400 feet above the sea, yet the most frequented in summer. A good road across the mountains is said to have existed in those days. The route is still called the 'Emperor's Highway.' At present there are no roads in Cashmere, nor anything in the shape of a wheeled conveyance in the valley.

NEPAUL, a sovereign state, is a long and narrow territory on the southern slope of the Himalayas, intervening between the British province of Kumaon on the west and the protected district of Sikkim on the east. It is about 500 miles in length by 100 miles in average breadth. A region of grassy downs, and a belt of forest, form the border towards the plains of India, apart from which the country is everywhere rugged with stupendous elevations and deeply-cut valleys, which admit of an ascent, within limited areas, from tropical heat and luxuriance in the hollows, to icy cold and the sternest barrenness on the towering heights. Dhwalagiri, the 'White Mountain,' rises on the western side, with the highest mountain mass of the globe, Mount Everest or Gaurisankar, on the eastern, while the Kunchinjunga (28,620 feet high) dominates over Sikkim. Numerous streams, descending from the glaciers of the Himalaya, form considerable rivers by uniting in the valleys, render them in the highest degree fruitful, and pass through the plains to the Ganges. Nepal was formerly subject to several petty



Temple and Priest's House in Bhotan.

princes, but Jung Bahadur, the chief of the Ghurkas, a warlike tribe, who was made a Knight Grand Cross of the Bath for his services against the mutineers in Oude, is now the sovereign of the whole country. BHOTAN embraces the southern face of the Himalaya eastward from Sikkim to the intersection of the range by the Brahmaputra. It is a corresponding tract in its natural features, being mountainous, long, and narrow, but has fewer fertile valleys, while a more direct offshoot of Tibet as to its inhabitants, their religion, and form of government.

Khatmandu, the capital of Nepal, contains a mean palace, narrow and dirty streets of wooden houses, many brick-built Buddhist temples, with 50,000 inhabitants. The predominant tribe in the country, the Ghurkas, are a very diminutive race, but remarkably agile, strong, and warlike. They appeared under Jung Bahadur at the siege of Lucknow; but as most of the fighting was over before their arrival, they could only take part in the 'looting.' At this work they proved so indefatigable, that Lord Clyde was compelled to request the Nepalese chief to lead off his men before anything like order could be restored. When they departed, it was with an enormous baggage-train containing the spoil of the city. The Begum of Oude, when her cause became desperate, with Prince Feroze Shah of Delhi, and thousands of the sepoy, fell back upon the skirts of Nepal, where many perished of jungle fever, while others were slain in fight with the Ghurkas, or were captured, and delivered up to the British authorities. *Tassisudon*, the chief town of Bhotan, is near the western frontier, but is principally a summer capital, being deserted in winter on account of the cold. It contains a fortified palace, in which the Deb Rajah, the head of the executive government, resides. This functionary is elected only for three years, and is obliged by the terms of the constitution, along with all other officials, to separate himself for the time from all domestic ties. He is chosen by a council of eight, and completely controlled by the oligarchy. The supreme head of the state nominally, the Dherma Rajah is regarded more as a god than a sovereign, being revered as a born Buddh—that is, a child into whom the spirit of a deceased Buddh has been transmitted. Such an one is discovered in extreme infancy by a preference for cows' milk to that of his mother, as well as by other signs, and is forthwith installed till death as the religious ruler of the country. He resides at Poonakho, with a large number of monastic religionists, who practise celibacy, and devote themselves to the ritual observances of Buddhism. During the present year, 1864, a British mission to Tassisudon has been treated there with gross indignity and outrage, and Bhotan is now in collision with the Indian government.

V. FOREIGN SETTLEMENTS.

Portuguese, French, Dutch, and Danes have alike held territory in India, but only the two former powers retain any possessions at present, and these are of unimportant extent.

The Dutch occupied Chinsura on the Hooghly a century and a half, and had their gardens and country-houses in the home style, to which they repaired for recreation when the heat of the day was over. But in 1824 it was ceded to the British, along with some other places, in exchange for possessions in the island of Sumatra. The Danes held Serampore, on the same river, ninety years, and sold it to the British government in 1845, along with Tranquebar, a coast town on the south of Madras. Portuguese and French India, after embracing considerable territories, is now limited to a few detached sites of an insignificant collective area.

	Locality.
Portuguese India. . . .	Goa, Western coast.
" "	Damaun, Concan coast.
" "	Island of Diu, South coast of Kattywar.
French India. . . .	Chandernagore, On the Hooghly river.
" "	Karical, Coromandel coast.
" "	Pondicherry, Coromandel coast.
" "	Yanon, Orissa coast.
" "	Mahé, Malabar coast.

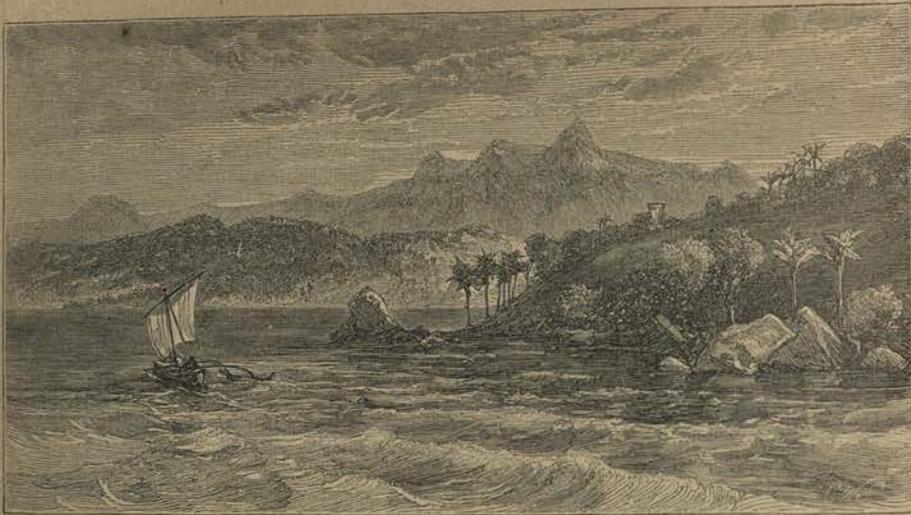
The Portuguese were the first Europeans who established themselves in the country, arriving on the 20th of May 1428, but making then no permanent stay. Under a succession of able viceroys they rapidly acquired great power and prosperity, but their fortunes as quickly declined from various causes, not the least influential being the intrigues of the Jesuits, the Inquisition, and its concomitant, religious persecution, and marriage alliances with natives of the lowest castes. In the middle of the last century, the French gained ascendant influence by levying native troops, and disciplining them in the European manner. But with the recall of the Governor-general Dupleix, in 1754, their prestige vanished, and the opportunity for founding a Gallo-Indian Empire was lost for ever.

Goa, the city and dependent territory, on the west coast, intervene between the limits of the presidencies of Bombay and Madras. The town, some miles inland, once wealthy and magnificent, has a name in history, having been for a long period after its foundation the head-quarters of the Jesuit missions in the east. It was superseded as the seat of government, in 1753, in consequence of a dreadful pestilence, and is now utterly decayed. The present inhabitants are chiefly ecclesiastics, the place retaining its rank as the see of an archbishop, who is the primate of the Portuguese Indies. 'Old Goa,' remarks Captain Burton, 'has few charms when seen by the light of day. The places usually visited are the cathedral, the nunnery of Santa Monaca, and the churches of St Francis, St Gaetano, and Bom Jesus. The latter contains the magnificent tomb of St Francis Xavier. Altogether we reckoned about thirty buildings. Many of them were falling to ruins, and others were being, or had been, partially demolished. The extraordinary amount of havoc committed during the last thirty years is owing partly to the poverty of the Portuguese. Like the modern Romans, they found it cheaper to carry away cut stone than to quarry it.' *Panjim*, or *New Goa*, nearer the sea, to which the viceroy removed his residence at the time mentioned, the present seat of government, is a well-built town, of 10,000 inhabitants, with one of the best harbours on the west coast of India.

Pondicherry, the capital of the French settlements, 85 miles south of Madras, is a maritime town with a population of 30,000 and important commerce. Indigo, sugar, and the mulberry-tree are cultivated in the vicinity. In 1761 it was taken by Sir Eyre Coote, and the fortifications razed. The present town, in Sir C. Trevelyan's Minutes of a Tour, 1860, is pronounced to be 'more European than any Anglo-Indian place. It is like a small continental town transported to the shores of the Indian Ocean. It is teeming with intelligence and enterprise.' *Chandernagore*, on the Hooghly, an important place when Calcutta, 21 miles distant, was only a cluster of mud huts, is now rapidly falling into decay. A mound, ditch, and ruined fort are the only remains of its once formidable fortifications. The entire French settlement extends two miles along the bank of the river, and one and a half inland from it. Just beyond the boundary is the station of the East Indian Railway.

VI. CEYLON.

The large and valuable island of Ceylon, remarkable for magnificent woods, unsurpassed fertility, and stupendous antiquities, is situated on the south-east of the Indian peninsula, at the distance of about sixty miles from the mainland, at the nearest point. A northerly section of the separating channel has the name of Palk Strait, derived from a



Adam's Peak, Ceylon.

Dutch navigator. A larger southerly division is called the Gulf of Manaar, after an islet in its basin. The two are divided by a chain of isles and sand-banks, which obstructs completely the passage of large vessels, bears the name of Adam's Bridge, and figures in Hindu mythology as the route by which the demi-god Râma invaded Ceylon. This oval or pear-shaped island has a length of 271 miles from north to south, by an extreme breadth of 137 miles in the opposite direction, and includes, with some insular dependencies, an area of 25,742 square miles, being about one-sixth smaller than Ireland. The shores almost everywhere rise gently from the water, are verdant throughout the year, and the contrasted colour of the perennially green foliage, with the yellow strand, and the sea, blue as sapphire, never fails to excite the admiration of the voyager, fresh from the less variegated and more sober livery of European scenes. At a short distance from the beach, the surface pleasantly undulates with richly-wooded hills, but the general elevation is moderate, except in a central southern zone occupied by a plateau, from which the Pedrotallagalla Mountain, the highest point, shoots up to the altitude of 8280 feet. Adam's Peak, in the same district, the subject of many a wild legend and a place of pilgrimage, attains to 7420 feet. On the summit, Buddha himself is believed to have stood, leaving there the imprint of his sacred foot. This is a depression in the rock, five feet long and two broad, around which a ring of brass has been placed, ornamented with a few gems of trifling value. The mountain is therefore ascended as an act of homage by his followers, and is locally distinguished by a name signifying 'the footstep of fortune.' In its vicinity the principal river has its source, called the Mahawelli-ganga, which flows to the north-east coast, and enters the splendid Bay of Trincomali. The climate is governed entirely by the monsoons like that of the mainland, but the island enjoys a more equable temperature. Its mineral products include carbonate of iron in great abundance, rich veins of plumbago, precious stones found in the alluvial plains, as sapphires and rubies, and a valuable pearl-fishery which has been prosecuted from time immemorial in the Gulf of Manaar. This fishery in some years yields a revenue to the government of £20,000. The divers inhale a full breath, descend rapidly to the bottom of the water weighted with a sinking stone from which they immediately liberate themselves, fill their baskets with the pearl shells, and are then quickly hauled up to the

surface. From sixty to seventy feet is the greatest depth to which they descend, and eighty-seven seconds the longest time they can remain submerged.

The vegetation is singularly exuberant and splendid. Forests yielding useful and ornamental timber, teak, ironwood, ebony, and satin-wood, are extensive and dense, enlivened with flowering shrubs and climbing plants of prodigious magnitude. Many of the latter literally cover the trees with a blaze of gorgeous crimson flowers, and spread, by shedding them, a carpet of scarlet on the ground at the base. One enormous creeper, called the great hollow climber, forms pods, some of which are five feet long and six inches broad, containing beautiful brown beans, which the natives adapt to ornamental purposes. The palmyra, talipot, jaggery, and cocoa-nut palms are specially prominent in the northern part of the island. It is estimated that the number of cocoa-palms amounts at least to 20,000,000, the fruit of which contributes largely to food, while almost every part of the tree is employed for some domestic service, and the oil is extracted from the nut for export. Members of the fig family are planted near the temples, especially the peepul, *Ficus religiosa*, some of which are of vast size and great age. In the elevated southern district the cinnamon-laurel is grown in greater abundance than in any other part of the world, supplying three principal articles of commerce, the aromatic buds called cassia buds, the dried bark of the plant or cinnamon, and the essential oil used in medicine obtained by distillation. In this region many of the mountain forests have been superseded by coffee plantations, the cultivation of which is increasing. Ceylon corresponds generally to India in its forms of animal life, but has not the tiger, the cheetah, the wolf, or the hyena.

The Portuguese were the first European visitors to Ceylon in 1505, and founded a permanent settlement in 1517. They were driven away by the Dutch in 1658, after a war of twenty years, who, in their turn, were compelled to cede all their possessions to the British in 1796. The island now forms a colony of the crown, wholly unconnected with the Indian presidencies, and the affairs of which are administered by a governor nominated by the sovereign, assisted by a cabinet and a legislative council. Native kings continued to reign over the mountainous part of the interior, with Kandy for their capital, down to the year 1815, when the last, a frightful tyrant, provoked war with the British, was taken prisoner, and formally deposed with the consent of his chiefs.

Colombo, the capital, on the west coast, bordered by a lake or lagoon, contains a population of 40,000, and is the principal centre of the foreign trade. The harbour is small and can only be entered by light craft, but large vessels anchor safely in the offing, except during the south-west monsoon. Residences of the British and government offices are within the enclosure of the fort. Exterior to its walls are modest-looking houses of the Dutch and Portuguese, with the quarter occupied by the native races, whose dwellings are of white-washed mud, either covered with tiles, or thatched with the plaited fronds of the cocoa-nut palm. The town is the seat of a colonial bishopric and of the supreme court of justice. In the latter the eminent Tamil advocate practises, Coomara Swamy, who was called to the English bar at Lincoln's Inn in 1863, being the first non-Christian Hindu-English barrister, and who is also a member of the Legislative Council. Civil and military authorities, native and European merchants, resort to the neighbouring hamlet of Calpitty for recreation, surrounded by cinnamon gardens and cocoa-nut groves. A magnificent mountain road connects Colombo with Kandy in the interior, and is thronged with bullock-carts laden with coffee for the port, or carrying up rice and stores to the hill-country. Another road diverges southward through exquisite scenery to Point de Galle, seventy miles long, literally an avenue of palm-trees. Railways are now in progress. The first turf was cut by the governor, Sir H. Ward, August 13, 1853. *Point de Galle*, the 'Cock's Point' of the Portuguese, the *Galla*, 'rock' of the natives, is on the south-west coast, a station for the Peninsular and Oriental Company's steamers, 2134 miles from Aden. The mail arrives by the overland route from England in thirty-one days. Passengers embark the same day in steamers for Calcutta or Singapore, and the further East, according to their destination. The place consists chiefly of public buildings, which include the fort, about a mile in circuit, the post-office, barracks, light-house, a Dutch church, and hotels. Groups collected at the landing-place on the arrival of steamers offer a picturesque sight from variety of costume. The private houses are one story high, furnished with verandahs which run along the entire frontage. Except for about four months in the year, the harbour is unsafe, being exposed to sudden squalls of tremendous violence. Ceylon, having been visited for trading purposes from remote antiquity, many authorities are inclined to identify Point de Galle with the Tarshish of the Hebrew Scriptures, from which Solomon's ships returned bringing gold, silver, ivory, apes, and peacocks. *Trincomali*, a fortified commercial port on the north-east coast, contains 30,000 inhabitants, and possesses a capacious haven, secure in all seasons, landlocked and calm as a mountain

lake. *Jaffnapatam*, a small seaport at the north extremity of the island, is of Dutch origin, contains a considerable number of persons of Dutch descent, with learned Tamils, and has long been an American mission station.

Kandy, the old native capital, is beautifully situated in the mountainous region, on the margin of a small lake, overhung on all sides by hills. But besides the commandant's residence, and some dilapidated temples, it is little more than a collection of huts. The Malegawa temple here contains the most sacred relic in the country, which attracts pilgrims from the remotest parts of India, Burmah, and Siam. This is the Delada, reputed to be the tooth of Buddha, which is preserved in a costly shrine, and guarded with jealous care. But it is well known that a relic so called was destroyed by the Portuguese. The substitute is only a piece of discoloured ivory, about two inches in length and one in diameter, slightly curved. Natives regard it as the palladium of the country, and believe that whoever possesses it acquires the right to govern Ceylon. So strong in general is this persuasion, that in 1815, when the British forces captured the place, further resistance ceased. Chiefs and people united in submitting to the English as the proper masters of the island, as they had obtained possession of the Delada. Devotees lay offerings before the shrine by which the priests profit. *Neuera Ellia*, fifty miles on the south, connected with Kandy by an excellent road running through coffee plantations, is entirely modern, and is used by Europeans as a sanitarium. The place occupies a table-land 6210 feet above the sea, in the neighbourhood of which *Pedrotallagalla* rises 2000 feet higher, and overlooks a magnificent landscape. The climate is temperate, owing to the elevation. Almost all kinds of European fruits and vegetables are raised. Here the governor may generally be found, with military and civil officers, invalid soldiers, and other visitors, in the season between January and May.

Monuments of antiquity of extraordinary magnitude are met with in the northern parts of the island, buried in the depths of the forests. They consist of ruined cities, with pagodas, sculptured figures, and a few rock-hewn temples, which proclaim the existence of a departed race far superior to the mass of the present natives. Reservoirs for purposes of irrigation also remain, more or less dilapidated, of which 30 of colossal size are reckoned, with not less than 700 of small dimensions. The restoration of some of these useful works is in progress.

Ceylon contains a population of about 1,698,000, of whom those of European descent form a very small proportion. By far the most numerous body, called the Singalese, are found chiefly in the southern and central parts of the island. They are Buddhists in religion, ingenious workers in metals, and in manufactures of cordage, matting, and baskets; of effeminate and cowardly spirit, except those in the highland region, who are a sturdy race, and bravely defended their hills against the intrusion of the Portuguese, Dutch, and British. In the northern districts are numerous Tamils, descendants of invaders or immigrants from Southern India, who adhere to Brahmanism, are physically and mentally a superior people, widely spread by their mercantile enterprise, and extensively familiar with the advantages of English education. Not a few have shewn themselves accomplished in mathematics, mechanics, and jurisprudence. A Tamil engineer has been employed in the construction of the Madras railways; nor would it be difficult to find men among them who can correctly predict an eclipse, explain the calculus of Newton, and propound the laws of gravitation. The Moormen form another section of the population, who are Mohammedans, supposed to be of Arab descent, everywhere energetic traders. Probably the aborigines are represented by a remnant in the eastern part of the island—the *Veddahs*—but little above the wild animals of the forests, except in inoffensiveness, now subject to improving influences supplied by the British government.

VII. MALDIVES AND LACCADIVE ISLANDS.

Two groups of islands, the Maldives and the Laccadives, north and south of each other, are situated off the south-west coast of India. They consist chiefly of low coral formations, densely clothed with cocoa-nut trees, which contribute to the support of the inhabitants by the use and export of the produce. The Maldives, the most southerly cluster, include upwards of a thousand isles and reefs, under the rule of a native chief, who pays tribute to the governor of Ceylon. The Laccadives, seventeen in number, are occupied by a race of Arab descent, who profess a kind of mongrel Mohammedanism, and have their own ruler, subordinate to the presidency of Madras.

India, even in those parts under direct British control, has not yet been subject to a complete census of the people. This was to have been taken in the year 1861, but owing to the general agitation occasioned by the mutiny, its execution was deemed inexpedient, lest the vast population should misconceive the motive of the government, and be excited by the designing to insurrectionary movements. Official estimates return the number of strictly British subjects at about 155,000,000. To these, it is supposed, must be added 40,000,000 for the inhabitants of protected states and independent territories, thus making a grand total for the entire population of nearly 200,000,000. In classifying this immense aggregate, Mr Montgomery Martin conceives that aboriginal races, known by various names, and greatly scattered, number 20,000,000. The Mohammedians he reckons at from 12,000,000 to 15,000,000; the Sikhs, on or near the Sutlej, at about 2,000,000; the Jains or Buddhists, widely diffused, at 5,000,000; Hill tribes and sundry others, at 8,000,000; the remainder, 150,000,000, being Hindus of the Brahmanical creed.

At an unknown period, but many centuries prior to the Christian era, the Hindus are believed to have migrated from a northerly clime, probably in large bodies and in rapid succession, entering the country from the north-west, and establishing themselves first in the Punjab. In that district they were found by Alexander as the master-race, evidently long settled; being in possession of regular government, arts and manufactures, with trained cavalry and infantry, war-chariots, and disciplined elephants, over whom he obtained a hardy-won victory. They were also spread over the whole of Northern and Central India, yet are supposed only to have extended in small numbers into the Deccan. The conquering immigrants reduced the primitive inhabitants to serfdom, or drove them to escape the lot to the hill fastnesses and woodland heights, where many of their descendants have remained to the present day, while others are dispersed far and wide. These aboriginal races are known by the various names of Konds, Bheels, Santals, Mairs, Koles, Bengies, Domes, and Bhâts. They are found in jungles, forests, mountainous districts, and the outskirts of towns; were formerly prone to live by plunder, and committed frightful excesses to obtain it; but many have been reclaimed by the care of the government, and now faithfully serve it as efficient soldiers and armed police. The numerically dominant people, the Hindus, had in their turn to succumb to Mohammedan invaders, and were reduced to a condition of inferiority, varying with the ability and disposition of the conquerors. These victors eventually shared the lot of the vanquished in the loss of political predominance; and the overthrow of both Hindu and Mohammedan power may in no slight degree be referred to a suicidal abandonment to the intoxicating influence of opium and the enervating pleasures of the zenana.

Under the modifying influence of different climate, food, and other external circumstances, operating for ages, the Hindus have ceased to be a homogeneous people. Their diversities in appearance, character, habits, and language are now as great as those which exist among the various nations of Europe. 'The native of the cool, dry, elevated regions of Malwa and the Deccan is as unlike the denizen of the hot and moist plains of Bengal and Tanjore, as the hardy Swiss to the voluptuous inhabitant of the banks of the Tiber, or the industrious Englishman to the slothful Portuguese.' In general, the figure is slight, graceful, and admirably proportioned, but muscular and athletic on the high table-lands; the face is oval, and the features regular; the eyes and hair are black; the skin is soft and polished; the complexion varies from the deepest olive to a light transparent brown. About twenty-six different languages are spoken, embracing a great number of dialects; but with the exception of a few in Southern India, they are all derived from the Sanscrit, the ancient tongue of the people, that of their sacred books, which, though not now vernacular, is cultivated by the learned. The Hindustani is the most

useful language for the European, as it is not limited to any particular district, but the ordinary medium of colloquial intercourse throughout the country, employed in the courts of justice, and by the authorities in communicating with the natives. It is of comparatively modern date, the result of the admixture of a native dialect with the Arabic and Persian introduced by the Mohammedan conquerors, and was formed chiefly during the reign of the Emperor Akbar. But in many localities the English language is making progress, being taught in schools sustained by the government, and in mission seminaries. Among the social institutions, that of caste restrains individuals of different classes from intermarriage, and even from association with each other. Similar distinctions are, however, practically recognised to a great extent in the intercourse of life among the western nations. Originally, caste existed in its four broad divisions of the Brahmans, or priests; the Kashatrya, or military; the Vaisya, or mercantile; and the Sudras, or servile class. Human passions, however, proved too strong to be restrained, and except in the instance of the sacerdotal order, the others intermingled. But a multitude of castes sprung up from their admixture. Yet unsanctioned by ancient usage, unauthorised save by common consent, these artificial social partitions are becoming less rigid, and may be expected to be altogether broken down, as far as they are prejudicial to general interests, by the influence of sound instruction and wholesome example.

An indigenous form of municipal government of great antiquity is an interesting feature in the social life of the Hindus. Each of the villages, meaning thereby not a mere group of dwellings, but a district of varying extent analogous to a township, is under the jurisdiction of a head-inhabitant, called the *potail*. He acts as a kind of chief-magistrate, arranges disputes, sees to the collection of taxes, and appoints or superintends the *chokeydars*, watchmen or police, who have a certain number of houses committed to their charge. Several other functionaries are recognised as of public utility, as the priest, the schoolmaster, the musician, and the dancing-girl, all of whom are rewarded for their services in various ways at the expense of the community. 'Under this simple form of municipal government, the inhabitants of the country have lived from time immemorial. The boundaries of the village have been but seldom altered; and though the villages themselves have been sometimes injured, and even desolated by war, famine, and disease, the same name, the same limits, and even the same families, have continued for ages. The inhabitants give themselves no trouble about the breaking up and division of kingdoms. While the village remains entire, they care not to what power it is transferred, or to what sovereign it devolves. Its internal economy remains unchanged. The *potail* is still the head-inhabitant, and still acts as the petty judge and magistrate, the collector or renter of the village.' The indigenous rural police is effective in rendering petty thefts comparatively rare, and the poorer classes are content with the system, as it is from such minor offences that they principally suffer. But owing to the great extent of the country, with wild and uncivilised people in almost every part of it, some of whom are fiercely fanatical, an army of civil and military police is required for the repression of heinous crimes, and the maintenance of public order. This is now organised throughout British India after the model in general of the English county constabulary. It consists largely of the despised aborigines of various races under European officers, with inspectors drawn from the superior classes of native society, and has taken to a great extent the place of the regular army.



Pagoda of Phrabat.

CHAPTER VII.

INDO-CHINESE PENINSULA.



THE easternmost of the three great peninsulas of Southern Asia, frequently called Further India, and India beyond the Ganges, is more properly distinguished as an Indo-Chinese territory, from its position, population, and political relations. It is a region of very singular conformation, enclosed by the Chinese dominions on the north, conterminous with India on the north-west, having a western maritime boundary in the Bay of Bengal, an eastern in the China Sea, and a southern in the narrow strait of Malacca. Situated between latitude $1^{\circ} 20'$ and 27° north, and between longitude 90° and 109° east, it embraces an area of at least 700,000 square miles, but is so extremely irregular in shape as to render any estimate difficult, and the insertion of extreme linear distances is on the same account fallacious as an indication

of magnitude. From an average breadth of 700 miles in the north, it suddenly dwindles to less than one-eighth of that extent, in the long and slender tract of Malaya. This is a southerly projection from the main mass of the country, which gives peculiarity to the outline, and is without a parallel as to unequal proportions. It has an extension of nearly 1000 miles in the direction of the meridian, but is narrow throughout, and diminishes in width to less than sixty miles where the greatest contraction occurs. The Gulf of Martaban on the west, of Siam on the south, and of Tonquin on the north-east, are the conspicuous maritime features of the Indo-Chinese peninsula.

The interior of the country is to a great extent very imperfectly known. Many parts have not been visited except by a few missionary travellers, and there are remote highland districts to which no European has penetrated. The general superficial aspect appears to be determined mainly by several chains of mountains, which diverge southward from the eastern extremity of the Himalaya, enclose great valleys between them, each the bed of a grand river-system, expanding into rich alluvial plains at the maritime extremity. These rivers are the Irawaddy and Salwn, westward, which descend from the Burman Empire to the Bay of Bengal, at the Gulf of Martaban; the Meinam, central, flowing through the kingdom of Siam, and entering the gulf of that name; the Makiang or Cambodia, eastward, which has the longest course, and passes through the empire of Anam to the China Sea. The first and last rank with the mightiest streams of the continent. Along the borders of the rivers, and on the slopes of the mountains, vast forests are found in almost all parts of the country, consisting of teak, ebony, white sandal-wood, red dye-wood, rose-wood, iron-wood, and other timber of value for ordinary and ornamental purposes. Members of the palm family and the bamboo luxuriate upon all the low grounds, especially the betel-palm, the fruit of which is nowhere of finer quality. Cinnamon plants of several varieties, and other aromatic shrubs are abundant, with trees yielding gum-resins used in medicine and the arts. The varnish-tree grows in perfection, and furnishes the resin applied to produce a highly-polished surface. Gamboge or camboge, the well-known pigment, with a place also in the pharmacopoeia, is the produce of *Cambogia gutta*, obtained by incision of the stem. The tree is lofty, bears edible fruit, and grows in Cambodia or Camboja, whence the name is derived. Gutta-percha, a concrete vegetable juice, is obtained from a large forest tree indigenous to Malaya and the adjoining countries. The scented eagle-wood is peculiar to Tsiampa, remarkable for its agreeable odour when burned, which is reduced to the powdered state, and used in immense quantities in the temples of China. Rice holds the chief place among the products of agriculture, as the general food of the people, along with various farinaceous roots. The sugar-cane, mulberry, cotton, indigo, and tobacco are also extensively cultivated. The plantain or banana is the staple fruit.

The number of wild animals is enormous. They include most of the huge quadrupeds of India; the elephant in large herds in the woods; the rhinoceros on higher ground and of wilder habit than his congeners elsewhere; the tiger, equally as fierce as the animal in Bengal; and the powerful buffalo in swampy places, is found domesticated as well as wild, along with the elephant and the ox. The forests teem with monkeys, and with birds of the richest plumage. All the varieties of domestic fowl are found in the villages, with the tall ungainly species in Cochin-China, so popular in England upon the first introduction of the breed. Alligators swarm in the large rivers, and are captured for food; nor are snakes, lizards, slugs, vermin, and offal refused as diet, while all classes abstain from the produce of the cow. In Burmah and Siam an absurd veneration is paid to animals of a white colour. Being deemed peculiarly sacred, no native meets a white cock without saluting him, and the white monkey is also revered. But the highest honours

are reserved for the 'Lord White Elephant,' who ranks as an estate of the realm, takes precedence after princes of the blood, has a palace, a minister, and numerous attendants. A tuft of his hair has figured in presents to the British Queen.

The Indo-Chinese peninsula includes several political divisions, some of which have no regularly-defined limits, and are feebly held by their respective governments.

States.	Cities.
Empire of Burmah,	Ava, Amarapura, Muts-hobo, Patanagch.
Kingdom of Siam,	Bangkok, Yuthia, Pechaburri.
Empire of Anam,	Hué, Turon, Kachao.
Basse Cochin-Chine,	Saigon, Mytho.
Country of the Laos,	Chang-mai, Nang-rung.
Malaya,	Perak, Johore, Pahang.
British Possessions,	Arracan, Pegu, Moulmein, Malacca, Singapore.

The total population is supposed to range from 19,000,000 to 30,000,000, but only data of the vaguest description exists for an estimate. With the exception of a few Hindus in the western districts, Malays in the Malayan peninsula, and Europeans in their respective territories, the people ethnologically consist of nations of Mongolian origin, low in stature, allied in physiognomy to the Chinese, in manners and customs also in the eastern states, on the shores of which a large number of Chinese proper have long been settled. The languages spoken are of the monosyllabic class, but many polysyllabic terms have been ingrafted from extraneous sources. Buddhism is the prevailing form of religion, and has innumerable pagodas, temples, and image-houses, attended by thousands on great festival occasions, to honour with offerings the figure of the last Buddha, who is often represented in them of colossal size. Confucianism is professed by the higher class of the Anamese. A corrupt Mohammedanism is observed by the Malays, while Jewish traditions are cherished by the Tsiampis, the inhabitants of a little state on the China Sea, who have no idol worship, practise circumcision, and observe a day of rest. The native governments are completely absolute, exact servile submission from all classes of subjects, and use the stick freely to enforce it, from the infliction of which ministers of state and the highest court officials are not exempt. In industrial skill the people are far inferior to their neighbours, the Hindus and the Chinese. Women conduct the business of life much more than men, in addition to their domestic duties. They buy, sell, engage in agriculture, and consequently enjoy great personal liberty. Some of the better classes have brick houses roofed with tiles, but the majority of their dwellings have a wooden or bamboo framework thatched with palm leaves, while those of the lower orders are mere huts. Both sexes of almost every age in all ranks smoke immoderately, and chew the betel-nut.

I. BURMESE EMPIRE.

BURMAH, largely shorn of its proportions by wars with the British, in the present century, is a north-western territory, now entirely inland, bordered on the east by China and Siam, and enclosed in other directions by British provinces. It is traversed centrally from north to south by the Irawaddy, in the upper and middle part of its course, the 'father of waters,' as the name is interpreted. The river is navigable for vessels of considerable burden up to the capital, 400 miles from its mouth, and for barges to a greater extent in the rainy season, but all native control over communication by it with the sea has been lost, the whole delta having become British ground. The northern part of the country is mountainous, clad with immense forests of teak and pine. Oil-trees are members of the woods on the banks of the Salwn, from a single trunk of which many gallons of vegetable oil may be obtained every season. But petroleum, or mineral

oil, supplied in vast quantities by springs, is universally used for lighting, notwithstanding its disagreeable odour. Burmah has vast stores of mineral wealth, consisting of auriferous sands, gold and silver mines, iron and lead ores, celebrated ruby-mines, the property of the sovereign, under jealous guardianship. In the ruby-mines sapphires also, of great value, are occasionally found. Serpentine, marble, and amber are other products.

Ava, constituted the capital in 1819, a restoration of the distinction possessed twice before, lost it for a time in 1839 by a dreadful earthquake which destroyed nearly all the important buildings. It stands on a fertile plain by the Irawaddy, has the local name of *Ratnapura*, or 'City of Pearls,' but has not recovered from the catastrophe it suffered. *Muts-hobo*, to which the seat of government was temporarily removed, about thirty miles distant, is of note in Burmese history as the reputed birthplace of *Alompra*, a man of obscure origin, who made himself master of the country about the middle of the last century, and founded the present dynasty. *Amarapura*, 'Town of Immortality,' a seat of royalty on the river a little above *Ava*, shared in its disaster. *Patanageh*, lower down the stream, is chiefly a representative of the past, with remarkable remains of temple-architecture. In its vicinity are the principal petroleum-wells extending over a space of sixteen square miles. *Megung*, a fortified town, has the amber-mines in its neighbourhood, to which many foreign merchants repair. *Bhamo*, in the direction of the Chinese frontier, is the chief mart for the trade with that country.

The first war between the Burmese and the British broke out in 1823. At its close the king consented to pay the English a million sterling, receive a resident at his court, and ceded likewise the provinces of Arracan and Tenasserim. A second war commenced in 1852, which resulted in the capture of Rangoon, the capital of Pegu, and the permanent annexation of that province to the Anglo-Indian Empire.

The central and southern territory of SIAM extends around the head of the gulf of that name, and embraces the great valley watered by the Meinam, 'Mother of Rivers,' with the alluvial plain through which it discharges into the sea. It is the most important of the native states in a commercial point of view, has extensive mercantile dealings with adjoining countries, but the trade is almost entirely in the hands of Chinese settlers. The people are remarkable for the extravagant manner in which social respect is demonstrated. No inferior stands in the presence of a superior. Even younger brothers kneel in addressing the elder, or handing them anything requested, and subjects of the highest grade approach the sovereign on hands and knees. Ambassadors to England not many years ago instantly went down on all-fours in the presence of the Queen, and thus hobbled along to the foot of the throne, to the disturbance of the gravity of the court. The form of government is dual, conducted by two kings, whose respective duties have not been very clearly defined, but one seems to be at the head of the civil and the other of the military administration. They are far in advance of their subjects in apprehending the utility of European arts, and have a predilection for the English language. The king, *Somdel Phra*, who ascended the throne in 1851, had, according to *M. Mouhot*, mastered several of the physical sciences, besides having acquired a fair knowledge of Latin, and had even written several treatises in English. The population of Siam cannot be determined with anything like accuracy. The Roman Catholic bishop, *Pallegoix*, estimates it at 6,000,000. The difficulty of arriving at any correct result is augmented by the native practice of numbering males only. The native registers, according to *Mouhot*, shewed a few years ago, of the male sex, 2,000,000; Siamese, 1,000,000; Laotians, 1,000,000; Malays, 1,500,000; Chinese, 350,000; Cambodians, 50,000; Peguans, 50,000; and 50,000 of various tribes inhabiting the mountain-ranges.

Troops have been trained in the western manner, roads and canals constructed, ships built, steamers introduced, science and commerce encouraged, and printing from types, before unknown to the Siamese, has been established. Court astrologers and prognosticators are maintained with small annual stipends, who in former reigns received a sound castigation upon the failure of their predictions. By the crudest methods these astronomers-royal calculate the movements of the sun and moon, and eclipses.

Bangkok, the capital, near the outfall of the Meinam, is a vast town with an estimated population of, according to *M. Mouhot*, from 300,000 to 400,000, who live chiefly in bamboo huts, large numbers of which are

afoat on rafts in the river. 'Owing to its semi-aquatic site,' says M. Mouhot, 'we had reached the city while I believed myself still in the country; I was only undeceived by the sight of various European buildings, and the steamers which plough the majestic river, whose margins are studded with floating houses and shops. In this Venice of the East, whether bent on pleasure or business, you must go by water.' Forests of teak are in the neighbourhood, with some iron-mines. The appearance of the stream is the reverse of the picturesque. The water has the colour of loam, and teems with impurities, while extensive mud-flats are exposed on the recession of the tide, which the white pelican, a stately bird, and other sea-fowl attentively examine for prey.

Yuthia, or *Siam*, the old capital, higher up the Meinam, is a large town, but has not been of much importance since it was desolated in a war with the Burmese in 1767. *Pechaburri*, on the west side of the Siamese Gulf, is under royal patronage as a place of occasional resort, intended to be a kind of Brighton to the court. It was visited in 1859 by Sir R. Schomburgk, and described in a geographical paper.

II. EMPIRE OF ANAM.

The empire of ANAM embraces an easterly division of the country, lying on the China Sea, the maritime parts of which are generally fertile alluvial plains, bounded by a mountain-range which runs parallel with the coast, but at a varying distance from it. Three principal districts are included, formerly distinct states, and only loosely held together at present. These are Tonquin on the north, bordering upon China, from which the Song-ka, or 'Great River,' is received, celebrated for the auriferous sands in the beds of its tributaries; Cambodia, on the south, chiefly a level region singularly productive, fertilised by the overflowing of the Makiang, and a net-work of streams; and Cochin-China, intermediate, a long but comparative narrow tract of land on the coast, with a background of wild and naked granitic mountains. The north-eastern shores are within the range of the typhoons, which sweep over the China Sea with fearful violence, and are initiated by such an awful aspect of the sky as if the day of doom to universal nature were portended. The country of the LAOS, rich in metals and woods, is in the far interior, enclosed by Burmah, Siam, Anam, and China. It belongs partly to each, but contains tribes which retain independence under their respective chiefs. MALAYA, the remarkable south-western projection of the Indo-Chinese peninsula, is held by a few separate tribes of Malays, insubordinate to their own chieftains, good seamen, but piratical in their habits, and treacherous in their character. There is British ground within its limits.

Hué, the capital of Anam, one of the coast towns of Cochin-China, is on a river of the same name, which flows through lovely scenery, about ten miles above its outlet. It has been well fortified by European art, contains an arsenal and building docks, but is accessible only to small vessels owing to the shallowness of the stream, and a bar at the mouth. *Turon*, southward on the coast, is famed for the sacred mountains of marble in its neighbourhood, in which a very striking Buddhist temple has been excavated. *Kachao*, an inland town of Tonquin, on the Song-ka, is said to be the largest in the empire, with a population of 100,000. It was once the seat of English and Dutch factories, and is in active commercial intercourse with China. The Tonquinese of the present day are averse to communication with Europeans, and but little is known of the country. It was added to the empire of Anam by Gia-lung, a sovereign who lost his throne towards the close of the last century, but recovered it by the aid of French officers, and died about the year 1820, having firmly re-established his authority. In return for military assistance he promised protection to Roman Catholic missionaries, who speedily began their labours, but opposition and persecution followed from his successors. This led the French actively to interfere to compel the reigning monarch to alter his policy, at the same time possessing themselves of Basse Cochin-Chine, a portion of his dominions, lying on the lower course of the Saigon.

Saigon, formerly the capital of Cambodia, now of Basse Cochin-Chine, is situated upon a river of the same name, about sixty miles from the sea, with sufficient water to float a three-decker. It is a large, well-built, commercial city, with fortifications in the European style, contains a naval-yard, an arsenal, and is said to have at least 100,000 inhabitants. The place was taken by the French in 1859. Their territory, which promises to be a valuable acquisition, is divided into six provinces. It comprises an area of more than 10,000 square miles, and has a population estimated at 2,000,000. By the recent treaty, the whole of Cambodia has been placed under the suzerainty of France.

Chang-mai, the chief town of the Middle Laos, is on the Meinam, and contains about 25,000 inhabitants. The character and manners of these people were first illustrated by the missionary traveller Dr Gutzlaff. They are divided into numerous tribes under chiefs whose government is patriarchal, follow various pursuits, but chiefly agriculture and mining; are peaceful, honest, and industrious; fond of music, and graceful dancers. They sing to the tones of the bamboo organ; and dance holding garlands of flowers or lighted torches in

their hands. The wealthy Siamese have commonly Laos women for their wives. The men are expert at mining. They obtain gold, silver, copper, and iron from the mountains, metals which are principally sent into China, but clandestinely, in order to avoid the heavy tax.



Moulmein.

BRITISH POSSESSIONS.

Assam, Chittagong, &c.,	Gowhati, Sylhet, Chittagong.
British Burmah,	Arracan, Akyab, Rangun, Prome, Moulmein.
Andaman Islands,	Port Blair.
Eastern Settlements,	Georgetown, Malacca, Singapore.

ASSAM, a long and narrow province, is situated on the middle course of the Brahmaputra, and is limited to the valley of the river, joining Bengal on the west, to the presidency of which it belongs. It was formerly part of the Burman Empire, but was ceded by that power after the first war, in 1826, when all right to some adjoining districts was at the same time renounced. The population is sparse, and consists chiefly of Hindus of the Brahmanical creed, of an inferior type to the majority of their brethren. The towns, so called, are little more than ranges of straggling huts, but the country is important, as a home of the tea-plant, to which by cultivation the aspect of a great tea-plantation is in process of being given.

High bordering mountains, streams descending their declivities to the centrally intersecting channel of the Brahmaputra, great forests and jungles occupied by an immense number of large and formidable wild animals, as elephants, rhinoceroses, tigers, leopards, and buffaloes, with frequent shocks of earthquakes, are the natural characteristics of Assam. A considerable extent of ground is now occupied by the tea-plant, carefully cultivated in the first instance under the direction of Chinese instructors. The produce has realised higher prices in the London market than the finest qualities from China. Plantations established by the government have supplied 100 tons of tea-seeds, and 2,500,000 seedling plants in a single season to other districts. Land is granted for the purpose on easy terms to enterprising capitalists. In July 1862 there were actually under cultivation 13,223 acres, bearing an estimated crop of 1,788,737 lbs., and affording employment to 16,611 daily labourers. But a total space of 71,218 acres had been appropriated. There are now 160 plantations, owned by sixty companies and individuals. *Gowhati*, in Lower Assam, is the principal

seat of trade, and the only place entitled to be called a town. *Saikwah*, in the upper or eastern part of the province, is chiefly a military station.

Southward of Assam are the wild, wooded, and hilly districts of Cossya; *Cachar*, where the tea-plant grows wild, and is also under culture; and *Sylhet*, where coal is worked. Tribes in an almost savage state here occupy stockaded villages in natural fastnesses, from which they issue on marauding expeditions, and make good their retreat with plunder before the military police can arrest the foray. Further south, on the Bay of Bengal, is *Chittagong*, the head of a district, in an unhealthy locality, once a commercial port and site for ship-building, but decayed since the acquisition of more favoured positions in British Burmah.

BRITISH BURMAH, a maritime territory, on the eastern side of the Bay of Bengal, extends between latitude 11° and 21° , equal to a direct distance of about 700 miles, but the average breadth is comparatively limited. It includes the provinces of Arracan, Pegu, Martaban, and Tenasserim, obtained by conquest from the Burmese; and consists of a generally flat, alluvial, rice-growing coast region, with hills rising into ranges of forest-clad mountains for the inland boundary, and a multitude of islands close in-shore. The area is estimated at 81,400 square miles, and the population at 1,732,000. There are a variety of races among the inhabitants, but nearly half the number are Burmese, principally found in Pegu, in the delta of the Irawaddy. Karens are also numerous, wild highland tribes, favourably spoken of as disposed to receive instruction themselves, and send their children to schools to learn English as the key to general knowledge.

Arracan, on a river of the same name, 50 miles from the sea, is seated in a swampy insalubrious valley, surrounded by extensive ancient defences. The seat of government has been removed to Akyab, and Arracan has declined in favour of its successor as a local capital. *Akyab*, now the chief port of the province, stands on an island at the mouth of the stream. *Rangoon*, on an eastern branch of the Irawaddy, near its outlet, was formerly the chief port of Burmah. It is now fortified in the European manner, possesses a dockyard, and a flotilla of steamers and flats for the conveyance of passengers and stores up the river. On the 4th of December 1858, the ex-king of Delhi, with the queen, and some ladies of the zenana, arrived here, on board H.M.S. *Megera*, and was sent to an inland station to undergo the sentence of a felon transported beyond seas. *Prome*, higher up the Irawaddy, is the largest place in British Burmah, containing 30,000 inhabitants, situated in the midst of rice-ground and gardens. *Moulmein*, near the mouth of the Salwn, is a flourishing seaport, with vast forests of teak for ship-building in its vicinity. Its history is somewhat curious. Soon after the cession of the territory to the British in 1826, Mr H. Gouger crossed the Salwn from the town of Martaban. He found a wide extent of country on the opposite bank, completely covered with woods and jungle, of which wild beasts and reptiles had long been the only inhabitants. But evidence appeared of human occupancy in bygone time. In the very midst of the wilderness stupendous walls were found, neatly and strongly built of brick, with large forest-trees growing from their tops, or out of rents and fissures in their face. The walls had towers at their angles, and along their several sides at regular distances. They enclosed a vast square or parallelogram, then a void space, but fragments of buildings shewed that a very considerable city had once occupied the spot. This was Moulmein, of which the Portuguese traveller Pinto caught a glimpse in the middle ages; ruined by savage warfare, it disappeared in the jungle which rapidly overgrew its remains. It is now a thriving shipping port, with 17,000 inhabitants, among whom are Parsee, Armenian, and Burmese traders. Good coal is found in the vicinity, as well as at some other points southward on the coast.

The ANDAMAN ISLANDS, an extensive group in the Bay of Bengal, opposite the shores of British Burmah, are occupied as a penal settlement, selected in the first instance for the captured sepoys concerned in the Indian Mutiny, but now destined to receive generally the convicts sentenced in India to transportation. *Port Blair*, the colony recently established, with upwards of 2000 prisoners, is named after Captain Blair, who founded a settlement on the North Andaman in 1792, which was abandoned after four years' struggle with disease. The islands were re-visited in 1857, by a deputation in the steamer *Pluto*, for the purpose of fixing upon a suitable site for the station.

The trees are of enormous size, closely packed, almost hid from view by a growth of parasites and creepers. The mangroves, with their long hanging branches falling to the earth, and again taking root, grow almost in a line of forest along the shore, and even projecting far into the water at high tide. The natives are a pigmy race, but fierce and intractable as demons, incredibly agile, extremely barbarous in their habits, wearing no covering beyond a coating of mud, renewed every night as a protection from mosquitoes, ticks, and other annoying insects.

The EASTERN SETTLEMENTS are connected with the Strait of Malacca. They consist of Prince of Wales's Island, at the north entrance; that of Singapore, at the south extremity;

and the district of Malacca, intermediate, on the mainland, which completely commands the channel. It separates the peninsula of Malaya from the island of Sumatra, and is the best and most frequented route between India and China.

Prince of Wales's Island, its official style, has the native name of Pulo-Penang, 'Betel-nut Island,' from the areca-palm which produces the fruit, and grows luxuriantly. It is eighteen miles long, eight miles broad, traversed centrally by a ridge of hills, and about two miles from the mainland. *Georgetown*, the capital, contains a population of 40,000, of a very miscellaneous description, possesses a good harbour, and enjoys a delightful climate. The island was acquired by the East India Company in 1785; and on the adjoining main shore, in 1800, a small district, called Wellesley province, was obtained by purchase from a native chief. The pepper vine is very successfully cultivated in Penang. In 1858, at Georgetown, the first execution of a white man occurred, an American sailor, for the murder of the mate of his ship.

Malacca, a well-built town, at the mouth of a small Malayan river, is the chief military station of the British on the strait. Its name has become widely known from the association of St Francis Xavier with the Church of Our Lady del Monte, and the Anglo-Chinese college founded by the missionaries Morrison and Milne. It was ceded by the Dutch, in 1824, in exchange for Bencoolen in Sumatra. The dependent territory extends about forty miles along the coast, by twenty-five miles inland, but has no features of interest, and very thinly occupied.

Singapore, 'City of the Lion,' is a principal entrepôt for European and Asiatic merchandise, containing a population of 60,000, among whom the Chinese are prominent. It is 1470 miles from Point de Galle in Ceylon, and 1600 miles from Calcutta, and is a principal station of the Peninsular and Oriental Company's steamers. Being within eighty miles of the equator, the climate is hot but equable. The island, bearing the same name as the town, is of elliptical form, twenty-seven miles long, and fifteen miles broad, separated by a narrow channel from the mainland. The Malays call it Ujong Tanna, the 'Land's End,' situated at the south extremity of their peninsula, and of the continent of Asia. Its soil is fruitful, it does not abound in trees, but its hills and valleys are covered with pleasant verdure. The port is secure at all seasons of the year; the imports amount to £3,500,000, and exports to £3,000,000. It became a British possession in 1824.



Malacca.



Canton River and Ho-nan Island.

CHAPTER VIII.

THE CHINESE EMPIRE.



HINA, and the adjacent territories usually considered component parts of the empire, though several are now very loosely connected with it, include a vast section of Eastern and Central Asia, enclosed by the Russian dominions on the north, India and the Indo-Chinese peninsula on the south, Turkestan on the west, and arms of the Pacific Ocean on the east. The region within these bounds is proudly denominated by the native race *Tchou-Koue*, 'Centre of the Earth,' in allusion to its supposed importance, and *Teen-hea*, 'Under Heaven,' in reference to its extent, while its rulers have assumed to themselves the titles of 'Sons of Heaven,' and 'Brothers of the Sun and Moon.' The area is estimated at 5,393,000 square

miles, equal to nearly one-third of the extent of Asia, while half as large again as the whole of Europe. It contains at least one-third of the entire human race. Immense districts are comprehended with totally opposite features. There are the most densely-peopled lands, and also utter solitudes, or wastes thinly sprinkled with nomadic tribes. An alluvial plain of the richest soil, larger than France, minutely cultivated, and bordered by ranges of azalea-clad mountains, co-exists with tracts of sand or shingle without the slightest vegetation, the monotony of which is unbroken in its dreariness for leagues, and

has no variety at all but low sterile hills and rocky ravines. Tremendous hail-storms, clouds of dust or snow flying in alternate seasons characterise these regions; mingling with the camels, merchants, and couriers of a passing caravan. Besides China, the principal divisions of the empire are Mantchuria, Corea, Mongolia, Chinese Turkestan, and the Tibetan countries.

I. CHINA PROPER.

This region, forming the south-easterly section of the empire, embraces one-third of its extent, according to a probable estimate, or 1,700,000 square miles, and contains a population of more than 360,000,000, who form generally a homogeneous people, with one type of countenance, one written language, similar modes of thought, and great uniformity of dress, habitation, and social life. The boundary is maritime on the east and south, formed by branches of the Pacific Ocean, of which the most important are the Yellow Sea and the China Sea. The Yellow Sea divides the north of China from the Korean peninsula, and has been so named from the discolouring of the water by the sediment brought into it by the rivers, the deposition of which renders it in many parts extremely shallow. The China Sea intervenes between the southern provinces and the Philippine Islands; and is occasionally of perilous navigation, owing to the typhoons or rotary storms which visit its basin, strew the shores with wrecks, and destroy life and property by the fall of houses even in the cities. A vast number of islands closely fringe the coasts, but all are of small size, with the exception of Formosa and Hainan. The country has an extent of about 1470 miles from north to south, by 1350 miles from east to west; and is comprised between latitude 20° and 42° north, longitude 98° and 123° east. On the western side, embracing half the area, the surface is mountainous, and rises in bolder ranges as Tibet is approached, some of which long retain the winter's snow upon their crests, but are richly clad with woods on the slopes. The other half, in the southerly part, is beautifully varied with hills, cultivated to the summit on the terrace principle, clothed with fruit-trees, flowering plants, or edible vegetation. The northerly portion consists of the great plain, the most productive granary in the world, and the seat of its densest population, extending from the south of Nankin to the north of Peking. Its low swampy tracts are cultivated as rice-grounds, while those which are firm and dry are irrigated and manured with the utmost care for various produce.

Two rivers of the first class in magnitude, the Hoang-ho and the Yang-tse-kiang, distinguish the hydrography. Both descend from the Tibetan highlands, and traverse the country from west to east, but make enormous detours to the north and south. They separate to immense distances in the middle parts of their course, but closely approach each other in the lower, and have their outlets within the limits of the same province. These rivers are very differently regarded by the Chinese. The Hoang-ho, or Yellow River, contributes the sediment which gives colouring and a name to the Yellow Sea, derived chiefly from the great plain, as in the early part of its flow the water is remarkably clear. It has a mighty, furious, and unmanageable current, and is therefore little adapted for navigation by native craft, requiring embankments to prevent inundations on its passage through the lowlands, and from often breaking bounds, one of the emperors styled it 'China's Sorrow.' Very recently the turbulent river has left its former channel for upwards of 200 miles from the mouth, and chosen a new one more to the north, though this is probably only a return to an ancient water-way, as there have been repeated shiftings in its course. Many slight shocks of earthquakes experienced in the great plain in 1852-1853 are believed to have promoted the change. The Yang-tse-kiang, 'Son of the Ocean,' has a longer course, an ampler basin, a milder and more majestic flow; and only agreeable associations are connected with it. It is the favourite river of the

natives, with vast cities on its banks, wide margins of fertile and cultivated lands on either hand, and thousands of junks constantly afloat upon its surface. British ships of the line passed up it to Nankin during the recent wars; and since the treaty of Tien-tsin in 1860 it has been ascended by a private party under Captain Blakiston, with the view of penetrating by it through Tibet into India. The adventurers gradually exchanged the alluvial plains of the coast for bold and beautiful scenery, high rocks and mountains, glens and gorges, with frequent rapids. Coal of superior quality, and gold associated with mica, were found worked on the banks; but, after a progress of 1500 miles by the stream, the explorers encountered such difficulties from the disturbed state of the country, that they were compelled to return, having penetrated further into the interior of China than any other Europeans.

Rivers of minor rank, but of high local utility, are numerous, and lakes overspread a considerable extent of the surface, some of which are economised by being occupied with artificially constructed floating islands, sustaining homesteads, with the gardens and live-stock of the inmates. These internal waters are extensively united by a system of canals, in the formation of which the Chinese early excelled, but more by industry than skill. The Imperial Canal, the largest work of the kind, passes from south to north through the great lowland, connects Hang-chow with the river-system of Peking, and has a total length of nearly 700 miles. Owing to the generally level surface and the light alluvial soil, its construction required little mechanical ingenuity, but involved vast labour, as it is sufficiently broad and deep to accommodate vessels of considerable burden. But in some places it is carried across rising-grounds by excavations, and over depressions by mounds. The southern portion of this great work was executed in the seventh or eighth century, but the northern part was made in the thirteenth by Kublai Khan and his successors, when the Mongol dynasty removed the imperial residence from Nankin to Peking. While intended to answer the purposes of general commerce, irrigation, and drainage, it was mainly designed to facilitate the passage of the provision fleets from the productive provinces, to the capital, by an inland route, thereby avoiding a long sea-voyage, and exposure to danger from storms and pirates on the coast.

Another monument of useless industrial labour, the Great Wall, encloses the country on the north, and was erected by the first emperor of the Tsin dynasty, about 220 B. C., as a security against the incursions of the Tartars. It passes through nearly nineteen degrees of longitude, over high mountains, deep valleys, and across broad rivers by means of arches; has a total course of about 1250 miles; and terminates in the midst of nearly impassable rocks and extensive deserts. This great rampart, where it is the strongest, consists of an exterior of stone and brick, inlaid with earth, and is broad enough to allow of six horsemen riding abreast at the summit. It is furnished with towers at intervals of every 100 yards, and passed at certain points by gates under a guard. The height varies, but may average twenty feet. It is said to have been erected in five years by the enforced toil of every third labourer throughout the empire. The wall is now in many parts in a very dilapidated condition, but even when most perfect and best guarded it entirely failed in its object—that of keeping out erratic nations. Smugglers passed openly through the crumbling breeches. Peking is about sixty miles south of the barrier, known among the natives as the *Wan-li-Chang*, or 'myriad-mile-wall.' From the Tsin dynasty, under whom it was built, the country is supposed to derive its name, corrupted from Tsina into China.

All the metals are known to occur in China with the exception of platina. Small quantities of gold are obtained from the sands of rivers; silver, copper, lead, and iron mines are worked; coal, widely diffused in great abundance, is used for common fuel and in manufactures; the highly-valued greenstone, called jade, and various gems are met with; and from vast beds of porcelain earth of the finest quality, the ware is produced which once monopolised the markets of Europe, and led to all the superior kinds of pottery wherever made being denoted by the name of 'china.' No active volcano appears to exist, but there are solfataras emitting sulphureous vapours, springs of hot water, wells of petroleum, and the soil in many places indicates a volcanic origin. Large wild animals are entirely absent from the densely-peopled districts, where man himself is cramped for elbow-room, and has to nurture every little patch of soil to provide the means of subsistence. But the mountainous provinces bordering on Tibet contain the elephant, rhinoceros, tiger, bear, and tapir, with varieties of deer and monkeys. Formidable reptiles are also unknown; pheasants and other gallinaceous birds, with water-fowl, are plentiful; and the ichthyology, both along the coasts and in the rivers, comprises beautiful and peculiar forms,

from which Europe has been enriched with its goldfish. Locusts occasionally commit great devastation, and some other insect tribes are noxious. From the earliest ages the silkworm has been reared. The domesticated quadrupeds are not numerous, for much of the work is performed by human hands, which in other countries falls to the lot of the horse; but the Bactrian camel appears in the north as a beast of burden, and the buffalo is employed to till the rice-grounds in the south, under the name of the 'aquatic ox.'

The 'Flowery Land,' as the country is styled by the natives, is an epithet appropriately bestowed upon it. In the southerly districts the hillsides are clothed with groves of camellias, azaleas, magnolias, and tree-peonies, with which clematises, roses, honeysuckles, and chrysanthemums intermingle, spreading before the eye a display of gorgeous beauty, and gratifying the senses with delicious perfume. The useful vegetation of the large and more important kind includes the tallow-tree, the varnish-tree, the camphor-tree, the wax-tree, the mulberry, the funeral cypress, and palms on the southern coast. Bamboos, of which upwards of sixty varieties are enumerated, form forests in the warm regions, and are of great value to the owners, being applied to an endless number of uses, besides the one which led Marco Polo to remark, 'Of a surety there is no such country for *stick* as Cathay.' The fruits of temperate climes are produced in the north, where also the ordinary cereals of Europe, maize, barley, and wheat are raised, while rice is grown in vast quantities in the south, and tropical fruits appear. With marvellous care every foot of ground is tilled, every nook occupied by some useful plant, and the highest honours of the state are paid to the task of cultivation. Once a year, towards the close of March, the emperor repairs in person to a particular field, attended by princes of the blood, high officers of the court, and several labourers. After offering sacrifice on an altar of earth, he lays his hand upon the plough, and traces part of a furrow. The princes and functionaries severally imitate the example of the monarch, and then the common labourers proceed to complete the work of tillage. The same ceremonial is observed by the governors of provinces. But of all the botanical products of China, the tea-plant is the most characteristic and valuable, cultivated in almost every province, but principally between the latitude of 27° and 31°, on the slopes of hills in the basin of the Yang-tse-kiang.

There are two varieties of the tea-plant, *Thea viridis* and *Thea bohea*, from either of which black and green tea is produced, mainly by different modes adopted in preparing the leaves. The maritime province of Fuk-keen, on the western border of which are the famous Bohea Mountains, is the principal black-tea district. The largest amount of green tea is raised further north in the adjoining provinces of Che-keang and Keang-se. From the unexpanded shoots and very young leaves Pekoe, a black tea, and young Hyson, a green tea, are obtained. The fully-expanded, but still young leaves, produce Souchong, Pouchong, and Campor, among the black teas, with Imperial Gunpowder and Hyson among the green. The oldest and coarsest of the leaves produce Bohea, the most inferior in quality of the black teas. Great Britain takes annually upwards of 70,000,000 pounds.

In manufactures the people display the same patient industry as in agriculture, and particularly excel in all works which require dexterous and delicate handling. They are unsurpassed in the production of silk, cotton, and linen fabrics, light gauzes and embroidered satins, fine porcelain and lacquered wares, filigree-work in gold and silver, fans and artificial flowers, carvings on ivory and engraving on wood or stone, ink and paper, while their dyeing is renowned for its brilliant and durable hues. In various points of knowledge, as the polarity of the loadstone, the art of printing, and the composition of gunpowder, the Chinese long antedated the Europeans; but either from incapacity to advance beyond a certain limit, or obstinate adherence to ancestral habits, they failed to benefit by the discoveries, from which the Western nations speedily reaped advantages as soon as they were comprehended. In spite of their own amazing assiduity and ingeniousness, with the natural productiveness of the soil, the country is vastly overstocked; the masses of the population are poverty-stricken; and hence the multitudes

who have sought to find relief in emigration, and are now established in large communities in Siam and Cochin-China, in Java, Borneo, and the Philippines, at Singapore and Calcutta, in California and Australia. Social misery, political discontent, and religious fanaticism have combined to fill almost every province with rebels, the most considerable body of whom, the Taepings, since 1850, have wrested an immense domain from imperial authority.

The modern history of China dates from its conquest by the Mongols under Kublai Khan in the year 1279. In his reign the country was visited by Marco Polo, the Venetian traveller, who may be called its first European discoverer. A native Ming dynasty succeeded in 1368. This was followed by the line of the Mantchu Tartars, the present rulers, in 1644, which gave able sovereigns to the throne in the last century, but their late successors have devoted themselves chiefly to luxury and opium. Yellow is the imperial colour, and none but persons of the blood-royal are allowed to wear yellow girdles. The emperor is not necessarily the eldest son of his predecessor, but nominated by him from his family. The present monarch, Hien Fung, 'Perfect Bliss,' who ascended the throne in 1850, was a fourth son. The first attempt of any European government to open direct intercourse with the court of China was made by the Russians. This was in 1655. The first British envoy, Lord Macartney, in 1792, proceeded by sea to the mouth of the Peiho, the river of Peking, and ascended it in yachts provided by the native authorities. Though honourably received, no commercial advantages were secured by the mission, and British trade remained restricted to the single port of Canton, till hostilities enlarged its sphere. By the treaty of Nankin in 1842, after the first war, the ports of Amoy, Fu-chow, Ning-po, and Shang-hae were thrown open, and the island of Hong-kong was ceded to Great Britain. By the treaty of Tien-tsin in 1858, after a second war, other ports and cities were declared free to British subjects, with the right of travelling under passports from their consuls through all parts of the interior, and the appointment of diplomatic agents to reside at the capital. In 1860, to enforce the ratification of this treaty, British and French armies advanced to Peking, where all demands were conceded.

For administrative purposes China is divided into eighteen provinces, all of which are of very large size, and each is under an imperial legate or governor.

		Population according to the Census of 1812.	Area in Sq. Miles.	Chief Towns.
Northern Provinces.	Chih-le, .	28,000,000	58,949	Pekin, Tien-tsin.
"	"	Shan-tung, .	29,000,000	Tai-nan, Tong-chang.
"	"	Shan-se, .	14,000,000	Tai-yuen, Ping-yang, Fen-chow.
"	"	Shen-se, .	10,000,000	Sin-gan, Fung-tsiang.
"	"	Kan-su, .	15,000,000	Lan-chow, Koung-chang.
Central Provinces.	Kiang-su, .	38,000,000	44,500	Nankin, Shanghae.
"	"	Ho-nan, .	23,000,000	Kai-fung, Nan-yang, Ho-nan.
"	"	Gan-hway, .	34,000,000	Ngan-kin, Chee-chow.
"	"	Hu-pe, .	27,000,000	Vou-chang, Han-yang, Hoang-chow.
"	"	Sze-chuen, .	21,000,000	Ching-tou, Kiang-tsin.
"	"	Hu-nan, .	18,000,000	Chang-sha, Chin-chow.
"	"	Kwei-chow, .	5,000,000	Kuei-yang, Tong-chin.
"	"	Che-kiang, .	26,000,000	Hang-chow, Ning-po.
"	"	Fu-keen, .	15,000,000	Fu-chow, Amoy, Tai-wan.
"	"	Kiang-se, .	23,000,000	Nan-chang, Kin-te-ching.
Southern Provinces.	Kwang-tung, .	19,000,000	79,456	Canton, Chao-chow, Kong-chow.
"	"	Kwang-se, .	7,000,000	Kuei-ling, Ping-to.
"	"	Yun-nan, .	5,000,000	Yun-nan.

The provinces are sub-divided into districts, departments, and circuits, under subordinate officers. Towns are ranged in three classes according to their rank, which is denoted by terminals attached to their names, as *foo* or *fu*, signifying a town of the first rank; *chow* or *cheou*, one of the second; and *heen* or *tsien*, one of the third. In Chinese nomenclature, *pe* signifies north; *nan*, south; *tung*, east; *se*, west; *king*, court; *ho* and *kiang*, river; *shan*, mountain; *hoo* or *hu*, lake. Hence *Pe-king* means the north court, *Nan-king*, the south court, at different periods imperial residences; *Shan-tung*, east of the mountains; *Shan-se*, west of the mountains; and *Hoo-nan*, south of the lake.

In general the towns have little variety in arrangement and architecture. Few Europeans have been so largely acquainted with those in the interior as the late Père Hue, who remarks upon their uniformity:

'The towns are almost all built on the same plan; they are usually of the quadrilateral form, and surrounded by high walls, flanked with towers at certain distances, and sometimes also by ditches, wet or dry. In books which speak of China, it is said that the streets are broad and perfectly straight, but it is not less true that others are narrow and tortuous, especially in the cities of the south. We have seen here and there some exceptions, but they are extremely rare. The houses in town as well as country are low, and have seldom more than one story. Those of the first class are built of brick, or painted wood, varnished on the outside, and roofed with gray tiles; the second are of wood or clay, with thatched roofs. The buildings of the north are always inferior to those of the south, especially in the villages. In the houses of the rich there are usually several courts, one behind another, and in the last are the apartments of the women and the maidens. A southern aspect is always preferred. The whole of one side of the apartments is usually occupied by windows, in which either talc, painted in various designs, a sort of transparent shell, and white or coloured paper, is used instead of glass. The edges of the roof are turned up to form a gutter, and the corners decorated with dragons and other fabulous animals. The shops are supported by pilasters, ornamented with inscriptions on painted and varnished boards, and the mixture of colours produces from a distance a very agreeable effect. Very few private houses can be called magnificent, though the term may be applied to some public edifices. At Pekin the government offices and palaces of the princes are raised on a basement, and covered with varnished tiles; but the most remarkable monuments are the bridges, towers, and pagodas. The bridges are very numerous, and we have seen some stone ones, composed of arches of great strength and span, that were very handsome and imposing in appearance.' Shops of confectioners, seedsmen, grain-dealers, hardwaremen, old-clothes sellers, and other descriptions, have their fronts wholly removed during the daytime. Soon after sunset they are carefully shut up and locked.

NORTHERN PROVINCES.

The Northern Provinces include the country extending generally from the parallel of 35 degrees, and the lower course of the Hoang-ho, to the Great Wall. Two of the number are maritime, Chih-le and Shan-tung, enclosing the greater part of the upper extremity of the Yellow Sea. This region has hot summers, but very cold winters, quite Siberian in their rigour, and produces the grains and fruits of Northern Europe. At Pekin, which is more southerly than Naples, there is a winter marked with daily frost for three or four months, and ice a foot thick blocks up the rivers. In various parts, outcrops of coal indicate the presence of stores of the combustible never as yet touched by the hand of man. Some extensive deposits are worked for consumption in the capital, where wood is dear. But coal-working, with mining in general, is conducted in the rudest manner. Nothing is known of the machines which facilitate the procurance of the mineral, and relieve the mines of water, nor are vertical shafts in use. The coal is brought from its bed in baskets by manual labour, and the water is discharged in a similar manner by means of small casks. Artificial fuel is prepared of coal-dust and a yellow clay, mixed with water into a thick paste, then moulded, and baked as in the manufacture of bricks.

Pekin, more correctly *Pe-king* ('the northern court'), the capital of the empire, is situated a short distance from the banks of the Peiho, about 106 miles from the sea, in latitude 40° north, longitude 117° east. It has an uninviting external appearance, and is wholly without advantages of position, being situated on a barren and sandy plain, while the navigation of the river ceases, except for boats, twelve miles lower down. The city is said to contain a population of at least 1,400,000. It consists of two distinct divisions or towns, both enclosed with walls. The one is Tartar and imperial, containing the palaces of the emperor, princes, and grandees, with the garrison. The other is Chinese and commercial, chiefly remarkable for bustle and hubbub in the streets, varied and curious articles in the shops, but contains the 'Temple of Heaven,' one of the finest of the religious edifices in the empire, in its construction and ornaments. The chief hall, circular in shape, supposed to represent the heavens, is adorned with columns painted sky-blue, and richly covered with gold. To this temple the emperor repairs annually, on the day of the winter-solstice, to offer sacrifice, and prepares for the ceremony during three previous fasting-days in a portion of it called the 'Penitential Retreat.' When the allied army entered Pekin in 1860, they met only a curiosity-stricken mob, gazing with open eyes and mouths on their doings, while not a few drove a thriving trade in selling fruits and sweetmeats, and some were good-natured enough to help in planting the guns.

Tien-tsin, the scene of the treaty of 1858, is on the south bank of the Peiho, sixty-eight miles below Pekin, and thirty-eight from the sea. It is the northern terminus of the Grand Canal, now disabled by the irruption of the Hoang-ho, and the largest port on the coast north of Shang-hae, containing 300,000 inhabitants. Many of the houses are good, and have verandahs well filled with flowering-plants. The

fashionable lounge is a street with the name of 'Everlasting Prosperity.' The city is considered the key of the capital, where at any time a superior force can stop its supply of provisions, whether brought from the southern provinces by the canal or by sea.

CENTRAL PROVINCES.

The Central Provinces are limited generally by the parallels of 26° and 35°, and embrace the lower part of the basin of the Yang-tse-kiang. Three of the number are maritime, Kiang-su, Che-kiang, and Fu-keen. With the latter the large island of Formosa is connected as a department, along with some small dependent groups. This section is the richest district of the country, its principal granary, the chief seat of the production of tea, porcelain, and silk, with cotton manufactures. The winters are much milder than in the northern division, though at Nankin, in the latitude of the mouth of the Nile, frost and snow are annually experienced.

Nankin or *Nan-king* ('southern court'), a former imperial capital, stands on the south bank of the Yang-tse-kiang, about 90 miles from the beginning of its estuary, and 200 miles from the mouth. It is surrounded by a wall above 40 feet high, 18 miles in circuit, passed by 13 gates, but large interior spaces are now covered with ruins, or consist of fields and gardens. The population, though vastly reduced, is estimated at 300,000. A porcelain tower is, or rather was, a celebrated object. This was a pagoda of nine stories, 260 feet high, with projecting balconies at each story, the balustrades of which are painted with highly-varnished gaudy colours. It was erected by the Emperor Yung-lo to reward the kindness of his mother (1413—1432), and has recently been destroyed by the Taepings. The calico called 'nankeen' derived its name from that of the city, as either the seat of its production, or the place from which it was first obtained. Its peculiar buff colour, once supposed to be artificial, and valued for its durability, is the natural hue of the cotton employed, and is extensively imitated. The manufactures of silks and paper are in high repute, and the article called Indian ink is largely made. Nankin was taken by the insurgents in 1853, and is now the capital of Taepingdom. Not one of the Tartars who were captured was spared. 'We killed them all,' said the ruffians; 'we left not a root to sprout from. The bodies were thrown into the Yang-tse.' This movement first became prominent in the autumn of 1850, under Hung-tsiu-tsuen, a man of humble origin, educated in a Protestant missionary school in the south of China, and a disappointed candidate for government employment. He proposed to found a new native dynasty, that of Taeping or 'Universal Peace.' Familiar by instruction with some Christian doctrines, many Europeans abroad, with the religious world at home, were disposed for a time to look favourably upon the enterprise. But the scales soon fell from their eyes. The bubble burst. The leader assumed the title of the Heavenly King, pretended to divine revelations, and propounded a system which has blood-thirstiness, blasphemy, and polygamy for its principal features.

Shang-hai, the seat of immense commerce, is situated upon a large navigable river flowing into the mouth of the Yang-tse. Its prosperity, and almost its existence, are quite of recent date. In 1846, when it was opened as a port to British trade, only a few houses were to be seen among corn, rice, and cotton fields. It is now one of the largest cities in the east, with a population estimated at more than 1,000,000, consisting chiefly of Chinese who have flocked to it from places held by the Taepings, seeking refuge under the flag of foreign nations. In 1862 the resident consuls declared it under their protection, as a warning to the disturbers who were troubling the neighbourhood. *Hangt-chou*, on the south-west, at the commencement of the imperial canal, answers to the description of its visitor, Marco Polo, in the middle ages, as one of the finest and most considerable cities in the empire. The walls are twenty miles in circuit; the streets are broad and well paved; the canals, bridges, and temples are numerous; and the environs are beautifully wooded. But the inhabitants, 800,000, have grievously suffered from the rebels. *Ning-po*, *Fut-chou*, and *Amoy* are free ports on the south. The latter, on a small island close in-shore, has an excellent harbour which admits of ships coming up to the quays. *Kin-te-ching*, in the interior, east of the Poyang Lake, is distinguished by clouds of smoke by day, and pillars of fire by night, from hundreds of furnaces, as the great centre of the porcelain manufacture. Of three inland places on the banks of the Yang-tse, whose names are scarcely known out of the country, *Han-yang*, *Vou-chang*, and *Hoang-chou*, it is stated by Père Hue that 'these three towns, standing in a triangle, in sight of one another, and only separated by the river, form a kind of heart, from which the prodigious commercial activity of China circulates to all parts of the empire. They are calculated to contain together nearly 8,000,000 of inhabitants, and they are so closely connected by the perpetual going and coming of vessels that they may almost be said to form one!'

The island of Formosa, 'Beautiful,' a name applied to it by the Portuguese—the Chinese name is *Tai-wan*—opposite the coast of Fu-keen, extends 237 miles from north to south, and has an average breadth of 70 miles. Some Malay tribes maintain a rude independence on the eastern or oceanic side, and are separated from the Chinese on the western by a lofty chain of mountains, with summits nearly reaching the snow-line. Rich fruits are produced, and coal of good quality occurs in abundance. *Tai-wan*, the chief town, on the west coast, was opened to foreign commerce by the treaty of Tien-tsin.



Canton, from Temple of Five Genii.

SOUTHERN PROVINCES.

The Southern Provinces range from the preceding district to the sea, and include possessions of the Portuguese and the British. Being intersected by the tropic of Cancer, the productions and climate are tropical. The cocoa-nut and other palms wave on the shores. Oranges, pomegranates, pine-apples, mangoes, and bananas occur among the fruits. At Canton oppressive heat prevails in summer, but in January frost is not uncommon. Snow fell in the winter of 1835; but its advent is so rare, that the shower was regarded with the utmost astonishment by the inhabitants.

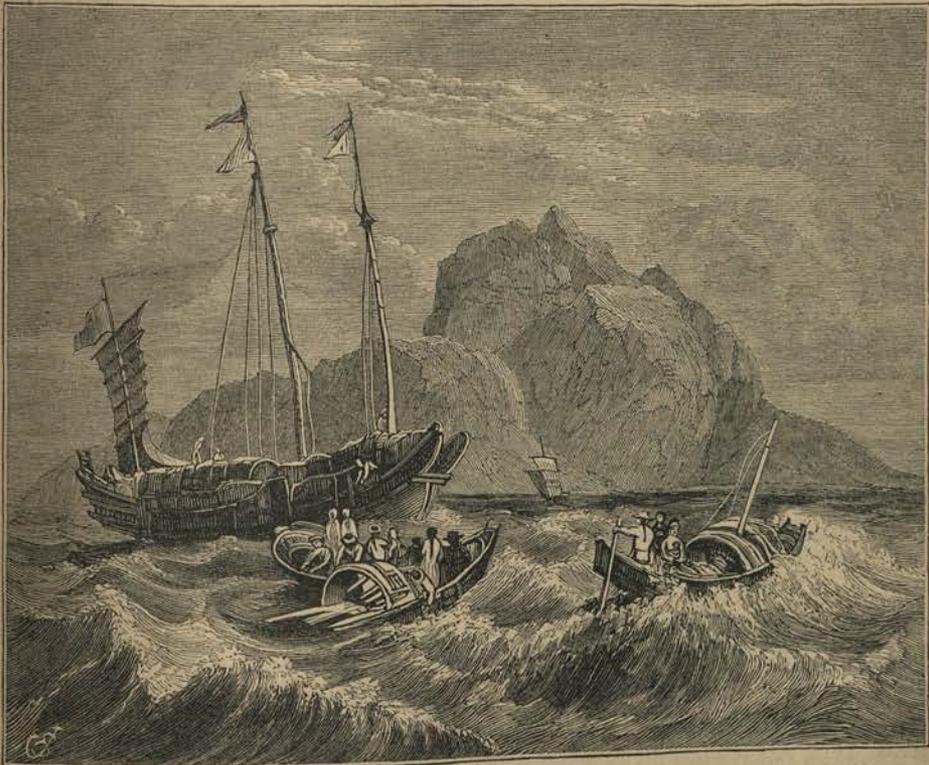
Canton, a corruption of the Chinese *Kwang-Tung*, till recent times the only port at which Europeans were permitted to trade, is situated on the east bank of the Choo-kiang, or Pearl River, at the head of the picturesque estuary which it forms at its mouth, called the Bocca Tigris. Vessels heavily laden cannot come up to the city, owing to the shallowness of the stream, but anchor some miles below. It has a circuit of nine miles, is enclosed by a rampart, passed by twelve gates to which guard-houses are attached. Several streets are monopolised by particular trades, and hence are named after them, as Carpenter Street, Apothecary Street, and so on. The population, noted for its turbulence and hatred of foreigners, is supposed to exceed 1,000,000. This includes an immense number who live constantly in boats on the river, and in miserable huts built on piles driven into its bed. The commercial importance of the place has been greatly diminished by the opening of the other ports. In 1857 Canton was taken by the allied British and French, when the notorious governor, Yeh, was captured in his palace, and conveyed to Calcutta, at his own request, where he died. He confessed to having put to death 70,000 of his countrymen during his viceregal reign over the province.

Macao, a Portuguese town, with an adjoining district about eight miles in circuit, occupies the peninsular projection of an island on the western side of the entrance of the Canton River. The settlement was obtained in the year 1586, partly in return for services rendered in clearing the seas of pirates, and partly by stealth. The town is small, but highly agreeable, and has a salubrious site, open on all sides to the sea-breeze. In the vicinity a cave and garden are shewn, as the favourite haunt of Camoens, the national poet

of Portugal, who wrote the greater part of his *Lusiad* during his residence in the settlement, where he held the post of administrator of the effects of deceased persons. A small ground-rent was paid to the Chinese government for the possession till the recent treaties with other foreigners enabled the Portuguese to claim exemption from it. The total population is about 30,000.

The island of HONG-KONG; a British possession, is on the opposite side of the entrance to the Canton River, forty miles from Macao, and close to the main shore. The name signifies 'Sweet Waters' or 'Fragrant Streams,' for which the Chinese commonly substitute the unpoetical and odd style of 'Petticoat String Road.' It is about nine miles long by from two to six miles broad, and has a surface rough with mountains of granite, serpentine, and trap, which render the scenery extremely picturesque, though of no considerable elevation. The climate is unhealthy, excessively hot and damp in summer, while dry and cold in the winter months, when fires are often required. *Victoria*, the chief town, on the coast towards the mainland, occupies a site which was covered with brushwood and jungle a quarter of a century ago, but now extends upwards of a mile along the beach, has spacious streets, fashionable shops, and great commercial establishments. A magnificent bay forms the harbour, one of the finest in the world, a deep and spacious expanse landlocked by a circle of hills, on which men-of-war and steamers, merchant craft of every country, trading junks of all shapes and colours, are constantly to be seen. *Victoria Peak* rises behind the town, and is a fine object from the water, but unfortunately shuts out during the hot months the refreshing influence of the south-west monsoon. The island has a total population of 75,000. It forms a colony of the crown, the affairs of which are administered by a governor and legislative council. Ceded by the treaty of Nankin in 1843, there was added to it by the treaty of Peking in 1861 a small strip of the mainland adjoining, which forms the peninsula of *Kow-lung*.

The Chinese belong to the Mongolian variety of the human race, and exhibit minor characteristic differences in the respective provinces, while generally very much alike in conformation, disposition, and habits. They fall below the average height of Europeans, especially the women, and are far less muscular. The complexion is tawny, though ruddy countenances may be seen in the colder northern parts of the country. The eyes are small, the hair coarse and lank, and the cheek-bones high. Sleek corpulency is



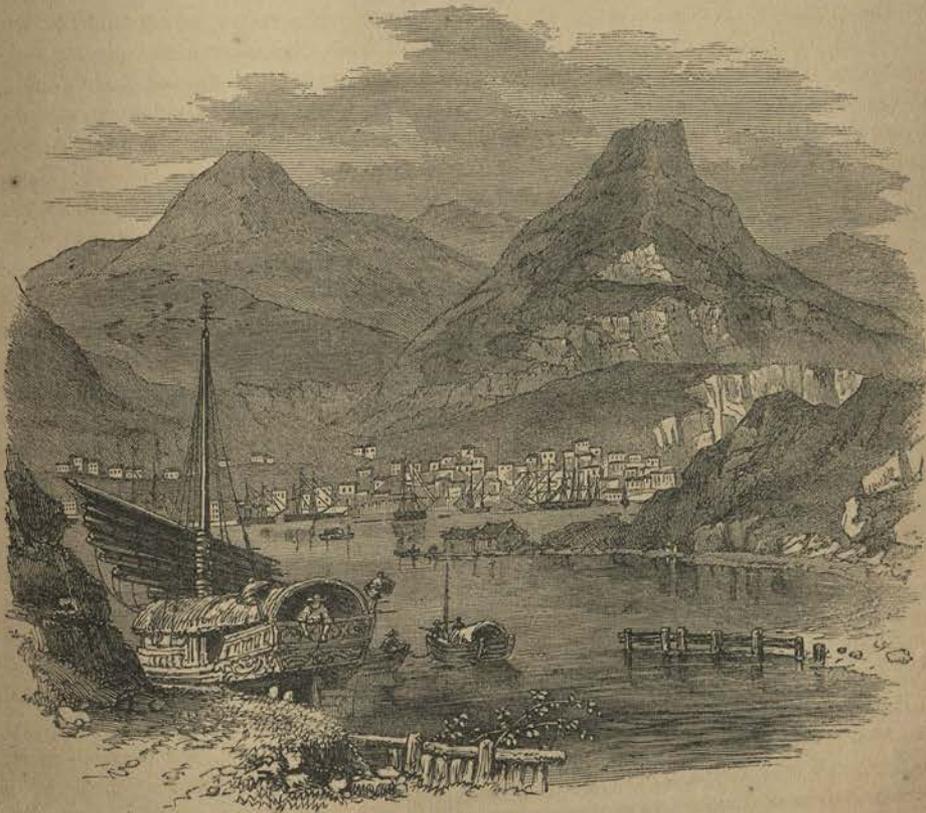
Tiger Island.

admired in men, and nature deformed as to the shape of the foot in women. In early childhood, among the superior classes, the feet of the girls are tightly bandaged, the toes are bent down and under so as to form part of the sole, and the heel is brought forward. By this process the foot is reduced in adult life almost to a stump. One which a shoe measuring three and a half inches in length will fit, is the 'golden lily' in Chinese esteem. The subordination of juniors to seniors, respect to parents and the aged, with charity to the poor, are prevailing virtues, while low cunning, falsehood, barbarous punishments, and inhumanity to captives taken in war are prominently national crimes. No people can be more accomplished in the art of dissimulation. 'A Chinaman,' remarks Mr Oliphant, 'has wonderful command of feature. He generally looks most pleased when he has least reason to be so, and maintains an expression of imperturbable politeness and amiability, when he is secretly regretting devoutly that he cannot bastinado you to death.' Gambling is a common vice; the use of opium a universal habit; and in few communities are petty delinquencies more abundant. The upper classes are completely and undisguisedly sensual, and practically regard catering for the stomach as the great purpose of life. Samples of food, forwarded from Shang-hae, through the medium of Sir John Bowring, are in the South Kensington Museum, and contain specimens of tobacco marked 'Mild for Women.' The fins of sharks, tongues of ducks, and sinews of deer are prized delicacies; and unhatched chickens are a favourite dish. The tripang, a sea-slug, caught by the hand on distant shores, and also speared, appears as a costly viand at aristocratic tables; and the peculiar material of certain birds' nests is never wanting in the cookery of the wealthy. These nests are formed by a species of swallow which inhabits the coasts of the Indian Archipelago, and are built in limestone caverns and gloomy rock retreats. They resemble small tea-saucers in shape, and are composed mainly of a glutinous sea-weed, of a light-red colour, nearly transparent. The substance is used in soups in the same manner as Europeans employ vermicelli. An extract from it also enters into the construction of the lanterns for which the Chinese are famous. These articles are wonderfully varied in their form, and annually illuminate each door on the night of a festival, the 'feast of lanterns,' held at the first full moon of the new year, when merry-making is universal.

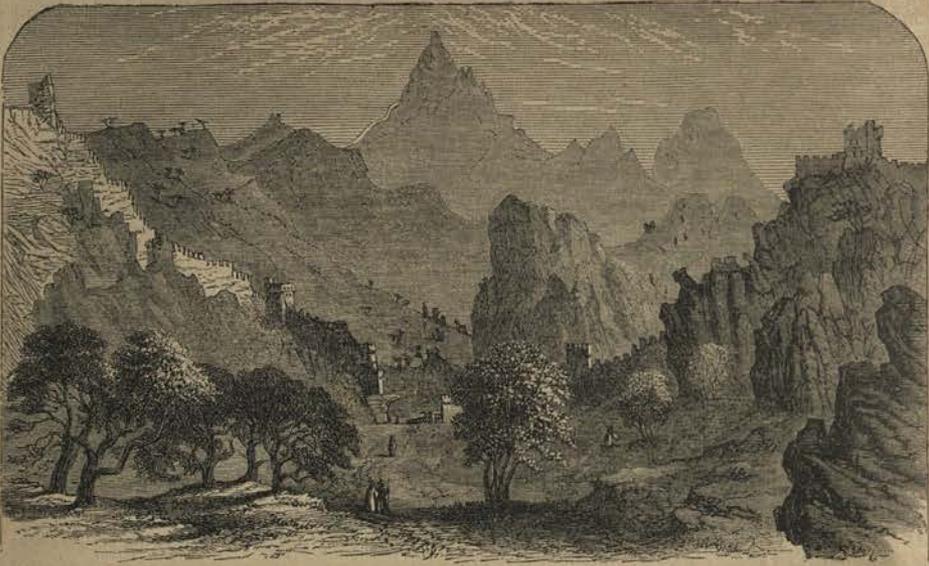
The Chinese language is the principal member of the monosyllabic or uninflected family, remarkable for its antiquity, originality, extensive prevalence, and difficulty to Europeans. It consists of two entirely distinct parts, the written and the spoken. The written language is ideographic; and embraces an immense number of characters, more or less complicated, each of which represents an idea or object, and not a sound. In the great national lexicon published in the seventeenth century, by order of the emperor, 30,000 distinct characters are given, but most of these are now obsolete. Only about 3000 are in very general use, which are resolvable into 214 primitive forms or roots. The characters are essentially hieroglyphs or signs, and have the same meaning universally attached to them; but their vocal expression remarkably varies in the different provinces, and originates a great number of spoken languages. An inhabitant of the south receiving a written or printed document from one in the north will understand it; but it would be wholly unintelligible if spoken in the local *patois* of his correspondent. A precisely parallel case is the use of Arabic numerals in Europe by different nations. Thus, the figures 22, or any other, are instantly comprehended by English, French, and Italians, though respectively ignorant of the vocal expression which each gives to them, as *twenty-two*, *vingt-deux*, *venti-deux*. The same character for the number twenty-two prevails all over China, and is everywhere understood, but when reduced to speech, it is *urh-shih-urh* at Peking, *gne-a-gne* at Ning-po, and *e-shape* at Canton. The native

literature embraces a vast series of standard works in the various departments of history, medicine, general science, biography, agriculture, and poetry. Day-schools abound in all the towns and villages, but give little instruction beyond the familiar arts of reading and writing.

The yellow robe of the Buddhist monk, and the slate-covered garment of the Taoust priest, indicate the two prevailing religious professions. The latter represents a scheme of rationalism, as it was originally proposed, but which is now connected with the grossest forms of idolatry, as well as divination, magical arts, and pretended intercourse with departed spirits. Confucianism, a system of political ethics and speculative atheism, is followed by the court and the educated classes. But no form of faith has any strong hold upon the national mind, and hence the religious tolerance which distinguishes the people is not the offspring of any conviction of its propriety, but of their own indifference to religion in general. Only in relation to what is called the 'worship of ancestors' is any earnestness shewn. It is expressed by ceremonial visitations to the tombs of parents; offering banquets to the dead; addressing pathetic speeches to them; and the rich have small apartments in their dwellings dedicated to their forefathers, in which the names of the deceased are inscribed on tablets, and have prostrations made before them. Though no direct mention is ever made of death, it does not arise from any personal dread of the event, or concern respecting a future state. On the contrary, the apathy is remarkable and general in relation to humanity's last great trial.



Hong Kong.



Chinese Wall at the Pass of Sha-po-yu.

II. DEPENDENT TERRITORIES.

MANTCHURIA, the native seat of the dynasty reigning at Peking, is a north-easterly region of the Chinese empire, extending from the Great Wall to the river Amur, chiefly watered by its tributaries. Though reduced in its area nearly one-half since the year 1860, by the cession of a maritime tract southward of the great river to the Russians, it still remains larger than France, but has only a population of a few millions. The bulk of the people are Chinese, traders and agriculturists, located near their own country, as the natives proper, or Mantchu-Tartars, being disposed to a military-life, are drafted off to serve in garrisons beyond the border, and sustain the tottering imperial throne. In the south the surface is mountainous and well wooded, but consists of grass-lands in the north, where pastoral occupations and hunting are pursued. A peninsular projection from this territory, COREA, washed by the Yellow and the Japanese Seas, is the seat of a separate kingdom, which acknowledges dependence upon the empire by an annual tribute.

Mukden, or *Moukden*, the capital of Manchuria, and residence of the viceroy, is a large city of 200,000 inhabitants, surrounded by walls, situated on a river descending to the Yellow Sea. Its good appearance has surprised recent European visitors, as Mr Fleming, who found his way to it from the Great Wall in 1861. 'The great regularity of the streets—the ample breadth of the principal ones—the absence of filthy and indecent displays at their sides, such as everywhere offend the eyes and nose in Peking; the uniform height and frontage of the shops, and their respectable, though far from gaudy appearance, and the total absence of tumble-down wooden arches, such as in almost every other town obstructed the way or marred the prospect—quite took our good opinions by storm. Moukden, so far as our experience went, was pronounced to be the Edinburgh of the Middle Kingdom. The people were well though not luxuriously dressed, and I do not think that during our stay we noticed a beggar or a ragged individual within its walls. There were large stands of cart-cabs with excellent mules in them, superior to those of Peking. There were capital shops with large open windows, in which were counters for the sale of furs, native cottons, dye-stuffs, grain, and medicines, as well as ready-made clothing; but we could perceive nothing European, save a couple of boxes of German lucifer-matches, which we saw when we afterwards had an investigation on foot. A good proportion of these shops were kept for the manufacture and sale of bows and arrows, and in some of them there were splendid specimens of the skins of eagles and vultures. We passed several large Yamuns, or government buildings, before which were drawn up dozens of cabs, and crowds of attendants awaiting the convenience of their several owners who were within, probably discussing

questions concerning the management or mismanagement of a province. Each of these public offices was guarded by rows of high and black *chevaux-de-frise*. Booths and stalls there were none, and even the nomadic vendors of catables, and the peripatetic craftsmen of all grades and trades, who roam freely elsewhere, were here invisible.' The family residence and place of sepulture of the reigning dynasty is Hing-King, about sixty miles east of Mukden. *Kirin-Oula*, a flourishing trading city, the head of a province, is seated on the Sungari, a principal affluent of the Amur, which winds its way to the frontier river, between low, fertile, and peopled banks, through a total course of 1000 miles.

King-ki-tao, the capital of Corea, is little known beyond being an inland site. The tributary peninsular kingdom has hitherto been sealed to European intercourse.

MONGOLIA, sometimes called Western Tartary, which defines its position in relation to Mantchuria as Eastern Tartary, is a territory of immense extent, included between China on the south, and the Siberian frontier on the north. It measures upwards of 1200 miles from east to west, by an average of 500 miles in the opposite direction, and consists of a generally high table-land, but elevated 3500 feet above the sea, in that part of it traversed by the merchant caravans and couriers passing between Peking and the Russian dominions. The tract called Gobi, a Mongol term for 'naked desert,' to which its Chinese name corresponds in meaning, Shamo, 'sand desert,' is the characteristic physical feature. This is, for the most part, a frightfully sterile wilderness, consisting of loose sand, bare rock, and shingle, alternating with firm sand scantily clothed with vegetation. But a large portion of the country, while equally treeless and monotonous, seasonally assumes the aspect of an ocean of grass, and supplies pasturage to the flocks and herds of pastoral tribes, whose camps, like moving cities, make the tour of the vast prairie-grounds, and leave traces of their halts in the ashes of their hearths. A short summer, with very hot days and cool nights, alternates with a very long and rigorous winter. In the former season the opposite incidents of droughts, torrents of rain, and terrible hail-storms are common experiences. On the borders, towards the Great Wall, the surface is mountainous, forest-clad, and there is a considerable Chinese population, who profit greatly by practising upon the simplicity of the wandering Mongols in dealing with them for their cattle.

Mongolia was the central seat of the great empire of Genghis Khan, in the early part of the thirteenth century, who made Karakorum his capital. This place fell into decay upon the conquest of China by his grandson, Kublai Khan, who transferred the court to Peking. It has lapsed into oblivion, for little is known of any present remains. But the traveller occasionally stumbles upon a ruin in the Mongolian solitudes, which tells a tale of by-gone life and power, though without a name, and without a tradition. So it happened to Père Huc. 'We had gone,' says he, 'nearly three days' march when we came to an imposing and majestic monument of antiquity. It was a great forsaken city, with battlemented ramparts, watch-towers, four great gates directed to the four cardinal points, all in perfect preservation, but all sunk three parts into the earth, and covered with thick turf. Since the abandonment of the place the soil around it has risen to that extent. We entered the city with solemn emotion; there were no ruins to be seen, but only the form of a large and fine town, half buried and enveloped in grass as in a funeral shroud. The inequalities of the ground seem still to point out the direction of the streets and the principal buildings; but the only human being we saw was a young Mongol shepherd, who, seated on a mound, was silently smoking his pipe, while his goats grazed on the deserted ramparts around him.'

The Mongols are Buddhists in religion, or rather Lamaists, who adhere to a corrupted form of Buddhism. They are shepherds and herdsmen, occasionally hunters, utterly averse to a sedentary life; and, as in the case of nomadic people in general, the senses of sight, hearing, and smell are very strongly developed. At a few frontier stations they come into contact with the Chinese, to be corrupted and duped by them. 'When the Mongols,' remarks Huc, 'simple and ingenuous beings, if there are such in the world, arrive in a trading town, they are immediately surrounded by Chinese, who almost drag them into their houses. They unsaddle their cattle, prepare tea, render them a thousand small services, caress, flatter, and as it were magnetise them. The Mongols, free from duplicity themselves, and never suspecting it in others, are generally completely duped by all this apparent kindness. They take seriously all the fine sentences about brotherhood and devotion that are lavished on them, and aware besides of their own want of address in business, they are enchanted to find friends who will transact it for them; a good dinner gratis given them in the back-shop is sure to convince them of the good faith of their Chinese "brothers." It is generally during this dinner that all the corruption and dishonesty of the Chinese come into full play. Having once got a hold on the poor Tartar, they never let him go; they intoxicate him with brandy; they keep him two or three days in their houses,

never losing sight of him; they make him eat, drink, and smoke, whilst the clerks of the establishment sell, as they well know how, his cattle, and supply him in return with the articles of which he stands in need. These goods are generally sold at double and often triple the current price; yet they have the infernal talent of persuading the unhappy Tartar that he is making an excellent bargain. Thus, when the victim returns to the "Land of Grass," he is full of enthusiasm about the incredible generosity of the Kitats, and promises himself to see his good friends again whenever he has anything to buy or sell.

Maimatchin, on the Mongolian frontier towards Siberia, is a small Chinese town opposite Kiachta on the Russian side, where the traders of both countries exchange goods. The two places are separated by a space of neutral ground, 280 yards wide. The change, says Erman, on passing from the one to the other, seemed like a dream, or the effect of magic. A contrast so striking could hardly be expected at any other spot upon the earth. The unvarying sober hues on the Russian side were succeeded all at once by an exhibition of gaudy finery, more fantastic and extravagant than was ever seen at any Christmas wake, or parish village-festival in Germany. The roadway of the streets consists of a bed of well-beaten clay, which is always neatly swept, while the walls of the same material on either side are relieved by windows of Chinese paper. Sunset is announced from a wooden tower by gongs, when business terminates. The Chinese annually deliver here tea worth from 10,000,000 to 15,000,000 of Prussian dollars, and rhubarb to the value of about 600,000 dollars; and from the Russians, on the other hand, they buy every year a large quantity of Polish linen, woollen cloth, and furs. Mr Grant made a journey from Peking to Maimatchin, across the Mongolian Desert, in 1863 with apparently little difficulty; soon afterwards the route was traversed inversely by a correspondent of the *Times*, Mr Bishop, and his wife, a delicate English lady. It appears from Mr Bishop's statement, that several English gentlemen have, by his advice, adopted this 'overland route' home.

CHINESE TURKESTAN, a westerly continuation of Mongolia, has a widely different natural aspect, owing to the intersection of the Tian Shan, or Celestial Mountains, which originate many streams, rendering the valleys and high plains extremely fertile. They do not escape from the elevated region and reach the sea, but terminate their course in landlocked lakes, or lose themselves in swamps and sands. The great range runs east and west, and forms the two districts of Tian-shan Pe-loo, and Tian-shan Nan-loo, meaning the country north and south of the mountains, thus discriminated by the Chinese geographers. The former is sometimes called Sungaria, and the latter Little Bokhara. A few Mongol hordes wander over the surface, but races of the Turkish family compose the bulk of the people, who are settled in towns, Mohammedans in religion, rude, and turbulent. They are in general politically subject to chiefs of their own; but the Chinese occupy military posts, guard the frontiers, collect a revenue, and maintain some penal settlements.

Ili, or *Gouldja*, a considerable town north of the dividing range, has trading connections with Russia, being situated on the banks of the Ili, which passes into the Russian territory, and enters Lake Balkash. *Yarkand*, on the south of the mountains, seated on a river of the same name, which debouches in Lake Lob, is the principal seat of commerce, the residence of a Chinese governor, and contains upwards of 50,000 inhabitants. *Cashgar*, towards the western frontier, maintains commercial intercourse with Bokhara, and is the seat of a native khan, who barbarously caused one of the enterprising German brothers Schlagintweit to be executed before the gates in the year 1858. *Aksu*, eastward, on the caravan route to China, is the residence of the Chinese military commander, and the head-quarters of the troops.

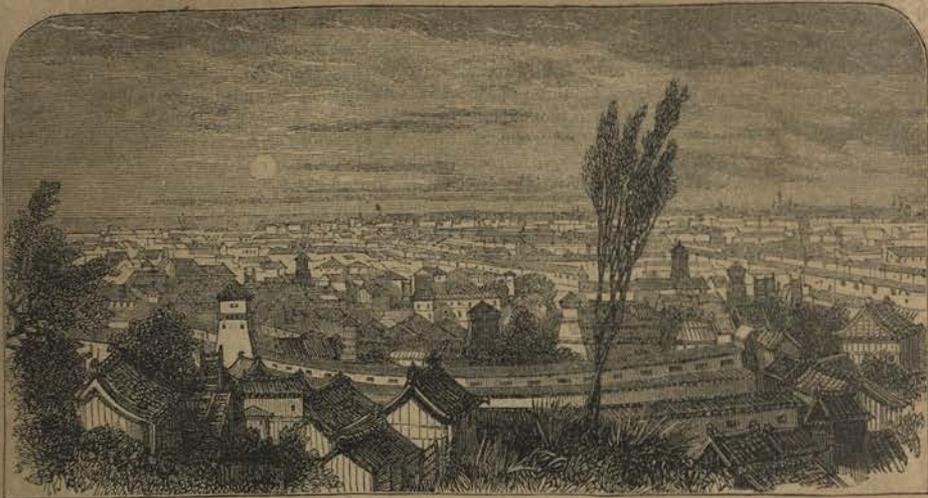
TIBET, a south-western section of the empire, on the borders of India and Burmah, is an extensive and elevated plateau, the loftiest on the globe, having an altitude of from 10,000 to 15,000 feet above the sea. It is enclosed by the mountain-chains of the Kuenlun and Himalaya on the north and south; and has a surface both spread out in plains and furrowed with valleys and ravines, through which many of the great rivers of Asia descend to the adjoining lowland countries, as the Indus, Sutlej, and Brahmaputra, the Yang-tse-kiang and Hoang-ho. Lakes are also numerous, mostly salt or brackish, several of which are regarded with religious veneration by the Buddhists, and attract pilgrims from afar to their shores. The cold climate restricts industry chiefly to the rearing of sheep and goats in immense numbers on the pastures, though some of the hardiest cereals are raised. Among the native animals, the yak or grunting-ox is the most remarkable, occurring both wild and domesticated, but so impatient of warmth as to keep to the snow-mountains in summer, and descend with the snow to the table-lands in winter. The people are of the Mongol stock, and Lamaists in religion, subject generally

to the sovereignty of China, represented by a viceroy, but with very little interference in their affairs; and to a spiritual ruler or pope, the Dalai-Lama, literally the 'Ocean Priest,' a hyperbolical allusion to the extensiveness of his authority. The country includes three principal divisions, Great Tibet, the largest, on the east; Middle Tibet, on the west, conquered by Gholab Singh, the ruler of Cashmere, and annexed to it in 1835; and Little Tibet, on the north-west.

Lassa, the capital of Great Tibet, is an open city of very wide streets, surrounded with gardens, from which foreigners, especially Europeans, are carefully excluded. Père Huc reached it, but was at once conducted out of the country. The place is to Buddhism as Mecca to Mohammedanism, and Rome to Catholicism, being the residence of the Dalai-Lama on the adjacent Mount Botala. At this spot there is an immense establishment of convents and temples, with a pontifical court, consisting of a great number of subordinate priests. In theory the chief functionary never dies, as his gifted soul is said to pass immediately to his successor. The individual favoured with this transmigration is supposed to be indicated to the priests by a variety of signs, but the Chinese viceroy, who has troops in garrison at his elbow, is believed to have actual control over the appointment. *Lassa* has a considerable population, vastly increased for a time by the arrival of devotees. Dogs abound constantly, owing to the peculiar mode adopted by the Tibetans in disposing of the dead. In no case is there any interment. The bodies are either submitted to combustion, or submerged in lakes and rivers, or exposed on the tops of rocks to be the prey of beasts and birds, while many are cut up and committed to the dogs to be devoured. This applies to both rich and poor. The only difference is, that the corpses of the indigent are given to the unowned street dogs, and those of the wealthy, or of men of rank, become the property of a select number kept for the purpose in the convents, and carefully attended to as sacred animals.



Rope Bridge over the Spiti Torrent.



General View of Yeddo.

CHAPTER IX.

JAPANESE EMPIRE.



APAN, an insular empire, which has recently taken its place in the family of nations by formal communication with them, after having long kept aloof from intercourse, except to a limited extent with the Chinese and Dutch. It is situated on the eastern side of the Asian continent, from which it is separated by the Japanese Sea and the narrow Strait of Corea, while the broad expanse of the Pacific Ocean rolls in the opposite directions. It consists of an elongated curving archipelago, extending generally north and south, through a distance of more than 1200 miles. Four principal islands constitute Japan Proper—namely, Yesso, the most northerly; Nipon, central, and by far the largest; Kiusiu and Sikok, southerly. With these are associated an immense number of small islets, reckoned at 3850. In the extreme north the southern part of Saghalien Island and of the Kurile series is claimed by the empire, the northern portion of which in both cases belongs to Russia, while at the opposite extremity the Loo Choo group is a southerly dependency. The entire chain lies between latitude 26° and 50° north, longitude 128° and 151° east; and has an area estimated at 266,000 square miles. A crescent shape, with the concave side turned towards the continent, distinguishes Nipon, the mainland of the archipelago, which is upwards of 800 miles in length,



CONSTANTINOPLÉ
The Golden Horn.

Drawn by Giovanni Battista Piranesi.

but comparatively narrow. Its name, from which that of Japan is corruptly derived, is said to signify in Chinese 'Sunborn,' 'Land of the Rising Sun,' referring to its position in relation to that country.

The coasts are generally rocky, much broken by picturesque inlets, and are of difficult access, which, with the occurrence of typhoons or hurricanes of tremendous violence, and the imperfection of nautical surveys, has occasioned many lamentable disasters to shipping since the ports were opened to the commercial nations. A chain of mountains traverses the whole insular series in the line of its greatest extent, some of which rise to a considerable height, and have their summits snow-clad for many months of the year, while upon a few it is permanent in patches. Several are active or extinct volcanoes. In their neighbourhood earthquakes are so frequent that the natives calculate upon one of their cities being destroyed upon the average every seven years. In August 1783 the shocks continued at intervals through twelve days, and desolated twenty-seven towns. The focus of disturbance is sometimes in the bed of the adjoining ocean, or a wide sweep of the expanse lies within the area of concussion. In December 1854 the south-east coast of Nipon was dreadfully ravaged. The Russian frigate, *Diana*, lying at anchor off Simoda, was spun round forty-three times in the space of half an hour, and cast nearly a wreck upon the beach; the harbour was rendered useless; and repeated waves overwhelming the town left only sixteen out of a thousand houses standing. Between February 1860 and the same month in 1861, there were thirty-three shocks at Yeddo. In this district the far-famed Fusi-yama, a volcanic mountain, dormant since the year 1707, rises to the height of 14,177 feet above the sea, and is the culminating-point of the empire. It is the *mons excelsus et singularis* of Kæmpfer, the physician to a Dutch embassy in the seventeenth century, who enthusiastically states: 'Poets cannot find words, nor painters skill and colours, sufficient to represent the mountain as they think it deserves.' Springing abruptly from a broad base, it forms an almost perfect cone, truncated only at the extreme pinnacle; and towering far above all the surrounding hills, its glistening peak of snow, tipped with the rays of the rising or setting sun, may be seen from Yeddo, a distance of about eighty miles. To the people of the lower class, Fusi-yama, 'Rich Scholar's Peak,'—the Parnassus of Japan—is an object of veneration. They make pilgrimages to it in the hope of averting misfortune and sickness, appear in white vestments upon the occasion, which, on the summit, are stamped with various seals and images by the priests located there during the summer season when alone the ascent is practicable. According to the tradition of the natives, the volcano rose in a single night from the bowels of the earth, and coincidentally at Miaco a spacious lake was formed.

Though the surface is mountainous, the elevations are generally moderate, and are either cultivated to their summits, or clothed with woods. In the volcanic regions the soil in the plains and valleys is similar to the 'black' or 'cotton soil' of India, a rich earth, several feet in depth, without a stone, composed of the detritus of igneous rocks, further fertilised during a long succession of ages by the application of liquid manure from the towns. In other districts, especially in the island of Kiusiu, sandstone hills are prominent, and the soil of the lowlands consists chiefly of sand, but rendered fertile by careful manuring. Washed by the rains into the channels of the rivers, the sand is deposited at their mouths, producing shoal water; and hence, though broad and impetuous, they are not navigable, except for short distances by the small native junks. In the northern island, Yesso, the winters are long and severe; the summers brief and hot. Snow lies upon the lowlands from November till May. But in the southern tracts, more exposed by geographical position to oceanic influence, violent seasonal contrasts are unknown, for though the summers are hot, the winters are mild. Rain descends copiously

in June, July, and August; dense fogs occur, and sometimes hide the sun for several days in succession; and typhoons in the autumn, sweep the seas with fatal effect, while uprooted trees mark their course over the land. Nowhere are water-spouts more frequent.

The vegetation is singularly rich, varied, and abundant. It comprises a profusion of beautiful flowering plants, wild in the woods and waste places, many of which, as the hydrangea and camellia japonica, have been introduced with ornamental effect into the gardens of Europe. The hydrangea is commonly seen covering the banks by the waysides with its large flower-clusters, black, blue, and white, in company with the unpretending Scotch thistle. Splendid camellias are common throughout the valleys, and bushes of azaleas are plentiful in all the forests at a low elevation. Dense masses of luxuriant trees and shrubs ascend from the valleys to the tops of the hills, consisting of oaks, evergreen and deciduous, pines, and chestnuts, with the maple, beech, elm, lime, elder, cypress, and alder. The great preponderance of evergreens gives the country almost as fresh an appearance during the winter months as in summer. With this vegetation of the temperate zone there is intermingled in the southern districts, high up the mountainsides, the sago-palm, the tree-fern, the banana, the bamboo's light and graceful foliage, with other tropical forms. The northern island, where the ground has not been much cleared for cultivation, is the most wooded, and has vast forests of oaks and pines of enormous magnitude. In the size and variety of its conifers, the botany strikingly corresponds to that of the opposite coast of North America. Fine avenues of the cedar of Japan, *Cryptomeria Japonica*, and other pines, enclose the main roads, especially in the neighbourhood of towns, rising to the height of 150 feet, with a girth of from 14 to 16 feet, at three feet from the ground. Their upper branches uniting, form a perfect covered archway. The members of the pine family enjoy high consideration with the people. The trees shade their little chapels, and are found near their dwellings, while the branches are employed for decorative purposes and as religious symbols. But the remarkable vegetable objects, specially characteristic of the country, are the camphor-tree, the lacquer or varnish tree, the wax-tree, and the paper-mulberry. Among the food plants, rice is the most extensively cultivated, as the staple fare of all classes, sown in May and gathered in November. It is grown in enormous quantities in low, marshy valleys, but a much less productive species is raised on dry soil, and hills of considerable elevation are terraced to the summits for the crop, giving to the country a most picturesque appearance. Boiled rice serves for daily bread. Sugar, tea, cotton, and tobacco, the latter smoked by both men and women, are likewise objects of culture; the orchard and garden produce is profuse and varied; but it is an apparent anomaly in a region singularly gifted by nature in many respects, that generally fruits and vegetables are more or less flavourless, while the flowers are without fragrance, and the birds have no song.

The camphor-tree, *Laurus camphora*, found in most of the forests, bears black and purple berries which render its aspect agreeable. The natives make the camphor by a simple decoction of the stem and roots cut into small pieces. The tree occasionally attains huge dimensions. One, visited and described by Kämpfer, in the island of Kiusiu, was capable of containing in its trunk, which was hollow to a great height, fifteen individuals with ease. It is still standing, and is supposed to be 1000 years old. There is a roadside inn at its foot. The tree is also a native of the Chinese province of Fokeen, and of the island of Formosa, whence the chief portion of the camphor of commerce is derived. It is exported to this country in small friable masses, of a grayish colour, resembling half-refined sugar. Another kind of camphor is yielded by a forest-tree in the Malay archipelago. It is found in concrete masses in the fissures of the wood, and is more fragrant and less biting and pungent than that obtained from the laurel, but is not known in Europe as an article of trade, being almost wholly consumed by the Chinese.

The lacquer or varnish tree, *Rhus vernicifera*, yields the gum, from the application of which by the Japanese we have the term japanning, used to denote the art of producing a highly-varnished surface. The articles thus treated by the natives are of *papier-maché*, but extensively in Europe of metal also.

The wax-tree, *Rhus succedanea*, yields seeds from which wax for candles is obtained by compression, one of the chief articles of export from Japan. It thrives on mountains, barren and stony ground, unfit for other agricultural purposes. The trees are planted young along the highways, leaving a distance of about three feet between the stems, and also in squares at double the distance. They are kept low by lopping, and trimmed in the shape of pyramids. In the fifth year after planting, each tree yields on an average 4 lbs. of seed: in the eighth year, 6 lbs.; in the tenth, 18 lbs.; in the twelfth, 40 lbs.; in the fifteenth, 60 lbs.; in the eighteenth year the tree enters upon its decline; 400 lbs. of seed yield 100 lbs. of wax. Of these trees 20,000 were planted soon after the first demand made by foreigners for the product. The vegetable wax is not exactly of the same nature as common wax, since it melts in summer at the ordinary temperature; but the inconvenience is obviated in Japan by protecting the candles with a coating of bees-wax. In England other modes are adopted to give consistency to the substance.

The paper-mulberry, *Broussonetia papyrifera*, grown likewise on the roadsides, has its name from the use made of the bark. But the rind of various other plants is employed for the same purpose, some for the fibrous quality, others for glutinous properties. The process of manufacture is very simple. After the bark has been steeped in water until thoroughly saturated, it is beaten with wooden mallets until reduced to a state of mash, then again macerated in water, and when finally brought into a pulpy homogeneous state, any colouring matter desired is introduced, and the semi-fluid pulp is poured over wire frames and dried. No people surpass the Japanese in the adaptation of their paper to the purposes for which it is wanted, which are very numerous. Besides its ordinary use in writing and packing, they make handkerchiefs of it, a vast variety of *papier-maché* articles, boxes, reticules, hats, tiles, and an equally numerous list of objects in imitation of leather. Between seventy and eighty different kinds of paper are manufactured.

Wild animals of the formidable kind are limited to a few wolves and boars in the north of Nipon; and probably the bear is a tenant of the woods in Yesso. Those of the harmless class are not numerous, owing to the great extent of surface under cultivation, though several species are protected by the laws, as well as by the universal abstinence of the people from animal food. Hence, as the effect of freedom from molestation, Europeans have seen with surprise deer running about the streets of Osaka. The same indulgence is extended to the storks, many of which are found in the towns, and to other birds. Not a trigger is allowed to be pulled within thirty miles of the capital, to the great disappointment of sporting foreigners, who see wild geese, ducks, and teal floating on the castle moats and the temple lakes in the vicinity of the city, quite indifferent to the presence of man. The sparrow is here, as almost everywhere else—a true cosmopolitan. Domesticated quadrupeds include an indigenous race of horses, used only for riding, and mounted on the off side, contrary to our own usage. Oxen are employed for draught and burden. Dogs abound, being objects of veneration, a superstition of which the cat and fox have also the benefit.

The mineral treasures of the empire are very varied and important. Mines of gold, silver, copper, iron, and argentiferous lead are worked, but in the most primitive manner, and only to a limited extent, upon the principle maintained by the government, that as minerals are not capable of increase, the general store should not be diminished except to supply the most urgent current wants. Coal is abundant, yet though bituminous, it seems to be chiefly of inferior quality, at least as far as the produce has been tested. Sulphur of extraordinary purity occurs in profusion, and is conspicuous at Sulphur Island, an active volcano, in the archipelago off the south coast of Kiusiu, which serves as a landmark by day and a light-house by night to vessels on the neighbouring waters. Hot mineral springs, saline and sulphureous, in various parts of the country, are visited by great numbers from a distance for luxury and sanitary purposes. The small village of Atami, secluded in a gorge by the sea on the south-east coast of Nipon, is remarkable for its ebullient fountains, which give to the site a caldron-like appearance. From several sources or vents, but from one in particular, an immense volume of steam and slightly sulphureous water is ejected, at a temperature varying from 100° to 120° Fahrenheit. The eruptions take place at irregular intervals; the explosive force also varies in its energy; and the time occupied by its action differs considerably, from a few minutes to an hour and a half. But there are usually five or six repetitions of the phenomenon every twenty-four hours. The villagers, consisting of small cottars, farmers, and fishermen, immerse themselves in the warm water, collected in troughs, and cook their sweet potatoes at the smaller vents, many of which are close to the doors of their dwellings. Honjins, or houses of entertainment, are expressly provided for the accommodation of the grandees and their families at their visits.

The form of government is commonly represented as dual, vested in a fancifully-styled spiritual and a temporal emperor. But in reality the former is the only acknowledged titular sovereign, called the Mikado or Dairi, 'the Great One,' who is the representative of a long line of kings, originally heaven descended, or sun-born, and whose residence, at Miaco, is the stronghold of temple-worship. He reigns *de jure*, and his sanction is reckoned necessary, theoretically at least, to give validity to all acts of state. But they neither emanate from him, nor are they executed by his orders. His person is considered too sacred to be allowed to intermeddle with secular affairs. The sun must not shine, or the wind blow upon him, neither must he ever touch the earth. Hence, to prevent actual contact, his palace is carpeted throughout with the softest mats, and he only leaves it in a litter, carried on men's shoulders, shaded from the beams and the breeze by umbrellas and fans. His condition is that of an enshrined idol, or more properly of a prisoner of state, surrounded by spies, and subject to stringent restrictions, in compensation for which, the privilege, such as it

is, of having a dozen wives is conceded. The sovereign *de facto*, head of the executive, styled the Siogoon or Tycoon (Chinese *Tai-kun*—that is, 'Generalissimo' or 'great Lord'), is descended from one of the old commanders-in-chief, who usurped the functions of government, and secured them for the inheritance of his family. This dignitary still receives investiture from the Mikado, and keeps his court at Yeddo, but has now become nearly as helpless as his suzerain, a puppet dependent upon an oligarchy of Daimios, or territorial lords of the soil, who exactly correspond to the feudal nobility of Europe in the middle ages, in the hereditary possession of lands, wealth, and power. Two councils composed of this body, higher and lower, 'Imperial Old Men' and 'Young Old Men,' analogous to great feudal barons and petty baronial chiefs, control the Tycoon, and dictate the policy of the empire. The laws are dreadfully sanguinary in principle, attaching the death-penalty to almost every offence, but the severity is greatly modified in practice, at the discretion of the local magistrates. The most remarkable punishment, now becoming obsolete, is that of the *Hara-wo-kiru*, or 'belly-cut,' a legal form of suicide, effected by making two cross-cuts on the abdomen with a sharp-pointed knife. Offenders of rank against the state are deported to Fatsizu, an islet 200 miles from the south-east coast of Nipon, so precipitous as to be scarcely accessible.

The population of the empire can only be conjecturally stated, but it is supposed by the best informed not to be less than 30,000,000. In their general physiognomy the people correspond to the Mongolian type, and probably belong to that family of nations, with an admixture of Malay blood. They have small dark eyes and heavy arched eyebrows; are of low stature, but more robust than the Chinese; and possess a complexion varying from deep copper to a more prevalent light-olive hue. The men elaborately tattoo the body and limbs with figures of dragons, tigers, lions, and nondescript objects. They wear a robe of sober black or dark blue, of cotton, gauze or silk, according to their means, which falls down from the neck to the ankles, but is gathered in at the waist by a girdle of the same material. The women dress in gayer colours, have a passion for paint and powder; and cultivate in married life a style of beauty which is hideous deformity to Europeans. They varnish the teeth with black, dye the lips a brick red, pluck every hair from the eyebrows, and powder the face and neck with rice flour. The spoken language is of soft enunciation, and not of difficult acquirement. It does not embrace the sound of *r*. Hence 'velly good' takes the place of 'very good' in attempts at English; and a speaker in referring to himself will adopt the roundabout mode of saying, 'the person who is before your hand,' in expressing I. The written language is highly complicated, embracing a hieroglyphic and a phonetic system; but that of China is familiarly known, and often appears over the shop-doors. Japanese literature includes original writings, but is mainly an importation from China. The oldest form of religion is Sintuism, 'faith in gods,' at the head of which is the Mikado. This is a kind of mythological naturalism, having for the prime object of worship the sun-goddess, from whom he claims to be descended, with a number of subordinate divinities, consisting of popular personages who are supposed to rise at death to the rank of demi-gods. But Buddhism, variously modified, including several sects, is much more generally professed. Confucianism has also its adherents, chiefly literati, not a few of whom are sceptically indifferent to all religious observances.

While diligent cultivators of the soil, both as farmers, gardeners, and florists, great proficiency is shewn in various mechanical arts, some of which were probably acquired by long-continued intercourse with the Dutch. Beautiful silk and crape fabrics are produced, good cabinet and basket work, with small wooden wares of wonderfully perfect execution, though made with the roughest tools, out of the roots of the camphor and maple tree. Porcelain is manufactured as thin as an egg-shell; excellent paper, and the processes of enamelling and varnishing are conducted with the highest skill. The face of the country bears witness to patient industry and careful attention to outward appearances on the part of its occupiers, in the few signs of neglect and dilapidation. They build substantial bridges, have main roads kept in perfect repair, and the rural lanes are lined with hedges duly clipped and tended. Along the highways, booths are met with at short distances, in which the poorest traveller may have refreshment for the smallest coin, or

may rest himself if wholly destitute. The ordinary travelling vehicle is a kind of palanquin, made of wicker-work or lacquered wood, carried by two or four men, according to the material. In their general mode of life the habits of the people are singularly simple and uniform. The dwellings of the rich, equally with those of the poor, are almost entirely without furniture, for they rest themselves by squatting on a matted floor, take their meals in the same position, and lie down at night in the apartment occupied by day, with the scantiest of pillows, and a cotton coverlet or two for bedding. Fish, rice, fruits, and vegetables are the ordinary food of all classes. For beverages they have tea and saki, a spirit made from rice, or one distilled from the grape. Low cunning distinguishes the national character, with the most glaring indifference to truth, and an entire want of the sense of decency. Polygamy is not permitted, but divorce is within easy reach of the husband, and he may indulge in concubinage as much as he pleases. Parents may devote their daughters legally to prostitution for money in appointed places, nor is it thought that any disgrace accrues thereby to the females, who have as good a chance of marriage as if they had never left their homes. Men and women bathe promiscuously without the slightest attention to decorum, and with no idea of any immodesty in the usage. Public bathing-houses or rooms are distinctive national institutions, in full operation for both sexes, in the afternoon, in the evening, till late at night, as well in the country villages as in the crowded cities.

Yeddo, the residence of the Tycoon, and the actual capital, is situated on the south-east side of Nipon, at the upper extremity of an inlet or bay, twenty miles long, which forms the harbour, and is completely sheltered from the roll of the ocean by a narrow entrance, and a number of outlying islands. The water shoals from the entrance, as in the case of most of the Japanese harbours, and boats touch the ground at the distance of a mile from the city. This shallowness contributes to its security in the event of a naval attack. The port is at Kanagawa, sixteen miles nearer the mouth of the inlet, where the British consular establishment is planted. At Yokohama, an adjoining place, furnished with a granite pier and quay, the foreign merchants reside. A headland has received the name of Treaty Point, off which the American squadron of Commodore Perry lay at anchor during the first negotiations which opened the country to foreign commerce. Within eighteen months after the commencement of trade, the exports, chiefly tea, silk, mother-of-pearl, gall-nuts, and wax, amounted to the value of £1,200,000. Camlets, shirtings, chintzes, and drills figured among the earliest imports. Though the Americans were first in the field, and enjoy peculiar advantages, since passages from San Francisco in California have been made in five weeks, yet British enterprise signally took the lead. In 1860 there were, of British vessels, 15 arrivals and 23 departures; of American, 6 arrivals and 5 departures; of Dutch, 2 arrivals and 1 departure.

The city of *Yeddo*, a veritable human ant-hill, is supposed not to lag far behind London in population, and to cover as much ground. It lines the margin of the inlet about ten miles, and extends seven miles inland, but a large space appropriated to gardens and orchards is included. Hills sloping to a considerable height are embraced within its limits, and also form the background. The streets are broad, clean, and well drained; and can be shut in by gates in the event of disturbance. Some of them have rows of peach and plum trees, which, when in blossom, present a gay and lively appearance. The most populous part of the city is intersected by the river *Okawa*, which is crossed by a great central bridge. From it, all distances are measured along the roads throughout the empire. Public baths are very numerous and cheap. Tea-houses and gardens are plentiful in the suburbs. There are shops for books, bronzes, copperware, lacquer goods, basket-work, prints, inlaid-wood, paper, and old clothes, several of which devoted to the same trade frequently stand together. Owing to the frequency of earthquakes, the houses have only one story; and being of wood, fires are very common and destructive. There are no striking public buildings, though temples everywhere abound. Disgraced government officials may occasionally be seen walking about, forlorn objects, with their heads in cages of basket-work. During the summer the temperature ranges from 70° to 90°, and only falls occasionally in winter below the freezing-point. Snow rarely lies upon the ground. The highest hill, 1200 feet above the bay, is surmounted by the Tycoon's palace or castle, encircled by a triple moat, and by the dwellings of the Daimios or feudatories. In this quarter is the residency over which the British flag waves, occupying part of one of the largest and best temples, enclosed with trees. The feudatories are obliged to be in residence at the capital part of every year, and when absent on their respective domains, their wives and children are detained as hostages. They travel to and fro with a crowd of retainers, varying from a few hundreds to ten thousand, according to their consequence, armed with bows and swords, distinguished also by armorial bearings on their dresses. Hence, for the accommodation of such throngs, their one-storied dwellings necessarily cover an immense space. Some of them are a quarter of a mile long. These vassal barons, nearly independent on

their own estates, number about 264; and have incomes ranging up to a million *kokoo*s, or measures of rice, the ordinary Japanese mode of estimating revenue. Each *kokoo* being equal to 13s. 10d. in money, the total sum represented is nearly £700,000. The chiefs and their retainers form the most turbulent part of the population of Yeddo. In 1860, during a minority, the regent was slain in the streets by a band of the Prince of Meto's men, who cut their way, sword in hand, through his retinue, and hacked his head off as he sat helpless in his palanquin.

Miako, an inland city, upwards of 200 miles to the westward, is the old and still the titular capital, as the residence of the Mikado, said to contain half a million of inhabitants. It abounds with temples, is an educational seat for the priesthood, has better houses than Yeddo, with exquisitely laid out gardens, and considerable manufactures of carved ornaments and japanned wares. *Osaka*, a few miles on the south-west, one of the treaty ports, is a great trading centre, so populous as to be reputed able to raise an army of 80,000 men. It is pleasantly situated in a fruitful plain, on the banks of a navigable river, the waters of which are led off by numerous canals through the principal streets, for the purpose of conveying goods in small boats to their destination. More than a hundred bridges, many of them of extraordinary beauty, span these artificial channels. Wealthy merchants abound, skilful artificers ply their craft, and immense commercial activity reigns everywhere. Below the city is its port, *Hiogo*, on a bay of the Suonada Sea, where there is convenient anchorage for sea-going vessels, with docks and ship-building. The intermediate river navigation for cargo-boats is short and easy. But *Osaka* is also a seat of luxury, the Paris of Japan, a place of resort for the rich and fashionable, who repair thither for relaxation and gaiety. It possesses the most sumptuous tea-houses, extensive pleasure-gardens, and the best theatres. Many of the Daimios have residences on the banks of the river. Valuable copper-mines are in the vicinity, and the place is famed for the excellence of its saki.

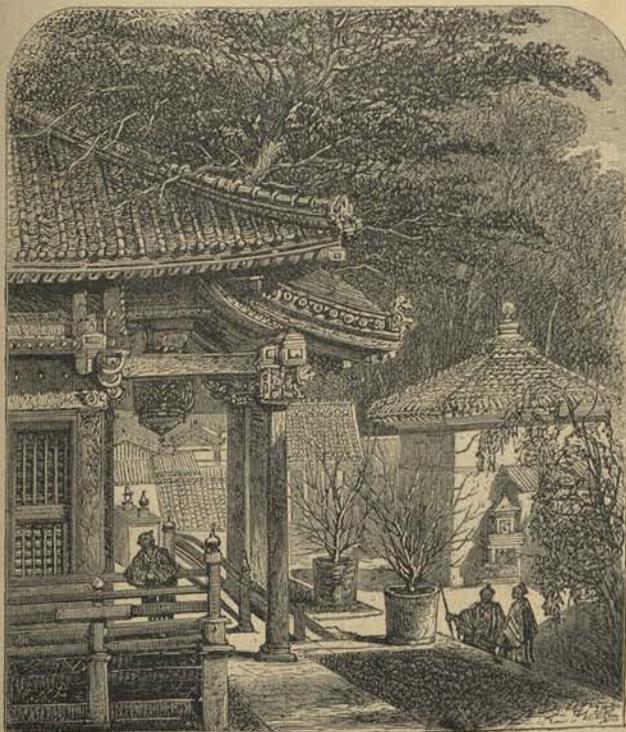


Panoramic View of Nagasaki.

Nagasaki, the port to which the Dutch traders were restricted for more than two centuries, is seated on the western side of the island of *Kinsiu*, upwards of 800 miles from Yeddo, and about ten days' steaming-distance from Hong-Kong. It occupies the shore of a bay of some magnitude, landlocked and picturesque, resembling a Norwegian fiord, enclosed by hills clothed with pines, palms, bamboos, pomegranates, and other trees. The town covers a considerable space; contains many gardens; has streets interspersed with trees and shrubs,

which give them a pleasing appearance; and is intersected by a canal, across which handsome stone bridges are thrown. Porcelain, silks, and lacquered wares are produced. The mechanical talent of the Japanese has here been remarkably exemplified, by the establishment of a steam-factory, entirely by the natives, aided only by drawings supplied to them by an officer of the Dutch navy. It turned out a steam-engine before a foreign one had been seen. Decima Island, occupied by the Dutch during the long term of foreign exclusion, is an artificial construction in the harbour, fan-shaped, connected with the mainland by a stone bridge. It is only 600 feet in length by 240 feet in breadth. The traders were here cooped up like poultry in a yard, and condemned to a life of celibacy, as no female was ever allowed to arrive. They paid an exorbitant rental for the spot, and had to defray the expenses of the guard-house at the bridge, which was constantly occupied by a body of police or soldiers, to prevent the exit of the inmates and the entrance of every one except officials. The commercialists quietly submitted to every indignity, and carried complaisance so far, that at the time of the great persecution, one of them being surprised in some place by the Japanese police, and asked whether he was a Christian, replied, 'No; I am a Dutchman.' Nagasaki is one of the opened ports, at which the British flag was for the first time hoisted on the 18th of June 1859. The climate is very genial, having a temperature ranging from 60° to 80° in summer, with scarcely any winter.

Matsmai, the chief town of the northern island, Yesso, seated at its south extremity, is said to contain a population of 50,000, and is the capital of a feudatory, who claims lordship over the entire territory. But the mountainous interior has never been occupied by the Japanese, who are principally confined to the coasts, though gradually extending themselves inland. The proper natives are a distinct race, called Ainos, unwarlike and extremely rude, who live in log-built huts, and are said to take refuge in caverns from the severity of the winter. *Hakodadi*, a treaty port on the north-east of Matsmai, 650 miles from Jeddo, fully surrendered by the feudal prince, is small and almost wholly new, but likely to become of commercial importance. It stands on the shore of a spacious landlocked bay, which forms a fine harbour, and has striking mountain scenery in the background. It has been compared in position and aspect to Gibraltar and Hong-Kong. The winters are extremely cold; the thermometer has been observed to register 18° below zero; the snow lies on the lowest situations till the close of April; and torrents of rain, blown up by the south-east winds from the Pacific, accompany the return of spring.



Small Temple at Yeddo.



Cairo and the Pyramids.

PART III.

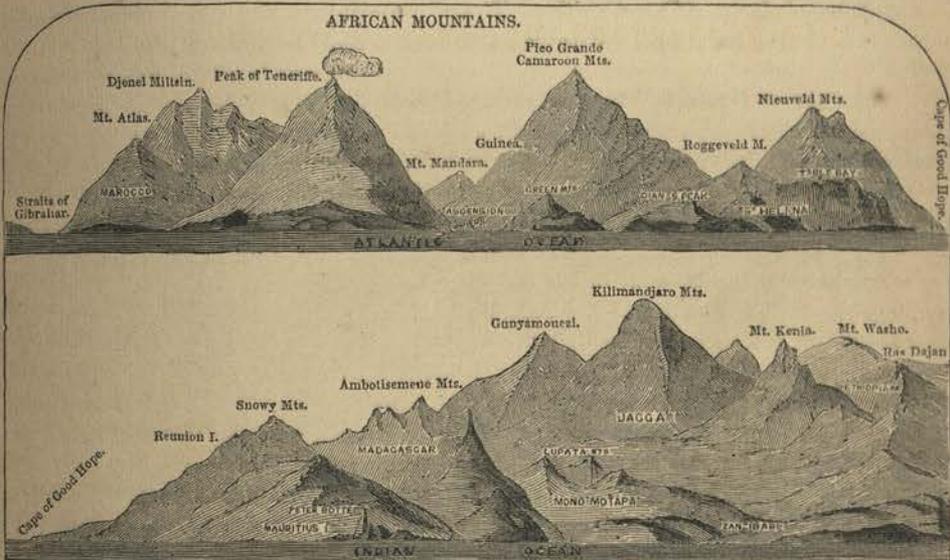
DESCRIPTIVE GEOGRAPHY OF AFRICA.

INTRODUCTORY CHAPTER.—GENERAL VIEW OF AFRICA.



AFRICA, a huge south-western pendent to Asia, is the third of the great divisions of the globe in point of magnitude, the most monotonous in its general aspect, the least advanced socially, and the most unimportant in political influence. It is also the only continental portion of the Old World which passes into the Southern Hemisphere. This mass of land is of an irregular pear-like form, or rudely triangular, with the vertex directed towards the south. It is separated from Europe by the Mediterranean on the north, washed by the Atlantic on the west, and bounded by the Isthmus of Suez, the Red Sea, and the Indian Ocean on the east. At the contracted southerly extremity, the waters of the latter ocean blend with those of the Atlantic. Hence Africa is very nearly insulated, and would form an immense island, were it not for the Isthmus of Suez stretching between the head of the Red Sea and the Mediterranean, and connecting it with Asia. This is a neck of land little more than 70 miles across, with few elevations besides sand-hills, but occupied by several salt-lakes, which render it perfectly feasible to unite the two seas by artificial excavation. A canal effected this object in ancient times, traces of which remain; and a repetition of the work is at present in process. But though a channel may be opened, it is very improbable that one of any permanent navigable value can be executed, owing to the constant encroachment of the bordering sands.

The bold headland of Cape Agulhas, crowned by a light-house, is the southern extremity of the continent; Cape Bon, the northern; Cape Verde, the western; and Cape Guardafui, the eastern. These points are respectively in latitude $34^{\circ} 50'$ south and $37^{\circ} 20'$ north, and in longitude $17^{\circ} 42'$ west and $51^{\circ} 20'$ east. Intersected by the equator, and ranging to nearly the same distance north and south of it, Africa has by far the largest proportion of its surface within the limits of the torrid zone, therefore under the immediate power and dominion of solar influences. Most of the people see the great orb, in its annual progress from tropic to tropic, pass twice over their heads, and thus experience a repetition of its intense vertical rays. The greatest length, from north to south, falls little short of 5000 miles; the greatest breadth, from east to west, closely corresponds to this measure; and the superficial area is usually estimated at 12,000,000 of square miles, equal to more than three times the extent of Europe, and two-thirds that of Asia. But though so much larger than Europe, while almost completely surrounded by water, Africa has a smaller amount of coast-line, being of compact form, with shores remarkably free from great bays and gulfs. The principal indentations are the Gulfs of Sidra and Kabes, connected with the Mediterranean; the Gulf of Guinea, in which are the Bights of Benin and Biafra, belonging to the Atlantic; and Delagoa Bay, on the side of the Indian Ocean. This want of far-penetrating inlets of the sea has practically isolated Africa from the rest of the world, retarded the civilisation of the people by preventing intercourse with more enlightened nations, and rendered a vast portion of the interior down to the present day a land of mystery to them, though now the veil is in process of being removed by the enterprise of explorers.



Though the features of the surface are distinguished by greater uniformity than those of the other continents, very varied scenes and surprising contrasts are by no means wanting. There are mountainous ranges, visited at their summits with keen frosts and heavy snow-falls, the gorges of which are river-beds fringed and largely overgrown with gigantic reeds and creepers; splendid forests of the stately and park-like acacia, in the branches of which the social crossbeaks chiefly rear their singular and interesting nests; monotonous sand-plains upon which the sun glows hotly, stretching out to an apparently interminable extent, with only a thin sprinkling of grasses, and no trees, but a few dark

green mimosas straggling along the narrow and often dry water-courses ; and levels equally vast, but stony and more wildly sterile.

'A region of drought, where no river glides,
Nor rippling brook with osiered sides ;
Nor sedgy pool, nor bubbling fount,
Nor tree, nor cloud, nor misty mount
Appears, to refresh the aching eye,
But barren earth, and the burning sky,
And the blank horizon round and round.'

Such is the Sahara, or Desert, one of the most extensive and frightful on the earth, the most conspicuous feature of African geography. It forms a barrier between the northern and central portions of the continent, extends full 3000 miles from the Valley of the Nile westward to the Atlantic, by a breadth exceeding in various places 1000 miles, and would be impassable by man without the aid of the camel. The animal carries water for him from the few springs which occur at distant intervals along the frequented routes, while itself able to dispense for long periods with the refreshment, besides being otherwise naturally adapted to traverse such territories. But men and camels frequently perish by the way, and their bones are encountered by the traveller to remind him of what may be his own fate. While Major Denham was dozing upon his horse, overcome by the noonday heat, he was suddenly aroused by the crashing of something beneath him. The steed had stepped upon the perfect skeletons of two human beings, and had cracked their brittle bones. The skull of one was separated from the trunk, and rolled on like a ball before him.

The Sahara-bela-ma, 'Desert without Water,' according to the full Arabic name, is generally a plateau of moderate elevation. Its surface consists partly of sand so loose and fine as to shift with every breath of wind that blows, but more largely of bare rock, hard clay, and indurated gravels, often rising into ridges and hills. The sand is principally composed of white and gray quartz particles of various sizes, but seldom so large as to form pebbles. Winds blow over the district from the east through nine months of the year, and from the west through three months. They raise the sand in awful clouds when they are violent, which darken the atmosphere, and threaten to overwhelm the caravans. From the greater prevalence of the east winds, it has resulted, that in travelling towards the west the sand increases in depth, and forms a more continuous covering. It is even prolonged beneath the waters of the Atlantic to an unknown distance, forming enormous sand-banks off the coast, and leading the mariner to keep far away from shore. Cape Blanco, its apparent termination westward, is a low flat tongue of verdureless white sand projecting into the sea, and owes its name to the prevailing hue. If westerly winds were to become predominant, Egypt would speedily be overwhelmed by the sand-flood, all cultivation cease, and the oases on its borders—these spots, where springs ooze up, and gather a little world of vegetation around them, chiefly date-trees—would disappear. Over a large portion of the Sahara rain never falls, but it is everywhere rare, while the surface is exposed to the fierce glare of a tropical sun. But though the heat by day is often almost insupportable, the nights are frequently singularly cold, owing to the excessive radiation promoted by the purity of the sky and calmness of the air.

North-Western Africa is diversified by the Atlas Mountains, consisting of groups of high masses irregularly disposed, but connected by inferior ranges. They form a chain running parallel to the Mediterranean, at no great distance from the coast, which gradually lowers in its easterly extension, and is skirted on the interior side by the Balad-el-Jerid, or Land of Dates, on the edge of the Sahara. Snow is very rarely absent from several of the summits, the loftiest of which, Miltin, within view at the city of Marocco, rises to the

height of more than 11,000 feet, and is crested with it permanently. The upper part of the Nile basin embraces the plateau region of Abyssinia, of great general elevation, and the platform from which Abba Yared towers to 15,000 feet, deemed till recently the culminating-point of Africa. This distinction appears to belong to Kilimandjaro, about 3 degrees south of the equator, which rises above the snow-line, indicating in such a latitude an altitude of 20,000 or 21,000 feet. Near the coast of the Bight of Biafra, the Pico Grande, the loftiest peak of the Camaroons, reaches to 13,129 feet, upon the brow of which Captain Burton planted his foot in 1861. From the south coast, within the limits of the Cape Colony, mountainous ridges rise in succession above each other as the shores are receded from, separated by terraces or high plains, the karroos of the colonists. The loftiest range, the Sneeberg, or Snowy Mountains, attains the elevation of 10,000 feet. It appears from the explorations of Livingstone and others that the central region of Southern Africa, north of the tropic, is a moderately high and well-watered table-land, fringed with mountains on the edges, through openings between which the interior rivers effect their disengagement, and descend to the coasts.

The Nile is the largest of the African rivers, and the only considerable one connected with the basin of the Mediterranean. It issues from the great lake Victoria Nyanza, immediately south of the equator, and has a course of 3000 miles to the sea, which is entered through the far-famed Delta. In Nubia the river is fully formed by the junction of the White Nile, the main branch, with the Blue Nile from the Abyssinian highlands. It is remarkable that after receiving the Atbara, or Tecazze, lower down, from the same country, no affluent enters the channel, though the river has still a course of 1500 miles to run. Hence it diminishes in volume as it proceeds, owing to the powerful evaporation and the quantity of water drawn off for irrigation. For ages it has been celebrated for the regularity of its annual rise and overflow, caused by seasonal rains in the upper part of its basin. The utility of this overflow to Egypt, which altogether depends for its fertility upon it, has long been known; and it is, moreover, a curious circumstance, that even when the river is most turbid, the water retains its salubrity and agreeable taste. 'What,' said the general, Pescennius Niger, to his soldiers, 'crave you for wine, when you have the water of the Nile to drink?' So nutritious was it deemed by the old Egyptians that the priests refrained from giving it to their sacred bull, Apis, on account of its fattening properties. But as a present fit for royalty to receive, it was sent to distant kings and queens. The Arabs in the present day account it a delicious beverage, and will even excite thirst artificially by eating salt, in order to gratify themselves with it. On journeys and pilgrimages nothing is spoken of with so much enthusiasm as the delight of again drinking of the great river on their return. They are accustomed to say, that if Mohammed had once tasted the stream, he would have asked an immortality on earth, that he might enjoy it for ever.

The second great river, the Niger, also called the Quorra and Joliba in different parts of its course, enters the Atlantic at the Bight of Biafra, after a flow of perhaps 2500 miles. Though navigable to a great distance from its mouth, with populous nations on its borders, the pestiferousness of the mangrove swamps along the banks, is to Europeans a serious check upon its commercial utility. The Gambia, Senegal, Congo, and Orange Rivers are also connected with the Atlantic basin. On the eastern side of the continent, the Zambesi is the only stream of consequence, the course of which was traced by Livingstone from the interior to its outlet in the Indian Ocean at the close of his great journey. It is remarkable for its 'smoke-resounding falls,' a native allusion to the spray and roar of a cataract, perfectly unique of its kind, now usually called in England the Victoria Falls, which the traveller just named pronounced the most wonderful sight he



Victoria Falls, Zambesi River.

ever witnessed in Africa. At a point where the river is upwards of a mile in breadth, flowing through a level country, it comes suddenly upon a connected series of deep and narrow chasms running in abrupt zigzags athwart its bed, but hardly extending beyond it. These finally widen out, and lead away in the general direction of its course. Into the first of these chasms, the entire Zambesi tumbles at a single leap to the depth of 400 feet, and thus disappears entirely from the surface of the land. After its fall, the river is visible from occasional points of view, struggling in those strangely-contracted and tortuous depths through which it has to make its further way.

The lakes are numerous and extensive, but those which appear to be the most important have not been fully explored, and are quite of recent discovery. A considerable space in Central Africa is occupied by Lake Tchad or Tsad, an expanse of 200 miles in circuit, but fluctuating in its extent with the seasons, shallow throughout, and lined with a belt of almost impenetrable tall grasses. The highland lake of Dembea or Tzana, in Abyssinia, through which the Blue Nile passes, is also an extensive sheet of water, at the elevation of 6270 feet above the sea-level. The Victoria Nyanza, nearly under the equator, the probable source of the White Nile, and the Lake Tanganika, further south, are important bodies of fresh water, both made known in the year 1858, since which period Livingstone has reported on the Niyanyizi-Nyassa, 'Lake of the Stars,' still more southerly, belonging to the river-system of the Zambesi.

The high temperature which generally distinguishes the climate of Africa, especially in the northern half, is the result of its tropical position, the structure and configuration of the land, and other subordinate causes. Vast tracts of sandy soil reflect with intense power the heat of the solar rays, while an immense extent of the surface is naked, without forests to protect it from the vertical sun's fiery glow. A lofty chain of mountains towards the Mediterranean prevents the ingress of the cool north wind, while the want

of such a chain on the north-east freely admits the currents of air which have passed over the warm tracts of Arabia. The general absence of deep inlets of the ocean also operates to shut out the refreshing sea-breezes from the interior. In the central part of the Sahara, and the country between the Nile and the Red Sea, the temperature attains the highest mean annual rate hitherto observed in any portion of the globe. It amounts to 87° at Massowah or Massuah on the coast of Abyssinia. Winds from these highly-heated districts partake of their temperature, and extend it to the countries bordering upon them. The dry burning breath of the Harmattan, felt all over Senegambia, at intervals in December, January, and February, is a blast from the fiery furnace of the Great Desert. If it continues for some time, the branches of tender trees wither and die; all herbaceous vegetation perishes; and the panels of doors, windows, and articles of furniture crack, as if exposed to the action of a strong fire. But though thus pernicious, while disagreeable in its effect upon the human frame, causing the skin to peel, the harmattan as a dry wind is extremely favourable to life and health, arresting the spread of epidemics, and banishing the fevers prevalent in the wet season which precedes its visit. On the low coasts of this region, the climate is specially unfavourable to Europeans, owing to the malaria arising from the immense mass of decomposing vegetation brought down by the rivers, which has been stimulated by the hot and moist atmosphere. Hence Sierra Leone acquired the name of the 'white man's grave' from its extreme unhealthiness, but this has now been somewhat mitigated by the clearance and cultivation of the ground. On the elevated lands the temperature is moderate, the air invigorating, and the climate wholesome, but a very uncertain rain-fall is an incident common to them, especially in the far interior, where long droughts severely distress the inhabitants, and have led the simple and barbarous tribes to retain professional rain-makers in their service.

Vegetable life is less varied in its forms, and more scantily diffused than in the other continents, but wherever the soil is sufficiently watered, as in the basins of the Senegal, Gambia, and Niger, the utmost luxuriance of growth is exhibited, under the combined influence of moisture and heat. Fine forests clothe the landscapes, consisting of acacias yielding gum-arabic, rosewood, teak, cotton-trees, masses of the unwieldy boabab, and tall gramineous plants. The boabab, or great calabash, which bears the fruit called monkey-bread, used as food by the natives, is not remarkable for height, but has the most enormous trunk of any known tree, measuring from sixty to seventy feet in girth, and occasionally reaching to ninety feet. An instance is mentioned of a hollow trunk serving the purpose of a council-chamber to a Negro village. The date-palm distinguishes the northern skirts of the Sahara; the doom-palm is characteristic also of sandy soils; the oil-palm, from which the palm-oil of commerce is obtained, flourishes on the shores of the Gulf of Guinea; and the cocoa-palm waves on the tropical coasts. Cassia plants abound in Upper Egypt and Nubia, from which senna is prepared. The coffee shrub grows wild in Abyssinia, its native seat. A very peculiar flora appears in Southern Africa, or the Cape Colony, distinguished by the prevalence of succulent plants, bulbous roots, geraniums, and heaths, the latter very remarkable for their beauty, though of little utility to man. Indigo, cotton, tobacco, and the sugar-cane are cultivated in various parts, with maize, rice, dhurra, a kind of millet, bananas, and yams. The vine is cultivated with success at the Cape.

African zoology is characterised by the great number of species of the higher orders, many of which are quite peculiar to the continent. It includes the animal which makes the nearest approach to man in its organisation, the chimpanzee, with the enormously-powerful gorilla, both found in the woods of Upper Guinea and Senegambia, though but rarely met with. Three varieties of the king of beasts occur, the Barbary lion, with a very thick brown mane covering the head and shoulders of the male; the Senegal lion, of a yellower hue, with a thinner mane; and the Cape lion, of which the mane is nearly black. The elephant abounds, but is not domesticated as in Asia; it is the tenant of all the countries south of the Sahara; and with it, the rhinoceros, with two horns, has much the same range. Another animal of immense bulk, the hippopotamus, exclusively belongs to Africa, inhabiting the Upper Nile, with all the other large rivers, especially the Congo, the Niger, and the Zambesi. It is fitted alike to stalk on land, march along at the bottom of the waters, or swim upon the surface. Of the horse tribe, the beautifully-striped zebra, the quagga, and the dow roam over the arid plains of the central and southern regions in herds, and are not known in any other division of the globe. This is the case likewise with the giraffe, one of the ruminants, the tallest of all quadrupeds, feeding on the leaves of trees, straying over a wide area, but not approaching the western coast. The antelope family is profuse in species and in individuals, sometimes migrating in vast droves in search of pasture, when severe drought compels them to quit their customary haunts. The male ku-du



Scene on the Logier River, South Africa.

above was sketched and shot by Mr Baines in February 1863, the scene represented lies between the Logier and Luisi rivers; the shrubby trees on the left being the *Marrunia purpurea* or poison-tree of the Bushmen. The tiger is not an African animal, neither is the bear, but the leopard, panther, and hyena are widely distributed over the surface, while the wolf and jackal are chiefly limited to northern localities. Over the same region the Arabian camel has been established from the earliest ages, and is essential to ordinary travelling and commercial transactions.

The ornithology includes many species remarkable for gracefulness of form and beauty of colour, as the sun-birds and bee-eaters, the roseate ouzel, the Senegal thrush with its bronzed black plumage glossed with blue and violet, and the highly-adorned African creeper, admired also for its musical powers. Other species occur distinguished by interesting instincts, or by their size. The honey-guide birds, ranked with the cuckoo family, attract notice by their peculiar cry and habit of fluttering near the traveller, leading when followed to the wild bee's home. The ostrich, tallest of its class, and perhaps the swiftest of all running creatures, hunted for its white feathers, inhabits the open sand plains of the continent from north to south. The marabou, or gigantic stork, roosting in the cotton-trees, enjoys protection as a useful scavenger. Every order in the reptile world is represented. The crocodile of the Nile, celebrated in the ancient history of Egypt, is no longer found in the Delta, but abundant in the Thebaid, and in all the large rivers. In the swamps of the west coast, the python lurks, sometimes twenty-two feet in length. The list of venomous serpents embraces the asp, anciently regarded as an emblem of the protecting divinity of the world, often represented in hieroglyphic and other sculptures of the Egyptians. Southern Africa has its deadly varieties of the viper family, among which is the spitting-snake, so called from its power of ejecting poison to a distance when irritated. Batrachian life is enormously developed in the singularly coloured donder paade, or monster toad, about a foot in length, and three-quarters of a foot in breadth.

Among the insect tribes, locusts are occasionally a terrible scourge to many parts of the continent, migrating from the deserts where they are propagated to the fertile lands, and consuming all the vegetation wherever they alight, every leaf, and every blade of grass. A single swarm upon the wing makes the mid-day as sombre as the eventide, so dense is the mass; and will be often more than half an hour in passing overhead. On one occasion the troops of Ibrahim Pasha, in attempting to extirpate one of the insect

armies, gathered up no less than 65,000 ardebs of them, equal to 325,000 bushels. 'I never saw,' writes a missionary at an interior station, 'such an exhibition of the helplessness of man as I have seen to-day. While we were sitting at dinner, a person came into the house quite pale, and told us that locusts were approaching. Every face instantly gathered "blackness." I went to the door, looked above, and all around, but saw nothing. "Look to the ground," was the reply, when I asked where they were. I looked to the ground, and there saw a stream of young locusts covering it at the entrance of the village. It was about 500 feet broad, moving at the rate of two miles an hour. In a few minutes they covered the garden wall some inches deep. To examine this phenomenon more fully, I walked about a mile and a half from the village, following the course of the stream of locusts. Here I found it extending a mile in breadth. It appeared as if the dust under my feet were forming into life. Man can conquer the lion, the tiger, the elephant, and all the wild beasts of the desert; he can turn the course of mighty rivers; but he is as nothing before an army of locusts. Such a scene as I have beheld this afternoon would fill England with more consternation than the terrific cholera.' A resemblance between the head of the locust and that of the horse has often been noticed, and hence the Italians call it *cavaletta*, or the 'little horse.' The Arabs compare the head to that of the horse, the breast to that of the lion, the feet to those of the camel, the belly to that of a serpent, and the tail to that of a scorpion. The formidable light in which they view the puny creature is evident from these comparisons. It is expressed also in the interpretation they put upon certain markings on the wings, resembling oriental characters, which are supposed to form an inscription, signifying 'We are the army of the mighty God. We have each ninety-and-nine eggs, and had we but the hundredth, we would consume the world, and all that it contains.' Though not capable of taking long flights, they have effected the passage of the Mediterranean, with a strong and regular wind blowing in a favourable direction. If a calm comes on, they fall exhausted into the water, or if there is a storm they are precipitated to the surface to perish. Termites, or white ants, are a hardly less formidable insect tribe, destroying furniture, books, clothes, and everything that comes in their way. They are chiefly found in Western Africa. They form vast colonies, each under a female sovereign, and build conical nests of earth from ten to twelve feet in height, divided in the interior by thin partitions into a variety of cells. These nests are grouped together in great numbers, and appear like villages from a distance. The tsetse-fly, whose bite is fatal to nearly all domestic animals, haunts certain parts of the basin of the Zambesi, with a few adjoining localities.

Africa appears to be much more sparingly endowed with mineral wealth than the other continents, but such a vast proportion of the surface is either wholly unknown, or remains so scantily illustrated, that no positive conclusion can at present be arrived at. Gold has been for ages a characteristic product, and originated the name of the Gold Coast on the Gulf of Guinea. It occurs in the form of minute grains or dust, diffused through the alluvium of rivers, lakes, and valleys, also mixed with the wide-spread sand of the Sahara. It is sold in the ports of the west coast, as well as in the marts of Morocco, Fez, Algiers, Cairo, and Alexandria. The gold-dust is frequently accompanied with grains of iron ore. Auriferous quartz rocks certainly occur, the disintegration of which has probably formed the sands and gravels in which the gold-dust is found. Kordofan, to the south-east of the Sahara, affords a considerable supply of the precious metal, brought to market by the Negroes in quills of the ostrich and vulture. Copper and iron are abundant in the Atlas Mountains, and in the desert between the Nile and the Red Sea, where mines were worked in ancient times, traces of which remain very distinct. The Sierra Leone coast possesses valuable iron ores; and in Southern Africa, particles of iron intermixed with sand form the soil of the Great Karroo. Salt is plentiful and widely diffused, though in some districts wholly wanting; sal-ammoniac, saltpetre, sulphur, and emery are also furnished; and natron or soda—an important article of commerce—is obtained from lakes and springs, chiefly in the eastern half of the Great Desert. The mineral crystallises at the bottom when the water is sufficiently saturated. It forms cakes varying from fine films to the thickness of a few inches, and is conveyed by camels to the markets of Egypt.

Though entirely a matter of conjecture, the total population of Africa is probably not less than 100,000,000, consisting of many small nations and tribes, very largely out of the pale of the most ordinary civilisation. Few of the people are strictly nomadic in their habits, but dwell in permanent towns and villages, the great majority of which are groups of humbly-constructed thatched earthen or wooden cabins.

The North Africans, between the limits generally defined by the parallel of 20° and the Mediterranean, belong chiefly to the Syro-Arabian stock, but often display the presence of central African or Nigritic peculiarities. Over the whole of this region a race of foreign extraction is spread, the Arabs, who came in from Asia under the standard of the early Mohammedan chieftains, and have both maintained themselves of pure blood, and become mixed with the natives proper. The indigenous people are arranged by Dr Latham in three groups of Atlantidæ, respectively styled Egyptian, Nilotic, and Amazigh. The first of these groups includes the descendants of the ancient race on the lower course of the Nile who reared the pyramids, or the modern Copts, few in number, whose thick lips, broad flat nostrils, and full eyes correspond to the sculptured representations on the old monuments. The second group, or the Nilotic Atlantidæ, comprises tribes and nations occupying the middle and upper basin of the river, Nubians, Agows, Gallas, and Bishari, the present population of Nubia and Abyssinia. The Amazigh Atlantidæ are the people usually called Berbers, who were known to the Greeks and Romans by the name of Amazigh, signifying free, independent, brave, like the term Frank among the Europeans. It indicates their present condition. They now inhabit the mountainous region of the Atlas, and are thinly scattered over the northern part of the Great Desert, extending also far into its southern portion, occupying the oases. In many parts they are in contact with the Moors, a mixed people, the offspring of a native race and of Roman, Vandal, and Arab conquerors, still retaining primitive characteristics, and chiefly dwelling in cities and towns. The Arabic is the prevailing language in Africa north of the equator. It was introduced by the Mohammedan conquerors, gained diffusion with the extension of their power, and was imposed by force of circumstances to some extent upon natives subject to their rule. In general the inhabitants of this portion of the continent have dark eyes, long black hair, and a brown complexion, varying in its shade from light to dusky.

The Central Africans belong principally to the Negro or Ethiopic variety of the human race, and are styled Negro Atlantidæ. They form the vast majority of the population, and are physically characterised by a complexion varying from deep sallow to intense black, by dark woolly hair, an unctuous skin, high cheek-bones, projecting jaws, and thick lips. These features are by no means strongly marked throughout, but endless modifications appear. The jet-black hue seems to be confined to those who inhabit the river-valleys and other low grounds within the tropics. In strength and stature the Negro is fully equal to Europeans, nor has any natural intellectual inferiority of the black man to the white yet been proved. True Negro tribes are most prominent in the region of the west coast from the banks of the Senegal to the latitude of 16° south, and in the interior of the continent from the Great Desert nearly to the Tropic of Capricorn, while occurring also on the east coast. In Senegambia, Guinea, and Sudan they form populous nations, but are principally divided into small communities under hereditary chieftainships. In the economy of some interior communities, social and political, Livingstone unexpectedly stumbled upon the discovery of female influence predominating, but was for some time hard of belief in relation to it, till repeated inquiries established its truth. Among all uncivilised people hitherto known, women have invariably been found to be little more than the drudges and pack-oxen of the men; but in a part of Nigritia the relations between the sexes change completely, and the lady-blacks have decidedly the upper hand. In the event of marriage between a young man and a girl belonging to a neighbouring village, he removes to the house of his bride; and it becomes his duty not only to treat the mother-in-law with the greatest respect, but to supply her with fire-wood throughout the remainder of her days. In cases of separation, it is the wife who divorces

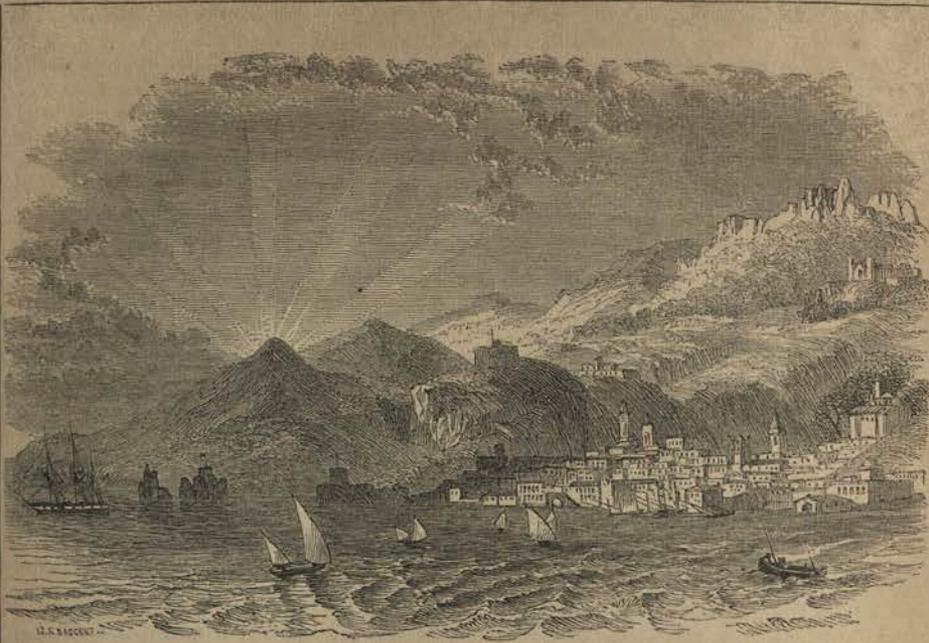
the husband, the children going along with her; and in almost all the ordinary transactions of life, her influence is supreme.

The South Africans are ranged in the two groups of the Kaffir and Hottentot Atlantida. The Kaffirs, consisting of numerous tribes under a great variety of names, occupy the east coast region and the central districts, from the borders of the Cape Colony and Natal up to the basin of the Zambesi. They are a tall, well-made, athletic race, of a deep brown complexion, with short curly black hair, less woolly than that of the Negro; but become gradually assimilated to the Negro type on passing to the northward, till all trace of difference fades away. The word Kaffir is derived from the Arabic *Kiafir*, signifying an 'unbeliever,' and was applied by the Arabs as Mohammedans to all the natives in their vicinity. In conformity with this usage, the early Portuguese and Dutch settlers adopted the designation, called the country beyond their bounds the land of the Kaffirs, out of which Kaffraria was formed as the name of a particular district. This family includes the Bechuanas, Damaras, Zulus, Matabele, and Makalolo. The Hottentot Atlantida are found in the west coast region north of the Cape Colony and within its limits, penetrating inland to the Kalahiri Desert. They are of short stature, have very unprepossessing features of the Mongolian cast, but have shewn an aptitude to acquire the habits of civilised life under patient instruction. The Griquas, Koranas, Namaquas, and Bosjesmans or Bushmen belong to this race. The latter are strictly a nomadic people, follow no industrial pursuit, wander in search of roots and game, possess some wretched dogs, are now few in number, and appear to be verging to an utter extinction. Throughout the northern countries Mohammedanism is professed, but with no strict attention to its ritual, except by the inhabitants of the Nile valley and the Barbary states. A form of Christianity, but very much corrupted, is observed by the Egyptian Copts and the Abyssinians. The lowest phases of superstition appear among the Kaffir and Negro nations, some of whom observe the practice of circumcision, and peculiar rites of purification analogous to those prescribed by the Mosaic law. They dread the influence of sorcerers and wizards, have recourse to fetishism, or the worship of animate and inanimate objects. This is specially distinctive of the Negroes, on occasions of emergency, public or domestic, who venerate also the spirits of their departed relatives. Clay figures of the lion and crocodile are set up, or blocks of timber rudely carved with the human face, generally in the most utter seclusion in the woods, to which the Negro repairs solitarily when the shadows of the night have gathered, to invoke aid in his distresses. Sometimes they are established in public places, when crowds assemble around the images, and beat drums to render them propitious.

I. WEST AFRICAN ISLANDS.

The insular dependencies of the continent are all small, with one signal exception, but have many interesting features. Except a few close inshore, they are not politically associated with the mainland, are chiefly held by the Portuguese, Spanish, British, and French, and are hence most conveniently noticed in detail collectively.

MADEIRA, a possession of the crown of Portugal, is situated about 390 miles off the north-west coast of Africa, and is justly celebrated for its beautiful scenery, fine climate, and great fertility. It extends thirty-five miles in length by fourteen where the breadth is the greatest, and consists of a mass of basaltic rock rising abruptly out of the sea. It attains the elevation of 6050 feet above its level, in the Pico Ruivo, the loftiest point, from the summit of which the view is magnificent on favourable occasions. Deep narrow gorges cleaving the mountains almost down to their base; rivulets flowing through them, leaping in cascades from rock to rock, and at times swelling into furious torrents; and luxuriant vegetation are characteristic of the scenery. Pines and chestnuts form noble groves on the higher declivities; myrtles and geraniums flourish in their native wildness, and give beauty to the ravines; bananas, dates, figs, spices, coffee, and all the choicest



Funchal, Island of Madeira.

fruits of the tropics are raised abundantly on the lower grounds. The vine is, however, the chief object of cultivation, and wine the important export. But in Madeira, as in other wine-growing districts, the vintage has in recent years been damaged to the great distress of the inhabitants, owing to the grape blight, originated by a parasitical fungus. The people are mostly of Portuguese descent, upwards of 98,000 in number. About one-fourth occupy *Funchal*, the capital and only town, agreeably seated on a bay of the south coast, the residence of many English merchants engaged in the wine trade. It has an English Episcopal and a Scotch Presbyterian Church. Owing to the mildness and uniformity of the climate, invalids from Europe resort to the place to pass the winter, suffering from pulmonary affections, occasionally of illustrious rank. Within the last quarter of a century a villa adjoining *Funchal* has successively received Prince Alexander of Holland, Adelaide queen-dowager of England, the Duke of Leuchtenberg, the ex-empress of Brazil, and the empress of Austria. On the north-east of Madeira lies the small isle of *Porto Santo*, with a few inhabitants; and on the south-east are the three rocky islets, called the *Desertas*, occasionally visited by fishermen, herdsmen with goats, sheep, and cattle, and by parties in quest of archil, a dye-yielding lichen.

The *CANARIES*, a group considerably to the southward and much nearer the mainland, consist of seven principal islands, *Teneriffe*, *Gran Canaria*, *Fortaventura*, *Gomera*, *Lanzarote*, *Palma*, and *Ferro*, with several smaller. They are subject to the crown of Spain, and form a province of the kingdom, attached to the archiepiscopal see of *Seville*. Their population, about 230,000, are almost exclusively of Spanish descent, but mingled in blood by intermarriage with the aborigines, or the *Guanches*, who have disappeared as a distinct race. A pestilence swept away the few survivors in 1494. When first known to Europeans, these people recognised a Supreme Being, with a future state of rewards and punishments. They embalmed their dead, and deposited them in caves. When the embalming process was complete, the body was sewn up in goat-skins, and bandaged with leather. The chiefs had the distinction of a coffin formed of a hollow tree, but in all cases cave-burial obtained. In a spacious sepulchre, the cavern of a steep cliff in *Teneriffe*, upwards of 1000 mummies were found, and five or six were commonly joined together, the feet of one being sewn to the head of the next. Remains of aromatic plants connected with the skeletons were met with, and small laces to which were suspended little cakes of baked earth. *Teneriffe*, the largest island, contains the seat of government, at *Santa Cruz*. *Gran Canaria*, nearly round, and about forty miles in diameter, has the best anchorage ground, in the bay on which stands the principal commercial town, *Ciudad de las Palmas*. *Fortaventura*, the nearest to the African main, is little more than sixty miles from *Cape Juby*. *Ferro*, the most westerly, in longitude $13^{\circ} 9'$ west of *Greenwich*, was formerly considered the extreme western point of the *Old World*, and all geographers adopted its meridian as the starting-point in reckoning longitudes. Some of the Germans and others still adhere to this old standard line, which has been used for the purpose from the time of *Ptolemy*. The islands are fertile, have a warm salubrious climate, but are subject to very severe droughts. The well-known canary bird, originally brought into Europe from the group, and hence so named, is still plentiful, but differs in colour and appearance from those bred abroad. Canary-grass, a native plant, is also naturalised in England, and cultivated for the seed in various parts of the counties of *Kent* and

Essex. The Canaries are all of volcanic formation, and contain both extinct and active centres of eruption. The whole of Lanzarote is a mass of lava and cinders, with a crater which was in action in the year 1824; and the Peak of Teneriffe is one of the grandest volcanoes of the globe. It rises pyramidally to the height of 12,236 feet; and with the ascending and declining sun projects a huge and clearly-defined black shadow, stretching away upwards of fifty miles across the deep, and partly eclipsing the adjoining isles. Zones of different vegetation are successively passed on making the ascent. The region of vines at the bottom is left for that of laurels and various woods, followed by that of pines and juniper, to which succeeds a species of tall broom, which forms oases in the midst of a wide sea of ashes around the Piton; or Sugar-loaf, a mountain on the top of a mountain.

The CAPE VERDE cluster, belonging to Portugal, is situated about 320 miles off the promontory of that name, the most westerly point of Africa. There are ten principal islands, Santiago, Fogo, Brava, Maio, Boavista, Sal, San Nicolão, San Luzia, San Vicente, and San Antonio, occupied by about 80,000 negroes and mulattoes, with a few whites. They are volcanic, generally rocky and barren, have a very unhealthy climate, intense heat prevailing during the greater part of the year, with storms and fogs through the remainder. Santiago, the largest of the group, contains *Porto Praya*, formerly the residence of the governor. Fine specimens of the giant tropical tree of Africa, the boabab, appear in the vicinity, with the pear-shaped trunk nearly forty feet in circumference, though not more than ten feet high. The seat of government is now at *Mindello*, in San Vicente, which possesses an excellent harbour in the Porto Grande, regularly resorted to as a coaling-station by steamers bound to or from the Southern Hemisphere. The slopes of a volcano occupy almost the whole area of the island of Fogo. It rises to the height of 9159 feet, and has been in recent activity, after a long interval of repose; the islanders speak a Portuguese jargon called *Lingua Creolita*.

FERNANDO PO, in the Bight of Biafra, bears the name of its Portuguese discoverer, Fernando Gomez, but was very appropriately called by him *Illa Formosa*, the 'Beautiful Island.' It is within sight of the mainland, and has a very attractive appearance from the sea, being traversed by a mountain-ridge clothed to some of its highest elevations with dense forests, while in other parts the trees have a park-like arrangement, occurring in groves. Clarence Peak rises 10,650 feet, and has a summit composed of volcanic ashes, mantled with grass, and almost constantly enveloped in clouds. The woods consist of palms and the magnificent bombax, or silk cotton-tree, 'looking in the distance,' says a describer, 'so like the white sails of vessels, hull down, that one might almost have supposed they saw a numerous fleet with canvas loosened to dry.' Birds of fine plumage are numerous; monkeys occur in crowds, some of which are of large size; alligators infest the streams; snakes are very common; goats and sheep run wild. With the consent of Spain, to whom the island had been ceded by the Portuguese, it became the seat of a British settlement in 1827, designed to aid in the suppression of the slave-trade, but was resigned in a few years, and the military withdrawn, owing to the fatal influence of the climate. *Clarence Town*, a British foundation on the north-east coast, consists of a single street of wooden houses, with a small population of negroes, chiefly liberated from slavery, and a few whites as merchants, engaged in the palm-oil trade, over whom the Spanish government exercises no active authority, though the sovereignty has reverted to it. In the grave-yard many English victims to the fell fever of the place are interred, among others, Richard Lander, the explorer of the Niger.

PRINCE'S ISLAND, two degrees from the equator, and that of ST THOMAS, intersected by it, are small possessions of Portugal, under a governor resident at the latter.

ANNOBON, or Anno-bom, immediately south of the equator, a very interesting spot, is under the government of natives, though claimed by both the Spanish and Portuguese, without either interfering. It is only about four miles long by two broad, and rises up from an unfathomable depth of ocean to the height of 3000 feet. Provisions and water being plentiful, vessels often make for this independent speck of land to procure supplies, which are much more readily obtained by barter than by money. There are about 3000 natives, whose political economy is doubtless without parallel. The government is vested in five persons, who hold office by turns, and have their term of service regulated by the arrival of ships. When the number of ten has been reached during one chief-magistracy the functionary gives way to another.

ASCENSION ISLAND, a British possession, is one of the lonely islets of the globe, being upwards of 900 miles south-west of Cape Palmas, the nearest point of the continent, and 500 miles from St Matthew's, the nearest shore. The name commemorates its discovery by the Spanish on Ascension Day 1501. It is an arid volcanic spot, eight miles long by six broad, and rises to 2870 feet above the sea. First occupied by the British for the purpose of surveillances during the captivity of Napoleon at St Helena, it has since been retained as a victualling station for ships returning from the East, and for the squadron engaged in suppressing the slave-trade. Immense numbers of birds' eggs are taken, and turtles abound on the shores. *Georgetown*, the settlement, is occupied by a small garrison and some negroes.

ST HELENA is still more solitary, being upwards of 700 miles south-east of Ascension Island, the nearest coast. It is one of the best known of all lonely sites, owing to the detention here of Napoleon from 1815 to his death in 1821. Discovered on St Helena's Day 1502, whence the name, it became a Dutch possession. It was ceded to the English East India Company in 1673, from whom it passed to the British crown in 1833. The island is ten miles long by seven broad, and consists of a rugged, dark volcanic rock, facing the sea so precipitously that the interior is only accessible in four places. Diana's Peak, the highest point, rises to 2700 feet. In one of the ravines opening towards the ocean stands *Jamestown*, strongly fortified, possessing an excellent harbour, a handsome church, and many good official residences. It is frequently touched at by

homeward-bound vessels to take in vegetables and fresh water. The whole population of the island does not exceed 6000, consisting of one-third whites, the remainder coloured people of Africa and Asia, with half-castes. Though the surface is generally rugged, it embraces some spacious plains, one of which, Longwood, was the residence of Napoleon, whose house is now in ruins. His remains lay in Geranium Valley till their removal to Paris in 1840. A willow marks the site of the grave.

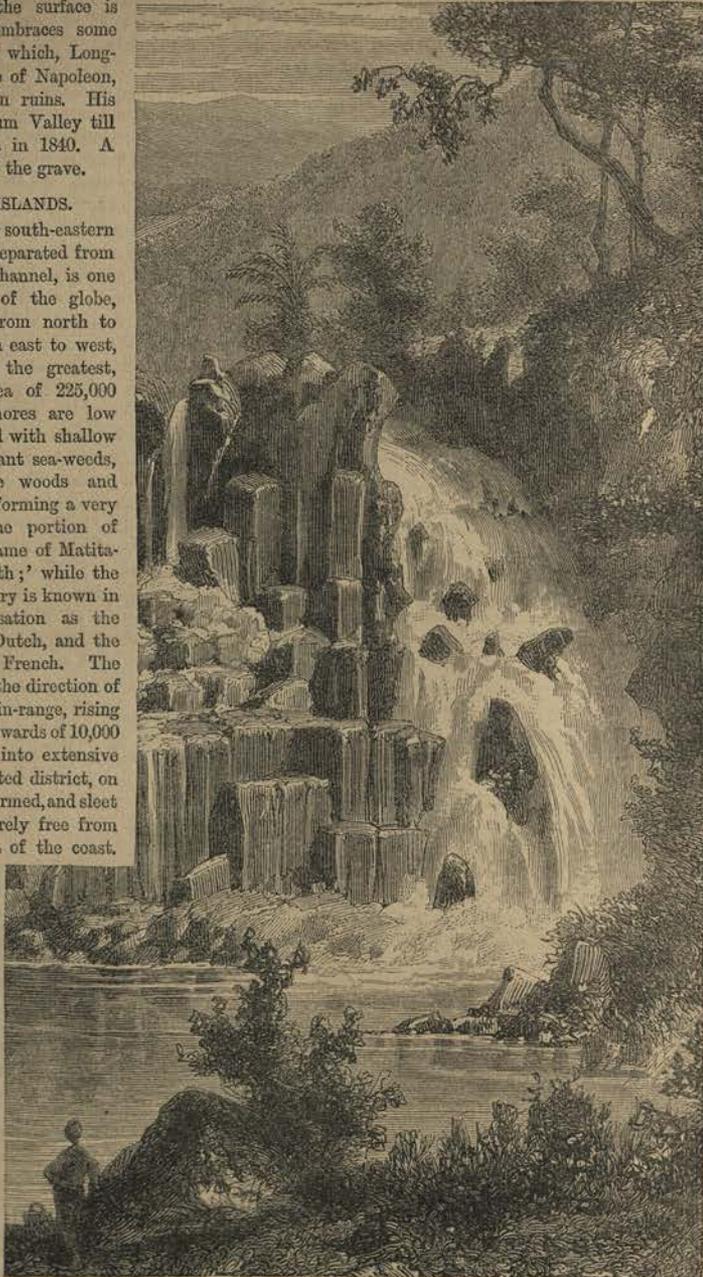
EAST AFRICAN ISLANDS.

MADAGASCAR, on the south-eastern side of the continent, separated from it by the Mozambique Channel, is one of the largest islands of the globe, extending 1030 miles from north to south, by 350 miles from east to west, where the breadth is the greatest, and embracing an area of 225,000 square miles. The shores are low and swampy, often lined with shallow lagoons in which are giant sea-weeds, or clothed with close woods and jungles of tall grasses, forming a very insalubrious region, one portion of which has the native name of Matitana, the 'Land of Death;' while the adjoining isle of St Mary is known in the annals of colonisation as the 'Dead Island' of the Dutch, and the 'Graveyard' of the French. The interior is traversed in the direction of its length by a mountain-range, rising in several summits to upwards of 10,000 feet, and spreading out into extensive table-lands. This elevated district, on which ice is sometimes formed, and sleet storms descend, is entirely free from the pestilential malaria of the coast.

The population—upwards of 5,000,000—consists of tribes with dark African features, over whom the Hovas, who are Polynesian in their complexion, language, and other characteristics, are politically dominant. The propagation of Christianity has been alternately encouraged and interdicted by different sovereigns; intercourse with Europeans has been allowed and suspended, but the island is at present open to communion

with the civilised world. *Antananarivo*, the capital, the 'City of a Thousand Towns,' is in the elevated central district, but has no extent corresponding to the name. It is reached by foreigners from *Tamatave*, the most frequented port on the east coast. The French hold the small isles of St Mary and Nossi Bé, close inshore.

The *COMORO* group, at the north entrance of the Mozambique Channel, consists of four principal islands,



Cascade of the Savanna, Mauritius.

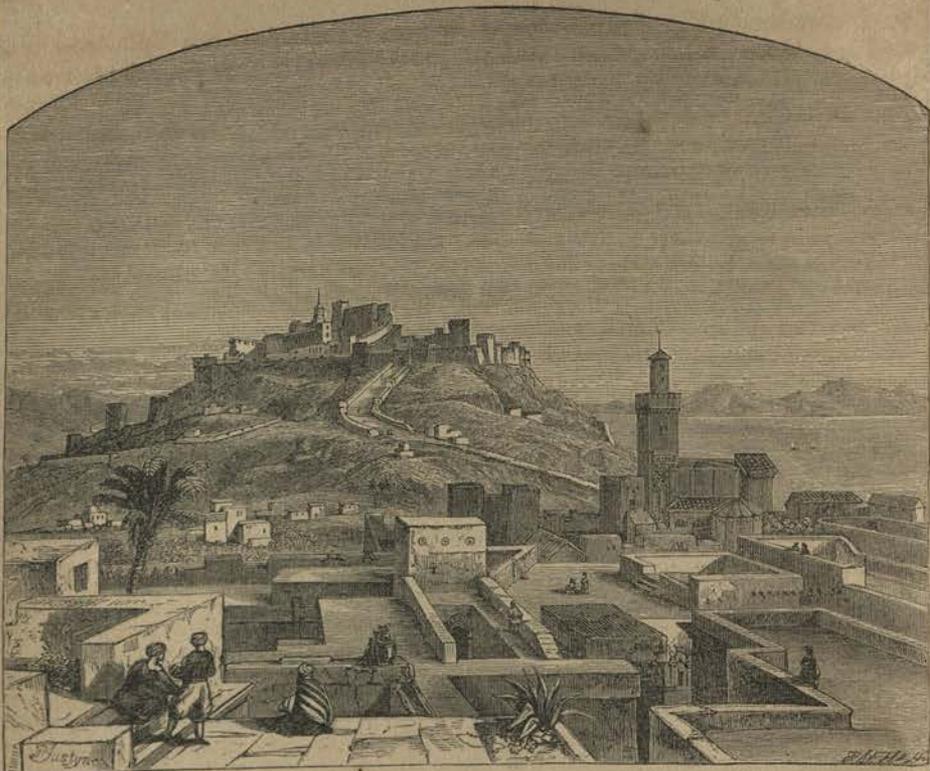
and have inhabitants chiefly of Arabic descent, who profess Mohammedanism. They are governed by a native sultan, with one exception, Mayotta, which was ceded to the French in 1841. The surface is volcanic, mountainous, and fertile in tropical products. Cocoa-nut oil and tortoise-shell are exported. The MASCARENE ISLES, the collective name given to a group lying between the 20th and 22nd parallel, consisting of Réunion or Isle of Bourbon, the Isle of France or Mauritius, and Rodriquez, lying 360 miles to the eastward. They were discovered in 1505 by the Portuguese navigator Mascarenhas. REUNION, formerly called Bourbon, 400 miles on the east of Madagascar, has long been a colony of France, or since the year 1649. It has an area of 905 square miles, and consists of two groups of volcanic mountains separated by a plain, with a narrow belt of highly-fertile land for the coast. Piton de la Fournaise, an active volcano, rises 7218 feet, and has thrown out lava, which forms great part of the surface soil. The loftier Piton de Neiges, 10,100 feet, is extinct. Sugar, coffee, cloves, tobacco, cocoa, pepper, saltpetre, ebony, and dye-woods are the principal exports. No venomous reptiles exist, but the island suffers from storms, being within the hurricane region of the Indian Ocean. *St Denis*, the chief town, is on the north coast. The total population amounts to 166,000, of whom about 30,000 are whites, the remainder Africans, formerly slaves on the plantations.

MAURITIUS, a British colony, 115 miles north-east of Réunion, is a somewhat smaller island, mountainous, thickly wooded, and well watered, with a healthy climate, but liable to destructive tempests. A reef of coral nearly encircles the shores, openings in which admit the access of vessels to the strand. The Peter Botte Mountain, remarkable for its summit, is one of the highest points, 2874 feet above the sea. Sugar plantations cover a large extent of the surface, and yield the principal export, in addition to which, coffee, cotton, and indigo are grown. *Port Louis*, the chief town, is beautifully situated, possesses a good harbour, and contains about 26,000 inhabitants. The whole island has a population, including its dependencies, of 322,000, consisting mostly of coloured people once in slavery. It was called Mauritius by the Dutch, the original discoverers, in honour of Prince Maurice of Holland, but passed from them to the French, who held it nearly a century under the name of *Ile de France*. In 1814 its possession was confirmed to the British, who restored the old title. The whites on the island are chiefly of French extraction, and speak the French language. The Mauritius government includes insular dependencies at a considerable distance; the isle of Rodriguez, with a few settlers of French descent; the Amirante and Seychelles Archipelagos, with *Port Victoria* on one of the latter, and a small garrison; and the Chagos group, in the heart of the Indian Ocean.

Socotra, about 100 miles from the eastern extremity of Africa, of considerable extent, is inhabited by Arabs, and has been known from a remote age. It is the *Dioscoridis Insula* of Ptolemy, and is mentioned by Arrian, has long been famous for its aloes, and for the gum-resin obtained from the dragon's-blood tree.



Peter Botte Mountain.



Tangier.

CHAPTER I.

NORTHERN AFRICA.



THE region known by the general name of the BARBARY STATES, or MAROCCO, ALGERIA, TUNIS, and TRIPOLI, extends along the Mediterranean from the Atlantic on the west, to the borders of Egypt on the east, and has a coast-line of more than 2000 miles, with comparatively narrow but very indefinite inland limits. It includes a series of maritime plains, with a highly fertile calcareous soil, which were the granary of Rome in ancient times, and at an earlier period supplied the wants of the citizens, fleets, and armies of Carthage. They still retain all the conditions necessary to productiveness. The chain of Atlas rises in the background, running from Cape Gher, on the Atlantic sea-board, to the Bay of Tunis, at a varying distance from the shore, and sending off spurs to it which divide the plains from each other, and prevent convenient land communication between them by their steepness. Westward, in Marocco, the chain consists of a double line, the Great and Little Atlas, relatively north and south. The former is the highest, rises to the snow-line, and has the local name of Jebel-el-Thelj, or

the Snowy Mountains. Eastward, towards Algeria, the two lines lose distinctness, and form an elevated broad plateau, edged with bold, abrupt, and rugged heights on the northern and southern sides. Between the edges a space intervenes varying in breadth from 150 to 200 miles, consisting of high levels, extremely hot in summer, but subject to great cold in winter, on which the snow lies long. Upon its melting in spring, the surface becomes rapidly clothed with profuse vegetation, and populous with camps of scattered sections of a nomadic people, who come up from their winter-quarters in the Sahara to take advantage of the fresh food which nature is furnishing to their flocks and herds. Long strings of camels, some with their young by their side, others carrying the women of the tribe, and the tents which are to be pitched when the grazing-ground is reached, present a picturesque spectacle. The southern slope of the mountains descends to the semi-desert region, called Belud-el-Jerid, or the Country of Dates, which forms the northern border of the Great Desert.

Valleys of the Atlas are the beds of streams which unite to form short rivers, flowing on the northern side to the Mediterranean, and descending on the southern to salt-lakes on the verge of the Sahara. Vast woods clothe the declivities far up to the summits. The principal trees are the oak, beech, cork, white poplar, juniper, and wild olive, with the sandarach-tree, yielding the gum-resin of which pounce is made, and famous for its timber, which is almost imperishable. It is employed in constructing the ceilings of the mosques, and is deemed by some identical with the shittim-wood of sacred history. In the Belud-el-Jerid, groves of the date-palm supply the inhabitants with food, afford protection from the burning sun and hot southern winds of the desert, and in their shade the orange, lemon, pomegranate, and vine are reared. The term *Jerid* denotes the dry branches of the palm used to form javelins. On the plains of Marocco the wild mulberry grows luxuriantly; and the favourite fragrant plant, *Reseda odorata*, is there a native, now naturalised in our own climate. It was first introduced from Barbary to the south of France, where it received the common name of mignonette, 'little darling;' it was brought to England in 1742. The lion, panther, hyena, and boar are the formidable wild animals.

In the time of the Romans the country must have swarmed with lions, from the numbers exhibited at their games, obtained chiefly from their North African dependencies. Pompey collected 315 on one occasion for the purpose of fighting in the Circus; and Sylla possessed 100 full-grown males. The latter were sent by the king of Mauritania. At present a brace of lions would be thought a very princely gift. The animal is now confined to the more difficult and densely-wooded parts of the Atlas Mountains, where many have been shot by the rifle since the French occupation of Algeria. The Barbary ape, found in great numbers in the woods, is a small species of tailless monkey, commonly seen in England in attendance upon itinerant showmen in the streets. A colony of the same race has long been naturalised on the Rock of Gibraltar, the only European locality of the quadrumanous order. The horses of Barbary are renowned for their temper, speed, and endurance. Taken by the Arabs into Spain at the time of the conquest, they originated the noble breed of Spanish chargers, so highly valued throughout Western Europe, which received from their native country the name of *barbs*, an abbreviated form of Barbary. The horses of the Nomades on the border of the Great Desert, and in its oases, are the fleetest, but will not bear removal from the sandy plains.

The Barbary States probably contain a population of 10,000,000 or 12,000,000, consisting of various races, almost all united by a common faith, Mohammedanism, and extensively so by a common speech, the Arabic. This is the language of commerce and general intercourse, and also that of the government in the empire of Marocco. Six distinct races may be enumerated; the Berbers, Moors, Arabs, Turks, Kuluglis, and Negroes, besides the cosmopolite Jews, the French in Algeria, and the Spaniards in their own possessions. The name of Berber is a collective one for various tribes native to the soil, who occupy the highlands and the desert region on the south, to which they were driven from the fertile plains by the great Arab immigration of the seventh and following

centuries. The word is of foreign origin, probably derived from the Greek and Latin term *Barbari*; and was naturally applied to their territory in the form of Barbary. They are now distinguished according to locality, as Shelluhs in Marocco, Kabyles in Algeria, Zouaves in Tunis, and Tuaricks in the Sahara. These people are rude and warlike, chiefly pastoral in their habits, though some are cultivators and miners, and manufacture their implements of labour, and even their arms and ammunition. They are either wholly free, or only in formal subjection to the organised governments. The Moors have their name from the Mauri, signifying 'dark,' an aboriginal race so denominated by the Romans; and are descended from them and various conquering immigrants. They are principally town-dwellers, as artisans, tradesmen, and merchants, while the Arabs share the open country with the Berbers, and enjoy much the same amount of practical liberty. The Turks, introduced by conquest in the sixteenth century, with the Kuluglis, their children by native women deprived of all paternal rights, are chiefly found in Tripoli and Tunis, never having established themselves permanently in Marocco.

In the oldest historical times Phœnician colonies were established on the coast, of which Carthage became the head, one of the greatest commercial cities of the world, long the centre of a powerful and extensive state. After bringing Rome to the verge of ruin, it was mastered by the Romans in 146 B.C., who succeeded to the possession of all its dependencies. Roman Africa, in the imperial period, consisted of six provinces, Mauritania-Tingitana, westward on the Atlantic, then in succession eastward, Mauritania-Cæsariensis, Mauritania-Sitifensis, Numidia, the Proconsular Province, or Africa Proper, and Byzacium. The two latter corresponded to the strictly Carthaginian territory in her palmy days. Upon the introduction of Christianity, it has been hastily assumed to have become the religion of nearly the whole population. This inference has been drawn from the number of bishops of the African Church who were collected in the conference at Carthage, on the occasion of the Donatist disputes. But the bishoprics corresponded more to modern incumbencies than anything else, and both parties reproached each other for appointing bishops in insignificant places, 'in vills and hamlets,' with the object of increasing votes on their own side. The so-called dioceses were in many instances mere villages, and some of them shew by their name that they owed their existence to a military outpost. In the declining days of the Roman power, Genseric, at the head of the Vandals, crossed over from Spain, and rapidly reduced the country, 439 A.D. In the following century the barbarians were defeated by the great Roman general Belisarius; but in the succeeding one, 647, the Arabs appeared, and permanently established themselves in the country, with the Moslem creed.

Each of the Barbary States has a maritime frontier, and extends inland to the Great Desert, embracing a portion of it, but with wholly undefined limits.

Marocco,	Marocco, Fez, Mequinez, Tangier, Mogadore.
Algeria,	Algiers, Bona, Oran, Constantine, Mascara.
Tunis,	Tunis, Kairwan.
Tripoli,	Tripoli, Murzuk.

The whole country, in allusion to its position in relation to Egypt, has the Arabic name of *el-Maghrîb*, 'the West,' while the people are called *el-Maghrîbbîns*, 'the West-men.' Algeria, being somewhat central, is denoted as *Maghrîb-el-Ansat*, 'the Middle West,' and Marocco, *Maghrîb-el-Aksa*, 'the Far West.'

Marocco, the Mauritania of ancient geography, an empire or sultanate, is the largest, most fertile, and populous political division, but the worst governed and most neglected in its natural resources. It has an area of about 230,000 square miles, and a population estimated at 8,500,000, many of whom are wild highlanders of the Atlas, fierce and intractable, who own no allegiance to the emperor, but have their own chiefs, and levy transit dues on goods and passengers in their respective domains, while some of the coast-dwellers have repeatedly brought the government into collision with foreign maritime powers, or received direct chastisement from them, owing to their piratical habits. The sea-board extends from Cape Nun, on the Atlantic, to a little beyond the outfall of the Muluya into the Mediterranean, on the Algerine frontier. Intermediately the projection occurs which brings Africa within fifteen miles of Europe, and forms, in connection with the shore of Spain, the Strait of Gibraltar. It is distinguished by one of the fabled

Pillars of Hercules, the Mount Abyla of classical antiquity, now called Jebel-Muza, from the name of a Moslem saint whose tomb is at the spot. This mountain is also known by the name of the Hill of Apes, from the number of monkeys which, with wolves and wild swine, are its only occupants. It presents a steep and stupendous front towards the Rock on the opposite side of the channel, is a bulkier and loftier mass, but the peculiar and sharply-defined outline of the European pillar, its isolation, historical events, and the town at its base, give it a far greater interest. A great number of winter torrents descend the slopes of the Atlas on both sides, the channels of which are dry in summer. The principal perennial stream, the Muluya, waters the north-eastern division of the country, and belongs to the Mediterranean basin. The central and south-eastern sections are drained by the Sebu, Omer-begh, Tensift, Suse, and Draha, which empty themselves into the Atlantic.

The Moors form more than half of the population. They are distinguished by a complexion of the deepest olive, fine features, an apathetic appearance and indolent disposition, but are capable of being roused to the extremity of fiery passion. A woollen cloak, called a *haique*, thrown over the shoulders and fastened round the body, of various colours, a pair of yellow slippers, and a white turban, with a red or green centre, are the principal parts of the ordinary costume. The country Moors, who lead a pastoral life, or are cultivators, are of more active habits than the people in towns, indulge in horsemanship, military evolutions, dancing, and music plaintive in its strain. Next in numbers are the Berbers, a portion of whom on the Riff coast are savage wreckers and pirates as opportunity offers. Jews abound in the cities and towns, who have the greater part of the trade of the country in their hands, and are the medium of foreign commercial transactions. They swarmed over from Spain upon being expelled from that country by the unwise policy of Ferdinand and Isabella in 1492, and contrive to amass wealth, though most grievously maltreated by the dominant race, robbed with impunity, cheated without redress, and compelled to pay mortifying attentions in public to the observances of a religion they consider false. In 1864 a benevolent mission of Sir Moses Montefiore from London to the court of Marocco secured for his brethren the promise from the government of its influence being exerted for their protection from injustice, but with what effect remains to be seen.

The principal industrial art is the preparation and dyeing of leather, which has the name of 'morocco leather' from the country, in which the Moors far surpass the Europeans. It is made extremely soft and white by the use of two species of plants indigenous to the soil, and receives red, green, and yellow dyes, remarkable for brilliance and durability. The red dye is extracted from the *termes*, an insect collected by the mountaineers, and brought to the towns for sale. Morocco leather, fruits, gum, olive oil, ostrich feathers, honey, and wax are among the important exports. The internal trade is carried on by mules, horses, and camels. A considerable commerce is carried on with Central Africa by caravans across the desert.

The present dynasty of Marocco descends from Hassan, sheriff of Taflet, who obtained the throne by conquest in 1647. Claiming descent from the family of the Prophet, the sultan enjoys great distinction in the Mohammedan world, being widely regarded as the only lawful calif and chief of Islam. He assumes the titles of *Emir-ul-mumenin*, 'Prince of the Believers,' and *Khalifeh-Allah-fchalkihi*, 'Vicegerent of God upon Earth.' The form of government is a despotism ignorantly and brutally administered. Though formal executions even for heinous crimes do not often occur, death is frequently the lot of the delinquent for venial offences, owing to barbarous neglect in crowded prisons and the merciless severity with which the bastinado is applied. Yet the victims generally exhibit surprising apathy. It is on occasions of political revolution that the Moors give full vent to their passions, and exhibit their innate cruelty without restraint. 'It is then,' says M. Durrieu, writing in 1854, 'that the rivers and the sea engulf hundreds of unfortunate creatures sewn up in sacks; then do others, impaled in the public squares, die slowly in inexpressible agonies; then, on the slightest pretext, or often without any, are feet, hands, breasts, and ears cut off. These detestable tortures are endured by all, Moors, Arabs, and Berbers with sombre resignation. It is nothing uncommon to see them in the squares and market-places standing nailed by the hand or ear to the gallows, smoking their pipe as quietly as if they were witnessing a public festival; or when set free after mutilation, picking up with a careless air their ear or their hand, and walking off with it at a composed and deliberate pace.'

Marocco, the capital, occupies an inland site, 130 miles from the Atlantic, near the banks of the shallow and rapid river Tensift. It is finely seated on an extensive, luxuriantly-fertile, and palm-clad plain, which is bordered by the loftiest of the snow-mountains. The city was founded in the year 1072, and speedily attained great prosperity, attracted a vast population, but has lapsed into apparently hopeless decay, not now containing more than 50,000 inhabitants. It is surrounded by a high and substantial wall, six miles in circuit, but unoccupied spaces, gardens, and ruins are enclosed within it. A royal palace, an hospital, two colleges, and nineteen mosques, some of which are spacious and elegant, are the public buildings. *Fez*, formerly the capital, and still an imperial residence, is the head of the northern province, seated on a branch of the Sebu, which divides it into two parts, Old and New Fez, and flows through a valley

bordered with hills of orchards and orange-groves. It was founded by a descendant of Mohammed in the year 786, and was once a magnificent city of great extent, containing 700 mosques, with many schools, and other seats of Arabic learning. The place is still the most considerable in Morocco, with a population of 80,000. Manufactures of carpets, woollens, silks, jewellery, and saddlery are carried on; and the red morocco leather is here prepared in great perfection. Bazaars, caravansaries, baths, and shops are numerous, but most of the dwelling-houses are miserably decayed. Owing to its origin, and the large number of existing mosques, Fez is venerated as a holy city by the western Arabs. The mosque erected by Sultan Muley Edris contains his tomb, and once gained by the greatest criminals, it is an inviolable refuge. *Mequinez*, at no great distance westward, a third seat of royalty, possesses a palace of considerable extent and beauty, and ranks as the second city of the empire, having a somewhat larger population than the capital.

Tangier, a principal port, is on the north coast, in the vicinity of Cape Spartel, nearly opposite to Cape Trafalgar in Spain, and has a place in history. Seen from the surface of the Strait, the square-built, flat-roofed houses, whitewashed to the highest polish, with the castle, and the many-coloured flags of the European consuls flying over their dwellings, make a pleasant impression, which landing speedily corrects. Within an easy excursion distance of Gibraltar, the place is often visited by English tourists, for the purpose of taking a peep at Moorish life. The town, of 10,000 inhabitants, derives interest from varieties of costume in the narrow ill-paved streets, and from the castle, seated on a rugged eminence, which commands a superb view of the Gibraltar Rock, the vineyard-crowned knolls on the Spanish shore, and the intervening waters. It was a Portuguese possession in 1682, when it passed to England upon the marriage of Charles II. with Catherine of Braganza, as part of her dowry, but was abandoned in 1684, on the ground of expense. *Rabat*, a flourishing shipping port, with a dockyard, and a population of 20,000, is on the Atlantic coast, at the outlet of the Ba-Regreb, much less known by name than *Sallee*, on the opposite bank of the river. This is now a decayed place, but was once famous in the annals of piracy, as the stronghold of the corsairs in the sixteenth and seventeenth centuries, whose appearance on the shores of Spain often raised the cry: *Los Moros sur la costa!*—'The Moors are upon the coasts'—and who were the terror of merchantmen in the English Channel. *Mogadore*, further south, the outport of Morocco Proper, nearly due west of the capital, is the principal centre of the foreign commerce of the country, which is very extensively in the hands of British merchants.

Ceuta, at the base of Mount Abyla, opposite to Gibraltar, belongs to Spain, and is a strongly-fortified town, quite European in its style, with white well-built houses, and paved streets. An insult offered here to the Spanish flag led to the war with Morocco in 1859, in which the Moors were defeated, and compelled to sue for peace in the following year. The Spaniards have some small possessions eastward on the coast, *Penon de Velez*, *Alhucemas*, and *Melilla*, under the charge of the governor of Ceuta, to which criminals and political offenders are exiled.

ALGERIA, a department and province of France, extends eastward on the coast from the Morocco territory to that of Tunis, and corresponds in its general limits to the Numidia of the ancients. It contains an area estimated at 160,000 square miles, and embraces a region of maritime plains, an inland district of wooded mountain and heathy plateau, the latter interspersed with salt-lakes, with a portion of the Sahara still more in the interior. The forests furnish many ornamental woods valued by the cabinet-makers of Paris, and the fine marbles of the country, celebrated in ancient times, rival the timber in the delicate beauty of their shades. Ores of iron, copper, lead, zinc, and manganese are worked with advantage, and extensive deposits of rock-salt occur. The proper agricultural district is a limited area, confined to the plains along the coast, called the Tell. Cereal produce is here raised in abundance, with olives and the finest fruits, justifying the renown of the soil for fertility in the Roman age, which the Arabs of the present day express by a current proverb: 'The Tell is our mother; whoever may be her lord, he is our father.' Cotton, tobacco, and silk are other products. The cultivation of cotton is of long standing, but has been extended by the patronage of the French government, and the enterprise of European capitalists, stimulated by the course of events in America. The mulberry-tree flourishes readily in various parts of the country under almost all circumstances, in addition to which the *ricin* of Japan has been introduced for the support of the silkworm, owing to the supposition that the disease so fatal to the insects in France and Algeria in 1854 originated with the mulberry-leaf. The population amounts to very nearly 3,000,000, consisting mainly of Kabyles and Arabs, with a subordinate number of Moors, Negroes, Turks, and Jews. There are 205,000 Europeans, nearly 7000 of whom are Protestants, the remainder Roman Catholics.

Algiers, the capital, on the coast, has its name from Al-jezira, 'The Island,' originally an insular spot in the harbour, now connected with the mainland by a mole, on which an Arab chief planted a stronghold about the year 935, and called it Al-gazie, 'The Warlike.' The city is built upon a hill rising gradually from the shore, the summit being crowned by the old fortress of the deys. It appears to great advantage in the seaward view from the declivity of the site, and contains a population of about 53,000, two-thirds of whom are Europeans. In 1516 it was mastered by Barbarossa, the famous sea-rover, who entered the service of the Turkish sultan, Soliman the Magnificent, agreed to hold it as a dependency of the empire, and established that system of piracy of which it was the seat to a comparatively recent date. In 1541 the Emperor Charles V. of Germany made a vigorous attempt to crush the corsairs, and lost a fine fleet and army in the service. The deys, elected as the rulers by the janissaries recruited from Constantinople, contrived to maintain piratical expeditions, and defy the powers of Christendom down to the present century, when, in 1816, signal chastisement was administered by the British fleet under Lord Exmouth. Subsequent lawless proceedings led the French to interfere, who took possession of the place in July 1830, allowing the dey to retire with his private property. Since the French occupation in 1830, it has undergone a complete change of aspect, and now consists of two parts: an upper or old town, Moorish in its aspect and inhabitants; a lower or new town, Parisian in its style, with the exception of some mosques. This last comprises spacious streets and planted squares, government buildings, theatres, cafés, hotels, fountains, baths, good shops, and omnibuses; and were it not for the swarthy complexion of a crowd of passengers, with the oriental costume, the European visitor might fancy himself in his native continent. A *Jardin d'Acclimatation*, for the naturalising of foreign plants, and the *Ouvroir Musulman*, in which Arab orphan girls are received and educated, are interesting institutions. The vicinity, studded with villas, is unusually picturesque, traversed by excellent carriage-roads, threaded by numberless footways and bridle-tracks. Besides the permanent inhabitants, Algiers has become one of the health stations for the north Europeans, who imitate the example of the swallows, and migrate to Africa in autumn, to escape the rigour of their own winter. Fogs and white frosts are unknown in the city and its neighbourhood; and the winter temperature is uniformly mild and genial. In general, if the winter is very severe in England and Germany, it is colder than usual at Nice and Pau. But Algiers is placed beyond the influence of these northerly vicissitudes, and is the nearest point to England where the invalid is certain of meeting with a second summer at the expiration of the home season. Algiers has regular steam communication with Marseille, Toulon, Tunis, and other ports; and is within seventy-two hours of England by the railway through France. It is closely passed by the Peninsular and Oriental Company's steamers, between Gibraltar and Malta, and affords a picturesque sight to those on board.

Bona, a seaport towards the border of Tunis, is a thriving town of 12,000 mixed native and European inhabitants. It closely adjoins the few remains of Hippo Regius, once celebrated for its schools, aqueducts, temples, and commerce, a favourite residence of the Numidian kings, and the episcopal seat of St Augustine, who died there in 430. *Oran*, more important, in the western part of the country, has an excellent harbour about three miles distant, and a population of 30,000. The town has Spanish as well as Moorish features, having been held by Spain to the close of the last century. *Constantine*, the principal inland town, with 23,000 inhabitants, represents the Cirta of antiquity, the Numidian capital, which, being rebuilt by Constantine the Great, was named after him. It occupies a formidable position, on the summit of a perpendicularly escarped cliff, upwards of 800 feet above the river Roumel at its base. The French styled it the 'City of the Devil' from the natural strength of the site. They were ignominiously compelled to retreat from the walls under Marshal Clausel in 1836. But in the following year it was taken by storm by General Damrémont, who lost his life in the attack. *Mascara*, on the south-east of Oran, the head-quarters of Abd-el-Kader, was burned by Clausel in 1835. Great atrocities were committed on the side of both the invaders and the natives during the long struggle for the mastery in Algeria, an acquisition which has very heavily taxed the finances of France.

The indigenous people, the Kabyles, are a fierce and warlike race, but very industrious and highly skilful. They carefully till the soil, make superb carpets and other woollens, produce burnouses of great beauty, and various works in leather, excel in embroidery, and their home-made gunpowder was at first supposed by the French to be of English manufacture. Specimens of their handicraft were in the London International Exhibition of 1862. These highlanders, with the Arabs, are now practically subdued, and have been wisely conciliated by the French government, in the dry districts, by the opening of Artesian wells. No boon more likely to soften the exasperation occasioned by conquest. Three copious wells provided by borings in 1856 were hailed by the children of the desert with the utmost enthusiasm, and received the names of 'Fountain of Peace,' 'Fountain of Benediction,' and 'Fountain of Gratitude.'

TUNIS, to the eastward of Algeria, the smallest political division, extends along the southern bend of the Mediterranean, and encloses the Gulf of Kabes, the Syrtis Minor of classical geography, containing some small islands close inshore. It answers generally to the territory of ancient Carthage, and the Proconsular Province, or Africa Proper of Roman times. The area is estimated at about 60,000 square miles, and the population probably amounts to 2,000,000, consisting of Moors, Arabs, and Turks, who have long

been upon terms of friendly intercourse with Europeans, and have profited by it. The government is administered by hereditary rulers, with the style of Beys, who acknowledge subordination to the Turkish sultans, but are practically quite independent. The beyalik contains interesting remains of ancient date.

Tunis, the capital, near the north coast, is situated on the margin of a shallow lagoon, communicating with the sea by a narrow channel. It is the largest city in the Barbary States, containing 130,000 inhabitants, among whom there are a very large number of Jews; and the most commercial place in the north of Africa after Alexandria. The manufactures embrace silk and woollen stuffs, morocco leather and earthenware, with the preparation of olive oil, and various celebrated essences. The bey resides in the vicinity, in a palace built in the Saracenic style. In 1535 the city was taken from the native Berber race by Charles V. of Spain, with the assistance of the Arabs, who put 70,000 of the inhabitants to the sword, as Mohammedan heretics in their esteem. But it was delivered from Spanish rule by a naval armament from Constantinople in 1574, and then annexed to the Turkish Empire. *Kairwan*, an inland city on the south, on a sandy, marshy, and treeless plain, though fallen from its former rank as a seat of Saracenic power, is still a considerable place, with a population of nearly 50,000. It is venerated as one of the holy cities of Islam, contains about fifty mosques, one of which, the Okbah Mosque, is deemed peculiarly holy from possessing the tomb of the Prophet's barber. The interior is adorned with columns of marble, granite, and porphyry. A brick wall, surmounted with towers, surrounds the town.

A short journey of twelve miles northward of Tunis leads to the site of Carthage, a city great and glorious before her destruction by the Romans. A new Carthage arose, which became in the second and third centuries of the Christian era one of the finest cities in the Roman Empire. Genseric made it the capital of the Vandal kingdom in 439, and uttered the memorable words on leaving the harbour, when the pilot asked him whither he was going, 'Against all who have incurred the wrath of God.' Belisarius captured it in 533, and changed the name. The Arabs under Hassan conquered it 698, and left scarcely one stone upon another. Nothing remains of either Old or New Carthage, but substractions, broken columns, statues, and other ruins. Two miserable hamlets occupy the spot—Moalka, chiefly constructed out of the cisterns extracted from the great aqueduct; and Dowar Eshutt, an irregular mass of hovels built up of fragments. Other parts of the Tunisian territory contain striking Roman remains, particularly a magnificent amphitheatre at Eljem, little inferior to the Colosseum itself, with architectural pretensions beyond those of the celebrated structure at Ravenna. On this site stood ancient Tysdrus, where an inscription has been found which shews that in that city water was laid on in the private houses.

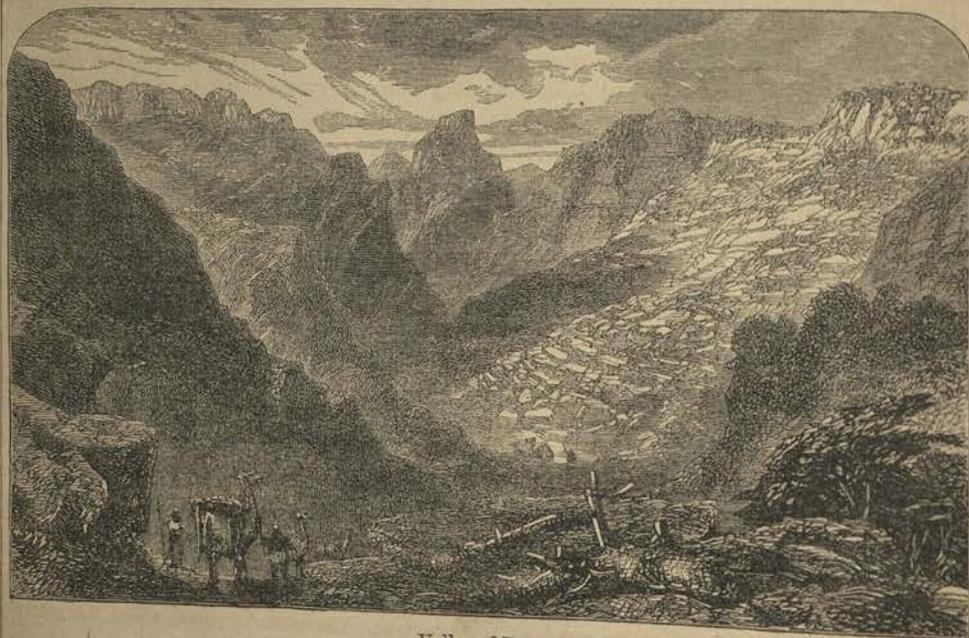
One of the islands off-shore, Jerbah, was anciently called *Lotophagitis*, as the abode of eaters of the lotus, a fruit once believed to have such an intoxicating effect, that whoever partook of it forgot his own country and wished to spend his days in the region where it was produced. This is the produce of a shrub, *Zizyphus Lotus*, which grows on the whole coast, and is sold under the name of jujube for the preparation of sweetmeats.

TRIPOLI, with its dependency Barca, is a long narrow tract extending from the Tunisian to the Egyptian border, embracing in its line of coast the Gulf of Sidra, the Syrtis Major of antiquity. It is the most sterile of the Barbary States, owing to the great chain of the Atlas having terminated its eastward course, and the want of such a barrier to protect from the hot winds of the desert region, and prevent its sands from being blown up to the very margin of the sea. The area is estimated at 200,000 square miles, extensively doomed to almost utter barrenness. Hence the Arabs call the country Bahr-al-Abiad, the 'White Sea,' in allusion to its sandy character. Still there are not wanting beautiful scenes, wooded slopes, and valleys of rich vegetation, where the olive contrasts with the fig, the tall cyprus and the dark juniper with the arbutus and the myrtle, while the pleasant breeze is laden with balmy perfumes. This territory was successively subject to Greeks, Carthaginians, and Romans, to the Vandals and the Arabs or Saracens, to Charles V. and the Knights of Malta. From the latter it was wrested by the Turks in 1551. It is now under the rule of a hereditary pasha, who is in nominal allegiance to the Ottoman Empire. The population, estimated to number 1,500,000, consists mainly of Berbers, Moors, Arabs, and Turks. The name, originally Tri-polis, 'Three Cities,' refers to three ancient towns, Leptis Magna, Oea, and Sabrata, which were allied together, and shared the country between them.

Tripoli, the capital, on the coast, is of humble dimensions, containing only about 20,000 inhabitants, but has a considerable caravan trade with Central Africa, and is the usual starting-point of enterprising travellers across the Sahara southward to Lake Tchad, and south-westward to Timbuktu. It is washed on three sides by the sea, and joined on the fourth by a sandy plain to the rest of the country. A very strong wall surrounds the place, surmounted with towers, but not kept in good repair. The castle or palace where the pasha

resides is within the enclosure, and is itself environed by a wall upwards of forty feet high, furnished with battlements, embrasures, and towers which appears impregnable. Low, flat, square houses, covered with lime, the extreme whiteness of which, from encountering the sun's fiercest rays, is very striking; baths, with clusters of large cupolas crowded together; mosques, with small plantations of fig-trees and date-palms growing close to them; and narrow streets here and there almost choked with hills of rubbish, and arched at intervals, are the prominent features of Tripoli. It does not possess a vehicle of any description, except a kind of palanquin, entirely enclosed with linen, and placed on the back of a camel, which a few of the rich Moors keep for the accommodation of the ladies of their families. There are some striking Roman remains, in particular the 'old arch,' as the natives call it, a grand monument erected by an officer in control of the customs, in honour of the joint emperors, Marcus Aurelius and Lucius Verus, 164 A.D. Southward of Tripoli, the district of Fezzan, a collection of oases with large intermingling tracts of deserts, is tributary to the pashalic, under the government of a bey. *Murzuk*, the chief town, occupies a low, hot, unhealthy site. Merchandise to the value of £21,000 annually changes hands here, and of that amount, the Slave-trade forms seven-eighths. Murzuk is now the great starting-point from the north for the interior of Negroland. While waiting for their equipments at Tripoli, Drs Barth and Overweg occupied their time in an excursion through the mountain region which encircles Tripoli at the distance of from sixty to eighty miles to the south, consisting for the most part of barren sand-hills. Hence they turned inland over the prairies of the Belasa, visiting Murzuk and Ghat, through valleys rich in herbage and clothed with ethel-trees; gradually ascending until a table-land was reached, 4000 feet above the sea. From this table-land the descent lay through the valley of Egeri. 'We began to descend,' says the Doctor, 'by a most picturesque passage, into a deeper region, high cones towering over a hollow in the ground; the scenery assuming a grandeur as we advanced, and exhibiting features of such variety as we had not expected to find in this desert country.' While our camels slowly descended, I made the following sketch which conveys a better idea of this abrupt cessation of the high sandstone level succeeded by its sloping strata of marl and still another of granite, than any verbal description could do.'

The eastern division of the Tripolitan pashalic, Barca, represents the Cyrenaica of the ancients, also called Pentapolis, 'Five Cities,' in allusion to five principal towns planted by the Greeks upon the coast, Cyrene, Berenice, Barce, Ptolemais, and Derna, all of which have passed away. But vast ruins of Cyrene remain, with sepulchral monuments; and the fountain of Apollo, which led to the foundation of the city at the site, still flows copiously, cool in summer, genial in winter. An expedition of the British government, in 1861, brought away for the National Museum a splendid collection of marble statues, statuettes, heads, and inscriptions.



Valley of Egeri.



Island of Philae.

CHAPTER II

NORTH-EASTERN AFRICA.



THIS region includes what may be called the COUNTRIES OF THE NILE OF EGYPT, NUBIA, KORDOFAN, and ABYSSINIA. Upwards of twenty-three centuries ago Egypt was described by the historian as a land of marvels, excelling all others in mighty works. This remark, true in the age of Herodotus, its author, was emphatically applicable more than a thousand years before his day, and it is just as pertinent in the present age as ever, owing to the peculiar natural features of the country, which have no parallel in any other region of the globe, and the wonderful architectural monuments of ancient date extant upon the soil. Gigantic statues and obelisks, enormous temples, pyramids, and sepulchres, whose magnitude and solidity have enabled them to withstand the wasting hand of age, and the still more destructive ravages of barbarians—aptly denominated ‘rocks amid the flood of time’—fill the mind of the beholder with astonishment, however familiar with the accomplishments of modern art; and are invested with solemn interest by the fact of their origin being still a mystery. This land of the Pharaohs and Ptolemies, belonging equally to sacred and classic geography, is a section of North-Eastern Africa, extending southward from the Mediterranean to the first cataract of the Nile, at Syene, now Assouan, on the Nubian border. Eastward, the Red Sea forms the general boundary, and westward the limit is wholly undefined in the Libyan Desert. But cultivable and habitable Egypt has a much more contracted area, being confined, with the exception of some oases, to the valley of the river, and the delta formed at its termination. The rest of the surface is a wilderness of sterile rocks and desert plains.

The great feature of the country, the Nile, runs through it from south to north in a narrow winding valley, bounded on both sides by hills, which in some places are high enough to deserve the name of mountains. They leave on each bank a strip of fertile land, varying from a breadth of several miles to very confined dimensions. The western range retires in general the furthest from the river, and affords the widest space for cultivation. From Assouan to the neighbourhood of Cairo, where the valley and its hills begin or terminate, the direct distance is about 450 miles. Here the river divides into two main arms, and into numerous canals, which intersect the flat, triangular, alluvial district on the coast, known in ancient as well as in modern times as the Delta, from its correspondence in shape to the Greek letter of that name. The western arm is the Rosetta branch, and the eastern the Damietta, so called after the towns at their mouths. The breadth of the included space at the coast, the base of the triangle, is about eighty miles, and from thence to the apex, or the bifurcation of the river, the distance in a direct line is about ninety miles. Seven mouths of the Nile were distinguished by the ancients, five of which have either silted up, or are lost in lakes. On ascending the river, the hills on the western side are composed chiefly of a tertiary nummulite limestone, very easily worked, of which the great pyramid of Gizeh is built. In the neighbourhood of Esné a sandstone formation commences, durable, and wrought without difficulty, largely used in the buildings of Thebes, and also occasionally employed for the purposes of sculpture. On the Nubian border that particular species of granite mixed with hornblende is met with, called sienite, from the locality in which it is found, Syene, where the quarries still lie open which furnished the old Egyptians with materials for their colossal statues and monolithic obelisks. The cataracts of the Nile, seven of which are commonly enumerated, are all in Nubia, except the first at Assouan, which is only a rapid formed by granite rocks encumbering the bed of the stream. The others are also rapids, having no perpendicular fall of any extent.

From the earliest antiquity Egypt has been considered the gift of the Nile, owing to the regular rise and overflow of its waters. Not that the country has been formed or even extended by its successive deposits encroaching upon the sea, for this has not transpired to any important extent within the age of history; but it so entirely depends for irrigation and fertility upon the annual inundation, that the cultivable soil is really the legacy of the water-floods. In the maritime districts heavy rains are not uncommon in the first three months of the year; but they are rarely witnessed at any great distance in the interior. Over an immense extent of country the sky is almost constantly serene; and the whole period of man's life may pass away without the experience of a single drenching shower. Hence, if it were not for the inundations of the river, the whole valley through which it flows, except close to its margin, would be like the region by which it is surrounded, partly a sandy waste, and partly a stony desert. But seasonal rains descend in tremendous torrents upon the grand plateau of Abyssinia, and the equatorial countries in which the Nile has its sources. Then the river rises; its channel is gradually filled to overflowing;

* And Egypt joys beneath the spreading wave.*

By this natural provision the lands within reach of the overflow are not only supplied with requisite moisture, which is retained in canals and reservoirs for service after the subsidence, but a layer of soil is deposited upon them, brought down by the waters, thereby giving them greater fertility than could be produced by the richest manure. The cereal produce of the country has hence been appropriately designated the 'harvest of the river,' and the course of the Nile has been aptly compared to the path of a good man in the midst of an evil generation, owing to the strongly-contrasted aspect of the soil within and beyond the range of irrigation. In ordinary seasons the rise begins about the middle of June; the overflow commences in the first half of August; it attains its maximum at the end of September; and the stream is again confined to its channel towards the close of October. About the end of November the fields are put under culture, and are covered with green crops through our winter months to the end of February. In March is the harvest, and in April the river is at its lowest ebb. Amroun, the Arab conqueror of Egypt, hence observed with truth in his report to the Calif Omar that, 'according to the vicissitudes of the seasons, the face of the country is adorned with a silver wave, a verdant emerald, and the deep yellow of a golden harvest.'

While rich in shrubs and herbaceous plants, the country is very deficient in timber-trees, and hence the old rulers engaged in wars to possess themselves of the forests of Lebanon.

The papyrus, an elegant aquatic, of the white pith of which the ancient paper was made, yet appears among the reeds of Lake Menzaleh, though rarely, its importance having passed away, while its cultivation, with that of other plants, has been superseded by the culture of available products, indigo, cotton, tobacco, and the sugar-cane. Abundant crops of the vegetables mentioned by the murmuring Israelites in the wilderness are still raised, 'the cucumbers and the melons, the leeks, the onions, and the garlic.' The date-palm is pre-eminent among the indigenous vegetation for utility and profusion, cultivated on the inundated and irrigated lands in groves sometimes of several thousands, and forming an ornament to the landscape. The doum-palm, a remarkable species, is chiefly met with in the southern districts. Coppices of acacias and tamarisks wave on the borders of the river. The district of Fayum contains impenetrable hedges of cactus, and plantations of roses for the production of rose-water. The common species, *Rosa alba*, bears a double flower, of a pale colour tinged with red, and very fragrant.

From the earliest periods of which we have any record, Egypt has had the horse, ass, and camel, and nowhere are finer specimens of the domesticated quadrupeds to be found at present. He-asses and she-asses are mentioned among the wealth acquired by Abraham during his sojourn in the country. They are often represented on the monuments with rich comparisons; and are a very superior breed to the animals with which we are familiar. Among the wild animals, the hippopotamus, formerly well known in the Delta, and chased for its hide, is now very rarely, if ever, seen below the cataracts; and the giraffe is only occasionally found in the more southern localities. The hyena, jackal, and jerboa are common, with the ichneumon, Egyptian vulture, and great stork-ibis, all famous with the old inhabitants. Among the reptiles the formidable crocodile is now restricted chiefly to the Nile in Upper Egypt. Two venomous serpents are abundant, and justly dreaded, the asp, or *Hai coluber*, and the cerastes; but with them the serpent-charmers play very surprising tricks.

The climate of Egypt is hot and dry, except in the maritime districts, where the air is moist. Inland, the extreme dryness of the atmosphere contributes to preserve natural substances from the decay incident to them in other countries; and hence the bodies of men and animals, ages after burial in the rock-tombs, or in the sands of the Desert, are found retaining the outward form as perfect as if in life, though crumbling to dust upon the slightest touch. In summer the nights and mornings are generally pleasant, but the forenoons are sultry, and the afternoons are a fiery ordeal. From June till August the heat is moderated by the north or Etesian winds. In April and May, the greatest climatic disadvantage and most unhealthy season is experienced, occasioned by the *khamsin*, the wind of fifty days, blowing from the south. It prevails more or less during the period named, though it seldom lasts longer than three days at a time, and brings with it the fine dust and burning temperature of the Desert. Instantly the atmosphere assumes a troubled aspect, and sometimes acquires a purple tinge; the air seems to lose its property of sustaining life, and becomes stifling; whirlwinds sweep over the country, resembling the blasts from a furnace, and carrying along clouds of impalpable sand; the sky is darkened; and the sun, shorn of his beams, appears like a dull ball in the heavens, often with a violet tinge. At this season the plague has usually made its appearance. Though favourable to consumptive subjects, the climate is not generally salubrious, neither is it friendly to long life. The ancients observed that the old Egyptians, notwithstanding their attention to diet and medicine, were the most short lived, and the Britons, in spite of their barbarism, the longest lived of men. From fifty to sixty years is now considered a great age. At Alexandria the population is said to be renewed every fourteen years. Ophthalmia, dysentery, intermittent fevers, and ulcers are the most common disorders.

Eye disease seems to have prevailed from the most remote times, for Sesostris died stone-blind, and his successor lost his sight for ten years. Glare and dust will not alone account for this scourge of Egypt, as it is almost unknown in the Desert, where the people live in an atmosphere of blaze and sand.

For administrative purposes, Egypt is divided into thirteen provinces, but the country is also distributed into three principal geographical regions, which are better known, and were distinguished in ancient times.

Principal Towns.

Lower Egypt,	Alexandria, Rosetta, Damietta, Aboukir.
Middle Egypt,	Cairo, Suez, Medinet-el-Fayum, Benisuef, Minieh, Manfalut.
Upper Egypt,	Siout, Girgeh, Karnae, Luxor, Assouan.

LOWER EGYPT, or BAHARI, comprehends the Delta, with the adjacent plains on either hand of the main branches of the river. This district is poor in works of ancient art, but is historically known to have been once crowded with cities and temples, the materials of which have been carried off to build modern towns, while earth and rubbish have accumulated in other places so as to conceal many vestiges from view. Ruins still attest the former magnificence of the Zoan of the Scriptures, now San, in the vicinity of Lake Menzaleh. The region occupied by the Israelites, called the Land of Goshen, cannot now be defined, but it was undoubtedly in Lower Egypt, and between the Pelusiac, or easternmost branch of the Nile, and the Palestine border.

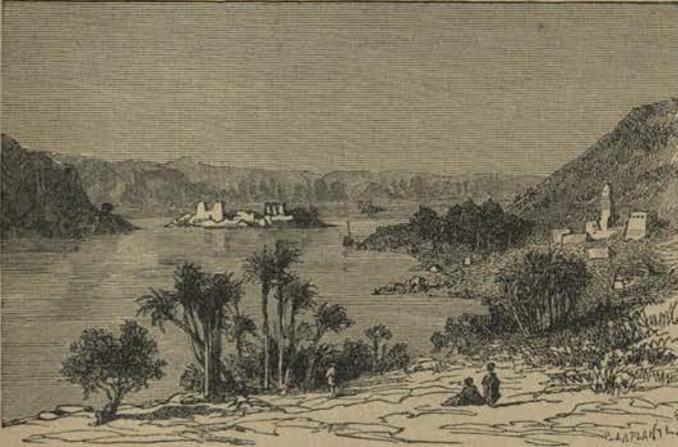


Street in Alexandria.

Alexandria, locally called *Scanderieh*, on the coast, founded by Alexander the Great, and named after him, is the principal seaport, and has been for nearly twenty-two centuries the commercial emporium of Egypt. It rapidly advanced to distinction under the Ptolomean successors of the conqueror, who made it their residence, ranked after Rome and Antioch in the ancient world, contained within its circuit of fifteen miles 300,000 free inhabitants, with an equal number of slaves, and was renowned for its literati and vast library, even more than for the extent of its trade and the splendour of its monuments. The present city, with a population of about 80,000, occupies only part of the old site. It comprises vestiges of the Greek and Roman age intermingled with erections of the Mohammedan dynasties, in addition to which many public buildings and works have arisen in consequence of its recent connection with western civilisation, and

its position on the overland route between Great Britain and India. Features belonging to the west and east, the European and Oriental, are now closely blended in its aspect. Men with hats and women with bonnets, English, French, and Italians, are commonly met with, both afoot in the streets and driving about in phaetons. A great change was effected by the vigorous administration of Mohammed Ali in the demeanour of the natives to persons in the Frank dress. It is, however, a curious and sometimes a ludicrous instance of the force of habit, that many a Moslem, without meaning to be offensive, will indulge in maledictions before those who are just as much compromised by them as the parties to whom they personally refer. His reference to a Christian will most likely be supplemented with a 'Allah, make his countenance cold!' or to a Jew with, 'May his lot be Jehannum!'

Spacious cisterns or vaulted chambers beneath the houses to which the water of the Nile was conveyed; catacombs upon the coast constructed in the best style of Grecian art; Pompey's Pillar and Cleopatra's



Banks of the Nile.

Needles, both misnomers, however, are the chief remains of old Alexandria. The Pillar, a noble column, the shaft of which is of red granite, seventy-three feet long, adorned one of the edifices of the city, till, according to an inscription which is still legible, it was removed to its present site by the Roman prefect of the province, furnished with a capital and base, and set up in honour of the Emperor Diocletian. The so-called Cleopatra's Needles are two obelisks of the time of Thothmes III., who reigned some fifteen centuries before Cleopatra

was born. They were removed from Heliopolis to their present station, probably in the age of imperial Rome. One of them, a monolith, stands erect, and is about seventy-two feet high. The other, close at hand, lies prostrate on the ground, half buried in the sand. This last is the property of the British, having been presented to George IV. by Mohammed Ali in 1820.

A canal connects Alexandria with the Rosetta branch of the Nile, and thus brings the port into direct water-communication with Cairo. Steamers conducted the 'Overlanders' to it by this route previous to the construction of the railway. The work was executed by Mohammed Ali with all the tyranny and cruelty which marked the gigantic labours of the old sovereigns. A few miles to the north-east of Alexandria are the castle, bay, and harbour of *Aboukir*, the scene of Lord Nelson's decisive victory over the French fleet in 1801. *Rosetta* and *Damietta*, the other ports, at the respective mouths of the Nile, have very little foreign trade, but rice and fruit are sent into the interior from plantations and gardens in the neighbourhood. Striped cloths were once extensively made at Damietta, and hence obtained the name of 'dimity' in Europe.

MIDDLE EGYPT, or VOSTANI, embraces the Valley of the Nile from the apex of the Delta to about the village of Manfalut. Numerous pyramids mark the course of the river, at Ghizeh, Sakara, Abou-sir, and Dashur, all on the western side of the stream, varying in their size and state of preservation. The remains of not less than sixty-nine, extending in a line, have been discovered by the industry of travellers. But the 'Pyramids,' eminently so called, are a remarkable triplicate seen from any open space around Cairo, at the distance of about ten miles. They have been not inaptly styled the 'goal of nations,' owing to the number of pilgrims of different countries attracted for ages to the site, among whom members of the Anglo-Saxon race from both sides of the Atlantic have certainly been most prominent in modern times. Whatever other design these wonderful monuments were intended to answer, they are undoubtedly the sepulchres of kings, and of those who reigned at Memphis during the bondage of the

Israelites, the Pharaohs therefore of sacred history, while the sepulchres of the ordinary inhabitants of the capital are in the sand-hills around them. It is conceived that the different size of the structures bears some relation to the differing lengths of each monarch's reign, the foundation of a tomb being laid upon the accession of a new sovereign, over which a fresh layer of stones was laid annually until his decease, when the monument was finished and closed up.

Cairo, or Grand Cairo, properly *Al-Kahira*, or the 'Victorious,' in latitude 30° north, longitude 31° 18' east, is situated on the east side of the Nile, about three miles from its bank, and twelve miles above the head of the Delta. It is the capital of Egypt, the official residence of the viceroy, and the largest city of Africa, containing about 250,000 inhabitants. Founded by the Arabs in the tenth century, it remains to this day essentially an Arabian city, possesses many fine specimens of their remarkable architecture, is intensely oriental in its arrangement, appearance, and population, for though not without the phases of European life, they have the aspect of accidental excrescences, imposed and not adopted, nor in any way interfering with the impression of general features. It occupies an area of three square miles, and is surrounded by a low wall. Groves and plantations of mimosas, palms, oranges, lemons, and pomegranates, with trained vines, adorn the environs; and not unfrequently in the narrowest lanes of the interior, the foliage of a palm may be seen overhanging the high wall of some private garden. Except the Esbequeeh, a large irregular square, in which is the Oriental Hotel, called into existence by the requirements of the overland passengers, the open spaces are few; and the greater number of the streets are so narrow, that two laden camels can scarcely pass abreast, while in many there is barely sufficient room for one. This arrangement excludes, as it was intended, the rays of the sun, places the thoroughfares in shadow, and renders the numerous bazaars, richly stocked with goods, dark and gloomy. In the cool of the evening the crowd is incessant; the variety of costume striking; and the street-cries are deafening and discordant. 'O chick pease! O pips!' shouts the vendor of parched grains. 'Sweet water, and gladden thy soul, O lemonade,' sings the seller of the luxury. 'Out of the way, and say, "There is one God,"' bawls the water-carrier to passengers equally anxious to get along. Beggars there are by the hundred, vociferous and importunate, commonly appealing to religious feelings. 'My supper is in Allah's hands! my supper is in Allah's hands! Whatever thou givest, that will go with thee!' cries the old vagrant. 'Curse thy father, O brother of a naughty sister!' is the testy response of some one whom he has elbowed, or touched with his staff. 'The grave is darkness, and good deeds are its lamp!' chants the blind woman. 'Upon Allah! upon Allah! O daughter!' reply the bystanders, advising resignation, but not moved to charity. There are between 300 and 400 mosques, many of which have very lofty and beautiful minarets, built of alternate layers of red and white stone. Some are ruinous hovels, and others stately piles. Not a few are earthquake-shaken, with minarets which rival the leaning tower of Pisa in departing from the perpendicular. A college for instruction in Mohammedan theology and jurisprudence, a school of anatomy, medicine, and surgery, others devoted to arts, sciences, and engineering, are among the public institutions of Cairo, with a newly-founded museum for the collection of Egyptian antiquities.

While seated chiefly on the alluvial plain of the river, the eastern portion of the city rests on a slope of Mount Mokattam, and has its citadel on one of the towering crags. The building was founded by the great Saladin. It acquired a melancholy notoriety in the time of Mohammed Ali, whose stern policy led him to inveigle the Mamelukes within its walls, and remove them out of his way by an indiscriminate massacre. From this point the view is superb, embracing the whole capital, with all the objects of interest in its neighbourhood. Eastward, in the direction of the brown desert towards Suez, is a long line of tombs in which the old califs sleep, some of which are triumphs of Saracenic architecture. Westward the eye ranges across the city to the silver line of Nile, bordered with palm-groves and the minarets of Fostat, or Old Cairo, beyond which the pyramids rise up in mysterious serenity, on the verge of the Libyan wilderness. Northward the dense verdure of the Delta may be caught, reduced to a dark-green streak, with the nearer mounds and solitary obelisk of Heliopolis.

A short ride from Cairo through avenues of tamarisk, fig-trees, and acacia—across fields waving with corn and clover—along causeways raised above the level of the summer inundations—leads to Heliopolis, the On of sacred history, which seems to have been a city upon a small scale, simply a collection of colleges and temples, but of the greatest celebrity as the chief seat of the learning of the old Egyptians. The place was certainly connected with the domestic history of Joseph, for he married Asenath, the daughter of Potipherah, priest of On. It was visited in later ages by Pythagoras, Herodotus, Eudoxus, and Plato, the last of whom resided thirteen years within its precincts. But even in Strabo's time the site was deserted. Earthen mounds now indicate the line of the walls. They enclose a smooth, spacious, oblong area, partly planted with date and acacia trees, containing a pool overhung with aquatic vegetation, the Fountain of the Sun, and an obelisk rising from the midst of garden shrubs to the height of from sixty to seventy feet in solemn loneliness. This is a single block of red granite, eroded by the destroying hand of time in several places, but upon the whole very entire, covered with hieroglyphics from top to bottom. It bears the name of Pharaoh Osirtesen I. 'This is the first obelisk,' says Dean Stanley, 'I have seen standing in its proper place, and there it has stood for nearly 4000 years. It is the oldest known in Egypt, and therefore in the

world—the father of all that have arisen since. It was raised about a century before the coming of Joseph; it has looked down on his marriage with Asenath; it has seen the growth of Moses; it is mentioned by Herodotus; Plato sat under its shadow; of all the obelisks which sprang up around it, it alone has kept its first position. One by one, it has seen its sons and brothers depart to great destinies elsewhere. From these gardens came the obelisks of the Lateran, of the Vatican, and of the Porta del Popolo; and this venerable pillar, for so it looks from a distance, is now almost the only landmark of the great seat of the wisdom of Egypt. Immediately outside the mounds, there is an ancient sycamore with an immense hollow gnarled trunk, upon which innumerable pilgrims have cut their names, for according to Coptic legend, the Holy Family reposed under its branches on the flight into Egypt. The neighbourhood was once famous for its balsam-trees, said to have been brought from the celebrated gardens of Jericho, and planted at the spot by Cleopatra. All old travellers, Arab and Christian, mention the plantation with great interest. Its produce, called the balm of Gilead, was sent far and wide for use on the most important occasions.

‘Not all the water in the rough rude sea
Can wash the balm from an anointed king!’

The last tree perished in 1615, in consequence of an excessive inundation of the Nile.

On the route to the pyramids the Nile is crossed in a ferry-boat at Old Cairo, a beautiful and bustling spot, with light arabesque houses and crowded cafés parallel to the river, which rolls proudly down, and is here divided into two branches by the island of Rhoda in the mid-channel, exquisitely laid out with gardens, pleasure-grounds, fountains, and every kind of ornamental vegetation. At the point of the island is the building containing the Nilometer, a graduated octagon pillar, on which the daily rise of the stream is marked during the inundation, and then publicly announced. From Ghizeh, on the opposite bank of the river, the start is fairly made for the pyramids, the nearest approach to mountains that the art of man has ever produced. They seem close at hand, owing to the purity of the atmosphere, but it requires some two hours of hard donkey riding to reach their base, just beyond the edge of the cultivated land, on the verge of the Libyan Desert.

The close approach to these objects dissipates the distant impression. Viewed a mile or so away, they seem perfectly smooth, but are really very rugged, as the outer coating of stones and the plaster have been broken away, both by the hands of barbarian conquerors and the dilapidations of time. It is not till the visitor has come up to the piles, and the eye has leisurely surveyed them, that the mind entertains a due idea of their magnitude. The Great Pyramid, that of Cheops, its reputed founder, has for thirty centuries, morning and evening, thrown its long shadow over the brown desert on the one hand, and the verdant river-valley on the other. It stands upon a lofty platform of rock, along with the two companion structures, which contributes to their being so well seen at a very considerable distance. It rises from a base which measures 746 feet each way, covers eleven acres of ground, has a perpendicular height of 461 feet, and is ascended by 206 tiers of steps, varying from four feet high to one foot. The ascent usually occupies about twenty minutes, and is made without difficulty or fatigue, but the Arabs will perform it in half that time. The view is magnificent from the top, and very striking from the contrasted aspect of the objects it embraces—the white line of the minarets of Cairo to the eastward, with nature's luxuriance in the glorious Valley of the Nile—and her inhospitable features in the yellow sands of the Desert stretching away westward to the horizon. It is rendered also not a little impressive by the reflection which naturally arises in the mind, that amid all the mystery hanging over the pile, never perhaps to be fully dispelled, as to its date, founder, builders, and entire design, it is perfectly certain that the chiefs, the statesmen, poets, philosophers, and historians of the old world were admiring spectators of its mass—that Alexander once stood at its base, and with naked foot Pythagoras may have reached the summit.

In front of the second or central pyramid, at a short distance, appears an equally remarkable object, if not more so—the Sphinx—a gigantic figure, half-human, half-animal, cut out of the solid rock. The head and shoulders are those of a man, connected with the body of a lion couchant, which is concealed by the shifting sands. The circumference of the head around the forehead is 100 feet, while the paws stretch out fifty feet in advance from the recumbent body. Though a monster is represented, it is not one to tremble at, for the countenance, plainly Nubian in its cast, has a strange mysterious beauty, a placid and benign expression, which mutilation has failed to erase from it. Yet there is something awful in the appearance of this enormous head, moveless, silent, and solitary, overlooking the wilderness, with the pyramids in the background. It seems like an apparition in stone, and is known to the Arabs by the name of Abuhöl, or the ‘Father of Terrors.’ This marvel of the ancient world is supposed to have been originated by Thothmes III., if not a portrait of him. The names of his son and of later monarchs are inscribed upon it. In the vicinity, the village of Metrahenny occupies the site of Memphis, the second capital of ancient Egypt, now represented by heaps of fragments, but by no important vestiges.

Suez, connected with Cairo by rail across the eastern desert, about eighty miles in length, is built on a low sandy tract of land near the head of the western fork of the Red Sea. Formerly little more than a miserable walled village, it has put on an improved appearance, and increased in the number of its inhabitants to upwards of 6000, since the opening of the overland Anglo-Indian route. There are now many well-built handsome houses belonging to the different steam companies, the Peninsular and Oriental, Messageries Impériales, Royal Navigation, French Imperial Marine, and Medjidieh Company, trading to the Arabian



Lake Timsah and Suez Canal.

ports. Several first-class steamers may commonly be seen at anchor in the roadstead, with many small vessels belonging to private merchants. A large building for the manufacture of ice belongs to the Peninsular Company, with an excellent hotel. The town and neighbourhood are entirely destitute of any natural supply of fresh water, which had till recently to be conveyed by the railway from Cairo. But it is now furnished by a canal from the Nile, part of M. Lesseps's scheme for the canalisation of the Isthmus, which, whether the ship-canal to the Mediterranean is ever successfully executed or not, is an inestimable benefit to Suez. This sweet-water canal, opened in December 1863, is twenty-two feet wide and four feet deep, navigable for boats hauled along by dromedaries.

Ascending the Nile from Cairo, borne lazily along by the uncertain breeze against the current, the district of Fayum is passed in the country on the right bank, fertile, healthy, and populous. A gap in the mountain rampart of the valley admits the overflow of the river into it, which replenishes the Birket-el-Kernan, the ancient Lake Moeris, an expanse stocked with fish and aquatic birds. *Medinet-el-Fayum*, the chief town, the Arsinoë of antiquity, also called Crocodilopolis, as a seat of the worship of the animal, contains several mosques and Coptic churches, and has some woollen manufactures. *Benisuef*, the outport of the district, is directly on the stream, with cotton-mills, alabaster-quarries, and sugar-plantations. *Minieh*, on the same bank, one of the prettiest towns on the river, with clean-looking houses and conspicuous date-groves, is next advanced to; and further on, upon the opposite side, are the remarkable tombs of Beni-Hassan, which have furnished in their paintings so many illustrations of the manners of the old Egyptians. *Manfalut*, an unimportant place, yet claims attention from the crocodile mummy caves in the range of mountains opposite, which various travellers have explored.

UPPER EGYPT, or SAID, extends from the preceding district to the Nubian border, and is the largest division of the country. It comprehends the finest scenery of the Nile Valley, adorned by a new vegetable feature, that of the doum-palm, which intermingles its fan-like foliage with the more familiar date. It corresponds in general to the ancient Thebaïa, renowned for its temples, statues, obelisks, and sepulchres, which bring upwards of 100 boats with travellers every season, not merely to admire and wonder, but to deface and destroy, monuments of the hoary past spared by the atmospheric changes of thirty centuries, aided by the fury of Persian invaders and Mohammedan iconoclasts.

Siout, the chief town, the largest and best built south of Cairo, on the west bank of the river, contains several handsome mosques, with bazaars and baths. The environs are very pleasing, and the trade considerable. *Girgeh*, next in consequence, is probably of Christian origin, deriving its name from the monastery of St George within the walls, the oldest Roman Catholic establishment in Egypt. The great architectural monuments of ancient times are at Denderah, Esné, and Edfu, all on the west bank, and on the



Siout.

small islands of Philæ and Elephantine in the river, but they distinguish more especially the plain of *Thebes*, the most celebrated and magnificent of the ancient capitals. These are at the poor Arab villages of Luxor and Karnac, on the east bank, consisting of vast palaces and temples, sphynxes and obelisks, while on the opposite bank is the necropolis of the city, from which most of the mummies brought to Europe have been taken; with the tombs of the kings, excavations in the solid rock of extraordinary magnitude and splendour. On this side also are the two lonely colossi, darkened by time and mutilated by man, one of which bears the name of the Vocal Memnon, from the responsive sounds supposed to issue from it when struck by the first rays of the morning sun, very probably a trick of priestcraft. The origin of Thebes is lost in antiquity, but it was at the height of its prosperity and greatness about 1600 B.C. Rome, Paris, and London have each portions of its spoils. *Assouan*, the frontier town towards Nubia, represents ancient Syene, from which the peculiar kind of granite which abounds in the neighbourhood acquired the name of sienite. It is situated immediately below the first cataract of the Nile, reckoned ascendingly, where the river rushes through a maze of rocky islets from Nubia into Egypt. An officer, called the 'Captain of the Cataract,' attends to the passing and re-passing of boats. Old Syene was an important place in the geography and astronomy of antiquity, being supposed to mark the line of the Tropic of Cancer. But it is rather more than half a degree to the north of it.

Westward of the Nile Valley, in the Libyan Desert, a wilderness of rocks, stones, and sands, some extensive oases occur, with springs, verdure, and a resident population. To these tracts, properly termed Islands in the Sandy Sea, criminals were deported in the days of imperial Rome. The Great Oasis, under the parallel of Thebes, consists of a chain of these spots, about 100 miles in length, from north to south. It comprises many villages, and one chief town, *El-Kharjeh*, with plantations of olives, liquorice, grain, and fruits. The Western Oasis, west of the preceding, and the Little Oasis, on the north, have the same general features. Under the parallel of Cairo, much more in the heart of the desert, is the Oasis of Siwas, the most interesting of all, as the site of the renowned Fountain of the Sun, and the Temple of Jupiter Ammon, to which Alexander the Great paid a pilgrimage. Lying completely out of the way of regular European travel, and only accessible by a difficult route, it has rarely been visited in modern times. Mr St John penetrated to it in 1847. This oasis is a valley enclosed by sand-hills. It contains both fresh and salt waters, with beds of fossil salt of dazzling whiteness, and fertile soil luxuriant with dates, pomegranates, figs, bananas, and other fruits, which, with a little grain, sustain a small population. The Temple of Ammon is represented by some majestic remains, and the fountain bubbles up copiously hard by. Shattered and moss-grown masonry peeps out at the brink of the pool from a growth of reeds and rushes, intertwined with creeping plants; surrounding palms open between themselves long stately and shady vistas, like the solemn aisles of a great cathedral; while a rill emerges from the spring, and runs rippling towards the mouldering temple of the unshrined, dethroned, and almost forgotten divinity. Salt obtained from this spot was highly valued by the ancients, on account of the presumed sanctity of the place. It was deemed a suitable present for dignitaries and kings, and was called Salt of Ammonia from the site.

Through twenty-four centuries Egypt has been subject to the domination of foreign rulers. It was overrun by the Persians under Cambyses, 525 B. C., who spoiled many of the monuments; it was next conquered by Alexander; falling, upon his death and the division of his empire among the generals, to the lot of the Ptolomies. Upon the extinction of this dynasty, shortly before the Christian era, it became a Roman province. In the seventh century it was seized by the Arabs, and became a Mohammedan state. After being governed by a line of califs, the famous Saladin obtained possession of the country. He organised the Mamelukes, a military body which supplied princes to the throne till the Turkish conquest under Selim I., at the commencement of the sixteenth century. It has remained in connection with that empire down to the present date, except during the temporary occupation by the French in 1798, and the short-lived independence of Mohammed Ali in 1832. The government is now a hereditary vicerealty, vested in the successors of Mohammed Ali, who are perfectly despotic, but acknowledge subjection to the court of Constantinople by an annual tribute.

Egypt contains an estimated population of 5,225,000, including the tribes wandering or permanent in the desert. The great majority of the people are of Arabic descent, speak the Arabic language, and profess the Mohammedan religion. They are chiefly *fellahs*, or peasantry, located in villages by the Nile, occupying a very low social position, clamorous for *bucksheesh*, or presents from the passing traveller, whether services are rendered to him or not. The oppressive manner in which they are treated by the government has contributed to their degradation. Besides being subject to military conscription, they were liable to be dragged off at a moment's notice from their homes to labour on the public works at the will of the pasha, receiving scant remuneration, but a recent edict of the sultan has somewhat altered their condition. The construction of the Mahmudieh Canal by Mohammed Ali employed 250,000 of these unfortunates for a year, who were allowed a penny a day and a ration of bread, and of whom no less than 20,000 perished. Turks, politically dominant, fill most of the public stations. The Copts, supposed to represent the old inhabitants, profess a corrupt form of Christianity under a patriarch resident in Cairo. They live principally in the towns, are industrious and trustworthy, and follow various handicrafts. Jews, Armenians, and Franks compose the remainder of the population.

NUBIA—KORDOFAN.

NUBIA, a thinly-populated region of great extent, embraces the country on both banks of the Nile, from the Egyptian to the Abyssinian border, bounded by the Red Sea on the east and the Libyan Desert on the west. It is circuitously traversed by the river, which forms five cataracts within its limits, receives its principal tributary, the Atbara or Teccazee, and is fully formed near Khartoum by the junction of its two main branches. The peninsular district included between the Nile Proper, the Atbara, and the Blue Nile, called by the ancients the Island of Meroë, corresponds in part to the vaguely-defined Ethiopia of antiquity. It contains remnants of mighty buildings, covered with sculptures representing battles or priestly ceremonies, with half-defaced inscriptions, and abounds with mutilated sphynxes and colossi. Lower Nubia, the northern portion, apart from the inundations of the great water-course, is a dry, burning, and sterile wilderness of rocks, shingle, and sands. But the upper or southern part of the country has a totally different character, being within the range of the tropical rains. The surface is largely clothed with mimosa forests, parasitical plants, and arborescent grasses, remarkable for an extraordinary number of wild animals, herds of elephants, troupes of hyenas who make the night dismal by their howls, droves of antelopes, with the rhinoceros, lion, and giraffe, the crocodile in the waters, much fiercer than in Egypt, and huge hippopotami. The inhabitants are partly of Arab descent, but chiefly Nubians proper, a muscular, finely-moulded, dark-complexioned race, with whom true Negroes intermingle in the southern districts. They are principally agriculturists, raise dhourra, maize, and dates for food, grow some cotton and tobacco, which, with natural products of the soil, as senna, myrrh, and frankincense,

are sent into Egypt, along with hides, ivory, ebony, and ostrich feathers. Owing to the depth of the bed of the Nile, its waters cannot be led off by artificial channels, and the annual rise of the river only at intervals occasions an overflow. Hence water-wheels are in constant use along its course, for the purpose of irrigation. KORDOFAN, the 'White Land,' on the south-west, is a collection of small oases, inhabited by Arabs and Negroes, who cultivate the soil, rear cattle, and possess herds of camels, which are let out on hire for the transport of merchandise.

Both Nubia and Kordofan are subject to the pasha of Egypt. They were conquered by the army of Mohammed Ali, under his second son Ismayl, in 1820—1822, whose atrocious cruelties exposed him to a fearful fate. He was surprised at a nocturnal banquet, while at a distance from his camp, and burned to death. In Nubia the people are chiefly grouped in villages on the river, enclosed with date-groves. *Derr*, the first town met with after quitting Egypt, is on the east bank, but unimportant. *New Dongola*, on the opposite side, above the third cataract, contains about 6000 inhabitants. It is a military depôt, and has an indigo factory belonging to the pasha. *Shendi*, more considerable, above the junction of the Atbara, is a market for live-stock, wheat, cotton, and senna, raised in the vicinity. Many ruined pyramids in the neighbourhood probably mark the site of the ancient city of Meroë, once the capital of a powerful and highly-civilised state, but already desolate in the early days of the Roman Empire. *Khartoum*, near the confluence of the Blue and White Nile, entirely modern, is the largest town, with a population of 40,000. It is the seat of the local government, the centre of several converging caravan routes, and the head-quarters of ivory hunters, and of travellers bent upon exploring the countries in the basin of the Upper Nile. *El Obeid*, the chief town of Kordofan, consists of several villages of mud houses thatched with straw, clustered together in an oasis, said to contain upwards of 20,000 inhabitants.

Types of all the architecture of Egypt are found in the ancient monuments of Nubia, from the first rude attempts to cut a temple in the rock, to the detached edifices erected under the dominion of the Greeks and Romans. This fact seems to intimate that in far bygone time the stream of civilisation and religion followed in this region the course of the Nile, or passed from south to north, while its fountain-head is even more obscure than the source of the river. The most remarkable of the rock-cut temples are at Abusambul, Ebsambul, or Ipsambul, as the name is variously written, between the first and the second cataract, on the western side of the stream. There is no village at the spot, but one appears at no great distance on the opposite bank in the midst of fine spreading palm-trees. A high sandstone rock is seen, the termination of a mountain-ridge, which closely approaches the river, and commands a beautiful view of its course. Its face has been cut so as to form the fronts of two temples, at a short distance from each other, with chambers in the bowels of the rock. The larger has four enthroned colossi sitting at the entrance, supposed to represent Rameses the Great, the Sesostris of Herodotus, the pride of Egypt, the terror of Africa and Asia, whose name and titles repeatedly occur in interior inscriptions. Reproductions of these colossal figures, of the size of the original, are striking objects in the Crystal Palace at Sydenham. Sir F. Henniker remarks: 'Ebsambul is the *ne plus ultra* of Egyptian labour, and is in itself an ample recompense for my journey. There is no temple at Denderah, Thebes, or Philæ that can be put in competition with it; and I am well contented to finish my travels in this part with having seen the noblest monument of antiquity that is to be found on the banks of the Nile.'

ABYSSINIA.

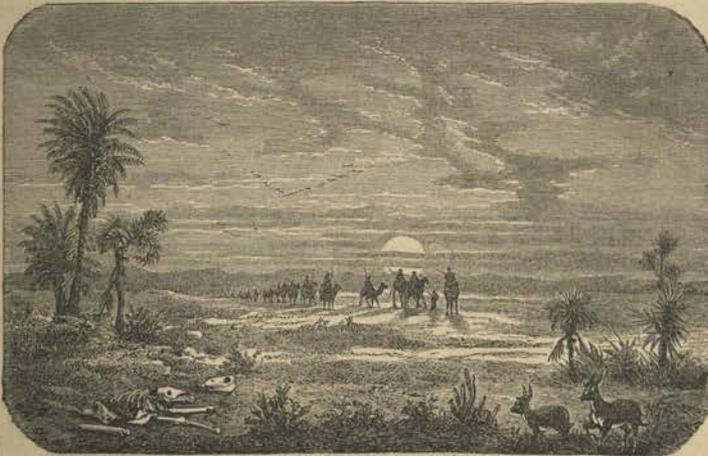
ABYSSINIA, on the south-western shore of the Red Sea, bordered by Nubia on the north, is for the most part a grand highland region, bounded by a narrow lowland zone on the maritime side, and by plains in the direction of the Nile, but is connected with the great plateau of Southern Africa, of which it may be regarded as a north-eastern promontory. High table-lands crowned with mountains rising to the line of perpetual snow, intersected by deep ravines cut by torrents and streams, and overspread with several lakes, are the conspicuous features of the country. It gives birth to the Blue Nile, which issues from fountains on the elevated plain of Dembea, and flows through the spacious lake of that name; and to the Tacazze, or 'Terrible,' the last affluent of the Nile Proper, so called from its impetuous descent in foaming cascades from the upper to the low grounds. During the rainy season the showers are everywhere perfect deluges. In the valleys and on the coast the heat is excessive and the climate unhealthy, but on the elevated tracts the air is cool and bracing. Beautiful and large specimens of the acacia, cedar, sycamore, and other trees, form extensive forests; the table-lands furnish excellent pasturage; the coffee-shrub, cotton-plant, and sugar-cane grow wild; medicinal plants are numerous;

and fruits are abundant. Besides the common cereals, a grain called Tef, *Poa Abyssinica*, is principally cultivated for the daily bread of the people. Various parts of the country swarm with almost all the wild animals of Africa. The population, supposed to exceed 3,000,000, consists of a medley of races. There are descendants of the old Ethiopic stock, a large number of Arabic origin, many Jews forming distinct colonies with the name of Falashas, or 'Exiles,' savage Gallas in the southern districts, and Negroes in a state of slavery. To this diversity, Habesh, the Arabic name of the country refers, signifying 'mixture' or 'confusion.' Christianity, Judaism, Mohammedanism, and Paganism co-exist within its limits.

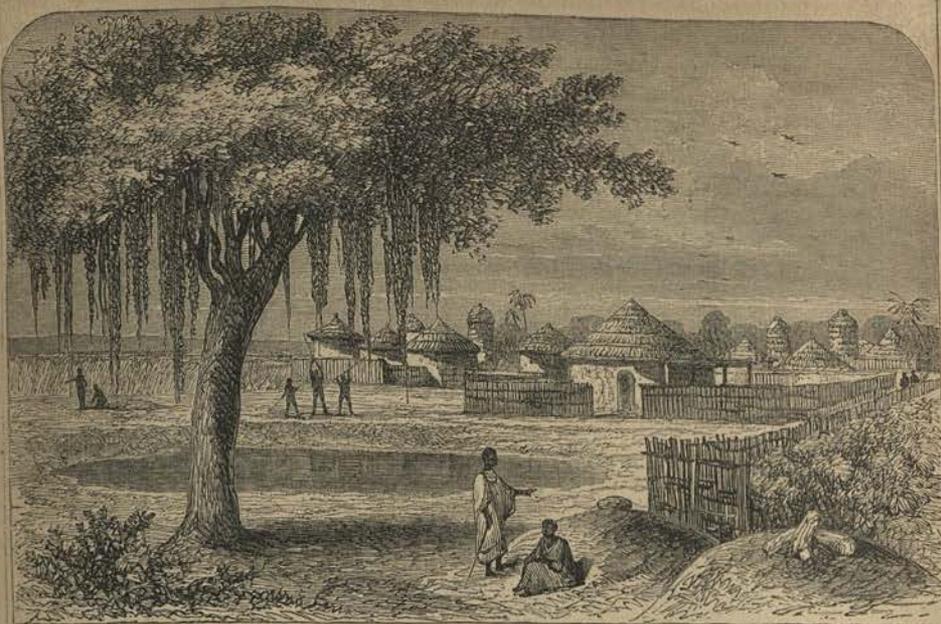
Abyssinia was formerly included in a single sovereignty, which, in remote times, embraced part of Arabia, and had commercial intercourse with India. *Axum*, the old capital, is now a comparatively deserted place, but has some interesting remains, consisting of obelisks without hieroglyphics, of which more than forty lie prostrate, and two are standing. The largest of these is a granite monolith, sixty feet high, one of the most perfect examples of its kind. Another monument, the Axum Inscription, is an upright slab inscribed with Greek characters, referring to an event 330 A.D. The Axum Chronicle, of which a copy was brought to Europe by Bruce, is a history of the country preserved in the Christian church of the village. Christianity, introduced in the fourth century, survives chiefly as a very corrupt ceremonial. Its professors are under a metropolitan, called Abuna, 'Father,' who is subject to the Coptic patriarch of Egypt, by whom he is ordained. The churches are almost uniformly very small buildings, thatched with straw, surrounded with juniper-trees forming the churchyards, in which there are no funereal monuments. The old language of the people, the Ethiopic, called *Leshana Gheez*, 'Language of the Kingdom,' is no longer spoken, except with great dialectic debasement, but survives in an ancient version of the Scriptures, and other writings understood by the educated, and is hence styled *Leshana Mazhaf*, 'Book Language.'

Three principal political divisions at present exist, the kingdoms of Tigré, Amhara, and Shoa, respectively northern, central, and southern, but with very uncertain limits and unstable governments, owing to the civil warfare which has long prevailed. *Antalo* is the capital of Tigré, but very inferior to *Adowa*, a place of some manufacturing importance. *Gondar*, the chief town of Amhara, 7420 feet above the sea, and thirty miles from the shore of Lake Dembea, has vastly declined, and scarcely contains 7000 inhabitants. *Ankobar*, the capital of Shoa, with a population of 10,000, enjoys a delightful climate, being at the elevation of 8200 feet. The present king, Theodoros, was originally a penniless boy in a convent, then a chief of freebooters, next a conqueror, who gained the throne by his courage and ferocity.

The French, in 1863, obtained by purchase a settlement on the Abyssinian coast, near the entrance to the Red Sea, apparently as a counterpoise to the British station on the island of Perim in that locality.



Scene in the Desert.



Village of Musgu, Central Africa.

CHAPTER III.

WESTERN, CENTRAL, AND EASTERN AFRICA.

WESTERN AFRICA, though a very vague denomination, is usually understood to indicate the country on the shores of the Atlantic, between the parallels of 18 degrees north and south of the equator, with a considerable but wholly undefined extent of inland territory. The coast-line embraces the great bend of the Gulf of Guinea, with the western extremity of the continent, distinguished by two lofty sand-hills overlooking lesser downs. This promontory was called by the early discoverers Cape Verde, 'Green,' either from the meadow-like appearance given to the ocean by the profusion of sea-weed afloat upon the surface, or from the verdure of a group of boabab-trees seen in the distance contrasting with the arid aspect of the strand. The region includes the basins of the Senegal, the Gambia, and the Gaboon, with many streams of minor importance, and the lower courses of the Niger and the Congo. An addition to knowledge respecting its animal races has recently been made by sober details of the habits of the huge anthropoid ape, the gorilla, inhabiting the dense woodlands of the equatorial district. This creature, of enormous strength, feeds strictly on vegetable diet, moves along the ground on all-fours, roosts in the trees at night, and, like the elephant, the stag, and other naturally timid animals, is not disposed to attack man unless assailed by him. The discovery has also been made of native tribes in the same locality, similar in their superstitions, their ordeals, and their general customs, to those which distinguish the great Negro family, yet addicted to a system of cannibalism, though, curiously enough,

not otherwise remarkable for brutality of character. The revolting practice is thought to have arisen from some casual failure in the ordinary supply of animal food, and then to have grown into an established usage, as in the parallel case of the old New Zealanders. Western Africa, sometimes called Maritime Nigritia, from being occupied chiefly by Negro races, thus discriminating them from their brethren in more continental sites, includes three geographical regions, Senegambia, Upper Guinea, and Lower Guinea.

SENEGAMBIA, according to the name, comprises the basins of the two rivers, the Senegal and the Gambia, respectively north and south of each other. Both are deep and navigable streams, crowded with crocodiles and hippopotami, deriving their head-waters from contiguous sites on the western extremity of the mountains of Kong. Visited periodically by abundant rains, and subject to great heat, the vegetation is surprisingly vigorous. Forests of acacias, yielding the gum-resin of commerce, boobabs, cotton-trees, and butter-trees, with ornamental and dye woods, extensively clothe the surface, while maize, rice, millet, bananas, indigo, and cotton are cultivated plants. The country is inhabited by a great number of petty tribes, under their respective chiefs, but belonging to three principal branches of the Negro family, the jet-black Jalufs, and the lighter-complexioned Fulahs and Mandingoes, generally superior in intelligence and social advance to the race in other parts of Nigritia. There are Moors in the northern and eastern districts, with Europeans at their settlements. The French were the first to explore the course of the Senegal, while the English devoted themselves to the illustration of the Gambia.

St Louis, an island and town near the mouth of the Senegal, is the principal station of the French, founded about the year 1626, now containing about 11,000 inhabitants. There are trading dependencies up the river, and southward on the coast, of which *Goree*, an islet and fort near Cape Verde, is the chief. The French are mostly occupied with the gum-trade. To the north of the river, where its fertile borders pass into the region of the Sahara, large forests of those species of the acacia, *A. Senegal* and *A. Seyal*, grow from which the gum is distilled. No incision is necessary. Under the influence of the hot winds the bark dries and cracks in various places, and the resin exudes. But by its tenacity it remains attached to the trunks in large tear-like drops, which are as clear and transparent as the finest crystal. In these forests the Moors claim property, and arrive at the proper season in great crowds, on horses and camels, to collect the product. Six weeks are usually spent in the gathering, after which the Moors dispose of the commodity to the French traders. The Senegal gum is valued for dressing various textile fabrics, as muslins and silk, and is employed by confectioners for the finest kinds of lozenges.

Bathurst, a town on the island of St Mary, at the mouth of the Gambia, is the principal British settlement, of which *Fort George*, on Macartney's Island, and other stations up the river, are dependencies. The whole population is under 6000. Ivory, wax, hides, gold-dust, tortoise-shell, teak-wood, palm-oil, rice, and ground-nuts, are the chief exports. The exploration of the Gambia commenced in the year 1618, under the auspices of the African Company, and was attended with many mishaps. The river was speedily ascended up to the falls of Barraconda, about 400 miles from the sea, where the navigation is slightly impeded, to which point the British trading stations at present extend, though not continuously. Ascending the stream, much the same profusion of animal life appears in the water and on the banks, which astonished the early English explorers. Sometimes as many as twenty crocodiles were seen at once, and hippopotami were observed tossing and snorting on every side. Elephants appeared in herds on the shore, with lions, leopards, and ounces. But amid the alarms inspired by these formidable creatures, the sailors were amused by watching the movements of the monkeys. The baboons marched along in great droves, with several of the tallest in front, under the guidance of a principal leader. They sometimes mounted the trees as if to obtain a better view of the English, a sight which seemed to occasion the strongest dissatisfaction, expressed by grins, shaking the boughs violently, and uttering angry cries. The Gambia was the starting-point of Major Houghton and Mungo Park, the early adventurers into the interior. On the coast south of the river the Portuguese have some small factories.

The peninsular district of Sierra Leone, 'Lion's Hill,' forms a small British colony in the southern part of Senegambia. It has an area of about 319 square miles, and a population of 60,000, nearly all blacks. The surface rises in peaked granitic mountains clothed with forests of lofty trees, and is copiously watered in the rainy season, when fever is rife, which has been fatal to many Europeans. This territory was purchased by a number of private individuals in 1787, for the purpose of being a place of refuge for the Negroes rescued from slavery, and a convenient centre for the introduction of civilisation into Western Africa. But since 1807 it has been under a governor appointed by the crown, and forms a bishopric of the Anglican Church.

Freetown, the capital, is pleasantly situated on the left bank of the Rokelle or Sierra Leone River; has wide streets ornamented with rows of orange, lime, banana, and cocoa-nut trees; and contains about 16,000 inhabitants, among whom are very few whites besides the authorities, the garrison, and missionary agents. Moslem visitors have here made proselytes in the colony, who have two mosques, and regularly keep their Ramazan. Among the sable families the names of Lumpkins, Lewis, Pratt, and Macarthy are common patronymics. In the colony there are said to be members of 17 chief and 200 minor tribes, while 100 languages, according to M. Koelle—150 says Bishop Vidal—are spoken in the streets of Freetown.

UPPER GUINEA extends on the northern side of the gulf of that name, includes the lower course of the Niger, and the country inland to the mountains of Kong, a range of moderate elevation, running parallel to the shores, at the distance of about 200 miles. The maritime portion of this region is usually divided from west to east into four sections, the Grain Coast, the Ivory Coast, the Gold Coast, and the Slave Coast, indicating the commodities obtained from them, in addition to which, indigo, pepper, cotton, sugar, and palm-oil are products of the soil. The estuaries and borders of the rivers are highly pestilential from their mud-banks and decomposing vegetation, but have been ascended without ill effects to the crews when the proper season has been selected for the voyage, and due attention paid to sanitary precautions. The British and Dutch have settlements on the shores, and several powerful Negro states occupy the interior, some of which are addicted to very barbarous practices, besides engaging in wars for captives to sell into hopeless bondage to the slave-dealer.

The Grain Coast extends from the Sierra Leone peninsula to Cape Palmas, and was so called under the idea that the cochineal it once furnished was a vegetable production. The name also refers to a species of coarse pepper, termed 'Grains of Paradise,' yielded by a parasitical plant of the region, now obtained chiefly from India. Cape Palmas marks the commencement of the great eastward bend of the African coast, and is crowned by immense groups of the *Borassus Ethiopum*, a tall palm-tree. The natives of the neighbourhood, called Kroomen, are an industrious race, very expert seamen, well known to traders from the Gambia to the equator. Another species of palm, the *Elais Guineensis*, is very abundant, and furnishes the palm-oil of commerce, extracted from the seed or nut. Thousands of tons of oil are annually sent to the ports of London, Liverpool, and Bristol for the manufacture of composite candles. The Grain Coast includes the territory of Liberia, a settlement founded by some American citizens in 1822 for the purpose of removing to it free persons of colour from the United States. It has a coast-line of about 500 miles, extends to the average distance of fifty miles inland, and is divided into five counties, with a population of (1850) 300,000, who form a Negro republic under the government of a president, a senate, and a house of representatives. This colony, after encountering many difficulties, is now in a flourishing condition, well supplied with places of worship, schools, and public journals. *Monrovia*, the chief town, seated upon a lofty promontory, is named after President Monroe, during whose government at Washington the settlement was founded.

The Ivory Coast, immediately eastward of Cape Palmas, extends from it to the river Assinie, and was so called from the tusks of the African elephant, formerly exported in great quantities from it. The Gold Coast, further east, lies between the rivers Assinie and Volta, and has been long frequented for gold-dust and other products. A gold coin formerly current, the guinea, first coined in the reign of Charles II., received its name from the first specimens being of Guinea gold. It originally bore the impression of an elephant. *Cape Coast Castle*, the principal British settlement, dates from the year 1664. It consists of three forts built on a rock close to the sea, with a considerable native town adjoining. The place contains the grave of the poetess L. E. L., and acquired notoriety from the circumstances of her death. Several trading stations are on the shore, east and west, among which, James's Fort, near Accra, is almost under the meridian of Greenwich. *Elmina*, a fortified Dutch settlement, is the oldest European station on the coast, originally founded by the Portuguese in 1482. The interior country is chiefly included in the Negro kingdom of Ashantee, one of the most powerful of the native states, a mountainous but very fertile district, generally healthy, watered by the Assinie and the Volta. The natives are a courageous race, skilful in various manufactures, as cotton fabrics, earthenware, and sword-blades, but addicted to sanguinary rites, as human sacrifices on the decease of royalty and other similar occasions. *Coomassie*, the capital, built on the slope of a rocky hill, is about four miles in circuit, contains at least 20,000 inhabitants (the natives say 100,000), and consists of houses of wood-work and clay, thatched with palm leaves, not excepting the king's palace.

The Slave Coast forms the shores of the Bights of Benin and Biafra, and has long been, according to its name, the principal seat of the disgraceful traffic in human flesh. It is extensively included in the native kingdom of Dahomey, of which *Abomey*, a populous clay-built place, eighty miles inland, is the chief town. The country obtained its name in a singular manner, highly characteristic of the barbarity of the people. Upon a former king, called Da, being killed by 'ripping open his belly,' his conqueror assumed the style of king of *Da-omi*, or 'Da's belly.' This region is the scene of scarcely credible cruelties; human immolations

are regularly established customs, partly religious in their design, partly festive, but perhaps chiefly intended to be demonstrative of power, and thus sustain the authority of the sovereign. This potentate, tall and stalwart, with a skin of much lighter hue than that of his subjects, maintains a regiment of women, to the number of several thousands, who may be properly styled Amazons. Commodore Wilnot visited the barbarous court in 1863, and witnessed a scene before the palace not readily forgotten. At the further end of the courtyard was a large building, of some pretensions to beauty in that country, being made of thatch, and supported by columns of wood, roughly cut. In front of this, and close to it, leaving an open space for the admission of the king, was placed a large array of variegated umbrellas, to be used only by the sovereign. Near these were congregated his principal chiefs. On either side of him, under the building, were his wives, to the number of about 100, gaily dressed, most of them young and exceedingly pretty. The king was reclining on a raised dais, about three feet high, covered with crimson cloth, smoking his pipe, while one of his wives held a glass sugar-basin as a royal spittoon. He was dressed very plainly, the upper part of his body being bare, with only a silver chain holding some fetish charm round his neck, and an unpretending cloth around his waist. The left side of the courtyard was filled with Amazons, from the walls up to the king's presence, all armed with various weapons, such as muskets, swords, gigantic razors for cutting off heads, bows, arrows, and blunderbusses. Their large war-drum was conspicuous, being surrounded by human skulls. The king gave orders for them to perform a number of evolutions, which they did most creditably. They loaded and fired quickly, singing songs all the time. The commodore, both going and returning, was received with the utmost hospitality by the head men and the people. They sent him presents of water, fowls, and goats, but at the same time expressed the utmost ferocity towards those whom they considered public enemies. The war-dance was performed by the women and children, and motions made with swords as if in the act of cutting off heads. One singular custom was universal from the king downward, that of sending a stick as a token of welcome and friendship. *Whydah*, the chief seaport of Dahomey, is the principal slave-mart, hence closely watched by English cruisers.

Several small states lie eastward in the basin of the Niger, with populous chief towns. *Benin*, a place of considerable trade, stands on a western arm of the river, seventy miles above its mouth, and is the head of a territory of the same name, which contains *Gato*, lower down the stream, where the traveller Belzoni ended his days in 1823. *Lagos*, the principal seaport, is British, captured in the year 1851, now a flourishing centre of legitimate commerce. *Abbeokuta*, in the Yoruba country, a chief mission station, is said to contain 60,000 inhabitants, who have made no mean advances in civilisation. A recaptured slave, a native of this district, is now Bishop Crowther, the only coloured prelate of the Anglican Church. *Eyo*, the capital, surrounded by a belt of brilliant verdure, has an extensive circuit, but contains many fields and open spaces. When visited by Clapperton in 1825, the king boasted that his wives, linked hand in hand, would reach entirely across the kingdom, but they were seen acting as porters, carrying enormous burdens on their heads, and performing other servile offices. In the Yoruba country the dark deeds common in Dahomey and Ashantee are generally mentioned with abhorrence. The people are industrious, and have extensive fields covered with thriving plantations of maize, millet, yams, and cotton. The women spin, work at the loom, and dye cloths with their fine indigo. *Egga*, on the right bank of the Niger, above the confluence with the Chadda, has an immense population, occupying clay-built houses, and engaged in commerce by canoes along the river.

LOWER GUINEA includes the maritime region extending southward from the equator to the neighbourhood of Cape Negro, in which are the provinces of Loango, Congo, Angola, and Benguela, with wholly undefined inland limits, and a population consisting of various Negro races. The Portuguese claim the sovereignty of the entire country. They occupy the coast with several small towns, have some settlements also far in the interior, with solitary posts still more remote from the shores, called *feiras*, or fairs, which are visited by the natives as trading stations. But over a large proportion of the area their authority is merely nominal. Their commercial transactions are partly legitimate, but though greatly checked, slave-dealing has long been a principal object, and has contributed to demoralise the people, instigating them to wars in order to obtain victims for sale to the whites.

San Paulo de Loando, on the coast of Angola, is the seat of the governor-general, and ranks as the capital. It was founded in the year 1578, and contains about 12,000 inhabitants, said to be on the decrease. At this town Livingstone reappeared to European knowledge in 1854, after having been long buried in the wilds of the continental interior; he found a single Englishman, the acting consul, resident. *Casanga*, a principal settlement, about 300 miles inland, the traveller passed through on his way to the coast. *San Felipe de Benguela*, the chief town in that province, formerly a great slaving port, is now reduced to insignificance by the abatement of the traffic, though still carried on as opportunity offers. It occupies an unhealthy site, and has a ruinous appearance, to which a troop of wild elephants not long ago contributed. The animals, maddened with thirst, rushed into the town in quest of water, and demolished many of the dilapidated buildings. Salinas, or salt-lakes, occur on the Portuguese coasts, from the produce of which the government derives a

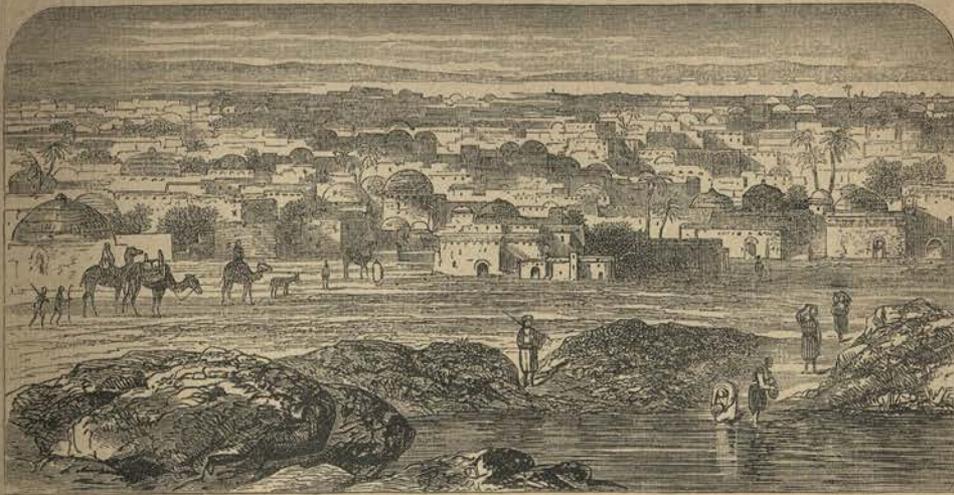
revenue. Iron ores are obtained in various places, and copper is stated to be abundant. Ivory, bees-wax, gum-opal, and the archilla lichen, yielding a rich purple dye, are the ordinary exports.

Guinea-fowls, a tribe of gallinaceous birds, common in the poultry yards of England, received that name from being originally introduced from this part of Africa, though not peculiar to it. Guinea-grass is also a naturalised product, of the same genus with millet, but does not grow so luxuriantly as in its native warm climate. The guinea-pig, or cavy, a well-known domesticated little animal, is wild in most parts of the country whose name it bears, from which it was first brought. The guinea-worm, an offensive and dangerous parasite, which inserts itself beneath the skin of the human body, and occasionally grows to an enormous length, is indigenous in the basins of the Senegal, the Gaboon, and other parts, as well as in most hot, rainy, and marshy districts. Negro slaves have taken it to America.

CENTRAL AFRICA.

The vast region immediately south of the Sahara, extending from Senegambia on the west, to Kordofan on the east, is comprehended under the general name of Central Africa, but is particularly defined in relation to its inhabitants by the title of Belad-es-Sudan, or Nigritia, the Country of the Blacks, as the continental home and original seat of the Negro family. It embraces the upper course of the Niger flowing westward; the basin of Lake Tchad, central, both bordered with swampy plains of great fertility and thickly peopled, while sterile sandy or rocky districts occur eastward, very thinly occupied. Troops of ostriches, giraffes, and antelopes rove amid the luxuriant herbage of the alluvial lands; the white ants rear their habitations, and the earth-hog, fox, and fenel dig their burrows. The elephant is also frequently met with, approaching the Asiatic variety in size, but with the well-known distinctive size of the ear. The rhinoceros is also often met with. Dr Barth encountered on one occasion a whole herd of elephants, arranged in regular array, like an army of rational beings, slowly proceeding to water. In front appeared the males, as was evident from their size, marshalled in order; at a little distance followed the young ones; in a third line were the females; and the whole were brought up by five males of immense size. Ninety-six were counted. Locusts are of common occurrence, and it is not unusual to see whole calabashes filled with the roasted insects, which occasionally form a considerable part of the food of the natives, particularly if their grain has been destroyed by this plague, who then take a pleasant revenge on the ravagers of their fields. Tamarinds, boobabs, and doum-palms appear among the botanical ornaments of the surface. The bentang-tree of Mungo Park, the tallest member of the vegetable kingdom, is planted at the principal gate of many of the large towns, probably from motives of superstition. 'At times,' says Barth, 'the landscape was one of exceeding beauty. The ground was pleasantly undulating, covered with a profusion of herbage, and the trees, belonging to a great variety of species, were not thrown together into an impenetrable thicket of the forest, but formed beautiful groups, exhibiting all the advantage of light and shade. Birds of numberless variety were also playing and warbling about in the full enjoyment of their liberty. Cotton and karkesia fields interrupted the park-like scenery; nor were tilled fields of wheat and onions wanting. Cattle, horses, and goats were everywhere browsing about. All the cattle were of a white, and all the goats of a coffee-brown colour. So much for despised Negroland.' But it must in truth be added, that scenes of culture and social comfort have a very uncertain tenure, owing to the collisions of bordering tribes, the drum of civil war, and repeated razzias for cattle, general plunder, and kidnapping for slaves.

Besides the true Negro family, distinguished by simple modes of life, a fondness for recreation in the cool of the evening far on into the night, and fetish worship; the population of Sudan includes Moors, Arabs, and Berbers; with mixed races, as the Fulahs or Felláta, who are of lighter complexion, more socially advanced, maintain troops of horse and foot, and profess Mohammedanism. As an example of the general insecurity of property, not to say life, in the country, the traveller mentions the town of Alama, which



Kano.

he noticed in a complete state of defence, surrounded with an earthen wall, a ditch, and a high thorn fence; exterior to which was a large extent of cultivated ground, with a numerous herd of fine cattle lying tranquilly on the open spaces in the interior. But the next time he passed, the place was deserted and looked mournful; not a single cow was to be seen; and tall reed-grass had grown up on the tilled fields. The people are grouped in numerous states, only a few of which are entitled to specific notice.

BÓRNU, a sultanate, on the western side of Lake Tchad, is a level district, swampy in the rainy season, inhabited by Negroes subject to rulers of Arab descent. *Kuka*, the capital, consists of two distinct towns, each surrounded by a wall of earth; the one for the better classes, containing very large establishments; the other, a congeries of small low dwellings and narrow winding lanes. The towns are half a mile distant, connected by a broad road, lined on both sides with a medley of large clay buildings and thatched huts, in enclosures of light reed fences. Daily little markets are held, at which camels, horses, and oxen are sold in considerable numbers. There is also a large market or fair every Monday in the vicinity, which brings together the people from a great distance with commodities for sale, as corn, butter, dried fish, mats, whips made from the skin of the hippopotamus, leather-work, beads of all sizes and colours, neat little boxes made of the kernel of the doum-palm's fruit, and live-stock, among which slaves are conspicuous. The markets are all held in the hottest hours of the day, and not, as in other parts, in the cool of the evening. *Angornu*, a larger town, on the margin of the great lake, is the centre of extensive trade in slaves, cotton, amber, coral, and metals. *Gummel*, the chief place of a dependent province, is a principal mart for natron, which is disposed of in large masses. *Ngurutuwa*, on an extensive plain, with houses under the shade of huge fig-trees, contains the 'white man's grave,' that of Mr Richardson, the head of the expedition of which Barth was a member. His other companion, Overweg, had the imprudence while shooting to enter deep water in the pursuit of water-fowl, remain in his wet clothes, and died at *Maduwari*, in the neighbourhood of Kuka.

ADAMAWA, a country on the south of Bórnu, is separated from it by the great forest of Marghi, full of elephants; it forms a disputed frontier region between the two states. It is traversed by the upper waters of the Chadda, the great eastern arm of the Niger, which has been explored by Baikie from the ocean for 300 miles above the confluence, and which Barth crossed in a still more interior part of its course, where it was nearly half a mile wide, and eleven feet in general depth. *Yola*, the chief town, a short distance from the south bank, is a large open place not less than three miles long, but composed of conical huts in the midst of spacious courtyards, and sometimes even of cornfields. Slavery exists upon an immense scale in this district. Many private individuals have more than 1000 slaves, who cultivate grain for their use or profit, and raise some amount of cotton. This region is one of the finest parts of Central Africa, watered by a first-class river, diversified with hill and dale, but unhappily either in the hands of warlike pagan tribes, or subject to ruthless Mohammedan chieftains.

BAGIRMI, a district on the south-east of Lake Tchad, appears to comprise a number of distinct principalities, and the dialects vary with almost every large town. The vegetation is varied and magnificent, among which are beautiful and wide-spreading fig-trees, shading the dwellings of the people, and serving as lounging-places

for loiterers. Animal life is also profuse. The ayu, or river-cow, *Manetus Vogelii*, common to the Niger and Chadda, inhabits the streams, leaving them at night to feed on the fresh grass of the banks. Barth here experienced his greatest annoyances from insects. Ants, grubs, and a species of beetle swarm by millions, and consume an immense proportion of the produce of the soil. But the poor natives do not fail to take their revenge, devouring the grubs when they have grown fat and large by the consumption of their crops. *Mas-ena*, the capital, like most of the other towns, has a decayed appearance from disastrous civil wars.

In the eastern parts of Sudan are the little known territories of Dar-zaleh and Darfur, the latter bordering on the Egyptian pashalic. Westward, between Bórnu and the Niger, the country is chiefly occupied by the Fúlaha, who, about the beginning of the present century, commenced a great religious war on the surrounding pagans, which ended in the establishment of the great Fulah empire of Sókoto. It contains some populous commercial towns. *Kano*, one of the principal, combines a singular variety in its appearance. There are clay houses, huts, and sheds; green open spaces affording pasture for oxen, horses, camels, donkeys, and goats, in motley confusion; deep hollows containing ponds overgrown with aquatic plants; beautiful specimens of vegetation, as the fine symmetric gonda, the slender date-palm, the spreading alleluba, and the majestic silk cotton-tree; and people in diverse costumes, from the almost naked slave to the gaudily-dressed Arab. The people are of cheerful disposition, and highly industrious. They manufacture and dye cloths, make sandals with great neatness, export tanned hides, red sheep-skins, and various articles of leather, and have a slave-market. *Sokoto*, the capital, was the scene of Clapperton's death in 1827, affectionately attended to in his last moments by his faithful servant Richard Lander. It is situated on an affluent of the Niger, and contains about 20,000 inhabitants; but *Wurno*, a smaller place, about fifteen miles distant, is the residence of the sultan.

Near *Sego*, in the Bambarra country, on the upper course of the Niger, the river was first seen by Mungo Park. The town has numerous mosques, neatly whitewashed clay houses, many canoes, and a population estimated at 30,000. At *Bussa*, in the territory of Borgu, on the middle course of the stream, the unfortunate traveller was killed in an affray with the natives. About midway between the two places stands *Timbuktu*, on an extensive plain a few miles from the north bank, but in water-communication with it, skirted in the opposite direction by the Sahara. A mysterious greatness was formerly attached to this town as the capital of a powerful kingdom, which recent visitors have completely dissipated. It is surrounded by a decayed wall little more than two miles in circuit, which encloses mud dwellings generally one story high, with three large mosques, and a population of 20,000. But it is the centre of important commerce by caravans across the Desert between Negroland and the Barbary states. Gold-dust is a principal staple, though the amount exported is exceedingly small measured by a European standard. Salt, gum, wax, and a few native manufactures in wool and leather from the neighbouring districts, are other articles of the traffic.

EASTERN AFRICA.

The eastern side of the continent, washed by the Indian Ocean, corresponds to the western in its hot climate, numerous streams, profuse vegetation, and general insalubrity. Only a very limited knowledge of its features and people was possessed prior to the present day, as the Portuguese, who once held extensive command of the shores, and still retain considerable possessions, discouraged the intrusion of other Europeans into their settlements, for the nefarious purpose of concealing their participation in the slave-trade, and carrying it on without interruption. The equatorial part of this region is distinguished by the lofty Kilimandjaro, ascended by the Baron von Decken to the height of 13,000 feet, where he experienced a fall of snow, the first that has been endured by any white man, rarely even by a black one, in tropical Africa. It is also the site of spacious lakes, one of which almost certainly contains the head waters of the Nile. The more southern portion embraces the lower part of the river-system of the Zambesi. From Cape Guardafui on the north, to Delagoa Bay on the south, a distance of more than 3000 miles, the seaboard is usually divided into the coasts of Ajam, Zanzibar, Mozambique, and Sofala, the last of which makes a close approach to the British colony of Natal. North of the equator, the country is occupied by numerous native tribes of Somulis and Gallas. Southward of the line, the indigenous people are either pure Negroes or Kaffirs. But two foreign races politically predominate, Arabs and Portuguese.

The Ajam Coast has some small ports which are annually visited by traders from Guzerat in India for odoriferous gums, myrrh, ostrich feathers, coffee, and other articles. Their Somali inhabitants are chiefly Mohammédans, fishermen, and commercialists. Those in the interior are variously pastoral and cultivators. The Gallas, 'invaders,' a vigorous race, partly in Abyssinia, have spread themselves by conquest far to the



southward, and include barbarous tribes entirely heathens. The Galla ox, remarkable for its immense lyre-shaped horns, has its name from the people.

The Zanzibar Coast is mostly included in an Arab sovereignty, which has the insular town of *Zanzibar* for its capital, a highly-important place, containing the palace of the sultan, an arsenal, several mosques, many stone-built houses, and a permanent population of 30,000, which is considerably increased at certain seasons by the arrival of foreign traders. The island is separated from the main shore by a channel twenty-five miles wide. The opposite mainland was the starting-point of the expedition under Captains Burton and Speke, which led to the discovery of the great lake region; and of the later and more celebrated attempt of Speke and Grant to determine the source of the Nile. *Mombas*, a well-known mission station on the north, occupies likewise an island close to the main coast, and is similarly connected with the discovery of the snow mountains, Kilimandjaro and Kenia.

The Mozambique and Sofala Coasts, respectively north and south of the mouth of the Zambesi, are claimed by the Portuguese, who have settlements on the shores, and in the far interior. To the latter, criminals are transported from the mother-country. *Mozambique*, a fortified town on an island, once considerable, but now decayed, is the residence of the governor and of a British consul. *Quillimane*, a small port, at the outlet of the great river, and *Tete*, about 300 miles up its course, with Sena intermediate, are the principal stations, in a declining condition. Ivory, bees-wax, and gold-dust are exported, with slaves when practicable.



Falls of the Felou.



White Quartz Cliffs on the Awass Bogs.

CHAPTER IV.

SOUTHERN AFRICA.



THE Tropic of Capricorn may be regarded as the line of division between the central and southern portions of the continent. At this point it extends east and west about 1300 miles, and stretches upwards of 750 miles, with a gradually-contracting breadth, to Cape Agulhas, the south extremity. This sharply-defined headland received its name, signifying 'needles,' from the Portuguese, which is given also to a vast adjoining sand-bank, over which rolls a harassing sea, and to an important current flowing from the Indian to the Atlantic Ocean. The interior country includes very varied scenes, as mountain-chains broken by wild, watered, and wooded gorges; elevated terraces alternately flowery and verdureless; low grassy or sandy plains, with tracts of desert, as barren and savage as are to be found on the surface of the globe. Rivers with a generally rapid descent to the sea are numerous, but none admit of any extent of inland navigation. The most important example, the Gariep or Orange, received the latter name from the early Dutch colonists in honour of the House of Orange. It has a winding course of more than 1000 miles from east to west, flows between banks lined with

mimosas, willows, and black ebony; but can be readily forded at many points in almost all seasons, and possesses therefore no navigable value, while sand-banks at the mouth prohibit access to it from the ocean. On the north of the river, extending to beyond the tropic, is the great central Kalihari Desert, a fearful wilderness, which long arrested the task of exploration, till the happy thought occurred to Livingstone of skirting it on the eastern side, instead of attempting the direct passage. Rain rarely falls in this district, and no water is to be had except at a few springs or 'sucking-places,' which the miserable natives who wander over it in search of game carefully conceal. Yet, as a singular feature, the surface is not naked, but in many places well wooded, and largely covered with thorn-trees.

The territorial divisions include the Cape Colony, British Kaffraria, Natal, the Orange River Republic, and the Trans-Vaal Republic, with districts occupied by native tribes under their respective chiefs.

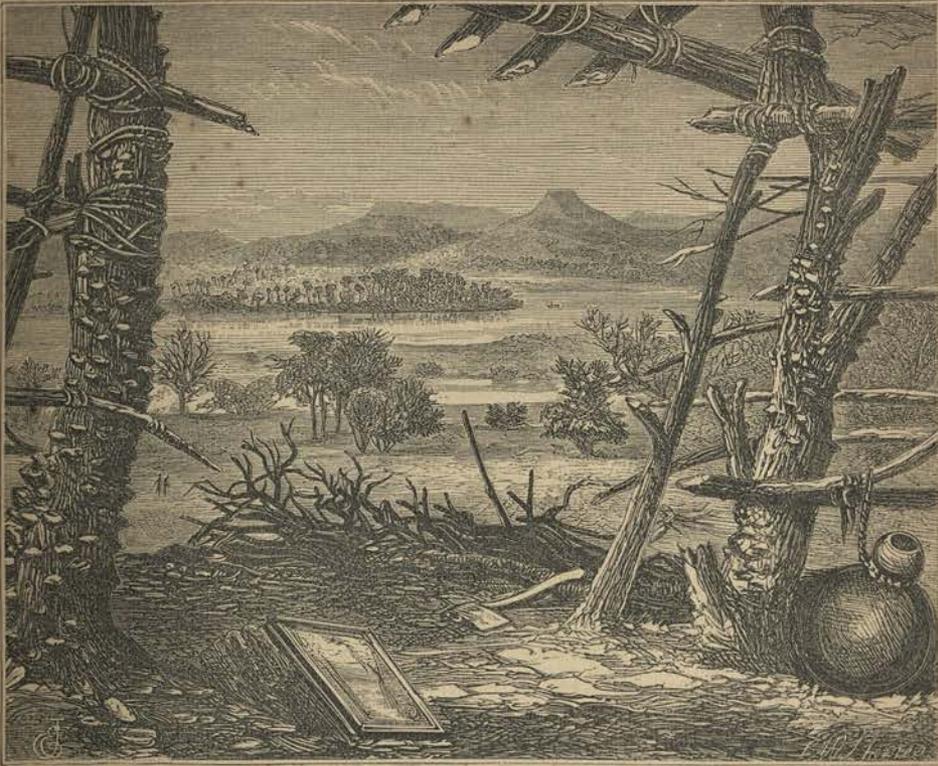
A bold promontory at the south-west extremity of the continent, originally called Cape of Tempests, from the storms encountered by the early navigators in doubling it, but which was soon superseded by the auspicious title of *Cabo de Bon Esperança*, Cape of Good Hope, gives its name to an important British dependency, the CAPE COLONY, and to its capital, Cape Town. The headland, upwards of thirty miles from the town, is the southerly termination of a peninsula occupied with rugged hills, which culminate in the remarkable Table Mountain immediately behind the capital. This peninsular tract, connected with the main body of Africa by a flat sandy isthmus, forms the Cape district, one of the subdivisions of the colony. The entire territory has an extent of about 550 miles from the ocean on the west, to the outfall of the Keiskamma River on the east, by 450 miles from Cape Agulhas to the northern boundary, or the Orange River. Within these limits there cannot be less than 200,000 square miles. But the space actually occupied by the settlements of civilisation is comparatively contracted; and a very large area in the north must be left to the wild animals or to thinly scattered aborigines, as condemned by nature to irretrievable sterility. The coast-line measures 1200 miles, a considerable portion of which on the north-western side lies out of the ordinary track of navigation, and is hence imperfectly known, but supposed to consist of sand-plains with a scanty clothing of shrubby plants. More southerly, promontories and indentations occur in an almost uninterrupted series. Many of the inlets form capacious bays, with ample depth of water, but are very defective roadsteads, being exposed in some direction or other to the winds. Saldanha Bay, on the west, affords protection in all weathers; Table Bay, the most frequented, having the capital on its shore, is generally secure, except in winter, when north-westerly winds prevail; Simon's Bay, immediately to the south, is safe throughout the year, and is the chief naval station of the colony.

High grounds occupy great part of the interior of the country, consisting of three ranges of mountains, which run parallel to the coasts, and rise in succession above each other. They are cut by transverse valleys, many of which are mere ravines, but admit of communication through them, and have been made practicable as carriage-roads. The ranges are separated by terraces or upland plains, each range forming the boundary of a lower, and the abutment of the next higher plain. The loftiest and most interior chain is known in different parts of its course by the Dutch names of the Roggeveld Bergen, the Nieuveld Bergen, and the Sniew Bergen, or Snowy Mountains. They retain the snow for several months upon the most elevated peaks, which reach the height of 10,000 feet in the Compass Berg, in the neighbourhood of Graaf Reynet. Northward of this chain the country descends by a very gradual slope to the bed of the Orange River. The intervening upland plains, during the summer heat and drought, are perfect deserts; and hence the

term, *karroo*, applied to them, signifying 'dry' or 'arid,' which has been incorporated from the language of the Hottentots into the vocabulary of physical geography for barren table-lands in general. But they remarkably change their aspect. In the cool season, soon after the rains fall, and soften the soil, the germs of myriads of plants are quickened, and the surface speedily exhibits a delicate green covering. This is followed by the glowing colours of the full-blown flowers, which almost entirely conceal the green of the plants, fill the air with the sweetest odours, and delight the eye with gorgeous and varied hues. At this time the colonist brings his flocks and herds into the karroo-ground, where the animals find a plentiful and wholesome supply of food, while troops of ostriches and antelopes share the repast and enliven the scene. After a calm day, as the sun declines, the landscape is paradisiacal from its beauty and fragrance. But lengthening days, and the increased power of the African sun, rapidly obliterate every fair appearance. The flowers fade and fall; the stems and leaves dry; the streams that have been set in motion fail; the soil bakes, and is covered with a brown dust from the ashes of the vegetation; the farmers, flocks, and wild animals retire; and the surface is a ghastly waste and a dreary solitude till the next year's rain renews the verdure. The Great Karroo, at the base of the Roggeveld and Nieuveld chain, is a belt of table-land 300 miles in length, and 80 miles in average breadth, at the height of 2000 feet above the sea.

Both the fauna and flora of the colony are of singular interest. Towards the close of the last century, naturalists visited the Cape attracted by the brilliancy of its botanical productions, and the remarkable forms of the animal kingdom, which, though widely distributed, could there be most conveniently studied. Sparrman, and after him Le Vaillant, viewed with admiration the strange outline of the giraffe and the superb marking of the zebra, animals then nearly unknown in Europe; the light shape and bright eye of the springbok, the most beautiful of antelopes; and observed with astonishment the vast number of gnus and quaggas, with buffaloes, lions, elephants, rhinoceroses, and hippopotami. The large and formidable quadrupeds have extensively fallen victims to the hunter's rifle, or been driven into the wilds of the interior by the advance of colonisation. The elephant is no longer found south of the Orange River, and the lion is very rarely met with on its borders, but members of the antelope family and of the horse tribe scour the plains in great troops, and migrate intermingled with ostriches, when severe drought compels them to quit their customary haunts in search of pasture. Singular succulent plants abound, with geraniums and heaths growing wild like common weeds, the latter remarkable for elegance of form and variety of species, many of which are established favourites in the conservatories of Europe. Patches of natural forest are in the highland gorges and on the sides of the mountains, but timber-trees are in general sparsely distributed, except along the southern shore. The prevalent tree in the vicinity of Cape Town is the Witteboom, or Silver Tree, conspicuous for the brilliant silky whiteness of the leaves, which have a beautiful appearance when agitated by the wind. With the exception of grasses and aloes, the indigenous vegetation is of little service to man, but most of the grains, fruits, and vegetables of the northern hemisphere have been introduced, with the varieties of domesticated live-stock with which we are familiar. Agriculture, embracing the cultivation of the vine, and pastoral husbandry, are the leading industries. Wool and wines are the most important exports. The climate has great summer heat, but is highly salubrious. Its principal disadvantage is the uncertainty of the rains, which are sometimes suspended for long intervals, and occasion severe distress from drought.

The country to the north of Orange River, first traversed by Livingstone, is described as extremely varied. In his first journey from Kuruman to Lake Ngami, he determined



The Zambesi River, from Logier's Hill.

to skirt the eastern flank of the Kalihari Desert instead of going through it. The space to be traversed 'has been called a desert,' he says, 'because, though intersected by the beds of ancient rivers, it contains no running water, and very little in wells. Far from being destitute of vegetation, it is covered with grass and creeping plants; and there are large patches of bushes and even trees. It is remarkably flat; and prodigious herds of antelopes roam over its trackless plains.' Starting for the unknown region, a range of tree-covered hills was crossed to Shokuane, afterwards along the bed of an ancient river, through a perfectly flat country. On the third day they were traversing a trackless waste of scrub, the grass so dry as to crumble into powder in the hands, and, on the 4th of July, after a month's toilsome journey, they reached the banks of the Zouga River, which the people informed them flowed out of the Lake Ngama. Following the banks of this beautifully-wooded river, ninety-six miles from the point where they first struck it, the lake was reached on the first of August.

In a future journey he reached the Zambesi, a river whose existence was previously unknown, through a country perfectly flat, except where large ant-hills formed mounds a few feet high—generally covered with wild date-trees and palmyras. Occasional forests of mimosæ and mopane also occurred.

The Cape was discovered by the Portuguese in 1486, whose fleets occasionally stopped for water and refreshments, but no attempt was made to occupy the country. In the reign of James I. two commanders of the English East India Company formally took possession of it, but no settlement followed. The Dutch, having found their way into Indian seas, perceived the advantage of having a naval station at the site, and in 1650 founded Cape Town. The territory remained in their hands nearly a century and a half, during

which time colonists from Holland spread themselves as farmers over the interior. Hence the common occurrence of Dutch names in the nomenclature of towns, mountains, and streams. In 1795 the dependency was taken by a British armament, and after being restored to Holland, it was recaptured in 1806, and permanently annexed to the empire.

The Cape Colony consists of two provinces, a western and an eastern, each of which is subdivided into eleven districts, generally of large extent. The western province, or oldest settled portion, chiefly agricultural, is under a governor-in-chief; and the eastern, principally pastoral, under a lieutenant-governor. Each forms a diocese of the Anglican Church, with an episcopal seat at the capitals, Cape Town and Graham's Town. Both provinces have a common legislature, composed of a council of fifteen nominated members, and an assembly of forty-six elected representatives.

Western Province,	Cape Town, Stellenbosch, Beaufort, George Town.
Eastern Province,	Graham's Town, Port Elizabeth, Graaf Reynot.

The total population is loosely reckoned at 285,000, considerably more than one-third of whom are whites. These consist partly of the descendants of the original Dutch colonists, called boers or boors. The majority are located on grazing-farms, and have degenerated in the remoter districts from the standard of their ancestors, become rude in their manners, and oppressive in their treatment of inferiors, while very illiterate. They are, perhaps, now outnumbered by the new-comers, the British, who are still slowly recruited from the mother-country; while many of the old settlers, as discovery opened up the region north of colonial limits, transferred themselves to it, for the double purpose of escaping a foreign government, and taking by force the inheritance of native tribes. There are also some of French extraction, who are chiefly the wine-growers, descended from a number of the Protestants who became refugees upon the revocation of the Edict of Nantes in 1685. The coloured people consist of the aborigines proper, or tribes of the Hottentot race, with Kaffirs on the border, Negroes, Malays, and Africaners, the latter sprung from foreigners by native women. The Hottentots were once considered almost without the pale of humanity, so degraded were their habits, and inferior their appearance. But subject to proper treatment, they have shewn themselves capable of becoming attached and faithful to their masters, make good farm-servants, soldiers, and police.

Cape Town, the capital, is situated on the southern shore of Table Bay, in latitude 33° 56' south, longitude 18° 28' east, and contains a population of nearly 30,000, of a very motley description, Dutch, English, Negroes, Malays, and Hottentots, with mixed races of almost every shade of colour. The main streets, arranged in straight lines and right angles, are threaded by canals, and have rows of trees, after the style of the original founders. Most of the houses are flat-roofed, and have a brick terrace in front, called the *stoep*, shaded by the trees, which forms the usual evening lounging-place of the inmates. Directly facing the mid-day sun, with naked mountains immediately in the background, the town is exposed to great heat from its situation, the mean temperature being 58° for the winter, and 76° for the summer. It possesses several good government buildings, fifteen churches and chapels, an exchange, a college, a literary institution, a public library, a botanic garden, and an astronomical observatory. A regular citadel, with various outworks, protect the colonial capital and the harbour. The streets are lighted with gas. Cape Town is under the control of a municipal body, and returns four representatives to the local parliament. It has a considerable number of Mohammedans among its inhabitants, and is perhaps the only place in the world where natives of Britain have become converts to their creed. A grand altar-like mountain rises immediately behind the town to the height of 3760 feet. This is the Table Mountain. The Lion's Head and the Devil's Peak are lower adjoining eminences. The three mountains form an amphitheatre of about five or six miles in diameter, in the centre of which Cape Town is placed.

Graham's Town, the capital of the eastern province, in the district of Albany, is about 500 miles east of Cape Town. It contains an almost exclusively English population of 6000, and occupies an inland site. *Port Elizabeth*, on the shore of Algoa Bay, a flourishing commercial town, is the principal shipping-place for the whole of the eastern division. About twenty-five miles inland from it, on a large well-watered plain, is *Uitenhage*, the head of a district of the same name, with 5000 inhabitants.

BRITISH KAFFRANIA, immediately east of the Cape Colony, extends along the coast between the outlets of the Keiskamma and Great Kei Rivers, and embraces an area of about 4500 square miles. It is under a separate administration, as the head-quarters of the troops employed to keep the independent Kaffirs beyond the frontier in check. The district was wrested from them by the war of 1847, and contains numerous military posts established for protective purposes. Many parts of this territory are highly picturesque, while adapted both for grazing and agriculture. A considerable number of the soldiers who formed the German Legion during the Crimean war, along with British settlers, have here received grants of land on easy terms, who probably form a population of 10,000, while the Kaffirs associated with them as fellow-subjects are supposed to number 100,000. *King William's Town*, the capital, situated inland, is still in its infancy, but issues an English and a German newspaper. *East London*, at the mouth of the Buffalo River, with good anchorage-ground, is the port.

NATAL, a young and rising British colony, derives its name, *Terra Natalis*, from the fact of the discovery of the district by the Portuguese on the festival of the Nativity, or Christmas-Day, 1497. It is situated on the south-east coast of Africa, in 30° south

latitude, about 800 miles from the Cape of Good Hope, and within seven degrees of the Tropic of Capricorn, extending inland to the distance of 100 miles from the shores of the Indian Ocean. The Draken-berge, or Dragon Mountains, on the west, form the boundary from the Orange River Republic; the Tugela River, on the north, defines the frontier from Zulu-land; and similarly the Umzimkulu, on the south, from Independent Kaffraria, which intervenes between Natal and the eastern part of the Cape region. Within these limits there is a compact territory of about 25,000 square miles. Whether approached by sea or by land from the Cape, the country makes a very agreeable impression, owing to its freshly-verdant aspect throughout the year, so strikingly different to the general aridity of the regions left behind. On gaining the last heights of the Draken-berge range from the interior, after passing over dry and sterile lands, the traveller hails with surprise the prospect of a well-watered, wooded, and grassy landscape, stretching for miles to the eastward, and can appreciate the feeling which led the first Dutch explorers to exclaim at the view, *Een andere wereld!*—‘Another world!’ On nearing also the strand, the voyager marks with delight a series of beautifully-sloped and round-topped hills, all green and luxuriant, some covered with grass, others with trees, which descend to the very water’s edge, or to the white beach upon which the waves are playing. This is the appearance of the surface even in the hot months, when all vegetation is parched, brown, and dusty at the Cape. It is occasioned by the rains falling in this part of Africa in the interval from September to March, or during the summer of the southern hemisphere.

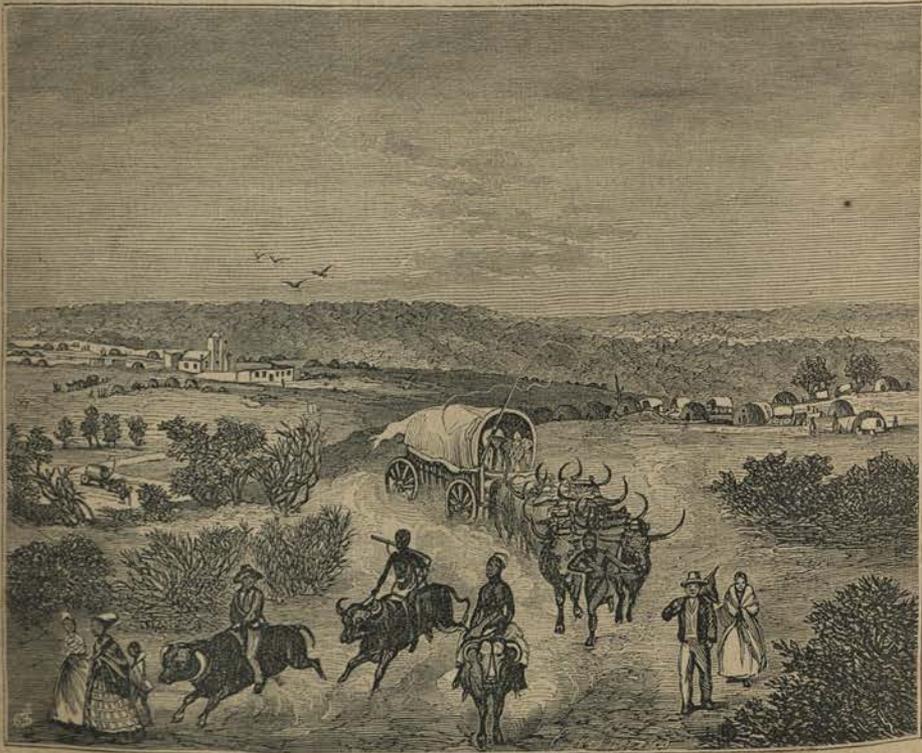
From the coast the land rises rapidly in four distinct steps or terraces, each averaging about twenty miles in breadth, and having its own peculiarity of soil and climate. In the maritime region there are fine woodlands and park-like scenery. The temperature ranges high, and though not strictly tropical, even in the height of summer, the climate admits of the growth of cotton, sugar, indigo, arrow-root, coffee, pine-apples, and other productions of the tropics. Further inland, as the country rises in elevation, the temperature is diminished, and the air is refreshing, except when the hot wind blows from the north-west, the direction of the sun-scorched regions of Central Africa. This range of land, on which stands the capital, is almost bare of trees, but well adapted for the growth of maize and the usual harvests of Europe. Beyond this, the higher terraces supply immense tracts of pasturage, with timber-trees of considerable size and serviceable quality. Large wild animals, rhinoceroses and elephants, once numerous, have either been exterminated by the hunter, or are only met with in the more retired districts, from which they are rapidly disappearing. Alligators abound in some of the rivers, with hippopotami, and serpents allied to the boa are not uncommon. The British government proclaimed the district in May 1843 a regular colony of the crown. Since that period it has been under a lieutenant-governor. Rapid advances to prosperity have been made by the arrival of English and German settlers, and by the possession of those natural advantages in which the Cape is deficient: abundance of wood, water, iron, copper, and other metallic ores, coal, which occurs in various places, and a fertile soil. Natives have also flocked across the frontier to enjoy the peace and protection secured to them by a strong government. The whites number 10,000, and the Zulus 120,000, who, under just treatment, are docile and industrious, acquitting themselves well in domestic and farm service. Their huts are constructed of twigs thatched with grass. Baskets for carrying produce are made of grass strongly plaited together, and calabashes for water consist of a scooped-out vegetable of the pumpkin kind. Natal has recently received a representative constitution, and forms a diocese of the Anglican Church. It is divided into seven counties, and has *Pietermaritzburg* for the capital, near the centre of the province, about fifty miles from the coast. The town is neatly laid out in the form of a parallel square, and possesses some substantial public buildings, but is only partially built. It stands on a branch of the Umgani River, which has a fall of 262 feet perpendicular in the neighbourhood. The name is compounded of the Christian name of Pieter Rietief, and the surname of Gert Maritz, two leaders of the immigrant boers who first entered the country in the time of the sanguinary chief Choka. *Durban*, the port of the colony, often called Port Natal, the first settlement, is seated on the shore of a fine land-locked bay, but a bar at the entrance prevents the admission of large vessels. Sugar, wool, ivory, coffee, and arrow-root are the principal exports. Sugar plantations are extending in the coast region.

The ORANGE RIVER REPUBLIC, enclosed by two arms of the stream, and the adjoining TRANS-VAAL REPUBLIC, named after a leading branch, claim to rank as two independent states, westward of Natal, and north-east of the Cape Colony. They originated with the Dutch farmers, who, disliking restraint, emigrated at various times beyond colonial limits, in order to enjoy a rude freedom wholly irrespective of the rights of the natives. They have usurped their lands, compel them to do their bidding as convenience dictates, assemble in force to punish the refractory, and have violently opposed the opening of the country northward, whether by missionaries or hunters, in order to keep the traffic in ivory and hides in their own hands. Livingstone’s home and station, previous to his grand tour, was desolated by them, and his life would undoubtedly have been sacrificed

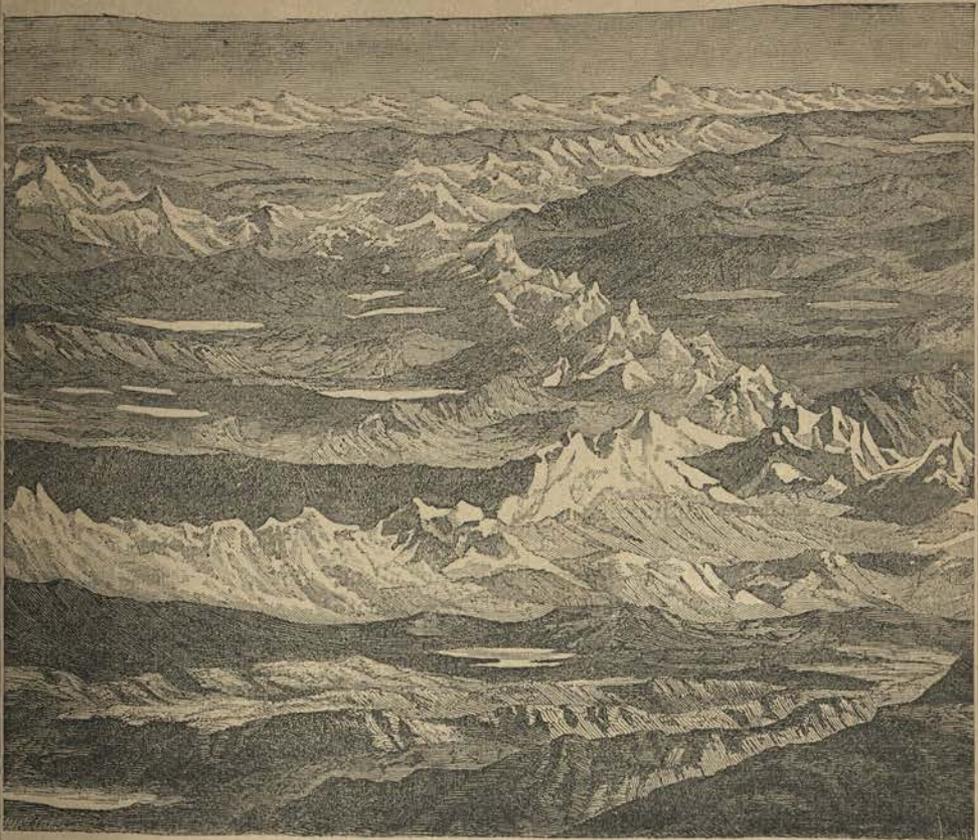
but for his absence at the time of the attack. *Blomfontein*, the seat of government in the Orange River state, is a skeleton town with a Dutch and a Roman Catholic Church, as is *Potscherfatroom* in the Trans-Vaal district.

KAFFRARIA PROPER, the popular name of the coast country between British Kaffraria and Natal, extends about 120 miles inland, is occupied by the broken remains of once powerful Kaffir tribes. At various times they have harassed the frontier of the Cape Colony, penetrated as invaders far into its interior, and baffled the imperial troops, though finally driven back with immense loss and the capture of their principal chiefs. They are supposed to number 300,000, but are said to be decreasing, and will probably be incorporated, with their territory, in the British dominions. The Kaffirs are physically a finely-formed race, brave and warlike, but good-natured in time of peace, partial to amusements, and honest except in relation to cattle, which bordering tribes are prone to steal from each other as opportunity offers. This has occasioned frequent wars among themselves, which, with those against the British, have contributed to a large reduction of their numbers. They are strictly a pastoral people, and regard their herds with an intensity of feeling approaching to idolatry. The men attend to them exclusively, make them companions as far as possible, address them by name, and speak to them in terms of praise, while the women cultivate the soil, fetch water, and gather in fuel, in addition to household work. They live in collections of huts, called kraals, several of which are mission stations, where the European traveller is sure to meet with an hospitable reception. Polygamy is practised, and seems to be a firmly-established usage. The tribes are under patriarchal government and hereditary chiefs. They are expert in the use of firearms, can manoeuvre in a style which has frequently elicited the admiration of English officers, and in conferences with them, on grounds of difference, the European has often been foiled by the logic of the native.

A district further inland, watered by the Caledon branch of the Orange River, is inhabited by the Basutos, a section of the Kaffir race, but somewhat inferior to the true Kaffirs in physical development. Tribes of Kaffir descent, pastoral and agricultural, but differing from the 'magnificent savages' in being of inferior appearance and comparatively timid, are spread over a large tract of the interior north of the Orange River, extending to the Zambesi. They are comprehended under the general name of Bechuanas, occupy a region of plains and low hills, a dry and thirsty land, where a cloud may not be seen for months, and years have sometimes passed away without a shower. In such a district a copious fountain is a thing of joy.



Church and Mission on Blackthroat River.



Panorama of the Central Andes.

PART IV.

DESCRIPTIVE GEOGRAPHY OF AMERICA.

INTRODUCTORY CHAPTER.—GENERAL VIEW OF AMERICA.



NAMERICA, one of the principal divisions of the globe, ranks next to Asia in magnitude, and is very nearly equal to the joint area of Europe and Africa, while it forms the largest continuous mass of land in the direction of the meridian; entering within the north polar zone, and approaching the confines of the Antarctic Circle. Three great oceans enclose the continent; the Arctic on the north, with its winter-frozen surface; the Atlantic on the east, intervening like a grand canal between its shores and those of Europe and Africa; and the Pacific on the west, the largest section of the world of waters, forming the separation from Asia and the island-realm of Oceania. At the narrow south extremity the two latter basins blend their billows. The northern limit of the mainland, a headland of the Boothian peninsula, and the southern, or Cape Froward, on the Strait of

Magellan, are respectively in latitude 72° north and $53^{\circ} 54'$ south. Between these points, following the curving course of the land, the distance is not less than 10,000 miles. In the opposite direction the extent is much less, only slightly exceeding 3000 miles, under the parallels of 45° north and 5° south, where the greatest expansions occur. But immediately the breadth remarkably contracts to a mere span, for in the Isthmus of Panama, the opposite waters of the Atlantic and Pacific, at their closest approach, are only twenty-eight miles apart. This isthmus divides the continent into two great portions, or North and South America, which correspond in their general form, being rudely triangular peninsulas, and in the westerly position of their principal mountains. The northern and largest portion, exclusive of islands, has an area of about 8,600,000 square miles, and the southern of 7,000,000, making a total of 15,600,000 square miles. These main divisions have some contrasted features. The northern is specially distinguished by the number and extent of its fresh-water lakes, and by the broad and deep indentations of its coast, especially on the eastern side, where the vast sea-like inlets of Hudson's Bay and the Gulf of Mexico occur. It has therefore the greatest extent of sea-board, amounting to about 24,000 miles, while the southern division has only 13,600 miles, giving for the entire line of the shores a length of 37,600 miles. North America is also characterised by insular dependencies of great extent, with an immense number of small dimensions; as Greenland, Iceland, Newfoundland, the Arctic series, the West Indies, Vancouver's, Queen Charlotte's, and others. South America has only a few small appendages of the kind. The principal group, the Fuegian Archipelago, may by proximity, as well as on geological grounds, be regarded as a southerly continuation of the continent, being only separated from it by the narrow Strait of Magellan. This will extend the latitude to $55^{\circ} 58'$ south, and make the dark and stormy headland of Cape Horn the terminating point in that direction.

America derives its name from Amerigo Vespucci, a Florentine naval adventurer and friend of Columbus. It seems to have originated inadvertently, probably in Germany, where the narrative of his voyages to the American shores was published, and received with intense interest as the first account of the country. Owing to the comparatively recent date of the European discovery, it is still commonly styled the New World; and also the Western Continent, from its position in relation to the prime meridians of European geographers. It is not unlikely that the great idea of Columbus, the real discoverer, that of opening a western passage to the East, will ultimately be realised by the construction of a ship-canal through the narrow central part of the continent, where lakes and rivers occur to facilitate the enterprise. This would insulate the northern and southern divisions, directly connect the navigation of the Atlantic and Pacific Oceans, and shorten by many days the voyage from Europe to China, Japan, New Zealand, Eastern Australia, British Columbia, and the whole western coast of America. An iron road, the first tropical railway, crosses the Isthmus from Aspinwall on the Atlantic to Panama on the Pacific. It follows a circuitous course, and has a length of fifty miles, but the distance between the termini, as the crow flies, is only thirty-eight miles. This is one of the most profitable undertakings of the kind to the shareholders ever executed, in spite of its immense cost; but a marine route would offer incomparably greater advantages.

Imposing ranges of mountains, supported by extensive table-lands, occupy the western side of the continent, and form a chain of grand highlands stretching through its entire length from north to south, subject to comparatively few breaks, but passing under a variety of names. From the shores of the Arctic basin, near the mouth of the Mackenzie River, the Rocky Mountains extend southward to the Mexican plateau, with bare and rugged summits, one of which, apparently the loftiest, Mount Brown, on the inland border of



Volcanic Mountain of Jorullo.

Vesuvius might be placed without its top rising to their height. The loftiest and most powerful volcanoes of the globe are seated in the Andes, or connected with the northerly continuations of the highland system, either now or formerly in active ignition. Some are cones of prodigious magnitude, as Pichincha, with an elevation of 15,924 feet, Cotopaxi, 18,875, and Antisana, 19,132 feet. They do not in general discharge lava, but volleys of stones, clouds of ashes, torrents of water, accompanied with mud, mineral pitch, and other fluid ingredients. Earthquakes are of common occurrence in all the countries associated with this backbone of mountains, and occasionally visit with awful energy the shores of Chili, Peru, Venezuela, Central America, and Mexico; the most singular on record perhaps being that of Jorullo, represented above. In the month of June 1859, a fertile and highly-cultivated plain, six days' journey north of the city of Mexico, experienced a sudden commotion, a frightful earthquake followed, which continued for two whole months. At the end of this time, the fears of the inhabitants were subdued and their calm seemed restored, when, in the night of the 28th September, the plain for many leagues round was slowly upheaved in a rounded mass truncated at the summit. From the summit thus formed, volcanic exhalations emanated, all the plain up to the foot of this hill undulated like the waves of a stormy sea; thousands of little hills from ten to twenty feet high, rising very near to each other, opened and closed their summits alternately, finally the mountain itself opened; and from this gulf of three or four square leagues, immense masses of flame,

scoria, and rocks in fusion were vomited. The eruption continued for a whole year, diminishing slowly, but never entirely ceasing, and Jorullo still continues to discharge its torrents of fire and molten scoria. Two rivers which formerly flowed through the plain were engulfed and reappeared in the west, far from their ancient bed—probably after traversing the volcanic conduit, for the waters reappear at a temperature of 53°. As a rule the Andes present a steep face towards the ocean, but decline gradually on the continental side. There the slopes are clothed with seemingly boundless forests, very solitary as to human inhabitants, but rife with prodigious swarms of mosquitoes, eager to fasten upon any intruder, and never intermitting their attacks in any season of the year, any hour of the day or night, so long as there is an object to assail, a victim to torment.

Secondary, but locally important ranges occupy a considerable space on the opposite or eastern side of the continent. They include in the north division the Alleghany or Appalachian chain, a series of parallel ridges stretching from the Gulf of St Lawrence, in a diagonal direction, to the state of Alabama, of moderate elevation in general, but containing a few summits, as Mount Washington in New Hampshire, which exceed the height of 6000 feet. In the southern division a branch of the Andes forms the Venezuelan coast chain, which culminates in the remarkable Silla of Caraccas at the elevation of 8600 feet; and nearly the same altitude is attained by narrow ridges in Brazil, running parallel to the eastern shores.

Between the eastern and the western highlands are enormous levels, but slightly elevated above the sea, which eminently characterise the superficial aspect of the continent in both divisions. From the base of the Alleghanies to that of the Rocky Mountains, and from the Gulf of Mexico to the Arctic Ocean, the whole of North America is an immense plain, comprehending more than 3,000,000 square miles, with very varying features, but with no irregularity of the surface beyond a few low hills and gentle swells, while embracing extensive and perfectly flat tracts. Towards the foot of the Alleghanies and the shores of Hudson's Bay the country is undulating and well wooded, but at the base of the Rocky Mountains the opposite feature is displayed of a true desert, a district covered with gravel, boulders, and granitic sand. Intermediate, extending through upwards of 1000 miles, and generally limited by the parallels of 30° and 50°, are prairie-grounds, which form the chief part of the basins of the great rivers, the Mississippi and Missouri.

Though the term 'prairie' strictly signifies a region destitute of timber, and is therefore the antithesis of the 'forest,' it is applied to districts where the two mingle with and intersect each other. Hence there are 'timber prairies,' but the wooded tracts bear no proportion in their extent to that of the open spaces between them. Other prairies, properly so called, being woodless, have distinctive names from the predominant vegetation, grasses or flowers, with which they are clothed. Their features differ in other respects, as the surface is often as level for miles as the top of a table, and then becomes billowy, while some are constantly dry and others are swampy. The floral verdure of prairie-land has been pictured by a vivid sketcher. 'I stand in an open plain. I turn my face to the north, to the south, to the east, and to the west, and on all sides behold the blue circle of the heavens girdling around me. Nor rock, nor tree breaks the ring of the horizon. What covers the broad expanse between? Wood? water? grass? No; flowers! As far as my eye can range, it rests only on flowers, on beautiful flowers! I am looking as on a tinted map, an enamelled picture brilliant with every hue of the prism. Yonder is golden yellow, where the helianthus turns her dial-like face to the sun. Yonder, scarlet, where the malva erects its red banner. Here is a parterre of the purple monarda; there the euphorbia sheds its silver leaf. Yonder the orange predominates in the showy

flowers of the asclepia; and beyond, the eye roams over the pink blossoms of the cleoma. The breeze stirs them. Millions of corollas are waving their gaudy standards. The tall stalks of the helianthus bend and rise in long undulations, like billows on a golden sea. They are at rest again. The air is filled with odours sweet as the perfumes of Araby or Ind. Myriads of insects flap their gay wings: flowers of themselves. The bee-birds skirr around, glancing like stray sunbeams; or poised on whirring wings, drink from the nectared cups; and the wild bee, with laden limbs, clings among the honeyed pistils, or leaves for his far hive with a song of joy. Who planted these flowers? Who hath woven them into these pictured parterres? Nature. It is her richest mantle, richer in its hues than the scarfs of Cashmere. This is the "weed prairie." It is misnamed. It is the garden of God! The name originated with the trappers, practical men, indifferent to objects which have no bearing upon the immediate demands of existence, intent upon furs and skins, fodder for their steeds and food for themselves. Yet the flowers have a weed-like distribution, being indiscriminately scattered, and not arranged in beds.

These floral prairies are found in the greatest perfection in the more southern latitudes, especially in Texas, where the traveller may ride through them the entire day without observing change in the general aspect of nature. Many are intersected by streams and belted with wood; and thus offer the two essentials of water and timber to the settler, invite the hand of industry to raise a homestead, and change them into corn-bearing lands. Another variety, the 'grass prairie,' answers to its name. Not a flower appears in sight for miles, but there is an expanse of verdure green as an emerald, now darkened in its hue by the fitting shadows of the summer clouds, and anon lightened by the returning sunbeams. Drove of bisons cover these meadows in compact masses, often a mile in length: they are the chief dependence of the Indian tribes; deer are met with in herds of several thousands, supplying the frontier settlers with venison at every meal; and wild horses are seen in long columns of eight or ten abreast shaking the ground with their stampede.

South America has its corresponding great central plain, extending between the Andes on the one hand, to the Brazilian Mountains on the other, and stretching to the southern extremity. This region exhibits great diversity. Northward are the Llanos, or 'level fields' of Venezuela, singularly flat, bordering on the Orinoco, by which are largely inundated in the rainy season, afterwards clothed with the rankest grasses, and then reduced to utter sterility by the succeeding heat and drought. Next, proceeding southward, occur the Selvas, or 'forest' plains of the Amazon, the densest and most extensive woodland on the terrestrial surface, where the magical beauty of tropical vegetation is seen in all its glory, interspersed with open patches of marsh and meadow. Further south are the Pampas, or treeless flats of the La Plata states. They include sandy and stony spaces doomed to permanent barrenness by saline impregnation, but consist chiefly of red calcareous soil, almost as level as the sea, part of which is covered successively with a luxuriant growth of grass, clover, and thistles, but it varies remarkably in its appearance with the season. As the spring advances, the whole region becomes a wood of enormous thistles, which have suddenly sprung up to the height of ten or eleven feet, and are in full bloom. Wherever there is a road or path it is hemmed in on both sides by the plants, and the view is completely obstructed. Not an animal is to be seen, for so strong and close together are the stems, that, independent of the prickles with which they are armed, they render the country impassable except along the regular thoroughfares. But the summer heat is not over before there comes a change. The plants lose their verdant appearance, the leaves shrink and fade, the stems become dry and black. For a time they remain rattling with the breeze against one another, till the powerful pampero, a hurricane from the Andes,

levels them with the ground, rapidly to decompose and disappear. The grass and clover then shoot up; the scene is again verdant; and the wild cattle return to graze upon the pasture. The soil of this district contains many fossil remains, those of the megatherium and mylodon, extinct animals allied to the sloths, and of the glyptodon, a gigantic armadillo.

The New World has immensely the advantage of the Old in point of fluvial communication, possessing rivers unrivalled in length of course, size of basin, volume of water, and extent of navigation; independently of a series of sea-like lakes, with a vast number of secondary rank. Owing to the great chain of mountains which traverses the coast of the Pacific, only a very small proportion of the surface-drainage finds its way to that ocean, but is conducted through the vast central plains to the Atlantic. This statement applies with the greatest force to South America; in the far north, the country slopes towards the Arctic basin. Through its entire extent, from the close approach of the Andes to the western shore, the streams flowing in that direction are all insignificant, while the eastward-bound rivers, the Orinoco, the Amazon, and the Plata, are magnificent, traversing nearly the whole breadth of the continent. In North America the more inland position of the principal water-shed, the Rocky Mountains, furnishes greater facility for hydrographic development on the side of the Pacific; and here are the Colorado entering the head of the Gulf of California, the Sacramento discharging in the harbour of San Francisco, and the Columbia passing into the great ocean. Yet these, though of local consequence, are but as brooks when compared with the rivers on the opposite side of the range, the Missouri, the Mississippi, and the St Lawrence, which belong to the Atlantic; but these rivers, while naturally of greater magnitude, are inferior in practical value as arteries of communication to the Hudson, the Delaware, and the Potomac. The northern rivers, flowing to the realm of the polar ice, the Mackenzie, the Coppermine, and the Great Fish River, are of little note from their high latitude, being frozen up through nine months of the year; they can never be utilised in their brief summer, except by the boats of trappers and the canoes of Indians and Esquimaux.

The Mississippi, 'Father of Waters,' deserves the name, as by far the largest river in the northern section of the continent, and the longest in the world, estimated with the channel of its principal tributary, the Missouri. Little more than three centuries have elapsed since it was first seen by European eyes. It was in 1541 that De Soto, a bold Spanish adventurer, who had gone out into the wilderness in search of gems, gold, and barbaric cities, met with the broad stream flowing through tangled forests, wide morasses, and far-spread prairies; but it was not actually traced to its source till the present century, long after steam communication had been established on its bosom. It issues from the small Lake of Itasca, a transparent sheet of water bounded by woody hills, on the table-land westward of Lake Superior. Thence it runs southward through the great central plain, receives numerous accessions from either side, describes repeated sweeps and windings, returns after long bends to the borders of its own channel as if disposed to re-enter it, and has a total course of 3160 miles to a swampy delta in the Gulf of Mexico. The Mississippi is clear and placid down to its junction with the Missouri, 'Mud River,' which brings in whitish-yellow waters, renders the flow rapid, and is actually the dominant flood. Lower down, the Ohio, *La Belle Riviere* of the French, on the left bank, contributes a greenish sediment; and still lower, on the opposite side, the Arkansas and the Red River enter charged with darker soil. Following the channel of the Missouri up to its source in the Rocky Mountains, the whole length somewhat exceeds 4200 miles, embracing more degrees of latitude than are traversed by any other American water-course. Hence great contrasts in climate and vegetation appear on comparing the extreme points, pines being

prominent in the north and tropical plants in the south. Below the confluence with the Ohio the river loses its picturesqueness. Bluffs become rare. The level banks are covered with woods, which seem as endless as they are monotonous, while the surface presents only a tedious succession of islands, flat boats, rafts, drifting logs, and panting steamers. In the lower half of its course, or downward from the great junction where the Mississippi-Missouri is formed, the depth increases, but the width is diminished, and seldom exceeds three-quarters of a mile, except during the spring floods consequent on the melting of the snows in the high latitudes, when vast tracts of country are occasionally overflowed. To guard against these incursions, 'levees,' or artificial ramparts, are raised along the banks at the exposed points; but the mighty current is often too strong to be thus resisted, and 'crevasses,' or gaps, are opened, through which it pours, converting the cotton plantations into temporary lakes. The entire river-system has a basin estimated to include 1,300,000 square miles, and is computed to offer not less than 36,000 miles of uninterrupted steam navigation.

If somewhat inferior in the length of its course of 3900 miles, the Amazon, in South America, drains a much greater extent of surface, reckoned at 2,500,000 square miles, discharges a far larger volume of water, and ranks as the most considerable river of the globe. It descends from the higher parts of the Peruvian and Bolivian Andes, pursues a general direction from west to east, and enters the Atlantic nearly under the equator. While perpetually fed from the snows of the mountains, it flows through a region more humid than that of any other part of the world of equal extent. In the wet season the rain pours down in torrents; the drops are of enormous size; and fall with a violence which Europeans who have not witnessed it are unable to conceive. Hence is formed that vast flood which is fifty miles broad at the mouth, never less than four miles wide through the last 450 miles of its course, the freshness of which is perceptible at a distance of more than 500 miles out in the ocean, while the depth is so great that large vessels may go up the channel for 2000 miles, and still be in forty fathoms of water. Yet flowing through a country very scantily occupied by rude tribes, there are fewer vessels upon its surface throughout the year than appear every hour of the day on the bosom of the Mississippi. But it may be regarded as the river of the future, opening a splendid field for enterprise from the exuberance of nature on its banks, admirably adapted for navigation, the powerful current facilitating it downwards, while this obstacle to the ascent is relieved by the prevailing wind, which is uniformly contrary to the course of the stream. The Amazon received the name in allusion to a tribe of women accustomed to go out to battle, who were rumoured to have once lived on its banks. But above the entrance of the Rio Negro it is called the Solimoes, and higher up the Maranon. By the Spaniards the whole river is often styled the Orellana, from the first white who descended it from Quito by the Napo tributary in 1539. Of the two head streams which unite to form it, the Tunguragua issues from the Lake of Lauricocha, on the inland slope of the Andes of Peru; and the Ucayali, the longest branch, has its origin more southerly, on the table-land of Bolivia.

In the north of the continent, almost every stream, small and large, pauses in its course to expand into ponds or lakes, the number of which is legion, and are supposed altogether to contain considerably more than one-half of the entire fresh water of the globe. The Great Lakes, as they are called, or the Canadian series, five in number, are expansions of the St Lawrence, which, though called by other names in the upper parts of its basin, is strictly a single river, with a continued current through the reservoirs. They are properly inland seas, subject to all the vicissitudes which attend the navigation of the Baltic or the Black Sea; and form by their position a boundary between the territory and institutions

of a monarchy and a republic, as the frontier line between British America and the United States is supposed to run through their centre.

Lakes.	Mean Length. Miles.	Mean Breadth. Miles.	Area. Square Miles.	Elevation above the Sea. Feet.	Mean Depth. Feet.
Lake Superior,	400	80	32,000	596	900
" Huron,	220	70	24,000	578	1000
" Michigan,	240	80	20,000	578	1000
" Erie,	240	40	9,600	565	200
" Ontario,	180	35	6,300	232	500

Their united area exceeds that of Great Britain, and their total contents are estimated at upwards of 13,000 cubic miles of water. Between Lake Erie and Ontario the connecting river has the name of the Niagara, and forms the celebrated falls so called, which the Indians of the olden time, their only human spectators, viewed with awe, and applied the appropriate epithet of *O-ni-aw-ga-rah*, the Thunder of Waters, to the matchless scene. A second series of large expanses extends from near the preceding in a north-west direction—Winnipeg, Athabasca, Great Slave, and Great Bear Lakes—the first connected by the Nelson with Hudson's Bay, and the remaining three by the Mackenzie with the Arctic Ocean. Owing to the high latitude, they are regularly closed by the ice through the long winter, and travelled over on sledges by the fur-hunters. Lakes abound on the plateau of Mexico, and also in Central America, which are not of comparable magnitude. Two in the latter district, the Leon and Nicaragua, connected together, and discharging by the San Juan into the Carribean Sea, offer facilities for uniting the opposite oceans by a ship channel, as the distance is inconsiderable between the western extremity of Lake Leon and the Pacific, and the line is in actual use for transit across the whole breadth of the Isthmus. South America, considering its extent and vast volumes of flowing water, is singularly deficient in large lakes. One of the most spacious, Lake Titicaca, on the Bolivian table-land, overlooked by some of the grandest of the Andes, is remarkable for its height above the sea, 12,846 feet. The expanse has an outlet in the Desaguadero, but the stream does not leave the mountain region, losing itself in a highland swamp. In the present century, during the fever for South American mining, an English company had the skeleton of a brig transported from the coast of the Pacific to this elevated lake, and set afloat upon its waters, the only vessel that ever sailed at nearly the same level with the loftiest of the Alps.

Upon the discovery of the western continent, Europeans viewed with astonishment its forms of vegetable life, making acquaintance with them for the first time in tropical situations. There is no very surprising contrast in the more northerly localities. The forests are there composed mainly of members of European families—oaks, pines, birches, willows, poplars, elms, alders, aspens, hazels, and berry-bearing plants. But the species differ, and are often developed with a magnitude rarely seen elsewhere, as in the instance of the gigantic pines westward of the Rocky Mountains. Approaching the tropic, however, genera appear which are entirely wanting in the Old World; and in the hot, humid equatorial zone, or the basin of the Amazon, the vegetable kingdom exhibits a variety and profusion which is unequalled in any other part of the globe, whether regard be had to number of genera and species, the vast extent of the forests, the size and close grouping of the individuals, bearded and clothed from the roots to the extremities of the tiniest branches with orchids and flowering climbers. The explorer cannot advance a yard without using the hatchet to open a pathway through the underwood; and were it not for the interruption to progress offered by the rivers, the monkeys might travel hundreds of miles without once descending from the boughs to the ground. In this

zone the forest-trees supply much valuable timber, with ornamental and dye woods, as mahogany and Brazil-wood. Some bear huge fruits, used for food by the natives, as the well-known Brazil nuts of the shops, from which also a lamp-oil is extracted, while the hard thick shells in which the nuts are packed are employed for domestic purposes. Others yield a resin which thickens into caoutchouc. The cow-tree of Venezuela is so called from a juice exuding on incision, which has many of the properties of milk, and is obtained as a substitute for it.

No true heaths are indigenous to any part of the continent, while all the cactuses belong



Virgin Forest of America.

exclusively to its tropical districts, though known by introduction in other warm climates. The gigantic water-lily, *Victoria Regia*, now raised in tanks in the conservatories of Europe, is peculiar to a few equatorial streams. Trees of the order *Cinchona*, which yield the celebrated Peruvian bark of medicine—the naturalisation of which is in process on the hills of India, in order to secure an adequate supply of the invaluable febrifuge—are limited to tracts on the inland slope of the Andes. Few cultivated plants of importance for food or luxury are of American origin. Maize, tobacco, the potato, cacao, from which chocolate is prepared, the pine-apple, and the Jerusalem artichoke are the most valuable. Fuchsias and dahlias,

among the ornamental tribes, have their home in the same quarter. On the other hand, to European colonisation America is indebted for wheat and other kinds of grain, as also for rice, flax, the sugar-cane, the banana, coffee, and cotton.

The native types of animal life are in general inferior in size, strength, and appearance to those

of Africa and Asia. None occur to be compared in bulk to the huge pachyderms, the elephant, rhinoceros, and hippopotamus; and the wild-boar has no nearly allied representative. The quadrupeds of the largest class are the elk, musk-ox, reindeer, wapiti, and bison, commonly but improperly called the buffalo, all confined to the north, with the great tapir peculiar to the south. The beasts of prey formidable to man are limited to the

jaguar found in the tropical forests of South America, the puma ranging northward to the borders of Canada, the wolf, and three varieties of the bear. Quadrumanous tribes abound in the equatorial region, distinguished from the monkeys of the eastern world by being more gentle, of smaller size, and having in most examples long prehensile tails, answering the purpose of a fifth hand. Rodents are specially numerous, of great commercial value from their furs, embracing the beaver, musk-rat, and ermine, all in the north, with the chinchilla in the south, where also edentata, or toothless animals, occur, comprising sloths and armadilloes. The llama, and its congeners the alpaca and vicuña, of the same order of ruminants as the camel, but very inferior in size, strength, and intelligence, are limited to the Andes of Peru and Chili, where they are, whether wild or domesticated, important as wool-bearing animals. The dog was common previous to the transatlantic passage of the Spaniards, but the horse and ox were entirely unknown, though now roaming free by thousands in the prairies, llanos, and pampas, where they are captured by the lasso. The first horses seen by the natives, descendants of the noble barbs that bore the Moors through Barbary and Spain, inspired astonishment, awe, and terror, the steed and his rider being conceived to be one and indivisible. The largest of all birds that take wing, the condor, is not found north of the equator. Humming-birds, of fairy-like diminutiveness and dazzling beauty, are exclusively an American family. They are common in the temperate as well as the tropical zone, and pass northward in the summer along the west coast up to the parallel of 60°, owing to the greater warmth of that side of the continent, being rarely seen above 42° of latitude in the opposite direction. Pigeons, reckoned by millions of individuals, which darken the air in their migrations, are characteristic of North America. The common turkey, naturalised in Europe, was obtained from Virginia. Reptiles dangerous to man, the boa-constrictor, the rattlesnake, and the alligator, are found in the tropical provinces and the bordering districts. Wild bees of many species are indigenous, but the common hive-bee was introduced by Europeans. Insects are found everywhere, especially in the hot swampy districts, embracing many species of the noxious or venomous class, with brilliantly-variegated butterflies, and fireflies, illuminating the woods by night with their phosphorescent lustre. The rich and varied mineralogy of America has been proverbial. The old Mexicans obtained silver, lead, and tin from the mines of Tasco; copper from the mountains of Zacotollan; and gold was gleaned from the beds of rivers and superficial debris. The Peruvians likewise gathered gold from the deposits of streams, and silver from the bowels of their mountains. The whole chain of the Andes is richly metalliferous, and is supposed by some to have been so called on that account, *Anta*, signifying, in the language of the Incas, metal in general. Humboldt calculated from mining records that in the three centuries following the year 1499 the mines of Mexico, Peru, and Brazil yielded to the whites a total amount of gold and silver of the value of £1,248,000,000 sterling. Brazil at present supplies diamonds, other precious stones, and some amount of gold; Mexico contributes a proportion of its former products, with the addition of iron, which does not appear to have been worked till a recent date; Chili, in its northern district a sterile, mountainous desert, has stores of the purest silver ore, with copper, lead, iron, bismuth, cobalt, antimony, arsenic, and quicksilver, which are largely in the hands of an English Mining Company; all the useful metals abound in states of the distracted American Union, with immense deposits of coal in nearly all its known varieties; and coal, of good quality and easy access, is likewise abundant in New Brunswick, Nova Scotia, and Vancouver's Island.

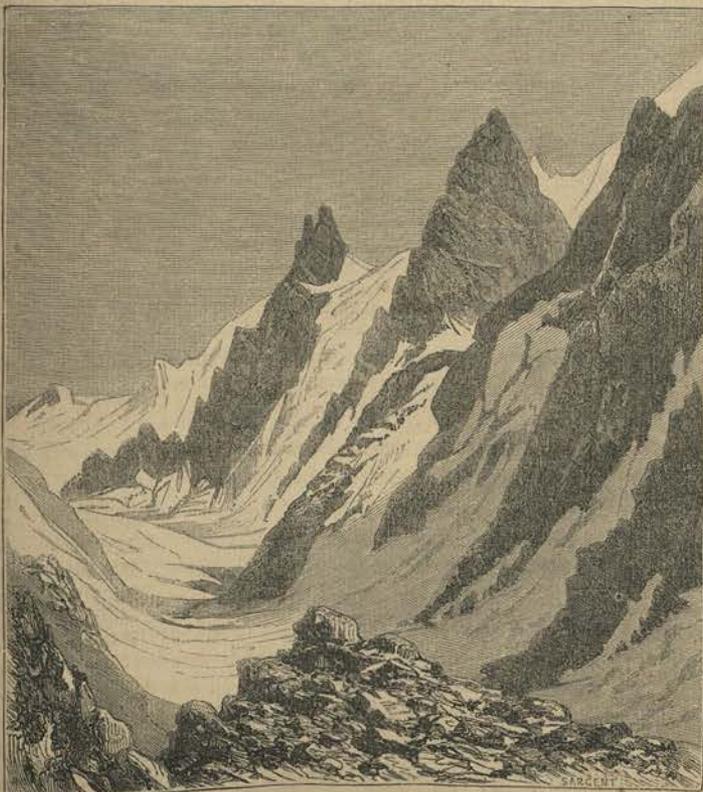
In relation to climate South America has in general a higher temperature than the North, having a much larger extent of surface within the tropics, while very striking inequalities distinguish its rainfall. The annual amount of precipitation is enormous over

the whole valley-plain of the Amazon up to the higher slopes of the Andes; but on the opposite side of the range, the coast of Peru is nearly a rainless region. This is occasioned by the direction of the trade-wind, which drifts the vapours from the Atlantic westward over the great central plain, till their further progress is arrested by the mighty mountain-wall. North America, on the side of the Atlantic, and through the whole of its central districts, has a lower mean annual temperature than Western Europe in corresponding latitudes, with warmer summers and colder winters. This is the effect of various causes, as the direction of the Gulf Stream, which carries its warm water away from the shores, while the prevailing south-west winds similarly divert from them the circumbient air, warmed by contact with the current; the great polar stream which annually brings down the icebergs to the coasts of Newfoundland and Labrador; and the broad expanse of land towards the Arctic zone, without mountains to prevent the free egress of the chill northern blasts. The western side of the continent, in its north division, is much warmer than the eastern, and has not the same extremes of summer heat and winter cold. Thus Sitka Island, in Russian America, has a mean annual temperature of 45° Fahrenheit, while at Nain, on the shore of Labrador, in the same latitude, it is only 28°. The different temperatures of the Pacific and Atlantic coasts is most perceptible in the winter months. Referring to the mouth of the Columbia River, Sir George Simpson states that the first half of December presented one deluge of rain after another, the weather winding up with a storm of thunder and lightning, while, 'to mark the difference of climate between the two sides of the continent, the good folks of Montreal, though occupying a lower parallel than ourselves, were sleighing it merrily through the clearest and driest of atmospheres.' Only slight frosts occur in this locality, when at Quebec, in a corresponding latitude, the cold is intense, the streams are ice-bound, and the snow lies for five months hard and deep upon the ground. The milder temperature experienced on the Pacific coast is due to the warm winds from its surface, and to the great barrier of the Rocky Mountains, which acts as a screen from the biting breath of the polar zone. The political divisions of the continent are as follows:

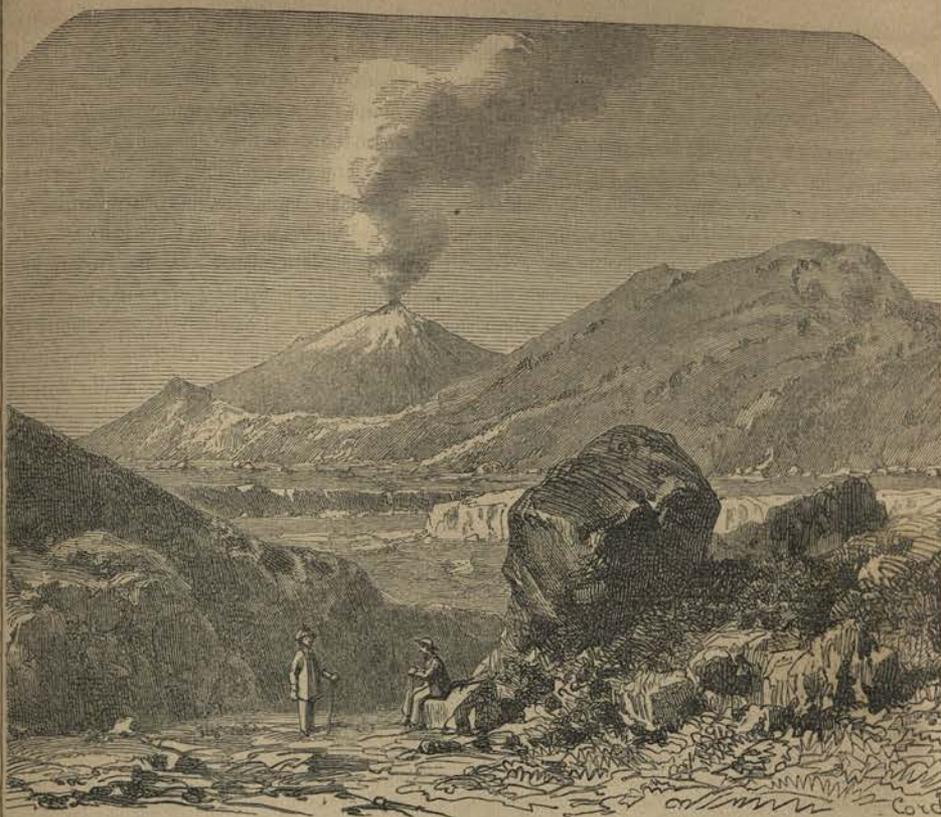
	Area in Sq. Miles.	Population.
Danish America.—Iceland, Greenland, {	Iceland, 38,000	65,000
	Greenland, 400,000	9,400
Russian America,	394,000	66,000
British America.—Canada, New Brunswick, Nova Scotia, Prince Edward's Island, Newfoundland, New Britain, } British Columbia, Vancouver's Island,	2,500,000	2,800,000
United States,	3,000,000	29,900,000
Empire of Mexico,	750,000	7,800,000
Central States of America.—Guatemala, Honduras, San Salvador, Nicaragua, Costa Rica, British Honduras,	190,000	2,500,000
West Indian Islands { British, Spanish, French, Danish, Dutch, and Bermudas.— } Swedish, and Independent,	92,000	3,700,000
Colombian Republics.—New Granada,	380,000	2,363,000
Venezuela,	416,600	1,356,000
Ecuador,	325,000	665,000
Guiana, British, Dutch, and French,	136,000	222,000
Empire of Brazil,	3,000,000	9,000,000
Peru—Republic,	530,000	2,400,000
Bolivia, "	374,000	2,326,000
Chili, "	170,000	1,439,000
Argentine Republic,	1,120,000	1,224,000
Uruguay, Paraguay—Republics,	194,000	850,000

Considerably more than one-half of the population are Europeans by descent, chiefly British, Spanish, and Portuguese, with a sprinkling of French; and newly-arrived European settlers, among whom the Germans form an important body. The remainder

consist of Indian tribes and Esquimaux, the indigenous people; of African Negroes, partly in slavery, partly free; and of mixed races, the offspring of the European and the Negro, the European and the Indian, the Indian and the Negro. In Mexico, Central and South America, the pure aborigines and the mixed races preponderate. The Esquimaux, few in number, and limited to the far north, correspond to the north Asiatics, and are classed with the Mongolian division of the human race. The Indians constitute a distinct variety. Though usually called the red men, the complexion has no uniform hue, but varies from nearly black, or deep bronze, to light cinnamon, and even fair. Yet by certain physical characteristics common to the race, with a structural bond of union in their verbally discordant languages, they are identified as a single family. At the time of the first European inroad, their ancestors were found organised as flourishing nations in Mexico and Peru, in possession of a comparatively advanced civilisation. They inhabited great cities, built temples, palaces, and mausoleums, constructed roads and other public works, the remains of which have in many instances been discovered in our own age, on the long-deserted shores of lonely lakes and buried in the depth of gigantic forests, beneath their undergrowth, in vegetable tombs. But monuments of a hoary antiquity are scattered over a wide area in the valley of the Mississippi, consisting of conical mounds of sepulture, sacrificial mounds, temple mounds, beacon mounds, and systems of fortification, with earthenware vessels, vases of copper, weapons of the same metal, and personal ornaments. Who handled the weapons, reared the mounds, and formed the circumvallations, are questions which can never be satisfactorily answered.



Glaciers of Chili.



Mount Hecla.

CHAPTER I.

DANISH AMERICA—ICELAND, GREENLAND. RUSSIAN AMERICA.



THE large volcanic island of ICELAND, a possession of the Danish crown, is connected with Europe by its people and language, but belongs by proximity to the western world, being separated by a comparatively narrow channel from the east coast of Greenland, while it is divided by the breadth of the open ocean from the nearest main shores in the opposite direction, the British and Norwegian. It is situated on the confines of the polar circle, and contains an area very little short of 40,000 square miles. The interior exhibits the most extraordinary spectacle to be seen on the surface of our planet, and no known parallel to it exists in the domain of nature, except perhaps those savage solitudes which science has revealed in lunar scenery. There are vast desolate plains of black fractured lava, jagged and sharp, liable to wound the incautious wayfarer; deep yawning crevasses, swollen unbridged streams, and treacherous bogs apt to arrest his course; natural warm and steam baths in hot waters and vapours; ice and snow mountains, *yökuls*, as they are called, many of which are volcanoes occasionally in tremendous action; sulphur and brimstone ridges

exhibiting the most glaring yellow and brick-red hues; and caldrons of huge diameter boiling with slaty-blue mud, which splutters up at intervals in jets five or six feet, and diffuses clouds of sulphureous vapour in every direction. Hence not more than one-eighth of the surface is habitable; and a large portion of the remainder never has been, and never can be, even traversed. Insurmountable obstacles are presented by conglomerations of ice, and by the lava-fields, once red hot, but suddenly cooled, being now rent, torn, twisted, and tormented, as the French say, in every possible manner, into every conceivable shape. Beautifully-executed maps have been produced by the Danish government, excelling in minuteness of detail. Each little crevasse, mountain-torrent, and lava-flood is shewn with remarkable distinctness, except over a portion of the country towards the south-east coast, which is left blank. This region, of about 400 square miles, embracing the Skapta, Vatna, and Klofa Yökuls, defied the investigation of the surveyors, and will probably remain for ever untrodden.

The loftiest of the ice-mountains, as at present known, is the Oræfa Yökul, 6426 feet above the sea, near the south-east coast; next is Snæfells, 5965 feet, on the west coast; then Eyafjalla, 5579 feet, near the south-west coast; and Hecla, in the interior, due north of the latter, 5110 feet. Travellers are most familiar with Hecla, from its proximity to the Geysers, the great object of attraction to them; and readers likewise are well acquainted with the name from the frequency of its eruptions. It is in sight at the famous boiling springs, rising cold and clear against the sky, and has a circuit of at least 12 miles at the base, occupying the margin of an extensive plain, completely isolated, and terminating upwards in three peaks, on the western sides of which are the craters. The central peak is the highest. Snow in summer clothes the mountain about two-thirds of the way down the slopes. The eruptions on record, commencing with the tenth century, are forty-three. After rather a long interval of repose, it became active in September 1845, and continued so with little intermission till November 1846. Some of the ashes thrown out descended in fine dust on the Orkney Islands; masses of pumice-stone weighing half a ton were projected to the distance of more than a league; and a torrent of lava was poured forth, which, at two miles from the point of discharge, was a mile in width, and from forty to fifty feet in depth. Light wreaths of vapour were ascending when Commander Forbes went up in 1860, who succeeded in lighting a fusee, and subsequently his pipe. The Great Geyser, a true aqueous volcano, is only a giant example of water in ebullition among a hundred similar displays upon a smaller scale in the neighbourhood. It resembles an artificial intermittent fountain. At irregular intervals the boiling water is thrown up, accompanied with violent detonations underground, sometimes rising to the height of 100 feet or more, giving off clouds of vapour. The display is commonly over in a few minutes; and when quiescent, the Geyser is a small pool, clear as crystal, in a basin at the top of a mound composed of siliceous incrustations derived from its spray. In the absence of roads, all the traffic of the country is conducted by means of horses along the bridle-paths which centuries of travel have worn in the lava plains. As inns are entirely wanting, strangers arriving to see the 'lions' must either procure a troop of baggage-ponies to carry a tent, bedding, and provisions, or take their chance at parsonages, solitary farmhouses, and peasants' dwellings. Lord Dufferin's equipment, who entertained Prince Napoleon at the Geysers in 1856, consisted of three guides, twenty-six steeds of every colour the race is heir to, with as many pack-saddles. The clergy very commonly officiate as hosts, with whom conversation may be maintained in corrupt Latin, and should their dwellings be full, the pews and chancels of churches serve as dormitories for the night without thought of sacrilege. Mr R. Chambers and his party passed two nights in the church of Thingvalla, a low cottage-like structure of tarred deal and rough masonry—the roof covered with the green sod—the pulpit, barely sufficient to stand in, and without a seat—the pews, five or six in number on each side, of the rudest carpentry—the door, four and a half feet high—the floor, bare earth—and the whole interior measuring twenty-five feet long by ten feet three inches wide. 'It was,' says he, 'with an uncontrollable feeling of amusement, strangely mingling with intense feelings of personal discomfort, that I examined the place and all its miniature features. It was curious,' he adds: 'to waken in the morning, and by peeps through the opening eyes, under the imperfect light, to catch the singular features of that dwarf church, its pictures, candlesticks, legends, and little windows, while the mind as yet was scarcely alive to a whereabouts.'

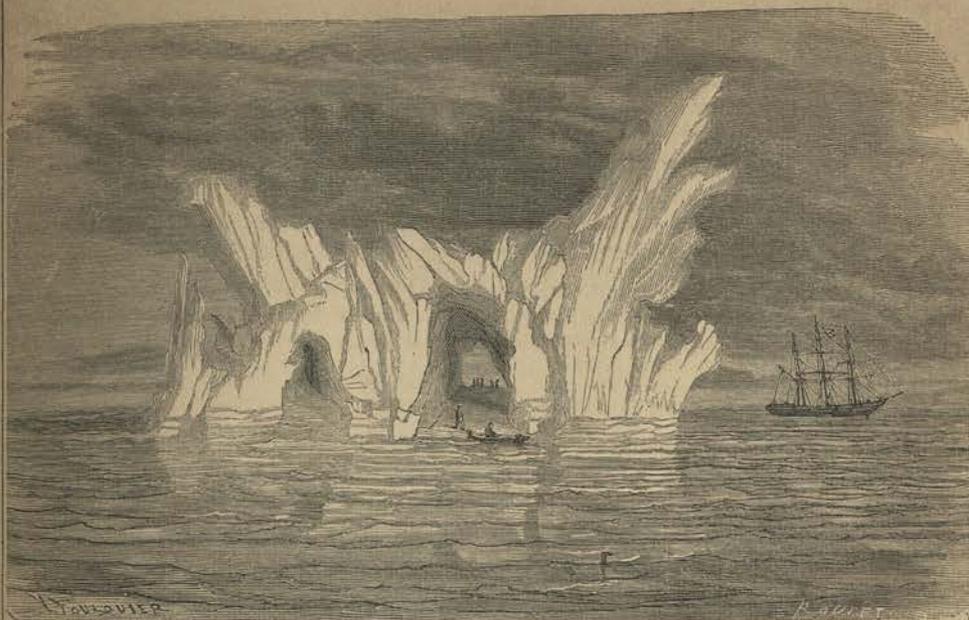
Vegetation is confined within narrow limits. The so-called trees, the service-tree and the birch, seldom rise higher than six feet, and never above ten. But a valuable quantity of drift-wood is borne to the shores by the oceanic currents. Grain will not ripen in the climate, but many garden vegetables are raised, and a belt of rich grass-producing land generally fringes the coasts, and extends in places some distance into the interior along the margin of the streams. This is the inhabited district, where the great bulk of the people dwell, and their horses, cattle, and sheep are sustained. Fiallagrass,

or Iceland moss, a lichen of medicinal value and an article of food, carefully collected for home consumption and export, grows on rocks and stones in the more desolate parts of the island. It is gathered by the women in summer time, who go out in parties for the purpose under the care of experienced matrons, and dwell in tents for the interval amid scenery of the wildest description. After being boiled, dried, and reduced to powder, it is either made into bread, or used mixed with milk. Sea-fowl, including the eider-duck, are very abundant; the ptarmigan, curlew, plover, and tarn occur among the game birds; splendid trout are in the streams; salmon, cod, haddock, and seal fisheries are conducted along the shores. Reindeer, imported originally from Norway, run wild in large herds in the interior; and the polar bear occasionally arrives as a passenger on the drift-ice. The animal is readily despatched, being exhausted for want of food during the voyage from distant shores. Sulphur is the most important mineral, but is only beginning to be turned to account, chiefly by English enterprise and capital.

The island is divided into three amts or provinces—Nordlendinga, the northern; Sunlendinga, the southern; and Vestfyrdinga, the western—which are subdivided into syssels or counties. The latter have each a principal officer, or sysselman, chosen by the people, who is sheriff and magistrate, convenes public meetings, presides over elections, and maintains order. Each syssel, of which there are twenty, returns one member to the Althing or Icelandic parliament; and in addition, six members are nominated by the Danish government. Acts of the legislature must be approved by the crown to become law. The governor, or stiftamtman, usually a poor noble, is sent out from Copenhagen, serves for five years, and has a very moderate salary.

Reikiavik, 'Reek Town,' a name referring to steaming springs, is not equal to many a village, and of very homely appearance. It is seated on the south-west coast, on the shore of a fine bay; and is simply a collection of small wooden dwellings, one story high, coated with tar, and therefore black, with which white painted sash windows contrast strongly. As a further set off, there are curtains of white muslin, sometimes crimson, with pots of flowers, as roses, geraniums, fuchsias, which speak of comfort and taste. Wood being brought across the sea, chiefly from Norway, and therefore expensive, accounts for the diminutive size of the houses; and as all coal is likewise sea-borne, scant room economises fuel. The poorer classes throughout the island have recourse to extraordinary firing material, as the dried dung of sheep and cows, dried sea-weed, fish-bones, the entrails and bones of birds, the odour of which renders their cabins unendurable to strangers. A recently-modernised cathedral of stuccoed brick, the governor's house, without lock, bell, or knocker, a college, a hotel, with the house of assembly, a public library of 8000 volumes, a Royal Icelandic Society, an observatory, and a neatly-kept cemetery, complete the public establishments of the little capital. The cathedral contains a font executed by Thorwaldsen, and presented by him to Iceland, as the birthplace of his father. In an apartment under the roof there is a library of a few thousand volumes for the benefit of the inhabitants. Down to the present century, instead of meeting at Reikiavik under a roof, the parliament held its sessions beneath the canopy of heaven, in a kind of natural amphitheatre, on the shore of the Thingvall Lake. The total population amounts to about 64,000, descended from Norwegian immigrants, who began the permanent colonisation of the island in the ninth century.

GREENLAND, on the north-east of the American continent, appears an immense mass of continuous land on our maps; but as the interior is quite unexplored—covered with ice and snow, it may consist of several large insulated tracts, with many minor dependencies, the whole welded together and concealed by the perpetual congelation. It stretches from the parallel of 60° north to an unknown extent towards the pole. Cape Farewell, the south point, is a cliff at the extremity of a small island, visible far out at sea, which may have received its name from some home-sick mariner glad to escape from the dangers of northern navigation, and resolved not to encounter them again. It is the Staaten Hoek, 'States Promontory,' of the Dutch. The east coast has not been completely traced, and can rarely be approached, owing to the masses of ice which in summer are drifted down from higher latitudes, and form a broad margin along-shore. The western shores, washed by Davis Strait and Baffin's Bay, are well known, regularly touched at by whalers, and sparingly occupied by small Danish settlements, and a few Esquimaux. They are rugged, mountainous, and barren, indented with numerous bights, creeks, and fiords, and fringed with many islands. The lofty interior has the appearance of one vast glacier, with occasional bare tracts. Large fragments of ice, becoming detached from the parent



Floating Ice Mountains, with Galleries.

mass along-shore, are often set afloat as icebergs—a process locally termed the ‘calving’ of the glacier, which gives note of its occurrence by the noise like thunder which the dash into the sea occasions. Streams appear in the warm season of the year, and lakes are formed, supplied solely by the melting of the snows. For a short period in summer, slips of land along the fiords are verdant, and furnish tolerable pasturage. But no trees grow except in the most favourable situations, where the birch, willow, and mountain-ash form bushes. A few culinary vegetables are cultivated with success, but all attempts to raise the hardiest cereals have failed. No description can give an adequate idea of the rigour of winter in the northerly localities. Yet hot springs occur, which, unaffected by change of season, flow all the year round with a high temperature, and form three pools in the island of Ontarnok. About 1000 Danes are constant residents, in connection with a native and mixed population of 7000. The commerce consists in the exchange of the skins of seals, reindeer, and other animals, with eider-down, train-oil, whalebone, and fish, for European products. Greenland is divided into two Inspectorates, southern and northern.

The Southern Inspectorate contains, passing from south to north, *Julianashaab*, Juliana’s Hope, one of the largest settlements, near which the most numerous remains of the old colonies have been found; and *Fredericshaab*, where Pastor Otto Fabricius spent the long winter nights compiling his *Lexicon* and *Fauna Grœnlandica* in a dreary cabin. At *Fiskeruaes*, huts of Esquimaux appear, roofed with sods, but scarcely distinguishable from the ground, being let into the soil. Peas persistently sown here for some years usually produced leaves, and once yielded a crop of diminutives for the table. Turnips attain the size of a pigeon’s egg, and very dwarfish cabbages are raised. The radish is scarcely checked at all in its growth. *Godhaab*, the residence of the inspector, was the home of Hans Egede, and has *New Herrnhut*, the first settlement of the Moravians, founded in 1733, close adjoining. Passing *Zukkertoppen*, ‘Sugarloaf,’ so called from a singular conical mountain, *Holsteinborg* occurs, a little beyond the Arctic Circle, the only part of the country where earthquake shocks have been experienced.

In the Northern Inspectorate the principal place is *Godhavn*, on the shore of Disco Island, a well-known rendezvous of whalers, possessing stone-quarries, beds of coal, and the centre of an important fishery. The scenery here is of the grandest description, the north end of the island rising 4000 feet, almost a precipice to its snow-capped summit. On the mainland are *Christianshaab*, *Jacobshaab*, and *Egedes-mûnde*. The latter has

an archipelago of islets in front, of the same name. *Upernivik*, in latitude 73° , enjoys the distinction of being the most northerly permanent abode of civilised man. Further north, in Melville Bay, a mighty glacier takes the place of the coast-line, extends unbroken upwards of 40 miles, and stretches inland to an unknown distance and elevation. Though the icebergs detached from it are of the loftiest description, they can only be likened to mere chippings off its edge, and the floe-ice to the thinnest shavings. There is here an unusual dearth of animal life—a painful stillness—save when with a rumbling crash the glacier ‘calves,’ parts with one of its progeny, and launches it on the deep. The highest latitude hitherto reached on this coast, $81^{\circ} 20'$, was gained by Dr Kane in 1854, when accompanying the American expedition in search of Franklin.

A remarkable spot, Jan Mayen Island, lies nearly equidistant from the east coast of Greenland and the northern shores of Iceland, but considerably removed from both. It bears the name of the captain of the Dutch whaler who discovered it in 1611, and was claimed by Holland, but is now ‘no man’s land.’ Seven seamen were induced to stay upon it for the winter in 1635, in order to test the climate, but none survived when the fishing-vessels returned in spring. The island is several degrees within the Arctic Circle, about sixteen miles long by four broad, surrounded with stormy waters in the open season, but often so beleaguered with drift-ice as to be inaccessible. Though small and isolated, it shoots up in the snow-covered cone of Mount Beerenberg, like a church-steeple, to the height of 6780 feet above the sea. This peak, as far as at present known, is the most northerly of all volcanoes, as well as the highest point of the north polar zone. In July 1856, Lord Dufferin landed on the shore, but it is very rarely visited.

RUSSIAN AMERICA embraces the north-west corner of the continent, bounded inland by the meridian of 141° , with a strip of maritime territory extending southward to the border of British Columbia, and a fringe of islands. This region has an immense area, equal to twice the size of France, but the interior is wholly uninhabitable by civilised man, subject to terrific winter cold, with a very scanty vegetation, occupied by a few Indians and Esquimaux, the reindeer and the musk-ox. Mount St Elias, the highest summit of North America, falls within its limits, situated on the coast, with Point Barrow, one of the most northerly projections of the continent, and Cape Prince of Wales, its western extremity. This district is held by the Russo-American Fur Company under an imperial charter. Skins of the sea-otter, bear, fox, hare, and other animals are obtained by barter from native hunters, and the seal-fishery is extensively prosecuted. The Russians maintain a few trading forts on the coast of the mainland, and have their head-quarters at *New Archangel*, a village-like town on Sitka Island. This place is nearly on the same parallel as St Petersburg, 6300 miles distant following its course. But in the line of the meridian, which is nearly common to both, the distance is only 4200 miles, though to pass from the one to the other in that direction the whole polar zone must be intersected.



Reikiavik, Iceland.



Horse-Shoe Fall, Niagara.

CHAPTER II.

BRITISH AMERICA.



WITH the exception of the north-western section, which belongs to the Russian dominions, the entire north of the continent, where distances may be measured by thousands of miles, both in the direction of meridians of longitude and parallels of latitude, is included in the empire of Great Britain. Its limits are the Atlantic Ocean on the east; the Pacific and the meridian of 141° on the west; the Arctic basin on the north; and the parallel of 49° in its extension from Vancouver's Island to the Lake of the Woods, on the south. This southern frontier-line then passes to the great lakes and through their centre. It descends with them to a lower latitude, ascends to the parallel of 45° along the St Lawrence, and then follows a tract of high ground on the southern side of the stream, proceeding by a very circuitous route to the River St Croix, by which it is continued to the Bay of Fundy. In the latter part of its course it separates Canada and New Brunswick from the states of New York, Vermont, New Hampshire, and Maine; and through its entire extent it is a dividing-line between the territory of a monarchy on the north and a republic on the south. Within the boundaries named there is an area of

more than 3,000,000 square miles, nearly equal to the whole extent of Europe; and though the larger proportion of it is by rigour of climate and sterility of soil not permanently habitable by civilised man, and must continue a mere hunting-ground, there is a vast extent of useful space remaining for the accommodation of an immense population. Important insular dependencies adjoin the continental territory on the east and west; and on the north the islands and archipelagoes of the frozen zone, to which British enterprise has penetrated, belong by right of discovery to the British crown. Seven colonies are regularly constituted: five western, I. Canada; II. New Brunswick; III. Nova Scotia; IV. Prince Edward's Island; and V. Newfoundland—two eastern, VI. Vancouver's Island; and VII. British Columbia. Intermediate lies the vast tract of New Britain, or the Hudson's Bay Company's Territory, long under the jurisdiction of that mercantile body, and studded with its trading-posts. In addition, but apart from the limits and districts named, Great Britain holds in the western world portions of Honduras and Guiana, most of the West India Islands, the Bermudas and the Falkland group, which are noticed separately.

I. CANADA.

This extensive province occupies both banks of the St Lawrence, from its mouth to St Regis, sixty miles above Montreal. From this point westward, it is wholly on the northern side of the river and the great lakes into which its waters expand. The limit in this direction has not been defined, but it is generally placed at the further end of Lake Superior, a direct distance of 1200 miles from Cape Gaspe, at the eastern extremity. Northward, the frontier is also undetermined, but it may be fixed with propriety at the line of water-shed between the streams flowing to Hudson's Bay and those which descend to the St Lawrence. The extent, north and south, varies from 200 to 400 miles; and the area may be stated at not less than 350,000 square miles.

The prime natural feature of Canada is the great river, with its romantic shores, numerous tributaries, thousand isles, sea-like lakes, and magnificent water-falls. With a little artificial aid from canals, a navigation is afforded in the summer season more extensive and convenient than is to be found in any other region of the same extent. In the upper part of its basin it has the name of the St Louis, the remotest feeder of Lake Superior. In the successive continuations, it is called the St Mary between Lakes Superior and Huron; the St Clair between Huron and Erie; the Niagara between Erie and Ontario; and thenceforward to the ocean preserves its proper denomination of the St Lawrence. It follows a curving course of at least 2000 miles, and takes high rank among the hydrographical systems of the globe.

After emerging from the last of its great basins, the Ontario, the channel of the river becomes spacious, and forms the Lake of the Thousand Islands. This number was viewed as a vague exaggeration till they were counted, and found to exceed it by more than one-half. They are of varying size, shape, and appearance, from patches of a few square yards to several acres; and offer such picturesque combinations of rock, wood, and water as imagination is apt to attach to the Happy Islands in the Vision of Mirza. Lower down, formidable rapids occur at intervals, which are avoided by short canals for the river-steamers, but are safely passed by hardy boatmen familiar with them in flat-bottomed barks. The Ottawa, the subject of the well-known song, enters on the north bank, and forms by its junction with the main stream several large islands, on one of which is Montreal. On the same side the St Maurice debouches about seventy miles above Quebec, and the remarkably deep Saguenay 130 miles below. The shores between these two tributaries, on both sides, are generally bold, and exhibit the finest scenery, especially in the neighbourhood of Quebec. Higher up they are low, or only moderately elevated, and the country is a spacious and fertile plain, with gentle eminences to diversify the surface. This aspect is continued far beyond Montreal, along the northern shores of Lakes Ontario, Erie, and Huron. The principal affluents on the south bank are the Richelieu and the Chaudière, the former entering below Montreal, and the latter just above Quebec. The valley of the Richelieu, which widens to embrace Lakes Champlain and George, the shores of which belong to the states of Vermont and New York, was called by the old French settlers the 'Gate of Canada.' By the Iroquois it was termed, in their picturesque tongue, the 'Mouth of the Country.'

The St Lawrence, at its mouth, is not less than 90 miles in breadth; at 200 miles above the embouchure, the width is still 18 miles; at 400 miles, opposite Quebec, it narrows to three-quarters of a mile, but again expands; and at Montreal, 560 miles from the sea, to which it is navigable for vessels of 600 tons, it is still more than two miles from shore to shore. Above Quebec the navigation is arrested by the ice from the beginning of December to the middle of April. Below the capital, though the river is not entirely frozen over, owing to its great breadth and strong current, it is not open to vessels till towards the middle of May, on account of the masses of ice floating down. Along the St Lawrence runs the grand trunk railway of Canada, unfortunately on the southern side. It extends from the Rivière du Loup, or Fraserville, 120 miles above Quebec, the eastern terminus, to Montreal, where the Victoria Bridge is within forty miles of strong positions in the United States.

Forests of immense extent, as well as waters, are eminently characteristic of the country, though a vast surface has been cleared of its timber by the settler's axe. It is surprising how completely the trees have been swept away from many of the long inhabited grounds, once covered with the unbroken forest, not a row or clump left standing, generally esteemed essential to an agreeable landscape. Man has waged war against them with fire and steel, as though they were his most inveterate foes. The reason assigned is, that though of magnificent appearance when viewed in mass, the trees are so close together, that while they rise to a great height, the roots have little hold in the earth, and the few short lateral branches are almost without foliage. Hence, left singly, they would not be ornamental, or long withstand the violence of the winds. Still, notwithstanding the havoc, the forest shews a bold front over the greater part of the country, and will do so for generations to come. In the woods, in proportion to their distance from the long occupied districts, the black bear is found, which, when pressed by hunger, will approach the solitary homesteads in search of prey. Wolves are numerous, and make the winter nights dismal to the lonely settler by their fearful howling. They often suffer severely from famine when the deep and long-enduring snow is on the ground, and would be troublesome neighbours if their courage was equal to their rapacity. Small herds of the elk or moose-deer, the most gigantic of the genus, roam the solitudes of the country. Over a wide area the interesting beaver, formerly very abundant, has been extirpated by the fur-hunters. Rich copper ores abound on the northern shores of Lake Superior; and gold is disseminated through the deposits of a wide region on the southern side of the St Lawrence in sufficient abundance to repay industry. Coal, except in small quantities, cannot be registered among the economic minerals, but there are large beds of peat, and mineral oils are accumulated in surface wells, or in the shales which overlie the true oil-bearing rock. In the eastern or maritime parts of the colony, spring, summer, and autumn are crowded into five months, from May to September inclusive, while winter reigns during the remaining seven. An almost tropical temperature is experienced in the height of summer, and polar cold in the opposite season. Heavy snow-storms precede the interval of greatest severity, after which the atmosphere becomes clear and the sky cloudless. In the western portion of the province, especially in the vicinity of the great lakes, the winters are shorter, and the seasonal extremes of heat and cold are much less marked. Sudden and great changes of temperature in spring and autumn are trying to persons of delicate constitution, but to the healthy the climate is favourable.

The forests consist of numerous varieties of pine, oak, birch, ash, beech, cedar, alder, willow, and maple, beneath which a host of flowering plants in summer put forth their adornment. The species which may be most usefully preserved are the sugar-maple; the beech and white-ash for firewood; the oak, cedar, and hemlock-spruce for fences; and the hard woods in general for timber, or the ashes, from which soap may be made. In the decline of autumn, two or three frosty nights suffice to change the verdure of the forests into every possible variety of hue, brilliant scarlet, vivid violet, with shades of blue, brown, and glittering yellow. No language can adequately describe the gorgeous beauty of the woodland. Only the stern, inexorable fir tribes maintain their livery of dark green. In winter again, the whole forest occasionally puts on an almost magical appearance, when a heavy fall of snow is followed by a thaw, or misty rain falls. The next frost coats the trees, every trunk, branch, and twig, with transparent ice, and in the sunshine all vegetable nature seems decked with diamonds, from the myriads of the sparkling crystals.



Scene on the St Francis, Lower Canada.

The timber is felled by wood-cutters who form what is termed a 'lumbering party.' It consists of persons who are all either hired by a master-lumberer, who pays them wages and finds them in provisions, or of individuals who enter into an understanding with each other to have a joint interest in the proceeds of their labour. The stock taken out by a party includes tools, cooking utensils, a cask of spirits, tobacco and pipes, a sufficient quantity of biscuit, pork, beef, and fish, peas and pearl-barley for soup, with a cask of molasses to sweeten a decoction usually made of shrubs, or of the tops of the hemlock-tree, which is taken as tea. Two or three yokes of oxen are necessary to haul the timber out of the woods, with hay to feed them. Thus equipped, the lumberers proceed up the rivers in autumn to the place fixed on for their winter establishment, which is selected as near a stream as possible. They commence by clearing a space of ground, building a shanty, or camp of logs, seldom more than four or five feet high, with a roof covered with birch bark or boards. A pit is dug to preserve anything liable to injury from the frost. The fire is either in the middle or at one end; the smoke goes out through the roof; the floor is strewn with hay, straw, or fir branches, on which the men sleep, with their feet next the fire, which is kept in all night by those who chance to waken. One person is hired as cook, whose duty it is to have breakfast ready before daylight, when each one takes his 'morning,' or dram, before the meal. The men then go out to work in three gangs. One cuts down the trees; a second hews and trims them; the third is employed with the oxen in hauling them to a site convenient for launching them on a stream.

The winter is thus spent in unremitting toil. When the snows begin to melt, the rivers swell, or, in the lumberers' language, the 'freshets come down.' All the timber cut is then thrown into the water, and floated down by the powerful current till the river becomes sufficiently wide to arrange the logs in distinct rafts, which descend to the St Lawrence. No course of life can well be more laborious or undermining to the constitution, yet the wild freedom connected with it is relished, and when once adopted, it is preferred to any other. Night-blindness is a very peculiar complaint to which the lumbermen are subject, the causes of which are obscure, but a complete change of diet and air is the best remedy. Those affected in this way can see as well as usual in the blaze of day, but as the shades of evening fall they fail to distinguish objects, and are stone-blind in a dull natural or an artificial light. The night-blind men always endeavour to reach home, or a shelter before dusk, because after that time they are perfectly helpless, and some have encountered terrible adventures.

The country was discovered, colonised, and long held by the French, but has been a

British possession rather more than a century. It includes the two main divisions of Canada East and Canada West, of tolerably equal size, separated generally by the river Ottawa. These sections were formally distinct colonies, and though no longer politically apart, they are naturally as well as ethnologically different districts, and are conveniently recognised as such in popular speech. Canada East is maritime, situated in general at a higher latitude than Canada West, and has a population of French descent numerically predominant.

Provinces.

Eastern or Lower Canada,	Quebec, Montreal, Trois Rivières, Sorel, Sherbrook.
Western or Upper Canada,	Ottawa, Toronto, Kingston, Hamilton, London, Queenstown.

Cities and Towns.

The administration is conducted by a governor appointed by the crown, who is at the same time governor-general of the adjoining colonies; a legislative council; and a representative assembly, elected upon a very broad basis for four years. The latter consists at present of 130 members, equally distributed between the two divisions.

Quebec, the military capital and the oldest foundation, in latitude $46^{\circ} 48'$ north, longitude $71^{\circ} 11'$ west, is situated on the north bank of the St Lawrence, at the influx of the river St Charles, on the summit and at the base of a lofty promontory occupying the angle between them. It consists, therefore, of an upper town, containing most of the public buildings, the dwellings of the wealthy classes, and the best shops, enclosed within fortifications; and of a lower town, extending from two to three miles on a narrow strip of land between the river and the cliffs, crowded with wharves, stores, timber-yards, merchants' offices, and inns, the general seat of commerce. Nothing can be finer than the site of the city, or more imposing than its aspect when approached by the voyager. The citadel crowns Cape Diamond, the highest point of the cliffs, 350 feet above the river, strong by nature and art, the Gibraltar of the New World. The view from the battlements is magnificent. Directly in front, on the opposite bank of the stream, the eye rests upon Point Levi, a large and picturesque village, with brightly-painted cottages and a romantic little church; and by a slight shift of position, the grand Falls of Montmorenci are in sight. Quebec was founded in the year 1608, and wrested from the French in 1759, by the battle on the adjacent Heights of Abraham, in which they were defeated by the British. Both commanders, General Wolfe and the Marquis de Montcalm, fell in the action, and are commemorated by the same monument on the plain. The city contains a population of 51,000.

Montreal, the commercial capital, occupies an island in the St Lawrence, 180 miles above Quebec, and fifteen miles below the confluence of the Ottawa with it. The site was occupied by the Indian village of Hochelaga when the first French adventurer reached the spot in 1536. He ascended a lofty hill, the only eminence that diversifies the neighbourhood, overlooking a prospect of singular beauty, and called it Mont Royal. The name has since been corrupted into that of Montreal, given to the handsome city on the site of the old wigwams, the largest in Canada, and to the island on which it stands. The inhabitants, amounting to about 100,000, are distinguished by mercantile activity and public spirit. They are chiefly of French origin, and Roman Catholics, have a cathedral of rich Gothic architecture, reputed to be the largest building of its kind on the American continent. The churches, banks, colleges, court-houses, hotels, and other public edifices, are both substantial and attractive. Montreal is the seat of vast commerce, as the natural outlet for the produce of the fur countries and the grain districts on the shores of the great lakes. It is the centre of an extensive system of railways, and possesses in the Victoria Tubular Bridge an unequalled monument of engineering skill. The bridge, opened in August 1860, is nearly two miles long, and conveys the Grand Trunk Railway across the St Lawrence. It has been constructed with special reference to sustaining the enormous pressure of the ice annually brought down by the stream. *La Prairie*, *Chambly*, *St John's*, and *Sherbrook* are small towns on the line of communication with the United States. *La Chine*, on Montreal Island, connected with the city by canal, received the name from the chimerical idea of the first European explorers that they were on the route to China. *Trois Rivières*, an old French town, midway between Quebec and Montreal, stands at the influx of the St Maurice, here divided into three channels, to which the name 'Three Rivers' refers.

Ottawa, the legislative capital, on the river of the same name, at the head of its navigation, is comparatively small but rising city—the population in 1861, was only about 14,700—selected recently by the crown to be the seat of the Canadian parliament. The foundation-stone of the requisite buildings was laid by the Prince of Wales during his visit in 1860. Its convenient position as central to the two main divisions of the colony led to the selection. Magnetic iron ore occurs in great abundance in the vicinity. *Toronto*, formerly the colonial metropolis, the third Canadian city in size, is seated on the north-west shore of Lake Ontario, in command of an excellent harbour. It is well built and prosperous, thoroughly English, and entirely modern. Population 44,800. At the time of the British conquest the whole country westward of Montreal contained no place of importance. Here and there might be seen a neat wooden church, the centre of a few farms closely bordered by the encumbering forest. The fine grain region on the shores of the lakes Erie and Ontario had been but very partially explored, chiefly by the fur-hunters, scarcely less rude than the

savages in the wilderness. Where Kingston now stands, a few dwellings clustered around Fort Frontenac. Niagara was a small hamlet. Myriads of water-fowl had undisturbed possession of the bay, or the shore of which Toronto is seated, where parliaments have met, ships are built, trade is active, and an intelligent population is grouped. The city was founded in 1793, and was at first called York, a name properly superseded by the old Indian appellation of Toronto, signifying 'place of meeting.' The thriving towns of *Port Hope*, *Coburg*, and *Belleville* are eastward, on the shores of the lake, with *Kingston*, near the issue of the St Lawrence from it, which was for a few years the seat of the general government upon the union of the two Canadian provinces. It contains an admired City Hall, with other important public buildings, and has recently been made the seat of the Anglican bishopric of Ontario. *Hamilton*, near the opposite extremity of the lake, is connected with a fine agricultural country, in which are the homesteads of many Dutch and German settlers. *Niagara*, at the outlet of the river of that name, and *Queenstown*, seven miles along the channel, are annually passed by crowds of tourists on their way to the world-renowned Falls eight miles higher up, where stately hotels on either bank offer them accommodation. The broad river is here precipitated over a ledge of rocks, and formed into two cataracts by the intermediate Goat Island. The Horseshoe Fall, so called from its former curvilinear shape, now worn somewhat angular, on the Canadian side, is by far the most effective, being the broadest, above 600 yards wide, though with a slightly inferior height to the other branch. The respective descents are about 154 and 162 feet. Miles away from the spectacle the boom of the waters is heard and the spray seen. At a short distance below the Falls the river is spanned by the celebrated wire suspension-bridge for the Great Western Railway, with a road underneath for ordinary vehicles and foot-passengers. It is distinguished by extreme lightness and beauty, to which the roaring waters below offer a striking contrast. In the roughly triangular district between the lakes Ontario, Erie, and Huron, *London*, on the Thames, and other towns, are rapidly increasing their population, and improving in appearance. *Port Sarnia*, on the last-named lake, is the western terminus of the Grand Trunk Railway from below Quebec, which has a total length of 870 miles. Timber, pot and pearl ashes, furs, grain, and flour are the important exports of Canada.

The total population of Canada amounts to 2,507,000 (more than one-half of whom are British), which includes a number of Germans, white and coloured natives of the United States, with 12,700 of the aboriginal Red Indian race. Under the auspices of its present possessors, the lingering natives are no longer treated as a people without rights. Canals have been constructed to connect rivers and avoid rapids. Good macadamised roads have been substituted for the pathless wilderness. More miles of iron for the locomotive are laid down than in any other country in proportion to the population. Ocean steamers go up to Montreal, where the most gigantic bridge ever erected carries the railway across its magnificent stream. Light-houses illuminate the lakes; sea-going vessels ascend to them by means of artificial cuttings where natural difficulties beset the river route; and though in close proximity to negro slavery, the colony has never been a house of bondage, but often a secure asylum to those who have fled from oppression. The means of general education are liberally provided for by universities and colleges, grammar and common schools.

II. NEW BRUNSWICK.

This province is a compact territory enclosed generally by a portion of Lower Canada on the north, the Gulf of St Lawrence on the east, the state of Maine on the west, and the Bay of Fundy on the south. It forms an irregular parallelogram, extending about 200 miles in length from north to south, by an average width of 130 miles, and contains an area of 27,100 square miles. The coast-line abounds with bays, inlets, and creeks, with deep water for shipping, in which salmon, herring, and other fisheries are conducted, while the flat shores have in many parts deep fertile soil stretching for some miles inland, admirably adapted for agriculture. But the greater part of the surface, especially towards the Canadian border, is densely clothed with the natural forest, and to the timber trade, with the fisheries, the industry of the people is principally directed. Carboniferous strata are extensively developed, containing highly bituminous coal in apparently inexhaustible quantities. Iron ore, plumbago, gypsum, and freestone, with excellent salt-springs, are other elements of mineral wealth. The largest river, the St John, enters the province from the state of Maine, and follows a south-easterly course to the Bay of Fundy. It is

navigable for large vessels near the sea, and for steamers up to Fredericton, seventy miles above its mouth. The Restigouche forms the boundary from Canada, and, together with the Miramichi, flows eastward to the Gulf of St Lawrence.

New Brunswick, in conjunction with Nova Scotia, originally formed a French colony, under the name of Acadia, or New France. It was ceded to Great Britain in 1713, and constituted a distinct colony in 1784. A lieutenant-governor, a legislative council appointed for life, and a representative assembly of forty-one members elected for four years, conduct the administration. The population, 252,000, consists of Acadians, the descendants of French settlers; Anglo-Americans, sprung from the royalists who retired from the United States on the Declaration of Independence; British settlers; and rather more than 1100 native Indians. The first British emigrant arrived from the north of Scotland in 1764, and reared his log-cabin on the banks of the Miramichi. This district, in the year 1825, was the scene of one of the most dreadful, and certainly the most extensive conflagration on record—the noticeable event in the history of the colony. The fire desolated the country for more than 100 miles along the river, to the extent of sixty miles from the south bank, and to a great distance on the northern side. At least 500 persons lost their lives, with an immense number of bears, wolves, deer, foxes, snakes, and other wild animals. Even the birds of strong wing could not save themselves, being confused by the smoke; and the fish perished in the lakes and streams, poisoned by the alkali formed by the ashes precipitated into the water.

Fredericton, the seat of government, a small inland town on the river St John, is chiefly built of wood, except the public buildings, one of which, King's College, is maintained by an annual grant. The winter cold is frequently excessive, indicated by 35° below zero; but the season is supposed to be becoming less severe, by the clearing away of the timber, and drainage of the ground. Ordinarily the river here is frozen up 147 days in the year, and open the remaining 218 days. *St John*, the commercial capital and largest town, on the estuary of the river so called, has a population of 27,000, with an excellent harbour protected by forts, open at all seasons to vessels of the largest class. Ship-building, the lumber trade, and fisheries are the prominent industries. A railway connects St John with Shediac on the east coast, and another, only partially open, diverges from *St Andrew's*, a rising town of 7000 inhabitants, on the shore of Passamaquoddy Bay, northward towards Quebec.

III. NOVA SCOTIA.

The peninsula of Nova Scotia is connected by a narrow isthmus with the south-east angle of New Brunswick, and enclosed in other directions by the Bay of Fundy, the Gulf of St Lawrence, and the open ocean. It forms, with the closely-adjointing island of Cape Breton, a single colony, which has a total area of 18,670 square miles. The narrow channel separating the two portions, only three-quarters of a mile wide, called the Gut of Canso, having deep water throughout, is a navigable passage by which ships enter the St Lawrence Gulf from the south. The island is singularly formed, being nearly cut in two by the Bras d'Or, a deep and irregular inlet of the sea. Both peninsula and island are rich in coal of the best quality, iron ore, gypsum, with other minerals; and attention has recently been directed in Nova Scotia to its auriferous quartz rocks. The coal is worked for local consumption, the supply of the Cunard steamers, and export to neighbouring districts. Valuable tracts of timber remain, and the coasts swarm with cod, haddock, herring, mackerel, and other varieties of fish.

Nova Scotia received that name upon its cession by the French to the British in 1713. Cape Breton Island was obtained by the capture of Louisburg in 1758, after an obstinate resistance. Scarcely a trace remains of this formidable stronghold, but a few hovels occupy the site. The colony is under a lieutenant-governor, a legislative council, and a representative assembly of fifty-one members. It has a population of 332,000, which includes some Negroes sprung from runaway slaves, and a few Indians descended from the Micmacs, a tribe of warriors, who fought gallantly for the French in their struggle with the British. Timber, dried fish, fish oil, coal, and grindstones are exported. In Nova Scotia a considerable extent of the surface adjoining the Bay of Fundy is under tillage, but corn has to be imported. This bay is remarkable for its high tides, amounting to a rise of from sixty to seventy feet, which sometimes takes place so suddenly that cattle have been swept away from the shores.

Halifax, the seat of government, on the southern coast of the peninsula, is beautifully placed on an arm of the sea which forms one of the finest harbours in the world. It is the principal transatlantic station of the British navy, possesses a large dockyard, a military hospital, a good public library, two colleges, and contained, in 1861, a population of 49,000, mostly intelligent, hospitable, and enterprising. Province Building, erected for the accommodation of the legislature and the government offices, is one of the best edifices in British America. But nearly all the houses are of wood. The churches likewise are mostly of the same material, and being painted white, the spires included, they present a curious appearance to the visitor fresh from Europe. Fires are hence of common occurrence, for which there is a well-organised fire-brigade ready to turn out at a moment's notice. Halifax is the nearest port of the American mainland to England, about 2700 miles from Liverpool, from which the Cunard steamers make the passage with great punctuality in ten days. A railway, partly open, diverges from it northward, to be continued through the heart of New Brunswick to Quebec, which will bring that city within twelve days' distance of the mother-country.

IV. PRINCE EDWARD ISLAND.

This small crescent-shaped tract is situated in the southern part of the Gulf of St Lawrence, separated from New Brunswick and Nova Scotia by Northumberland Strait, a channel which in various places is little more than ten miles wide. It has a length of 140 miles from east to west, but the breadth very rarely exceeds thirty miles, and no part of the surface is said to be more than eight miles from the sea owing to the deeply-indented coast-line. The island has an area of 2137 square miles, and possesses blander natural features than the adjacent colonies, with a much milder climate. Very beautiful scenery marks the northern shores, where the hills are well wooded, but interspersed with pleasant villages and homesteads, while the chief part of the surface has been cleared for agricultural and pastoral purposes.

Prince Edward Island, originally called St John, received its present name in honour of Edward, Duke of Kent, father of the Queen, who paid attention to it while commander of the forces in British America. It was first settled in the year 1715, and has now a population of 80,800, a large number of whom are of Scotch descent. King's County, Queen's County, and Prince County are the insular divisions. Besides a lieutenant-governor, there is a legislative council, elective since 1863, chosen for nine years by the holders of property, and also a house of assembly of thirty members, chosen for four years without any property qualification being required of the voters. *Charlottetown*, the seat of government, on one of the northern bays, contains 6700 inhabitants, two banks, and the Prince of Wales' College, founded in 1860, the most important educational institution. The island is in the Anglican diocese of Nova Scotia.

V. NEWFOUNDLAND.

This old British dependency is one of the largest of the American islands, situated on the north-east side of the Gulf of St Lawrence, separated from the mainland by a narrow strait, and from Cape Breton by a broad channel, which forms the maritime highway between the Atlantic and Canada. It resembles in shape an equilateral triangle, of which

Cape Race is the south-east corner, a point so often mentioned at present in our intercourse with the United States, being commonly the last left, and the first gained by vessels making the transatlantic passage. The island has a circuit of 1000 miles, and an area of 36,000 square miles. The coasts are deeply penetrated with bays and inlets forming excellent harbours; but the vast proportion of the interior is a dreary region of lakes, swamps, thickets, and bare sterile ground, with a severe climate, restricting settlements and cultivation entirely to the sea-board, and chiefly to the south-eastern shores. Except at a few spots, there is scarcely a single house more than a mile apart from the coast-line. The reindeer, black bear, and wolf occur among the wild animals; and the well-known Newfoundland dog, famed for size, temper, sagacity, and swimming power, received its name from being derived originally from the island, probably indigenous to it. Numbers at present are employed for draught, but are left to take care of themselves for long periods when their masters are at sea in the fishing season. The aboriginal inhabitants have all perished, though a few survived to a very recent date.

The island was visited by the early colonists of Iceland and Greenland. Being rediscovered by John Cabot in the reign of Henry VII, it was called the *new found land*, and claimed as a British possession by right of discovery. It contains a population of 122,630, under a governor, a nominated legislative council, and an elected general assembly; and forms a diocese of the Anglican Church. *St John's*, the capital, and the only town deserving of the name, occupies an inlet of the south-east coast, which forms a spacious harbour well defended by forts. It contains a population of 25,000, whose primary business, that of curing fish, and extracting oil from them, contributes to render the place offensive to the stranger. Telegraphic communication is maintained with New York. Steamers arriving from England carry out epitomes of English news in tin cases attached to floats, which are thrown overboard off the adjoining Cape Race, picked up by boats, taken ashore, and the news is telegraphed to New York three days before the packets can reach the port. In like manner, steamers as they pass Cape Race on their way to England receive there New York telegrams, with three days' later news to bring over the Atlantic. Sometimes the darkness of night and rough weather prevent the telegrams from being put on board, and in the winter months the steamers dare not approach the coast owing to the fogs and icebergs.

The Great Bank of Newfoundland, a rocky submarine plateau, is the largest known formation of the kind. It extends full about 600 miles in length by 200 in breadth, and has a depth of water over it varying from 20 to



Cape Race.

100 fathoms. The sides descend precipitously as appears from the soundings. Hither resort enormous shoals of small fish, capelin and lance, which attract the larger cod and others to prey upon them. Rights of fishery, and of curing the produce on certain unoccupied parts of the shore of the island, are specially guaranteed to the French and Americans. The French have also had ceded to them for the same purpose the small isles of St Pierre and Miquelon, off the south coast, subject to the stipulation that no fortifications are to be erected.

Anticosti Island, at the mouth of the St Lawrence, and the coast of Labrador, are included in the government of Newfoundland. The island, 125 long by 30 broad, has low southern and high northern shores, with a swampy interior studded with birch-trees and firs. It is only occupied at a few stations established for the purpose of rendering assistance to crews in cases of shipwreck. Labrador, a vast adjoining peninsula of the mainland, extending northward to the entrance into Hudson's Bay, is in its more interior districts a wilderness of forests, with a broad maritime border utterly naked and sterile, blocked up with ice through the winter months. But the fisheries are valuable, especially that of the seal, conducted by the agents of mercantile companies in decked vessels from Newfoundland and the United States. Large herds are met with on the field ice, which are called 'seal meadows,' on which the animals are surprised while sleeping, and despatched by the hunters with guns or bludgeons. There are a few stations on shore with permanent residents—fur-traders and seal-catchers, along with Esquimaux families, and some Moravian missionary settlements. *Nain*, the oldest of the latter, founded in 1771, in about the same latitude as Edinburgh, has a mean annual temperature of, as we have seen, 4°, or 23° below the freezing-point.

VI. AND VII. VANCOUVER'S ISLAND AND BRITISH COLUMBIA.

These twin colonies, on the opposite or Pacific side of the continent, closely contiguous, and founded recently at nearly the same period, may be regarded as practically a single dependency, being under a common governor, and possessing the power of incorporation. VANCOUVER'S ISLAND, intersected centrally by the parallel of 50°, is separated from British Columbia on the east by the Gulf of Georgia, and from the territory of the United States on the south by the Strait of Juan de Fuca. Both are narrow channels, and complete between them its insulation. The island extends 275 miles from north-west to south-east, and has an average breadth of 50 miles, with an area of 16,000 square miles. It possesses no navigable rivers, but is penetrated deeply by several arms of the sea, which form excellent harbours. The surface is finely timbered; the valleys have fertile soil; and the natural resources are varied and valuable.

Captain Cook passed along the west coast under the impression that it belonged to the mainland. He entered the bay which received from him the name of Nootka Sound from an Indian village at the spot. Captain Vancouver, who had been one of his midshipmen, first threaded the separating channels; and the island is therefore properly called after him. It was not till the spring of 1843 that any settlement of civilised men was effected. The Hudson's Bay Company then landed some of their servants under Mr Finlayson, who soon constructed a picketed enclosure containing the buildings for the storing of furs and for dwellings. Upon their completion, they began to bring sufficient ground under cultivation for the support of the establishment. Nothing at that period was contemplated beyond a new trading-post, which received the name of Fort Victoria. In 1849 the island was granted by charter to the Company on certain conditions, but in a few years it was formed into a regular colony. Tall pines, cedars, cypresses, and various kinds of oaks are prominent in the woods. Roses, with the hawthorn and myrtle, are indigenous. The strawberry, raspberry, currant, and gooseberry are native fruits. Fish swarm along the shores and in the lakes. The elk, deer, and fur-bearing animals are found, with numerous game-birds and wild water-fowl. Coal, copper, and magnetic iron ore are abundant. The climate resembles that of England, but with a warmer summer and a moister winter. The total population may amount to 20,000, of whom full 12,000 are Indians of various tribes. They are peaceable towards the whites, but quarrelsome among themselves, and at one period raised their war-whoops in the streets of Victoria. The singular custom prevails among them of flattening the skull in infancy into a kind of sugar-loaf shape, by artificial means, but it does not seem to be productive of any mental deficiency.

Victoria, the capital, and now the seat of government for British Columbia, is seated on a sheltered river-like harbour of the south coast, and has rapidly acquired a town-like appearance, from being in 1858 a small collection of log-built dwellings. Temporary wooden shells of houses and shops, hastily run up when the place was an experiment, have been replaced by substantial brick ones, and the streets have been macadamised. There are two churches, Christ Church, of wood, and St John's, of iron, with a number of chapels. The town contains the government buildings, a small neat theatre, a public library, a concert-room, gas-works, a fire-engine house and brigade, and a brick prison, in which the inmates are usually those guilty of selling ardent spirits to the Indians. The inhabitants number 6000. Beacon Hill, a grass-covered mound, is their favourite promenade, enclosed by a natural park of oaks and other trees, with a race-course and cricket-ground at the immediate base. From its summit the snow-capped Mount

Baker, which rises upwards of 10,000 feet, within the territory of the United States, is a grand object on the eastern horizon. *Nanaimo*, on the east coast, has attracted a population engaged at the coal-mines in the vicinity, and in the shipment of the produce, an increasing quantity of which is regularly exported. There is an Episcopal Church and a Wesleyan Chapel. Coal was discovered here in 1850 of excellent quality, in great abundance, and very accessible, as it cropped out at the surface. The principal seam, called the Douglas, after the name of the governor, has a general thickness of from six to seven feet. The produce was first exported to San Francisco, in 1853, in the ship *William*, and was taken alongside the vessel by the Indian women in canoes. The mines are worked by a company.

BRITISH COLUMBIA includes the mainland from the Pacific Ocean to the Rocky Mountains, between the parallel of 49°, the frontier-line of the United States on the south, and Simpson's River, in latitude 55°, on the north. The extent is of about 700 miles from north to south, by a breadth of 500 miles from east to west; area, about 236,500 square miles. The country comprises bold mountain-ranges and large open plains, with numerous rivers, the principal of which, the Fraser, 900 miles long, and navigable for steamers for 200 miles, enters the sea opposite the southern end of Vancouver's Island. The discovery of gold in the alluvial deposits of their affluents—the far-famed *Carriboo Gold-fields*—brought this region into prominent notice, stimulated an eager rush of adventurers to it, many of whom had been trained in the rough school of California. This led to the constitution of the colony, in 1858, for the purpose of introducing organised government, and placing natives and foreigners as far as possible under the control of the law.

New Westminster, on the banks of the Fraser, about fifteen miles above the mouth, is a town still in its infancy. It is incorporated, and has a representative council, with power to levy rates for purposes of public improvement. It contains a court-house, an assay-office, and several places of worship. The total white population of the colony is perhaps not more than 10,000, which includes a sprinkling of Chinese. The native Indians are thinly spread over the surface, but are supposed to form an aggregate of 60,000. In 1861 gold was exported from Victoria, amounting in value to £500,000, the produce of British Columbia. But independent of auriferous deposits, which are disappointing in general to the many, while the few extract wealth from them, there can be no doubt that a large proportion of the country is eminently adapted by soil, climate, and natural productions for civilised occupation, and will afford a permanent recompense to patient industry and prudent thrift. Varieties of pine and firs attain enormous dimensions in height and girth, from which the noblest spars in the world may be taken. A settler laid a wager that he would cut through a single tree in three weeks' time with an axe, and lost his money. Steam-mills have been established which quickly bring down the timber-kings.

VIII. NEW BRITAIN.

The country included under the name of NEW BRITAIN, one of recent adoption, embraces the remainder of British North America, lying principally between Hudson's Bay on the east and the Rocky Mountains on the west, and extending from the shores of the Arctic Ocean on the north, to the frontier of the United States on the south. The area of this immense region can only be approximately stated as bordering on 2,000,000 square miles. It has a generally low and level surface, abounding with lakes, rivers, swamps, and inhospitable land. Only a few diminutive woods occur in the far north, with creeping plants, mosses, and lichens; but more southerly are extensive forests of pines, alders, and other trees, with vast tracts of prairie-ground eminently adapted for agriculture, yet chiefly supplying pasture to herds of bisons, elks, and deer. The winter cold is severe throughout, and rigorous in the extreme in the higher latitudes, where the subsoil is permanently frozen, and only a thin superior stratum thaws in summer. Fur trading-posts, with hardy Scotchmen for their occupiers, are distributed through the country at wide intervals apart from each other. The Red River Settlement, towards the southern border, is an important agricultural station. Indians of numerous tribes are thinly scattered over the surface in diminishing numbers, and a few Esquimaux are found on the north coast.

New Britain is commonly designated the Hudson's Bay Company's Territory, from that body having had a monopoly of the fur-trade for nearly two centuries. It is also called Rupert Land, from the original charter of incorporation having been obtained under the auspices of Prince Rupert, in 1670, the reign of Charles II. The right of exclusive trade ceased in 1860. Skins of the beaver and the marten supply the

most valuable furs, and with those of the musk-rat, bears, foxes, and wolves, are the main staples. According to a living writer, Dr Lankester, the traders buy in a cheap market while selling in a dear one, for the natives are paid by a fixed tariff, which is made wholly independent of the value of the skins. They are often purchased by barter. Thus a fourpenny comb will be given for a bear's skin worth two pounds, and a sixpenny knife for three marten's skins, which in London will sell for four guineas. *Fort York*, near the western shore of Hudson's Bay, is the head-quarters and principal dépôt of the company, in latitude 57° 2' north. The site is low and dreary, enclosed with stunted pine-woods, a swamp in summer when the surface thaws, and hard as iron through the winter months. The thermometer sometimes descends to 50° below zero; brandy freezes to a solid substance in rooms with a constant fire; and but for supplies obtained from more temperate regions existence would be impossible.

Martin's Fall, on the Albany, which flows into the southern extremity of Hudson's Bay, is exactly in the latitude of London. This circumstance renders a record of the progress of the seasons of interest. *December, January, February*.—Dead winter months; intense frost; snow permanently hard. *March 15*.—Snow often melts at mid-day. *20*.—Tops of the higher grasses appear. *April*.—Slight crust on the snow from the day thaw and the night frost. A few insects appear in bright mild weather. *22*.—The gray goose of Canada and stock ducks sometimes appear; often forced back to the south by northerly blasts. *25*.—A few spots of ground bare. *23*.—The American robin and other birds are now arriving, feeding on benumbed grubs and caterpillars. *May*.—Ground getting barer; snow melting rapidly. *10*.—Ermines and rabbits become altogether brown. *12*.—The buds of poplar, aspen, and various willows swell. *15*.—The larger rivers break up; swamps and stagnant pools are thawed. *June*.—Insects on warm days are busy on the bushes and the ground. *10*.—Night frost sometimes occurs. *15*.—Country covered with verdure; the latest shrubs have leaves; birds are nesting. *July*.—Summer month; weather often very warm; strawberries ripen; mosquitoes numerous. *August*.—Summer month; raspberries and currants ripen. *September*.—The air generally cooler; winds stronger; frosty nights looked for. *10*.—Many insectivorous birds leave; night frosts frequent. *15*.—Leaves rapidly turn yellow; gray goose of Canada begins to pass southward. *October*.—Pools and swamps crusted with ice; mosquito utterly defunct. *5*.—Foliage falls; snow succeeds to rain. *20*.—Small lakes and rivers sometimes fast frozen; the American hare and the ermine change colour. *November*.—Ground covered with snow; strong rapids closing fast with ice; swamps passable; rabbits and ermines entirely white. The most northerly stations are in the basins of the Mackenzie. At *Fort Norman*, in latitude 65°, a small quantity of barley has been raised, with potatoes about the size of marbles. At *Fort Good Hope*, 66° 16', there is only very diminutive wood.

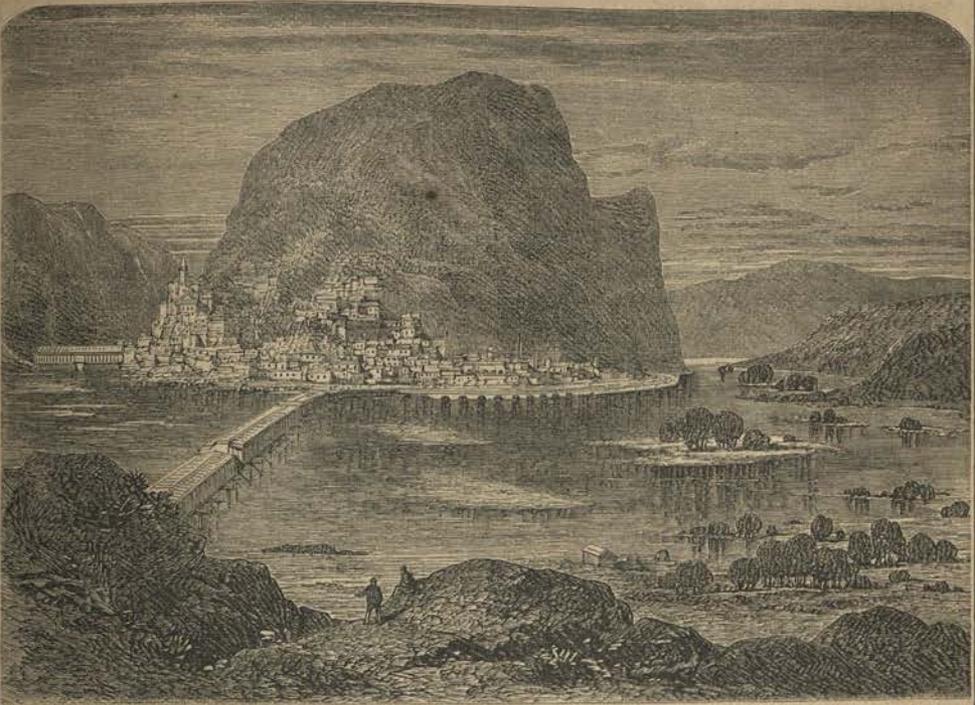
The RED RIVER SETTLEMENT, which makes the only approach to a colony in the whole of this vast region, is situated on the wooded banks of the stream, the upper course of which is in Minnesota, one of the United States. It was founded by the Earl of Selkirk in 1813, and has a population of about 6500, consisting of retired servants of the company, Scotch emigrants, a few Indians, and half-breeds. They have a governor, council, recorder, sheriff, coroner, trial by jury, and a prelate of the Anglican Church, with the style of Bishop of Rupert Land, whose diocese is co-extensive with the fur-trading stations. The Red River joins the Assiniboine at Fort Garry, in the neighbourhood of the settlement, and proceeds thence to Lake Winnipeg. From this point the late Sir G. Simpson, an officer of the company, accomplished the following journey in the winter in sledges over the ice and snow:

Fort Garry to Fort Pelly, on the Upper Assiniboine,	394 miles, in 15 days.
Fort Pelly to Fort Carlton, on the Saskatchewan,	276 " 12 "
Fort Carlton to Fort La Crosse, on the lake of that name,	236 " 7 "
Fort La Crosse to Fort Chippewayan, on the Athabasca Lake,	371 " 12 "
	1277 46

At the Bath meeting of the British Association, in September of the present year, 1864, a paper was read detailing a recent journey made by Lord Milton across the Rocky Mountains to British Columbia, taking the Athabasca River in his route. His party crossed the mountains by the Yellow Pass, which he recommends in preference to all others for road or railway connecting British Columbia with Upper Canada.

The Red River freezes in November and opens in April, but Lake Winnipeg remains closed till the end of May. The settlement has woods of oak, elm, maple, and pine; the introduced live-stock common to English farms; and a soil from which large crops of grain are raised.

The ARCTIC ISLANDS of the Western World bear the names of Melville, Banks, Cornwallis, Wollaston, Victoria, King William, Montreal, and others, and are parts of British America by discovery. Though not of the slightest value, they will ever be of interest as scenes where the skill, endurance, and heroism of our fellow-countrymen have been signally illustrated in attempts to thread the icy labyrinth. Of difficult access in the height of summer, and completely frozen up in winter, these lands must be left to their proper native tenants, the prowling white bear, the roving musk-ox and reindeer, the ptarmigan, polar fox and hare, with the few families of Esquimaux.



Potomac and Shenandoah at Harper's Ferry.

CHAPTER III.

THE UNITED STATES.



HE great Transatlantic Republic, at the head of the civilisation, commerce, wealth, and power of the Western World, and entitled to rank with the first-class states of Europe, extends across the continent between the Atlantic on the east, the Pacific on the west, the British Possessions on the north, and Mexico on the south. The northern boundary in general is formed by the great lakes of Canada and the parallel of 49° ; the southern, by the Gulf of Mexico, the Rio del Norte flowing into it, and a line drawn from the upper channel of the river, to the head of the Gulf of California. Twenty-four degrees of latitude are embraced within these limits, from Cape Sable, in Florida, 25° north, to the parallel named.

In the opposite direction the country includes fifty-eight degrees of longitude, from the shores of Passamaquoddy Bay, 67° , to the coast of the Pacific, 125° west. The total area is estimated at nearly 3,000,000 square miles, acquired chiefly by successive extensions of territory during the present century. The greatest linear distances amount to about 2800 miles east and west, and 1600 miles north and south, while the frontier-

line measures at the least 10,000 miles, of which considerably more than one-half is either sea-board or lake coast.

	Square Miles.
Area of the Republic at the peace with Great Britain, in 1783,	820,680
Louisiana, obtained by purchase from the French in 1803, added about	899,579
Florida, acquired from Spain in 1819, added	66,900
Texas, admitted into the Union in 1845, made an addition of	318,000
Oregon Treaty with Great Britain, added	308,052
Treaty with Mexico, in 1848, made a cession of	522,955
	2,936,166

The land on the shores of the Atlantic is generally low and level, broken by many inlets of the ocean, the estuaries of rivers. It forms an undulating plain extending for some distance into the interior, on which are the cities and towns of the oldest date. From the breadth of only a few miles in the extreme north, this plain expands southward to the width of more than 150 miles in the Carolinas, and becomes still more spacious as the coast of the Mexican Gulf is approached. Its maritime districts, in their southerly extension, contain extensive swamps haunted by alligators and water-fowl, and also monotonous tracts of sand, called Pine Barrens, which are clothed with forests of giant pines. The Atlantic plain is bounded inland by the Appalachian Mountains, which stretch in a south-westerly direction from the interior of Maine to the borders of Alabama, and divide generally the rivers which flow directly to the ocean from those which descend to the channels of the St Lawrence and the Mississippi. They do not form a water-parting through their entire length, being crossed by the Hudson, the Connecticut, and the Delaware streams, nor are they any barrier to convenient communication, being intersected at various points by railways and canals. This chain is known by various names in different parts of its course, as the White Mountains, in New Hampshire, from the hue of the exposed rock; the Green Mountains, in Vermont, from their mossy summits and wooded slopes; the Catskill Highlands, in New York, which present fine Rhine-like scenery to steam-boat voyagers on the Hudson; and the Alleghanies, in Pennsylvania and Virginia, the 'Endless Mountains' of the old Indians, where the chain consists of several parallel ridges separated by valleys or plains, and attains its greatest width. The Peaks of Otter, within the limits of Virginia, rise to 4260 feet, but are exceeded in height by Mount Washington, 6234 feet, one of the White Mountains. In this group the remarkable Gap occurs, called the 'Notch,' which is in some places not more than twenty-two feet wide, with wild and lofty precipices on either hand, and is used as a thoroughfare.

Westward of these highlands the surface falls by a very gradual descent to the Mississippi and its mighty arms, with their varied and apparently interminable prairies, level and rolling, grassy and timbered. Dense forests line the banks of the rivers, and park-like clumps of trees adorn the surface apart from them, with copse woods, the 'islands,' as they are called, of the grassy sea. This region is solitary league after league in the 'far west,' with exception of the wild animals and wilder Indians, but at intervals nearly throughout, more or less extended, the outposts of advancing civilisation appear. In the woods, huge trunks stand thickly around, with snake-like parasites coiled around them, and the Spanish moss hanging in festoons from the branches, while prostrate trunks, yards in diameter and half decayed, lie along the ground, in the ends of which the porcupine and the opossum hollow out their homes. The moss, of a silvery-gray colour, gives a somewhat mournful appearance to the forest. Trees are frequently met with of remarkable girth, with cavities in their stems, while standing, capable of entertaining both man and horse, particularly those of the sycamore and button-wood species. Captain Mayne Reid mentions coming upon a squatter who, with his wife and children, was

living and actually burning a fire within the trunk of a standing sycamore. In this singular natural habitation the party had passed the winter.

Approaching the furthest west, the region of the Rocky Mountains, between the parallels of 32° and 43°, the ground gradually rises, and the aspect of the surface is altogether different. Verdure becomes thin and less vivid, till it passes away entirely; water grows scarce, and ceases to be found for many a league except impregnated with salt; the bare ground appears, sand or gravel, bestrewed with large boulders; and the sterility is nearly total. Trappers here distinguish the 'sage prairies'—plains besprinkled with the wild wormwood; the 'sand prairies'—barren and trackless wastes; the 'salt' and the 'soda prairies'—where the country is covered with a salt or soda efflorescence—features these of the true desert. Bones mark many a spot where the horse and his rider have fallen together, overcome with fatigue and thirst, the water brought along with them having failed, while ignorant of the sites where a little further effort would have brought them to the source of a fresh supply. Fragments of clothing, old hats, bruised canteens, stirrups red with rust, strewed here and there, tell a melancholy tale of mischances to adventurers. The perils of the passage of the chain, now greatly abated, are proclaimed by the significant name of the 'Journey of Death,' while a spacious expanse, pleasant to the eye, but briny and bitter to the taste, has the ominous title of the 'Lake of Death!' The Rocky Mountains, within the limits of the United States, appear to culminate in Fremont's Peak, first ascended by the distinguished explorer of that name in 1842. It attains the height of 13,570 feet, lies a little to the north of the South Pass, one of the practicable routes across the range. Nearer to the Pacific Ocean, and parallel to the chain, is the Sierra Nevada, rising to the snow-line, as the name implies. The two enclose the high tract of country known as the 'Great Basin,' which contains the Great Salt Lake, with its Mormon city and strange community. Between the Sierra Nevada and a Pacific coast-chain, lies the long broad valley of the San Joaquin and Sacramento Rivers, the gold-bearing region of California. A northerly continuation of the maritime chain, beyond the Columbia River, called the Cascade Range from its numerous waterfalls, has the culminating-point of the entire United States, in Mount St Helens, with an elevation of 15,750 feet.

Though the Atlantic side of the country has no river of considerable magnitude, yet several are of high value as lines of inland navigation, extended by a net-work of canals. The principal examples from north to south are the Penobscot, the Connecticut, the Hudson, the Delaware, the Susquehanna, and the Potomac. The important rivers of the Pacific basin, from south to north, are the Colorado, the Sacramento, and the Columbia. The latter has the upper part of its course in British territory, and is remarkable for its rise close to the source of the Saskatchewan, the waters of which are conducted finally into Hudson's Bay. Sir George Simpson states that he could 'fill his kettle for breakfast out of both at the same time.' On the coast of the Mexican Gulf the Mobile has its outlet, with the Rio del Norte, and the mighty Mississippi-Missouri, the grand artery of internal communication, already illustrated in its course, affluents, and features. The States share with Canada in the navigation of the great lakes, and command the whole basin of Lake Michigan. By means of a canal of 363 miles, which unites the Hudson with Lake Erie, and another of 324 miles connecting that expanse with the Ohio, there is uninterrupted inland navigation from New York to New Orleans.

In the northern part of the Atlantic region the climate is distinguished by great annual extremes of temperature, the winters being very severe, and the summers excessively hot, while striking variations of temperature in each season are frequently experienced. Proceeding southerly, the seasonal differences become less marked, and the temperature

approximates to tropical uniformity throughout the year below the parallel of 35°, which defines in general the northern limit of tropical cultivation, indicated by rice-grounds, cotton and sugar plantations. The most productive cotton districts are maritime. They are famous also for the quality of the produce, denominated 'Sea Island,' from being raised on the low coasts and islands of the Carolinas and Georgia, where the plantations are exposed to the spray of the ocean. It is found that at a certain distance inland the fibre deteriorates, and hence it is inferred that the saline properties of the soil and the atmosphere have a beneficial influence upon the growth of the plant, contributing to render the cotton fine and long in the staple. If the weather is fine, and no frosts linger, the sowing commences in March or April. Blooming takes place towards the end of May or the beginning of June, and the picking in July or August. The first seeds were sown in the year 1786 in Georgia, probably introduced from Barbadoes; and the first export of a small quantity of the crop was made in 1790. Tobacco and maize are grown over a wide area; and an immense amount of ordinary cereal produce is raised in the western states for export across the Atlantic. Manufactures, fisheries, and general commerce chiefly engage attention in the north maritime districts. Coal-mining, iron-smelting, and hardware production are prominent industries in connection with the central portion of the Appalachian chain. This range has a great bituminous coal-field extending through 800 miles from the north of Pennsylvania to the middle of Alabama, with a breadth in places of 180 miles, and a total area estimated at upwards of 50,000 square miles.

The republic, at the date of its formation, included thirteen provinces federally united. It now embraces forty-three political divisions, states or organised territories, between two sections of which, styled Federal and Confederate, the bond is for the present broken. These divisions are as follows: 1, Six North-Eastern States—Maine, *New Hampshire, Vermont, *Massachusetts, *Rhode Island, *Connecticut; 2, Five Middle Atlantic States—*New York, *New Jersey, *Pennsylvania, *Delaware, *Maryland; 3, Five Southern Atlantic States—*†Virginia, *†North Carolina, *†South Carolina, *†Georgia, †Florida; 4, Four Gulf States—†Alabama, †Mississippi, †Louisiana, †Texas; 5, Twelve Western States—Ohio, Kentucky, Tennessee, †Arkansas, Missouri, Kansas, Illinois, Indiana, Michigan, Wisconsin, Iowa, Minnesota; 6, Two Pacific States—California, Oregon; 7, Nine Territories—Arizona, Colorado, Dakota, Idaho, Nebraska, Nevada, New Mexico, Utah, Washington. In this enumeration the states to which an asterisk is attached are the provinces which signed the Declaration of Independence in 1776, and formed the original Union. The dagger defines those which are distinguished as Confederate in the present struggle with the Federal. Territories may be described as states in embryo, to be recognised as such when a certain proportion of population has been attained. In the meantime they can send delegates to the National Congress, who have the right to speak, but not to vote. In addition, there is the Federal district of Columbia, which contains the capital, under distinct jurisdiction, and the Indian Territory, a tract of country in the far-western wilds set apart for the unfortunate Red men, dispossessed of their hunting-grounds, who are disposed to place themselves under the care of the whites, adopt settled habits and industrial pursuits.

The small district of Columbia, on the Potomac, originally embraced a tract on both sides of the river, or portions of Maryland and Virginia. Since 1846 it has been confined to the north or Maryland bank, and forms a single county, with an area of only sixty square miles. It is under the immediate government of Congress, but has no representation in it, and contains the two cities of Washington and Georgetown.

Washington, the political metropolis of the United States, in latitude 38° 55' north, longitude 77° 1' west,

is beautifully situated on the left bank of the Potomac, the 'River of Swans,' nearly surrounded by an amphitheatre of hills, which were recently covered with trees and shrubberies, but now bristle with forts and cannon. It is the ordinary residence of the President and the foreign ambassadors, the seat of the government offices and of the annual sessions of the legislature. The Capitol, containing the halls of the senate and the representatives, the library of congress, and accommodation for various departments of the executive, occupies a commanding site, and is a noble structure of white marble, perhaps on the whole the finest in the New World. It is surmounted in the centre by a lofty massive dome, and has an imposing Corinthian portico at the main entrance, which furnishes a fitting site for the presidential inaugurations. Pennsylvania Avenue, the principal street, lined with handsome blocks of public and private buildings, radiates from the Capitol to the White House, the official dwelling of the Presidents, a mile and a half distant, in the centre of a small park. The objects of interest in Washington are very limited. In the Museum connected with the Patent Office is preserved the printing-press at which Franklin worked, with the 'Declaration of Independence' in a glass case, not far from which appears the tanned skin of an African. An early number of the *Pennsylvania Gazette*, shewn in the State-Paper Office, contains the curious announcement: 'Printed by B. Franklin, who will give ready money for old rags, and sells glazed, fulling, and bonnet papers.' The Smithsonian Institution, founded for the diffusion of knowledge by funds bequeathed by an Englishman for that purpose, and the Observatory, are the other public establishments of note. The latter, well supplied with the best instruments, was brought to a high state of working efficiency by the late director, Commander Maury, the eminent physical geographer, who, being a Virginian, left his post in 1861 to join the Confederates. An assistant here added the thirty-first asteroid, Euphrosyne, to the long catalogue, being the first star discovered on the American continent. The capital contains a population scarcely exceeding 40,000, but greatly increased by the arrival of strangers when the legislature is sitting. Having been planned originally upon a scale of magnitude far beyond that which has been attained, it wears an unfinished, disjointed appearance, unless fancy can see

'Squares in morasses, obelisks in trees.'

An aqueduct, opened in 1863, brings a copious supply of water from the Falls of the Potomac, fifteen miles distant. About thirteen miles lower down the river, on the opposite bank, is Mount Vernon, where General Washington resided, with his tomb in the grounds, close to the water-side, shaded with oaks and cedar. In a humble canoe he conducted the first survey of the stream with reference to its navigation above tidal water.

I. NORTH-EASTERN STATES.

	Area in Square Miles.	Population.	Capitals and Chief Towns.
Maine,	31,766	623,276	Augusta, Bangor, Portland.
New Hampshire,	9,280	326,073	Concord, Portsmouth.
Vermont,	9,056	315,098	Montpelier, Burlington.
Massachusetts,	7,800	1,231,066	Boston, Cambridge, Lynn, Lowell.
Rhode Island,	1,306	174,620	Providence, Newport.
Connecticut,	4,674	460,147	Hartford, Newhaven.

The collective name of New England is commonly given to these states. It originated with the Pilgrim Fathers, the first colonists, from various parts of England, but chiefly from Lincolnshire, who landed on a southern point of the coast in November 1620. The country then wore a very wild aspect, was covered with thickets and dense woods, and snow lay upon the ground. The population at present is mainly English by descent, or Scotch, the Irish infusion being comparatively small, and the German quite insignificant. But this region may now as properly be called Old England, in relation to other parts of America occupied by the Anglo-Saxon race. It contains traces of their handiwork to which some venerableness is attached, while such expressions of the modern spirit as mammoth hotels, gigantic stores, and palatial-looking warehouses are but rarely encountered. The names of towns and villages are also prominently English, or have a sober stamp, instead of being collected as elsewhere from every country under heaven, the records of antiquity, and the realm of romance, while most incongruously associated. It is possible in Maine to visit Portland, and to reach Northampton without going out of Massachusetts, but no Pekin, or Bagdad, or Jericho is to be found within their limits, nor do they include a Styx, an Aladdin, or a Rough and Ready. The New Englanders are the Yankees proper, lean, lank, and nasal, in comparison with their cousins on this side of the Atlantic. But the women, not far out of their teens, have a reputation for great personal beauty.

MAINE, the most easterly of the group, borders on New Brunswick and Lower Canada. The settlement of the boundary between them is quite of recent date, and was not arranged without disputes ominous of war. It has a remarkable coast-line, not extending to 300 miles in direct distance, but measuring more than 2400 following the various sinuosities. The interior is hilly in general, and boldly rugged in the north, where the

woods are still extensive, being nominally distinguished as the Wilderness. The principal rivers are the Penobscot and the Kennebec, the latter issuing from the large Moosehead



Wilderness of Maine.

the chief towns in the interior of Maine, but taken together they are smaller than *Portland*, on the coast. This place contains a population of 27,000, has extensive commerce with the West Indies and Europe, an excellent harbour, easy of access, deep and spacious, protected by islands from the swell of the ocean. The first settlement in Maine was made in the year 1625. For some time afterwards every twentieth settler is said to have been killed by the Indians. It formed part of Massachusetts, and became a distinct state in 1820. New Hampshire dates its settlement from 1623. *Concord*, on the Merrimac, the state capital, is inferior to *Portsmouth*, a naval station and considerable shipping port. In 1761 the *Boston Evening Post* contained the announcement of 'a large stage-chaise, with two good horses, well equipped,' to make the journey from *Portsmouth*, 54 miles, once a week, stopping a night on the road, going and returning. *Hanover* is the seat of Dartmouth College, an old and respectable institution. *Burlington*, a small town in Vermont, but the largest, is charmingly placed on the shore of Lake Champlain, the surface of which is alive with steamers through the summer. This state has a very democratic constitution. It did not subscribe to the Declaration of Independence, but declared for independence of both parties, and remained neutral to the year 1791, when deputies were first admitted to Congress.

MASSACHUSETTS, on the south of New Hampshire and Vermont, by far the most important of the New-England States, is distinguished by its manufactures of textile

Lake. NEW HAMPSHIRE, on the west and south-west, has only about eighteen miles of coast, chiefly a sandy beach bordered with salt-marshes. The surface is low for some distance from the shore, and then rises into the grand heights of the White Mountains, the summits of which are generally covered with snow from the close of October to the end of May, and are sometimes not wholly divested of their winter clothing till August, to be speedily resumed. Granite for architectural purposes, of the best texture and colour, is very abundant, and largely quarried. VERMONT, further west, is entirely inland, separated from the territory of New York by the spacious and many-islanded Lake Champlain, so called after the founder of Quebec, the issue of which is conducted by the Richelieu to the St Lawrence. The state has its name from the Green Mountains, *Verts Monts* of the French, distinguished by soft wooded slopes.

Augusta, on the banks of the Kennebec, and *Bangor*, an important lumber depôt, on the Penobscot, are



White Mountain, Vermont.

fabrics, enterprise in the fisheries, general commerce, and literary cultivation. The maritime border is extensive, marked by the long tapering curve of Cape Cod, with the islands of Nantucket and Martha's Vineyard, and many of smaller size. The surface is naturally sterile, consisting for the most part of a mass of granite covered with a thin layer of soil, and swamps are numerous. But skilled industry has introduced fertility, and there are productive farms, with homesteads almost buried beneath the green foliage of overhanging trees, and whole tracts cultivated like a garden. The lower course of the Merrimac, and the middle part of the Connecticut, fall within the limits of the state. RHODE ISLAND, the smallest member of the Union, directly on the south, consists of the island of that name, which was formerly supplemented with that of Providence Plantations, and a tract of the adjoining mainland. CONNECTICUT, the most southerly part of New England, is divided into two nearly equal parts by the lower course of the river of the same name, along which there are fertile lands, well tilled, and abounding with orchards. Long Island, extending to New York, fronts the whole length of the shore, and facilitates the coasting-trade by sheltering vessels in the intervening sound from the gales of the Atlantic.

Boston, the fourth city of the United States in population, 200,000, including the suburbs, the second perhaps in commerce, and the first in literature, is situated principally on a peninsula projecting into Massachusetts Bay, and derives its name from the fact of the founders emigrating from Boston in Lincolnshire. The oldest portion, built on the uneven ground of the peninsula, consists of narrow, crooked streets of brick-built houses, though some still remain of wood, seeming as if a dozen generations had been born within them. One in Washington Street bears the inscription, 'The oldest house in all Boston, built MDCLVI.' Before many of the houses there are 'little patches of grass-plot gardens, hemmed in by iron railings of substantial respectability. At the corners of the streets, perched at the most inconvenient localities, there are old stone-built churches, which must have heard King George III. prayed for on many a Sunday. In quaint nooks, right in the city's heart, stand old-fashioned English graveyards, shaded over by trees.' In the very centre is the Common, originally a cow-pasture on the skirts, now a public park with turf and knots of trees. Faneuil Hall, once used as a market-place, as well as for public meetings, is an interesting historical spot, where the revolutionary orators roused the people to resist what was called British oppression. A granite obelisk on Bunker's Hill, in the

neighbourhood, commemorates the battle fought there in 1775 between the American and the royalist forces. Boston has many literary institutions and large libraries. The public library contains 110,000 volumes, the Athenæum has 80,000, and the Mercantile 21,000. The city is the cradle and principal seat of the ice trade, which has attained wonderful development since its commencement about the year 1820. Several hundred thousand tons are annually exported. The Wenham Lake ice, well known in London, is obtained in the vicinity. The lake occupies an elevated position, and is surrounded by hills. It has great depth, and no visible affluent, but depends upon springs which issue from the rocks at the bottom. In 1833, the first cargo of ice from Boston was discharged at Calcutta. *Cambridge*, four miles distant, with villas and houses, standing each in its own garden, nearly all the way, is the seat of Harvard University, the oldest and one of the best in the United States, founded in 1638, possessing a library of 140,000 volumes. Under a tree on the grounds, called Washington's Oak, the general is said to have signed the Declaration of Independence; and Whitfield, excluded from the college chapel, preached beneath it. The names of Emerson, Longfellow, and Hawthorne are associated with adjoining sites. *Lynn*, nine miles north of Boston, is celebrated for its boot and shoe manufacture, producing annually 5,000,000 pairs. *Lowell*, twenty-five miles distant, is distinguished as the American Manchester from its cotton-mills. It contains a population of 40,000, but had only a few dwellings in the year 1820.

Providence, at the head of Narragansett Bay, with 47,000 inhabitants, is the seat of the local government of Rhode Island, but alternately with *Newport*, a much smaller town on the island itself, greatly resorted to in summer as a watering-place. *Hartford*, an inland town on the river Connecticut, is the capital of that state, alternately with *Newhaven* on the coast, much more important, containing a population of 39,000, deemed one of the most beautiful of the American cities. It is eminently the 'city of elms,' both venerable and young. The streets are lined with grand old examples, or with luxuriant maples, forming long vistas of arched verdure, and the public squares seem nothing but groves at a distance. Temple Street is the admiration of strangers and the pride of the natives. Newhaven is the seat of Yale College, 'Old Yale,' as it is commonly called, a well-known literary institution, possessing a library of 42,000 volumes, and an excellent mineralogical collection. There are large iron and india-rubber works, with manufactures of clocks and leather. First planted in 1638 by a colony of Puritans from London, who were men of property and station, the settlement speedily became one of the most flourishing in New England, and was very strictly governed by the elders. Three of the regicides, Goff, Whalley, and Dixwell, who sat in judgment upon Charles I. and fled beyond seas at the restoration, spent the remainder of their days at Newhaven. Though large rewards were offered for their apprehension, their secret was faithfully kept by those intrusted with it. When closely pursued by the royalists, they retired to the Rocks, two miles and a half from the town, and were concealed in a cave for weeks together. This spot, still called the 'Judges' Cave,' is a favourite resort of excursionists.

II. MIDDLE ATLANTIC STATES.

	Area in Sq. Miles.	Population.	Capitals and Chief Towns.
New York,	46,000	3,880,700	Albany, New York, Troy, Buffalo.
Pennsylvania,	46,000	2,906,100	Harrisburg, Philadelphia, Pittsburgh.
New Jersey,	8,320	672,000	Trenton, Newark, Atlantic City.
Delaware,	2,120	112,216	Dover, Wilmington.
Maryland,	9,356	687,000	Annapolis, Baltimore.

The state of **NEW YORK** is the wealthiest and most populous member of the whole federation, distinguished by the great diversity of its industrial pursuits, commercial relations with all maritime countries, and varied means of intercommunication profusely supplied by nature and art, which embrace ocean, lake, river, and canal, with plank-roads, common roads, tram-roads, and railways. It resembles an irregular triangle in shape, and though the apex alone reaches the ocean, yet still the coast-line is considerable, as Long Island is included, extending upwards of 100 miles from east to west. New England forms one side of the triangle; New Jersey and Pennsylvania supply the second; and the St Lawrence, with Lake Ontario and part of Lake Erie, the third. The territory shares the Falls of Niagara with Canada, and has several magnificent water-falls on its own streams in the highland gorges. Besides the great frontier lakes named, with that of Champlain, also on the border, a large number are wholly interior and much admired, as Lake George, remarkable for its transparency and picturesque shores, a Loch Katrine on a larger scale. The most important river, the Hudson, traverses the eastern section of the country from north to south, and supplies a long line of navigation, being ascended for 150 miles by tidal water. It flows through scenes of striking grandeur, and has its sources in a very

wild region, west of Lake Champlain, where mountainous heights appear, the loftiest of which, Mount Marcy, has an elevation of 5300 feet. Mineral springs in its basin, at Saratoga and Ballston, attract a crowd of summer visitors. Of the total population nearly one in every four is foreign born. The Irish are in the greatest force, being about 500,000; the Germans next, 256,000; numbers which immigration has kept up in spite of the havoc made among them by the war. Names of places have been liberally culled from sources ancient and modern, sacred and secular. The state has a Troy, Attica, Ithaca, and Marathon; a Rome, Carthage, Syracuse, and Utica; a Carmel, Gilboa, Salem, and Zoar; a Peru and Lima, China and Peking, Russia and Warsaw, Cairo and Delhi; and even a Paradox.

New York, called the 'Empire City' by the inhabitants, is the commercial metropolis of the United States, the largest city in the Western Hemisphere, and entitled to rank with the great capitals of the globe. It is situated on the south extremity of Manhattan Island, at the mouth of the Hudson, 225 miles from Washington, 1397 from New Orleans, 210 from Boston, and 372 miles almost due south of Montreal. Long Island opposite, and Staten Island on the south-west, form a nearly land-locked bay for the port, which has space and depth sufficient for whole fleets of vessels of the largest size, and is but rarely obstructed or much incommoded by ice. Including Brooklyn, on Long Island, and other suburbs within a radius of five miles from the centre, the city contains a population of about 1,200,000. It is traversed by wide streets in straight lines, crossed by others at right angles, lined with handsome houses and shops, but has, like other places of similar extent, its low, filthy, and wretched quarters. Broadway, the principal thoroughfare, more remarkable for length than breadth, stretches upwards of three miles, and combines the aspect of our Regent Street and Cheapside. Several of the public buildings are large and costly, as the City Hall, the Merchants' Exchange, the Custom House, the Cooper Institute, and Trinity Church. The hotels are upon a vast scale, magnificently fitted up, and ample provision is made for recreation in open grounds laid out with great taste. One of the most important of the public works, the Croton Aqueduct, the execution of which involved an outlay of £4,000,000 sterling, brings a stream of pure soft water to the city from the river of that name, a small affluent of the Hudson, through a total distance of forty miles. Objects are of course wanting which time has rendered venerable, and history invests with interest. Nor is there any edifice commanding admiration by stupendous yet harmonious proportions, like many in the Old-World cities, while the site has no natural picturesqueness. But for bustle in the streets and on the waters, shops, stores, wharves, steamers, and ships, New York is only second to London. It is honourably distinguished also by philanthropic and literary institutions, as grammar-schools, colleges, art schools, and libraries. The Astor Free Library contains 120,000 volumes; the Mercantile, 64,000; the Society, 50,000; the Historical Society, 25,000; and the Apprentices, 19,000. Local general usages include the three o'clock hour for dinner; the display of the whole refection at once, and not in courses; changes of residence previous to the full setting in of spring, with wholesale house-cleaning at the same date; and the observance of May Day for marriages.

The bay of New York was entered in the year 1523 by Verrazzano, an Italian in the service of the French, its first European visitor. He described it as 'a gulfe wherein are five small islands, very fruitful and pleasant, full of hie and broad trees, among the which islands any great navie may ride safe, without feare of tempest or other danger. The land is situated in the parallel of Rome, but somewhat more cold by accidentall causes.' Hudson, the English navigator, discovered the river which now bears his name. The Dutch colonised the country, and founded the city as New Amsterdam in 1621. Governor Stuyvesant surrendered it to the English in 1664, when the name was changed to New York, in honour of the Duke of York, afterwards James II. It was the seat of the first American Congress, and of the inauguration of Washington as the first President of the Republic.

Albany, the state capital, is an important commercial town of more than 60,000 inhabitants, the seat of a university. It is situated 144 miles up the Hudson, reached by steamer and rail, both passing West Point—the Military Academy of the United States, in which the Generals Lee and McClellan received their training—on a height above the river. *Troy*, six miles higher up the stream, has manufactures of hardwares and machinery, with a timber trade, for its noticeable features; and contains a Reusselaer Institute for scientific and practical instruction, founded by the wealthy head of an old Dutch family. In fantastic keeping with the classical name of the place, two small hills in the vicinity have the high-sounding titles of *Ida* and *Olympus*. The town is on the great thoroughfare from the south to the Saratoga Springs, the most fashionable watering-place, about twenty-five miles distant. The waters here have a carbonated saline quality. Congress Spring, the principal, has been so called from its discovery by a member of the legislature in 1792. This locality is of special interest to the American, as the scene of the surrender of the English General Burgoyne, with his whole army, in 1777, which virtually settled the question of national independence. In the western part of the state, on the line of the Erie Canal and the Western Railway, are *Syracuse*, the seat of an extensive salt manufacture from brine-springs; *Rochester*, a few miles from the southern shore of Lake Ontario, a city of flour-mills; and *Buffalo*, near the outlet of Lake Erie by the river Niagara, which supplies

an instance of wonderful advance. It was first laid out at the commencement of the century, and contained 200 houses in 1814, when it was burned by the British, with the exception of two buildings. It has now a principal street two miles long, three squares, shaded by rows of trees, many ship-yards, iron-foundries, saw-mills, and wool stores, a court-house, lyceum, and university, with a population of 84,000. The Erie Canal, which connects Buffalo with the Hudson, and makes it the entrepôt between the north-western states and the Atlantic sea-board, has been the main cause of its prosperity.

PENNSYLVANIA, on the south and south-west of New York, is an extensive district with the general outline of a parallelogram, slightly touching Lake Erie at the north-west corner, and bordering the tidal waters of the Delaware at the opposite south-east extremity. It has essentially a mountainous surface, being traversed by the Alleghany ranges in a broad band, which are divided by valleys as fertile as they are lovely, while containing vast stores of coal and iron, with marbles, slates, building-stone, and brine-springs, from which salt is abundantly obtained. Eastward, besides the frontier stream of the Delaware, the country is intersected by the Susquehanna, winding through beautiful scenery, but obstructed in its navigation by falls and rapids in the lower part of its course. West of the mountains, the waters of the Monongahela and Alleghany unite at Pittsburg to form the Ohio, one of the leading tributaries of the Mississippi. There are rich agricultural tracts within the limits of the state, but mining and iron manufactures are the prevailing industries. It has rapidly increased in population at a recent date, owing to the demand for labour created by the extraction of its mineral wealth, and contains at present the largest number of foreign born inhabitants after New York. Of these about 138,000 are Germans and 202,000 Irish.

Philadelphia, the largest city, is the second in the Union as to population, 568,000, but considered to be the first in wealth and refinement. It is situated on a gently-swelling plain between the Delaware and its affluent the Schuylkill, a little above their junction, and 120 miles from the ocean by the river-channel, which is ascended by the largest sea-going vessels. The city is laid out upon a very regular plan, adorned with fine trees, and contains many good public buildings of white marble, with important charitable institutions. Girard College, founded by a citizen for the education of orphans, and amply endowed, is one of the number. The Library Company possesses 80,000 volumes; the Mercantile Library contains 25,000; that of the Athenæum, 20,000; and the Apprentices, 17,000. Before the Hospital stands the statue of William Penn, the celebrated Quaker, founder of the city and father of the state, whose name, combined with *sylva*, 'wood,' forms that of Pennsylvania. Receiving the grant of an immense territory from Charles II. in 1682, he purchased portions for colonisation from the Delaware Indians. The oak arm-chair in which he sat, in a kind of audience-hall at his country-house, Pennsburg Manor, while negotiating treaties with them, is preserved. Philadelphia has since been the principal seat of wealthy and influential members of his communion in the United States. In its state-house the Declaration of Independence was signed in 1776, and the convention sat to draw up the constitution. The room is kept in its original state; and the bell in the steeple, cast many years before, is still in being, inscribed with the verse of Scripture—'Proclaim liberty throughout this land, unto all the inhabitants thereof.'—Leviticus, xxv. 10. *Harrisburg*, in the midst of splendid scenery on the Susquehanna, is chiefly of note as the state capital, and the centre of several diverging railways. It was first settled by an Englishman named Harris, in 1733, under a grant from the Penn family. About thirty-six miles on the south, in a fertile farming country, a place before obscure, *Gettysburg* has been made known by the terrible three days' battle between the armies of Lee and Meade, in June 1863, with indecisive results. *Pittsburg*, at the junction of the two streams which form the Ohio, in command of an extensive river-navigation, is the great seat of the iron manufacture, the Birmingham of the States, where the machinery for the Mississippi steamers is chiefly made. It consisted of a few cabins half a century ago, and has now a population of 110,000, with foundries, glass-factories, steam-engines, and ship-yards on every hand.

NEW JERSEY is enclosed between Pennsylvania and the ocean, with the state of New York on the north. DELAWARE, the smallest of the territorial divisions after Rhode Island, extends southward in a narrow strip along the shore of Delaware Bay. MARYLAND, a very irregular tract, chiefly on the west, curves round the great inlet of Chesapeake Bay, and forms thence the north bank of the Potomac, by which it is divided from Virginia. The river is navigable by ships of the heaviest burden to the Falls above Washington.

These states have greater importance than might be inferred from their limited area, having an extensive



**THE WORLD
ON MERCATOR'S PROJECTION.**

BY J. BASTIEN'S PLAN.
 THE WORLD IS REPRESENTED ON MERCATOR'S PROJECTION.
 Note: The Projection on the Sea is not that of Mercator or any other.
 The distance from the Equator to the Pole is 90 degrees.

sea-board. New Jersey was first planted by the Dutch and Swedes in 1627. Taken by the English, it came under the control of Penn for further settlement, whose communion is represented within its limits. It forms the west bank of the Hudson for some distance above its mouth, and includes that remarkable feature of the river scenery called the Palisades, where a long and high wall of trap-rock hems in the sea-like stream. The Falls of the Passaic, a small affluent, within easy excursion-distance of New York, are frequently visited by picnic-parties. *Trenton*, the scene of one of Washington's victories, is the state capital, much exceeded in size by *Newark* and other places. *Atlantic City*, on the coast, connected with Philadelphia by rail, is the resort of the Pennsylvanians for sea-bathing, who visit also Cape May for the same purpose, naturally a quiet spot, recently furnished with a hotel, the Mount Vernon, large enough to accommodate the inhabitants of a township. The building is palatial in the Italian style. It consists of a front, four stories in height, and 306 feet long, with two wings extending backwards at right angles, of similar height, but each 506 feet in length. Enclosed between the wings is a large garden, beautifully planted, with a fountain of elaborate construction in the centre. Balconies and verandahs are continued round the structure in front of each story, which have a total extent of one mile and a half. The hotel contains 3500 sleeping-rooms and beds, besides saloons for dining, and drawing-rooms for separate parties, all fitted up in a costly manner.

Delaware State, River, and Bay commemorate by name a numerous and powerful Indian tribe with whom Penn chiefly negotiated. About 1000 of the Delawares are now in the Indian Territory in Kansas. *Dover*, and the other towns, are of little note.

Maryland was first settled by an English colony of Roman Catholics under Lord Baltimore in 1634, who originated the name in honour of Henrietta Maria, the queen of Charles I. It is described in the royal charter as 'part of America; not yet cultivated or planted, though in some parts thereof inhabited by certain barbarous people having no knowledge of Almighty God.' The Crown stipulated for 'the yielding and paying to us two Indian arrows of those parts every year on Easter Tuesday.' Formerly, before the emancipation edict, the traveller from the north made his first acquaintance with negro slavery in this state. It has only been retained in the present contest on the side of the Federals by a strong military force. *Annapolis*, of no importance except as the seat of local government, was so constituted in the reign of Queen Anne, and hence the name. In the senate-chamber of the state-house, Washington formally resigned his commission at the close of the revolutionary war. *Baltimore*, at the head of an inlet of Chesapeake Bay, is the third city of the Union in size, containing a population of 214,000. It has been called the 'city of monuments,' having a Monument Street, in which stands a noble Doric column of white marble, 196 feet high, surmounted by a colossal statue of Washington. The 'Battle Monument' commemorates the successful defence of the place against an attack of the British in 1814. Fort M'Henry protects the harbour and commands the city. Baltimore is the principal port for the shipment of tobacco, and a great mart for flour.

III. SOUTHERN ATLANTIC AND GULF STATES.

	Area in Square Miles.	Population.	Capitals and Chief Towns.
Virginia,	61,352	1,654,600	Richmond, Petersburg, Norfolk.
North Carolina,	45,000	992,622	Raleigh, Wilmington, Fayetteville.
South Carolina,	24,500	703,700	Columbia, Charleston, Georgetown.
Georgia,	58,000	1,057,200	Milledgeville, Savannah, Augusta.
Florida,	59,268	140,425	Tallahassee, St Augustine.
Alabama,	50,722	964,200	Montgomery, Mobile.
Mississippi,	47,156	791,300	Jackson, Natchez, Vicksburg.
Louisiana,	46,341	708,000	Baton Rouge, New Orleans.
Texas,	237,321	604,215	Austin, Galveston, Houston.

VIRGINIA, the largest of the Atlantic states, and the first part of the entire continent planted by an English colony, comprehends a low maritime region, broken by inlets of the ocean; the estuaries of rivers, in some places marshy, in others sandy, but clad with pitch-pine trees. The whole of this flat country is unhealthy during the summer heats. But from the limit of tidal water in the rivers, the land rises gradually towards the Alleghanies, which, in successive ridges, divided by long valleys or table-lands containing rich soil, occupy a great breadth of the surface. This district has fine woods, iron ore in abundance, striking scenery, and a very healthy climate. Beyond the mountains the country descends by undulations to the course of the Ohio, to which it contributes several feeders. The Potomac rises in the interior of the state, but flows chiefly along the northern border, receiving the Shenandoah at Harper's Ferry, where the joint stream passes through the Blue Ridge of the Alleghanies, and forms a scene of great natural beauty. The other

rivers of importance are the Rappahannock, the York, and the James, now associated with the crossing of armies and terrible battle-fields. Spring is the lovely season of the year, often declaring itself on the lowlands when terrific snow-storms are heard of westward in Kansas, as well as northward at New York. For many weeks in the woods the abundant and pure white blossoms of the cornel contrast strikingly with the dark cedars and sombre pines; the rich bloom of the magnolia and lofty tulip-tree fill the air with their fragrance; and the Virginian creeper becomes as the season advances the crowning glory of the trees and hedges, hanging on them its large clusters of bright scarlet and orange flowers. Maize, wheat, and tobacco are very largely grown, with cotton and flax to a less extent. Mining and ordinary farming are pursuits in the mountain districts.

Virginia was so named in honour of Queen Elizabeth, who granted the country by charter to Sir Walter Raleigh. But the first settlement did not take place till the reign of her successor, in 1607, when Jamestown was founded on the river James, 32 miles above its mouth, both being called after James I. Not a single house now remains. None of the states have given so many great names to the nation as this—Jefferson, Patrick Henry, Clay, Madison, and Monroe, belonging to the past; Lee, Maury, and many others, to the present.

Richmond, the state capital, and present head-quarters of the Confederates, is agreeably situated on the north bank of the James, about 100 miles from its mouth, at the point where the navigation ends and rapids commence. Interrupted by rocks which are strewn about in the most picturesque manner, the waters foam over and around them in beautiful cascades. The suburbs of Manchester and Spring Hill are on the opposite side of the stream, to which three bridges extend. Previous to the war the city contained about 35,000 inhabitants, one-third of whom were blacks, either slaves or free. It has good civic public buildings, several colleges, about thirty churches, and large tobacco stores, many-storied and windowed, like factories in England. The Capitol is a fine edifice, splendidly placed on an eminence overlooking the river, from which the view is superb. A central hall contains a statue of Washington, of remarkable interest, being by far the best likeness in existence, so that almost all portraits of him have been copied from it. The French artist, Houdon, was expressly invited across the Atlantic for the purpose of modelling a bust; and resided for some weeks with the patriot commander at Mount Vernon, returning to Paris, where it was executed, with the model for the present statue. A brief inscription on the pedestal, tradition states, was penned by Madison on his knee in the midst of the legislature of Virginia. Richmond has its slave-mart, resembling an ordinary place of business, the operations of which may have been suspended by the war, but were recently often signified by the announcement at the door, 'Negroes for sale at auction this day at twelve o'clock.' *Petersburg*, the scene of Grant's mining attack and fearful repulse, is twenty-three miles to the south, on the



Potomac at Washington.

Appomatox, an affluent of the James, and lately contained about 14,000 inhabitants. *Norfolk*, the principal port, near the mouth of the river, and a naval station, was abandoned and dismantled by the Federals on the secession of Virginia, to prevent ships and stores from falling into the hands of the Confederates. A few miles on the south the tract known as the Dismal Swamp commences, extending into North Carolina. It is about thirty miles long and ten broad, thickly wooded with pine, juniper, cypress, and, in the drier parts, with white and red oak, in some places almost impervious from the dense growth. A canal runs through the swamp, and a lake occupies the centre. *Fredericksburg*, midway between Richmond and Washington, with other small towns and villages on the route, have been brought out of obscurity by severe skirmishes and great engagements. *Harper's Ferry*, often mentioned in the story of the struggle, is on the Potomac, fifty-three miles above Washington. It was the scene of John Brown's imprudent enterprise in 1858, and the site of a national foundry, armoury, and arsenal, destroyed by the United States government.

The western part of Virginia, adhering to the Federal cause, constituted itself into a separate state in 1861, and was reorganised by Congress in the following year. It embraces an area of 20,000 square miles, and has *Wheeling* on the Ohio, the seat of extensive glass and iron manufactures, for its chief town. Its Great Seal is two and a half inches in diameter, and bears the legend, 'State of West Virginia,' with the motto, *Montani semper liberi*, 'Mountaineers always free.' In the centre is a rock, with ivy, considered by the National Almanac emblematic of stability and continuance.

The CAROLINAS, North and South, originally constituted a single province; and the two are still commonly associated in popular speech, being bordering districts, distinguished by the same natural features and industries, a remark which applies also to GEORGIA, their southern neighbour. These states have islet-fringed shores, on which the celebrated 'sea island cotton' of commerce is grown, with a broad belt of low country extending to the distance of from 80 to upwards of 100 miles inland. This district is nearly a dead-level, swampy in many places, where fine rice-grounds are formed; sandy in others, but thickly clothed with pine forests supplying pitch, tar, turpentine, and timber. More in the interior the surface swells into hills and rises into mountains, forming part of the Alleghanies, which attain in Mitchell's Peak, North Carolina, to 6000 feet above the sea, and sustain table-lands of considerable elevation. The chief rivers are the Santee, in South Carolina, and the Savannah, which forms the border between it and Georgia. FLORIDA, the most southerly member of the confederation, is one of the least populous and important. It is mainly a long and broad peninsula, projecting between the Atlantic and the Gulf of Mexico, and containing more prominently the low, marshy, sandy, and woody belt of the preceding districts, possessing a very dangerous sea-board. Making a close approach to the tropics, oranges, lemons, figs, pomegranates, and dates are common fruits.

The Carolinas are named after Charles II. The king made a grant of the whole country from the Atlantic to the Pacific Ocean, between the parallels of 29° and 36° 30', to eight needy courtiers, who forthwith engaged in the most enormous land speculation on record. The allotment embraced the present provinces of North Carolina, South Carolina, Georgia, Alabama, Tennessee, Louisiana, Mississippi, Arkansas, much of Florida and Missouri, nearly all Texas, and a large portion of Mexico. The charter constituted them absolute proprietors of the soil, with power to establish cities and manors, baronies and counties, create orders of nobility, erect fortifications, and levy troops. The most active member of the incorporation was Ashley Cooper, Earl of Shaftesbury, whose name is commemorated by the Ashley and Cooper Rivers flowing by Charleston. Emigrants were offered land cheaply, and invited to meet the agent of the proprietors, at the 'Caroline Coffee House, Birch Lane, near the Royal Exchange, every Tuesday morning at eleven o'clock.' The first settlers sailed in January 1670, and founded Charleston. Locke, the philosopher, drew up officially a scheme of government for the dawning states, the Constitutions of Carolina, much vaunted of in their day, but impracticable and fantastic. His autograph is said to be preserved in the Charleston public library.

Raleigh, in North Carolina, and *Columbia*, in the southern province, are small but pleasing interior towns, the seats of their local legislatures. *Charleston* is maritime, and the most important city on the Atlantic sea-board south of the Potomac. It occupies a tongue of land between the rivers Ashley and Cooper, 780 miles from New York. The confluent streams form a bay two miles wide, and extending seven miles to the ocean, studded with small islands occupied by forts, now dismantled by the guns of the Federals. The site was called Oyster Point by the first settlers, from shell-fish being numerous. Amid ancient groves of pine, cedar, and cypress, that swept down to the water's-edge, covered with the yellow jasmine, the rude cabins of husbandmen antedated the modern city of merchants and planters, now of soldiers. It was long renowned for its splendid vegetation, especially in the Broadway, the present Meeting Street. Houses, furnished with piazzas, and ornamented with vines; gardens of orange-trees, peaches, and magnolias; and streets lined with

the 'Pride of India,' and other beautiful trees, were lately prominent in its appearance. Before the war Charleston contained a population of 41,000. Though gallantly defended, it must have suffered severe material injury from the furious attacks of the northerners. The city will have a place in history, as having by its Act of Secession and the attack on Fort Sumter, when held by a small national garrison, taken the initiative in the most bloody civil contest which has marked the annals of the world.

Georgia was the last planted of the states which formed the original Union, and has its name from George II., in whose reign the first white settlement was made. *Savannah*, on the estuary of the river so called, is the largest and most commercial town, with an excellent harbour, and a population of 28,000. Florida, nominally a Spanish possession down to the year 1819, was so denominated from being discovered on Palm Sunday, *Pasqua Florida*. Favoured by the swamps, the Seminole Indians long maintained their independence, after the annexation of the territory to the great republic. The region is very remarkable for a vast amount of surface water, which forms the extensive grass-ponds called the 'Everglades.' Low islets off the south coast, known as the Florida Keys, have always been the dread of mariners. *St Augustine*, a decayed place, two miles from the Atlantic shore, is the oldest town in the United States, having been founded by the Spaniards in 1564.

ALABAMA, the first in order of the Gulf states, proceeding from east to west, has only a limited extent of coast-line in direct distance, but embraces the deep and spacious inlet of Mobile Bay, which includes several harbours. Inland, the territory assumes the form of a rectangle of considerable breadth and length, in the northern section of which the Alleghanies terminate. Thence the surface declines from mountains into elevated hills, clothed with oaks, poplar, hickory, elm, chestnut, and mulberry; and into a low country in the southern part of deep rich soil, often swampy. Here the natural forests are of pine and cypress, while groves of oranges and lemons are luxuriant, and cotton, rice, and sugar are raised. The two principal streams are the Alabama and Tombigbee, both navigable for steamers, which unite to form the Mobile, at the outlet of which the city of the same name is situated. The states of MISSISSIPPI and LOUISIANA, westward, correspond generally to the preceding district in natural features and cultivated products, with the exception of having only very slight elevations of the surface within their limits, with a larger proportion of woodland, marsh, and open prairie. The great stream is for several hundreds of miles the dividing-line between them, and receives the Red River on the west bank, the Yazoo and the Big Black on the east. But its outlet and entire delta belong exclusively to Louisiana. Extensive portions of both states are below the high-water level, and have to be protected from submergence by levées or dykes, the rupture of which by the power of the current occasions destructive inundations.

The number of foreign-born inhabitants in these states is by far the greatest in Louisiana, though its population is inferior to either of the other two. In 1860 it amounted to 81,029, while Alabama had only 12,352 and Mississippi 8558. Of the total, 101,939, there were 29,223 Germans and 37,764 Irish.

Alabama was admitted into the Union in 1819. The name is Indian, signifying 'Here we rest,' said to have been the exclamation of a chief in allusion to its well-stocked hunting-grounds. Deer and wild turkeys are still abundant in the woods; and aquatic fowl are plentiful. Mineral waters of various kinds are numerous. Blount's Springs, chiefly sulphureous, in the northern district, is a fashionable watering-place. *Montgomery*, the seat of government, is handsomely built, occupies a central position, and was the capital of Secession prior to Richmond. *Tuscaloosa*, on the Black Warrior River, possesses the state university, a very fine pile of buildings. *Mobile*, the important city and only seaport, stands at the outlet of the river, and the head of the bay which bears its name. Before the blockade it was one of the largest of the shipping ports for cotton, which always commanded a high price in the Liverpool market, and contained a population of 29,000. It occupies a spacious plain elevated above the highest tides, open to the sea-breezes, and overlooks beautiful prospects. The bay is thirty miles long by from three to eighteen miles broad, protected at the entrance by Forts Morgan and Gaines, taken by the Federal squadron under Admiral Farragut in 1864.

The state of Mississippi became a member of the Union in 1817. *Jackson*, centrally placed on the Pearl River, the seat of the legislature and public institutions, was captured and partly destroyed by the Federals in 1863. It communicates by railway with *Vicksburg*, forty miles westward, on the left bank of the Mississippi, forced by famine to surrender in the same year to General Grant. *Natchez*, lower down on the river, derives its name from a tribe of Indians who destroyed an infant settlement at the spot, were afterwards defeated, and the survivors sold into slavery in St Domingo.

Louisiana, planted by the French in 1699, has its name from Louis XIV. of France. In 1803 it was purchased by the Washington government from Napoleon I. for 15,000,000 dollars, and became a recognised

state in 1812. *Baton Rouge*, the seat of its legislature, is a small modern town on the east bank of the Mississippi, occupying the first bluff met with on ascending the stream. The bluffs are masses of limestone on its banks, often perpendicular, seeming at a distance like the walls and battlements of a city. They are striking objects, and relieve the monotony of the channel in its lower course. *New Orleans*, the commercial capital, called the 'Crescent City' from the shape of the older portion, is situated on the same side of the great river, about 100 miles from its mouth following the current, 1172 miles from Washington, 1397 from New York, and 1612 miles from Boston. Though on the *eastern* bank of the stream, it occupies a bend so deep and sinuous that the inhabitants see the sun rise over the *opposite* shore. The site is several feet below high-water mark, protected from the invasion of the flood by a broad *levée*, which forms a splendid promenade, and is convenient for shipping purposes. Owing to the soil being saturated with water, no underground cellars can be made, and the dead are not buried in the cemeteries in excavated graves, but in tombs above the surface, called 'ovens.' The hotels, theatres, and public buildings are magnificent, and the villas of the wealthy in the suburbs are very beautiful. They are built of planks, called frame-houses, painted white, with green venetian blinds; and have verandahs running round them, with which tropical plants entwine, while groves of orange-trees are in the gardens. But yellow fever occasionally visits the city with fatal effect, especially to the unacclimatised. Previous to the outbreak of hostilities it contained a population of 168,000, of a most promiscuous description, but chiefly Americans, French Creoles, and Negroes; and was the seat of a vast commerce in cotton and sugar. In the streets might be seen the 'dark, sallow, black-bearded, and mustached Spaniard; the smooth, clean-shaved, lantern-jawed Yankee; the light-haired, greasy, and red-faced German; the smug Englishman; the cautious, keen Scot; the Celt, with his rich brogue; the proud southern planter, in Panama hat, purest of linen and whitest of clothes; the reckless Texan, with broad felt sombrero, and trousers tucked into his high boots; the tall flat-boatman, in hunting-shirt and leggings; and the Mexican, with his everlasting corn-shuck cigarita in his mouth.' In 1862 the city surrendered to the Federal navy under Farragut, and has since been subject to military government.

TEXAS embraces the coast from Louisiana to Mexico, and has a vast inland extent, being larger than the whole of France, possessing natural resources as well as space to sustain an immense population, and form the seat of a flourishing independent empire. The country is flat for some distance from the shores, and exhibits an uninterrupted sea of verdure, the view of which is only bounded by the horizon. Then the surface rises in gentle knolls forming the 'rolling' prairies, some of which are park-like, being dotted with single trees, or with clumps of timber called 'mottes,' behind which fancy is apt to picture the lordly castle or stately mansion, where there is probably not a single hut for miles. More in the interior, the elevations become hills of considerable height, and then mountains on the north-western frontier, the summits of which are covered with snow for many months of the year. Few districts are so well supplied with springs, streams, and rivers. All the latter flow from the north-west, and eventually pay tribute to the Mexican Gulf. The Colorado and the Brazos are the most important. Wood generally form their border, varying from a few yards to twenty miles in width, but occasionally the grass of the prairies runs up to the bluff banks. Cotton, sugar, and tobacco are raised, and cattle breeding is very extensively conducted. Many of the *rancheros*, or stock-owners, possess 20,000 head, have good houses, generally built where tall trees afford a shade, with which orchards of peach, nectarine, fig, and other fruits are connected, as well as gardens of tropical plants and flowers.

The name Texas is Indian. It is related that a tribe driven from their hunting-grounds by more powerful neighbours wandered south. Reaching a high prairie swell, the chief gazed with silent delight upon the plains, covered with vast herds of deer, bison, antelopes, and other animals. Waving his arm, he called the attention of his warriors to the fair landscape with the exclamation, 'Texas, Texas!' or 'Plenty, plenty!' Texas, originally part of Mexico, gained independence under General Houston by the decisive battle of San Jacinto, April 21, 1836. It remained a separate republic till the year 1845, when by vote of the people it was annexed to the United States. *Austin*, on the Colorado, about 200 miles from its mouth, ranks as the seat of government; *Houston*, on the Buffalo, is larger; but *Galveston*, at one extremity of an island of the same name, is the principal place, containing 10,000 inhabitants and some good public buildings. The island is a long narrow tract of sand, destitute of timber, except three trees, called the 'lone trees,' which form a well-known landmark for coasting vessels. Lafitte's Fort is at one end of the town, the stronghold of a notorious buccaneer of that name, ultimately pardoned by General Jackson, for services rendered to the Americans during the British attack on New Orleans in 1815. His story is said to have suggested adventures connected with a different sea in Lord Byron's *Corsair*.

IV. WESTERN STATES.

	Area in Square Miles.	Population.	Capitals and Chief Towns.
Ohio,	39,964	2,339,502	Columbus, Cincinnati, Cleveland.
Michigan,	56,243	749,113	Lansing, Detroit, Monroe.
Indiana,	33,809	1,350,438	Indianapolis, New Albany, Madison.
Kentucky,	37,680	1,155,684	Frankfort, Louisville, Lexington.
Tennessee,	45,600	1,109,801	Nashville, Murfreesboro', Memphis.
Arkansas,	52,198	435,450	Little Rock, Van Buren.
Missouri,	67,380	1,182,000	Jefferson City, St Louis, Independence.
Kansas,	80,000	107,200	Topeka, Lecompton.
Illinois,	55,409	1,711,951	Springfield, Chicago, Galena.
Iowa,	55,045	674,948	Des Moines, Burlington.
Wisconsin,	53,924	775,881	Madison, Milwaukee.
Minnesota,	83,531	173,855	St Paul, St Anthony.

OHIO, on the west of Pennsylvania and Virginia, is extensively enclosed by the river Ohio, and the south-western waters of Lake Erie, which give it a fluvial boundary of more than 400 miles, and a lake frontier of 230 miles. It embraces a large section of the mineral region of the Alleghanies, where coal and iron are worked; possesses prolific salt-springs and oil-wells; includes important remains of the natural forest; and the heaviest crops of cereal produce are obtained without manure from the alluvial soil of the valleys, which contribute numerous streams to the bounding lake and river. Most of the hills have also deep rich soil, and are capable of being cultivated to their summits. Thus endowed with great advantages by the bounty of nature, this territory has rapidly accumulated a large and prosperous population, while the unoccupied and even untouched tracts are still extensive. MICHIGAN, on the north-west of Ohio, is chiefly included within the great horseshoe bend of Lakes Erie, Huron, and Michigan, a level tract covered with pine woods interspersed with prairies, but has a detached portion between the last-named expanse and Lake Superior, boldly rugged and also forest clad. An enormous quantity of timber is annually prepared for export; the agricultural produce is considerable; and pastoral husbandry is also pursued. INDIANA touches the southern shore of Lake Michigan, extends thence to the banks of the Ohio, and has its affluent, the Wabash, running along the greater part of its western border. It is a region of alternate forest and prairie, with tillage and the rearing of live-stock for prevailing pursuits.

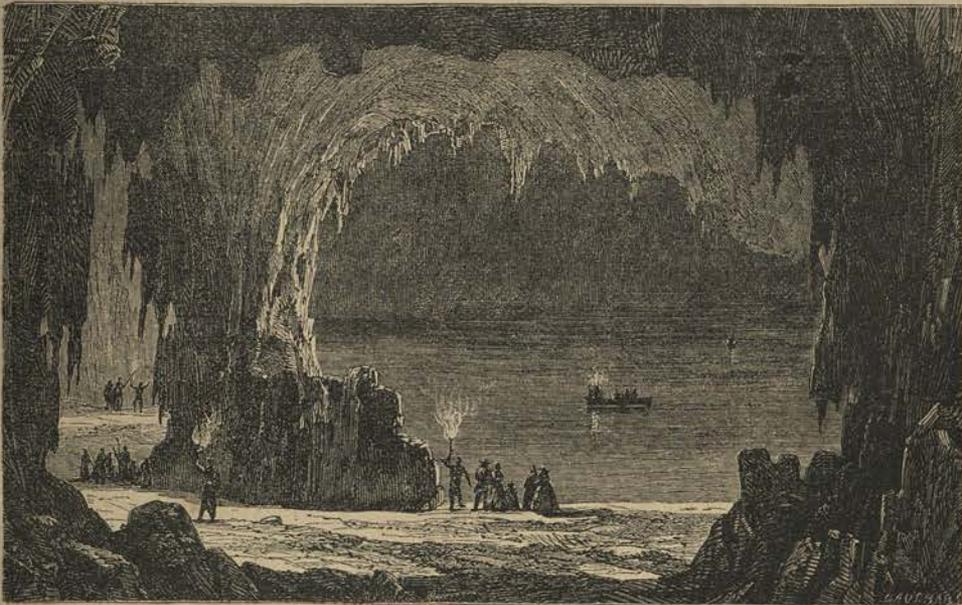
The state of Ohio was admitted into the Union in the year 1803, and ranks the third in the number of its foreign born inhabitants, or next to New York and Pennsylvania. Germans vastly preponderate. In 1860 they amounted to 168,210, while the Irish only numbered 76,826, the English 32,700, and the Scotch 6535. *Columbus*, the political capital, on an affluent of the Ohio, is a town of moderate size, possessing a state library of 26,000 volumes. Its site was part of the wilderness in 1812. *Cincinnati*, situated on the north bank of the main river, the pride of the West, is the largest city between the Alleghanies and the Pacific Ocean. It was founded in 1789 by a few families from New England and New Jersey, and was only a log-built village of 750 souls at the beginning of the century, and has now a population of 160,000, with palatial banks, hotels, and warehouses, from forty to fifty churches, a Roman Catholic cathedral, an observatory, several markets, and all the appurtenances of a great metropolis. The Public School Library contains 25,000 volumes, the Mercantile 21,000, and St Xavier's College 17,000. The manufactures are various; that of household furniture, chiefly sent down the river by the steamers for the rising places in the far western wilds, is very extensive. *Cleveland*, on Lake Erie, is the principal grain mart, containing 55,000 inhabitants. The corn is thence shipped to Buffalo, and reaches the Atlantic sea-board by the Erie Canal.

MICHIGAN, a youthful state, dating from the year 1837, has *Lansing* for its seat of government, where the first settlement was made in 1847. *Detroit*, the principal town, is of old establishment, having been founded as a fur-trading post by the French Canadians nearly two centuries ago. It stands on the river of its own name which connects Lakes Huron and Erie, and forms the frontier from Upper Canada. The place is actively commercial, containing a population of 45,000. Thousands of emigrants annually disembark here bound for the far west. Indiana became a member of the Union in 1816, and has *Indianapolis* for its capital, with 30,000 inhabitants, near its centre.

KENTUCKY, one of the older states, has the course of the Ohio for its northern border,

and that of the Mississippi for the western, which forms in that direction the limit of TENNESSEE, a southerly adjoining district. Both have a generally hilly surface, abundantly wooded, with the Cumberland Mountains on the eastern side, a branch of the Alleghanies. They correspond in their staple agricultural products, wheat, maize, and tobacco, while cattle-rearing is pursued upon a great scale, and enormous numbers of swine are fed on mast in the forests. Limestone is likewise the prevailing substratum in both states. It abounds with fissures, called 'sinkholes,' in which entire streams disappear in the dry season; it also contains some chambered stalactital and osseous caverns of immense dimensions.

Kentucky dates as a state from the year 1792. *Frankfort*, the legislative seat, is of far inferior importance to *Louisville*, an increasing city of 69,000 inhabitants, at the Rapids of the Ohio. A short canal obviates the obstruction offered here to the navigation, but when the water is high the largest steamers traverse the river



Mammoth Cave, Kentucky.

without difficulty. The great Mammoth Cave, in Edmonson County, once containing remains of the fossil elephant, is the largest known cavern in the world. It consists of a series of chambers connected by passages, which have been explored through a length of ten miles, and has probably been the bed of a subterranean river. TENNESSEE was received into the Union in 1796. *Nashville*, the capital, on the banks of the Cumberland, contains a costly state-house, with about 16,000 inhabitants, and has the 'Hermitage' in the vicinity, once the residence of President Jackson. It was taken in 1862 by the Federals under General Rosencrans. Afterwards (Jan. 1—3, 1863) the Confederates under Bragg were defeated in a great battle at *Murfreesboro'*, a town on the south-east. *Memphis*, seated on a fine bluff of the Mississippi, above its highest floods, was highly prosperous before the war, as the outlet of a cotton region, containing a navy-yard, fifteen churches, with daily and weekly newspapers, and a population of 22,000. Captured by the Federals in 1862, it became the base of their operations against Vicksburg, lower down the river.

ARKANSAS, separated by the Mississippi from the southern part of Tennessee, derives its name from a principal affluent of the great river by which it is intersected, and divided into two nearly equal portions. It contains a large extent of prairie-ground, with the usual animals in abundance, but has a very spare population in proportion to the area,

which is about the same as that of England, with no settlements ranking above the size of villages. MISSOURI, on the north, extends along the course of the Mississippi-Missouri, and embraces a series of rolling prairies, occasionally swelling into hills stored with mineral wealth, bituminous coal, iron, and lead ores. KANSAS, on the west, is a similar district, but more extensively in a state of nature.

Both Arkansas and Missouri had at an early date a few French settlements, and were included in the Louisiana purchase from Napoleon I. They were admitted into the Union, the former in 1836, the latter in 1821. Kansas was received in 1861. No towns occur entitled to notice except *St Louis*, the 'Queen of the Mississippi Valley,' belonging to the state of Missouri. This is the commercial emporium of the West, and the principal dépôt of the American Fur Company, a scene of extraordinary activity. It is seated upon one of the limestone bluffs of the 'Father of Waters,' eighteen miles by the stream below the junction of the Missouri, 1100 below the Falls of St Anthony, 1132 above New Orleans, and 808 miles from Washington. The spot was selected by Laclede, a French trader from Canada, in 1764, for a trading post with the Indians, who foretold its rise to distinction from the favourable site, in command of a vast river-navigation. But half a century ago it was still only a paltry hamlet. St Louis has now a population of 160,000, chiefly collected since the year 1840, with spacious streets, costly public edifices, several colleges, a United States' arsenal and barracks, a full complement of churches, and a vast transit trade. The city presents a beautiful appearance as seen from the opposite bank of the river, and as approached on its surface. Long caravans of emigrants leave it annually for the country beyond the Rocky Mountains, and on the western side of the state, at the small town of *Independence*, make the final start for the weary pilgrimage.

Between the three states of Kansas on the north, Arkansas on the east, Texas on the south and west, lies the Indian Territory, set apart by Congress for the native tribes compelled to remove from the Atlantic side of the Mississippi, owing to the 'pale faces' taking possession of their land. The district contains 70,000 square miles, abounds with game, and is plentifully watered. Remnants of the red race brought from distant points are here located, provided with industrial schools, and allowed an annual grant to aid in procuring the means of subsistence. A Commissioner of Indian Affairs, to take charge of these sons of the wilderness, Cherokees, Creeks, Seminoles, Choctaws, and others, was appointed by the Washington legislature in 1862.

ILLINOIS touches upon the southern shore of Lake Michigan, and extends along the eastern side of the Mississippi to the confluence of the Ohio, contributing to the great central water-course the river from which the state derives its name, and other affluents. It is eminently a region of fertile prairies, with great depth of vegetable soil, a few low hills, interspersing groves of timber, rich lead deposits, iron and coal in abundance. IOWA, westward, has the same superficial aspect and natural resources, in which WISCONSIN shares, extending northward from the shores of Lake Michigan to the far extremity of Lake Superior. MINNESOTA stretches from the last-named expanse to the Lake of the Woods, and along the parallel of 49°, which forms the dividing-line from British ground. It includes a tract of limited extent, but remarkable importance in the hydrography of the continent, or the table-land of no considerable elevation, where, within a few miles of each other, rivers begin their flow in opposite directions, the Red River communicating with Hudson's Bay, the St Louis with Lake Superior and the Gulf of St Lawrence, and the Mississippi with the Gulf of Mexico.

Illinois was received into the Union in 1818. The population has increased with marvellous rapidity from 12,282 in 1810 to 55,211 in 1820, 157,445 in 1830, 476,183 in 1840, 851,470 in 1850, and 1,711,951 in 1860. The state ranks the fourth in the number of the foreign born, who amount to nearly one-fifth of the whole. These included at the last-named date 130,804 Germans and 87,573 Irish. Illinois abounds with the tracts called 'bottoms' and 'barrens' in the peculiar dialect of the West. The bottoms are on the river-margins, and consist of the richest land, formed of alluvial deposits. An extensive tract of this description commences at the mouth of the Kaskaskia, on the Mississippi, and runs up the course of the latter for the distance of ninety miles, having an average width of five miles. It bears the name of the 'American bottom.' Hedges of the Osage orange are common in many parts, and make good fences. *Springfield*, in the centre of the state, was laid out as the seat of its public institutions in 1822, but has lagged behind other towns of more recent date. *Chicago*, the largest, at the outlet of a river of the name into Lake Michigan, has a singularly advantageous site. There is a fine expanse on the one hand, a fertile prairie on the other, with extensive tracts of timber at hand, and a good river harbour in its centre. This is perhaps the most remarkable city in the world for rapid growth. The name, which is Indian, pronounced *She-kaw-go*, has long been known, and the place was occupied by the frontier military post of Fort Dearborn down to the year 1831, around which the wolves howled, and the natives had their wigwams. There were then about seven families of whites, besides the few soldiers, for whose wants a single log-tavern sufficed. In the brief interval since, a population of 160,000 has

been gathered, in possession of first-class public buildings, immense storehouses, numerous shipping, and the place is second to none as a great grain-dépôt. It has its Historical Society, with a library of 15,000 volumes, and a Young Men's Association, with 10,000. *Galena*, in the north-west corner of the state, is the metropolis of the lead-mining region, to which it owes its origin and name. The town contains about 14,000 inhabitants, and sent out annually upwards of 42,000,000 lbs. of the metal before the war. *Nauvoo*, on the Mississippi, was the original seat of the Mormon community, where their first prophet, Smith, was killed by the mob in 1844, which led to the exodus of his followers, 20,000, to the Great Salt Lake, and reduced the place to insignificance.

Iowa was recognised as a state in 1846, Wisconsin in 1848, which contains *Milwaukee*, a town of 40,000 inhabitants, on Lake Michigan, and Minnesota in 1857. This last, in 1862, suffered an awful calamity. Instigated by reports concerning the war, as well as by some real grievances, the Sioux Indians rose against the settlers, burned their houses, murdered the inmates or carried them into captivity, sparing neither age nor sex, and ravaged a broad tract of country upwards of 200 miles in length. A military force hastily collected checked the massacre, and finally wholly dispersed the natives, taking many of them prisoners, of whom thirty-eight were hanged on the same scaffold. *St Paul*, the state capital, is on the Mississippi, first settled in 1846 by about ten persons, and possessing 10,000 inhabitants in 1856. The Falls of St Anthony, fourteen miles above, mark the head of the navigation, and were so named by Friar Hennequin, the first European who reached them, about the year 1680, from his patron saint. The river is here divided by an island into two branches, the largest of which is about 300 yards wide. The perpendicular descent is not considerable, but rushes down a steeply-inclined bed with great grandeur. A beautiful cascade in the neighbourhood has the name of Minnehaha, or the 'Laughing Water.' Minnesota contains an immense number of small clear lakes, abundantly stocked with fish, the shores of which have generally features of the bland description.



Minnehaha Falls, Minnesota.

V. PACIFIC STATES.

	Area in Square Miles.	Population.	Capitals and Chief Towns.
California,	188,982	379,994	Sacramento City, San Francisco.
Oregon,	95,274	52,465	Salem.

CALIFORNIA, on the Pacific Ocean, embraces as a state only a small portion of the geographical region known by the name, parts of which have been assigned to other

sectional divisions, while a southern tract remains within the limits of Mexico. It extends northward from the long narrow peninsula and Gulf of California to the border of Oregon, and from the sea-board inland to the high chain of the Sierra Nevada. Parallel to the coast, and only a short distance from it, runs a subordinate range of mountains, between which and the inner range lies a grand longitudinal hollow, the distinguishing feature of the country. This great valley has a length of 500 miles from north to south, by an average breadth of 50 miles, but includes valleys of smaller extent, formed by lower lateral ridges along the main chains. It is traversed from the north by the Sacramento River, and from the south by the San Joaquin, which come to a confluence towards the termination of their course, and enter as one stream the noble harbour of San Francisco. While renowned for gold, other metals are either obtained or are known to exist in this region; as silver, quicksilver in the form of cinnabar, platina, copper, and iron. The finest timber in the world is also found within its limits in pines of giant height and girth; and all the fruits of the warm and more temperate countries of Europe are raised in perfection, from the apple to the olive, from the grape to the orange.

California was obtained by cession from Mexico at the close of the war with that country in 1848. It was then very scantily peopled by cattle-breeders and trappers, who exported hides, tallow, and furs. But the discovery of gold, which had just before been made, in Sutter's mill-race, Sacramento Valley, changed as if by magic its industry and aspect. Thousands poured in from the Atlantic states and other quarters; and the territory speedily acquired a population sufficiently large to be received as a state into the Union, which took place in 1850. In the interval from April 1849 to December 1856, gold was exported of the average value of more than £9,000,000 per year. It was entirely obtained at first from the drift in the great valley, composed of a heterogeneous mixture of clay, sand, gravel, and pebbles, varying in thickness from a few inches to several feet. But quartz-crushing mills were speedily introduced for its extraction from the solid rock. In 1861 there were 192 quartz-mills in operation, and the mining ditches, or 'diggings,' numbered 481, having a total length of 4300 miles. The gold has attracted a large body of foreigners. There are Dutch, Swedes, and Norwegians, Greeks, Italians, and Swiss, French and Spaniards, Russians and Poles, West Indians and Sandwich Islanders. The three largest numbers are contributed by the Germans, 21,646, the Irish, 33,147, and the Chinese, 34,935. But during the last ten years the yield of gold has immensely diminished. In 1852 diggers commonly earned ten dollars per day, but can scarcely obtain one-fifth of that amount at present. Many anticipate that by the year 1872 no white man will be found in California engaged in gold-digging, and hence attention has been turned to other pursuits.

Permanent snow caps the higher summits of the Sierra Nevada, while the lateral ridges are clothed with forests of oak, fir, arbor-vitæ, and various pines of huge dimensions. Fremont measured one tree that was 21 feet in diameter, or 66 in circumference; and larger examples are met with. Some pines in the valley of Murphy's, locally called the 'Big Trees,' have made the site a place of pilgrimage. The village is about 2000 feet above the sea, and the trees, fifteen miles distant, require an additional ascent of 2500 feet to reach them. 'Huge shafts of fir, arbor-vitæ, and sugar-pine,' remarks a visitor, 'arose on all sides, and the further we advanced the grander and more dense became the forest. Whenever we obtained an outlook, it revealed to us hills similarly covered; only now and then, in the hollows, were some intervals of open meadow. The air perceptibly increased in coolness, clearness, and delicious purity. The trees now rose like colossal pillars, from four to eight feet in diameter, and 200 feet in height, without a crook or a flaw of any kind. There was no undergrowth, but the dry soil was hidden under a bed of short golden fern, which blazed like fire where the sunshine struck it. Our progress, from the ascent, and the deep dust which concealed the ruts, was slow, and would have been tedious but for the inspiring majesty of the forest. But when four hours had passed, and the sun was near his setting, we began to look out impatiently for some sign of the Trees. The pines and arbor-vitæ had become so large that it seemed as if nothing could be larger. As some great red shaft loomed dusky through the shadows, one and then another of us would exclaim, "There's one," only to convince ourselves, as we came nearer, that it was not. Suddenly, in front of us, where the gloom was deepest, I saw a huge *something* behind the other trees, like the magnified shadow of one of them, thrown upon a dark-red cloud. While I was straining my eyes, in questioning wonder, the road made a sharp curve. Glancing forward, I beheld two great circular—shot towers? Not trees surely!—but yes, by all the Dryads, those are trees.' The colossi, to the number of ninety, are scattered through the forest over a space half a mile in length. They have all received names, more or less appropriate, as the 'Beauty of the Forest,' the 'Three Graces,' 'Uncle Tom's Cabin,' the 'Old Bachelor,' the 'Old Maid,' 'Hercules,' and the 'Mother of the Forest.' The last is 93 feet in circumference and 325 feet high. The bark, which has been stripped off to the height of 110 feet, represents her in the Crystal Palace, Sydenham.

Sacramento City, the state capital, on the river of that name, and *Stockton*, near the San Joaquin, are the principal inland towns. *San Francisco*, the commercial metropolis and great shipping port, contains a

varying population of from 50,000 to 60,000. It is seated on the shore of a landlocked bay, resembling a lake in its placid aspect, and a highland loch from the adjacent mountain scenery, with space enough to contain all the navies of the world, and depth of water for the largest vessels. Many islands dot the surface. The entrance to the bay, a few miles distant, is comparatively narrow, and bears the not inappropriate name of the 'Golden Gate.' Being built almost wholly of wood, the city has often suffered from fires. But it was visited by an opposite calamity in 1861-62, a succession of tremendous floods, which submerged the lower rooms of the houses, converted the streets into navigable canals, and suspended communication through a wide area of the country except by the telegraph-wires. Large quantities of snow had fallen in the mountains, followed by warm rains, which, as estimated by the rain-gauge at some stations, amounted to the extraordinary fall of three feet nine inches in a single month. Hence the lower part of the great valley was changed for a time into a spacious lake—nearly the extent of Lake Michigan—and property was destroyed valued at several millions of dollars. But unquestionable evidence was afforded, by the age of the trees swept down, and other circumstances, that no such deluge could have occurred for several centuries. *Benicia*, on Karquenas Strait, possesses an arsenal, a navy-yard, and large docks, with a name rendered familiar as the cognomen of the 'Boy' who crossed the ocean to fight his battle with the champion of England.

The vegetation introduced into California is now very varied, and has succeeded remarkably well. In 1861 there were, in round numbers, 2280 pomegranate-trees, 3700 of olive, 5700 orange, 19,000 fig, 50,000 apricot, 53,000 nectarine, 115,000 plum, 212,000 pear, 960,000 peach, and 1,170,000 apple-trees, with 10,590,000 grape vines, estimated to cover 11,500 acres.

OREGON extends northward on the coast from California to the Columbia River, and is a similarly mountainous and woody region. The state is the youngest member of the Union, admitted in 1859, at present in an early stage of transition from the natural wilderness to civilised occupation and culture. One branch of the frontier river descends from British America, and the entire navigation is open alike to British and Americans, but is of little value, as the stream is broken up by falls and rapids into many separate portions. Its mouth was the site of the fur-trading post founded in 1811 by Mr Astor, the enterprising merchant of New York, a commercial adventure which forms the subject of Washington Irving's *Astoria*.

VI. TERRITORIES.

	Organised.	Estimated Area. Square Miles.	Capitals.
New Mexico,	1850	124,450	Santa Fé.
Utah,	1850	109,600	Great Salt Lake City.
Washington,	1853	71,300	Olympia.
Nebraska,	1854	63,300	Omaha City.
Colorado,	1861	106,475	Golden City.
Dakota,	1861	152,500	Yangton.
Nevada,	1861	83,500	Carson City.
Idaho,	1863	333,200	Florence.
Arizona,	1863	130,800	Tucson.

The population of these territories has in some instances not been taken, and in others, returns have been rendered fallacious by a redistribution of their limits. With few exceptions, the towns are infant settlements. Only a general idea of the relative position of the districts need be given.

NEW MEXICO, ceded at the close of the war in 1848 by the Mexican government, is immediately west of Northern Texas, and contains the head waters of the Rio Grande, in the long valley of which the greater part of the inhabitants are settled. They consist of whites chiefly of Spanish descent, with semi-civilised Indians in villages, and wild predatory Indians in the open country. *Santa Fé*, twenty miles east of the great river, is a small old town of Spanish foundation, maintaining trading communication by mule and wagon trains with St Louis in Missouri. The full name is *Santa Fé de San Francisco*, 'Holy Faith of St Francis.'

UTAH embraces the central part of Fremont's 'Great Basin,' or the valley between the Sierra Nevada and the Rocky Mountains, distinguished by the Great Salt Lake, about 75 miles in length, and 4200 feet above the sea, supposed to be the Lake Temponogos visited by the early Spanish ecclesiastics. Fremont conducted the first boat expedition ever attempted on the surface in 1843. It contains several mountainous islands. The water is strongly charged with common salt, almost transparently clear, and of an extremely beautiful bright-green colour. The shores are whitened with incrustations of the mineral from the spray of the waves. A smaller fresh-water expanse on the south, Lake Utah, at a higher level, pours its overflow into it by the river Jordan. The inhabitants of this region are mostly Mormons, or, as they style themselves, the 'Church of Jesus Christ of the Latter-Day Saints,' who originally emigrated from the state of Illinois, in order to secure freedom from molestation in the great mountain valley, and have been annually joined by recruits

from the old countries of Europe. However wild their religious views, fantastic their ecclesiastical organisation, and odious their polygamy, no colonists have ever been more energetic and successful, having converted a naturally barren land into a lovely region of cultivated fields, rich orchards, flower-filled gardens, and pleasant residences. Essentially agricultural in their industry, they are strongly opposed to mining adventures which might be profitably conducted. Polygamy, considered to have attained a respectable standard when five wives are possessed, is here productive of a large preponderance of female births, as in other parts of the world where it is practised. *Great Salt Lake City*, near the south-east border of the lake, is regularly built, and contains a population of 15,000. The houses are almost all of the same plain pattern, widely apart from each other, and therefore extend over a great space. The broad streets are lined with trees, and have streams of sparkling water led through them from the neighbouring hills. The site is 776 miles from San Francisco by the ordinary route of land travel, and upwards of 1100 miles from St Joe on the Missouri. In the whole territory the Mormons number 40,000, occupying small towns, many of whom are emigrants from Great Britain and Denmark.

The territory of WASHINGTON extends along the coast of the Pacific, northward from Oregon to British Columbia. That of NEBRASKA lies directly west of the state of Iowa. The route of emigration overland to Salt Lake, California, and Oregon passes through it up the great valley of the Platte or Nebraska River. DAKOTA is immediately on the north, and west of the state of Minnesota, named after an Indian tribe. NEVADA embraces part of the mountain region between Utah and California, rich in mines of the precious metals, especially of silver. In 1862 one of its counties contributed to the United States Sanitary War Commission eight massive silver bars, five of which weighed 111 lbs. each. Quicksilver, lead, and antimony are also found in great abundance. ARIZONA, east of Southern California, and COLORADO, west of Kansas, are both important mineral districts. *Denver City*, the chief town in the last-named territory, contains 5000 inhabitants, and issues two daily papers, the *Commonwealth* and the *Rocky Mountain News*. IDAHO, the youngest organised district, lies north of Utah and Colorado, and extends in that direction to the frontier of British America, an immense region destined at no distant date to be subdivided. It contains the upper waters of the Missouri, Fremont's Peak, and the South Pass of the mountain-range, the great route between the Atlantic and the Pacific states.

The South Pass of the Rocky Mountains is approached by the westward-bound traveller over plains covered with *artemisia*, or wild-sage, which grows as well on the hills as the river-bottoms, and impregnates the air with the odour of camphor and turpentine, which combine in the plants. In the later stages of the weary journey, the upper valley of the Platte is followed, and then that of one of its head branches, the Sweetwater. North of the first-mentioned river are the Red Buttes, a famous landmark, consisting of lofty escarpments of red argillaceous sandstone. The distinctive name is naturalised in the mountain-region from the French *butte*, and applied to all detached hills and ridges which rise abruptly. Along the course of the Sweetwater, the noticeable object is the dome-shaped Rock Independence, an isolated mass of granite, everywhere inscribed with the names of wayfarers, where the surface is sufficiently smooth. A few miles beyond is the Devil's Gate, where the stream cuts through a granite ridge, and flows between vertical walls of rock. The summit of the Pass is gained by a long and very gradual ascent. At the height of about 7000 feet above the sea, the traveller suddenly finds himself in the presence of waters flowing westward to the Pacific Ocean. This is the route of the celebrated Pony Express between California and St Joe on the Missouri. The riders accomplish 100 miles at a time with four changes of horses, and secure communication between San Francisco and New York in less than thirty days.

The general government of the United States is conducted by a President, a Senate, and a House of Representatives, collectively called the Congress, which meets annually at Washington in the month of December. The President is commander-in-chief of the army and navy; and has power, with the concurrence of the Senate, to declare war, make treaties, appoint ambassadors, judges, and other officers of the executive. He must be a native-born citizen, not under thirty-five years of age, and is popularly elected for the period of four years, but eligible for re-election. He takes the following oath at his installation: 'I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the constitution of the United States.' The current presidential term, ending March 3, 1865, is the nineteenth since the establishment of the Republic, but owing to the double terms of Washington and others, the present president is only the sixteenth in the high office. Virginia has contributed five presidents; Massachusetts two; Tennessee two; New York two; and Ohio, Louisiana, New Hampshire, Pennsylvania, and Illinois, one each. The Senate is composed of two members from every state, chosen for six years by their respective local legislatures. The House of Representatives consists of members elected for two years by the people in each state according to population. Both senators and representatives are paid eight

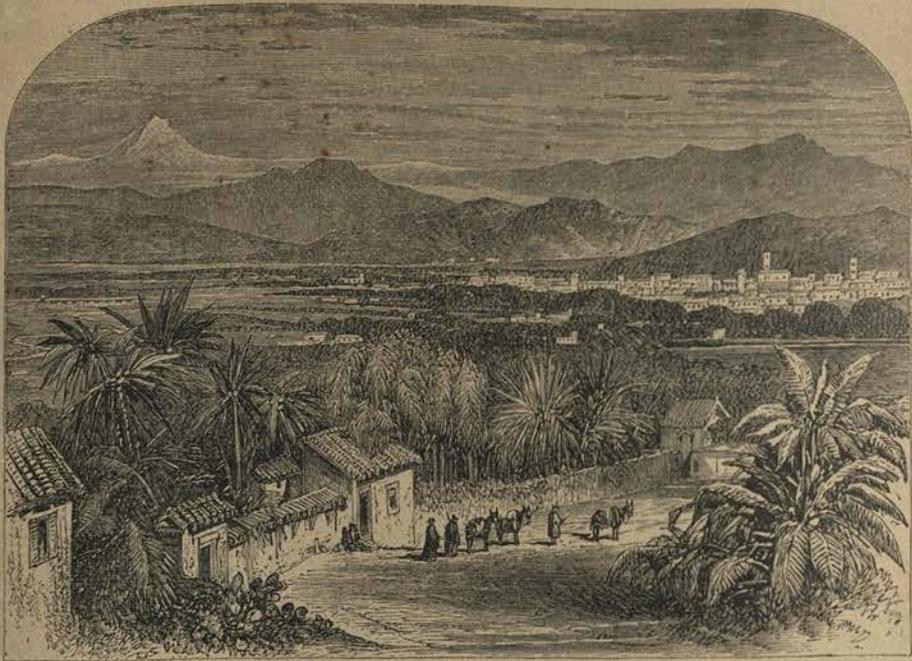
dollars a day during the period of their attendance in Congress, with eight dollars for every twenty miles' travel, by the usual roads, in going to and returning from the seat of government. At the close of the year 1863, the United States contained a white and free coloured population amounting to nearly 30,000,000. Immigration has mainly contributed to this majestic aggregate. It has been calculated, that if there had been no foreign arrivals during the present century, the sum-total would scarcely have reached 10,500,000, by the slow increase produced by the excess of births over deaths.

Since the year 1800, the immigrants and their descendants are estimated at	19,000,000.
Since " 1810, " " " " " "	17,000,000.
Since " 1820, " " " " " "	15,000,000.

Prior to the war, there were nearly 4,000,000 Negro slaves, a sad additional item to the population under the 'Stars and Stripes,' and a dark blot upon the fame of the Republic, subject to the reproachful reflection upon its statesmen, that previous to the outbreak of existing hostilities no measure was ever submitted to the legislature providing for the abolition of slavery by legal and peaceful means. The great body of the slaves were in Virginia, the Carolinas, Georgia, Alabama, Louisiana, Mississippi, Tennessee, and Kentucky, with a limited number in Missouri, Maryland, Florida, Texas, and Arkansas, and some in Columbia within the very shadow of the Capitol. No religious communion is established or sustained by the government, but liberally is the voluntary system put in action by the people. The Presbyterians, Baptists, and Methodists are numerically the most important denominations; and next the Congregationalists, Episcopalians, Roman Catholics, and Lutherans. Some of these bodies are divided into very numerous sections. The Baptists include the Regular, the Anti-Mission, the Seventh-Day, the Six-Principle, the Free-Will, and the River Brethren communions, with the Winebrennarians, Dunkers, Mennonites, and Campbellites. The Presbyterians are of the Old School, the New School, the Cumberland, the Reformed, the United, and the United Synod Associations. In most of the states large sums are voted by their legislatures for the support of free primary schools, as well as for high schools, gymnasiums, colleges, and universities. School libraries are diffused by thousands throughout the country, and are estimated to contain an aggregate of from five to six millions of volumes.



Great Salt Lake.



Jalapa, from the High Road between Vera Cruz and Mexico.

CHAPTER IV.

MEXICO, CENTRAL AMERICA, AND WEST INDIES.

I. MEXICO.

THIS country, one of the most remarkable in its physical features, is for the most part an isthmus gradually contracting in width from north to south, intersected somewhat centrally by the line of the tropic, so that the two halves are respectively in the temperate and the torrid zone. It has for its boundaries the Pacific Ocean on the west, the Mexican Gulf on the east, the United States on the north, and the territory of Guatemala on the south. The Gulf of California, on the western coast, upwards of 700 miles long, but comparatively narrow, is the most considerable inlet on that side of the American continent, formerly the site of an important pearl-fishery, now abandoned owing to social distractions and the diminution of the supply. Early navigators styled it the Vermilion Sea, from the reddish colouring of the waters, probably occasioned by the presence of minute animalculæ. The Spaniards name it from its discoverer, *Mar de Cortez*. The distance from sea to sea across the isthmus, where the greatest expansion occurs, scarcely exceeds 500 miles. It decreases southerly to little more than a fourth part of that measurement, but owing to the extension north and south, the area comprises not less than 750,000 square miles. Belts of lowland form the coasts, the broadest of which is on the side of the Atlantic. Between them is an

immense plateau, the main mass of the country, divided into a series of table-lands, ranging in height from 6000 to 8000 feet, on which are populous cities, spacious lakes, mountain-ridges, and numerous volcanic cones, which rise to more than double the elevation of the general surface, far above the snow-line. This plateau region presents a steep face towards the Pacific, but slopes in the opposite direction, and declines gradually towards the north-east. It is formed by the main chain of the Andes, which, after traversing the whole of South and Central America, with a few slight interruptions, ramifies over the greater part of Mexico, and connects itself with the grand chains on the western side of the north section of the continent. Except the Rio del Norte, part of the frontier from the United States, and chiefly in the hands of that power, there are no rivers of navigable value. Most of them have short courses, and either a torrent-like character, or are obstructed by bars of sand at their mouths. This deficiency of water-communication renders it necessary to employ mules for the transport of goods in the interior; and in prosperous times as many as 70,000 of these useful animals have been engaged in the carrying trade between the port of Vera Cruz and the capital. The numerous lakes are the remains of immense basins of water which formerly existed on the elevated plains, and appear to be still annually decreasing in size.

Conical colossal summits rise from the plateau as from an elevated platform, the principal of which extend in a line from east to west, nearly coincident with the parallel of 19°. They are the sites and monuments of volcanic action, some extinct or dormant, while others are frequently in a state of activity. Afar on the waters of the Gulf of Mexico, the seaman hails the snow-crowned peak of Orizaba, also called Citlal-tepetl, the 'Star Mountain,' from its appearing at a distance like a star when fire has been emitted from the summit. It has an elevation of 17,388 feet, occupies the eastern edge of the plateau, is some sixty miles inland, connected by a chain of hills with the Coffer of Perote. This mass of basaltic porphyry is not so lofty, 13,415 feet, but remarkable for a large square box-like rock at the top, which has originated the name, as also that of Nauhcampa-tepetl, or 'Square Mountain,' another denomination. More interior is the stupendous and beautifully-shaped Popocatepetl, 'Smoking Mountain,' 17,735 feet, the highest point of the country, and in near neighbourhood the somewhat broken and irregular Iztaccihuatl, 'White Woman,' not far short of the same height, both overlooking, like guards, the valley of the capital. More to the westward, seen from the waters of the Pacific, is the volcano of Colima, generally with snow on the crest. From many points of the road between Vera Cruz and the city of Mexico, the traveller may look around, and see most of these grand heights at once. Diego Ordaz, in the train of Cortes, with nine companions, made the first attempt to reach the summit of Popocatepetl, a feat which has often been performed since his day, for which the Emperor Charles V. gave him permission to enter a volcano in his coat-of-arms. Clouds of sulphureous vapour, with ashes, issue at intervals from the crater of the 'Smoking Mountain,' but no tradition lingers of the fiery activity of his lady, the 'White Woman,' and Orizaba has long been dormant. Earthquakes, especially of the slighter kind, are common, but have occasionally occurred with tremendous violence, accompanying volcanic eruptions, by which the features of the surface have been permanently changed.

The conformation of the country gives it three distinct zones of climate, and a correspondingly diversified vegetation, indigenous and cultivated. The lowlands belting the whole coast of the Mexican Gulf, extending from the sea-level to the height of 2000 feet, form a hot region, the *tierra caliente*, where the usual high temperature of an equinoctial clime is experienced. This district extends about fifty miles into the interior, and has tracts of desolate sand, the nursery of myriads of sand-flies, a perfect pest to the traveller. They bite with sharpness, and are so small that nothing will exclude them, but fortunately they disappear at sunset, and afford a chance of sleep if the mosquitoes allow of it. Deep black mould of fertile soil appears in other places, where the eye is bewildered with the variety of trees, shrubs, and creeping plants, generally thrown together in such extreme confusion as to render their classification difficult. The air is perfumed with brilliantly-coloured aromatic wild-flowers, while the vanilla, banana, maize, indigo, cacao, cotton, and sugar plants flourish luxuriantly. But the oppressive heat, the abundant rains, and the decomposition of the rank vegetation engender the malaria which produces yellow fever, the scourge of the coast in the summer months. Ascending the plateau, a temperate region is entered, the *tierra templada*, which ranges from the altitude of 2000 to 5000 feet.

Here the deadly fever of the lower zone is unknown; the extremes of heat and cold are never felt; majestic cypresses, forests of the Mexican oak, wheat, and the ordinary cereals of Europe are met with; but thick fogs are common, consequent on the rise of the land to the height to which the clouds usually ascend above the sea. All who have the means leave the lower for the upper zone, Vera Cruz for Jalapa, in the more unhealthy season of the year, to avoid the pestilence. A cold region, *tierra fria*, so considered by the natives, commences at the height of 5000 feet, and embraces the general surface of the tablelands, where, and on the lower slopes of the projecting mountains, pine-woods occur. But only to those who have just left the lowlands is it really cold, as the ordinary warmth is equal to that of Rome. At the altitude of 8000 feet, the atmosphere becomes frigid, and at 14,800 feet the line of perpetual snow is encountered.

The vegetable productions include a splendid variety of flowering shrubs, which have contributed to enrich the gardens of Europe, as in the instance of the well-known dahlia, and several of the fuchsias. At the time of the Spanish conquest of the country a passion for flowers distinguished the natives, and it is still a characteristic of their descendants, exhibited in household life and on festive occasions. Curious and highly useful as well as beautiful species occur. The hand-plant, as it is popularly called, a tree of some size, has the name from the organisation of its bright-scarlet flowers, the central part of which is in the form of the human hand with the fingers a little bent inwards. Around Jalapa grows the convolvulus, the root of which supplies the jalap of medicine, so called from the site. The plant is a parasitical creeper, with leaves like the ivy, and a red flower which shuns the light, opening as the day declines, and hence styled by the French *belle de nuit*. From Mexico we have both the use and the name of chocolate, *chocolatl*, still grown, but supplanted largely by the superior cacao of other countries. The cochineal cactus is abundant, upon which the cochineal insect subsists, feeding only upon the leaves, which are carefully tended by Indian women in the plantations to keep them clean. Another cactus, the magney, is extensively reared, the leaves of which are usually from five to eight feet in length, but often considerably exceed these dimensions. The juice supplies the lower classes with a favourite beverage. Of the leaves the old Mexicans made their paper. The more fibrous parts furnish a strong thread or twine, still made up into ropes. The prickles were formerly used for pins and nails, and the priests pierced their arms and breasts with them in their acts of expiation. A third species looks exactly like an old man's head, as it is covered with long gray hair, which completely conceals the thorns. Nutritious bread is prepared of flour of the manioc root, which in its raw state is an active poison, but loses its deleterious qualities upon the juice being expressed. In the temperate region, cypresses, *Cupressus disticha*, attain extraordinary dimensions.

Wild animals of the formidable class are scarce, though both the jaguar and the puma are met with in the hot region, and the common black bear of the continent is found in the upland forests. The bison and musk-ox wander in immense herds over the northern plains. Birds of resplendent plumage are numerous, parrots, paroquets, and humming-birds of many varieties, the gay feathers of which are still worn by the Indians for ornament as in the time of Montezuma. Feather-painting, an arrangement of the colours so as to produce pictures, was an industry with his subjects, and is not yet obsolete. The low grounds swarm with noxious insects, and snakes are very common, but not generally dangerous. All the domestic quadrupeds introduced by the Spaniards, horses, oxen, sheep, and hogs, have multiplied surprisingly, and may be seen running wild over the open country. The mustang, or wild horse, of which there are vast droves, a spirited, hardy, and active animal, becomes very docile and useful, if captured young, although apt to rejoin the free rovers whenever an opportunity occurs.

From the time of its discovery by Europeans, the country has been renowned for its wealth in the precious metals, especially silver, of which, perhaps, it has yielded a larger supply than any other part of the world. To capture the treasure-ships sailing from Vera Cruz to Spain, or from Acapulco to the Philippines, was long a favourite object with the bucaniers, and with British naval officers in time of war. But the useful metals are not wanting, iron, copper, lead, and tin, though they have been neglected in the anxious quest for the more costly. The total number of mines, of all kinds of produce, worked and disused, has been stated at 3000.

Mexico was conquered by Cortes, who landed upon the Atlantic coast in 1519, at the spot where Vera Cruz now stands, and after two years of warfare, added it to the crown of Spain. It remained in that connection for nearly three centuries, then became an independent state for a short time under an emperor in 1822, and was constituted a Federal Republic in 1824, but has since been subject to the rule of unprincipled military dictators, and the scene of great crimes and public disturbances. Aggressions against foreigners led to the French intervention in 1862, and the conquest of the country, with the recent elevation of an Austrian prince to the sovereignty. The name of Mexico

originated with the Spaniards, who derived it from *Mexitli*, the god of war of the natives. The dominant people at the time of the Spanish invasion were the Aztecs, under Montezuma, who fell in defending his inheritance.

		Chief Towns.
Northern Provinces.	Lower California.	La Paz.
"	Chihuahua.	Chihuahua, San José de Parral.
"	Sonora.	Ures.
"	Coahuila.	Saltillo, Santa Rosa.
"	Sinaloa.	Culiacan, Sinaloa, Mazatlan.
"	Durango.	Durango, San Juan del Río.
"	Nuevo Leon.	Monterey, Linares.
"	Tamaulipas.	Victoria, Matamoros, Tampico.
"	San Luis Potosi.	San Luis, Guadalcázar.
"	Zacatecas.	Zacatecas, Fresnillo, Sombrerete.
"	Aguas Calientes.	Aguas Calientes, Lagos.
"	Xalisco.	Guadalajara, San Blas.
Central Provinces.	Guanajuato.	Guanajuato, León, Salamanca.
"	Querétaro.	Querétaro, Cadereita.
"	Mexico.	Mexico, Tezouco, Toluca.
"	Colima.	Colima.
"	Michoacan.	Morelia or Valladolid, Zamora.
"	Guerrero.	Tixtla, Acapulco.
"	Puebla.	Puebla, Cholula, Tehuacaro.
"	Vera Cruz.	Vera Cruz, Jalapa, Orizaba.
"	Tlaxcala.	Tlaxcala.
Southern Provinces.	Oaxaca.	Oaxaca, Mitla.
"	Tabasco.	Villa Hermosa.
"	Chiapas.	San Christoval, Chiapas.
"	Yucatan.	Merida, Valladolid.
"	Campeachy.	Campeachy.

The city of *Mexico*, the capital, is very grandly situated on the central plateau, in the centre of an oval-shaped valley, in latitude 19° 25' north, longitude 99° west, the lowest part of which is still 7483 feet above the sea, while overlooked by towering volcanic mountains. How the Spaniards were filled with admiration at the sight of this valley has been vividly described by Robertson and Prescott, and with similar feelings present external appearances are noted by all travellers. The city stands on perfectly level ground, near the margin of an extensive lake. The streets are broad, and drawn at right angles; and hence looking along any of them, east, west, north, or south, the grand barrier of the mountains appears. Though at the least fifteen miles distant, yet in fine weather, owing to the extreme purity of the air, they are so distinctly seen, that from the intersections it seems as if the streets led directly to them. The houses are substantial, spacious, and terrace-like, having flat roofs. Most of the public buildings are deficient in height, partly owing to the difficulty of securing a firm foundation in a swampy site, and partly from the frequency of earthquakes. Few features of any metropolis are finer than the *Plaza Mayor*, or Great Square, paved throughout, and embracing twelve acres of ground. The north side is wholly filled up with the cathedral and its appurtenances; the east, with the government palace, the former residence of the viceroys; on the west and south are buildings occupied as shops, with covered colonnades, forming a favourite evening promenade. The Alameda, a kind of park at the west end, and the Paseo, a long avenue of trees connected with it, are places of fashionable resort, crowded on a Sunday or *Día de Fiesta*. Churches and convents are extremely numerous. Bell ringing is hence incessant, yet the tones are very sweet, said to be owing to the silver in the composition of the metal. Trading life has no noticeable features, except the profusion of rich flowers and fruits exposed for sale on the stalls, brought in by the country-people; and the odd circumstance that the milliners, those who veritably make up ladies' dresses, are not women, but brawny fellows of all complexions, with moustaches. Gambling, cigar-smoking, and intrigue are the popular pursuits, in which both sexes, and priests as well as seculars, are pretty equally proficient. The population is supposed to number 170,000, embracing a large class of lazzaroni, wretched beings without homes or decent raiment, who live and sleep in the streets, or occupy filthy dwellings in the suburbs.

Travelling from the capital in a northerly direction, along what is called the road of the interior, *Querétaro*, *Guanajuato*, *Aguas Calientes*, 'warm waters,' *Zacatecas*, *Sombrerete*, and *Durango* are successively passed. Some of these are celebrated mining localities, but have only ordinary features. Along part of this route the electric telegraph has been introduced, but it does not seem to have prospered. Von Tamsky, in 1854, noticed the high posts by the wayside, but the wire had snapped, or been intentionally broken, and was lying on the ground, kicked by the mules and asses in the dust of the road. Upon representing the matter to the official in charge at the next diligence station, he coolly answered: 'It always breaks, and so we don't trouble about it any more, as there has been no occasion for it ever since it was first used.' The towns

correspond in their general plan as far as variations of site will allow. They are built in rectangular streets, very regularly laid out, and have at least one square, *plaza*, at or near the centre. In those of the larger class, the central or great square, *plaza grande*, has the cathedral on one side, the governor's residence and government houses on another, offices of the municipality on a third, and usually shops on the fourth. There is also a public promenade, *alameda*, with shady trees and benches, resorted to in the evening; and a circus for bull-fights, *plaza de torros*, commonly near it, chiefly a Sunday recreation. The best hotels, *fondas*, offer rooms very scantily furnished to the traveller, with sorry fare, but with no lack of vermin; while the country inns, *posadas*, are wretched cabins for the sale of pulque, the national nectar. Between the towns, in the more peopled districts, numerous villages are passed, with vineyards, fields of bright-green maize plants, and large cattle estates, sometimes so extensive as to be stocked with 10,000 head, while more than an entire day's journey is required to traverse the limits of a single property. Droves of pack-mules are frequently encountered on the roads, small, smooth, light limbed, and heavy laden, sometimes amounting to several hundreds, as almost all goods are transported in this way. They are trained to follow a leader, or bell-mule, and to kneel until the load is packed on them, when they are helped up by one or more of the muleteers. These men, generally a very honest class, mounted on mustangs, riding to and fro, form a striking picture, with their high-peaked saddles, huge spurs that tinkle at every step, picturesque dress, and incessant shouts of encouragement or rebuke to the lagging animals. But brigandage, involving both robbery and murder, in case of resistance, is almost everywhere to be apprehended by passengers, unless sufficiently numerous and well armed. If either of these points is neglected, the summons is certain to be heard, 'Face to the ground! *Cara en tierra!*' analogous to the Italian, *Face en terra!* Many a rude cross looming from the shadow of fir-trees, or heap of stones, marks the spot where some murdered traveller has been interred. The diligences in Mexico, from their frequent stoppage by robbers, have been styled an institution set on foot for the purpose of securing a certain revenue to the Mexican highwaymen.

Puebla, or, according to its full name, *La Puebla de los Angeles*, 'The Town of Angels,' on the route from the capital to Vera Cruz, ranks after it in extent and population. It is celebrated for the number and splendour of its ecclesiastical foundations, and the fierce intolerance of the inhabitants, while the wealth and influence of the priests, with the popular submission to their unblushing licentiousness, has won for it the title of the 'Paradise of Priestcraft.' There are not less than 69 churches, 9 monasteries, 13 nunneries, and several colleges. Indians and the female part of the population receive the tale with implicit faith, that during the erection of the cathedral angels made their appearance every night, and carried on the building. Hence the name of the town. *Vera Cruz*, on the shore of the Mexican Gulf, a well-built town in the old Spanish style, is the principal port, defended by the strong castle of San Juan d'Ulloa. The place is notoriously the metropolis of pestilence, the head-quarters of death, owing to the yellow fever, here known by the name of the black vomit, *tomito prieto*, so called from one of the symptoms by which dissolution is usually preceded. It is common more or less to the whole coast, almost certain to attack newly-arrived strangers from other climes, more particularly in the hottest months. Through the remainder of the year, from the middle of October to the close of March, boisterous north winds blow at intervals, cool the air, purify the atmosphere, and render the maritime lowlands, though never a safe, yet not a very dangerous place of residence to the foreigner. On the opposite coast of the Pacific, the once flourishing *Acapulco*, has lost nearly all its consequence, though still visited occasionally by foreign men-of-war for the convenience of its fine harbour. *Mantlan*, further north, has experienced an opposite change, and become a neatly-built town, while an active shipping port, since the discovery of gold in California, owing to the number of passengers arriving and departing, and its proximity to the blockaded American ports.

The population of Mexico has been returned at 7,800,000, a recent estimate, but founded upon very uncertain data. It consists of miscellaneous elements. 1. Whites of pure extraction, called Creoles, the direct descendants of the Spaniards, are few in number, but constitute the aristocracy of the country, as the largest landed proprietors. 2. A much larger body are those who consider themselves whites, but are not of pure lineage, being the descendants of Spanish and Indian parents. Most of the military, the lawyers, the government officials, and the owners of small cattle estates belong to this class. 3. Indians of the indigenous copper-coloured race form the great bulk of the population, follow agriculture, live in villages, often in a state of abject misery and servitude. Though slavery is not recognised by law, yet practically many of these people are slaves. Receiving very inadequate remuneration for daily labour, they are obliged frequently to apply to their employers for a loan, and thus become involved in such an inextricable slough of debt that they must work to the end of their days with little hope of retrieving their condition. 4. Negroes, formerly slaves, are a small and decreasing remnant. 5. Mixed races, *mestizos*, are found in every part of the country, distinguished by various names. The issue of an Indian and a Negro is called a *zambo*; that of a white and a

Negress, a *mulatto*; of a white and a mulatto woman, a *terzeron*; of the latter and a white, a *quadroon*. 5. Foreigners are tolerably numerous, chiefly French and Germans. There is scarcely a town in which a French tailor and a German watchmaker cannot be found; and in the most out-of-the-way places some stray Teuton or Gaul may be met with, as doctor, barber, bootmaker, or general shopkeeper. While connected with the crown of Spain, great importance was attached to the complexion in Mexico, white being the master-colour. Any marked removal from it placed the individual under disqualifications for social and political advancement, unless formally removed by decree of the government, expressed in the words, *Que se tenga por blanco*—‘Let him be considered white.’ In quarrels, the saying was frequently heard: ‘Is it possible that you think yourself whiter than I am?’ Distinctions of colour lost their importance during the struggle for independence, which compelled the whites to court the alliance of other classes.

The Mexican Indians, though resembling each other in colour, and in some general characteristics, differ in costume, habits, and very decidedly in speech. More than twenty languages are known to be spoken within the limits of the country, many of which are not dialects, traceable to the same root, but differ as completely as the German and the Greek. In the language of the Aztecs, the tribe dominant at the time of the Spanish conquest, and still in use, the letter *r* is unknown, though common in almost every word spoken in adjacent districts. It does not occur in the names of the mountains, Popocatepetl and Iztacihuatl, or in Tenochtitlan, the old denomination of the capital, or in that unpronounceable word given by Humboldt, *mollazomahuiztes-picacatacin*, signifying ‘Venerable-priest-whom-I-cherish-as-my-father,’ used in addressing the priesthood. But in the prevailing names of places in a neighbouring district the letter is prominent, as Ocambaro, Puruandiro, Zitacuaro, and Cinepeuaro. Most of the Aztec words are of excessive length, as *telemami-quibilli*, ‘a kiss;’ *tellatolamilli*, ‘a demand;’ *tellaghivillilli*, ‘a torment.’ The terminal *in* indicates the plural, which is often formed by the duplication of the first syllable, as *miztli*, ‘a cat,’ *mimistli*, ‘cats;’ *tochtli*, ‘a rabbit,’ *totochtin*, ‘rabbits.’ This radical difference of language among the indigenous races powerfully contributed to their European conquest, and has tended to keep them in subjection. Besides the settled and peaceful aborigines, *Indios manzos*, ‘tame Indians,’ as they are called, there is a class of very dissimilar habits on the northern frontier, *Indios bravos*, warlike tribes of Apaches and Comanches, roving about to plunder and destroy.

The great majority of the Mexicans subsist almost entirely upon maize flour, made up into thin cakes, called tortillas, which are eaten warm. They form nutritious bread, but are very insipid to the taste, and are hence accompanied with some highly-seasoned sauce, in the composition of which chile, a kind of capsicum, is the prime ingredient. Whole estates are devoted to the cultivation of this powerful stimulant, of which all classes of the people are extremely fond, though its pungency is so great as to produce absolute excoeciation among the uninitiated. The tortilla answers the double purpose of a viand and an implement to eat with, being used to raise the peppery sauce or stew to the mouth, while at each mouthful a portion of the temporary spoon is bit away, and another is soon required to take its place. Eggs, beans, and milk are also common articles of diet. Early in the morning, Indians from the neighbouring hamlets crowd into the larger towns, belabouring their donkeys as they go, laden with fruit, vegetables, and other commodities of daily consumption. They squat down at the corners of the streets and in the plazas, arrange their wares beside them, and then commence a chorus inviting custom, while laughing, singing, and chattering, by way of interlude. Among the more frequent ejaculations may be distinguished, *Huevos!* ‘Eggs!’ *Leche!* ‘Milk!’ *Frijoles!* ‘Beans!’ *Tortillas calientes!* ‘Hot tortillas!’ *Chile bueno!* *excelente!* ‘Good, excellent chile!’ while *Pan fino!* *pan blanco!* ‘Fine bread! white bread!’ cries the baker; *Agua!* *agua limpia!* ‘Water! pure water!’ shouts the aguadoré; *Carbon!* *carbon!* ‘Charcoal! charcoal!’ screams the charcoal-burner; and *Atolé,* *atolé!* a kind of gruelly compost of maize, is heard from the vendors of the compound. In general the men are far more addicted to showy attire than the other sex. An important article in the equipment of equestrians is the spur, very varying in shape, sometimes costly, and always heavy; for which no intelligible reason can be assigned. The rowels frequently carry jingling appendages, *campanillas*, or little bells, which, it may be presumed, tinkle agreeably to the ears of the riders. Most Mexicans are admirable horsemen, and manage their steeds with unexceptionable ease and grace. The animals are chiefly the descendants of the horses first carried by the Spaniards to the New World. While some broke loose, others were set free by the death of their masters in battle. Reaching the great savannahs, there they interbred, and originated the droves of wild horses which roam the prairies in incalculable numbers, and are now captured by the lasso.

Monuments of the age of Montezuma—remarkable vestiges of ancient Mexican civilisation—are found in various parts of the country. Such is the famous pyramid or *teocalli* of Cholula, a few miles to the west of Puebla, consisting of four distinct and decreasing stories, which appear to have been constructed exactly in the direction of the four cardinal points. It is built of sun-dried bricks and clay, in alternate layers; and is now covered with evergreen trees and shrubs, among which flights of birds nestle. The base is almost double

that of the great pyramid of Cheops, being 1423 feet on each side, but the height is very inferior to it, only 164 feet. The object of the erection was undoubtedly religious; but it seems to have answered as well the purpose of a sepulchre, for in cutting into it a square chamber was discovered, without an outlet, supported by means of cypress-wood, in which were two skeletons, a number of curious vases, and some idols made of basalt. On the elevated platform at the summit there is a small chapel dedicated to the Virgin, raised by the conquerors, as if to mark the substitution of another creed and another race for the nation by whose united exertions this stupendous monument must have been reared. At Mitla, in the province of Oaxaca, are very striking groups of ruins, apparently those of a palace or palaces, with arabesque-like ornaments, and the singular feature of six porphyry columns, placed in the midst of a vast hall, as supports to the ceiling, almost the only examples of the kind in the western world, which go back to the age of its European occupation. They bear, however, strong marks of the infancy of art, having neither pedestal, capital, nor architrave. Near the village of Palenque, in the adjoining province of Chiapas, are considerable remains of a city—palaces, temples, public buildings, decorated with paintings and sculptures, along with humbler dwellings suited to the mass of the inhabitants—accidentally discovered in the last century, entombed beneath the luxuriance of tropical vegetation, in the midst of a fertile country, but almost entirely depopulated. A fortnight was occupied by a corps of pioneers, despatched by the government, in felling and firing the timber, and clearing away the creeping plants, with which the monuments were closely matted.

II. STATES OF CENTRAL AMERICA.

Central America, in the geographical sense, embraces the whole of the narrow portion of the continent between its two main masses. But the political signification is restricted to the space occupied by the states within its limits, which are included between the northern isthmus of Tehuantepec, belonging to Mexico, and the southern isthmus of Panama, a part of the Granadian confederation. This territory is washed on the eastern side by the Caribbean Sea, an arm of the Atlantic, which deeply invades the shores, and by the waters of the Pacific on the western, which have a comparatively smooth coast-line. It has a length of about 900 miles from north-west to south-east, by a very varying breadth, contracting from 300 to less than 80 miles; and an area computed at nearly 190,000 square miles. High table-lands traversed by mountainous ridges and overtopped by volcanic cones occupy a large proportion of the interior, where the scenery is splendid, and the climate is rendered singularly balmy by the elevation, while the fierce heat of the torrid zone is experienced on the maritime lowlands. But the beautiful in the landscape is often seen in close alliance with memorials of a terrible agency; and the calm of nature is frequently interrupted by physical convulsions. In many parts, sudden chasms, deep rents, and capricious twistings of the surface, bear unmistakable evidence of having been caused by violent paroxysms of volcanic action; and few regions at present are more subject to furious outbursts from the constantly-smoking craters, with displays of the earthquake's dreadful power. Upon the achievement of independence from the Spanish monarchy, the five states which then formed themselves into a federation adopted for their national cognizance, in allusion to the natural peculiarities of the country, the figure of five volcanoes on a plain bordered on either side by the ocean.

The indigenous vegetation is very diversified, and rendered luxuriant by heavy seasonal rains in connection with the hot climate. It constitutes the main source of wealth, embracing magnificent trees of cedar, mahogany, and dye-woods, with sarsaparilla, vanilla, balsams, gums, and other medicinal plants. The cultivated products include the cochineal plant, indigo, sugar, cotton, coffee, tobacco, cacao, and fruits. Some of the birds are of great beauty; as the quescal, most frequently met with in Guatemala, remarkable for its exquisite green plumage, spotted on the wings with brilliant red and black, while the long feathers of the tail are of green powdered with gold. The population, upwards of 2,000,000, consists of whites chiefly of Spanish descent, and a large number of native Indians, with a mixed race called *Ladinos*, and a few Negroes. Though converts generally to Roman Catholicism, and speaking the Spanish language, some of the Indians, in the secluded mountain districts, adhere to ancestral forms of idolatry, and retain their native dialect.

Political Divisions.	Area in Sq. Miles.	Population.	Towns.
Guatemala,	40,700	850,000	Guatemala, Antigua, Quesaltenango.
Honduras,	47,000	350,000	Comayagua, Omoa, Truxillo.
San Salvador,	7,300	600,000	San Salvador, Cojutepeque, Sonsonate.
Nicaragua,	57,000	400,000	Managua, Leon, Blewfields, Greytown.
Costa Rica,	21,000	126,700	San José, Cartago, Alajuela.
Belize,	14,000	11,000	Belize.

Central America was discovered by Columbus in the course of his fourth and last voyage. He coasted it from Cape Honduras to Cape Gracias a Dios, and established the first European colony in the New World on the shore of Costa Rica in 1502. The country became a Captain-Generality of Spain, and remained in that connection to the year 1821, when the struggle for a separate political existence commenced. But the Spanish flag continued to float on the battlements of Omoa, in Honduras, to the year 1832. After a brief term of union between the five states at the head of the table, the federation was dissolved, and they now exist as separate republics, but, with the exception of Costa Rica, internal troubles have been frequent, to which a war was superadded in 1863. These disturbances have checked industry and social improvement. The roads are very generally mere trackways, and the vehicles are of the most wretched description.

GUATEMALA, the most northerly state, bordering on Mexico, extends from sea to sea, but only touches the angle of the Bay of Honduras on the Atlantic side, while possessing a considerable coast-line on the Pacific. The surface has very remarkable objects in its fire and water volcanoes, and singularly charming features in the course of the river Montagita, distinguished by falls and rapids, with the silvery expanse of Lake Atitlan, slumbering in its cradle of rocks and mountains. Cochineal is very largely produced, and is the principal export.

Nueva or *New Guatemala*, the capital, is an inland city on the table-land, 4960 feet above the sea, 45 miles from the coast of the Pacific, containing a population of 60,000. At this elevation the climate corresponds to that of Italy, subject to less cold in winter. The production of muslins, cotton yarn, artificial flowers, plate, and embroidery are the chief industries. Water is brought from a spring five miles distant by an aqueduct, and conducted to twelve reservoirs, from which it is distributed to the private dwellings. The houses have generally but one story, with very thick walls, and gardens attached to them, as a precaution against earthquakes. An old viceregal palace, a university, a great hospital, a superb cathedral, and many richly-ornamented churches are the principal public buildings. Religious observances are incessant, chiefly attended by the women, who throng the churches at matins and vespers. *Antigua*, or *Old Guatemala*, twenty-one miles distant, occupies a beautiful valley between the two volcanoes, called *Del Agua*, 'of water,' and *Del Fuego*, 'of fire,' both lofty and wonderfully-grand objects. The place was the capital of the country till the year 1773, when, after having been repeatedly damaged by earthquakes, it was dreadfully desolated, and the seat of government was in consequence removed. Still, many survivors of the catastrophe clung to the site, and acquired the name of the 'Incorrigible' from their attachment to it. Ruins of the old buildings remain as monuments of the former grandeur of the place, upon which its founder, the conquering Alvarado, bestowed the singular name of the 'City of St James of Gentlemen.' The Water Volcano, so called from its discharging water during eruptions, rises to the height of 13,758 feet. The Fire Volcano is slightly lower, distinguished by three peaks, the southernmost of which is the Fire Peak, constantly emitting steam and sulphureous vapour.

Quesaltenango, next to the capital in extent and trade, possesses well-paved streets, picturesque houses, a richly-decorated cathedral, and a fine fountain in the centre of the Plaza. *Totonicapan* is chiefly occupied by Indians, who speak the Quiche language, manufacture earthenware, woollen cloths, and wooden utensils for their own use. *Istapa*, on the Pacific coast, and *St Thomas* on the Caribbean Sea, are the shipping ports. The territory contains the remains of ancient cities, similar to those in Mexico, which were flourishing at the time of the Spanish conquest, and are now overgrown with vegetation. Guatemala, nominally a republic, is governed by an oligarchy, at the head of which is the celebrated Carrera, sustained by a profligate aristocracy and a bigoted priesthood. This successful chief, originally an obscure half-breed, was appointed president for life in 1851, with the style of Captain-General, and signally defeated the united forces of Honduras and San Salvador in June 1863.

HONDURAS, eastward of Guatemala, extends chiefly along the southern shore of the bay of that name, an inlet of the Caribbean Sea. It contains valuable mines, though they are but little worked at present, with extensive forests of mahogany and logwood.

Comayagua, the capital, formerly called Valladolid, is an inland town, on one of the projected lines of railway across Central America, containing 18,000 inhabitants. *Omoa*, one of the hottest places in the world, very unhealthy, and *Truxillo*, are the principal ports. At the latter the notorious filibustering adventurer

Walker, from the United States, was shot in 1860. The Bay Islands, close inshore, consisting of Ruatan, Bonacca, and Utila, with several islets, were proclaimed a British colony in 1852, and attached to the government of Jamaica. But chiefly to avoid unpleasant altercations with the cabinet at Washington, they were relinquished in 1856, and finally ceded to the Honduras republic in 1860.



Harbour of Bay Islands.

SAN SALVADOR, the smallest state, but the most densely peopled, is entirely confined to the Pacific seaboard, enclosed inland by Guatemala and Honduras. Like most parts of Central America, it has its tale to tell of grave misfortune from natural convulsion.

The seat of government, *San Salvador*, twenty-two miles from the coast, contains many memorials of the disaster of 1854, previous to which it was a beautiful city of 28,000 inhabitants. In that year, on the Thursday before Easter Sunday, movements of the earth were felt, preceded by sounds like the rolling of heavy artillery over a pavement. On Friday and Saturday all was quiet. The heat was considerable on Sunday, with the atmosphere very calm. In the evening a severe shock alarmed the whole city, and shortly before eleven o'clock, without premonition of any kind, it was entirely prostrated with the exception of a single building. Nearly 5000 persons perished in the ruins. *Cojutepeque*, with 15,000 inhabitants, *Sonsonate* 10,000, and *San Vicente* 8000, are the other inland towns. *Acajutla*, *Libertad*, and *La Union* are the seaports. The trade is extensive in tobacco and indigo. In November, after the indigo crop, a great fair is held at San Miguel, near the southern border for the disposal of the produce to foreign merchants and others. A part of the coast region is remarkable for producing the famous Balsam of Peru, so called from having been originally shipped for Spain from a Peruvian port, and hence supposed to be a native product. It is obtained by the Indians from a tree—common in the district between the ports of Libertad and Acajutla, but not known to grow elsewhere—by incision of the trunk.

NICARAGUA, on the south, now embraces the whole country between the two oceans, having recently been put in possession of the Mosquito territory on the Atlantic side. It is in many parts richly wooded, commands the navigation of the spacious lake which bears its name, and contains a very small proportion of whites compared to the Indians and half-breeds among the population.

Managua, the capital, on the shore of a lake, is chiefly inhabited by aborigines, who number 10,000, and are noted for the facility with which they imitate foreign manufactures. *Leon*, the principal city, nearly midway between Lake Managua and the Pacific, contains a population of 35,000, a university, a stately cathedral, many large churches, and other public buildings, which rank with the finest in Central America. *Realejo* and *San Juan del Sur*, seaports on the Pacific, ship the produce of the state, consisting of various woods, cacao, indigo, sarsaparilla, ipecacuanha, ginger, aloe, and hides; but political distractions have interfered with the attainment of commercial prosperity. The great lake of Nicaragua, its prime natural feature, is a fresh-water basin more than 300 miles in circuit, studded with beautiful groups of islands, and admits of being navigated by the largest vessels. It is only separated from the Pacific by a low narrow isthmus, while sending its overflow to the Atlantic by the river San Juan. Hence, this point has long been regarded with interest as suitable for the construction of a maritime highway from sea to sea, by cutting a channel from the lake to the ocean on the one side, and canalising the river on the other.

The Mosquito territory includes the eastern coasts of Nicaragua and Honduras. It was never conquered by the Spaniards, and had its own Indian king, who, with the consent of his chiefs and people, applied for British protection to the governor of Jamaica in the reign of Charles II., which was accorded. This protectorate continued to a very recent date. But in order chiefly to pacify the United States' government, the protectorate was relinquished, and in 1860 Mosquitia was made over to the Nicaraguan republic. *Blewfields*, the nominal capital, is a collection of mean huts. *Greytown*, at the mouth of the San Juan, with an excellent harbour, is the residence of many foreigners, and much frequented by adventurers on their way to California.

COSTA RICA, 'Rich Coast,' the most southerly state, and perhaps the most prosperous, is distributed into two principal departments separated by a range of mountains, the Oriental on the side of the Atlantic, and the Occidental on that of the Pacific. Intertropical productions in general are raised, but coffee is the principal export. No Negroes are included in the population.

San José, the capital, about midway between the opposite coasts, and 4500 feet above the sea, contains 30,000 inhabitants. *Carthago*, fifteen miles distant, was originally the capital, but is now extensively a ruined city, so dreadfully visited by an earthquake in 1841, that out of 3000 houses and eight churches, only 100 of the former and one of the latter were left standing. A volcano of the same name rises in the vicinity to the height of 11,480 feet, and is a noted landmark to mariners. Both oceans are visible from the summit. *Puntas Arenas* on the Pacific, and *Matina* on the Atlantic, are the seaports.

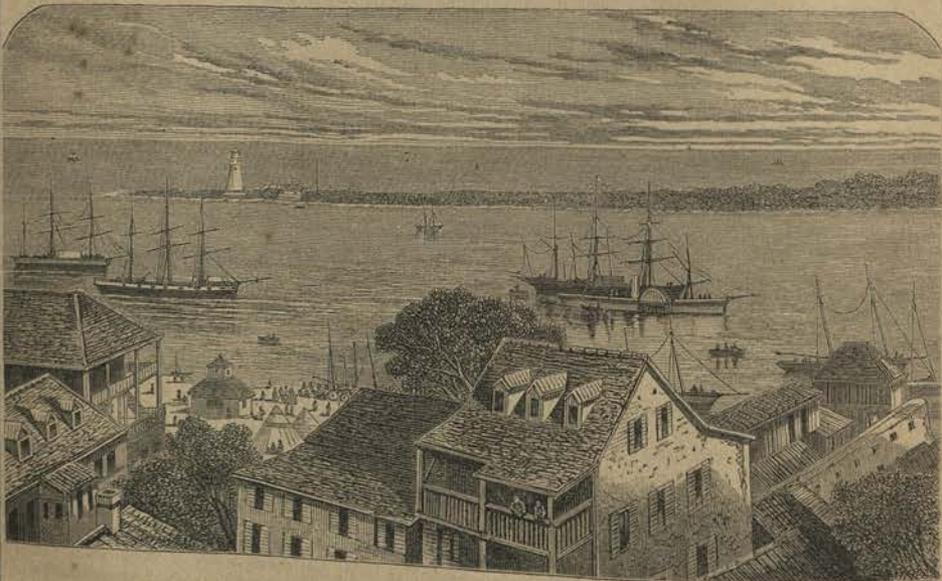
BELIZE or BALIZE, a British dependency, embraces part of the west coast of the Bay of Honduras, but the inland limits have never been strictly determined. It contains a river and town of the same name, with a large proportion of Negroes among the inhabitants, who are under a superintendent subordinate to the governor of Jamaica. The territory is only valuable for its forests of mahogany and logwood. Felling the trees, trimming the trunks, and conveying them to the rivers are the occupations of the dry season, from February to the close of May. The rains begin to descend in June, when the streams swell, and the timber is drifted down by the powerful currents, but prevented going out to sea by strong booms across the outlets. The town of Belize is almost wholly of wood. Besides the timber trade, it is the general dépôt of British manufactures intended for Central America.

III. THE WEST INDIES AND BERMUDAS.

The remarkable collection of islands which forms the West Indian Archipelago includes four of large dimensions, about fifty of the smaller class, and many thousands of islets, rocks, reefs, and sand-banks. They extend in a curving chain between the two great masses of the American mainland, from the shores of Florida on the north, to the mouth of the Orinoco on the south, and separate the broad expanse of the Atlantic from the subordinate basins of the Caribbean Sea and the Gulf of Mexico. Their total area is estimated at 92,000 square miles, more than one-half of which has long been held by Spain, while nearly another third, in Hayti, which has been under two independent governments, may perhaps be destined by present hostilities to aggrandise the Spanish monarchy. Great Britain possesses the next largest share, about one-seventh; and comparatively diminutive portions belong to France, Holland, Denmark, and Sweden. The islands vary greatly in their structure and aspect. Many are boldly mountainous, and of volcanic

origin ; others are low, flat, and chiefly of coralline formation ; and some exhibit both coralline and volcanic rock in alternate layers. Situated almost wholly in the torrid zone, the summer heat is excessive on the low grounds, but the sea-breezes are felt with refreshing effect, and are generally the strongest in the afternoon, when their cooling agency is most needed. In winter, snow is never known to fall on the loftiest of the highlands, but slight frosts occur. A long dry interval, and another shorter, alternate in the year with corresponding periods of heavy rain. Everywhere the nights are supremely beautiful, the stars shining out with signal lustre through the transparent atmosphere. Some of the small islands are in the path of the intertropical hurricanes ; others are occasionally disturbed by earthquakes ; and yellow fever is a scourge in the rainy season. The indigenous vegetation is varied and luxuriant, distinguished by the profusion of ferns and orchidaceous plants. Coffee, sugar, tobacco, spices, maize, and mahogany, with the most delicious fruits of different kinds, are the staple products.

The aggregate population is computed at 3,700,000, consisting entirely of foreign races of whites and Negroes, with mulattoes, except a few families in Trinidad, said to represent the aboriginal Indians. That island has also some Mohammedan Negroes, one of the few communities of the kind in connection with the western world. The coloured people are free, except in the Spanish possessions, where unmitigated slavery is maintained. The popular name of the Archipelago originated with Columbus, its discoverer, who supposed that he had reached the portals of India by a western route. But the Antilles is a common denomination, or the 'forward islands,' alluding to their position in relation to the continent. A triple distribution is made of the series : 1. The Bahamas ; 2. The Greater Antilles ; 3. The Lesser Antilles.



Nassau.

THE BAHAMAS.

Principal Islands.	Area in Square Miles.	Population.	Chief Town.
Great Bahama, Great Abaco, New Providence, Eleuthera, Inagua, Andros, Exuma, Cat Island, Harbour Island, Turk's Islands, &c.,	5800	30,900	Nassau.

This chain numbers upwards, of 500 components, including the islets, but not more than twenty are permanently inhabited. It forms the most northerly portion of the West Indies, and closely approaches the Florida shore, extending thence through 700 miles to the north of Cuba and Hayti.

The Bahamas are a British colony, under a governor, council, and house of assembly. New Providence contains the seat of government, *Nassau*, a neat town, with a good harbour, healthy climate, and 7000 inhabitants. Its name has recently become notorious in connection with the blockade runners of the American ports. The island was once a stronghold of the bucaners. It received the first English settlers in the year 1629. Eleuthera is the principal fruit-growing island. Andros is celebrated for its cedars. Cat Island is commonly supposed to represent the Guanahani or St Salvador of Columbus, the first land of the New World on which he gazed. Shell-work, palmetto, sponge, bark, fibres, cotton, arrowroot, and other articles were displayed in the Bahama department of the International Exhibition, London, in 1861. The islands are all low, and consist of coral-rock covered with a thin layer of soil. On the side of the Atlantic they rise steeply from an unfathomable depth of ocean, but in the opposite direction are vast submarine reefs, which render the navigation highly intricate and perilous. Many of the inhabitants are 'wreckers;' but not in the vulgar sense, being licensed by the government to recover property from wrecks, receiving a salvage upon it according to the value. Turk's Islands, a south-eastern offshoot of the chain, have a distinct administration, and form a dependency of Jamaica.

THE GREATER ANTILLES.

	Area in Square Miles.	Population.	Government.	Chief Towns.
Cuba, .	42,383	1,450,000	Spanish,	Havana, Matanzas, Santiago.
Hayti, .	28,000	760,000	Partly Spanish and Independent,	St Domingo, Port au Prince.
Porto Rico,	3,800	380,000	Spanish,	San Juan.
Jamaica,	6,400	379,000	British,	Kingston, Port Royal, Spanish Town.

These large islands extend through 20° of longitude, equal to a linear distance exceeding 1200 miles, from the western limit of Cuba to the eastern extremity of Porto Rico. Traversed by highlands in the direction of their length, they appear to be parts of a grand mountain-chain, interrupted in its continuity by deep valleys and depressions occupied by the sea.

CUBA, the largest and most westerly member of the entire Archipelago, has an extent of 750 miles from east to west, with an average breadth of more than 50 miles, and well deserves the title of the 'Queen of the Antilles,' for its displays of scenic beauty and abundant natural resources. A range of mountains runs through the island, which attains the height of 8000 feet at the eastern extremity, and is there distinguished by the name of the Sierra del Cobre, or the Copper Mountains, from vast stores of the metal. The slopes and the plains on either hand are richly timbered with mahogany, cedar, and other valuable woods, while the tropical jungle, composed of a host of brilliant flowering-plants, proclaims the fertility of the well-watered soil. But more than two-thirds of the surface have never been submitted to cultivation, and extensive tracts have had no human visitor except the now extinct aboriginal savage, the outlaw, or the absconded slave. The monopolising spirit of the government officials, who are Spaniards from the mother-country, represses native industry and enterprise. Sugar, tobacco, and coffee are the principal objects of culture, and the main exports, with copper ore, hides from the cattle-farms, and mahogany. Nearly three-fourths of the population are slaves, who are recruited by the illicit importation of cargoes from Africa, when opportunity offers, often with the connivance of the Captains-General. *Havana*, the capital, on the north coast, is by far the largest city in the West Indies, containing nearly 200,000 inhabitants, among whom are many foreign commercialists, British, French, German, Dutch, and American. Cigars are manufactured to an enormous extent, and have universal celebrity. The harbour is a noble expanse, with a narrow entrance guarded by forts; the opera-house is magnificent; and the promenades are delightful, shaded with trees and adorned with fountains. The cathedral contains the grave of Columbus. The shops display costly silks and shawls from Europe, glass and china ware, upholstery in fancy woods, fruits and birds. Shops for the sale of saints are not wanting, where their images may be bought from that of a shepherdess to a venerable graybeard. Railways diverge from the city to several places in the interior; and one leads to *Matanzas*, a considerable seaport 50 miles on the east. The name is

remarkable. It signifies 'the Massacres,' and is said to be a memorial of the last wholesale slaughter of the aborigines by the early Spanish conquerors. Their first settlement was made in 1511, at *Santiago de Cuba*, a fortified town on the south-east coast, enclosed with mountains, now next to the capital in importance; and by the year 1560 all the natives were extinct.

HAYTI immediately eastward of Cuba, has its greatest length in that direction, amounting to nearly 400 miles. It contains mountainous ridges of volcanic origin, with a general surface largely covered with splendid forests and rich tropical verdure. Two Negro republics recently divided the island between them, the Dominican on the east, with St Domingo for its capital, and the Haytian on the west, with Port au Prince for the seat of government. But in 1861 the Dominican voluntarily united itself to Spain, and the attempt is at present in process to reduce the Haytian to the dominion of the Spanish crown. *St Domingo*, a fortified seaport on the south-east coast, is the oldest existing city in the New World founded by Europeans, dating from the year 1504. It is regularly built in the old Spanish style, and contains about 15,000 inhabitants. *Port au Prince*, at the head of the fine Bay of Gonaives on the west shore, is a larger place, chiefly of wood, supposed to have a population of 30,000. An inglorious historical distinction belongs to Hayti. Near Cape Samana, a high and beautiful headland at the eastern extremity, which Columbus rounded in January 1493, the first blood was then shed by white men in the Western Hemisphere in an affray with the natives. At the ports of this island, also, the first Negroes brought across the Atlantic were disposed of, and an Englishman, Sir John Hawkins, commenced the abominable traffic, in the reign of Queen Elizabeth. *PORTO RICO*, the third of the Spanish islands in extent, is eastward, about 105 miles long by 40 broad. *San Juan*, on an islet of the north coast, connected with the mainland by a bridge, is the chief town, well built and commercial, containing 10,000 inhabitants.

JAMAICA, the most important of the British possessions in the Archipelago, is situated on the south-east of Cuba, and extends about 150 miles from east to west, by 50 miles where the breadth is the greatest. Its aspect corresponds to the meaning of the aboriginal name from which the present is derived, Xaymaca, 'the land of wood and water.' The Blue Mountains run through the centre, rising to 7000 feet, greenly beautiful with tropical vegetation. They send rippling streams down the slopes on either hand to the plains below, where sugar, coffee, pimento or allspice, with cocoa, indigo, and tobacco, are the commercial crops. But unfortunately they are vastly diminished in amount since the passing of the Slave Emancipation Act, as the Negro obtains with little exertion the means of subsistence from the bounty of nature, and is hence unwilling to devote himself to onerous agricultural toil. Sugar plantations are now few and far between. But by the roadsides, on the edge of the wood and jungle, the gardens or provision-grounds of the Africans may be seen, pleasant-looking spots, where cocoa and bread-fruit trees are cultivated, with oranges, mangoes, plantains, and yams. Some of them pay a trifling rent, but the majority have squatted on the waste lands, asking no man's permission. The island was discovered May 3, 1494, and colonised by the Spaniards in 1503, but passed from Spain to England in 1655. It is distributed into three counties, Middlesex central, Surrey eastern, and Cornwall western; and forms a diocese of the Anglican Church which includes the Bahamas and Belize. The administration is conducted by a governor and council appointed by the crown, and a house of assembly chosen by duly qualified electors, in which coloured persons have long been prominent. The centres of population border on a spacious inlet of the south coast. They consist of *Kingston*, the commercial capital and principal port, with 35,000 inhabitants; *Port Royal*, at the entrance of the harbour, with 15,000; and *Spanish Town*, a few miles inland, only of note as the seat of government.

THE LESSER ANTILLES.

1. The Virgin Islands,	British—Tortola, Anegada, Virgin Gerda.
" "	Danish—St Thomas, St John, Santa Cruz.
" "	Spanish—Culebra.
" "	To all the three Powers—Bieque or Crab Island.
2. The Leeward Islands,	{ British—Antigua, Anguilla, St Christopher, Nevis, Barbuda,
" "	{ Montserrat, Dominica.
" "	{ French—Guadeloupe, Marie-Galante, Desirade, North St
" "	{ Martin.
" "	Dutch—South St Martin, Saba, St Eustatia.
" "	Swedish—St Bartholomew.
3. The Windward Islands,	{ British—St Lucia, St Vincent, Barbadoes, Grenada, Tobago,
" "	{ Trinidad.
" "	French—Martinique.
4. The Venezuelan Coast Chain,	Dutch—Curaçao, Oruba, Buen Ayre.

The LESSER ANTILLES extend in a vast semicircular sweep from the east of Porto Rico to the shores of Venezuela, and are with few exceptions of very unimportant size, but highly beautiful and productive. The Virgin and the Leeward groups are to the north of the parallel of 15°, and the remainder to the south. But the popular distinction between

them has no foundation in nature. The entire series is windward in relation to the trade-wind, except the Venezuelan, which are alone properly the Leeward Islands. It is, however, retained from convenience as familiar.

SANTA CRUZ and ST THOMAS are the most important of the Virgin Isles, both Danish. The town of St Thomas is the station of the Royal Mail Steam Packets plying between Southampton and the West Indies, where passengers and goods are distributed to other vessels and received from them. It is the central seat of three lines of steam communication—one to Havana and the Mexican Gulf; another to Jamaica and Central America; a third by the Leeward and Windward Islands to British Guiana. While traffic is hence active, the place is a *dépôt* for all goods in demand along the respective routes. Shops and stores exhibit a pell-mell mixture of light dresses and cigars, boots and brandy, straw hats and eau de Cologne. The population is also miscellaneous, collected from different quarters for trade. A few government functionaries, custom-house officers, and soldiers are Danes. The remainder have been described as an Anglo-Hispano-Dano-Niggery-Yankee-doodle people. St Thomas is pleasantly seated on three hills sloping down to the water's-edge, each topped by some public building, and backed by higher hills green to their summits. But it is notoriously unhealthy from yellow fever, which has been fatal to many of the steamers' crews. Large quantities of coal are stored for the supply of the vessels.

ANTIGUA, at the head of the British Virgin and Leeward Islands, contains *St John*, the seat of the general government, with 15,000 inhabitants, on the north-west coast. It has a bishop of the Anglican Church, whose diocese is co-extensive with the dependency. The island has only an area of 108 square miles, is not remarkable for beauty, and is without streams or springs but what are brackish, which compels the inhabitants to depend upon the rain collected in large tanks. It was the first of the West Indian colonies to advocate the abolition of slavery, and the only one that adopted complete emancipation at once, without the intermediate apprenticeship. English Harbour, on the south coast, spacious and picturesque, is a convenient naval station much used in time of war. MONTSERRAT, of volcanic formation, is distinguished from afar by the sharp peaks of the twin mountains which compose the greater part of its mass. It was discovered by Columbus, and named by him from its resemblance to the famous mountain so called near Barcelona in Spain. Lofty trees, and tropical shrubs clothe the heights. Plymouth, a small well-built town, is on the coast, but has no harbour, nor is there one along the whole shore. A peculiar kind of craft, called a 'Moses boat,' is used for conveyance to and from the ships in the roadstead. ST CHRISTOPHER, or St Kitts, contains *Basse Terre*, and NEVIS, its neighbour, *Charlestown*. Both are mountainous, beautiful, and fertile, separated by The Narrows, a channel two miles wide. DOMINICA contains an area of 275 square miles, and the small town of *Roseau*. Mountains rise in the centre to the height of 6000 feet, clothed with the greenest foliage, forests of rose-wood and other trees, which render its appearance exquisitely lovely from the sea. The name refers to the discovery of the island on a Sunday.

GUADALOUPE, midway between Antigua and Dominica, is the most important of the French islands, containing 534 square miles, and a population of about 135,000, three-fourths of whom are coloured people. There are really two islands, but only separated by a channel forty yards wide, yet of a widely different character. The one is generally low and coralline. The other is mountainous and volcanic, with vents emitting smoke, and sometimes sparks. *Basse Terre* ranks as the capital, but *Point-à-Pitre* is the largest town, and the chief seat of commerce. MARTINIQUE, also French, one of the Windward Islands, is covered with high rocky masses, many of which are extinct volcanoes. *Port Royal* is the seat of government, but is much inferior in size to *St Pierre*, the principal port. Slavery was abolished in these colonies by decree of the French Republic in 1848. Their towns are generally superior in their appearance and appointments to those in the British settlements. The streets are neat, orderly, and clean, often shaded with trees, and supplied with conduits, or channels of running water. The reason is said to be that the French colonists look upon the West Indies as their home, while the British are intent upon a return to Europe as soon as sufficient means have been acquired to retire from commerce.

BARBADOES, politically at the head of the British Windward Islands, as the residence of the governor-general, is a kind of outpost of the series, being somewhat advanced in the Atlantic, containing 166 square miles, and a population of 140,000. It is the oldest British possession in the Archipelago, having been uninterruptedly occupied since the year 1625, when all the aborigines had been destroyed by the Spaniards. Vast coral-reefs nearly enclose the shores. The surface has no picturesqueness, being generally low, but it is so cultivable, and so thoroughly occupied with sugar-plantations, that upon the passing of the Emancipation Act there was no waste land upon which the Negro could squat and easily subsist upon its produce. Hence here he has been compelled to labour as much as ever for hire, and Barbadoes has consequently escaped the disaster which has fallen so heavily upon Jamaica. The island is the seat of an Anglican diocese which embraces its dependencies. Codrington College, on the eastern side, a foundation of the family of that name, is the best educational institution in the West Indies. *Bridgetown*, the capital, on Carlisle Bay, a strong military post, contains upwards of 30,000 inhabitants. The streets converge to a Trafalgar Square, which, like its London namesake, has a Nelson statue in the centre, with a tree in addition. ST LUCIA, ST VINCENT, and GRENADA are in a line from north to south, and with TOBAGO, on the south-east, have in succession for their chief towns *Castries*, *Kingstown*, *St George*, and *Scarborough*. They are all volcanic, rich in striking scenery, possess good harbours, and yield delicious fruits, but along with Barbadoes, and other

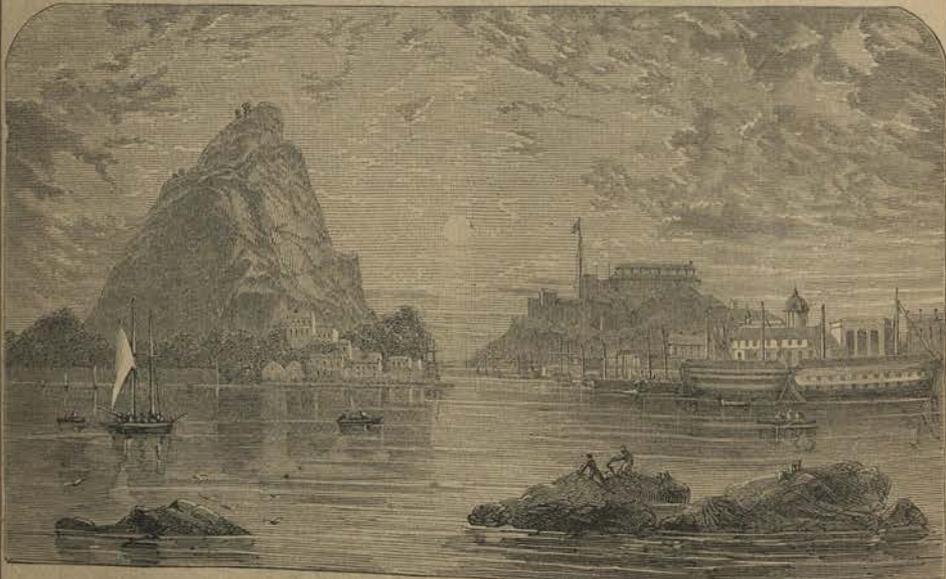
neighbouring islands, are specially in the track of the West Indian hurricanes. These whirl-storms sweep up with tremendous power from the adjoining ocean, follow thence a general direction west-north-west, and either veer round with the Gulf Stream, re-entering the Atlantic, or proceed across the Gulf of Mexico to exhaust their fury on its shores. They occur with varying energy at intervals a few years apart, and are most frequent in the months of August, September, and October.

TRINIDAD, the largest of the Lesser Antilles, and the southernmost part of the West Indies, is situated off the mouth of the Orinoco, and nearly touches at two of its corners the mainland of South America. The name refers either to its discovery by Columbus on his third voyage, or to three mountain-ranges by which it is intersected from east to west. It contains an area of 2000 square miles, and is remarkable for its pitch-lake, or plain covered with bitumen, which boils up in the centre, but is hard along the shore, used for coating the bottoms of vessels. Many parts of the island are imperfectly known. The occupied districts are highly fertile, producing sugar, coffee, cocoa, tobacco, ginger, cotton, cedar-wood, and various fruits. Recently, cultivation has been stimulated by the importation of Coolies from Calcutta and Madras. Trinidad was Spanish down to the year 1797, when it was taken by Abercromby, and has since been a British possession, under a governor, who is aided by a council, but without a house of assembly. *Port of Spain*, the capital, is a handsome regularly-built town of 18,000 inhabitants, with the streets running at right angles to each other, after the modern fashion, a very convenient harbour, a good public library, and magnificent scenery around it.

THE BERMUDAS.

This group is remarkable for its isolation in the North Atlantic, being 580 miles from Cape Hatteras, a projection of North Carolina, and 640 miles from the Bahamas, the nearest points of land. Though mere islet-specks in the ocean, they are of interest as forming the oldest British settlement in the Western Hemisphere.

Though popularly said to correspond to the days of the year in number, the group consists of five small islands, with many hundreds of rocky patches, all low, but very pleasing from innumerable little bays and creeks of the clearest water, the whole surrounded by a belt of coral-reefs only passable through narrow channels. The total area is about twenty-two square miles, and the population 11,000. There are two small towns on different islands, *St George*, the military head-quarters, and *Hamilton*, the seat of government, consisting of a governor, council, and legislative assembly. As the summer naval station of the admiral in command on the North American waters, large sums have been expended in forming a dock-yard, and in fortifications. Arrowroot and various vegetables are raised for export; early potatoes are sent to New York; and the whale-fishery is pursued. The Bermudas have that name from the Spaniard, Juan Bermudez, who discovered them; and are also called the Somers' Islands, after Sir George Somers, who was wrecked upon them in 1609, when their British occupation commenced. A convict establishment founded here in 1825 has recently been abandoned, when those felons whose sentences had not expired were removed to Western Australia.



Bermudas.



Rope Bridge on the Magdalena.

CHAPTER V.

COLOMBIA—VENEZUELA—GUIANA.

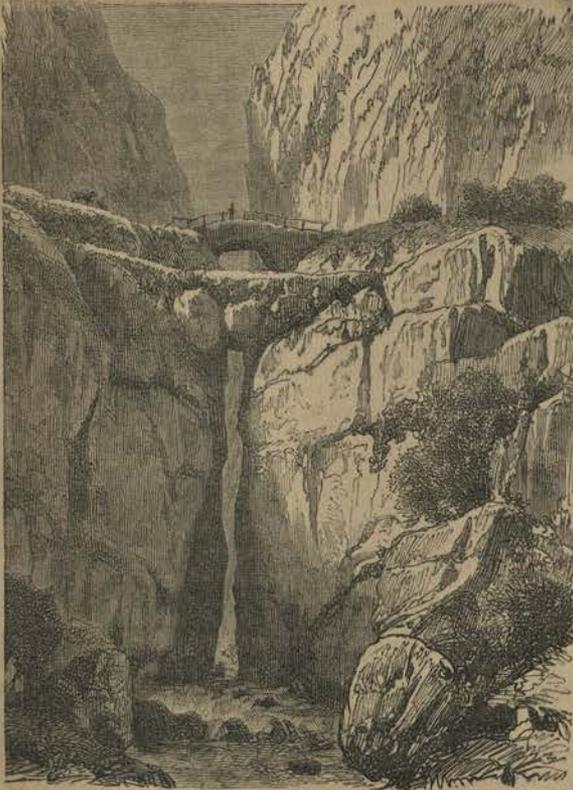
I. COLOMBIA.



IHIS state, formerly called New Granada, an old viceroyalty of Spain, includes a north-western section of South America, with a link of the chain by which it depends upon North America, or the Isthmus of Panama. It has a maritime border in the waters of the Caribbean Sea on the north, and those of the Pacific on the west, while enclosed on the east by the state Venezuela, and on the south by that of Ecuador. The minor inlets of the Gulf of Darien and the Bay of Panama indent the opposite sides of the remarkable isthmus, a portion of which is, by special convention with the United States, considered as neutral ground for the railway by which it is crossed. Colombia, in a southerly direction, stretches a little to the south of the line of the equator, and embraces eastwardly the upper branches of the river Orinoco. It contains an area of 333,000 square miles, and consists mainly of two regions of nearly equal extent, with strongly contrasted superficial features. Grand highlands occupy the whole of the maritime side, declining inland into low level plains. The latter are partly forest clad, but more generally are almost treeless, alternating from fine pastures in the rainy season, which sustain vast herds of cattle, to verdureless and dusty deserts under the burning sun at the opposite interval. From south to north, the Andes traverse the country in three parallel ranges, which are known as the western, the central, and the eastern cordillera. The central range is the highest. It contains the culminating point of all America north of the equator, in the truncated Nevada de Tolima, an active volcano, the summit of which slightly exceeds the elevation of 18,000 feet. The more

interior range is the broadest, spreading out into table-lands, which have a temperate climate, and are the chief seats of population. Between these two ranges lies the long valley of the Magdalena, the principal river, which rises near the equator, receives the Cauca from the enclosure of the central and the maritime cordillera, and flows with great force and volume into the Caribbean Sea.

The mountain region abounds with striking scenery, extraordinary natural objects, and



Natural Bridges on the Icononzo.

the evidences of stupendous derangements. It is rich in the precious metals, with copper, iron, lead, platina, and coal, and supplies many precious stones to commerce, especially emeralds. There are mines also of rock-salt, with sulphureous hot springs, nitrous caves, and the singular air volcanoes emitting azotic gas and mud. Different zones of vegetation appear with the changing elevation of the country, from the tropical in the valleys and on the low plains, to the productions common to temperate climes on the table-lands. Coffee, cacao, tobacco, cotton, sugar, and maize are raised, but cultivation, mining, and industries in general have often been paralysed by political distractions, while the indolence of the people is at variance with an adequate development of their natural advantages. The

total population is estimated at nearly 2,300,000, composed in nearly equal proportions of the descendants of the Spanish colonists and the native Indians, with a few Negroes.

New Granada was first colonised by the Spaniards in 1510, and became a viceroyalty in 1718. Becoming independent of Spain in 1819, it united with Venezuela and Ecuador to form a federal republic. This compact was dissolved in 1830, and the three members were constituted separate republics. After various changes of the constitution, New Granada received a fresh organisation, carried into effect in May 1863, by which its provinces were converted into states federally united, to be officially designated 'The United States of Colombia.'

States.	Chief Towns.
Federal District,	Santa Fé de Bogota.
Cundinamarca,	Honda.
Magdalena,	Santa Marta.
Cauca,	Popayan, Cartago, Pasto.
Boyaca,	Tunja Socorro.
Antioquia,	Antioquia, Medellin.
Bolivar,	Carthagena.
Santander,	Pamplona.
Tolima,	Tolima.
Panama,	Panama, Aspinwall, Porto Bello.

Bogota, the capital of the confederation, is seated on a table-land of the eastern Andean ridge, 8690 feet above the sea, considerably higher than the Alpine hospices of the St Gothard and the Great St Bernard. At this elevation in the torrid zone the climate is delightful—a perpetual spring. The population is about 41,000. Besides the cathedral and churches there are no buildings of importance; and being an earthquake-shaken city, the houses are all low and the walls thick. It was founded by the Spanish conqueror of the country, Ximenes de Quesada, in 1545, with the name of Santa Fé de Bogota. There are remarkable objects in the neighbourhood. From the high plain, the river of Bogota descends rapidly into the valley of the Magdalena, and forms by a single leap of 574 feet the Falls of Tequendama, a magnificent scene in the rainy season when the stream is full. The column of spray is seen from the capital, seventeen miles distant. In the same range of the Andes are the two natural bridges of Icononzo, masses of rock arching over a deep ravine, one above the other. The upper is 300 feet, and the lower 250 above a torrent at the bottom. Another locality, the 'Treasure Lake of Guatavita,' has had many eyes directed wistfully to its surface. The name was originated by the tradition that at the time of the conquest the Indians threw all the gold they could collect into its waters, to disappoint the rapacity of the Spaniards. *Popayan* and *Pasto*, between the central and the maritime cordillera, in the valley of the Cauca, are at a high elevation, with a lovely climate, the former 5800 feet above the sea, and the latter 8500. *Cartago*, similarly situated, communicates with Bogota by a road across the central range, which rises in the Pass of Quindio to the height of 11,400 feet.

Cartagena, the principal seaport, is on the shore of the Caribbean Sea, south-west of the mouth of the Magdalena, in command of a harbour naturally good, but now extensively obstructed. It was once a great commercial mart, from which rich freights were sent to Spain; strong also in war, a point where many a grandee has landed. The town and its trade have greatly decayed, though there are said to be still 10,000 inhabitants; but the place is very unhealthy, chiefly caused by neglect. Old buildings, once noble abodes, in various picturesque stages of decay, barred-up windows, and desolate court-yards, offer a melancholy contrast to the profuse tropical vegetation on every hand, shewing every diversity of vivid tint, to which flights of paroquets add their gorgeous plumage of scarlet and pea-green. *Panama*, on the Pacific coast of the isthmus, an old and once important Spanish city, exhibited similar decline previous to the opening of the railway to Aspinwall on the Atlantic side, which has brought to it passengers and commerce. A few miles out in the ocean there are several picturesque islands, on two of which are the dépôts of two great steam-packet companies. One, American, carries on the traffic with California. The other, English, plies its vessels between Panama and the ports of Peru and Chili. A small colony of captains, doctors, engineers, officers, artificers, and sailors have here a little town of their own, without women. The Panama railway is a single line of fifty miles. It follows for a considerable distance the course of the river Chagres, and runs through tropical forest scenery. So rapid is the growth, that the ground on either hand has to be cleared of jungle every six months, or the line would be obstructed. At intervals of a few miles there are wooden houses, built with much taste, in each of which a superintendent resides, with some labourers. In 1861 the passengers by railway to Panama amounted to 20,049, and from it to 10,920. The fare is enormously high, and there is only one class.

Aspinwall, the Atlantic terminus of the railway, on the shore of Navy Bay, is a hastily-built, bustling, and thriving place, virtually Yankee, created for the passenger and goods traffic which comes to it both from Southampton and New York. That from New York is of course immensely the greatest, as this is the main route to California and Oregon. *Porto Bello*, eastward on the coast, was so called by Columbus in allusion to its fine harbour, but acquired the name of 'the grave of the Europeans,' *La Sepultura de los Europeanos*, from its notorious unhealthiness, and has long been wretchedly dilapidated. The deep inlet of the shore immediately east, or the Gulf of Darien, is historically distinguished. At the upper extremity, where the river Atrato enters, the first European settlement in South America was established in 1509. This was called *Santa Maria del Antigua*. It adopted for a cognizance the figure of a golden castle, with a jaguar on one side, and a puma on the other. A second settlement soon followed a few miles inland, from which the earliest expeditions to the Pacific Ocean and Peru set out. Both were ultimately abandoned. In 1698 the western shore of the gulf was the scene of an attempt to plant a Scotch colony on an inlet which received and still bears the name of Caledonia Bay, entered by the Caledonia River. It was made by Mr W. Paterson, who afterwards planned and founded the Bank of England, but this proved a most disastrous failure. In 1854, British, French, and American men-of-war anchored for the first time in Caledonia Bay. They were connected with an engineering survey of the isthmus for a ship-canal, from the deep water of the Caledonia River to that of the Savana on the opposite side, which enters the Gulf of San Miguel. The distance is under forty-five miles, with a hilly ridge only two miles wide at the base, and 150 feet high, for the chief difficulty on the route. In 1857 a Commission of Engineers, to whom the question of practicability was referred by the Emperor Napoleon, reported in favour of it.

II. VENEZUELA.

VENEZUELA, a territory of great extent, stretches along the Caribbean Sea from Colombia to British Guiana, and is bounded southerly by the Brazilian Empire. In the last direction the mountains of Parime rise and form the border; a chain also runs along

the coast, subject to only a few interruptions; and a branch diverging from the Andes enters the country on the north-west. But three-fourths of the surface consist of llanos or plains, traversed by the Orinoco and its affluents, in many parts well wooded, in others entirely bare of arborescent forms, with the exception of a few clumps of palms. The open plains are grassy after the rains, occupied by immense droves of cattle; but in the dry season, baked by the sun, they are completely parched and desert-like, being thickly covered with the dust of the pulverised vegetation. So low and level are these tracts, that the annual rise of the Orinoco converts them into spacious lakes, when the cattle take refuge on gently-rising mounds, while the Indians ascend the palms, make hammocks of the broad long fronds, and subsist upon the fruit. This change of aspect is of regular annual occurrence. The basin of the great river is almost entirely within the limits of Venezuela, through which it follows a very winding course of 1900 miles, setting out from east to west, then turning north, and finally running from west to east, so as to bring the termination and the source into nearly the same longitude. At upwards of 250 miles from the mouth, which is the head of the tidal water, it is four miles wide, and more than 300 feet deep. The estuary is historically celebrated for having been entered by Columbus, who sagaciously inferred from the vast body of fresh water the continental character of the adjoining region; and the basin is physically remarkable for uniting itself with that of the Amazon by the natural canal of the Cassiquiari. The Orinoco may be styled the Nile of South America, corresponding strikingly to the African river in its delta, its regular rise and fall, its numerous saurian reptiles, with the cataracts and rapids of the upper part of its course. The open plains are generally on the left bank, and the woods on the right. On the left bank also the principal affluents are received, the Guaviare, the Meta, and the Apure. The hydrography includes further the beautiful Lake of Valencia, eighty miles in circuit, and the guitar-shaped sea-lake of Maracaybo, which covers an area of about 8000 square miles, and is connected by a narrow channel with a gulf of the same name.

The vegetable produce of Venezuela is singularly diversified, and constitutes the chief part of its wealth. Of useful plants which are cultivated there are said to be not less than 180 varieties, while the forests contain 240 species of valuable woods, 36 plants yielding gums and resins, and 45 from which medicinal drugs are obtained. The most extraordinary feature of the native botany, the cow-tree, *Palo de Vaca*, has no prepossessing appearance. It grows on the parched sides of rocks in the mountain region, seems scarcely to penetrate the ground with its roots, while the foliage is dry and leathery. Yet though months may pass away without the leaves being moistened by a shower, and the branches seem withered and dead, the trunk yields a nourishing milk with an agreeable taste upon being pierced. These vegetable fountains flow most freely in the early morning, at which time they are regularly visited by the Indians. A species of mimosa, the *zamang*, is remarkable for the immense extent of its branches, which form a hemispherical top like a vast umbrella, in some instances 600 feet round the rim. The chief objects of culture are coffee, cacao, sugar, tobacco, cotton, and indigo for export, with maize for home consumption. The exports also include live-stock reared on the llanos, sent to the West India market, with dried meat, hides, and leather. There appears to be no important amount of mineral wealth, though imagination fixed the original El Dorado on the banks of the Orinoco, the grand object of early adventurers. It led to the fitting out of many expeditions for its search; among others, to that of Sir Walter Raleigh in 1595, which contributed to his unjust doom upon the scaffold.

Venezuela contains an area of 426,000 square miles, and an aggregate population of 1,565,000, consisting of whites of Spanish descent, Indians, and Negroes, but principally of mixed origin. Thirteen provinces are enumerated, one of which, Margarita, is an island in the Caribbean Sea, formerly the site of a profitable pearl-fishery.

In the year 1848 the Venezuelan republic began to be disturbed by warring factions, and tranquillity was not restored till the month of October 1863, when Puerto Cabello, the last stronghold of the insurgents, surrendered to the existing government. New political arrangements have been adopted, converting the provinces into states, and increasing the number to twenty, but it remains for time to shew whether the constitution and the public peace will be permanent. Meanwhile, General Falcon, the president, has decreed

the abolition of the death penalty, the inviolability of private residences except in cases of crime, the freedom of the press, and the extinction of slavery.

Provinces.	Chief Towns.	Provinces.	Chief Towns.
Caracas, .	Caracas, La Guayra, Calabozo.	Carabobo, .	Valencia, Puerto Cabello.
Maracaybo, .	Maracaybo, Alta Gracia.	Barcelona, .	Barcelona.
Coro, .	Coro.	Cumana, .	Cumana, Cumanacoa.
Barquisimeto, .	Barquisimeto, Carora, Tucuyo.	Guiana, .	Angostura, or Ciudad Bolivar.
Truxillo, .	Truxillo, Arauro.	Apure, .	Achaguas, San Fernando de Apure.
Merida, .	Merida.	Margarita, .	Assuncion.
Varinas, .	Varinas.		

Caracas, the capital, occupies an elevated site, sixteen miles inland from the Caribbean Sea, but carries on foreign commerce by means of two ports, *La Guayra* and *Puerto Cabello*, on the coast. It contains about 40,000 inhabitants, and has a large cathedral which withstood the terrible earthquake of Holy-Thursday in the year 1812, when most of the people were assembled in the churches, and 12,000 perished. The church of *Alta Gracia*, for the coloured population, is, however, the most imposing edifice. The city was the birthplace of the illustrious Bolivar. In the background the Saddle Mountain, *Silla de Caracas*, so named from the depression between its two peaks, rises grandly to the height of 8600 feet. *Cumana*, a seaport, the oldest Venezuelan city, was formerly the seat of great commerce. It had long been declining, when, in July 1853, an earthquake levelled the buildings, involving a large loss of life. *Maracaybo*, on the western side of the channel connecting the lake and gulf of that name, is a considerable town, well built, with a population of 20,000. In this part of the coast the early Spanish explorers met with native villages built upon piles on the flat shore, which originated the name of the country, *Venezuela*, or 'Little Venice.' The neighbourhood abounds with petroleum and asphalt, occasionally in ignition, forming the 'Lantern of Maracaybo.' The chief inland towns are *Valencia*, finely situated near the border of its lake; *Varinas*, known throughout Europe for the quality of its tobacco; and *Merida*, with a richly-adorned cathedral, near the divergent branch of the Andes, one peak of which approaches the snow-line, hence styled the *Sierra Nevada de Merida*. *Ciudad Bolivar*, formerly called *Angostura*, is the only place of consequence on the course of the Orinoco, 240 miles above its mouth, a small town, but a scene of active industry and some political celebrity. The new name was conferred in honour of the patriot leader, who, in 1819, here assembled the first Venezuelan congress. During the periodical rise of the river the streets are often under water; alligators have been seen tumbling about in them; and the unwary have occasionally suffered from their ferocity.

III. BRITISH, DUTCH, AND FRENCH GUIANA.

GUIANA PROPER embraces the whole tract of country between the Orinoco, the Amazon, its affluent, the Rio Negro, and the coast of the Atlantic. But the larger part of this region is included within the southern limits of Venezuela, and the northern border of Brazil, while the maritime portion, still an extensive territory, is divided between three European powers. The name is either derived from an aboriginal tribe, the Guayanoes, or is a form of *Wai-ini*, a small tributary of the Orinoco. It appears to have been first adopted as a distinctive title for the district by the Dutch. The inland limits of these foreign possessions have never been decisively arranged, and portions nominally included in them, especially in the British, are claimed by the Venezuelan and Brazilian governments. Though long occupied by European settlers on the coast, little has been known till recently of the country at any considerable distance from the sea-board, and many of the more interior parts have yet to come within the range of exploration.

BRITISH GUIANA extends from the mouth of the Orinoco to the river Corentyn, by which it is separated from the Dutch colony. Inland, an area of 76,000 square miles is claimed, which considerably exceeds that of the other two territories taken together. Population 147,000, exclusive of aborigines. Three rivers traverse the surface from south to north, the *Essequibo*, the *Demerara*, and the *Berbice*. The first mentioned is much the largest, and expands into a noble estuary full eight miles wide for some distance above its mouth. The shores are low and flat, profusely clad with the brightly-green verdure of the tropics. Such is the depth and fertility of the soil that the same land has been productive annually through more than half a century without manure, without rotation of crop, and without a pause. But the whole maritime region is swampy; the rains are tremendous; and the heat is great. At the distance of from twenty to forty miles from the coast the surface becomes hilly, and is mountainous in

the far interior. All natural features are here developed on the largest scale, as in wide-spread savannahs and endless forests; rivers flowing deep and still, with streams foaming in rapids and roaring in cascades; while the profusion and variety of living things, animal and vegetable, strike the beholder with astonishment and admiration.

Two intrepid exploring naturalists, Schomburgh and Waterton, have graphically illustrated the rocks, the woods, and the waters, with their animal inhabitants, though many wilds remain to be penetrated. Roraima, or 'Red Rock,' in a remarkable sandstone group, rises 7500 feet above the sea. The upper 1500 feet form a mural precipice as perpendicular as if erected with the plumb-line, but overhung with low shrubs, while numerous cascades rush down the face. The Indians, alive to striking natural objects, sing of 'Roraima, the red rock, wrapped in clouds, the ever-fertile source of streams.' It is also called the 'Night Mountain,' in reference to the gloom which prevails when mists gather round the summit. The Ataraipu, or 'Devil's Rock,' remarkably isolated, is wooded for about 350 feet, above which rises a mass of granite devoid of every trace of vegetation, in a pyramidal form, for about 500 feet more. Masses of granite, fantastically shaped, occupy elevations on the banks of the Essequibo. These 'giants of the hill' are frequently found inscribed with hieroglyphics, the picture-writing of the Indians, consisting of rude outlines of men and women, birds, animals, and even large vessels with masts.

Prominent members of the forest include the dark-leaved majestic *mora*, the mimosa of the Western Hemisphere, equal to the best timber for ship-building; the scarcely less stately and useful *sawari*, bearing a rich and nutritious nut; the *sirwabally*, noted for resisting the attack of worms; the *cecropia*, or trumpet-tree; and the water *guava*, which replaces the mangrove of the sea-shore, and has an aromatic leaf useful in dysentery. Parasites and climbers, with glorious flowers, thicken and adorn the woodland. The wild vine, or bush-ropo, twists itself like a cable round the loftiest trees; the wild fig occasionally takes root in the topmost branches of the *mora*, deriving nourishment for its sap; scarlet or snow-white passion-flowers appear in profusion; bignonia of various species, the most beautiful of climbers in the conservatories of Europe, hang in natural festoons; and the whole is rendered more gay by the brilliant blossoms of the incense-tree, which perfumes the forest at the same time with its odorous medicinal resin. In 1837, Schomburgh made his famous discovery of the giant water-lily, *Victoria Regia*, in the upper waters of the Berbice River. The wooded world is alive with howling monkeys, weeping monkeys, spider monkeys, preaching monkeys, fox-tailed monkeys, and squirrel monkeys. There are tiger-cats and wild dogs; deer, wild boars, tapirs, sloths, armadillos, ant-eaters, and opossums; birds of melodious song, of rich plumage, and game birds; arboreal and water snakes, venomous and harmless; alligators in the streams and pools; and insect nuisances are in full force.

The English were settled on the banks of the Berbice as early as the year 1634, but the territory was afterwards wholly resigned to the Dutch. It was reoccupied in 1796, resigned again in 1802, and resumed the following year, since which time it has been a British colony. Public affairs are administered by a governor invested with large powers, responsible to the Queen in council, aided by a peculiarly constituted colonial assembly. There are three counties, Essequibo, Demerara, and Berbice, which form a diocese of the Anglican Church. In 1861, excluding aborigines, troops, and seamen afloat, the population amounted to 147,700, of a very miscellaneous description, the descendants of Dutch settlers, free Negroes, a few English, with Portuguese, Chinese, and East India natives, imported in large numbers to supply the labour-market. The Chinamen are liked by the planters, who have an agent regularly stationed at Canton to procure recruits. Sugar, molasses, rum, and timber are the staple exports.

Georgetown, the capital, situated on the river Demerara, near its outlet, contains 25,000 inhabitants, the great majority of whom are Negroes or persons of colour. It is regularly built of neat wooden houses, embosomed in trees, with verandahs in front, and canals are in the streets after the Dutch fashion. There is an Episcopal cathedral and a Smith chapel. The latter commemorates the missionary who suffered in the cause of the Negroes during the struggle for emancipation. *New Amsterdam*, on the Berbice, is a much smaller town, of Dutch foundation as implied in the name. Settlements are scattered for some distance up the rivers, one of which has been recently planted on the Essequibo, with the name of Hyde Park. In the International Exhibition, London, 1862, the products of the colony were well represented. There was a collection of substances connected with food, of fibrous articles used in manufactures, and a display of not less than 225 native medicinal drugs, with a notice of their application in various maladies. The forest produce was illustrated by a loo-table, made of 913 pieces, from thirty-three kinds of ornamental timber.

DUTCH GUIANA, intervening between the British and French territories, is separated from the former by the river Corentyn, from the latter by the Marony, and traversed centrally by the Surinam, the name of which is often given to the colony. Population, 53,000. FRENCH GUIANA, the most easterly and the smallest district, extends from the Marony to the Oyapok, the boundary stream from Brazil, which has been the scene of tragic crimes and wild adventures. The entire region has generally the same physical aspect, soil, climate, native products and inhabitants, while the respective political divisions differ as to introduced population, special objects of culture, amount of social improvement, and the extent

to which natural advantages have been developed. A long rainy season sets in about the middle of April, and lasts till August, followed by a long dry season continuing till November. Showers begin to fall in December and prevail through January, to which a dry interval succeeds, lasting till the great rains commence. Thunder-storms are common and violent during the rains, but the hurricanes of the West Indies are unknown. Population of the colony, 21,400.*

Paramaribo, the Dutch head-quarters, and the central seat of commerce, is situated on the Surinam, and contains about 20,000 inhabitants. The broad regular streets are traversed by canals, and lined with orange, lemon, and tamarind trees. Fort Zeelandia, in the vicinity, at the mouth of the river, is the residence of the governor. The export trade is considerable in sugar, molasses, rum, coffee, cacao, and cotton, with woods, gums, and drugs. Negroes, emancipated from slavery in 1851, are the most numerous class in the colony. Maroons, or runaway slaves, remain in parts of the interior to which they fled. There are several communities of Jews, both on the coast and inland, who have their synagogues.

Cayenne, the French capital, occupies a river-island of the same name, which is frequently given to the entire colony. The town is small and mean looking, containing about 8000 inhabitants. The name originates in a spice, Cayenne Pepper, made of the dried seeds of a native plant, a species of capsicum. It is also applied to a fruit esteemed for its flavour, the Cayenne Cherry. This colony at its origin bore the high-sounding title of 'Equinoctial France.' Its history presents an almost uninterrupted succession of misfortunes and crimes. The first immigrants settled on the river Sinnamary in 1624, and soon afterwards came under the control of a company formed at Rouen for the nurture of the infant settlement. But the violent proceedings of the governor sent out, led to an Indian revolt, and he was massacred, with most of his associates. Under the auspices of a second company formed at Paris in 1652, Equinoctial France was launched. The members, twelve in number, styled themselves the 'twelve lords.' They collected emigrants, and sailed across the Atlantic. On the voyage the commander was murdered. Within three months after landing, one of the 'lords' was executed, three were banished, three died from the effects of dissipation, and another Indian revolt nearly annihilated the entire colony. In 1763 the French government made a great effort to re-establish it at the cost of 30,000,000 francs. But of 12,000 emigrants despatched, 9000 soon perished of disease in the swamps, more than 2000 returned home, and only seventy families became permanent. A second effort failed as completely. During the revolution, political victims began to be transported to Cayenne, and French Guiana is now the principal seat of the penal settlements of the mother-country. It is divided into two cantonal districts—Cayenne and Sinnamary. All who are sentenced to eight years' penal servitude are doomed to remain for life in the colony. No returns of the death-rate among the prisoners are made by the French government, but the mortality is believed to be very considerable.



Road to Honda, Colombia.



Gold-washing on the Itacolami.

CHAPTER VI.

BRAZIL—PARAGUAY—URUGUAY.

I. BRAZIL.



THE Brazilian Empire, a compact dominion of gigantic extent, but of no commensurate political importance, embraces the central and eastern districts of South America, touches all its countries with the exception of Chili and Patagonia, and corresponds in general shape to that of the continent itself, a triangle, with the apex directed to the south. It embraces the coast of the Atlantic from French Guiana to Uruguay, a sea-board of 3700 miles; stretches through 2600 miles from north to south, by nearly the same distance from east to west; and comprehends an area falling but little short of 3,000,000 square miles, if not exceeding that measurement. But though nearly equal to the whole of Europe in size, the population is inferior in numbers to the aggregate found within the limited dimensions of Belgium and Holland. Northward are the Guianas, Venezuela, and Colombia; westward are Ecuador, Peru, and Bolivia; southward are Paraguay, Uruguay, and the Argentine Republic; eastward rolls the ocean. This vast empire lies between latitude $4^{\circ} 30'$ north and $33^{\circ} 45'$ south, and between longitude $34^{\circ} 47'$ and 72° west. It thus passes north beyond the equator, and advances considerably in the opposite direction beyond the line of the southern tropic. Low levels, generally densely wooded, are in the north and west, with moderately high table-lands crossed by mountainous ridges in the east and south, which have likewise

woodland tracts, but include extensive pasture-grounds. These two regions divide nearly equal proportions of the surface between them. The greatest elevations are in the more maritime ridges, as the Sierra do Mar, or Sea Range, immediately in the background of Rio Janeiro; and a northerly continuation of it, the Sierra do Espinhaço, at a somewhat greater distance from the coast. But the highest points range only from 6000 to 7000 feet above the sea. The hydrography of the country comprises the great flood of the Amazon, travelling through its whole extent from west to east, with its numerous and mighty tributaries, of which the Negro from the north, and the Madeira, the Tapajos, and the Xingu, from the south, are the largest; the Tocantins, flowing from south to north, and entering the same estuary; the San Francisco, in the east, watering the provinces of Bahia and Pernambuco, on its passage to the Atlantic; and the Upper Parana and Paraguay in the south, which form by their united volume the Rio de la Plata. Before quitting the Brazilian territory, the channel of the Paraguay is contracted at a place called the Fechos dos Morros, or 'Barricade of Rocks,' where a vast temporary lake is formed, when the annual rains are unusually heavy, by the inability of the waters to effect at once their disengagement.

The occupied and cultivated districts in Brazil are chiefly maritime. At no great distance from the coast at any point, the country is largely in a state of nature, and completely so through an immense extent of the remote interior. But everywhere both animal and vegetable life is developed with astonishing profusion and diversity. The jaguar is lord of the woods and jungle, sharing the dominion with the boa-constrictor, the 'bush-master,' often of enormous length. The emu and the vulture are the largest of the birds; the various parrots are the most beautiful; the toucan the most eccentric-looking; and the humming-birds of many species the most interesting. The plumage of the latter, purple, crimson, and copper-coloured, taken from the breast and head, is used for the manufacture of feather flowers. Insect life, while including the class of tormentors in abundance, embraces the largest of all butterflies, splendidly arrayed; and fireflies abound, whose phosphorescent lustre has a magical effect in the forest at night. It is stated that the hum and noise of the myriads of insects in the woods may be heard on board a ship at anchor some distance from the shore.

The natural flora receives a distinctive physiognomy from the multitude of its palms, no fewer than a hundred species, and the host of myrtles which perfume the air with their exhalations. No language, it has been said, can adequately describe the glory of the Brazilian forest, the variety of the trees bearing brilliant blossoms; the contrast of their colour and size, and the thickets formed by the creepers hanging from branch to branch, with the endless diversity of the flowering-plants. Dye-woods are abundant among the forest produce. Some of the early cargoes being of a bright-red colour, were called *brazas*, literally meaning 'coals on fire,' and hence the name of Brazil-wood, *Cesalpinia echinata*, with that of the country. The parent tree of the well-known Brazil-nuts, *Bertholitia excelsa*, answers to its name, rising commonly to the height of 100 feet, and being two or three feet in diameter. The nuts are enclosed in a shell half an inch thick, hard as iron, and so neatly packed together, that when once disturbed, no human art could possibly re-insert them all. They are the castanhas or chestnuts of the natives, an article of food with them, and greatly relished also by the monkeys.

The mineral resources of Brazil include gold, diamonds, topazes, and other precious stones, with vast quantities of iron ore which compose almost the entire mass of several mountains. Gold is obtained from auriferous rocks connected with the Sierra Espinhaço, and from alluvial deposits on the slopes and at the base. The province has the name of Minas Geraes, or General Mines. It includes the principal diamond district, where also

the most valuable topazes are found in the sands and mud deposited by the upper waters of the river San Francisco and its feeders. The first diamonds were obtained in the year 1710, by the miners in washing for gold. They were preserved as pretty stones, deemed of no more value than beads, till recognised by an official who had been in the East Indies as diamonds of the purest water. This district has been, and still is, one of the richest on the earth in the costly gems; and the province of Matto Grosso is scarcely inferior to it. But the cultivated vegetable products constitute an item of far greater wealth than the minerals. They consist of coffee, sugar, and cotton, the staple exports, with cocoa, tobacco, indigo, dye-woods, balsams, almost all kinds of fruits, all sorts of scents and spices. Manioc, the flour of which is used for bread by the humbler classes, plantains, bananas, and rice are extensively grown; and hides are prominent in the foreign commerce. Since 1820 the Chinese tea-plant has been introduced with perfect success, and is now a highly-flourishing and remunerative branch of the national agriculture. The produce retains its oriental name, *chá*. Outside the vendas or restaurants the inscription is commonly seen, *Chá Nacional*, as well as one referring to the foreign commodity, *Chá da India*.

Brazil was accidentally discovered by a Portuguese navigator on the 3d of May 1500, who, while on a voyage to India, was wafted by the trade-wind to the shore, near Mount Pascal, on the south of Cape St. Augustin. The country was gradually colonised, and remained a dependency of Portugal to the year 1808, when it became the refuge of the royal family, driven from the mother-state by the French, and was constituted a kingdom in connection with it. This tie was finally broken in 1822, and an independent empire created under a Portuguese prince, with a liberal constitution. The government is a hereditary monarchy limited by a representative assembly of two chambers, one of senators appointed for life, and another of deputies elected for four years. Each province has also a legislative assembly for local laws, taxation, and administrative purposes, under presidents appointed by the crown.

		Chief Towns.
North Maritime Provinces.	Amazonas,	Manáos or Barra del Rio Negro.
" "	Gran Para,	Para, Cameta, Macapa, Santarem.
" "	Maranhao,	San Luis de Maranhao, Caxias.
" "	Piauhi,	Ociras, Paranaíba.
" "	Ceara,	Aracate, San Joao do Principe, Campo Mayor.
" "	Rio Grande del Norte,	Natal, Porto Alegre.
Central Maritime Provinces.	Parahiba,	Parahiba.
" "	Pernambuco,	Pernambuco, Goyana.
" "	Alagoas,	Porto Calvo, Penedo, Macayo.
" "	Sergipe,	Sergipe del Rey.
" "	Bahia,	Bahia or San Salvador, Caxocira.
South Maritime Provinces.	Espirito Santo,	Vitoria, Benevente.
" "	Rio Janeiro,	Rio Janeiro, Petropolis, Parati.
" "	San Paulo,	San Paulo, Porto Feliz.
" "	Parana,	Curutiba, Principe.
" "	Santa Catherina,	Desterro.
" "	Rio Grande do Sul,	San Pedro or Rio Grande, Porto Alegre.
Inland Provinces.	Minas Geraes,	Ouro Preto, Joao del Rey, Piranga.
" "	Goyaz,	Goyaz.
" "	Mato Grosso,	Mato Grosso, Cuyabo, Diamantina.

Rio Janeiro, the capital of the empire, commonly called *Rio*, is the largest city of South America, containing perhaps a population of 400,000, situated in latitude 22° 53' south and longitude 43° west. It occupies the south-western shores of a landlocked and exquisitely beautiful bay, to which the name, signifying River of January, was originally restricted, first applied to it from the month of its discovery. The place itself was founded in the year 1556 by a French colony, with the name of San Sebastian. It was intended to be the capital of a region called 'Antarctic France,' but little more than ten years elapsed before the Portuguese took possession of the settlement. The bay, the city, and its rocky sentinels of remarkable form, the Sugar Loaf, the Gloria Hill, and others, bare at the summit, green on the sides, with the loftier Organ Mountains rising in the distance, form one of the finest panoramas in the world. Rio possesses no imposing street architecture, but has some good public buildings in the European style. The private houses are not outwardly attractive, but villas in the environs evince great taste, and are rendered extremely lovely by tropical flowers, fruits, and foliage. The royal palace at Boa Vista in the suburbs is a plain mansion,

picturesquely seated at the foot of mountains. An aqueduct seven miles in length brings water to the city, and fountains are numerous. Churches and convents crown the top of almost every hill, but their condition proclaims the relaxed hold of the Roman Catholic faith on the population, which is very apparent in every part of Brazil. Some have remained unfinished for half a century; others are dilapidated; and not a few are deserted. The public institutions include the Santa Casa da Misericordia, or Holy House of Mercy, for the sick and destitute; the Hospital dos Lazaros, for the cure of cutaneous disorders, which are very prevalent; the Casa da Roda, or House of the Wheel, a foundling hospital; the Theological Seminary of St Joseph; a Medical College; Military and Naval Academies; the College of Dom Pedro II., a national university; and the National Library, containing 100,000 volumes, chiefly brought over from Lisbon, upon the retirement of the Portuguese court from it. The English residents have also an extensive and valuable library; and a Protestant chapel in the Rua dos Barbons, built in 1823.

Life in Rio presents many interesting phases to the stranger. The commerce is vast, and by day the streets are scenes of great animation. Vehicles are rarely employed in the transport of merchandise to and from the quays, but Negro porters who work in gangs of from ten to twenty, and are generally the most powerful men that can be found. The coffee-carriers are a celebrated race. Under a captain, a troop will hoist, each of them, a bag of coffee upon his head, weighing 160 lbs.; and unencumbered by any clothing but short trousers, will start off at a sharp trot which gradually becomes a rapid run. One hand steadies the load; the other grasps a kind of child's rattle, the noise of which is accompanied by a loud shouting song. In the great square the market presents a picturesque spectacle, with its choice fruits, vegetables, poultry, and fish, black cooks and housemaids chaffing with the vendors. Feather flowers are extensively made of the plumage of the humming-birds, to which the wing-cases of beetles are often added, and have the sparkling effect of precious stones. The 'padres' in the streets at once arrest the attention of the traveller, with large hats and close-buttoned gowns, dressed in the height of the tropical summer as if for a Canadian winter. *Petropolis* and *Theresopolis*, called after the emperor and empress, Peter and Theresa, are two new towns inland among the hills, containing many German colonists. *Petropolis*, reached by steamer across the bay and then by a railway, has become the most important, being the summer residence of the emperor, whose palace is in the centre. The diplomatic body and wealthy citizens annually repair to the place to spend the hot and unhealthy season. The population, 10,000, is rapidly increasing, owing to the beauty and salubrity of the site, about 2500 feet above the sea, surrounded by hills covered with the virgin forest, in which tree-ferns are prominent, with their drooping fronds of exquisite green, moulded into lace-like forms by nature's delicate working. Sparkling streams and cascades are in the valleys and glens. The Falls of Itamarity, 'Shining Stones,' in the vicinity, are remarkable for combined beauty and grandeur.

Bahia, 'Bay,' the second city and port of the empire, about 300 miles north of the capital, is very finely seated at the base and on the summit of a rock projecting into All Saints' Bay, and has a noble appearance from the sea. It is the oldest city in Brazil, having been founded by the first governor-general, was the capital until 1763, when the seat of government was transferred to Rio. It is also the only archiepiscopal city of the empire. The cathedral and some of the churches, erected by the Jesuits, are imposing structures. A *fabrica de imagens*, or image-factory, is said to carry on a flourishing trade. *Bahia* has the full name of *Cidade de San Salvador da Bahia de todos os Santos*, 'The City of the Holy Saviour of the Bay of All Saints.' But formerly St Anthony was held in such esteem, that in 1705, at the request of the town-council, the viceroy issued an order granting to the defunct the rank and pay of a captain in the fortress. The inhabitants are estimated at 125,000, among whom are a large number of Negroes from the coast of Benin. They are a powerful and independent race, occasionally turbulent; all Mohammedans, speaking a language unknown to the other Negroes. *Pernambuco*, a more northerly port, and the most easterly city of the empire, consists of three divisions; Recife, or 'Reef,' on a peninsula opposite a coral-reef which protects the harbour, the seat of foreign commerce; St Antonio, on an island approached by a bridge, where the shopkeepers reside in lofty substantial houses, with many windows and verandahs to admit the sea-breeze; and *Boa Vista*, on the mainland, from which villas extend a considerable distance into the country. The population is about 60,000. Sugar and cotton plantations are extensive in the neighbourhood, and yield the staple exports. The cotton known in the Liverpool market as Pernambuco, Bahia, and Maranhao is the produce of *Gossypium Peruvianum*. The plant attains the height of from ten to fifteen feet, has large leaves, yellow flowers, and yields a long stapled wool. Hides are also largely exported, the produce of the interior districts, where vast herds of cattle are bred. The city and the province contain a number of Sebastianists, found also in Portugal, a fanatical people who believe that the young king, Don Sebastian, slain in 1577 by the Moors in Africa, is still alive, and will reappear to inaugurate a millennium. They were guilty of dreadful excesses in the Pernambuco province in 1838, and had to be put down by the troops.

Maranhao, on a river-island of the north coast, with a population of 36,000, is the best built city in the Brazilian empire, and is a remarkably clean, gay, hospitable, and prosperous place. It has a remarkable rain-fall, amounting to an annual precipitation of 280 inches. *Para*, near the outlet of the river Tocantins, possesses the largest cathedral in Brazil, with other public buildings far beyond the wants of the inhabitants, therefore neglected. It exhibits a singular blending of town and country. The squares are green with grass, and studded with palm-trees. Vines and climbing plants have overgrown the theatre; and the dense forest presses close upon the houses. A considerable quantity of cacao is raised in the province, on the banks of the Amazon. The cacao-trees are not more than from fifteen to twenty feet in height, and have yellowish-green

leaves, in marked contrast with the full vivid green of the surrounding woods; three years after planting, the trees yield, and afterwards require no attention; a large berry grows direct from the trunk, and the branches contain the seeds which are the cacao of commerce. *San Paulo*, the largest inland city, in the southern part of the empire, is the seat of an old university, and contains about 40,000 inhabitants, who, together with those of the province, have long been prominent in Brazilian history for public spirit and influence. The ridge of the *Sierra do Mar* intervenes between the city and its port, the small town of *Santos*. Across the *Sierra* a railway is in process of being conducted, in the hands of English capitalists and contractors; it runs for eight miles from the sea over a swampy plain reeking with miasma, to the foot of the mountain-chain, which assumes its grandest proportions at the point where the *Sao Paulo* province is entered from the coast. Science has here been called in to grapple with the difficulty of carrying the line through the dividing ridge. This is done by a series of inclines up the gorges, one of which has the name of *Bocca do Inferno*, from its wildness and gloom. In the space of five miles the railway rises to the height of 2600 feet above the sea, and then passes out through an opening in the ridge, on to the table-land of the interior.

The population of Brazil was estimated at 9,000,000 in the year 1863, consisting of whites chiefly of Portuguese descent, Negroes, mostly in a state of slavery, aboriginal Indians, and mixed races.

The aborigines are found in most of the provinces, but under different circumstances in the interior and the maritime districts. In the upper part of the basin of the Amazon there are tribes in a condition of wild independence, retaining the barbarous customs and superstitions of their ancestors, as if the foot of civilised man had never trod the soil. Some of these are undoubtedly cannibals, eating the flesh of their enemies, and preserving it smoked and dried. Others more contiguous to the chief settlements of the whites, have been partially civilised, brought into subjection to regular government, and are very stringently protected by the laws. Imprisonment has been inflicted upon the white man for striking his Indian neighbour. These natives, though disposed, like all the other members of the race, to look with aversion upon settled industry, yet till the soil, manage the boats which bring down produce on the rivers, compose part of the national army; and traces of intermarriage with them are observable in some of the town families. They make baskets, boxes, and india-rubber shoes neatly, and are unequalled in the production of feather-work. The Negroes are supposed to number nearly half the population, subject to a slavery where they are bondsmen of the mildest type; so much so, that many refuse to purchase independence when they have the means, and will decline to accept it as a gift. Not only are natives slaveholders, but foreigners, French, German, and English also; for instance, the great Anglo-Brazilian Mining Company of *St Joao do Rey* hold slaves. By law the slave-trade was prohibited in 1850; in 1853 there was not a single disembarkation; and it is probable that in a few years slavery itself will be extinct. It is a pleasant circumstance that throughout the empire colour has no influence upon social standing, and persons of every shade are eligible for official employment and political privileges.

The Brazilians proper, or native whites, amount to about one-third of the population. They are landholders, gentry, government employés, military and naval officers, or members of the priesthood; while Portuguese, who come over in youth to make money, and return home again, with other foreigners, have the principal management of trade and commerce. The established church is the Roman Catholic. But while sustained by the state, the hierarchy are controlled in the exercise of many important functions by the civil government; and toleration is enjoyed by other communions, subject to the restriction of not building steeples and ringing bells. Official statements are scarcely credible respecting the ignorance, sloth, and vices of the clergy, who are regarded with contempt by the better classes, and have recourse to shows and festivals to maintain influence with the populace. These are duly announced in the newspapers, in connection with some amusement to collect a crowd, as 'brilliant horse-racing, after which a *Te Deum*, and magnificent fireworks.' Several papers of large size, well printed, on good paper, appear daily in the capital,

without exception being made in favour of Sunday. There are two universities of law, one at San Paulo and another at Pernambuco; two medical universities, one at Rio and another at Bahia; an Imperial Academy of the Fine Arts; a Geographical and Historical Institute; and public instruction has an official superintendent. The people are in general keen politicians, and take a lively interest in the elections. Senators are chosen by provincial electors, who submit three candidates to the emperor, one of whom he selects. The party appointed takes his seat for life, and generally receives a title if without one. For the deputies every citizen of full age, in possession of a small property qualification, has a vote, with the exception of monks and domestic servants. By the constitution all elections are to be held in churches. This regulation the framers of it thought would give solemnity to the proceedings. But during severely-contested elections, when party-spirit has run high, a free use has been made of the metal candlesticks and statues, in the place of legitimate arguments.

II. PARAGUAY.

PARAGUAY, formerly under the rule of Spain as part of the viceroyalty of Buenos Ayres, is now the only independent state of South America entirely inland; and maintained a singular attitude of political isolation relative to all other countries, from the formation of a separate government down to a recent date. It embraces the peninsular tract, lying between the two great rivers, the Paraguay and the Parana, above their junction; and is bordered by Brazil on the north and east, and by the states of the Argentine Republic on the west and south. This territory extends upwards of 400 miles along the east bank of the Paraguay, which was ascended considerably beyond its limits by the United States steamer, the *Water Witch*, in 1855. It has an area computed at 74,000 square miles, with a surface hilly towards the Brazilian frontier, flat and marshy in other directions, abundantly clothed with forests, in which not less than sixty varieties of serviceable timber are enumerated. The botanical product of the greatest commercial and social value is the *Ilex Paraguayensis*, found also in the Brazilian woods, which supplies a substitute for the tea of China, and is an article of export. The population, reckoned in 1857 at 1,337,000, consists of whites of Spanish descent, with a much larger proportion of Indians, nominally Christianised by the Jesuits, who established and conducted missions among them during the former part of the last century.

Upon shaking off the Spanish yoke, Paraguay refused to join the other states which formed the Argentine Confederation, and declared for a separate existence. In 1814 the celebrated Francia was appointed dictator for three years, and subsequently for life. He governed the country absolutely, forbade all intercourse with foreigners, and detained Bonpland, the companion of Humboldt in his travels, a prisoner for many years, who had ventured for scientific purposes within the sphere of his dominion, but otherwise displayed great administrative capacity. Soon after his death, in 1840, the rule excluding foreigners was relaxed. At present (1864) Paraguay professes to be a constitutional republic, but the president has almost dictatorial power. *Assumption* or *Asuncion* (Ascension), the capital, stands on the left bank of the Paraguay. It was founded by a Spanish colony in 1535, and rose to the rank of an archiepiscopal city, but is now a mean small town of 8000 inhabitants, yet with considerable trade in farming produce, and Paraguay tea. The *Ilex Paraguayensis* is a kind of holly growing wild in the forests, and covering literally many of the hills. The leaves and branches are broken off, kiln-dried in the woods, then pounded in a mill, and the coarse powder is the Paraguay tea of commerce. It supplies a beverage not only in daily use in the country, but with the lower classes in Brazil, Peru, and Chili, who call it meat and drink, and never travel without a supply for refreshment.

III. URUGUAY.

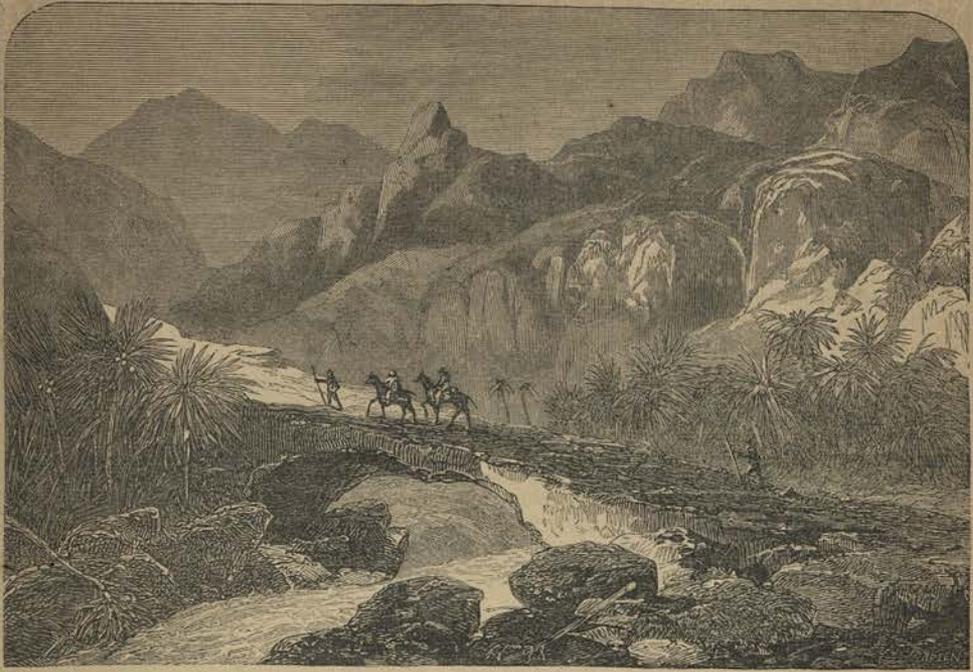
URUGUAY is enclosed by the wide embouchure of La Plata on the south, Brazil on the north, the Atlantic on the east, and the river Uruguay on the west. This district was called Banda Oriental by the Spaniards, as it formed the eastern boundary of their possessions in South America. It contains an area of nearly 70,000 square miles, and has a level surface along the coast, destitute of wood, with an undulating interior, except in

the centre, which is crowded with heights, ravines, and forests, forming a southerly prolongation of the Sierra do Mar, or sea-range of Brazil. The greater portion of the country consists of pasture-land, distributed into grazing farms. Wealthy proprietors often possess thirty or forty square miles, with thousands of semi-wild cattle, besides horses, mules, and sheep. Hence live-stock, hides, horns, tallow, and jerked beef are the main exports, the commerce in which is very extensive with England, other parts of Europe, the West Indies, and Australia. The population, perhaps about 300,000, includes a number of industrious German settlers, with some Waldensians from their Alpine valleys.

After separating from Spain, the country was seized by Brazil, but recovered its independence in 1828, and became a republic. The constitution includes a president, elected for four years, a senate, and a house of representatives. *Monte Video*, the capital and chief shipping port, stands on the north bank of the Rio de la Plata, here more than sixty miles wide, and has its name from an abrupt hill by which it is overlooked. It has the best harbour on the broad estuary, though exposed to the *pamperos*, violent south-west winds, and is more favourably situated for foreign commerce than Buenos Ayres, on the south bank of the channel, being much nearer the Atlantic. The trade is very great, and rapidly increasing. Steam-communication is maintained with Southampton, Genoa, and other ports. The city is built in squares, in the old Spanish style, and contains a population of 45,700, including the small suburbs of Aguada and Cordon. From the want of wood and fresh-water springs, the inhabitants suffer great inconvenience. They collect the rain in cisterns placed in the courtyard of every house, and have water carted to them from a distance. The trade with the West Indies is in dried beef; with England in hides, horns, and tallow; and with Australia in mules.



The Alpaca.



Peunte del Inca, Chili.

CHAPTER VII.

ECUADOR—PERU—BOLIVIA—CHILI.

I. ECUADOR.



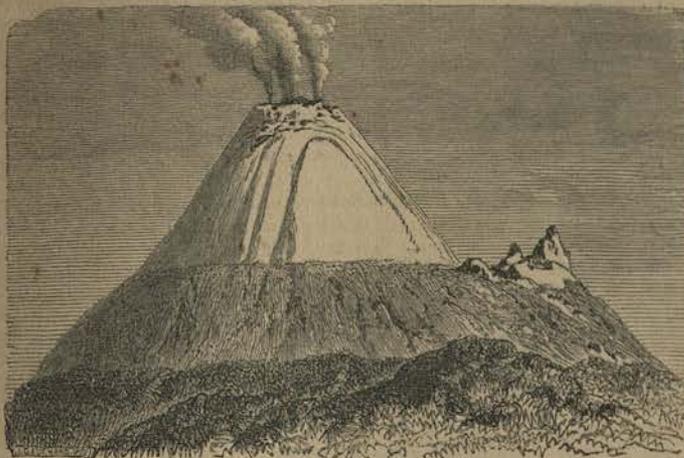
THE territory of ECUADOR is named from its position under the line of the equinoctial. It occupies the shore of the Pacific from Colombia on the north to Peru on the south, and extends inland on the east to the borders of Brazil. The coast-line embraces the Gulf of Guayaquil, a spacious and beautiful body of water studded with islands, the only inlet of importance on the western side of South America. It receives a river of the same name, which is the only stream between the whole chain of the Andes and the ocean, with any considerable length of navigation for large vessels. In two great ranges the mountains traverse the maritime region from north to south, which contain many of the loftiest and most magnificent masses of the entire series. Vast forests clothe the interior declivities, which slope gradually into extensive plains—still woodlands, but with interspersing savannahs. The drainage is conducted by many large rivers to the Amazon, the main channel of which forms part of the southern border from Peru. This inland country is through great spaces very imperfectly known, and exploration is beset with almost insuperable difficulties from the density of the woods and jungle, the myriads of mosquitoes and reptiles, annoying or dangerous, and the paucity of human inhabitants. Ecuador contains an area of 325,000 square miles, a population of more than 1,000,000,

of whom 665,000 are whites of Spanish descent, and has suffered from internal dissensions, like most of the sister-states.

Originally one of three states which formed the Colombian republic, Ecuador became a republic at their dissolution. The republic is divided into three departments.

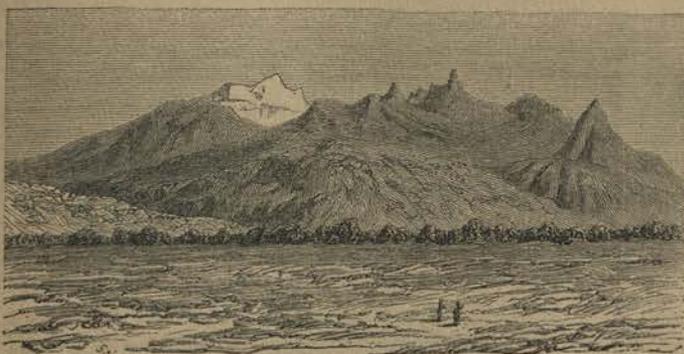
Quito, or Ecuador,	Quito, Riobamba, Imbarra.
Guayaquil,	Guayaquil, Tumbes.
Assuay,	Cuenca, Loja.

The western or maritime range of the Andes runs near the coast, and is distinguished by the mass of Pichincha, with an elevation of 15,976 feet above the sea; Illiniza, 17,330; and the dome-shaped



Cotopaxi.

Chimborazo, 21,424 feet, long regarded as the loftiest point of the globe, but not even the monarch of the Andes. The inland range has Cotopaxi, 18,875 feet, the most beautiful of all volcanoes, and one of the most terrible in its eruptions; Antisana, 19,137; and Cayambe, 19,386 feet, on the line of the equator. Many other summits are not much inferior in height, and have diversified features. The volcano of Macas is remarkable for its exactly conical outline, and the snow lying on it in longitudinal stripes, as well as for the cloud of smoke continually hovering over it. The truncated summit of El Altar is jagged with eight peaks of nearly equal elevation, and clad with an unbroken covering of snow.



Volcano of the Pichincha.

Tunguragua is a bluff irregular peak with a rounded apex capped with snow, which also descends in streaks far down its sides. Quito, the capital, the seat of a modern university, is an inland city, containing a full complement of old churches and convents, with about 76,000 inhabitants. They are said to be generally kind and courteous to strangers, but singularly deficient in enterprises involving any social improvement, a defect which specially applies to the government. The only road to the coast, which descends from highlands to lowlands, has undergone no repair for more than a century. Its termination in the low maritime region is nearly concealed by rank tropical vegetation, or so obstructed by fallen trees in various stages of decay as to be scarcely passable. Hence it has been said that though only 90 miles from the Pacific it might as readily be reached from the Atlantic, 3000 miles distant, owing to the navigable rivers. No city, perhaps, occupies such a remarkable position. It stands on a table-land 9528 feet above the sea. The particular site is a kind of ledge on the eastern side of the volcano of Pichincha. This mountain, 15,976 feet high, is crowned by a wall of trachytic rocks surrounding the crater, the depth of which is 2460 feet; and consequently the bottom, where volcanic agency is in active operation, is nearly 4000 feet above the level of the capital. The summit can at

no time be seen from the city, but from the great square no less than eleven snow-capped peaks are in sight. Such an elevation near the equator renders the climate very agreeable and salubrious. The thermometer never rises above 64°, nor sinks below 46°. There is a perpetual spring, and hence the common phrase of the 'evergreen Quito.' But by a very few hours' journey the traveller may ascend to the region of eternal frost, or descend into valleys where the heat is tropical. This variation of elevation and temperature, occurring within narrow limits, supplies the market with a diversity of vegetable produce, from plantains, pine-apples, oranges, and lemons, to the wheat, potato, and apple, with the other grains, roots, and fruits of Europe. But calamity from physical convulsions is at no time improbable. *Nueva Riobamba*, a town in the department, is the modern representative of old Riobamba, which, in 1797, was literally blown up by the mine-like explosion of an earthquake, the houses and inhabitants being hurled across the River Lican.

Guayaquil, the principal port, on the river of that name, forty miles above its outlet in the Gulf of Guayaquil, has the best harbour on the west coast of South America, contains 18,000 inhabitants, and monopolises nearly all the foreign trade of the republic. The chief exports are cocoa, straw hats, timber, bark, hides, and tobacco. But for one-half of the year there is an almost total suspension of commerce between the port and the interior. Goods arriving at the commencement of the rainy season, destined for Quito, must wait till it is over before they can be despatched, and the road becomes again in a passable condition. *Cuenca*, 8640 feet above the sea, the seat of an old university, and *Loxa*, 6760 feet, are inland towns in the department of the south. The Peruvian bark of medicine has been largely obtained from the woods on the Andes of Loxa, now extensively crippled by inconsiderate treatment from the collectors of it.

The Galapagos Islands, a volcanic group, upwards of 700 miles out in the ocean, belong to Ecuador. Ten of the more important have English names—Albemarle, Charles, Indefatigable, Chatham, James, Narborough, Hood, Barrington, Bindloes, and Abingdon. On Charles Island there is a small colony, consisting chiefly of persons of colour banished for political offences. The rest are uninhabited, but are visited for the turtles of immense size which frequent the shores. Hence the name *galapago*, the Spanish for 'tortoise.'

II. PERU.

The territory of the Peruvian Republic, immediately southward of Ecuador, is a continuation of its superficial aspect with an ampler development. It embraces full 1500 miles of the coast-line of the Pacific, ranging from latitude 3° 30' to 21° 10' south, and has its greatest inland extension at a nearly intermediate point, where 700 miles intervene between the ocean and the Brazilian frontier. But the average breadth is much less, and becomes gradually contracted to very narrow limits at the south extremity along the border of Bolivia, where the great highland lake Titicaca is intersected by the boundary-line between the two states. The country has an area somewhat exceeding 500,000 square miles. It is traversed through the entire length by the Andes in two grand ranges, which enclose high valleys and table-lands of considerable width, but occasionally interlock and form mountain-knots. Three physically distinct regions are constituted, consisting of a narrow maritime plain, a central mountain-belt, and immense interior lowlands.

The maritime plain, between the Andes and the coast, has rarely more than a width of sixty miles, and is a dry, hot, sandy, and insalubrious region, intersected by chains of sand-hills, and frequently traversed by columns of sand drifting before the wind. Over the greater part of this district no rain ever falls, in the proper sense of the term, owing to the mountains obstructing the westward passage of the clouds which drench their inland slopes. But a veil of mist is formed for a few months on the immediate sea-board from which a slight precipitation occasionally descends. Fertility is hence confined to the borders of a few meagre streams, which are the inhabited sites, along with the coast-line. From this plain the central mountain-belt rises steeply and grandly, but has gradual declivities on the interior side. It contains numerous towns and villages in the high valleys by which it is penetrated, which have a delightfully genial climate and luxuriant vegetation; and spreads out in elevated table-lands ranging upwards to 12,000 feet or more, overlooked by many a peak from the bordering ridges, wearing a crown of perpetual snow. On these lofty levels the summer air is chill; the wind stormy; and the surface cheerless, only clad with a hard wiry grass, still succulent, though of a sickly hue. But

here, at sterile heights where vegetable life never looks verdant, and fearful tempests rage, while quadrupeds are few, and the condor alone seems to be in a congenial element, stores of the precious metal are buried beneath the surface, which have drawn a human population to comfortless wilds, wanting in every attribute to render their occupation agreeable. The third region, that of the interior lowlands, traversed by the head waters of the Amazon, is one of forests and savannahs, drenched with almost incessant rains. Here the clouds heaped up against the bounding-wall of the Andes by the trade-winds, descend in daily showers; and the more secluded woods are still rich in many of the most valuable species of *Cinchona* trees, yielding the Peruvian bark of medicine and commerce.

The Andes have been called the Treasury of Peru from their metallic wealth, especially in silver, which occurs in almost all its forms and combinations, from the pure metal to the argentiferous lead ore. The mines are all situated in the higher parts of the mountain region, which renders the working of them difficult and expensive. Some are now exhausted, and mining labour has been largely suspended by the political distractions of the country, but there is ample scope for the profitable employment of industry and capital. However much report may have exaggerated the accumulations of gold and silver in the palaces and temples of the old Peruvians, it is certain, from the experience of the early Spaniards, that they must have been enormous. Nor is it strange to read of twelve immense vases of silver, with corresponding utensils, in the interior of the great temple of Cuzco, a building constructed of stone and thatched with straw, having well-attested examples of extraordinary produce on record. Tschudi relates that the owner of the mines at San Jose, in the department of Huancavelica, requested Castro, the viceroy of Peru, who was his friend, to become godfather to his first child. The viceroy consented, but at the time appointed for the ceremony, affairs of state prevented him from leaving the capital, and he sent the vice-queen to officiate as his proxy. To honour his illustrious guest, the mine-owner laid down a triple row of silver bars along the whole way, and it was no very short distance, from his house to the church. Along this rich pavement the vice-queen walked, accompanied by the infant and attendants. On returning, the munificent host presented to her the whole of the silver road, as an acknowledgment of the honour she had conferred upon him. Since that time the mines and the district in which they are situated have borne the name of *Castrovireyna*. One of the most celebrated mining sites had its subterranean wealth accidentally discovered. History relates that in the early part of the sixteenth century an Indian shepherd tended his flock on a small pampa near the Lake of Ilauricocha, one of the feeders of the Amazon. Having wandered further from his hut than usual on one occasion, and being fatigued, he made a declivity of the Cerro de Santiestevan his resting-place for the night, kindled a fire to protect himself from the cold, and lay down to sleep. On awaking in the morning he was astonished to find the stone beneath the ashes of the fire melted and turned to silver. The shepherd communicated this intelligence to his master, a Spaniard, who immediately repaired to the spot, found indications of a rich vein of silver ore, and made preparations for working it. New veins were discovered by fresh adventurers, whose settlements and explorings originated the town and mines of Pasco. The original mine, still worked, has the name of *La Descubridora*, or 'The Discoverer.' The effectual concealment of rich metallic stores, so that all knowledge of their site has been finally lost, is an incident which has marked the history of mining in Peru. Quicksilver, copper, lead, and iron, with a limited amount of gold, are the other metals.

Peruvian bark, the only source of quinine, is the produce of trees growing on the eastern slope of the Andes, from Colombia on the north to Chili on the south. They do not form forests of themselves, but are interspersed with other trees; and appear to require a mean temperature varying, according to species, from 60° to 70° Fahrenheit, with an almost constant supply of moisture, and an elevation of from 5000 to 8000 feet, some kinds descending to a lower level. There are from twenty to thirty known species, differing greatly in appearance. Some attain a considerable height, and are fine umbrageous trees; others grow up as straight and branchless as palms; while a few are mere bushes. They have evergreen, laurel-like leaves, and bear flowers resembling those of the lilac, but more beautiful, and diffusing a delicious fragrance. According to tradition, the Indians were acquainted with the medicinal properties of the bark before the Spanish conquest. It was made known to the Count of Chincón or Cinchon, the viceroy of Peru, soon after the year 1638, whose wife was recovered by its use from an intermittent fever at Lima. It hence acquired the name of *Countess's Bark*, and also that of *Jesuits' Bark*, from the order recommending and vending it in Europe. The discovery of quinine, one of the five alkaloids which the bark yields to the chemist, and by far the most important of them, dates from the commencement of the present century. Vast quantities are imported for the preparation of the medicine. Not less than £40,000 are spent annually in supplying the military hospitals in India with it. The probable destruction of the tree in the South American forests by the recklessness of collectors of the bark, and its inestimable value, has properly led to its introduction into India, Ceylon, and Jamaica, where cinchona cultivation is now conducted. The Dutch have their plantations in Java.

In 1861, Mr Markham, on the part of the British government, visited the country, with which he had previously become well acquainted, for the purpose of procuring plants and seeds. The utmost secrecy was necessary respecting the object of his mission, as the Peruvian government had determined not to permit the

export of any more seedlings. He reached the virgin forests at the outposts of civilisation, the abode of bears and jaguars, secured the services of a *cascañero*, or bark-collector, and succeeded in carrying off upwards of 500 plants from their native region. The *cascañeros*, who regularly follow the occupation, are so called from the Spanish *casca*, 'bark.' They commonly ascend some lofty eminence, or climb the highest tree, in order to obtain an extensive view; and having readily recognised the cinchonas by their foliage, proceed with wonderful accuracy to the spot where they grow. Their life, if less exciting, is scarcely less perilous than that of the Alpine chamœis-hunter. Occasionally they lose themselves in the wilds, and perish of hunger and exhaustion. The word 'quinine' is a modification of the Indian name of the bark-trees, *quina* or *quinquina*.

Peru was conquered by the Spaniards under Pizarro in 1532, and remained for nearly three centuries a possession of Spain. It secured independence by the decisive defeat of the royalist forces in 1824, and adopted a republican form of government, but has experienced repeated political vicissitudes and great social anarchy. The constitution embraces a president elected for six years, a senate composed of two members elected for each province, and a house of representatives chosen on the basis of one member for every 20,000 inhabitants. The country is distributed into departments, and subdivided into provinces.

		Chief Towns.	
Northern Divisions.	Piura,	Piura.	
" "	Amazonas,	Caxamarca, Caxamarquilla, Huamachuco.	
" "	Libertad,	Truxillo, Lambayeque, Payta.	
" "	Ancas,	Tarapato, Moyobamba.	
" "	Junin,	Tarma, Huanaco, Pasco, Junin, Huari.	
" "	Lima,	Lima, Huari, Pisco.	
" "	Callao,	Callao.	
Southern Divisions.	Huancavelica,	Huancavelica, Jauja.	
" "	Ayacucho,	Huamanga or Ayacucho.	
" "	Cuzco,	Cuzco, Abancay, Urubamba.	
" "	Puno,	Puno, Chuquito.	
" "	Arequipa,	Arequipa, Islay, Arica, Iquique.	
" "	Moquegua,	Tacna, Moquegua.	

Lima, the capital, in latitude 12° south, longitude 77° west, six miles from the coast, occupies both banks of the small river Rimac, and contains a population of 60,000. It was originally called the 'City of the Kings,' *Ciudad de los Reyes*, from being founded on the day of the Epiphany, 1534. The cathedral, which has a splendid interior, contains the tomb of the founder, Pizarro. The houses are chiefly of one story, with flat roofs, as a precaution against the frequent earthquakes. No year passes without many slight shocks, and an average of two visitations occur in a century, more or less destructive. There are fifty-six churches and convents, with thirty-four squares or open areas. The grand square, *Plaza Mayor*, contains the government palace, formerly the residence of the Spanish viceroys, whose portraits from Pizarro downward, forty-four in number, the size of life, once adorned the interior. At the revolution they were removed to the museum, where they are now preserved. The capital is connected with its port, *Callao*, by a railway, the first work of the kind constructed in South America. This town is strongly fortified, and has a considerable shipping-trade, with a commodious pier and quay. It dates since the year 1746, when old Callao was destroyed and in great part submerged by an earthquake, which laid also a large part of Lima in ruins.

Pasco, a mining town, north-east of the capital, is seated on a plateau of the interior, which has a mean elevation of 11,000 feet above the sea, and is surmounted by the Nevada de la Vinda, rising to the total height of 16,000 feet. This is the chief silver-mining district. There are here two very remarkable veins. One of them, called the Veta de Colquirirca, runs nearly in a straight line from north to south, and has been traced to the length of nearly two miles, being 412 feet in breadth. The other, the Veta de Pariarirca, takes an opposite direction, and has a known extent of about a mile and a quarter in length, by 380 feet in breadth. The two veins are believed to intersect each other under the market-place. Both have smaller veins branching off from them in various directions, forming a net-work of silver beneath and around the town. So completely has the ground been burrowed into, that no very violent earthquake shock might be expected to bury the place in the mines. The population of Pasco has sometimes amounted to 18,000, but it fluctuates with the political circumstances of the country, and the condition of the works. There has often been a very promiscuous assemblage of human beings for such an elevated site, surrounded with wild mountains, where the air is chill through the greater part of the year, and the climate tempestuous. Even in the middle of the tropical summer, the ground at sunrise is white with hoar-frost. Creoles and Indians have here been grouped with Spaniards, British, French, and Italians. The first steam-engine in South America, sent out from England, was put up at Pasco, in 1816, for the drainage of the mines, which an influx of water had rendered unserviceable. Mr Trevithick, the well-known Cornish engineer, furnished the machinery. It was carried

up the mountains with great difficulty on the backs of mules, under the superintendence of his men. He visited the country in 1817, and was received with great distinction. The *Lima Gazette* announced the arrival of Don Ricardo Trevithick. The Lord Warden of the Mines attended him in command of a guard of honour; and it was proposed to erect his statue in massive silver on a suitable point in the argentiferous district. But the revolution broke out, when the royalists suspended all operations, and destroyed the machinery, as the merchants of Lima, who were most interested in the mines, espoused the cause of the patriots.

Cuzamarec, one of the northerly towns, is seated in a delightful Andean valley, and has a mournful interest attached to it, as the place where Atahualpa, the sovereign of the old Peruvians, last of the Incas, was barbarously put to death by the command of Pizarro. The gold to redeem the unfortunate prince was then on its way from Cuzco, borne by a herd of many thousands of llamas; but upon hearing of the deed, the natives secreted the treasure, and it was never discovered. *Cuzco*, south-east from Lima, is, next to it, the most populous and important city, containing 47,000 inhabitants. Though the capital of the empire of the Incas, still retaining an aboriginal name (said to signify 'navel' or 'centre'), and containing ruins that go back to an era before the Incas, the present city is almost wholly Spanish, has handsome edifices, and considerable manufactures. The site is 11,300 feet above the sea. *Huancavelica*, nearly midway between the ancient and modern capitals, and at an elevation of 11,000 feet, is distinguished by productive mines of quicksilver, gold and silver, in the adjoining hills. *Huamanga*, on the same route, also called *Ayacucho*, contains a cathedral and university. It was founded by Pizarro in 1539. On a neighbouring plain, General Sucre defeated the Spanish army in 1824, and secured the independence of the country. *Arequipa*, a southerly city, is the third in size with a population of 30,000, and has the small maritime town of *Islay* for its port, thirty miles distant, possessing one of the best harbours of the Republic. The great volcano of Arequipa, a truncated cone, towers to the height of 20,320 feet. *Puno*, on the north-west side of Lake Titicaca, is the most elevated town of Peru, 12,870 feet above the sea. *Tacora*, a village, goes up to 13,690 feet; *Ancochallani*, a farm homestead, to 14,683; and *Rumihuasi*, a post-house, to 15,540 feet.

Peru contained in 1859, a population of 2,500,000, consisting to the extent of nearly three-fourths of aboriginal Indians. The remainder are Creoles, descended from the old Spanish families, and mixed races, with a small proportion of Negroes. The country possesses highly useful animals in the allied ruminants, the llama and alpaca, with their congeners, the vicugna and guanaco, sometimes popularly called Andean sheep, but anatomically belonging to the camel family. Their wool or hair figures in the exports, with chinchilla furs, the fever barks, sarsaparilla, gums, resins, and guano, with a limited amount of bullion, for the important items. But the want of roads impedes the foreign and internal trade, while peaceful pursuits have often been rendered well-nigh impossible by civil contentions and brigandage.

The Llama, common to the other Andean countries, and entirely domesticated, is invaluable to the Indian population, supplying them with food and clothing. It is in use also as a beast of burden, and was the only animal of that description in America prior to the introduction of European quadrupeds. The Alpaca, also domesticated, is somewhat smaller, and yields a finer fleece. The Peruvian government prohibited the export of these animals under heavy penalties. But following a route through Bolivia and Chili, a herd was safely conducted to Australia, and the restriction is now relaxed. The Vicugna, altogether wild, is handsomer than either the llama or alpaca, and furnishes a finer wool. It inhabits the heights of the Andes, on the verge of perpetual snow. The Guanaco, also wild, is the largest of the tribe, thrives at a lower level, and ranges southward to the Strait of Magellan.

Peruvian guano, an important government monopoly, is obtained chiefly from the Chincha Islands, three in number, known as the North, the Middle, and the South Islands, distant about ninety miles to seaward of the port of Callao. They are of very small size, but highly valuable, being covered with enormous deposits of guano, the excrement of birds, which have been accumulating for ages, and retain nearly the whole of their soluble constituents owing to the extreme dryness of the climate. Although in daily use as a manure in Peru for many centuries, the export of the deposit to foreign countries is comparatively recent, but upwards of a hundred vessels have since been seen at once taking in their cargoes. The income derived by the state from the guano amounted in 1860 to £2,809,000, and in 1861 to £2,961,000. It has been estimated, as the result of official surveys, that the quantity remaining on the three islands exceeds 7,000,000 tons, which, at the average net proceeds of £4 per ton, gives a total value of £42,000,000 sterling. Borings have been made which extend to the depth of 105 feet through the solid manure. Recently, these islands were audaciously seized by Spain, and are still retained.

III. BOLIVIA.

This region, formerly called Upper Peru by the Spaniards, now commemorates the South American liberator, Bolivar, who drew up its first constitution as a republic, and for a time presided over its destinies. It is chiefly an inland country, enclosed by Peru, Chili, Brazil, and the Argentine States, but includes a small maritime tract on the coast of the Pacific, subject to the disadvantage of being a sandy waste, with no good port, while separated from the important part of the territory by mountains of stupendous elevation.

A high plateau of great extent, formed by the main mass of the Andes, is the distinguishing physical feature. This is the table-land of Desaguadero, at a mean elevation of 13,000 feet above the sea, extending 500 miles in length, occupied by the basins of two lakes and a river-valley, while bordered east and west by longitudinal ridges towering far above it. The western ridge, or cordillera of the coast, contains the highest point in the peak of Sahama, rising to 22,350. In the eastern ridge the serrated summit of Illimani attains to 21,140, and that of Sorata to 21,286 feet, both of which overlook the waters of Lake Titicaca, and a large portion of the Peruvian territory. On the interior side of the plateau the surface declines into wooded plains, traversed by affluents of the Amazon and the La Plata, but very obscurely known to Europeans. Bolivia is estimated to include an area of 274,000 square miles, and a population exceeding 2,000,000, composed mainly of native Indians; but both calculations must be regarded as doubtful results. The mineral, animal, and vegetable productions correspond to those of Peru.

Departments.	Chief Towns.
Chuquisaca,	Chuquisaca or Sucre, Valle Grande.
Potosi,	Potosi, San Cristoval.
Cochabamba,	Cochabamba, Misque, Cochamarca.
Santa Cruz de la Sierra,	Santa Cruz de la Sierra, San Lorenzo.
La Paz,	La Paz, Apolobamba, Sorata.
Oruro,	Oruro, Chipaya.
Tarija,	Tarija.
Cobija,	Cobija, Atacama.
Beni,	Ealtacion, Trinidad.

Chuquisaca or *Sucre*, the capital, on the interior slope of the great plateau, 9300 feet above the sea, is chiefly important as the seat of government, but has a population of about 30,000. It was founded in 1538 by an officer of Pizarro, on the site of an old Peruvian town called *Choque Chaka*, or 'Bridge of Gold,' the treasures of the Incas having passed through it on their way to Cuzco. At one time it bore the name of *La Plata*, on account of the rich silver-mines in the vicinity. It has a cathedral of great magnificence, a university, a college of arts and sciences, and a mining school. *Cochabamba*, surrounded with forests, contains a population of 40,000, and has manufactures of cotton fabrics and glass-wares. But *La Paz*, an Episcopal city, south-east of Lake Titicaca, is the most populous place in the republic, with 76,000 inhabitants, and extensive manufactures of hats of vicugna wool, and cloths of llama and alpaca hair. *Potosi*, once a large and splendid city, now decayed, has a name which has become proverbial for wealth, owing to its silver-mines. It stands on the slope of a conical mountain of clay-slate, capped with porphyry, at the height of 13,314 feet above the sea. This is the elevation of the great square. Some of the sources of the river Plata, 'Silver,' are not far distant, a circumstance which originated the name of the river. The riches of the region are said to have been discovered by an Indian, who, while engaged in chasing some animals, laid hold of a shrub to assist his ascent. It yielded to his weight, and some metallic particles being found attached to the roots, disclosed to him a silver vein, afterwards called *la rica*, 'the rich.' Upon imparting the secret to his master, a mine was opened, and formally registered on the 21st of April 1545. The abundance of the ore speedily drew a concourse of adventurers to the elevated spot, where a stranger on his first arrival finds respiration difficult. The mountain was perforated in every direction; and Potosi, in the height of its prosperity, could boast of 130,000 inhabitants, with a stately cathedral, splendid churches, and various edifices devoted to the produce of the mines. The city is now but the shadow of what it was, even at the commencement of the present century, containing only a population of 22,800. Political disturbances have mainly contributed to this result, though the argentiferous veins, within reach, are considerably exhausted. From the opening of the mines, to the separation of the country from the crown of Spain, a period of somewhat less than three centuries, the silver which paid the royal duty has been valued at upwards of £230,000,000 sterling.

IV. CHILL.

The Chilian republic embraces a long narrow territory on the shores of the Pacific, extending southward from Bolivia to the Archipelago of Chiloe, which forms one of the provinces. The distance between these points is not less than 1200 miles, but the inland range of the country rarely amounts to 150 miles, and has in general much more contracted limits. The area is estimated at 140,000 square miles. In a single broad and majestic ridge, the Andes rise on the interior border, and form the boundary-line from

the western states of the Argentine Confederation. This mighty barrier on the east, with the sterile Desert of Atacama on the north, and the dreary wilds of Patagonia on the south, contribute to isolate remarkably the entire republic from the remainder of the continent. It is only accessible from the Atlantic side by a long sea-route, or by difficult passes across the mountains, which rise to heights where respiration is tried by the rarity of the atmosphere, while the cold is intense, the storms are terrific, and all are blocked up with snow through the winter months, with perhaps a single exception. Towards the centre of the chain stands the mass of Aconcagua, an extinct volcano, the culminating-point of the New World, towering to the height of 23,910 feet. Fourteen lofty volcanic peaks are enumerated, only a few of which are at present in a state of activity. But volcanic agency attests its power by frequent and occasionally tremendous earthquakes, which have twice during the present century altered the relations of the land and the ocean, by permanently elevating a large extent of the maritime region several feet above its former level. Lower longitudinal ridges occur between the Andes and the coast, sending off numerous lateral spurs in various directions. The general surface has hence a highly-diversified aspect, very beautiful in the central provinces, where every landscape has its hills, ravines, and watered valleys. Owing to the narrowness of the country, the rivers have short courses, and are confined by climatic causes to the southerly districts. Little or no rain falls in the northern, and there only a few streams are formed in the vicinity of the mountains, which are not perennial, being entirely dependent upon the melting of the snows.

The Cumbre Pass across the Andes, leading from Valparaiso on the Chilian to Mendoza on the Argentine side, is one of the principal thoroughfares over the range. It lies immediately south of the mass of Aconcagua, and attains the height of 13,000 feet above the sea. The mule is the beast of burden, sure-footed, instinctively selecting the safest path where the road is narrow and dangerous, while endowed with astonishing powers of endurance. After quitting the last town, Santa Rosa, the route follows for some distance the course of the Rio Aconcagua, a powerful torrent-like stream. In a wild picturesque spot on its banks stands the custom-house station of the Chilian government, a post abandoned in the winter, as traffic is then impossible, and the cold severe. A little further on is the last inhabited dwelling on the west side of the mountains, the Guardia Vieja, or old custom-house, used in former years by the Spaniards. This is a miserable hut, only occupied by the keeper in the summer. The road hence, gradually ascending, is rough and stony, and the *cauchas* speedily begin. These are places of refuge from the snow-storms, which the Spaniards erected. They are very strongly built of brick and lime, and have arched roofs, with entrances at some distance from the ground, to prevent them from being snowed up. Formerly they were supplied with firewood and a small quantity of provisions for overtaken and destitute travellers. They are met with at distances of from two to four leagues from each other in the lower regions; but in the higher parts of the road, where danger becomes more imminent, they are much more numerous. So sudden and violent are the storms, that baggage-mules are sometimes blown over the precipices, and passengers throw themselves on the ground to avoid sharing the same fate. Towards the end of April, or the beginning of May, when the winter commences, the snow is knee-deep, and the Pass is closed for the season.

The Portillo Pass, on the south, connects Santiago with Mendoza during the summer, and has an elevation of 14,300 feet. Considerably to the northward, where the snow-line is higher, the latitude being more tropical, the San Francisco Pass leads from Copiapo to Fiambala, and is crossed by travellers at all seasons, though it rises to the height of 16,000 feet. No difficulties are experienced from the snow, probably from local circumstances which prevent its drifting. Mr Wheelwright, the constructor of most of the South American railways, who has carried them up to greater heights than any other engineer, is sanguine respecting the possibility of economically laying down a line along this route, by adopting a system of steep gradients and sharp curves, as in his other works. Linked with railways in process and proposed in the Argentine States, it would connect the two oceans, from Caldera on the coast of the Pacific to Rosario on the Parana, an Atlantic river. The condor, common to the Andes from the equator southward to the Strait of Magellan, is specially distinctive of the Chilian portion of the range. It was figured on the first coinage of the republic as a symbol of strength. The birds are seen by scores, now soaring in the blue firmament above the loftiest peaks, then hovering over the passes, on the watch to make a meal of some overloaded mule, which may drop from exhaustion on the rough inclement track. Usually at the height of from 12,000 to 13,000 feet, the first symptoms of the malady, called the Veta, are observed, consisting of great weariness, dimness of sight and hearing, pains in the head, and nausea, from which domestic animals suffer as well as man.

Southern Chili, drenched with rains, has a profuse vegetation, and is extensively a forest region from which timber is exported. The central provinces have a smaller amount of rain-fall, gradually decreasing northward, and are largely occupied with agricultural and grazing farms. On the haciendas or estates of wealthy proprietors, nearly every product of the country may be seen. Flower-gardens and orchards surround the dwelling-houses. Plantations of walnut and almond trees are by the side of vineyards of the white and red grape. Fields of wheat, barley, and green crops form an exterior circle, with pastures for fine cattle and sheep, fenced round with closely-planted poplar-trees, affording an agreeable shade in hot weather. A striking contrast is presented by the entire northern province. This is a waterless and verdureless waste, with a surface of sand or rock bleached in many parts with saltpetre, forming the southern portion of the Desert of Atacama, which stretches for hundreds of miles through Bolivia into Peru, between the Andes and the coast. Yet even in this inhospitable region there are stored incalculable riches, consisting of veins of the purest silver ore, with copper, lead, iron, cobalt, bismuth, antimony, arsenic, quicksilver, and other minerals. Mines were originally opened in this district for copper under the superintendence of experienced and hardy Cornishmen, the produce of which is extensively sent round Cape Horn to be smelted at Swansea in Wales. The discovery of silver dates from the year 1832, and is chiefly worked, along with copper, by the Copiapo British Mining Company.

The republic is one of the most flourishing of the South American commonwealths, and has a less democratic constitution, the suffrage being restricted by important property qualifications. It is under a president elected for five years, with senators chosen for nine years, and deputies sitting for three years. The population, amounting to 1,648,000, consists of whites of Spanish descent, Indians, and mixed races, with a considerable number of Europeans. A southerly part of the country is occupied exclusively by the bold and warlike Araucanian Indians, who were never conquered by the Spaniards, and are still practically independent, but upon terms of amity with the Chilian government. Public instruction is provided by a system of free schools, and a National Institute for superior education is also sustained by the state. The people have the reputation of being intelligent and enterprising, yet fond of amusements, while the women are notorious for their attachment to the shows of the Romish Church.

Provinces.	Chief Towns.
Atacama,	Copiapo, Caldera, Chanarcillo.
Coquimbo,	Coquimbo, Tongoy, Ovalle.
Aconcagua,	San Felipe, Santa Rosa de los Andes.
Valparaiso,	Valparaiso, Quillota, Casa Blanca.
Santiago,	Santiago de Chili, San Bernardo, Rancagua.
Colchagua,	San Fernando, Curico.
Talca,	Talca, Molina.
Maule,	Villa de Cauquenes.
Nuble,	Chillan.
Concepcion,	Concepcion, Talcahuana.
Arauco,	Arauco.
Valdivia,	Valdivia.
Chiloe,	San Carlos, Castro.

Chili originally belonged to the empire of the Incas of Peru. It was invaded by the Spaniards under Ahnagro in 1535, and subdued by Valdivia in 1541. The Spanish yoke was thrown off by a declaration of independence in 1810, which was finally secured by the battle of Maypo in 1818.

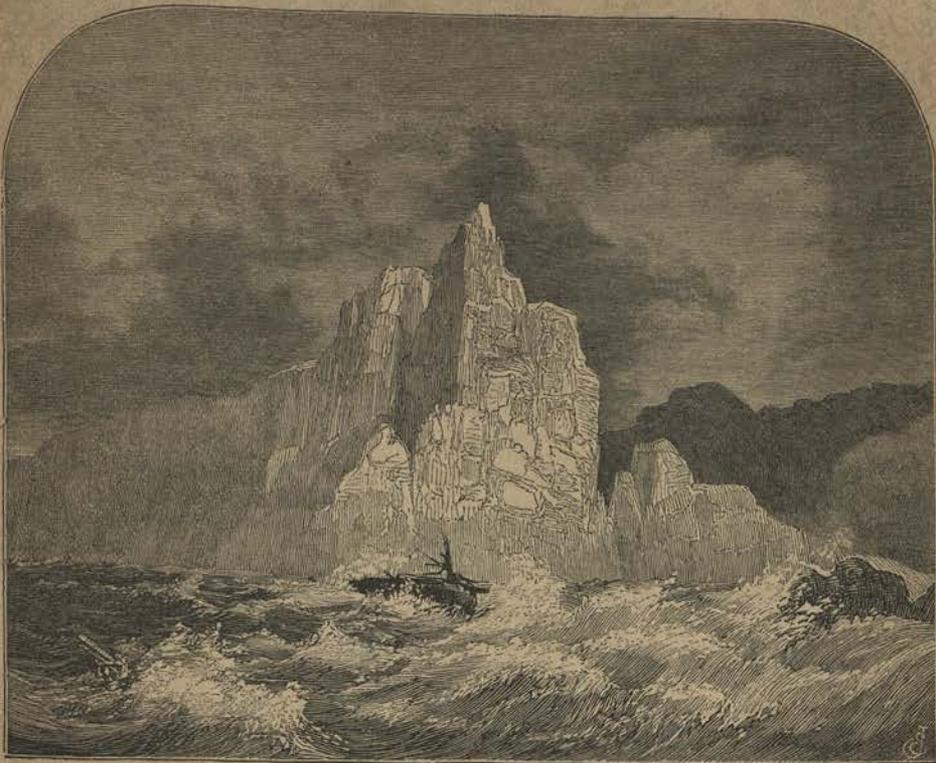
Santiago, the capital, a beautiful city of 80,000 inhabitants, nearly in the heart of the country, is delightfully placed upon a plain studded with acacia-trees, with the glorious Andes in full view. It contains a university, a cathedral, and numerous churches, which are crowded with the female part of the population on festival occasions. A great number belonging to the most influential families in the city perished in 1863, by the church in which they were assembled taking fire, which the draperies and other decorations put up in the fabric, with their own light dresses, at once rendered an irresistible conflagration. *Valparaiso*,

'Vale of Paradise,' the port of the capital, and the principal seaport of the republic, contains a population of 75,000. It numbers many British and French residents, engaged in the foreign trade of the country, the shipment of wheat, hides, wool, indigo, drugs, copper, and other metallic ores. Several genuine British institutions are here in full activity—a cricket-club, a boating-club, an amateur theatrical-club, and a pack of fox-hounds. A railway, ninety miles in length, connects Valparaiso and Santiago, passing up the rich valley of Quillota to the town of *San Felipe*, the head of one of the most fertile provinces. It stands close to the Aconcagua River, forms a regular square, is surrounded with avenues of poplars, and has a central plaza, around which the best houses are built, also planted with trees, which form a shaded promenade. *Concepcion* and *Valdivia*, southerly towns on the coast, are chiefly of note in connection with their earthquakes.

Caldera, northward, one of the stopping-places of the Pacific Company's steamers, is a recent creation. Twenty years ago it was a miserable spot, consisting of a few fishermen's huts upon the beach. In the brief interval it has become a rapidly-rising town, with a good landing-wharf and mole, a custom-house, shops, hotels, machine establishments, a convenient railway-station, which would do honour to the provincial town of any state. This change has been effected by English capital and enterprise. From hence a railway extends to *Copiapó*, fifty miles inland, the most northerly town in Chile, and the centre of a great mining district, where an excellent station greets the traveller. This railway was constructed in order to bring the two great mining districts of Chanarcillo and Los Tres Puntos into easy communication with the coast, facilitate the transport of provisions and water to the establishments, where the price was enormous, and for the conveyance of the ores to port. No localities can be conceived more arid and repelling in appearance than those which are the richest in subterranean wealth—sandy tracts, intersected by the most bare, rugged, and forbidding-looking mountains. In unfrequented places, human remains are sometimes found. The bodies of mules are more frequent, some in the most striking positions, having died in the very act of leaning against a rock for support, or while attempting to nibble a last atom from, here and there, a miserable and stunted thorn-bush.

Chanarcillo, a silver-mining town, fifty miles south of Copiapó, occupies a site which little more than thirty years ago was a perfect solitude. To this spot, on the 18th of May 1832, a muleteer was drawn while engaged in hunting a guanaco. Having wounded his game, he had pursued it till he was so utterly overcome with fatigue and thirst, that he could advance no further, and sank down upon a rock, leaving the chase to his dogs. In a short time he found that he was sitting on a rugged block of pure silver, which had crested out from a vein immediately beneath. From that period the fame of the place dates as a rich silver district. Immediately afterwards, a poor peon slept beneath a projecting crag, and in the morning found that his frugal fire had brightened the wall of his resting-place. That wall was the outside of an isolated mass of silver, which, when cut out, yielded 2800 mares to the fortunate owner. Chanarcillo is now in the hands of a British Mining Company. Five years have here sometimes passed away without a single shower. Hence the cost of water, brought on the backs of donkeys from the distance of many leagues, has formed a very considerable item in the accounts of the mines. This expense is now obviated by an extension railway from Copiapó, recently opened, by which also communication is established with Caldera on the coast. The line has been constructed in the face of great difficulties from the mountainous and rugged country. It is carried by steep gradients to the height of 4470 feet above the sea, and is at present the highest railway in the world.

The insular province of Chiloe was the last part of South America colonised by the Spaniards, and it retained their flag the longest. This archipelago, close inshore, was only very partially occupied by the whites, and has at present chiefly a population of Indian blood. It forms the northerly portion of the series of islands which fringe the shores of Patagonia, and terminate at Cape Horn. The most southerly member is sometimes called *El fin del Christendom*, as the extreme point of South American Christendom. The republic has outlying dependencies on the mainland of Patagonia, and the station of Punta Arenas, or Sandy Point, on the Strait of Magellan. It also includes the three small isles of Juan Fernandez, 320 miles nearly due west of Valparaiso, held by a few Americans and Tahitians under lease from the government. They are very closely grouped, and consist of one eastward, named *Mas-a-Tierra*, or more to the mainland; another westward, *Mas-a-Fuera*, more towards the offing; and a third southerly, *Isla de Losos*, island of sea-dogs or seals. The cluster is of interest from having been for four years, 1704–1708, the solitary abode of a shipwrecked seaman, Alexander Selkirk, whose adventures are commonly supposed to have suggested to Defoe the idea of *Robinson Crusoe*.



Cape Horn.

CHAPTER VIII.

ARGENTINE REPUBLIC—PATAGONIA—FUEGIAN ARCHIPELAGO—FALKLAND ISLANDS.

I. ARGENTINE REPUBLIC.



THAT portion of Central and Eastern South America included between the Chilian Andes and the Atlantic, bordered by Bolivia on the north and Patagonia on the south, is occupied by the confederation of states forming the Argentine Republic, also called the United Provinces of La Plata. This region constitutes a rectangle of immense extent, lying between the parallels of 22° and 41° south, and the meridians of 54° and 70° west. The greatest length, from north to south, is not less than 1350 miles; the average breadth is rather more than half the distance; and the area comprises upwards of 1,000,000 square miles. But a large proportion of the surface is infertile; the natural features of the landscape are almost everywhere monotonous, except towards the slope of the Andes; and the total population gives little more than one inhabitant to the square mile. A north-eastern district is known by the name of El Gran Chaco, or the

Great Desert, and has a very spare vegetation, with a generally sandy soil, many parts of which are hopelessly barren from the want of rain and water. Another tract in the centre is called Las Salinas, from being coated with a thick saline efflorescence, where a species of *salsola* grows, from the ashes of which soda is obtained. Southward are the pampas, vast undulating plains, with no trees except near the dwellings of the inhabitants. But they are covered with coarse luxuriant grass, growing in tufts, mixed with trefoil, and contain extensive tracts annually converted into forests of gigantic thistles, which, when withered, serve for fuel in a country devoid of timber. Droves of cattle, horses, mules, and sheep, forming an aggregate of many millions, are reared on these levels, and constitute the main part of the national wealth. The climate generally is distinguished by great summer heat, and occasional long droughts. The latter have somewhat of a character of periodicity, occurring at intervals of about fifteen years apart, when the flocks and herds have perished by thousands from the want of herbage and water. During the hot months the pampas are visited by hailstorms of tremendous violence. They are swept also by the pamperos, or westerly winds, which rush furiously down from the heights of the Andes, bring along with them the cold temperature of the snow-crowned summits, and sometimes darken the streets of Buenos Ayres by the clouds of dust raised from the plains.

A vast proportion of the area is included in the basin of the Rio de la Plata, or River of Silver, whence the Spanish name of the country, *La Plata*, or Latinised, *The Argentine Republic*. It is, however, a complete misnomer, in relation both to the river and the territory. Only a trifling quantity of the precious metal is obtained; and that from mines in connection with the Andes, far away from the basin of the stream. None of the provinces yield any important amount of mineral produce of any kind, except salt, but have cattle-breeding estates and sheep-farms of great extent. All other pursuits are subordinate to the rearing of live-stock in the enclosures, or on the open plains. The Confederation includes thirteen provinces, under a president elected for the term of six years, a senate, and a house of representatives.

Provinces.	Chief Towns.
Buenos Ayres,	Buenos Ayres, Lujan, San Pedro, San Nicholas.
Parana or Entre Rios,	Parana or Badaja, Concepcion, Concordia.
Santa Fé,	Santa Fé, Rosario, Coronda, Barrancas.
Corrientes,	Corrientes, San Roque, San Lucia.
Jujuy and Salta,	Salta, Jujuy, Hornillos.
Tucuman,	Tucuman, Pitos, Miraflores.
Catamarca,	Catamarca, Belen.
Santiago del Estero,	Santiago, Matara, San Francisco.
Rioja,	Rioja, Chilcito, Guandacol.
Cordova,	Cordova, Rio Curato, Villa Nueva.
San Juan,	San Juan de la Frontera, Jochali, La Huerta.
Mendoza,	Mendoza, Uspallata.
San Luis,	San Luis de la Punta.

This part of the continent was formerly a dependency of the Spanish viceroyalty of Peru. In 1775 it was constituted a separate government, and became independent of Spain in 1816, when a federal republic was projected, followed by great civil dissensions. In 1831 the title of the 'Argentine Confederation' was formally adopted. The province of Buenos Ayres seceded in 1853, and remained a distinct state till 1860, when it was re-united to the general body.

Buenos Ayres, the political capital, founded by the Spaniards in 1580, received its name, signifying 'good airs,' in allusion to the salubrious climate, and appears to deserve the epithet, the atmosphere being neither enervating nor chill, and never laden with miasma. It is situated on the south side of the Plata estuary, in latitude 34° 36' south, longitude 58° 24' west, and contains 120,000 inhabitants, many of whom are Europeans, chiefly British, Spanish, and French, who have newspapers regularly published in their own vernacular. Though 150 miles from the sea, the estuary has still at this point a sea-like aspect, being 36 miles wide, and hence only in very clear weather, and from lofty buildings, can the opposite shore be discerned. The city, seated upon a high bank, at some distance from the edge of the water, has an imposing appearance from its

surface, with its numerous spires, turreted houses, and the great dome of the cathedral standing out in bold relief against the sky. But close inspection modifies the impression made by the distant view. It covers a considerable space of ground, as the houses have generally ample court-yards, with corridors. The Plaza, or principal square, is planted with trees which bear beautiful lilac-like flowers, and form shaded promenades. Here is the Cabildo, or town-hall, a fine edifice, occupied by the municipal council and courts of justice; the cathedral, massive, sombre looking, but gorgeously adorned in the interior; the Colon Theatre, nearly equal to Covent Garden in size, and superior in decoration; and the Recoba Nueva, or New Market, a series of shops in the bazaar style. Buenos Ayres can also boast of a university and a military-school. Public industry embraces cigar and carpet manufactures, printing, and a very extensive foreign commerce. The exports consist chiefly of animal produce; as hides, horns, bones, tallow, wool, and horse-hair, with small amounts of the precious metals. But Buenos Ayres suffers from a long catalogue of local disadvantages. There is no direct embarkation and landing of goods and passengers, owing to the shallowness of the estuary. All the fresh water is brought from a distance in carts. No timber grows in the neighbourhood to serve for fuel and building material; and stone is equally absent. The streets are scarcely tolerable from dust in hot weather, and are sloughs of mud after rain.

Leaving the estuary for its great stream, the Parana, a few small places are passed on the way up to Rosario, one of which, *San Pedro*, had the honour of entertaining the present pope, in 1824, when a simple canon, attending the vicar apostolic. They had crossed the Atlantic from Genoa, and were bound upon a journey over the Pampas and the Andes into Chili, on a special mission from the Vatican. Pius IX. can now look back upon a night in San Pedro, when he slept in a shed, without doorway or flooring, and with the thatch so dilapidated as to convert it into an astronomer's cabin, for the stars were distinctly seen from his bed. It was a kind of stow-away place belonging to the post-master, containing joints of meat, maize, cheese, leather, undressed and untanned hides, and other articles, yielding a number of distinct scents. The sovereign pontiff was then Don Giovanni Mastei, thirty-one years of age, made archbishop of Spoleto upon his return. A narrative of the expedition was published at Rome, in four volumes, in 1827. *Rosario*, on the right bank of the Parana, recently a collection of mud-huts, is now a flourishing city, with broad streets lined with good houses, shops, hotels, and public buildings. British, French, and American consuls are resident. During the temporary secession of Buenos Ayres from the Confederation it became the chief port of the Republic, and the grand starting-point of travel into the interior provinces. Hence the change. The town contains upwards of 20,000 inhabitants, and is the Atlantic terminus of the great railway projected to cross the Andes to the Pacific. This line consists of the four following sections, the first of which is in process, while the last is in action:

	Miles.
Rosario to Cordova,	250
Cordova to Fiambala, at the base of the Andes,	350
Fiambala to the junction with the Tres Puntos Railway in Chili,	320
Tres Puntos Junction, by Copiapo, to Caldera on the Pacific,	80
	<hr/>
	1000

The Rosario and Cordova section was inaugurated by the president and ministers in the early part of the year 1863, and is to be completed within five years, under the direction of Mr Wheelwright. The government concedes to the company six miles of land in breadth through the entire extent of the line, equivalent to a total of about 1,000,000 acres. This land is arable, and capable of producing cereals, fruits, vegetables, and a superior kind of cotton, while adapted to grazing and pastoral purposes. *Cordova*, on the river *Prinero*, the seat of a university formerly in repute, once possessed a valuable library belonging to the Jesuits, which, upon their expulsion, was transferred to Buenos Ayres.

Tucuman, in a central part of the interior, on an elevated plain, is the capital of one of the most fruitful provinces, called the 'Garden of the Argentine.' The first congress of deputies who declared for independence was held here in 1816. It has a population of 11,000. *San Juan*, near the spurs of the lower range of the Andes, is an increasing town of 20,000 inhabitants, some of whom are Italians, French, Germans, and English, attracted to the spot by the discovery of argentiferous lead ores in the district, since 1861. The houses are in the early Spanish style, dull and uninteresting, but the cathedral in the Plaza is a very fine old building, which seems to have experienced severe shakings from earthquakes, the walls being partially cracked and dilapidated. Speculation is alive respecting the metallic wealth of the locality, but sufficient data have not yet been acquired to warrant risk in mining adventures, to which the remoteness of the place, with the entire want of all tolerable means of communication, is adverse. *Mendoza*, on the south, recently a beautiful town, since most unfortunate, 4800 feet above the sea, communicates with Chili by two passes across the Andes, the *Uspallata* or *Cumbre* and the *Portillo*, both closed by the snow in winter. It has its *Hôtel de Chili*, the only house of entertainment remaining in 1862, after the fearful earthquake on the 20th of March 1861. The shock occurred without premonition about 8.30 P.M. It was very remarkable for its fatality and purely local effects, which did not extend beyond a radius of a few miles. Churches and houses were at once overthrown, and the place became an enormous graveyard. Only the theatre, which had a considerable quantity

of timber in its construction, was partially uninjured. Three-fourths of a population of 12,000 perished, among whom was Mr Green, the British vice-consul. Major Rickard, more than twelve months afterwards, found the survivors sleeping in the fields and gardens, afraid to pass the night in any dwelling. On inspecting the ruins, skeletons and limbs were seen protruding from the débris. In the country between Mendoza and the Plata, cattle and sheep farms are the most numerous and extensive. A coach, carrying the mails from the Andean region, travels to Rosario *en route* for Buenos Ayres, and performs the weary journey thither across the pampas in about a fortnight, if the cattle are good. The distance by the road, often a wretched trackway, is full 700 *m* les. A dozen horses are sometimes required to drag the cumbrous vehicle along. Towns are very few, but post-houses occur at varying intervals, and offer a scant accommodation to passengers.

The Argentine Republic contains a population estimated at 1,120,000, consisting of whites descended from the Spaniards, with a proportion of Indians, many of whom are fierce marauders, a few Negroes, and a considerable number of European immigrants. The whites in the pampas, called Guachos, engaged in rearing cattle, lead a very active life, are rude and uncultivated, and are probably not of pure blood. They are admirable horsemen; and throw the lasso with unflinching precision, by which their live-stock and the wild animals are captured. Their homesteads have generally a stockade, surrounded with a ditch, and further fenced with tall cacti, which from their thorny nature form an impenetrable barrier to the naked Indian's progress. These aborigines are on the alert to drive off cattle, rob the mails, and plunder the passengers, rendering it unsafe to travel in the interior except with a sufficient escort. The most troublesome are the Thistle Indians, so called from the peculiar vegetation of the pampas they inhabit, which facilitates by its high growth predatory incursions.

II. PATAGONIA.—III. THE FUEGIAN ARCHIPELAGO.—IV. THE FALKLAND ISLANDS.

The territory known by the name of PATAGONIA is a very extensive region, stretching from the Argentine and Chilian frontier to the Strait of Magellan, thus forming the southern extremity of the mainland of America. Apart from a few small settlements, it has no civilised inhabitants, nor any cultivated districts, but is a barren inhospitable wilderness, except on the borders of the Strait, where luxuriant vegetation has been noticed, and on the side of the Pacific, where the chain of the Andes lines the coast, ranging from 3000 to 8000 feet in height, densely clothed with woods, and possessing an excessively humid climate. The greater portion of the country consists of an arid shingle plain, sloping gradually towards the shores of the Atlantic, wholly destitute of trees, and supporting only a few thorn-bearing bushes, with coarse grasses. Some nomadic Indian tribes in wild independence occupy the surface, with the guanaco, the characteristic animal, which is hunted by them for food. There are also armadilloes, emus, deer, wild horses, hares, pumas, and wolves, with seals and other marine animals on the coasts. Both the Chilian and the Argentine governments claim the sovereignty. The FUEGIAN or MAGELLANIC ARCHIPELAGO, south of the Strait, includes a large number of islands—Tierra del Fuego, Staten Land, Land of Desolation, Londonderry, Hoste, Hermit Islands, and others—which form the southern extremity of the western world, terminating with Cape Horn. They are mountainous masses of granite, lava, and basaltic rocks, inaccessible in many places, separated by narrow channels and strong currents, with a climate of thick mists, drenching rains, and continual storms. Their higher regions are covered with perpetual snow, in connection with which, volcanic fires occasionally burst forth. On the side of the Strait and the Atlantic the declivities are gentler; verdure appears in the valleys; and thick woods clothe the lower slopes. But the opposite southern and western coasts are mostly barren and sternly precipitous. Seals abound in the bays; aquatic birds wheel about the cliffs, revelling in the tempest; and a few natives procure a miserable subsistence on the shores.

The Patagonian Indians were represented by some of the early voyagers as a race of giants. They are generally tall and stalwart, lead a wandering life, chiefly on horseback, in pursuit of the wild animals, and occasionally pass the frontier of the Argentine States on plundering excursions. The Fuegians, on the contrary, are of smaller stature than their northern congeners, the Esquimaux, and form one of the most degraded sections of the human family. They are perfectly naked, with the exception of a small otter skin thrown over the shoulders, though snow may be covering the ground; subsist chiefly on shell-fish and seaweed; have wretched wigwams for their dwellings, made of the boughs of trees, in which there is often not an article of any kind to be seen; and bury their dead in caves. All the labours of life are thrown upon the women, such as paddling the canoes and collecting food. Notwithstanding their miserable condition, they are cheerful and good-tempered, while peaceable and inoffensive. Captain Fitzroy, in 1830, brought a few Fuegians home with him, with a view to their civilisation, and the benefit of their countrymen on their return. Two died in this country of the small-pox. Three were sent back, after exhibiting considerable improvement, but lapsed into the barbarism of their tribe. In 1842, Sir James Ross had repeated interviews with a number of these people, while staying for magnetical observations in a cove of Hermit Island, but communication was difficult, owing to their unpronounceable language, which corresponds to a series of yells, and it could only be maintained by signs. Some small patches of ground were cleared, and sown with various kinds of vegetables, as parsley, cabbages, potatoes, peas, and beans, in the hope of their being eventually useful to the natives, and several pairs of rabbits, brought from the Falkland Islands, were turned loose with the same design. Hermit Island lies about ten miles north-west of Cape Horn, and is entirely of igneous origin, composed of syenitic greenstone resting on a base of granite, with scattered quartzose and felspathic rocks. The shores correspond to the west coast of Scotland in being penetrated by narrow arms of the sea, forming salt-water lochs, hemmed in by high mountains, clothed for half their elevation with low green woods. A bold perpendicular promontory at the south extremity has a crater at the summit, about a mile in circumference, and two hundred feet deep, with a half-frozen lake at the bottom.

The renowned headland of Cape Horn, the terror of early navigators, is the southern part of a small island, celebrated from its position as forming the south extremity of the western world. Under every aspect it presents a bold and majestic appearance, worthy of the limit to such a continent. It is a high, precipitous, black rock, conspicuously raised above the adjoining land, and extending far into the sea in bleak and solitary grandeur. Some scanty vegetation appears on the sides, and snow is generally seen on the summit. The white foam of the surf is in striking contrast with the dark cliffs against which it beats; and in the outline of the mass, it requires but little imaginative power to fancy the resemblance of 'a sleeping lion, facing and braving the southern tempests.' Sir James Ross, while off Cape Horn, had some bottles thrown overboard, hermetically sealed, in order to ascertain the direction and force of the current. Each contained a record of the position of the vessel, and the date of the immersion, April 4, 1842. One of these was picked up about the middle of September 1845, near Cape Liptrap, in the neighbourhood of Port Philip, Australia. Assuming that the bottle had newly reached the strand when discovered, it must have accomplished a course of nine thousand miles in three years and a half; but as it cannot be supposed to have been transported in a perfectly straight line, an additional thousand miles may be allowed for the detours.

The FALKLAND ISLANDS lie about 300 miles east by north of the Strait of Magellan, and are the only considerable cluster in the South Atlantic. There are upwards of 200 in the group, but East and West Falkland comprise between them more than half the area of the whole. They have excellent harbours, abundance of fish in the bays and creeks, with seals and penguins, which are killed in great numbers for the sake of their oil; droves of oxen, and horses, first introduced from the adjoining continent and now running wild; with numerous springs and ponds of fresh water; and are thus valuable for the victualling of whalers visiting the Southern Ocean, and ships passing round Cape Horn.

There are no trees in the islands worthy of the name, yet peat abounds to the depth of ten feet. The characteristic vegetation consists of grasses, some of which grow to a large size, particularly the succulent tussock-grass. This is the only conspicuous botanical feature of the landscape, found also in Tierra del Fuego, but more abundantly in the Falklands, supplying the wild cattle with fodder. It occurs in patches of a mile in extent, which have a striking resemblance to groves of miniature palms. Each plant forms a hillock of matted roots, often six feet in height, from the summit of which the grassy foliage is thrown out in profusion. The blades are full six feet in length, and droop on all sides. Those of adjoining plants meet so as to over-arch the spaces between them; and thus a tract of tussock-grass becomes a labyrinth, sometimes a dangerous one to the visitor, for being commonly close to the coast, these spots are the resort of sea-lions, which bite severely when incautiously disturbed. A small portion at the base of the blades may be eaten, and has a flavour like nuts. Two seamen subsisted chiefly upon this food for the space of fourteen months. They had wandered or deserted from their ship while at West Falkland, where there are no settlers, and had a grass-built hut for their only protection from the weather during the interval. A tiny insect depends upon the tussock for subsistence; a bird no larger than a sparrow robs it of its seeds; a few

sea-fowl build among the shelter of its leaves; penguins and petrels seek hiding-places among its soft and easily-penetrated roots; and sea-lions cower beneath the luxuriant foliage of this noble grass. Nowhere in the world are lichens more conspicuous, a beautiful species forming miniature shrubberies on rocks upon the tops of the hills, and coating their sides; and sea-weeds on the outer rocky coasts are of enormous size, resembling trees in their magnitude and mode of growth. The stem or trunk of *Lessonia*, called after the French naturalist, attains a height of eight or ten feet, and the thickness of a man's thigh. It branches upwards; and the ends of the branches give out leaves two or three feet long, which, when in the water, hang down like the boughs of a willow. In many places the plant forms a submarine forest, for on looking down from a boat through the transparent water where it grows, nothing but a mass of green foliage can be seen. The exuberant vegetable, though of little service to man, is of high utility to the lower orders of the animal kingdom, providing sponges, corals, and crustacea with a home and nourishment. The Falklands were occupied by the French in the last century, and received the name of Malouines from St Malo, the native town of the first adventurers. Being claimed by Spain, they were resigned to that power; and passing to the government of Great Britain, they now form the most southerly portion of the empire. In 1858 the settlers numbered 621, who are under a lieutenant-governor, and chiefly in the small town of Stanley, at the head of the inlet of Port William, in East Falkland.



Glacier of Mount Sermiento.



Gibraltar Rocks.

PART V.

DESCRIPTIVE GEOGRAPHY OF OCEANIA.

GENERAL VIEW OF OCEANIA.



THE island-world of the Pacific Ocean constitutes a fifth great division of the globe, to which the name of Oceania, originated by the French geographers, is very appropriately given. It comprehends the large insular tracts and extensive archipelagoes of minute islets intervening generally between the south-eastern shores of Asia and the western coast of America. The entire series ranges in latitude from the parallel of 28° north to that of 51° south, and in longitude from the meridian of 95° east to that of 110° west. These limits include an extreme linear extent exceeding 10,000 miles, following the line of the equator, by more than half that distance in the direction of the meridian. The Bonin Islands on the north, the Auckland group on the south, Easter Island on the east, and Sumatra on the west, are the remote extremities of this vast region of land and water. Though the estimate is a vague approximation, it is probable that the aggregate land area does not fall short of 4,500,000 square miles, being one-fifth larger than the European continent; and the total population is perhaps not less than 31,000,000. Oceania may be conveniently distributed into the five subdivisions of Malaysia, Micronesia, Melanesia, Australasia, and Polynesia.



Mount Lamongan, Java.

CHAPTER I.

MALAYSIA—MICRONESIA—MELANESIA.

I. MALAYSIA.

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| 1. Sumatra, Java, and the Lesser Sunda Islands. | 3. The Moluccas and Bandas, or the Spice Islands. |
| 2. Borneo, Celebes, and their adjuncts. | 4. The Philippine and Sulu Archipelagoes. |



HIS system of island-groups is called MALAYSIA, from being extensively occupied by the yellow Malay race, though aboriginal tribes of dark complexion are numerous, and immigrant Chinese form a considerable proportion of the population. It is also styled the East Indian Archipelago, from its proximity to the two peninsulas of Hither and Further India. The series makes a close approach to the mainland of Asia at the tapering projection of Malacca, acquires great expansion from thence in an easterly direction, curves northerly towards the shores of China, and divides the basin of the Indian Ocean from that of the

Pacific. Borneo, the largest island, is, after the continent-like Australia, the largest in the world. Sumatra, the second in extent, exceeds the whole area of the British Isles. Celebes, the third, has ampler dimensions than England and Wales. Java, the fourth, closely corresponds to the size of England without its adjunct. Many more are scarcely inferior to the last, and are followed by a numerous train with scantier limits, while the little islets, dwindling down to fairy-like patches, are so multitudinous as to form a bewildering maze. Hence the 'lake of twelve thousand islands' is a phrase in local use with reference to these insulated tracts, and the space of sea they stud, in which a

definite is put for an unknown number. Java contains by far the largest population, upwards of 11,000,000, which the rest are supposed to raise to a total of 23,000,000. The channels by which some of the islands are separated are broad and deep; but generally they are closely grouped, forming narrow and sheltered seas. Though the navigation is often rendered intricate by submarine reefs and rocks, yet this peril is abated by the general steadiness of the winds and the regularity of the currents, subject in the direction of the China Sea to occasional disturbance from the typhoons. Hence a maritime life has been promoted among the native races, to whom the junk, the proa, or the canoe, is as indispensable as the camel to the Arab, the horse to the Mongol. But the seamanship acquired has been extensively directed to piracy as well as to legitimate pursuits.

Nowhere are the blendings of land and sea more frequent or exquisitely beautiful than in Malaysia. Though the coast-lines have their mangrove swamps and pestilential marshes, yet the marine localities are in general superbly lovely. Green, umbrageous, and flowery are the shores down to the edge of the wave, while shells of the richest tints lie on the beaches of white or golden sand, suggestive, in the bright tropical light of the landscapes beyond, of being the 'gardens of the sun,' as they are styled in eastern speech. Sea-breezes temper the heat of the climate; streams and rills are rarely wanting in the scenery; mountains rise to a high elevation; and the animal, vegetable, and mineral kingdoms are remarkable for the number, variety, interest, or value of their products. Spice-plants, prized by the civilised nations, not known elsewhere, or not produced in the same perfection, distinguish the flora, including various species of cinnamon and nutmeg, with the aromatic myrtle, the buds of which are familiar as cloves. Fruits comprise the mangosteen, or 'pride of the East,' the durion, jack, banana, yam, guava, and peculiar kinds of orange, citron, and lemon. With the exception of Brazil, no region has more diversified and luxuriant natural forests, prolific in timber-trees yielding valuable substances, as decorative and dye-woods, caoutchouc and gutta-percha, vegetable tallow and wax, camphor, resin for varnish and other gums, while flowering-plants charm or interest by their brilliant colouring, peculiar forms, and properties. Red and yellow are the prominent hues of the floral vegetation, but are often in connection with strikingly-contrasted tints. The Four Lights of Java, not unlike a single gilliflower in appearance, shew a superb red, but have four curved leaves, dark green inside, pale green without, variegated with stripes of different colours. The Pitcher-plants, a race of climbers, have crimson flowers, exactly resembling pitchers, capable of holding a pint of water, and are also furnished with lids. The Monkey-cup likewise bears a hollow flower supplied with a lid, which remains open till the cup is filled by the rain or dew, and then closes till a fresh supply is needed. The Tree of Morning opens its blossoms at sunrise, and shuts them in the evening; the pale Lady of the Night blows only after sunset; and the Tree of Melancholy never blooms but at midnight. Most of the wild animals of Southern Asia are found in the larger islands, with the addition in Borneo of the orang-outang, the huge hydrosaurus or land-alligator, the melanopis or flying squirrel, and the megapodius, a mound-raising bird, common in Australia. Lines of powerful volcanoes, occasionally in violent eruption, and terrible earthquakes, are the formidable phases of nature. Malaysia is held by various native tribes under their own sultans or rajahs, and by the Dutch, Spanish, Portuguese, and British. Of the foreign occupiers, the first named possess the greatest extent of territory, which is often styled the Dutch East Indies.

The Sunda Isles, of which Sumatra and Java are the important members, form a very extensive chain, within sight of the Asian mainland at the one extremity, and advancing to the vicinity of Australian waters at the other. SUMATRA, elongated and narrow,

extends 1000 miles in a diagonal direction from north-west to south-east, and probably contains an area of 130,000 square miles, divided into two nearly equal portions by the equator. It is traversed through its whole length by a chain of mountains, one of which is said to rise to 15,000 feet, and is the highest point of all Oceania. JAVA, on the east, separated from Sumatra by the contracted Strait of Sunda, corresponds to it in form, and is likewise traversed throughout by mountains. But instead of being associated in a range, they rise from distinct bases, and are chiefly volcanic cones, many of which are extinct, while others emit clouds of vapour, and are sometimes in a state of fierce activity. High up the slopes the remains of noble woods are met with, blackened and calcined by the outburst of subterranean fires.

Padang and *Bencoolen*, on the west coast of Sumatra, are settlements of the Dutch, who also hold the island of Nias on the same side, with that of Banca, celebrated for its rich tin-mines, at the south-east extremity. *Acheen*, at the northern end, is a Malay town, the capital of a Mohammedan state under a sultan. A singular people, the Battas, under various chiefs, occupy an interior district, and exhibit traces of civilisation in connection with the rudest barbarism. They have a written language and literature, with ancient laws which compel cannibalism under particular circumstances. Persons condemned to death for a certain class of crimes are cut to pieces, and then eaten by the males. This is done as a solemn rite, and perhaps indicates more of obstinate superstitious adherence to usage than any native ferocity. Sumatra possesses the tiger, elephant, rhinoceros, and orang-outang. The extraordinary parasite occurs among the vegetation, named *Rafflesia Arnoldi*, after the discoverer, Sir Stamford Raffles, who was governor of Bencoolen, a British possession down to the year 1825. It has no leaves or stem, and only minute fibres for roots, which are inserted in a species of vine. Yet it produces an enormous flower of a brick-red colour, more than a yard in diameter, weighing 15 lbs., with petals of the size of cow's horns. South of Sumatra are the Cocos or Keeling Islands, a small low coral group, with some Malays and a few English resident, cultivating the cocoa-nut. They crown the summit of submarine mountains, since at a short distance from the shores the ocean is immensely deep.

Batavia, on the north-west coast of Java, is the principal seat of the Dutch in the island, who occupy other parts of the shore, and are politically supreme over all the native chiefs and princes. The latter are merely administrators of local affairs under official superintendents. The town is the capital of the Dutch East Indies, the residence of the governor-general, and the commercial dépôt of all their possessions in Malaysia. It contains upwards of 100,000 inhabitants, and the country for many miles round is extremely populous. The principal exports are coffee, sugar, indigo, tea, tobacco, rice, and other vegetable products, almost wholly taken in Dutch ships to Holland, and sold there for home consumption and re-export by the Netherlands East India Company. The annual value is upwards of £5,000,000. Batavia contains the governor's town palace, hospitals and barracks for the garrison, with a museum in which relics of Buddhism, Hindu deities, and native weapons are stored. The houses, which are as white as snow, are placed back in the streets, and the intervening space is filled with trees, alive with birds, and brilliant with flowers. *Sourabaya*, with 60,000 inhabitants, and *Samarang*, with 22,000, are the other Dutch towns, both on the north coast. The Javanese are of the Malay race, and generally profess Mohammedanism mixed up with Buddhism, the remainder being heathen. Annually a crowd of natives, with their priests, ascend the Bromok volcano, to propitiate the fire-spirit with offerings. This is done by throwing cocoa-nuts, pine-apples, plantains, and other fruits, baskets of rice, trays of cakes, coins of silver and copper, into the crater. Terrific and very fatal volcanic explosions, several of which are on record, may have given rise to the ceremony. Java has a Valley of Death near Batour, of an oval form, half a mile in circuit, in which no plant or animal can live, owing to the emission of carbonic acid gas from the surface. Its poison-tree, *Antiaris Macrophylla*, once of fabulous notoriety, is an ornament to the woods, but the juices which flow freely from the bark when tapped are fatal to life if they gain access to the animal system. Edible birds-nests are gathered for the markets of China from limestone caverns on the south coast, and yield a revenue, in the form of duty to the exchequer of the Netherlands, of about a quarter of a million sterling. The Chinese in the island number 138,000, and the Europeans 20,000.

The chain of the Sunda series is continued eastward by Bali, Lombok, Sumbawa, Flores, and Timor, separated by narrow channels, all subject to the Dutch except the last, on which the Portuguese have establishments. Cocoa-nut oil, sappan-wood, birds-nests, cinnamon, rice, and coffee are the commercial products. *Delly*, on the north coast of Timor, is the principal Portuguese settlement, and *Coepang*, on the south-east, that of the Dutch. The island of Sumbawa contains on its northern side the Tomboro volcano, the scene of one of the most tremendous physical convulsions on record in the year 1815, which lasted over three months. The sound of the explosions was heard in Sumatra, 1000 miles distant; the sky was darkened with clouds of ashes all over Java; the sea was covered for miles with a coating of them two feet thick, through which vessels with difficulty made their way; and violent whirlwinds added to the terror of the fiery tempest. Only twenty-six persons survived in the island out of a population of 12,000.



Kini Balu, Obsoken Bay, Borneo.

BORNEO, in the centre of the insular system, intersected by the line of the equator, is about 800 miles in length, 700 in breadth, and contains 286,000 square miles, equal therefore to the united area of France and England. It embraces a vast extent of surface which has never been penetrated by Europeans, but appears to be only very sparsely inhabited. The country in the known districts has a singularly fertile soil, abundant and varied mineral wealth, is well supplied with rivers, has a healthy climate except on the lowest grounds, and is hence adapted by natural advantages to be the seat of a large and prosperous population. The aborigines are the Dyaks, a different race from the Malays, mingling with them on the coasts, where there are Dutch, British, and Chinamen. It has been calculated that, if properly cultivated, Borneo would suffice to sustain 100,000,000 Chinese. Mount Kini Balu, on the north coast, is one of the high points of Oceania, rising to 13,698 feet, according to trigonometrical measurement. It was ascended by Mr St John in 1858. CELEBES, on the east of Borneo, separated from it by the Strait of Macassar, is estimated to contain 70,000 square miles, and is very remarkable in its conformation, consisting of four long, curving peninsulas, branching out from a central mass, the whole resembling a knot of ribbons. The MOLUCCA and the BANDA clusters, further to the east, consist of small constituents, but are the most valuable of the colonial possessions of the Dutch, as the Spice Islands.

Brunei, or *Borneo*, on the north-west coast, the capital of a native state, is seated on a river of the same name, ten miles above its mouth. It contains about 20,000 inhabitants, and has been called by an English visitor the 'most immoral city' of which he had ever heard. But being built on piles and rafts in the river, with canals intersecting it, the water scenery and the glorious vegetation render its appearance extremely pleasing, a kind of eastern Venice. The commerce is considerable with Singapore. *Sambas*, southerly on the same coast, is the residence of a sultan, who has several rajahs under him, and is a seat of the opium trade. Gold of the annual value of £500,000 is obtained in the district, which contains also important diamond mines. The Dutch have here a factory, and are also settled at *Pontianak*, *Banjarmassin*, and a few other maritime places. *Kuching*, the capital of Sarawak, a province under the government of Sir James Brooke, often called Rajah Brooke, is likewise western, and has rapidly increased under his auspices from a

small Malay community to a town of 15,000 inhabitants. The territory contains a population of at least 250,000. It was placed by the sultan of Borneo proper under the jurisdiction of the energetic Englishman, in return for services rendered in the suppression of piracy. The offer of it was afterwards formally made to the British government, but the latter declined it, being content with the possession of LABUAN. This small island, off the north-west shore, obtained by purchase in 1846, was then constituted a colony of the crown. It measures about ten miles by five, contains abundance of excellent coal, and is well supplied with wood and water. A specimen of the coal, which is worked by a company, weighing 280 lbs., is in the Museum of Practical Geology, London. The island had no inhabitants when it was incorporated in the empire. There are now miners, merchants, and a governor, forming the settlement of Victoria, which has been created a see of the Anglican Church. The trade is considerable, chiefly with Singapore, in the export of coal, gutta-percha, camphor, pepper, sago, spices, and bees-wax, with birds-nests, and the tripang or sea-slug, for Chinese gourmands.

Macassar, the head-quarters of the Dutch in Celebes, is on the coast of the southern peninsula. The town has about 12,000 inhabitants, possesses a good harbour, is surrounded by palisades, and further protected by Fort Rotterdam. The natives of the neighbourhood are Malays, under a sultan tributary to the Europeans. They are Mohammedans, and have mosques built of palm-wood. The Dutch have other settlements, and predominant influence throughout the island. A species of vegetable butter has the name of Macassar Oil from the district and place of export. It is the produce of the badeau-tree, found in great abundance in the woods. The commodity in our shops, to which the name is given, is an artificial preparation.

Ambonya, in one of the smaller Moluccas, bearing the same name, is, after Batavia, the most important centre of Dutch commerce in eastern waters. The town is the residence of the governor of the group, and has a neat appearance, on the shore of a bay protected by Fort Victoria. Broad streets intersect each other at right angles, and are planted with handsome trees. There are two Protestant churches, a hospital, orphan asylum, and theatre, a training-school for teachers, with which a printing-press is connected. The cloves of commerce are the staple crop in the island and some of its adjuncts. They are the flower-buds of a tree of the myrtaceous order, *Caryophyllus aromaticus*, plucked before they open, and dried in the sun. The evergreen is indigenous throughout the Moluccas. But to preserve their monopoly of the aromatic, the Dutch selfishly caused all the native growth in the other islands to be destroyed, and restricted the cultivation to Amboyna and a few adjoining sites. This restriction is now withdrawn, as the plant has been introduced into other tropical districts. The trees under culture number upwards of 500,000, but only a minor proportion of them are of the fruit-bearing age. The crop varies greatly. All the Moluccas are either governed directly by the Dutch, or by sultans under their supervision. Many of the natives, once extremely barbarous, have become Christians, and have a school in every village.

Neira, a charming little town, is the seat of the Dutch Residency for the Banda Isles, a very small group immediately south of the Moluccas. It has a sheltered and superb roadstead, is surrounded by nutmeg groves and cocoa woods, and is protected by two forts, Nassau and Belgica. But it has no defence against a dangerous neighbour, the Gugong Api, or 'Fire Mountain,' a volcano in the midst of the haven, which has often blasted the industry of the Dutch, threatened to destroy them utterly, and suggested the idea of abandoning the site. It forms an islet, rises with a gradual slope to the height of 2000 feet, and is clad with stately vegetation, under which lie the memorials of bygone convulsions, in courses of lava and the blackened trunks of prostrate trees. Though nutmeg cultivation is now somewhat widely diffused, nowhere is the fruit produced in such perfection as in these islands. The tree, *Myristica officinalis*, has an agreeable appearance, glossy deep-green leaves, and rises to the height of from thirty to forty feet. In 1861 the crop consisted of more than 1,000,000 lbs. of nuts, with 275,000 lbs. of mace, which covers the brown shining shell. Both the Moluccas and Bandas are volcanic. An eruption in Makien, one of the former, in December 1861, destroyed wholly or in part fifteen villages, with the loss of 326 lives.

The PHILIPPINE ISLANDS, separated from the Indo-Chinese peninsula by the China Sea, form the most northerly section of Malaysia. They include upwards of a thousand members, large and small; but the area of Luzon, the most considerable, 57,000 square miles, is probably equal to that of all the rest. They are generally mountainous and volcanic, subject to dreadful earthquakes, and are within the range of the typhoons; but the soil is highly fertile, the vegetation luxuriant, and the scenery lovely. The sovereignty is divided between the Spaniards, who are supposed to have a population of 3,500,000 subject to their sway, and the rule of independent native chiefs. Dark-complexioned tribes and Malays compose the mass of the people. The remainder consist chiefly of immigrant Chinese, Spanish settlers, and half-breeds. It is common in the Roman Catholic churches of the group for the shell of the gigantic Philippine oyster to be used for containing holy-water.

The Philippines were discovered by Magellan in 1521. They were named after Philip II. of Spain, and received the first colony from that country in 1570. *Manilla*, the capital of the Spanish East Indies,

the residence of the viceroy, and the seat of the European population, is situated on the west coast of Luzon, at the mouth of a river, in command of a noble bay and harbour. Though not so important as it was in the palmy days of the mother-country, when almost a monopoly of the commerce with Europe was enjoyed, it probably contains a population of 150,000. The city proper, or old part, the site of the cathedral, churches, monasteries, hospitals, and government buildings, is enclosed with ramparts. Without are extensive suburbs, forming what is called 'Manilla extra muros,' where are the merchants' residences, the warehouses, and principal shops. Foreign trade is extensively carried on, chiefly with Great Britain, the United States, China, and Australia. Sugar, hemp, cigars, tobacco, coffee, rice, and fine woods are the important exports. Manilla cigars are in as much repute in the eastern world as Havannas in the western. The manufacture, a government monopoly, as in Spain, is conducted on an enormous scale, giving employment to 20,000 persons, nearly all women. Frequently damaged by earthquakes, the city was half ruined by a convulsion on the 3d of June 1863. Two shocks were experienced in quick succession about 7.30 in the evening. The cathedral fell with its massive dome while the priests were chanting the vespers. All the churches were overthrown with only one exception, the Binondo in the suburbs, and that was cracked from top to bottom, so as to require pulling down. The viceroy's palace and the British consulate was destroyed; and at least 2000 persons perished. North of the Philippines are the BASHEE ISLANDS, an unimportant cluster, in which the Spaniards have an establishment. Southward, the SULU ARCHIPELAGO extends toward Borneo, containing some of the most picturesque spots in the world, rich in pearls and fruits, inhabited by a rude Mohammedan people, under a sultan, who, though often chastised, are incorrigible pirates, infest the neighbouring shores, and make a prey of legitimate trade on the seas.

II. MICRONESIA.

Principal groups.—1. Bonin Islands. 2. Ladrone Islands. 3. Pelew Islands. 4. Caroline Archipelago. 5. Ralick, Marshal, and Radack Chains. 6. Gilbert Islands. 7. Sandwich Islands.

These insular systems embrace a prodigious number of components, but almost all are of small dimensions, while many are inconsiderable patches, and have hence the collective name of MICRONESIA. They are situated generally in the western part of the North Pacific basin, and the majority stretch in a long band of no great breadth, east and west, immediately north of the equator. A few are of volcanic origin, rise to a commanding elevation, and are eminently distinguished by picturesque beauty. But the vast majority are low reefs of coralline construction, with superficial features of gentle loveliness. So slightly indeed are the purely coral islands raised above the sea, that large portions are in many cases deluged by it in storms, or overflowed by the tidal rise. They are usually of circular or semicircular shape, and enclose a lagoon of smooth water, which is connected by an opening with the outlying ocean. The convex part of the reefs is always turned to windward, while the openings are invariably placed to leeward. The mass rises abruptly on the side of the tempestuous deep, but presents a gradually sloping face towards the lake-like engirdled water. In other cases, coral-reefs appear in connection with the volcanic or mountainous islands, either attached to the main body of the land, or encircling it, leaving a space of still water between them protected from the winds and waves, but accessible by navigable passages through the belt. Intermediate to the true coral and volcanic islands, there is a class called crystal, comparatively few in number, cliffy and cavernous, rising to a moderate height above the sea. They are composed generally of crystallised carbonate of lime, doubtless coralline rock altered and elevated by volcanic agency.

Around the coral islands submarine pictures of extreme beauty frequently meet the eye on looking overboard a vessel. Through the transparent water of the tropical ocean the tree-like fabrics appear interweaving their branches, and present the exact image of a stony forest rising up from the depths, mingling hues of pink, white, blue, and yellow, while fish of brilliant colours and varied shape slowly thread the labyrinths, or, when alarmed, dart rapidly into the numerous recesses of the rocky thickets for shelter. Both classes of islands, the coralline and the volcanic, abound in Oceania, within the tropical zone on each side of the equator, and are hence characteristic of Polynesia in common with Micronesia. Both have a rich though not a very varied vegetation. It includes many plants with nutritive roots, and some fruit-bearing trees, which are to the natives as the cereals to ourselves. The Bread-fruit tree, *Artocarpus incisa*, has its natal seat in the isles of the Pacific, from which it has been taken to the West Indies and South America. This is one of the most important gifts of nature to the islanders, first noticed by Dampier, in

1688, who met with it in the Ladrone group. It is a beautiful object in its prime, a household tree, like our own elm, which it resembles in height, in the wide spread of the branches, and in venerable aspect. The leaves are large, glossy, and dark green, with edges cut and scalloped as elaborately as those of a lace-collar, but brilliantly tinted with nearly all the prismatic colours when verging to decay. The fruit is heart-shaped, often almost spherical, about the size of a child's head, and when roasted, it supplies agreeable and highly nutritious food. It hangs singly, or in small clusters, and in such abundance that two or three trees will suffice for the support of an individual. Clothing is made of the fibrous inner bark of the trunk. A milky juice, and the soft light timber, which assumes the appearance of mahogany on exposure to the air, are also used for economical purposes. Equally important is the Cocoa-nut Palm, *Cocos nucifera*, common in all tropical regions, but specially characteristic of the low coral islands of the Pacific, where it is most luxuriant, and sometimes forms the only arborescent vegetation. It rises from sixty to eighty feet high, delights in a maritime situation, and attains the greatest perfection directly on the sea-shore, where the roots are actually washed by the waves. No saline flavour is perceptible in the nut produced in such a position. The tree needs no culture, pruning, or attention of any kind. Its varied utility is as remarkable as its fruitfulness. Year after year the islander reposes beneath its shade, eats its fruit, and finds a delicious drink in the acidulated cream of the nut. With its boughs his cabin is thatched, and they are also woven into baskets. His head is shielded from the sun by a bonnet made of the leaves, and the young leaflets are plaited into a fan with which he cools himself. A balsam for his wounds is compounded from the juice of the fruit, and the oil extracted is employed both to anoint the living and embalm the dead. The noble trunk is sawn into posts to uphold his dwelling; converted into charcoal it cooks his food; and paddles for his canoe are formed of the wood, with clubs and spears for the battle.

The BONIN ISLES, about 500 miles south by east of Japan, are a volcanic group, named by the early Spanish navigators the *Arzobispo* or *Archbishop Islands*, for some unknown reason, as no natives to be comprehended in a diocese have ever been heard of. They were rediscovered by Captain Beechey in 1827, who formally took possession of them for his country, and supplied several with distinctive names borrowed from his countrymen, as Peel, Parry, Bailey, and Buckland. A small community engaged in whaling has been collected on Peel Island, both men and women, including some runaways from ships, among whom the Englishman, the Dane, the Italian, the American, and the Sandwich Islander have been observed.

The LADRONE ISLANDS, on the south, mountainous and volcanic, form an important possession of the Spaniards, included in the government of the Philippines. They are fertile and picturesque, well supplied with European animals, and possess the llama, introduced from Peru, which thrives on the mountains. Though once densely peopled, the natives are now reduced to a remnant. The largest island, Guajan, which has a circuit of about ninety miles, contains the principal Spanish settlement, *San Ignacio de Aganna*, a town of 3000 inhabitants. At Tinian, another of the group, Anson landed his sick and weary crew, while on his voyage round the world, in 1742; and lost the anchor of his ship during his stay. Nearly a century afterwards this was hooked up by a whaler, and found to be very little corroded after the long submergence. The Ladrone, discovered by Magellan, received that name from him, signifying 'robbers,' owing to the thievish propensity displayed by the natives. Jesuit missionaries supplied the name of Mariana Islands, still in use, in honour of Mary Anne of Austria, wife of Philip IV. of Spain.

The CAROLINE ARCHIPELAGO, immediately north of the equator, consists of numerous groups of chiefly coralline formation, which occupy an immense space of the ocean, and comprehend thousands of components. They extend in a broad belt through nearly forty degrees of longitude, or a distance of 2500 miles, and are sparsely inhabited by Malays, skilful mariners, who undertake distant voyages in very frail canoes, and subsist on fish, cocoa-nuts, and other fruits. The Spaniards claim the nominal sovereignty by right of discovery, but have never been able to establish a permanent settlement. The name refers to Charles II. of Spain, but they are sometimes called the New Philippines. At the west extremity the PELEW ISLANDS under a native government, have a different aspect, being hilly and well wooded. The triple series of the RALICK, MARSHALL, and RADACK ISLES are eastern appendages of the Carolinas, first met with by Saavedra, a Spanish navigator, in 1527. He named different portions *Los Pintados*, from the natives being painted or tattooed, and *Los Buenos Jardines*, from the abundant vegetation. The *pandanus*, bearing a juicy aromatic fruit, grows plentifully through the whole Archipelago, as well as in the GILBERT ISLANDS, on the south-east, directly under the equator.

The SANDWICH ISLANDS, an important chain, volcanic and grandly mountainous, occupy a very isolated position in the eastern part of the North Pacific, 3000 miles from the coast of America, and at a greater distance from any other considerable mass of land. There are thirteen islands ranged in a curving line, but only eight are inhabited. Hawaii, the largest, contains about 4000 square miles, or two-thirds of the entire area. It is distinguished by the stupendous summits of two volcanic mountains, that of Mowna Kea, towering to the height of 13,950 feet, and that of Mowna Loa, which reaches nearly the same elevation, 13,760 feet. The appearance of the latter from the sea, with its abrupt upward start, and peculiar dome-like top, is majestic in the extreme. On its eastern slope, at the altitude of 4000 feet, yawns the crater of Kirauca, a fearful gulf, 1500 feet in depth, more than two miles in circuit, at the bottom of which is the red-hot lava ever boiling and steaming, as if gathering strength to escape from the abyss, and descend in a fiery deluge upon the surrounding country. Mowna Loa, at other points, sent forth destructive eruptions in 1855 and 1859. These islands form a state under hereditary monarchical government, limited by a legislative assembly,

the independence of which is acknowledged by all important foreign powers. The inhabitants, once pagans and cannibals, are nominal converts to Christianity, chiefly owing to the influence of American missionaries. They have a written language, regular laws and civil institutions, a small fleet, with considerable commerce in victualling ships, exporting sandal-wood, and other products. *Honolulu*, the capital, a seaport in the island of Oahu, is the only entrepôt between opposite shores of the North Pacific, visited by whalers and other vessels for supplies and repairs. It contains about 10,000 inhabitants, mostly natives, but with many foreign merchants, who represent as consuls nearly all the states of Europe. The town, regularly built, has its theatre, hospital, music-halls, billiard-rooms, taverns, daily newspapers, and a fashionable drive. Though an increasing place, owing to the arrival of foreign recruits, yet the general population of the insular kingdom has much diminished, and is in process of reduction. Captain Cook, upon the discovery of the islands, estimated the inhabitants at 400,000. In 1849 the number had fallen to 80,000, and a further dwindling to 67,000 was shown by the census of 1860. This extraordinary decrease has been caused mainly by the introduction of European diseases, and the great number of young men who leave their country in whalers and other ships, and never return. Two mournful incidents are connected with Hawaii Island—the death of Cook, in 1799, from an attack of the natives, and of Mr Douglas, the Scotch botanist, in 1834, from a shocking accident. In the course of his rambles he incautiously approached a bullock-trap, fell into the pit, and was horribly mutilated by an infuriated captured animal.

III. MELANESIA.

Principal Groups.—1. New Guinea and Louisiade Archipelago. 2. Admiralty Islands. 3. New Britain and New Ireland. 4. Queen Charlotte and Solomon Islands. 5. New Hebrides and New Caledonia. 6. Fiji Islands.

This region, immediately east of Malaysia, north and north-east of Australia, is very little known apart from the shores, except by the report of natives. It has the name of Melanesia from the dark complexion of the inhabitants, who are often styled Austral and Oceanic Negroes from their physiognomy, and have lighter-coloured Malays and Polynesians intermingled with them at the opposite western and eastern extremities, giving rise to mixed breeds. The features are decidedly Negro, of coarse cast, stupid and brutal expression, the natural deformity of which is increased by the insertion of pieces of bone and wood through the cartilage of the nose. The skin is universally of a deep chocolate hue; the hair crisp; and hence the Malay term, Papuan, signifying 'crisp-haired,' applied to the race. But instead of being spread equally over the head, it grows in separate tufts, each assuming a spiral form, and stretching out to an enormous length, when not curtailed. The descriptive phrase of the 'mop-headed Papuans' is true to the reality. The Dutch, French, and British have limited influence in different parts of the insular series.

NEW GUINEA, called Tanna Papua, 'Land of the Crisp-haired,' in the language of the Malays, the largest island of our globe, if we except Australia. It extends from north-west to south-east through twenty degrees of longitude, equal to a distance of 1200 miles, but has no greater breadth than about 300 miles, and consists of a narrow projection at the south-east extremity traversed by the range of the Owen Stanley Mountains, the principal summit of which appears to have an altitude of 13,200. The interior has not been visited by any civilised traveller, nor has the coast-line yet been thoroughly surveyed, though it is known to embrace many deep bays and magnificent inlets. According to information received from the natives, and the commercial products, the surface is generally mountainous, clad with forests of camphor-trees and sago-palms, and yields many of the precious productions of the tropics. The only quadrupeds known to exist are wild hogs, dogs, rats, and some new species of marsupial animals. Birds of great beauty and variety abound. Among them are the gorgeous birds of paradise, which periodically leave their breeding-grounds for the Spice Islands in the flowering season. At Doreh Harbour, on the north-west coast, the natives come into contact with Europeans, and trade is carried on thence with the Moluccas by the Dutch, who claim the sovereignty of the western half of the island. Mr Wallace, an Englishman, resided three months at Doreh in 1858, and found the climate wretched from excessive rains, though it was nominally the dry season during part of the period. He brought away interesting and new specimens of the natural history.

The groups named in connection with New Guinea extend over an immense space on the east and south-east, and form collectively the Papuan Archipelago. They are inhabited by the same dark family of the human race, a description which will apply to habits as well as colour; and are so correspondent in their general features, as far as known, that separate detail respecting them may be dispensed with, except in a few instances. Though scenes where nature always wears a benignant aspect, and the freshness of spring is constantly seen associated with the fruits of autumn, they are eminently the 'cannibal islands,' where many a shipwrecked seaman, it is said, has been disposed of at a banquet. Population of this group estimated at 800,000.

NEW CALEDONIA, about 720 miles east-north-east of Queensland in Australia, is a colonial possession of France, and a valuable acquisition, being very fertile, and containing excellent coal. It extends 200 miles in length, by 30 in breadth, and is supposed to contain 60,000 natives, some of whom are under the instruction of Roman Catholic missionaries. The French took possession of it in the year 1854, as well as of the small adjoining Isle of Pines, so called by Captain Cook, from the stately arancarias seen among the vegetation. *Port de France*, the infant settlement, is on the Bay of Noumea, which forms a safe harbour, easy of access and defence. The NEW HEBRIDES, on the north-east, are a long volcanic chain, abounding with the odoriferous sandal-wood, which the Sydney ship-owners convey to China, where it is burned as incense in the temples. The inhabitants, numbering about 200,000, are fierce, and massacred the missionary Williams on his visit to Erromanga, one of the series. The FIJI or VITI ISLANDS, on the east, mark the limit where the dark Papuans and the lighter Polynesians intermingle. This group is likewise volcanic, and contains upwards of 200 members, 60 of which are inhabited, but two only are of important size. These are Viti Levu, or 'Great Fiji,' and Vanna Levu, or 'Great Land,' respectively 360 and 300 miles in circuit. They have good harbours, fine rivers, a rich loamy soil, abundance of sandal-wood; and cotton of excellent quality is raised. The inhabitants are supposed to number at the least 133,000, and are a superior race with reference to several constructive arts. But cannibalism, human sacrifices, and infanticide prevailed horribly among them till the Wesleyan missionaries commenced their labours in 1835, since which time a great social reformation has been effected, and is promoted by the present king. This potentate, for his own security and that of his people from invaders, wished to place his insular kingdom under British protection. Early in 1859 Mr Consul Pritchard arrived in England with a deed of cession to the Crown, from 'Ebenezer Thakombau, by the Grace of God Sovereign Chief of Bau and its Dependencies, Vunivalu of the Armies of Fiji and Tui Viti.' But it was not deemed expedient by the government to accept the sovereignty. On state occasions, when Europeans are received, the Queen of Fiji appears in the attire of civilisation, wears a neat Paris bonnet, a coloured silk dress with crinoline, and a black mantilla trimmed with lace; but is said to be very glad to get the clothes off as soon as official interviews are over.



Megapolis, one of the Possession Islands.



Booby Island, Torres Strait.

CHAPTER II.

GENERAL VIEW OF AUSTRALASIA.



THE term AUSTRALASIA, equivalent in its meaning to Southern Asia, has no special relation to the region it popularly denotes, that of Australia and its adjuncts, as it is equally applicable to the southern districts of the continent and the greater part of Malaysia. Ethnologically, also, it is Melanesian, the natives proper being a dark-complexioned race. But they are so few in number, while rapidly passing away before the intruding white population, as to justify a separate classification, which the vast extent of the territory renders convenient. The whole is British ground.

AUSTRALIA, the largest island in the world, is so extensive that the compound phrase of island-continent is very commonly applied to it, and may be accepted as descriptive of the relation it bears to the other principal land masses of the globe. It is situated between the parallels of 10° and 39° south latitude; between the meridians of 112° and 153° east longitude; and is divided into two nearly equal parts by the southern tropic. From Cape York, the north extremity, to Wilson's Promontory, the southern limit, the distance in a direct line is close upon 2000 miles. From Cape Byron on the east coast, to Steep Point on the west, the extent is greater, measuring not less than 2600 miles. The coast-line is estimated at 10,000 miles, and the area comprises 2,900,000 square miles. It may be roughly stated to be one-fifth less than Europe, the next larger continent. But a large portion of the surface is doomed to hopeless sterility, and can never be available for colonisation, though, after making this

abatement, it may still be regarded as offering a land of promise to many millions of the Anglo-Saxon race.

The shores are washed by two oceans, the Pacific on the east, and the Indian on the west. They communicate by two channels, north and south, which separate the territory from smaller insulated lands. Bass's Strait, the southern channel, more than 100 miles wide, divides Australia from Tasmania, and is a great thoroughfare for shipping between Sydney, Melbourne, Adelaide, and the mother-country. * Torres Strait, the northern channel, about 90 miles wide, separating it from New Guinea, offers the nearest route from Sydney to Singapore, India, and China. But though much frequented, the navigation is so intricate and critical that the circuitous course round the entire south and west shores is commonly preferred. Among the indentations of the coast, the Gulf of Carpentaria, on the north, penetrates 500 miles inland, with an almost invariably low shore, of an extremely uninviting character. Nearly opposite, on the south, the great Australian Bight presents its vast concavity, as if scooped out by the swell of the Indian Ocean, to which it is exposed; and exhibits through about 600 miles a singularly unbroken line of horizontally-stratified cliffs, from the summit of which the country stretches away inland in apparently boundless plains of sand and scrub. A barrier so long and so entire is without example elsewhere, and the remarkably unfortunate peculiarity attends it of not contributing a single drop of water to the adjoining ocean.

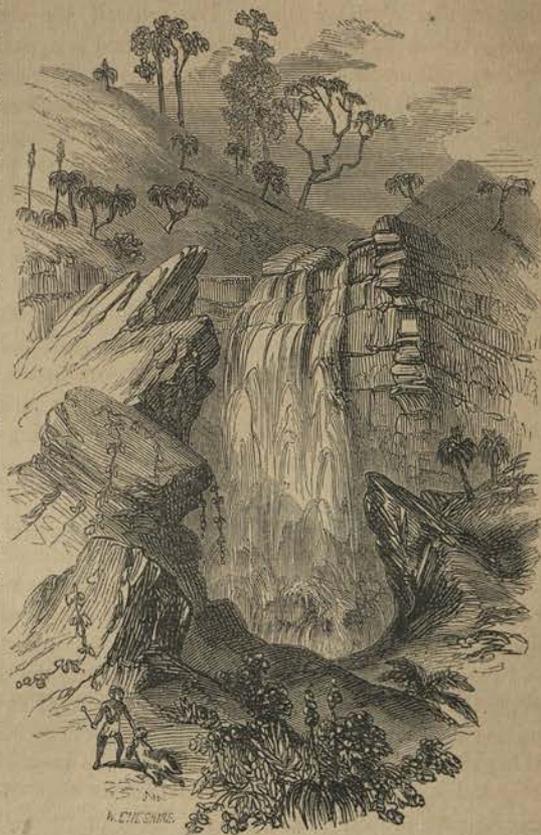
The north-east coast has a very remarkable feature in a linear series of coral-reefs, which run parallel to it through upwards of 1000 miles, and are collectively called the Great Barrier Reef, from acting as a bulwark to the shore against the roll of the Pacific Ocean. This formation is the grandest specimen of the kind of which we have any knowledge, and a wonderful example of minute individual parts producing by combination a magnificent result. The reef rises on the outside perpendicularly from unfathomable depths. It fluctuates considerably in width, from thirty or forty miles to less than one, approaches and recedes again from the coast, but averages the distance of about thirty miles from it. With the wind blowing from the east, the arm of the sea within the reef is tranquil, while on the outside the waves dash with tremendous fury against it. The long ocean swell being suddenly impeded by this barrier, lifts itself in one great continuous ridge of deep blue water, which, curling over, falls on the edge of the reef in an unbroken cataract of dazzling white foam. Each line of breakers runs often one or two miles in length, with not a perceptible gap in its continuity. There is a simple grandeur and display of power and beauty in the scene that rises even to sublimity. The unbroken roar of the surf, with its regular pulsation of thunder, as each succeeding swell falls, is almost deafening, yet so deep-toned as not to interfere with the slightest nearer or sharper sound. A few openings occur which admit of ships passing through this enormous barrier, and there are several intricate boat channels. A circular stone tower, on a small islet off the best passage, stands as a beacon to guide the mariner to it, with cocoa-nuts and other plants on an adjoining plot of ground for the benefit of shipwrecked seamen.

Highlands run parallel to many parts of the coast, but at some distance from it, and send off spurs both towards the shore and into the interior. The most important and continuous heights, at present known, traverse the eastern side of the country, from sixty to seventy miles inland, and consist of several ridges, variously with peaked, serrated, and rounded summits. They include also great table-lands, which are furrowed with precipitous gulleys, and often present on the seaward side nearly perpendicular escarpments. In the opposite direction they decline in vast downs, very thinly timbered, but clothed with grasses and herbage, which form admirable sheep-walks, and are the great grazing-grounds of New South Wales. These highlands, to the back of Sydney, are

known as the Blue Mountains, and do not rise above 3500 feet. In their northerly extension they have the name of the Liverpool Range, and acquire a greater general altitude. In their southerly course, under the denomination of the Australian Alps, the highest points occur. Mount Kosciusko, the loftiest, situated 120 miles inland from Cape Howe, raises its sienitic cone 6500 feet above the sea, retains the snow through nearly the whole year upon its summit, and furnishes a permanent supply of water to the Murray River from its melting. It was ascended, in the year 1840, by Count Strzelecki, the indefatigable explorer of the Australian cordillera, who submitted specimens of the rocks collected in his wanderings to Sir R. Murchison, which enabled the sagacious geologist to infer, from their correspondence to those of the Ural Mountains, the existence of gold, and announced it prior to the discovery. No active volcanoes are known to exist, nor have earthquakes occurred within the term of colonial experience. But traces of extinct volcanic action appear in various parts of the country in true crateriform hills and veritable lavas.

In its water supply Australia is essentially defective. This is the prime disadvantage of the country. There are many locally important rivers, but in the settled districts they are not of magnitude proportionate to the vast extent of the

territory, comparable with the great drainage systems of other regions in volume of water and capacity for navigation. The Murray is the largest river of the country at present fully known, and the most persistent in its features. It rises on the inner slope of the Australian Alps, in the neighbourhood of the loftiest heights, forms the boundary between New South Wales and Victoria, receives from the former colony the Murrumbidgee and the Darling, with the Ovens, Goulburn, and Loddon, from the latter, but has its lower course and entrance into the ocean within the limits of South Australia. Though inaccessible to ships of any size from the sea, it admits of internal navigation through a distance of 1800 miles, following the windings. Steamers began to ply regularly in 1853. In its mean state the breadth is nowhere greater than about 300 yards, and generally much less. But the depth is very considerable, varying from 12 feet at the shallowest, to 20 and commonly to 40 feet, even close to the edge of the water. The stream rises from the melting of the snow around Mount Kosciusko, and falls periodically. The rise commences in the early part of July, and proceeds at a very gradual rate till the bordering creeks



Falls of Glen Stuart, Moriarty Creek.

and lagoons are filled, and many of the adjoining flats are laid under water. The explanatory remark may here be made, that by a somewhat absurd nomenclature in Australia, small inland water-courses, the beds of temporary streams, completely dry some parts of the year, are commonly styled 'creeks,' a term which we exclusively apply to the lesser inlets of the sea.

While poverty marks the general water-system, it is further subject to alternations of superabundance and complete exhaustion; and both extremes are in a varying degree calamitous. Rain descending literally in sheets of water on the highlands gives rise to floods, remarkable for their sudden occurrence and great extent, occasionally destructive to the homestead of the settler, unless care has been taken to place it above high-water mark. Trees standing on the borders of insignificant rills, or near almost dry channels, frequently proclaim that a deluge has swept along, by a residue of grass, weeds, and rubbish left in their branches at an extraordinary height above the existing stream. When Sturt, on his central exploration, reached the Darling, he found its bed all but empty, without any perceptible current. In a few days it began to flow rapidly, and quantities of grass and bark came floating down, covering the surface. It soon swelled considerably, and rolled its turbid waters along with violence. In a single night it had changed its character completely, from an obscure and languid brook to a broad and rapid river, laden with large trees and drift. While following the channel of the Macquarie, where water was only to be found in holes, Sir Thomas Mitchell was startled by a report that a flood was coming down from the Turon Mountains, but that it travelled slowly, and would not arrive until the following evening. At the time mentioned a murmuring sound was heard like that of a distant water-fall, mingled with occasional cracks, as if produced by breaking timber. The noise increased gradually, and the flood came at length in sight, glistening in the moonbeams, and filling the empty bed of the river. But it was soon dispersed in a thousand lagoons, and the channel became as exhausted as before. The Hawkesbury, near Windsor, has been known to swell to the enormous height of eighty feet above its general level. During the hot and dry summer the opposite feature of exhaustion is very visibly impressed upon most of the inland waters. The larger rivers shrink in volume; the smaller lose their continuity, and become a series of detached ponds; the mere rivulets altogether fail. In New South Wales irregularity attends the occurrence of both drought and flood. Sometimes the dry season monopolises the entire year, as from July 1838 to August 1839, during which not a drop of rain fell at Sydney, and the cattle perished by hundreds, either from inability to obtain water, or to extract nutriment from the parched surface. Neither are the floods confined to what is usually called the rainy season. Fifty-seven visitations of the kind have been recorded in relation to the Hawkesbury through the historical period of seventy years since 1788. Fourteen of the number occurred in spring, eleven in summer, seventeen in autumn, and fifteen in winter.

The remarkable peculiarity of a series of deep depressions appears in the structure of many of the river-beds. This arrangement meets the condition of a country where the waters rapidly run off the surface, and the native tribes have little constructive capacity, for these nature-formed tanks or reservoirs retain a supply of the vital element long after it has disappeared from other parts of the channels. The depressions are very striking in the Swan River of Western Australia, which undergoes great seasonal changes. A writer speaks of meeting with a pool, two hundred yards long, thirty wide, and thirty-six yards deep, full of water to the brim, while just beyond each end the bed of the river was dry, or had only a little winding rill trickling among the grass and pebbles. A series of these 'water-holes' marked the course of the stream. One of vast size was noticed, three quarters of a mile long, thirty or forty yards wide, and of great depth, full to the margin of beautifully clear water. A stranger to the country, coming suddenly upon it, would have imagined that it might be traversed to the sea in a boat. Yet it abruptly ended each way, with a steep square termination, and the bed of the river beyond was a grassy hollow slightly elevated above the pool. The arrangement is precisely as if parties had set to work at different points to deepen the channel, and, after excavating various spaces to a considerable depth, had simultaneously suspended further labour. The rivers of this description have channels used *in extenso* in the rainy season, which present a succession of ponds in the dry, either connected by a thread of water, or wholly detached. It has often been suggested that an adequate supply of water might be secured in all seasons by artificial excavations where the natural 'water-holes' are wanting.

The climate, referring chiefly to the principal colonised districts, is distinguished by a high summer temperature, with little or no winter, according to English ideas of the season, except in the upland districts. But ordinarily the heat experienced in summer causes comparatively little personal inconvenience, neither producing bodily languor nor mental inertness, and not interfering with toil out of doors. In the winter months at Sydney, the early morning air has a bracing sharpness, and the evenings are cool, rendering a fire welcome at those hours; but there often intervene a warm sun and clear sky, which lead to deserted hearths in order to sit by open windows. Snow is almost wholly unknown. A shower on the 17th of June 1836 is mentioned by Dr Lang as quite a phenomenon, for

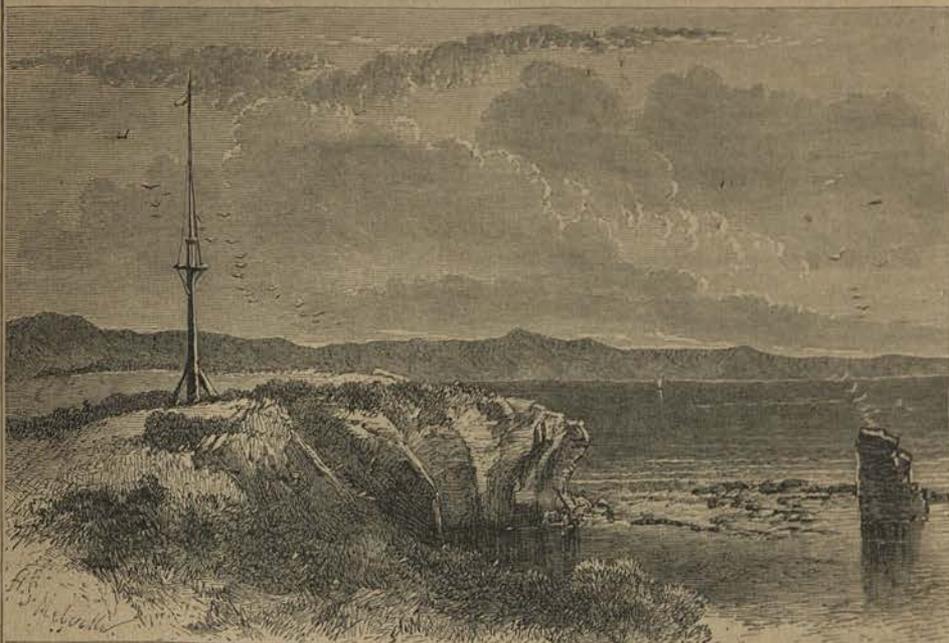
the children were greatly surprised to see 'white rain' falling, never having beheld a flake before. It falls plentifully on the loftier highlands, and lies for a short time on the downs of Bathurst, Argyle, and other elevated sites, where also the ground is often found in the early dawn covered with bright hoar-frost. Many climatic circumstances, and industrial occupations dependent upon them, are directly opposed to our own experience. The north winds are hot; the south are cold; and the east are healthy and invigorating. Harvesting is in process when the fields of Northern Europe are frozen hard, and the rivers are choked with ice. June, July, and August are the winter months; December, January, and February the months of summer. Hence the Christmas festival falls at midsummer, when oak branches and flowers in their fullest bloom take the place of our holly and the mistletoe-bough in the festivities.

The summers have one evil hard to bear, but fortunately it is not of frequent occurrence, or of long duration. This is the hot wind to which all the colonies are exposed, blowing from the interior of the country. The thermometer rises to 130°, and even 140°, during its prevalence. In New South Wales and Victoria, especially the latter, its direction is from the north-west; in South Australia, from the north; at the head of the Australian Bight, from the north-east; and at the Swan River, from the east. Though protected by a wall of mountains, the fiery gust is annually an unwelcome visitor at Sydney, and is experienced on an average about four times every summer. It lasts each time commonly from twenty-four to thirty-six hours, and is comparable to the blast of a furnace. At Melbourne, where similar protection is wanting, it is more intense, and also at Adelaide, under the same circumstances, where it sometimes continues for nine days together. Though no injury is done to the human constitution, yet a sense of great personal discomfort is generally produced, and the effect upon the cultivated vegetation is extremely pernicious. The prime annoyance is not so much the burning temperature of the current, as the impalpable dust it sweeps along, with gritty matter large enough to strike on the face with painful acuteness. Strzelecki, on a voyage from New Zealand to New South Wales, was prevented making the harbour of Sydney for two successive days by the strength of the blast; and when sixty miles from shore the heat exceeded 90°, while the sails of the ship were coated with dust laid on by the breeze. Every object in its path assumes a livery of monotonous drab, or deep brown tinged with red, from the minute particles with which it is loaded. At the first symptom of the visitation approaching, servants fly about every house to see that windows are closely fastened and blinds drawn. The streets become intolerable, and are quickly deserted. Everywhere, right and left, up and down, there is nothing but dust.

The plague is over, usually after a sharp but short contention between the hot wind and a gust from the south, in which the latter triumphs, and being a cold wind, rapidly depresses the temperature. Mr Dutton, in South Australia, thus graphically describes the conflict: 'You look out, and perceive to the southward a dense column of dust rising perpendicularly into the air—the two winds have met! The south wind, fresh from the sea, being many degrees colder than the north wind, is violently precipitated on to the ground, the lighter hot wind rising in proportion. This is the cause of the column of dust being raised so high. Now the two winds are engaged in fierce struggle! It lasts but a moment. With gigantic strides the column breasts its way northward—the hot wind is fairly vanquished, and with a blast, before which the mighty gum-tree breaks, and your house quakes, the south wind proclaims its victory, and in half an hour it settles down to a cool steady breeze. The dust subsides, and "Richard is himself again." This is the chief summer disagreeable, along with an intense development of insect life. Through the remainder of the year, for eight or nine months, the weather is peculiarly delightful; and during the hot season, except when the sirocco blows, the mornings and evenings are deliciously cool. In point of salubrity the climate is one of the finest in the world. Camping out at night, sleeping on the ground with a saddle for a pillow, and the stars looking brilliantly white through the trees—a common incident of a squatter's life—is followed by no injurious consequences, though in most other countries fevers, agues, and affections of the lungs would be the result. Notwithstanding an endless series of morasses and reedy swamps, covered with stagnant water and rank vegetation, no part of the globe is more exempt from that class of disorders which originate in deleterious exhalations.

Australia is remarkably distinct from all other regions in its native botanical and animal productions, while far from being distinguished in either case by variety of species, profusion of individuals, or utility to man. With scarcely an exception, the trees belong technically to the class of evergreens. But this term is a complete misnomer with reference to the colour of the leaves, which have generally dull, brownish, and leaden hues, are of a leathery texture, and wholly without gloss. In many instances also both sides of the leaves are alike, and possess the same organs, with the further peculiarity of being inserted in a vertical instead of a horizontal direction. Hence, by presenting their

edges to the light, but little shade is afforded. This result is aided by the foliage of all the timber being scanty, while the branches tend more to shoot upward than to spread out laterally; and the trees are often thinly distributed over the surface, or arranged in park-like clumps, instead of forming a continuous forest. The woods have therefore no



Coast near Illawarra.

glades of profoundest gloom, but are light and airy scenes. Yet a desolate appearance is given to them by some species which have long wiry branches entirely leafless, and by others which annually shed their bark. Streamers of the epidermis may be seen, twenty or thirty feet long, hanging like 'a beggar's garment from the stems, or rolled up on the ground precisely like great sticks of cinnamon.'

The two families of *Eucalypti* and *Acacia* are predominant among the vegetation. The former are the 'gum-trees' of the colonists, so called from their resinous exudations. The latter are the 'wattle-trees,' some species of which were used by the early settlers for the purpose of wattling the partitions of houses. Intermingled with these genera are many cedars and cypress-like casuarinas, furnishing valuable timber, with enormous wild figs, noble pines, luxuriant underwood, reeds, ferns, and nettles of arborescent habit in moist situations. A nettle, *Urtica gigas*, rises to the height of forty feet, and has a stem nine or ten feet in girth, with large leaves, the sting of which is said to be painful enough temporarily to paralyse a limb. In the more northern districts, palms, bananas, and other tropical productions, connect the vegetation with that of South-eastern Asia. The fan or cabbage-palm occurs on the east coast in the Illawarra, a belt of land sixty miles south of Sydney, but is not seen in the interior. A slender branchless stem, from sixty to a hundred feet high, surmounted with a crown of leaves, waves gracefully to the breeze as it rustles through a round tuft of foliage at the top. The leaves are made into a kind of hat, very generally worn by the colonists, and the tuft at the summit is eaten by the natives—whence the name of cabbage. Owing to these uses the beautiful tree has been subject to reckless destruction in the district, and is now scarce. The edible and fruit-bearing plants indigenous to the soil are few in number, and of no importance to civilised man, either for food or the gratification of taste, though several afford useful provision to the aborigines, and it is possible that some grasses of the pastures might be introduced to cultivation with advantage in dry climates for the support of stock. Mere flowering-plants are numerous, worthy of the florist's care as objects of beauty or curiosity, though most are scentless. Such is the Waratah, or native tulip, a tall, stately, and right regal-looking product, growing on the slopes of the hills, well entitled to be called the Queen of the Bush. Its woody stem rises straight as an arrow from five to ten feet high, and is clothed all the way up with richly-green oak-like

leaves, which are surmounted by a noble cone of vivid crimson. The Gigantic Lily, or spear flower, has a stem of fifteen or twenty feet, rising from the centre of a group of long, broad, curving leaves, which is crowned with a huge cluster of gorgeous crimson lilies. Of the humbler but more useful vegetation, as the succulent natural grasses, they do not uniformly clothe the surface by forming a continuous turf, but grow in separate tufts like the strawberry-plant, with spaces of bare ground between them. A minute pink convolvulus, and a hardy kind of everlasting with a yellow flower, intermingling with the herbage, and occupy the place of our daisy and butter-cup.

The zoology is characterised by few species of mammalia in comparison with the total number known; and there is a general paucity of individuals likewise. Hundreds of miles may be traversed in the interior of the country without rousing a single quadruped, or even meeting with the trace of one. Three of the great natural orders are entirely unrepresented, the quadrumana, the pachydermata, and the ruminantia. Most of the mammalia are marsupials, so called from the females being furnished with a peculiar pouch for the reception of their young, which are born in a more immature state than the young of other viviparous animals.

The most important marsupial is the kangaroo, a vegetable feeder, inoffensive and timid, moving by a succession of bounds by means of the hind-legs, yet capable of outstripping for a time the fleetest steed. The natives hunt it for food, as well as the colonists for sport; but this is only at the outskirts of the settled districts, and even there the gun and dog have rendered the animal scarce. But the most anomalous creature, according to its name, *Ornithorhynchus paradoxus*, is a non-marsupial, and seems to form a kind of connecting-link between quadrupeds and birds. No beasts of prey of consequence occur, except the dingo or native dog, which is generally distributed, and justly dreaded by the sheep-farmer as the scourge of the flocks at remote stations. This marauder, fierce, courageous, and insatiable, is somewhat larger than the shepherd's dog. It never or very rarely barks, but howls or yells dismally at night. Reptiles abound, harmless lizards and iguanas, with various snakes, some of which are venomous. Flies, mosquitoes, and other entomological mites, are through six months of the year a perfect torment, comparable to any similar plague of the Egyptians.

Among the birds, the emu represents in Australia the ostrich of Africa, and ranks next to it in stature, many standing full six feet high. The birds of prey, eagles, falcons, hawks, and owls, are plentiful; with those of beauty, paroquets, cockatoos, and lories; but in birds of melody the country is deficient. The notes are more generally monotonous, discordant, or peculiar, than musical; and many are familiarly styled after their tones. The black swan, remarkable for its colour and glossy plumage, has a voice which one of its early civilised hearers could only compare to the 'creaking of a rusty sign on a windy day.' The Bell-bird has the name from its single silvery 'ting,' curiously loud and metallic, the harbinger of water in the desert. The Organ Magpie has a soft sad tone, said to resemble the notes of a flutina, touched by a timid and uncertain hand. The Coachman gives a long clear whistle, finishing with a noise exactly like the crack of a whip. The Knife-grinder's Song is sufficiently discriminated by the name. The extraordinary chant of the Laughing Jackass defies description. Several species, as the Talagalla or brush turkey, and the Satin Bird, are remarkable for their habits.

Vast accessions have been made to the botany and zoology as the consequence of colonisation, and are still in process. All the cereals grown in Europe are raised, with the usual green crops for cattle and garden vegetables for the table. Some of the latter are produced in greater perfection than in the mother-country, as the cauliflower and the broccoli, while a few degenerate, such as the bean. The more valuable may be sown or planted at any time with the certainty of a good crop, and hence Sydney possesses what London cannot boast, a supply of green peas throughout the year. Tropical products are cultivated with complete success, maize, tobacco, and cotton. The vine flourishes luxuriantly, as well as the olive; and the choicest fruits of warm latitudes are reared, the orange, lemon, citron, almond, loquat, fig, and pine-apple. The domesticated live-stock, introduced towards the close of the last century, which might then be represented by a few units, have multiplied to many millions. Recently, the experiment has been tried with success of increasing the number of wild and domestic varieties. To give home melodies to the fields, woods, and gardens, black-birds, thrushes, larks, and other songsters have been imported, and turned loose, with some game birds, as pheasants and partridges, for the benefit of sportsmen, and to diversify the fare at table. A few camels, obtained from India, are in the colony of Victoria; but by far the most important addition are llamas and apacas from Peru. Jealous of other countries possessing such wealth-producing animals, the Peruvian government issued an edict in the year 1845 prohibiting their export; and the penalty was imposed of forfeiture of the flock, and of ten years' labour in chains at the Chincha Islands, on any owner or driver found with them within a certain distance of the coast. In spite of this enactment, through the enterprise of Mr Ledger, a large flock was landed at Sydney in November 1858. The apacas spent the first year of their colonial existence at Sophienburg, about twenty-three miles south of the city, where fleeces such as Peru had never seen were taken from them in November 1859, and where the first apaca meat killed in Australia was partaken of on the 7th of September 1861 by a party of colonial notables. A premium has

for some time been offered for the introduction of salmon, which it is hoped may find a suitable abode in the rivers of Tasmania. After several failures in the attempt to transport the ova, a successful one has been reported. Trout, salmon, and the other *Salmonidae*, are absent from the whole of the Southern Hemisphere.

Among the mineral treasures of the country, coal has been known for some time in New South Wales, and is now extensively worked in the basin of the Hunter River, where several beds crop out at the surface. It also occurs in Western Australia, near Perth. The discovery of copper in South Australia dates from the year 1842. Immense masses of ore of the richest quality have been obtained, and lead is abundant in the same district. Iron exists in such profusion in several of the mountains on the north coast, that they violently affect the magnetic-needle. Manganese, zinc, quicksilver, and antimony have likewise been met with, as well as good specimens of the gems used in secondary jewellery, jasper, chalcedony, and opal. Roofing-slate may be had in any quantity; marbles, valuable for ornamental purposes, are plentiful; and kaolin, or porcelain-clay, is a constituent in the mineralogy. To the economic minerals attention will doubtless be more fully directed as population increases, and exhaustion occurs with reference to the supply of the precious metal.

For some years the gold which has rendered Australia so famous was seen without being recognised, much to the subsequent chagrin of the parties who were thus hoodwinked. Not only did farmers turn up the auriferous alluvium with the plough, but pebbles of gold-bearing quartz were used for garden-walks, and it is even said that a person ornamented his garden-walls by building into them masses of white quartz variegated with portions of the undetected yellow metal. Some curious reminiscences were indulged upon the true state of the case being disclosed. Thus it was known to a few that an old Scotch shepherd, named Macgregor, had been in the habit of bringing small pieces of gold to Sydney, which he disposed of to a jeweller. But no person could ever learn from him where he found his treasure, and the suspicion arose that it was the melted-down produce of robberies. The shepherd at length disclosed the secret when it was useless keeping it any longer. He had accidentally met with the prize in the first instance, and then at intervals searched the spot for it, a place called Mitchell's Creek, in Wellington Valley, about 200 miles west of the capital. It was also remembered that a convict labourer had been sentenced to receive fifty lashes for having a lump of gold in his possession, as it was deemed to be stolen property similarly disguised. Public announcement of the discovery of gold-fields was made in New South Wales in May 1852, and in Victoria the following August. The auriferous rocks belong to the Lower Silurian system, and in the heaps of debris or old alluvium derived from their denudation the gold has been principally obtained.

A native population is thinly distributed over the surface of the country, consisting of various tribes of Austral or Oceanic Negroes, the 'black fellows' of the colonists, who rank with the types of humanity most removed from personal sightliness, judging according to the European standard. Though differing in some respects among themselves in different localities, they appear to have had a common origin, but no monuments, records, or traditions throw the faintest light upon their migrations and history. The complexion is generally a sooty brown, varying to shades approaching to chocolate and a deep earthy black. The flat nose, large nostrils, and thick protruding lips of the true Negro are observable, but the hair is long and coarse, only very occasionally assuming a woolly texture. While of short stature, the limbs are uniformly slight, the head small, the forehead low, the eyes large and far apart, with the iris invariably of a dark brown, and the pupil jet black. In athletic exercises, as running, climbing, and dancing, remarkable flexibility of limb is exhibited, with agility and adroitness—the common accomplishments of the savage—and when in the act of throwing the spear, the posture assumed is both commanding and graceful. Nowhere is the soil made available for support by tillage, but is searched for what it spontaneously supplies. Particular districts are considered the 'sit-down' or territory of certain tribes or families, to which their hunting excursions are confined, and into which the intrusion of other natives would occasion strife. They have no permanent dwellings, but construct temporary hovels of the branches of trees, thatched with leaves of the grass-tree, or roofed with bark to keep off the rain. Though generally destitute of clothing, those in the neighbourhood of the white settlements are

compelled to wear blankets, which are distributed to them at certain seasons by the colonial authorities.

That the native Australians, though once considered incorrigible barbarians, are capable of being civilised in a measure, is proved by the organised troops of black mounted police in the south-eastern colonies, and the frequent employment of them as shepherds and herdsmen. In a few instances they have learned to read and write. Estimates of their number are quite conjectural, but it is certainly very inconsiderable when compared with the area over which they are spread. In and around the colonised territories, it is beyond doubt that they are rapidly diminishing, though squatters and settlers now endeavour to conciliate their sable neighbours, and humane provisions have been adopted by the authorities, not only to protect them from wrong, but secure sufficient subsistence. Whole communities have already become extinct. The tribe inhabiting the country around Botany Bay and Port Jackson in 1788, which Governor Philip supposed to comprise about 1500 individuals, has not a single representative remaining. The last died in 1849, little more than sixty years after the first occupation of the land by the whites. This has been occasioned by various causes, as the positive inhumanity with which they were treated in the early days of the settlement, the loss of the wild animals upon which they depended for food, both destroyed and scared away by firearms, and the immoderate indulgence in intoxicating liquors, to which all savage races resign themselves, whenever practicable. Another very potent cause of decay, and quite beyond all human control, is the introduction of diseases, which, though very rarely fatal to Europeans, and commonly of a mild nature, exhibit a malignant and destructive character in connection with the native constitution. However melancholy the result, it seems inevitable that the man of Australia is doomed to pass away from the face of the land as civilisation takes possession of it, and he will leave behind him no temples, towers, or palaces to inform future ages of his existence once within its borders—no memorial of any kind originating with himself, except a few names which the new-comers have adopted, attached to sites where he encamped, and to streams of which he drank.

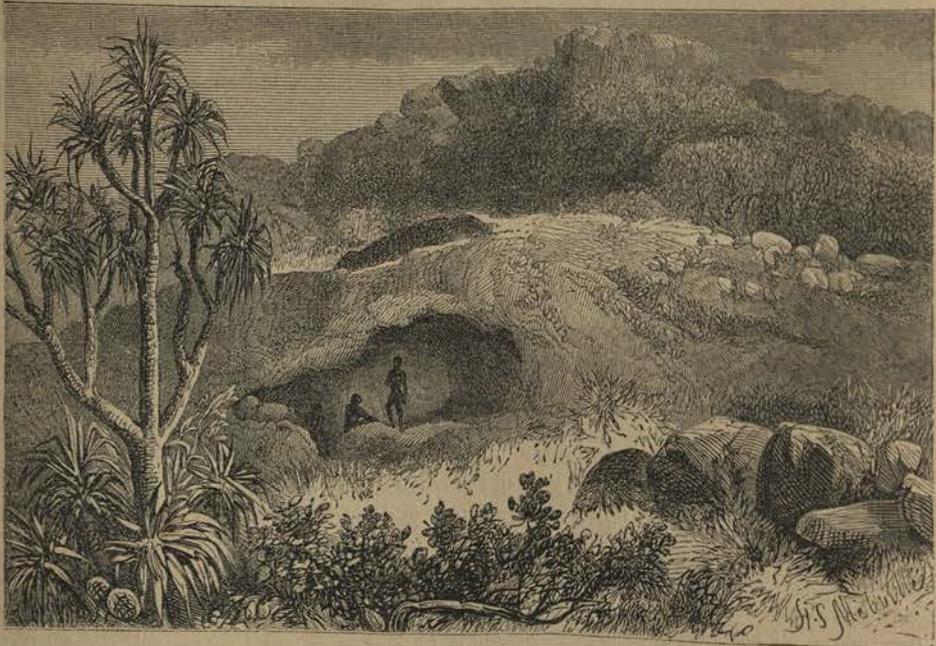
Five British colonies are constituted on the mainland of Australia; a sixth embraces the island of Tasmania; and a seventh is in process of formation, to bear the name of North Australia.

	Founded.	Area in Sq. Miles.	Population.	Census.	Capitals.
New South Wales,	1788	478,000	348,546	1861	Sydney.
Queensland,	1859	559,000	30,115	"	Brisbane.
Victoria,	1851	87,000	540,322	"	Melbourne.
South Australia,	1836	300,000	126,800	"	Adelaide.
West Australia,	1829	1,000,000 (settled district, 45,000)	15,593	"	Perth.
Tasmania,	1825	22,600	90,000	"	Hobart Town.

Public affairs are administered in each colony by a governor of imperial nomination, assisted by a parliament, which consists of a council and an assembly. Any one of the local governors may be appointed by the crown governor-general. No religious communion is established by law, but all sects in favour of state aid may receive proportionate grants from the public revenues.

The great majority of the colonists are British, but a considerable number are now of Australian birth. The latter exhibit the features usually observed in a transplanted British race, though they are not so strongly marked as in the United States, for which the difference in the length of time during which exposure to new circumstances has subsisted will sufficiently account. Out-of-door habits of life do not produce the ruddy complexion noticeable in the mother-country. The stature is tall, but the form is spare, the face pallid, and the voice less sonorous. It is remarkable that the pronunciation of English, as well as other European languages, always suffers after having been spoken for some time in a new region. The nasal drawl, so common across the Atlantic, is an accompaniment of the English spoken in Australia, Tasmania, the Cape, and other parts of the Southern Hemisphere. The Anglo-Australian males are popularly called 'Cornstalks,' in allusion to their lank appearance. The females are styled 'Currency Lassies,' while true Englishwomen are distinguished by the epithet of 'Sterling.' In the population of South Australia a Germanic element is rather prominent, while Victoria, in consequence of the gold discoveries, has received a very miscellaneous nationality. The most striking addition is that of the Chinese, both as to numbers,

appearance, and habits. They poured in by successive ship-loads, and marched into the interior, betaking themselves at once to the gold-fields. A few engaged in mercantile pursuits at Melbourne, some of whom betokened their existence by the appearance of their names, Lo-Quat or Cum-Quot, in the records of the Insolvency Court. Though inoffensive even to timidity, and outwardly well conducted, the presence of a race in every respect so alien occasioned great general dissatisfaction. It found expression at last in disgraceful attacks upon them, with a view to their expulsion, and led the legislature to impose special payments upon this class of immigrants in order to prevent their increase. The excess of males over females was considerably increased during the earlier years of gold-mining. It still exists, though in process of redress. It is marked in New South Wales, and much more so in Victoria. In South Australia the balance has been adjusted, and the sexes are in nearly equal proportions.



Mount Adolphus.



Shoalhaven Gully.

CHAPTER III.

AUSTRALASIAN COLONIES.

I. NEW SOUTH WALES.



THE parent colony of the Australian group, NEW SOUTH WALES, is indebted for that name to Captain Cook, who applied it to the whole eastern seaboard of the country, from its fancied resemblance to the South Wales of his native land, as seen from a vessel off-shore. In its present restricted application, it denominates that part of the east coast extending from Point Danger on the north to Cape Howe on the south; and the district stretching inland from the ocean to the meridian of 141° E., which forms the boundary from South Australia. The provinces of Queensland and Victoria are respectively on the northern and southern frontiers. The coastline, along which the great South Pacific, especially with an easterly wind, rolls its tremendous surge, is bold and rugged, presenting a wall of steep cliffs to the waves, fringed with rocky ledges, but with very few sandy beaches. It is broken, however, at intervals by bays and inlets of varying magnitude, which form excellent harbours for shipping, often so shut in by narrow mouths as not to shew their capacity till they are actually entered, and scarcely visible at an inconsiderable distance seaward.

For a few miles inland from the shore the country wears a bleak and barren aspect, the soil being composed mainly of drift-sand, scantily covered with stunted trees and shrubs. But the interior is very largely an open forest, interspersed with brushwood thickets, generally hilly, occasionally mountainous. Rich and fertile valleys lie in the lap of the

ranges, with extensive undulating grassy plains on their slopes, or at their base. Parallel to the coast, north and south, runs a highland chain, the prominent feature of the surface, known as the Blue Mountains in the latitude of Sydney, from the appearance presented in the distant view, but commonly referred to as the Dividing Range. It separates the streams flowing inland, often to lose themselves in marshes, from those which have an opposite direction, and a more immediate descent to the ocean; and also divides the agricultural and longer settled maritime districts on the east from the wide pastures of the squatters in the western interior. These highlands are generally of moderate elevation. They are physically remarkable for the gulf or bay-like valleys with which they are penetrated, vast and immensely deep, bounded on either hand by precipitous cliffs, and terminated by a similar facing of perpendicular rocks. To descend into them, it is frequently necessary to go round from fifteen to twenty miles; and they can only be left by the way in which they are entered. The most extraordinary feature in their structure is, that though they expand to a width of several miles in the interior, they are generally so contracted at their mouths as to be almost impassable. In these 'sunk valleys,' as they are often called, there is usually magnificent timber, but the tops of lofty trees, many hundred feet below the spectator standing on the boundary-walls, appear like brushwood.

Numerous streams descend the eastern slope of the highlands in tortuous channels to the ocean, subject to the fluctuations from flood and drought which have been noticed, but admitting generally of steam-navigation for some distance above their mouths throughout the year. The most southerly of importance, the Shoalhaven, is remarkable for the tremendous gullies through which it flows, some of which are from 1200 to 1500 feet deep, with precipitous sides, composed of granite or dark-coloured limestone, forming scenery of the grandest description. The Hawkesbury, which disembogues to the north of Sydney, is formed by the junction of the Nepean and Grose, at the base of the mountains, and has some of the oldest and most flourishing farms of the colony, with the towns of Windsor and Richmond, on its banks. The Hunter, further to the north, flows through a valuable agricultural and pastoral country, has a course of upwards of 200 miles, and enters the sea at the port of Newcastle. It is the Tyne of Australia, as carboniferous formations occupy an extensive area of its basin, and supply a coal which ignites readily, burns with a bright reddish flame, swells and agglutinates, like the Newcastle coal of England. The Manning, Hastings, Macleay, and Clarence Rivers are in succession more northerly. The inland flowing waters, on the western side of the mountains, either terminate in marshes, or contribute to form the Murrumbidgee and Darling, which, after a long course, with a generally diminishing volume, reach the Murray, some 400 miles distant from their sources.

Drought is the special defect of the climatology, and occasionally a great disaster. The annual amount of the rain-fall is rarely deficient, but generally copious, though irregularly distributed. When it does rain, the showers descend in torrents, often carrying away roads, gardens, walls, palings, and bridges. Every highway becomes a river, every by-path a brook, and every bank a cataract. Then, for months together, not a drop falls, and the sky seems as if it had never known a cloud. During unusually long droughts the cattle frequently perish both for want of water and the fodder which it sustains. The rotting carcasses and the bleached skeletons of draught-bullocks may be seen at the exhausted water-holes, or in the dry beds of streams, to which they had rushed in a fury of thirst. During these seasons, when the vegetation is like tinder, bush-fires, accidentally kindled by the natives, or by a stockman throwing the contents of his pipe upon the ground, are of common occurrence, and become vast conflagrations if there is a breeze, endangering the life and property of the settler. The spectacle is often singularly striking in the



Camden Cow Pastures.

interior wilds, and rises to the sublime. Huge volumes of flames rush along with headlong speed; kangaroos bound out of their path; snakes and lizards issue out of their hiding-places to escape; birds fly with screams from the destruction; bandicoots, opossums, and emus hurry away from the devouring element; and the smoke of the country goes up like the smoke of a furnace. For years afterwards the trees of the forest exhibit memorials of the event in their charred and blackened trunks. The traveller has often met with them deforming the landscape, but occasionally strange objects, clothed with the livery of death below, and exhibiting the evidences of life in the foliage above. At Sydney, in January 1850, the north shore of the harbour was on fire for ten or twelve days. At night the scene resembled a line of huge furnaces extending over some fifteen miles. The city and its suburbs were shrouded in smoke, and the air was pervaded with the aromatic odour of the burning gum-trees.

NEW SOUTH WALES was originally planted as a penal settlement, intended to relieve the overcrowded jails and hulks of the mother-country, at a time when not a single white man existed in the vast range of Australia. A fleet of eleven sail took out 757 convicts, of whom 192 were women; 208 marines, with 40 of the soldiers' wives and children; a chaplain; and Governor Philip. It reached Botany Bay on the 20th of January 1788. But that site proving ineligible, and the adjoining Port Jackson being discovered, the shore of one of its coves was occupied, to which the name of Sydney was given, after Viscount Sydney, then secretary of state for the colonies. Immense difficulties were encountered by the infant settlement, being dependent entirely upon the arrival in time of supplies from England. More than once the whole community was upon the verge of starvation. The first free emigrant, a German, arrived in 1791, and married a Scotch woman who had been transported for arson. Divine service was performed in the open air till 1793, when a wooden church was put up. Government orders were usually proclaimed by the bellman. Under the third governor, Captain King, prior to 1806, the first brick church was erected, the first colonial ship was built, and the first Australian newspaper was published by authority. It was begun by George Howe, a prisoner, under the title of *The Sydney Gazette and New South Wales Advertiser*. Chiefly by the exertions of Captain M'Arthur to improve the breed of sheep, and the public spirit of Governor Macquarie, 1810—1821, the colony began to prosper. Transportation ceased practically in 1839, when the last convict ship arrived. The number of prisoners deported during its term was about 70,000, great numbers of whom merged in the general mass of society upon the expiration of their sentences.

Sydney, the capital, is beautifully situated on the southern shore of Port Jackson, about six miles from the South Head at the entrance, where the light-house is in latitude $33^{\circ} 51'$ south, and longitude $151^{\circ} 18'$ east. The port is a long expanse of lake-like water, which, for scenery, capacity, and safety ranks with the finest of all harbours. On either side are coves with wooded shores, besprinkled with neat cottages, homesteads, and villas in ornamental grounds, which with vessels constantly cleaving the blue waters, studded with a few islands, form a singularly lovely spectacle. Including the suburbs, the city contains a population of 93,000, and is said to be the most English-looking of all the Australian towns. It has a complete system of sewage, and is lighted throughout with gas. The streets are lined with substantially-built high houses, are well paved or macadamised, and are furnished with numerous public drinking-fountains. The government house, first occupied by Sir George Gipps in 1845, is of white freestone in the Elizabethan style, fitted up with the finest colonial marble in the interior, and staircases of carved cedar. It presents a striking contrast to the canvas dwelling of the first governor, who, on giving an official dinner, when provisions were short, intimated to the guests that they must bring their own bread with them, as he had none to spare. A humorous officer marched to the banquet holding up a puny loaf on the point of his sword. The university, founded in 1851, confers degrees in arts, law, and medicine. A mechanics' school of arts, subscription library, museum, botanic garden, Hyde Park, and the Domain, are places for public instruction and recreation. Sydney is intensely loyal in the nomenclature of its streets, which were mostly laid out in the later years of George III. George Street, the principal thoroughfare, preserves the name of the sovereign. York, Clarence, Kent, Sussex, Cumberland, and Gloucester Streets have the names of royal dukes; and Pitt, Bathurst, Castlereagh, and Liverpool Streets those of ministers. The trade of the capital, both foreign and inland, is very great, as nearly all the exports and imports of the colony pass through it.

Paramatta, at the head of a river-like prolongation of Port Jackson, 15 miles from Sydney, is connected with it by steamers and a railway, and contains 5000 inhabitants. It was founded soon after the original settlement, with the name of Rose Hill, properly superseded by a native denomination. The route by water is extremely picturesque. Colonial tweeds, 'Paramatta cloths,' and salt are manufactured. *Bathurst*, in the interior beyond the ridge of the Blue Mountains, 125 miles from Sydney, is the centre of an important pastoral district, and contains a population of 4000. Being at a considerable elevation, 2300 feet above the sea, the climate is temperate, and attracts invalid visitors from the hot coast region. In the early days of gold-finding this town witnessed the arrival of the first remarkable nugget. It weighed 102 lbs., and was sold at Sydney for £4160. Bathurst is reached partly by railway, from Paramatta to Penrith, and then by an excellent road across the mountains constructed by convict labour. Strangers commonly stop at the Weatherboard Inn on the route to visit Prince Regent's Glen in the vicinity, one of the extraordinary sunk valleys before referred to. 'This kind of view,' remarks Mr Darwin, the attentive observer of nature in many lands, 'was to me quite novel, and extremely magnificent.' These wayside inns are numerous in the older parts of the colony, and are often somewhat picturesque, at least those which retain their primitiveness, being built of weather-boards, on a frame of wood, with a plot of garden in the rear. There is the old-fashioned horse-trough, hollowed from the trunk of a tree, in front, and a tall sign-post bearing some long-standing familiar inscription, 'The Traveller's Home,' 'The Cottage of Comfort.' But such humble accommodations for passengers have now been largely superseded by more pretentious taverns, as in the mother-country.

Newcastle, at the outlet of the Hunter, 75 miles north of Sydney, is after it the most considerable port, shipping coal and agricultural produce. The river here expands into a broad estuary, forming a very secure harbour, which has been improved by artificial means. The town has 3800 inhabitants. It contains a school of art, a telegraph station, six churches, and gives its name to an Anglican bishopric, which embraces the northern districts. The southern are included in the metropolitan see of the capital. *Maitland*, a few miles up the river, divided into east and west, is the second town of the colony in size, containing a population of 7800. It is in the centre of the principal coal-bearing region, and publishes two newspapers, one of which, the *Maitland Mercury*, is the oldest of the provincial class. *Camden*, 50 miles south-west of Sydney, is a small township in the famous Cow Pastures, a name which refers to an event in early colonial history. Among the live-stock brought by the first squadron to the shores were five cows and two bulls, which broke loose, and escaped into the woods. The stray cattle multiplied; and after some years, this wild drove was heard of near the Nepean River. The first knowledge of its existence was obtained in a singular manner. Upon a party of the aborigines coming to the neighbourhood of Sydney, they so closely imitated the butting and bellowing of the strange animals, as to enable the settlers to identify their lost property. After remaining unmolested for many years the herd was destroyed by order of the government, being of a very inferior breed, and annoying proprietors by mingling with their stock. In this district Captain M'Arthur obtained a grant of land from Lord Camden, then the colonial minister, for the purpose of improving the flocks by the importation of superior sheep. The estate, named after the grantee, comprising a neat residence, substantial farm-buildings, thriving gardens and orchards, is now occupied by descendants of the original proprietor. It will ever be memorable as the spot where the first fine-wooled sheep were bred, and the first vineyard was planted on Australian soil. *Wollongong*, on the adjoining coast-line, is an outport of the Illawarra, the native name of a long belt of land on the shore, remarkable for its rich soil and tropical vegetation. Lofty cedars, graceful tree-ferns, and stately palms, raise their heads above a thick undergrowth of wild vines, creeping plants, and shrubs. Grassy meadows are interspersed throughout, and coal is worked.

NORFOLK ISLAND, 900 miles from the coast, is included in the colonial government. During the transportation system, the worst criminals, doubly or trebly convicted, were deported to this spot, and a paradise was converted into a pandemonium. It is now the home of the industrious and virtuous Pitcairn Islanders, whose singular history is hereafter noticed. Their principal settlement is at Sydney Bay. The island contains about thirteen square miles, exhibits very beautiful scenery, and is noted for its fine vegetation. The characteristic tree, one of the coniferous family, *Araucaria excelsa*, of majestic height and appearance, yielding valuable timber, has the name of the Norfolk Island Pine, but is not peculiar to the site. It has been seen with a diameter of twelve feet rising to the height of 270 feet.

Agriculture is confined chiefly to the coast region, but is only of secondary importance. Wheat, maize, fruits of different kinds, tobacco, and wine are the principal crops, and a small quantity of excellent cotton is raised. Pastoral husbandry is the staple industry, conducted on the vast grassy downs interior to the Dividing Range. The first export of wool to England, 245 lbs., was in the year 1807. It now amounts annually to upwards of 20,000,000 lbs. Gold is an important item of the colonial wealth, and has risen to the estimated value of £2,200,000, according to the last annual return. The localities in which the precious metal is found are either on the table-lands or in connection with the mountain-ranges branching from them. From the Illawarra district and the basin of the Hunter the annual produce of coal is nearly 500,000 tons, which, after supplying the home demand, is shipped to the other colonies, to India, and to China. At the close of the year 1862 the population was estimated at 367,495. The number of ministers of religion was 354, more than one-third of them clergymen of the Anglican Church, and one-fifth Roman Catholic. Upwards of 42,000 children were attending schools.

II. QUEENSLAND.

This province, the youngest of the colonial daughters of Great Britain, said to be the fairest, extends northward of the frontier of New South Wales, with which it was formerly associated, but detached by petition of the inhabitants in 1859. It has a coast-line marked with features of greater variety and beauty than belong generally to Australian shores. Enormous tracts lie beyond the range of the settlements, and have never indeed been touched by the footstep of civilised man. But as far as the surface is at present known, it consists of an alternation of forest-clad mountain-ranges and grassy plains, while the climate combines ample moisture with a tropical temperature. No gold-fields here attract by their dazzling glitter, but ample space is open for pastoral and agricultural industry, with a fair prospect of success to those who would enjoy

‘The pride to rear an independent shed,
And give the lips we love unborrowed bread.’

Some of the most beautiful cotton ever seen has been grown; the vine is cultivated; fisheries are conducted; coal is raised; and Queensland figures in the wool-market with an annual export of more than 6,000,000 lbs.

The natural vegetation embraces noble trees and valuable timber for building purposes, the Moreton Bay pine, the iron-bark, blue-gum, and box, with the red cedar, violet-wood, tulip-wood, and cypress for cabinet-work. A species of pine, the bunya-bunya, is almost peculiar to the district, serviceable to the blacks. It may be recognised at the distance of some miles from its form, like that of a large umbrella mounted upon a very long stick. Once in three years it bears fruit, when the aborigines gather to feast upon it. The cones are about a foot long, so covered with sharp points that a hedgehog, or a ball of ten pounds-weight bristling with needles, may as readily be handled. The edible part of each seed is about the size of the kernel of a Brazil nut. Formerly the government in New South Wales prohibited the felling of the tree, in order to secure the natives in the enjoyment of their triennial banquet. On the shores of the colony the herbivorous dugong is captured. This ‘daughter of the sea,’ the fabled mermaid of the East, is common in the Indian Archipelago, where the flesh was formerly reserved for sultans and rajahs, as too delicious to be used by ordinary mortals. The fish is found in large herds at the mouth of the Brisbane, and is caught for the oil procured from the blubber. Dugong oil has curative properties, and is sought to be substituted for cod-liver oil. It contains no iodine, but, on the other hand, it is sweet and palatable, and does not produce nausea. The profusion of reptile and insect life is the prime natural disadvantage of the district. Accidents are, however, rare from the snakes, which will be extirpated as the land is occupied. But swarms of ants and beetles in the houses cause great annoyance, and the mosquitoes are everywhere a torment.

Brisbane, the seat of government, on the river of that name, contains a population of 9000 within municipal limits, and has its daily paper, botanic garden, and Anglican bishop. The river, about twenty miles below, discharges in the long and broad expanse of Moreton Bay, dotted with islands. Good coal is worked on its banks, and has for some years been used by the steamers. *Ipswich*, on the Bremer, navigable up to the town, has 5000 inhabitants. *Maryborough*, a small seaport, is doubtless the only place in the British Empire with a Chinaman in its municipal council. Alderman Cham suitably returned thanks on his election to the dignity. While discountenanced in the other colonies, the Chinese are at present welcome in Queensland, owing to the great demand for labour. Aborigines are found near most of the towns and settlements, though in some places not permitted to enter within their boundaries.

III. VICTORIA.

This wonderful colony occupies the south-eastern corner of the great insular territory. Its inland limits are defined by a straight line from Cape Howe to the nearest source of the Murray, and then the course of that river, the boundary from New South Wales, as far as the meridian of 141°, where it meets the frontier of South Australia. Though somewhat closely circumscribed between the spacious areas of the two sister-provinces, the distance measures about 500 miles from east to west, by 250 from north to south. This district has a varied coast-line of 700 miles, distinguished by two prominent features, a bold headland, and a securely-sheltered and capacious bay. The headland, Wilson's Promontory, is the south extremity of the province and of the mainland of Australia. It is worthy of the position, being an enormous projection of granite, twenty miles long by from six to fourteen wide, connected by a sandy tract with the main shore. The summits rise to the height of 3000 feet, often veiled with a canopy of clouds or gray mist, as often seen with their outline distinctly defined against the clear blue sky. The bay is the world-famous Port Philip, discovered by Lieutenant Murray, in the *Lady Nelson*, in January 1802, and soon afterwards visited by Captain Flinders, in the *Investigator*. It is a magnificent landlocked harbour, containing more than 800 square miles of open water, communicating with the ocean by a very narrow channel, and therefore comparatively smooth at all times, while the shores are beautiful. At the north extremity the recess of Hobson's Bay is the anchorage-ground of vessels for Melbourne, while on the western side a branch forms the harbour of Geelong.



Sir Charles Hardy's Island, off Cape Upstart.

An agreeably diversified aspect marks the interior of the country. There is an alternation of bold heights, gentle hills, and sweeping valleys, open prairies and beautiful woodland, with rich grassy vegetation clothing a large proportion of the surface. The eastern districts have an alpine character, being entered by the Dividing Range from New South Wales under the name of the Warragong Chain, or the Australian Alps. It follows generally a south-west direction, gradually diminishes in height, and ramifies over an extensive area, till it meets the sea at the south extremity of the province, in the headland of Wilson's Promontory. The central portion is traversed by hills of moderate elevation; some bare, others wooded and grassy to their summits. Thirty-five miles north-west of Melbourne, a range commences with the syenitic Mount Macedon, of which it is the crowning height. This noble-looking eminence rises about 3000 feet, and forms a conspicuous object over a wide landscape, being visible from the east and west hills which adjoin the capital. Stately trees of the blue gum and other species clothe its slopes to the summit, which is so easily accessible as to admit of being reached on horseback. More to the west are the Pyrenees and the Grampians. The southern extremity of the latter has the name of Mount Abrupt, from presenting on one side an almost perpendicular precipice of 1700 feet.

Though better supplied with water than New South Wales, the extremes of failure and superabundance mark most of the streams. Northward, subject to these conditions, flow the Mitta Mitta, the Ovens, the Goulbourn, and the Loddon to the frontier river Murray. Southward, the Glenelg, the Barwon, the Latrobe, and the Yarra Yarra descend to the coast. The latter is of importance as having the capital on its banks. It has been appropriately permitted to retain its native name, which signifies 'flowing, flowing,' an allusion to its permanent character. The stream rises in one of the offshoots of the Australian Alps, issues from an insignificant spring, and pursues a very tortuous course, especially towards its termination in Hobson's Bay. It is liable to sudden floods from heavy rains and the melting of the snow in the range of hills where its sources lie. They are generally 'short, sharp, and decisive,' specially serious, when coincidently with the rise of the river strong southerly gales blow up the waters of Port Philip to the northern extremity, and thus check the egress of the stream. This took place in the night of October 2, 1844, when the Yarra Yarra rose with such rapidity that the inhabitants along its banks with difficulty escaped the danger. Owing to its southerly latitude, the climate is more temperate than that of the sister-colonies, and the long droughts of New South Wales are rarely, if ever, experienced. Sudden and great changes of temperature occur, and the hot summer wind, with its dust-storm, is an occasional infliction.

The history of the colonisation of the district has considerable interest. It dates from May 1835, when the first permanent settler arrived, so that one of the most important parts of the empire is not yet quite thirty years old. The emigrant was Mr Batman, a resident in Tasmania, known from his humane exertions to befriend the aborigines of that island. He landed on the shore of Port Philip, near the mouth of the Werribee River, about half-way between Melbourne and Geelong, accompanied with some domestics. In an interview with the natives he expressed the wish to reside among them, and to purchase a portion of land on which to depasture his stock. A bargain was finally concluded and formally ratified, by which an extensive tract was ceded to him.

The first immigrant was speedily followed by others, part of whom took up a position on the banks of the Yarra Yarra. Though both the governors of New South Wales and Tasmania discouraged the movement, the admirable grazing capabilities of the country had become known, and the 'squatters' poured in. In June 1837, the year when Queen Victoria ascended the throne, the embryo capital of a province destined to bear her name consisted of a collection of huts with 250 inhabitants. Two wooden houses served the purpose of inns. A small square wooden building, with an old ship's bell suspended from a tree, was used for a church or chapel. Two years later, 1839, the territory was constituted a dependency of New South Wales, under a lieutenant-governor, with the name of the Port Philip district. A long straggling village then made its appearance, with a population of 3000, which speedily became a singular-looking town. Stumps of gum-trees

stood up in the streets, while enormous ruts were cut in the soft soil by ponderous bullock-drays. Arrested by such obstacles, the surface-water collected in pools after heavy rains, and the newspapers of 1842 chronicled the incident, 'Another child drowned in the streets of Melbourne.' In 1851 the dependency was made a distinct colony, with the name of Victoria, since which period, owing to the discovery of auriferous wealth, its progress has been a perfect marvel in the annals of civilisation.

Victoria, though by far the smallest of the five colonies on the mainland of Australia, is the richest and the most populous, connected with the mother-country by the most extensive commerce. Its agriculture is of no mean importance; its pastoral industry produces wool of the annual value of more than £2,000,000; its gold-mining has realised sums varying from £8,000,000 to £13,000,000 per annum; and public improvements have been made with almost magical celerity, yet with a due regard to permanence. In the early stages of mining industry, the great centres were covered with calico tents, and not a single mile of macadamised road existed. Now, the sites of these old camps are occupied by large towns, with houses of stone or brick, ornamental public buildings, and miles of paved streets, while upwards of £5,000,000 have been expended upon roads and bridges, £3,400,000 upon public edifices, and railways have been put in hand to the value of £9,000,000. During the ten years between 1851 and 1861 municipal government was extended to forty-six towns; a net-work of telegraphs was spread over 1500 miles, communicating with sixty stations; the camel was obtained to aid explorers in their task; birds of English note were introduced to share the boughs of the forest with the songless native species; and the interior of the island-world was crossed from south to north, revealing habitable lands where only a great central desert had been supposed to exist. In the same interval the population rose from 77,000 to 540,000, at first an incoherent mass of strangers gathered from different countries, apt to indulge a wild licence under novel circumstances, but gradually reduced to the dominion of law and order, which are now as strictly maintained as in an English village.

The gold produce of the colony was illustrated at the International Exhibition, in London, 1862, by a pyramidal trophy, gilt to resemble bullion. An inscription informed the visitor that this pyramid, '44 feet 9½ inches high, and 10 feet square at the base, represents the quantity of gold exported from Victoria, from the 1st of October 1851 to the 1st of October 1861, viz., 26,162,430 oz. troy, equal to 1,793,995 lbs. avoirdupois, or 800 tons 17 cwt. 9½ lbs.; equal in solid measurement to 1492½ cubic feet, of the value of £104,649,728 sterling.' The largest single masses of gold ever seen have been obtained from the Victorian fields. The 'Blanche Barkly' nugget, found at Kingover, in 1857, weighed 145 lbs., and sold for £6900. The 'Welcome' nugget, the finest of which any record exists, found at Ballarat in 1858, weighed 184 lbs., and was sold in Melbourne for £10,500.

Melbourne, the capital, named after the British prime-minister at the time of its foundation, is situated chiefly on the north bank of the Yarra Yarra, about nine miles above its entrance into Port Philip, following the winding river, yet under three miles overland. Large vessels come up to the mouth, but two bars obstruct further passage, except to steamers, brigs, and small-craft. The city is commercially the most important in the Southern Hemisphere, and has attained considerable magnitude, with the appearance of a place of much longer standing. It lies principally in a valley, with the extreme ends rising over two picturesque eminences, known as the East and West Hills, verging on a beautiful park-like country. The streets are regular and remarkably wide, adorned with good houses and shops, richly ornamented banks and hotels. The post-office, treasury, parliament-houses, with some of the churches and other public buildings, are of imposing architecture. Popular institutions include a Zoological Society with gardens, mechanics' institutes, theatres, music-halls, and a public library of 30,000 volumes. A university, opened in 1855, is a large building in extensive grounds, amply endowed from the colonial exchequer. Water is brought by works upon a scale of great magnitude from a distance of eighteen miles, and distributed to the private dwellings. Three daily newspapers are published, and a considerable number weekly. The population, including the suburbs, amounts to 140,000. St Kilda and Brighton are marine appendages of the capital, on the shore of Port Philip, visited for the sea-air, bathing, and occasional recreation. The important lines of railway diverging from Melbourne lead to Geelong and Ballarat, to Castlemaine and Sandhurst. The latter is in process of being continued to the frontier of New South Wales.

Geelong, the second town of the colony, stands at the head of a westerly branch of Port Philip, on picturesque green cliffs overlooking the waters of the bay. It contains a population of 25,000, and is a principal mart for the export of wool. *Ballarat*, of auriferous celebrity, seventy-eight miles north-west of Melbourne, has 22,000 inhabitants. But only a shepherd's hut occupied the site, built of slabs of wood,

roofed with bark, in the year 1851; and within a circle with a radius of forty miles, the population then consisted of a few sheep-farmers and their dependents, which now numbers upwards of 105,000. The town is the centre of important gold-fields, and of one of the principal agricultural districts. It furnishes the implements with which the soil around is tilled, brews its own beer, and grinds its own corn. The merchants have their chamber of commerce; the mechanics, their institute; the volunteer firemen, their brigade-house; the farmers, their agricultural society; and the gardeners, their flower-shows. *Castlemaine*, seventy-three miles on the Northern Railway from Melbourne, with 10,000 inhabitants, and *Sandhurst*, thirty miles beyond on the same line, with 13,000, are the next most advanced towns called into existence by the golden soil of the neighbourhood. Prior to its discovery their sites were only visited by a few shepherds, stockmen, and natives. The latter, in the entire colony, probably do not exceed 1500 persons. One of them figured by her handiwork at the Exhibition of 1862, as 'Her Majesty, Mary Queen Dowager of the Bacchus Marsh and Melton Tribe of Natives.' The article exhibited was a basket made of Victorian grass in her leisure hours.

IV. SOUTH AUSTRALIA.

This province, immediately to the west of New South Wales and Victoria, has a maritime frontier on the south, and artificial lines for its inland limits, the meridians of 132° and 141° east longitude, and the parallel of 26° south latitude. These boundaries include a considerable portion of unprofitable country, consisting of scrub, sandy or stony tracts, with saline mud-lakes. But there is a sufficient range of admirably fertile soil to sustain a numerous population, chiefly situated on the south-eastern side. A coast-line of more than 1500 miles falls to the share of South Australia, owing to two deep indentations which interrupt its continuity, for the direct distance between the meridional lines which form the eastern and western frontiers does not measure half that extent. One of these great oceanic inlets, the Gulf of St Vincent, is forty miles wide at the mouth, and runs up into the land about a hundred miles in a northerly direction, gradually narrowing towards the upper extremity. It has deep water throughout, no hidden dangers, and the settled districts are chiefly on its shores. The gulf is well protected from the roll of the Southern Ocean by Kangaroo Island, which lies off the entrance, and forms with the main coast the channels of Investigator Strait and the Backstairs Passage. The former is the route of ships between Adelaide and Europe; the latter for vessels to or from Sydney, Melbourne, and Hobart Town. The island, of large size, received its name from the number of kangaroos found by its early visitors on the surface, which, never having been disturbed by man, were so tame as to allow themselves to be approached and knocked down like sheep. It was selected by the founders of the colony for their first location, but speedily abandoned for the mainland, where a tall thorny bush is now cultivated, originally confined to the island, which makes excellent hedges on the farms. Spencer's Gulf, the second opening, much more extensive, is west of the preceding, separated from it by York Peninsula. This narrow tract was only known a few years ago as a region of sheep-runs, but has now its Cornish miners developing the richness of the ores of copper.

Though without the bold mountain features of the sister-colonies to the eastward, the surface is diversified with hilly ridges and gently-undulating grounds, pleasant valleys intervening, and great alluvial plains lying at their base. A range of high lands runs parallel to the east coast of Gulf St Vincent through its whole extent, of which the principal summits are Mount Lofty, with an elevation of 2334 feet, at the back of Adelaide, with Mounts Arden and Brown, further north, each rising to the height of 3000 feet. There is no lack of stately and beautiful timber in the settled districts, generally arranged in clumps, but the want of running water is severely felt in the summer season. The Murray has the lower part of its course within the province, but the river enters it to come to a somewhat ignoble end, after a long and useful ministry. It discharges in Lake Alexandria, a vast expanse of shallow water, which communicates with the sea by a

narrow channel, not navigable, except by boats, and highly dangerous from the violence of the surf. The colony has no other permanently flowing water, rivers, or lakes. But there are numerous streams full to the brim and overflowing during the winter rains, and in most places, water is to be obtained by sinking wells to the depth of from twenty to a hundred feet, and often much nearer the surface. This spring water has frequently a brackish taste, derived from the aluminous nature of the sub-soil, not agreeable to new-comers, but there is nothing unwholesome in its quality, and after a time a predilection for it has been acquired. For nine or ten months of the year the climate is highly agreeable, the weather fine, and the sky gloriously serene. On the coldest days, which are in July, the thermometer seldom falls below 48°. Snow is unknown, and frost nearly so. A thin ice is only to be witnessed in the hilly districts, and is there a very rare occurrence. The only unpleasant season is the middle of summer. December and January, when the heat is formidable, and the north wind blows at intervals with a fiery temperature, carrying along with it particles of hot impalpable dust.

A large portion of the country is occupied for pastoral purposes, and wool is a principal export. The great plains between the coast and the range of hills at the back of Adelaide are the chief agricultural districts, where wheat of the finest quality is raised. It has been sent to the English market and shipped to Singapore, but the surplus is now absorbed by the increased population of Victoria and New South Wales. In an early stage of the settlement, when hands were few and crops were heavy, ladies and gentlemen turned out, armed with sickles and some with scissors, to save the standing corn. The military and police also formed in rank to attack the fields white unto the harvest; yet in spite of every effort many acres of wheat rotted on the ground. This led to the invention of the reaping-machine by Mr Ridley, an ingenious colonist, manufactured at Adelaide. Driven by bullocks or horses through the standing corn, it plucks off the ears, beats the grain from the husks, and winnows the produce as it proceeds. A handsome silver candelabrum was presented by the colonists to the inventor, which appeared at the Exhibition, London, in 1862. The choicest fruits are grown in astonishing profusion. Great attention is now paid to the culture of vine for wines. The vines in bearing number nearly 3,000,000, and there are about as many not yet in bearing. A thousand tons of table grapes are annually sent to Melbourne by steamer. Single bunches weighing from nine to twelve pounds are not uncommon. Though no gold discoveries of consequence have been made, the useful metals are in vast abundance. Copper, lead, iron, tin, antimony, and manganese occupy a large but unknown area, with the earthy minerals, jasper, agate, chalcodony, opal, and other varieties. Of these, copper is the most important product from its quantity and quality, obtained in the first instance more by quarrying than ordinary mining. The ores are the common sulphurets, the blue carbonate, the red oxide, and the green carbonate or malachite, of which splendid specimens have been found.

South Australia received the first band of colonists in 1836, who, after a temporary abode in Kangaroo Island, established themselves on the plains of Adelaide. They numbered about 300, and have since been multiplied to 136,000 by the successive arrival of immigrants of the steadily industrial class, with persons of capital. The governor, appointed by the crown, is assisted by two chambers—the Upper of eighteen, and the Lower of thirty-six members—all elective. The members of the Upper House are returned by voters in possession of certain property qualifications, and those of the Lower by universal suffrage.

Adelaide, the capital, occupies an inland site four miles from the nearest point of St Vincent's Gulf, but seven miles from the harbour, or Port Adelaide, with which it is connected by railway. In the opposite direction rises the beautifully wooded range of Mount Lofty, the highest summit of which has been stripped of its trees, and surmounted by a flag-staff as a signal-station. The city contains a population of 20,000, grouped upon either side of the Torrens, an impetuous stream in the rainy season, but a series of detached ponds through the greater part of the year. Both divisions are separated from the immediate banks by a belt of ground planted with trees, reserved for public recreation; and are further environed by a common demesne for the same purpose, called the Parklands. The town on the southern side is Adelaide proper, by far the most important section, containing the government offices and the seat of commerce, while North Adelaide consists principally of the private residences of the wealthy. These have a very beautiful appearance, furnished with verandahs covered with climbing plants, nestling in flower and fruit gardens, in which brilliantly-coloured birds sit to and fro. The city is under municipal government, and has recently been lighted with gas. The exchange, post-office, court-house, banks, churches, and chapels are highly creditable buildings. But few of the latter are supplied with clocks, and there is said to be in the country districts no church or chapel possessing an organ or a peal of bells. Norwood, Richmond, Kensington, and Islington are

pleasant suburban villages. Glenelg and Brighton are marine retreats on the coast, with good beaches. *Port Adelaide*, on the shore of a sheltered creek, is accessible to large vessels, and furnished with every convenience for shipping. Lines of rail are laid down from the principal wharves to the terminus of the city and port railway.

A northern railway, fifty miles in length, leads from the capital to *Kapunda*, the largest provincial town, a mining site and an agricultural centre. The first discovery of mineral wealth in the colony was accidentally made here in the year 1842. While gathering wild-flowers, a youth had his attention arrested by a peculiar appearance of the ground, which might have been mistaken for a tuft of vegetation from its brownish-green hue. But taking home a specimen, it was recognised as green carbonate of copper cropping out from the surface. About the same time, near the spot, Mr Dutton, a well-known South Australian, while looking after his stock, noticed an apparently moss-grown shattered rock, but was sufficiently acquainted with mineralogy to detect the metallic character of the mass. Keeping their secret, the two parties readily obtained possession of eighty acres of the ground, at the fixed government price of 20s. per acre. But at a subsequent period, wanting an additional hundred acres, they had to pay £2120 for the allotment, the quality of the land having transpired. The property has been a splendid fortune to its possessors. For the original site, which cost only £30, the enormous sum of £27,000 was offered and refused in London. *Koorinqua*, farther north, is the market-town of the Burra-Burra Mine, of world-wide notoriety for its produce. Though copper ore was here found at the surface in large masses of many thousand tons-weight, a squatter had been living and folding his sheep on the ground without detecting its presence. Upon the discovery being made in 1845, a company was formed at Adelaide for the purchase of the land. An original £5 share has since been a small independence. The table of malachite from the Burra Burra, at the Exhibition of 1862, completely eclipsed the famous Russian door which attracted so much admiration at the Exhibition of 1851. More than 1100 workmen are employed, who have attracted an agricultural and trading population exceeding 8000, all engaged in ministering to the necessities of the miners. The quantity of ore brought to the surface in the first twelve years amounted to 126,281 tons, valued at £1,712,370, which, after deducting the cost of production, yielded a net profit of 63½ per cent. For some time the miners and their families lived in subterranean tenements, which they scooped out in the sides of the Burra Creek. These cave-dwellings were made astonishingly comfortable. They frequently contained several rooms, fire-places, good furniture, neat prints, and ornaments of polished malachite, with specimens of copper ores. But they sometimes proved a snare to strangers, who tumbled into the holes which were the chimneys of the inmates. Occasionally also great floods occurred, when the stream rose high enough to enter the family mansions, dislodge the occupiers, and spoil the interior. They have therefore been abandoned for habitations in the upper air. *Kadina*, at the Wallaroo mines in York peninsula, has risen up since 1860, when the great metallic wealth of the district was discovered. The site is six miles from Wallaroo Bay, the shipping-place, connected with it by railway. Handsome stone-houses testify to the confidence of the inhabitants in the permanent prosperity of the new township. The want of springs in the district is the great disadvantage, for even the water brought up in the mines is salt, and hence recourse is had for fresh water to distillation, and the storing of the rain in tanks.

The names of pleasant villages in various parts of the colony proclaim the mother-country of the settlers. Nairne and Strathallyn recall Scotland. Wakefield, Saddleworth, and Macclesfield revive the memory of England. In like manner Klemzig, Hansdorf, Lobethal, Langmeil, the German Pass, and the Rhine rivulet indicate the Germanic origin of the inhabitants. These colonists have built their houses on the plan of those in their fatherland. They contrast agreeably with the general style. Klemzig, three miles from Adelaide, is said to be as thoroughly Prussian in its aspect as if it had been transported entire from that country.

V. WESTERN AUSTRALIA.

Though by far the largest colony, and the second in point of date, WESTERN AUSTRALIA, formerly called the Swan River Settlement, is the least important, having through mismanagement in the early stages of its history encountered a series of disasters which brought it into disrepute, and prevented immigration after the real difficulties had been surmounted. Recently also, or since 1850, it has been made a penal settlement; and this measure cannot fail to restrain the influx of the well-disposed, while a cause of strife between the home-government and the other colonial dependencies. The vast territory embraces the whole country between the meridian of 129° east and the Indian Ocean, 800 miles from east to west, 1300 miles from north to south, comprehending a coast-line of 4000 miles. But these gigantic proportions are merely nominal, as the greater part of the surface has never been explored, and the range of settlement is limited to a comparatively small south-western section on the Swan River and King George's Sound, where the entire white population is under 16,000.

The settled districts have no high mountains, large rivers, deep gulfs, or good harbours. Though the coast-

line has many inlets, they are all more or less encumbered with sand-banks at their entrances. Grassy downs are prominent in the general surface, occupied as sheep-runs, but some localities have poisonous plants among the herbage which are hostile to pastoral husbandry. The sameness of the downs is broken occasionally by hills of moderate elevation, yet steep and rocky, covered with magnificent woods. Timber is one of the most valuable products. It embraces the fragrant sandal-wood, and the raspberry-jam tree, one of the Eucalypti, so called from the similarity of its scent to that article of confectionary. The jarrah-wood, remarkable for its strength and endurance, defies alike the attacks of the white ant and the augur worm, and preserves from corrosion any iron which passes through it. Large quantities are therefore exported to the eastern colonies and to India, to serve for railway-sleepers, piles, and all other purposes demanding special durability under exposure to weather or water. But a considerable extent of land is under cultivation, on which grain crops, grasses, olives, and tropical fruits are raised. Over an area of at least 4000 square miles, copper and lead ores are known to be distributed in various places, and mines are successfully worked. Whales abound on the coast, and the whalebone and oil are staple exports. Horses are likewise bred for the use of the Indian cavalry. *Perth*, the seat of government, an inconsiderable town, is on the north bank of the Swan River, eleven miles above its port, *Freemantle*, where the principal convict establishment is situated. *Albany*, a mere village on King George's Sound, is the calling station of the Australian mail-steamers, having the best harbour in the colony.

VI. TASMANIA.

This fine and fertile island is an outlier of the south extremity of Australia, in much the same manner as Ceylon outlies the mainland of Southern India. It is separated from Victoria, the nearest adjoining province, by Bass's Strait; extends about 180 miles from north to south, by 160 from east to west; and contains an area of 22,600 square miles, less than three-fourths of the area of Ireland. The surface exhibits every variety of mountain, hill, and dale, of forests and open meadows, of lakes, rivers, and inlets of the sea, forming safe and commodious harbours, that can render a country valuable or agreeable; and being at a higher latitude than the Australian mainland, with no part distant from the sea, it enjoys a more temperate climate, akin to that of the south and south-west coasts of England, but less subject to changes. Government Hut, the highest habitation, on the central downs, is 3949 feet above the level of the ocean; Mount Wellington, at



Swan River.

the back of Hobart Town, rises 4195 feet, cloud-capped in summer, snow-capped in winter, throwing its grand shadow, as the sun declines, right across the city and harbour; the craggy greenstone peak of Ben Lomond, in the north-eastern section of the island, attains the height of 5000 feet; and Mount Humboldt, in the south-western, 5520 feet.

From the precipitous sides of Ben Lomond the streams of the North and South Esk descend, and unite to form the Tamar, which has a northerly course to Bass's Strait, where it forms Port Dalrymple. The Derwent, the other principal river, issues from Lake St Clair, on the high central downs, and flows in a south-easterly direction, entering the sea at Storm Bay. It previously spreads out into a noble estuary several miles wide, navigable by ships of the largest size. The valley of this river is remarkable for its erratic blocks, composed of cylindrical columns of basalt, confusedly heaped together, with a detritus of pebbles; and also for its fossil-trees, which appear to have been coniferous, occur exposed on the plains and vertically imbedded in rocks, with the structure of the woody tissue retained in a very perfect manner. The native vegetation corresponds generally to that of Australia, consisting of gums, acacias, mimosas, pines, and myrtles; but it is more luxuriant, owing to greater moisture. Forests not only furnish valuable timber for building purposes, but ornamental woods in great variety, among which that of the myrtle-tree is remarkable for the beauty of its veins, as well as the dog-wood, pink-wood, and musk-wood, for rich and varied tints. Coal is known to exist in large quantities, with ores of iron, copper, and lead. The indigenous animals correspond to those of the neighbouring country, but are rapidly thinning, especially those of the destructive class, being perseveringly hunted. The dingo has already been exterminated. Two species linger in reduced numbers which are formidable to the flocks—the hyena-opossum, or local 'tiger;' and an animal of the same genus, the 'devil' of the colonists, of small size, but singularly fierce, strong, ugly, and untamable. The native inhabitants are all but extinct.

The island, formerly called Van Diemen's Land, received that name from its first visitor, Tasman, the Dutch navigator, in honour of Anthony Van Diemen, the governor of Batavia, who fitted out his expedition; but posterity has appreciated the merits of the discoverer, by substituting a denominative derived from him for the one referring to his patron. Criminals, with their guards, formed the first white population. They were sent out from Sydney in 1803. Successive batches of the same class arrived from the mother-country, many of whom, upon the expiry of their sentences, spread themselves over the interior. Military officers serving at the station also settled on grants of land, and free emigrants poured in, invited to the island by the fineness of the climate, the fertility of the soil, and the beauty of the landscapes. In 1825 the settlement was released from its connection with New South Wales, and declared to be an independent colony; and in 1853, after an existence of half a century, transportation to its shores ceased, owing to the determined opposition of the colonists, who formed a numerous, intelligent, and wealthy community. Tasman's Peninsula, a tract of singular conformation, at the south-east extremity of the estuary of the Derwent, was devoted to the more desperate criminals, admirably adopted to keep them in durance. It is surrounded on every side by the sea, except at the connecting isthmus of Eagle Hawk Neck, a narrow natural causeway, where a military guard was stationed, strengthened by a chain of dogs, to bar all egress and ingress. In the vicinity of the isthmus is Tasman's Arch, a bridge of nature's construction, spanning a deep chasm open to the sea, in which the surf thunders, and throws its spray high into the air in tempestuous weather. The peninsula terminates to seaward with Cape Pillar, an abrupt basaltic rock, whose tall upright columns bear a resemblance to the pipes of a huge cathedral organ.

At the time of its first colonisation by the whites there were a few thousands of natives, of the same race, language, and habits with those of Australia. In 1830 an attempt was made by the government to capture them, with a view to their protection and preservation, but it was not successful. At length the survivors surrendered in despair, and were humanely treated, fed, clothed, provided with medical aid, and established in Flinder's Island, as a suitable location for them. In 1835, the epoch of their deportation, they numbered 210 persons; in 1842 these were reduced to 54; and in 1848 to 45, consisting of thirteen men, twenty-two women, and ten children. The unfortunates were then removed to a station at Oyster Creek, on the south-east coast of Tasmania, prepared for them by the colonial authorities, where they had dwindled down to eight persons by the close of the year 1861.

The colony of Tasmania is divided into counties, rural municipalities, and police districts. It contained in 1861 a population of nearly 90,000, chiefly engaged in

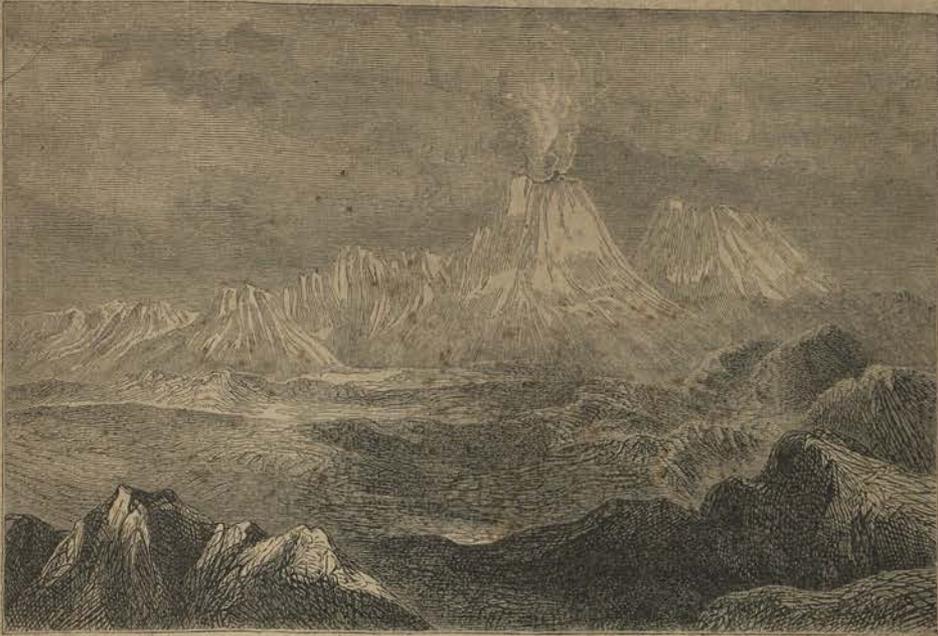
agriculture, but wool is raised for export, and the whale-fishery is prosecuted with great spirit all the way to the Antarctic Ocean. Public interests are superintended by a governor, a legislative council, and house of assembly.

Hobart Town, the capital, contains 19,000 inhabitants, and is conveniently situated on the right bank of the Derwent, about twelve miles from the sea. The harbour is easy of access, well sheltered from all winds; and the scenery of the neighbourhood is very striking. The range of Mount Wellington, bristling with fine trees and underwood, forms a grand background to the town, close in its rear, wearing a winter diadem of snow. An ice-house is established near the summit. Mount Nelson, nearer the sea, is a signal-station commanding a delightful view of isles, isthmuses and peninsulas, wooded and cleared uplands, the river, the harbour, and the town, with the numerous villas in shady seclusions which form the suburbs. At the chief telegraph-office a blue flag is hoisted when it is known that the English mail has arrived at Adelaide. The sailing distance from Melbourne is about 300 miles, from Sydney 800, and from Adelaide upwards of 1000. A Parliamentary Library, of 7000 volumes, is open to the public on the order of members during the recess. *Launceston*, at the head of the estuary of the Tamar, contains a population of 10,300. It forms a kind of provincial capital for the north division of the island, and as the nearest port to the Australian mainland it is much used for commercial and passenger intercourse with the other colonies. The two towns, 121 miles apart, are connected by an excellent turnpike-road, which is traversed by stage-coaches in well-appointed style. This is the main artery of the country, leading through the best part of it from south to north, and passing by or near some oddly-named places, Brighton and Bagdad, Jericho and Jerusalem, the Jordan and the Styx.

Tasmania, in its longest settled and most cultivated districts, has perhaps a more thoroughly English aspect than any of the other foreign possessions of the empire. There the fruit-trees, shrubs, plants, and flowers of our temperate clime, to which the heat and aridity of Australia are fatal, or which can only be raised as impoverished specimens, thrive luxuriantly, owing to the cooler air and moister soil, and seem to benefit by the transportation. Broad patches of the scarlet geranium colour the landscape; hundreds of yards of fuchsia bloom; hedges of sweet-brier appear in the town-gardens and country enclosures, decked with delicate roses; closely-clipped mint-borders supply the place of box; the hawthorn, only known to the Australian as a rare exotic, forms impervious fences upwards of twenty feet high; and to the casual English visitor the yellow gorse upon the downs looks like home.



Hobart Town.



The Punice Hills, New Zealand.

CHAPTER IV.

POLYNESIA.

I. NEW ZEALAND. II. MINOR ARCHIPELAGOES.



POLYNESIA, 'Many Islands,' is simply a term of convenience used to denote the insular tracts of Oceania, eastward of those occupied by tribes of dark aborigines. They are inhabited by a race of brown complexion, allied in features to the Malays, who speak dialects analogous to their tongues, and are hence frequently styled Malayo-Polynesians. With one prominent exception, these islands are separately small. They vary in their aspect and structure from the mountainous and volcanic to the low and coralline; are arranged in groups and chains; and are most numerous in a belt of the South Pacific, between the parallel of 10° and the southern tropic. But the exception referred to, or New Zealand, lies considerably apart from these limits, and probably embraces in itself an area nearly equal to twice the

aggregate of the remainder.

I. NEW ZEALAND.

The British colony of NEW ZEALAND consists of three principal islands, the North, the Middle, and the South, arranged in a curving chain, situated between latitude $34^{\circ} 15'$ and $47^{\circ} 30'$ south, and extending in longitude from 166° to 179° east. They are about 1200

miles to the south-east of Australia, nearly midway between the Cape of Good Hope and Cape Horn, and make a close approach to the antipodes of the United Kingdom. Estimates of the area by recent authorities are considerably higher than those formerly given. The Middle Island, much the largest, is supposed to contain 72,000 square miles, and forms a tolerably regular oblong. The North Island, separated from it by the noble channel of Cook's Strait, is the next in size, embracing 42,000 square miles, and is remarkably different in its outline, being singularly torn and contorted. The South Island is comparatively very small, and wholly unimportant. Following the sinuosities, the shores have a total length of not less than 4000 miles, and exhibit a succession of bays, creeks, coves, and estuaries, adapted to form some of the finest naval and commercial harbours in the world.

Essentially of volcanic formation, the interior is largely a highland country. It contains many extinct craters, surrounded on all sides with scorie, bearing witness to fiery explosions in bygone times. They are specially prominent in the North Island, where the still active volcano of Tongariro, towards the centre, rises to the height of 6000 feet, but is overtopped by its quiet neighbour, Mount Ruapahu, which, being crowned with perpetual snow for some distance from the summit, has probably an elevation of 9000 feet.

Loftier mountains are in the Middle Island. Warm lakes and pools, with springs in a state of ebullition, forming beautiful geysers, sending off clouds of steam, are further evidence of the existing action of subterranean heat. Earthquakes are likewise of frequent occurrence; but though occasionally alarming, they have not been calamitous during the term of colonial experience, nor do the natives appear to have any tradition of destructive visitations. Broad valleys are associated with the highland ranges, but long, narrow, and deep sequestered dales are far more general, with which grassy plains are at intervals intermingled. Valley, dale, and plain are alike amply irrigated with river, brook, or rill, running in currents of the clearest and softest water over pebbly beds, not unlike the trout and salmon streams of England and Scotland. The native vegetation includes dense and extensive forests of evergreen trees, supplying serviceable timber. Some species flower abundantly in summer, and, with their dark-green massive foliage, render the forest scenery strikingly beautiful. Native flax, obtained from the fibres of a large leaf, forms a valuable substitute for hemp and real flax, and is a material for cordage and canvas. The woods are remarkably still, as the indigenous forms of animal life are extremely limited, both as to species and individuals, not only in relation to quadrupeds, but to birds and even insects. No venomous reptiles are known. Hares, rabbits, fallow deer, pheasants, partridges, and some song-birds have been introduced; and rewards are offered by an Acclimatisation Society for the further import of healthy pairs of black-birds, thrushes, skylarks, and others, not forgetting the cuckoo. Coal of good quality is widely distributed; gold to an important amount is obtained from the Otago diggings; iron, lead, tin, copper, are known to occur; but agriculture, sheep, and stock-farming have hitherto proved so advantageous to the majority of the colonists, that the mineral stores beneath the productive surface have been only feebly illustrated. Ranging through a considerable extent of latitude the climate varies, being warmer in the far north than in the south, but it is exempt throughout from the extremes of heat and cold, bracing and salubrious. Heavy rains distinguish the mid-winter in July on the plains; snow falls plentifully among the hills; and boisterous winds are more prevalent throughout the year than in England, though not more violent, while the fine days are more numerous.

The colony comprehends nine provinces, and contains a white population of nearly 200,000, rapidly augmented during recent years by the influx of gold-diggers from

Australia. It is under the jurisdiction of a governor appointed by the Crown, with a nominated legislative council of twenty-four members, and a house of representatives of fifty-three elected by the people.

New Zealand was discovered by Tasman in 1642, who seems not to have landed, but merely to have seen and named the north extremity. Captain Cook, in 1770, went round the islands, illustrated the shores with great accuracy, and passed through the strait which bears his name, taking possession of the territory for Great Britain. An aged native, recently alive, had a distinct remembrance of the landing of the great navigator in Mercury Bay. About the year 1814 the Church Missionary Society established a station on the east coast of the North Island, favoured by various chiefs. Under similar protection, in 1822, the Wesleyans established themselves on the west coast; and in 1839 a Colonisation Society was formed in London for the purpose indicated by the name. But in 1840 a treaty was concluded with the native chiefs, by which the sovereignty was ceded to the British Crown, while full possession was guaranteed to them of their lands and forests, so long as they desired to retain them. In the following year New Zealand was proclaimed a British colony.

	Provinces.	Chief Towns and Settlements.
North Island.	Auckland,	Auckland, Onehunga, Kawhia.
" "	Taranaki,	New Plymouth.
" "	Hawke Bay,	Port Napier.
" "	Wellington,	Wellington, Wanganui, Greytown.
Middle Island.	Nelson,	Nelson, Waima, Spring Grove.
" "	Marlborough,	Picton, Blenheim.
" "	Canterbury,	Christchurch, Lyttleton, Kaiapoi.
" "	Otago,	Dunedin, Port Chalmers.
" "	Southland,	Invercargill, Campbell Town.

Auckland, the seat of government, is the largest and best built town, lighted with gas, and containing a population of 8000. It has a completely landlocked harbour, studded with islands of various size and form, with a main shore broken by numerous deep bays and projecting headlands. A regular mail-service by a powerful steamer is established with Sydney, and coasting steamers leave the harbour at stated times for the southern settlements. Picturesque spots in the suburban district are occupied by neat-looking private houses. For some distance the ground has been thoroughly cleared for cultivation, or laid down in permanent pasture; and owing to the removal of trees of foreign aspect, the country has all the appearance of a home-like English landscape. In every direction may be seen grass and clover paddocks, not divided by temporary posts and rails, but substantially fenced with stone walls or hedges of whitethorn and furze. The soil is volcanic. Not less than from twenty to thirty extinct craters are in sight from the town; but only of very moderate elevation. The port is supplied with everything requisite for the refitting and victualling of ships; but on account of some local disadvantages, chiefly the position towards the north extremity of the colony, it is understood that a more central town will be selected for the capital. The province contains Albertland, recently constituted a special settlement of Congregationalists. *New Plymouth*, on the coast, is small and rustic-looking, snugly planted on the margin of the beach, but lacks the accommodation of a harbour. The snow-crested Mount Egmont, rising to the height of 8000 feet, is a grand object in the vicinity. The province contains by far the greater part of the native population. *Wellington*, the oldest established settlement, is seated on the fine inlet of Port Nicholson. It contains good shops and warehouses, banks, clubs, building societies, a chamber of commerce, and communicates with the neighbouring district by roads equal to any in the mother-country.

Nelson, on the northern side of Middle Island, is situated on a sheltered harbour, almost a lake, at the bottom of an inlet called Blind Bay, and has a population approaching to 4000. Protected from rough winds by a semi-amphitheatre of lofty mountains, the climate is charming and the scenery picturesque. A cathedral-looking church, prominent over the white wooden houses, with nursery-grounds, hop-plantations, and patches of vineyard in the environs, are pleasant features of the place. The town is the seat of a copper-mining company, whose mines are on the Dun Mountain, reached by a tramway of twelve miles, which ascends to the height of 4000 feet. A good macadamised road, between a growth of tall hedges, leads to Richmond, which boasts its 'Star and Garter' equally with its namesake in England. *Christchurch*, some miles inland from its port town, *Lyttleton*, contains about 5000 inhabitants, and has accommodation for a much greater number. The Canterbury province, of which it is the head, occupied by the first batch of settlers in 1850, was intended to be strictly a Church of England territory. But in a very short time it was found necessary to abandon the principle of ecclesiastical distinction, and admit all parties irrespective of their religious profession. The town stands on either side of the Avon, the banks of which are lined with bulrushes of enormous growth, and high tufted grass, with which the flax-plant intermingles. The stream is beautifully clear, and abounds with fish. *Christchurch* rapidly assumed a good and stirring appearance, put up street-lamps, provided cabs, established iron-foundries, an agricultural implement manufactory, a pottery, brick-yards, nursery-grounds, and well-stocked shops. *Dunedin*, founded by members of the Free Church of Scotland, is about twelve miles distant from *Port Chalmers*, so called after their illustrious divine,

the leader in the Free Church movement. The two towns contain between them upwards of 7000 inhabitants. A great impetus was given in 1861 to the province in which they are situated, Otago, by the discovery of gold-fields, which have been very profitably worked.

The New Zealand aborigines, or the Maories, as they style themselves, were fierce savages in the early stages of European acquaintanceship with them, and many retained that character down to a recent date. They drank the blood of their enemies as it flowed



Boiling Lake of Rota Mahana, New Zealand.

on the battle-field, and feasted with avidity upon their dead remains baked in ovens scooped in the earth. The last known instance of cannibalism occurred about the year 1843, in the case of Taraia, an old chief, who subsequently abandoned the barbarism of his ancestors, and cultivated friendly relations with the whites. A large proportion of the natives have more or less adopted the habits of civilised life, and till the soil according to European methods, bringing the produce to market as regularly as the peasants of other lands. The men are tall, muscular, and well proportioned. They vary in colour from olive to dark brown, have glossy black curling hair, and are not unlike burly, well-bronzed gipsies. The women are generally inferior. Marrying early, and performing a large amount of field-labour, they soon become bent, are old at forty, weird and witch-like at sixty. Extremely sensitive on all points affecting their personal consequence, and doubtless often justly aggrieved, while mistaking the intentions of their neighbours, the Maories have signalled their independent spirit and bravery by a series of bloody and sometimes perilous wars with the colonists. They are nearly all now in the North Island, and number about 56,000, but are rapidly diminishing, and seem destined to extinction as a pure stock, being represented only by a race of half-breeds. If ever the historic vision is realised, of a New Zealander sketching the ruins of St Paul's from a broken arch of London Bridge, it may be confidently predicted that he will have Anglo-Saxon blood in his veins.

The New Zealand region includes several insular groups and solitary isles. Eastward, at the distance of about 350 miles, are the CHATHAM ISLANDS, enumerated as a colonial dependency. They were discovered by Lieutenant Broughton, in 1791, in the brig *Chatham*, and are visited occasionally by sealers and whalers. The islanders numbered upwards of 1000 harmless natives in 1830, but have since been brought to the verge of extinction by barbarous aggression from the New Zealanders. ANTIPODES ISLAND is on the south-east, discovered by Captain Pendleton in 1800, and so called from being the nearest land to the antipodes of Greenwich. It is in latitude $49^{\circ} 40'$ south, and longitude $177^{\circ} 20'$ east. The AUCKLAND ISLANDS, on the south, are entirely volcanic, of wild appearance, but densely clothed with vegetation, and are valuable as a whaling station for the purpose of refitting and refreshment. They were discovered by Captain Bristow in 1806, who introduced the domestic pig, now found wild in great numbers. The Antarctic Expedition under Sir James Ross, in 1840, added sheep and rabbits to the live-stock; and several kinds of edible vegetables. A permanent settlement was commenced by a whaling company in 1849, but was subsequently abandoned.

II. MINOR ARCHIPELAGOES.

1. Friendly Islands. 2. Samoan Group. 3. Austral and Cook's Islands. 4. Society Islands.
5. Low Archipelago. 6. The Marquesas.

These groups are included between the meridians of 130° and 175° west, and occupy the southern part of the torrid zone. They have therefore a hot climate, but it is seldom oppressive, and generally salubrious, as the high temperature is modified by a vast expanse of ocean on all sides, and exposure to the sea-breeze. The natives are a branch of the Malay family; have pleasing features, are naturally intelligent, and expert in various domestic arts; have learned English, and been taught the rudiments of general knowledge. Yet, notwithstanding the check put by the change upon infanticide and murderous wars, formerly prevalent, their numbers have greatly diminished from the introduction of foreign diseases. The indigenous vegetable productions include tree-ferns and esculent roots, the cocoa-nut and coral-tree, the bread-fruit, plantain, and pandanus, while the sugar-cane, tobacco and cotton plants, with all tropical fruits, flourish in the islands to which they have been introduced. When first visited by Europeans, no quadrupeds were seen but the dog and hog; and no reptiles are known but a harmless kind of lizard. Annually, in certain strictly-defined and limited localities, in the seas close to the shores, the annelidan, *Palolo viridis*, appears in prodigious numbers, under the government of some mysterious law. These gelatinous creatures are seen with the early dawn, and vanish soon after sunrise. The natives are on the look-out for them in their canoes, as the annelidan is a prized delicacy, is eaten by them raw, and held as the Italians do their macaroni. At certain periods also, generally at the full and change of the moon, the land-crabs march out of the bush in myriads to take a dip in the sea, and crawl back again, unless captured on the way, as they likewise are relished fare. Hurricanes are of frequent occurrence, as well as earthquakes, but only the former are experienced with destructive effects.

The FRIENDLY ISLANDS, intersected by the meridian of 174° west, are immediately east of the Fiji cluster. The name originated with Captain Cook, and arose from the hospitable bearing of the natives. They are frequently styled the Tonga group, from the principal member of the Archipelago, Tongataboo, or Sacred Tonga, which is about twenty miles long, by ten wide in the broadest part, and nearly a dead level. Others are high and of volcanic origin, but the majority are coralline. One has an active volcano. Including those of the small class, there are not less than 180 islands, but only about thirty are inhabited. The natives are almost all Christians, united under the government of a Christian chief, King George. They are deemed the flower of the Polynesian race. Admiral Wilkes, the American commander, affirmed that there were few spots on the face of the earth where such a number of handsome people could be seen together as in Tonga. The men are tall, have fine intelligent features, and are of a light-brown complexion.

The SAMOAN, also called the NAVIGATORS' ISLANDS, are on the north-east, and received the latter name from Bougainville, who considered the canoes of the natives of superior construction, while very dexterously handled. But in neither respect is any special distinction warranted. There are four principal islands, with many of smaller size, hilly and volcanic, fertile and beautiful. Savaii, the largest, is forty miles in length by twenty in breadth. Another, Tutuila, has Massacre Bay upon its shore, where eleven officers and men of La Perouse's expedition perished in 1787. An outlier of the group has the ominous name of Danger Island. Here, upon a coral-reef, the missionary ship, *John Williams*, built at Harwich, was totally wrecked, in May 1864, after eighteen years of active service. Population of the group about 56,000. The Samoan islanders

are under the government of confederate chiefs. They are largely Christian converts, contribute to sustain many chapels and schools, with a printing-press and an institution for the training of native teachers. The natural history includes a rare bird, *Didunculus strigirostris*, of dodo-like form. It is one of the pigeon family, with very brilliant dark-blue plumage, nearly extinct, owing to the cats which are now wild in great numbers on the mountains.

COOK'S ISLANDS, a somewhat scattered series, named after the great navigator who discovered them in 1773, are under a more easterly meridian, all lofty and volcanic, but of inconsiderable size. One of them, Rarotonga, was for many years the mission-station of Williams; where he officiated as preacher, teacher, husbandman, builder, and blacksmith, ready for all work likely to be useful. The AUSTRAL ISLES, on the south-east, have the name from their position under the line of the southern tropic. They are insignificant specks with a scanty population, but one of them, Toobouai, surrounded by a coral-reef on which the surf beats violently, is of interest from its temporary connection with the mutineers of the *Bounty*. This vessel was despatched to Tahiti in 1787, under Captain Bligh, in order to obtain plants of the bread-fruit tree, and other vegetable productions of value, for introduction to the West Indies. During a stay of eight months, the greater part of the crew became demoralised, and resolved on mutiny. After turning the captain and officers adrift in a boat, who, by singular good-fortune reached the Dutch settlement at Timor, the mutineers made their way to Toobouai, but were finally obliged to quit it by the hostility of the inhabitants. Returning to Tahiti, some of them settled there, but in a few years were apprehended by the British government. The rest, accompanied by a number of native men and women, sailed away, and no account was heard of them for nearly twenty years, when obscure reports were circulated of their existence in PITCAIRN'S ISLAND.

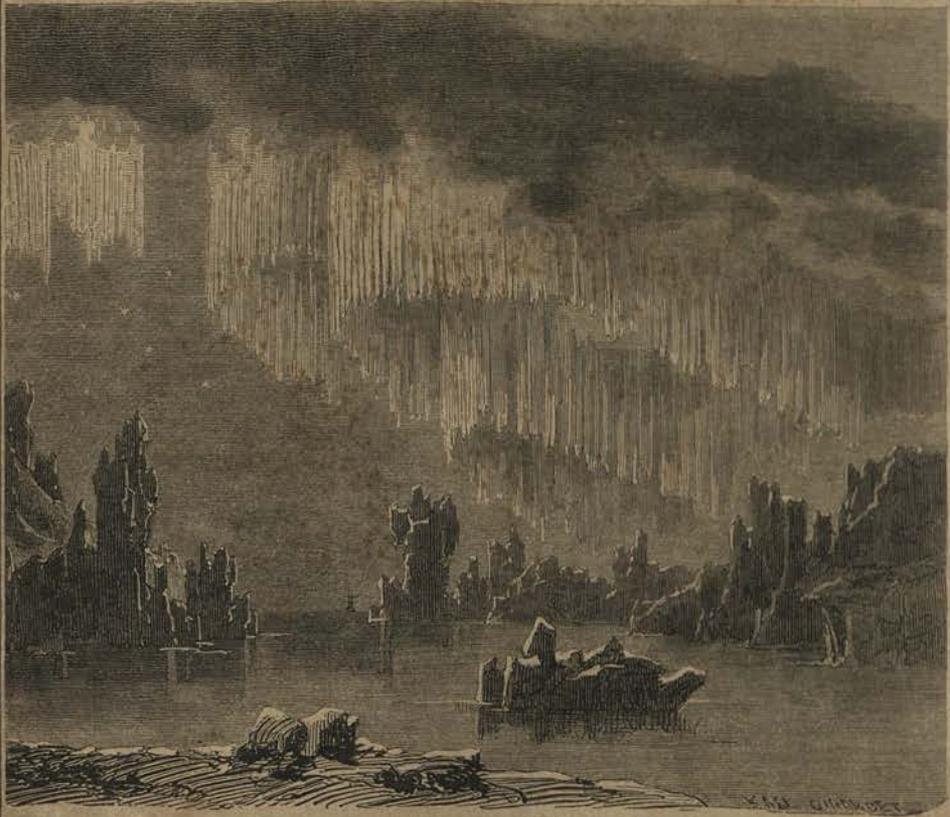
This spot, very small and solitary, far to the eastward, was first sighted by a young officer of the name of Pitcairn, on board Captain Carteret's ship, the *Swallow*, in 1767. It appeared like a great rock rising out of the sea, covered with trees, but without any appearance of inhabitants. The surf, which broke with great violence on every side of it, forbade a landing. Here the remnant of the mutineers sought a retreat under the guidance of a leader more intelligent than the rest. It was well adapted for their purpose; approach was difficult; it was not occupied; there was a supply of fresh water; and the trees shewed it to be fertile. They found indeed everything which could well be desired from external nature, and, after many social vicissitudes, gradually became a remarkably moral and respectable set. Their islet, of volcanic formation, only two miles long by one broad, having become too confined for their growing numbers, their descendants were removed by the British government, with their own consent, to Norfolk Island, as a more convenient location. There they retain their uniform virtuous behaviour, and the primitive simplicity of their tastes and habits; have a chaplain, schoolmaster, and chief-magistrate; and numbered 268 souls in 1861, when they were visited by Sir John Young, the governor of New South Wales.



Island of Tahiti.

The SOCIETY ISLANDS, named by Cook in honour of the Royal Society, and the adjoining GEORGIAN ISLES, are north of the Austral series; and are now commonly called, the former the Windward, and the latter the Leeward Islands. They are the most frequently visited of the groups in the Pacific by Europeans and Americans, and since 1842 have been French possessions. Tahiti, the largest, has a circuit of 140 miles, and contains about 600 square miles. It consists of two rounded peninsulas united by a narrow isthmus, and has a highly-diversified surface, towering to the clouds in the majestic peak

Thus, by the nearest route at present followed, via Suez, New Zealand is placed at an artificial distance from England nearly 2000 miles greater than by the way of Panama; and the eastern Australian colonies share to a smaller extent the same disadvantage. The latter route departs very slightly from a perfectly straight line. On the Pacific side of the Panama Railway it leads through seas which are familiar to English navigators, where the winds are moderate, the temperature is pleasant, and adverse currents have not to be encountered. As every year is adding largely to the population of the antipodal colonies, and increasing their commercial connection with the mother-country, there can be no doubt that the shortest thoroughfare will ultimately be traversed.



The Aurora Borealis as seen in very High Latitudes.

(This Cut was accidentally omitted at its proper place.)

INDEX

* * Names in italic are obsolete or classical.

	PAGE		PAGE		PAGE
Aalborg,	513	Adige, the,	392, 474	Alderney,	287
Aar Valley,	414	<i>Adonis</i> ,	630	Alemtejo,	446
Aarau,	419	— Peak,	708	Alençon,	306
Aargau, canton of,	419	Adour and Garonne,	317	Aleppo,	607, 630
Aarhuus,	513	Adowa,	777	Aleutian Archipelago, 73, 575	458
Aaron, mountain of,	646	Adrianoñle,	487	Alessandria,	458
Abakansk,	592	Adriatic Gulf,	394, 404	Alexander's discoveries, 14	769
Abana and Pharpar Rivers,	632	— Sea,	127	Alexandria,	319
Abassia,	599	Adur, the,	202	— Lake,	319
Abba Yared,	747	Ægean Sea,	478, 507	Alexandrite beryl of the	590
Abbeokuta,	781	Ægina Gulf,	505	Urals,	360
Abbeville,	305	Æmilla,	459	Alexisbad,	446
Abbotsford,	240	Ætolia,	504	Algarye,	446
Aberdeenshire,	249	Afghan highlands,	579	Algeria,	323, 762
Aberffraw,	214	Afghanistan,	665-670	Algésiraz,	439
Aberfoyle,	232	Afium Kara-Hissar,	607	Algiers,	763
Abergavenny,	187	Africa, general view of,	744	Algoa Bay,	790
Abergele,	217	African discoveries, &c.—	105-115	Al-Hadr,	618
Aberystwith,	229	— Islands,	753	Alhambra, the,	437
Abingdon Islands,	877	— landscape,	782	Alhucema,	762
Abu,	551	— population,	752	Aliante,	437
Abomey,	780	— rivers & lakes, 747, 748	748	Al-Jezirab,	620
Aboriginal inhabitants of		Agatch Degniz,	605	Alkmaar,	343
Britain,	155	Agen,	605	All Saints' Bay,	871
Abonkir Bay,	769	Aggiei tribes,	623	Allahabad,	687
Abou-Sir,	466	Agincourt,	303	Allah-Shehr,	607
Abrazzo Ultra,	693	Agro,	686	Alleghany Mountains, 797, 824	312
Abu Mount,	206	Agzam,	404	Allier and Loire, the,	244
Abury monuments,	206	Agri-dagh,	601	Alloa,	244
Abnsambul, cut rock tem- ples of,	776	<i>Agri-antun</i> ,	469	Alloway,	242
Abvdos,	485	Ahmedabad,	697	Almagro,	428
Abysinia,	776	Ahmednuggur,	696	Alnpach,	418
Acacia Forests,	779	Aidin,	607	Alnwick,	168
<i>Acadia</i> ,	817	Aigun,	592	Alost,	331
Acapulca,	854	Ailsa Craig,	242	Aloupka, the,	563
Acapula,	850	Aimos of Japan,	743	Alpaca, the, 880; in Aus- tralia,	907
Acarnania,	504	Airdrie,	243	Alpine mountain-system, 128	304
Acce-Ptolemæis,	632	Airthrey,	244	Alsace,	401
Acerna,	780	Aix-la-Chapelle,	321, 382	Alt-Buda,	865
— Mount,	633	Ajaccio,	325	Alta Gracia,	865
<i>Accines</i> ,	689	Ajam, coast of,	784	Altai Mountains—	577, 588, 593, 595
Achaguas,	865	Akaba, gulf of,	612, 646	Angornu,	783
Achaia,	505	— Peak,	884	<i>Angostura</i> ,	865
Acheen,	894	Alam,	607	Angoulême,	311
Achill Island,	277	Aksu,	734	Anguamois,	310
Ackergill Castle,	255	Aktiar,	564	Anhalt,	360
<i>Acmetha</i> ,	658	Akyab,	719	Aniza tribes,	623
Aconeaqua,	795	Alabama,	826, 836	Anjou, province of,	311
— river,	892	Alagoas, province of,	870	Ankobar,	777
Acre,	626, 632	Alamay,	782	Annan,	241
<i>Acropolis of Athens</i> ,	504	Aland Islands,	524, 552	Annandale,	229, 241
Aetium, battle of,	508	Ala-tagh, the,	614	Annapolis,	833
Aeton Burnel,	185	Alatau chain,	592	Anney,	324
Adalia,	608	Albania,	490	Annonbon,	755
Adamawa,	783	Albanian Gates,	566	Anonay,	320
Adana,	605, 610	Albany,	922	Anson's voyage,	73
Addiscombe,	201	— districts, 790; city,	831	Antakia,	630
Addison's birthplace,	206	— River,	822	Antalo,	777
Adelaide,	118, 919, 920	Albomarle Island,	877	Antananarivo,	756
Adelsberg, caverns of,	395	Albert River, ascended,	121	<i>Antarodus</i> ,	631
Aden,	652	Alcala,	428	Antarctic expeditions, 80, 86	624
Adersbach labyrinth,	389	Aldan River,	538	Anti-Lebanon,	614
		Aldanska,	592	— Taurus,	614
		Aldborough,	192		

	PAGE		PAGE		PAGE		PAGE
Anticosti Island,	820	Arnhem,	339, 345	Avon, source of, at		Bangalore,	762
Antigua,	853, 859	Arno, the,	461	Naseby, 195; in Hamp-		Bangkok,	716
Antilles, Lesser,	858	Arpad,	631	shire,	203	Bangor,	216, 228
Antioch,	627, 630	Arpino,	466	Avonbeg, the,	270	Banjarmassin,	895
Antioquia,	862	Arracan,	719	Avonmore, the,	270	Banks's Island,	822
Antiparos,	507	Arran, isles of,	243, 276, 278	Avranches,	306	Bann, the,	273
Antipodes Island,	829	— Fowdly,	219	Awaj River,	632	Bannockburn,	244
Antisana,	706, 876	Arras,	305	Axe, the,	209	Bantry,	282
Anton River,	203	Arrenig,	219	Axum,	777	— Bay,	282
Antrim,	274	Arsinoe,	773	Ayauccho,	830	Banyan-tree,	563
Antrerp,	328, 330	Artois,	305	Aylesbury,	198	Barada, 627; river,	632
Apamea,	623	Arun, the,	202	Ayr,	242	Raramula,	704
Apennines,	133, 461	Arundel Castle,	202	Ayrshire,	242	Barbadoes,	859
Apenrade,	521	Arve, the,	324	Ayu or River Cow,	734	Barbary tribes,	759
Apes, hill of,	761	Arsobispo Islands,	898	Azerbaijan province,	659	Barce,	765
Appalachian Mountains—		Ascension Island,	755	Azof, sea of,	128, 543	Barcelona,	436
— 797, 824		Ashantee, kingdom of,	780	Azores, the,	127, 448	Bardon Hill,	183
Appenzell,	420	Ashbourne,	181	Azov, sea and town of,	562	Bardonnèche, tunnel of,	457
Aprian Way,	466	Ashby de la Zouch,	183			Bards-ey,	216
Apple Range,	595	— Moor,	628	Baalbec,	4, 625, 630	Bareilly,	686
Appleby,	171	Ashley River,	835	Bab-el-Mandeb,	642	Barfleur,	307
Appomattox, the,	835	Asia,	571, 585	Babylonian plains, 7;	632	Bari,	456
Apulian Plain,	456	Asia Minor, 478, 576, 604, 605		Babylonia,	632	Barletta,	466
Apure, the,	864	Asiatic Russia,	587	Back's overland journey,	85	Barmen,	382
Aqua Flavia,	448	— Turkey,	603, 604	Backstairs Passage,	919	Barnmouth,	219
Aqua Sexta,	322	Aspinwall,	863	Bactrian camel,	14	Barnaul,	590-592
Aquila,	466	Assam,	718	Badajoz,	430, 446	Barnard Castle,	170
Arabia,	638, 642	Assaye,	691	Baden, 362, 367; town,	389, 410	Barnsley,	178
Arabia Deserta, 642;		Assiniboine,	822	— 389; the Limmat,	410	Barnstable,	210
— Felix, ib.; Petra, ib.,	644	Assinie River,	780	Baden-Baden,	367	Baroche,	697
Arabian Alps,	644	Assouan,	774	Badenoch,	251	Baroda Railway,	696
— coast,	653	Assuay,	870	Baffin's Bay,	62, 269, 808	Barquisemeto,	865
— Gulf,	575, 689	Asti,	458	— voyages,	51	Barrockport,	683
— Sea, 574; mariners, 62		Astrabad,	657, 663	Bagdad,	614, 620, 621	Barraconda,	779
Aradus, the,	631	Astrachan,	126	Bagdatstown,	373	Barrens of Illinois,	840
Ararat, day of,	651	Astorga,	429	Baghistan,	638	Barrington Island,	877
Ararog,	430	Astoria,	843	Bagirmi,	783	Barrow, the,	271, 272
Aral Sea, 530; lake,	592	Astrakhan,	566	Bagnères-en-Bigorre,	317	Barre of Hecuba,	484
Aranguaz,	428	Asturian Mountains—		Bagshot Sands,	204	Bartın River,	605
Ararat,	576, 601	— 129, 429, 439		Bahamas,	32, 887	Barwon, the,	917
Aras, river and valley—		Asuncion,	873	Bahari,	769	Barygasa,	697
— 599, 602, 659		Atacama, desert of,	882, 883	Bahawalpore,	693	Basaltic Islands,	248
Araneanian Indians,	883	Atarapu, or Devil's Rock,	866	Bahia,	870-871	Bashan,	635
Arauco,	883	Atbara, the,	747, 775	Bahrain Isles, group of,	633	Bashee Islands,	897
Araure,	865	Atbasca Lake and river—		Bahr-el-Kolzoun,	643	Bashkirs,	690
Aravull Hills,	693	— 801, 822		Bahr-el-Tour, Sinai,	642	Basin of the Shannon,	280
Araxes River,	579, 599	Athelney,	208	Baia,	466	Basque population,	431
Arbela battle-field,	618	Athens,	504, 505	Balkal Lake,	581	Basques,	317
Arbroath,	245	Athlone,	272	Bally of Howth,	269	Basra,	623
Arcadia,	505	Athy,	272	Baireuth,	366	Bass Rock,	239
Arch of Khuzra,	622	Atitlan Lake,	853	Bakchiserai,	565	Bassano,	476
Archangel,	530, 555	Atlantic Ocean, 22;		Bakhigan Lake,	661	Basso Cochín-China,	717
Arcof,	699	— rivers, 799;		Bakir, the,	605	— Pyrenees,	317
Arctic Circle, 552; Ocean—		— 824; cities,	833	Bakony forests,	401	— Terre,	859
— 574, 594		Atlas Mountains,	746	Baku,	600	Bassorah,	623
Arctic expeditions,	80, 81	Atro,	618	Baku fire-fields,	659	Bass's Strait,	902, 922
— Islands,	822	Atroto River,	803	Bala Lake,	219	Bastia,	325
Arden Forest,	194	Attic Peninsula,	505	Balaclava,	564	Bastides,	320
Ardennes Forest,	328, 334	Attica,	504	Balbriggan,	289	Batougl Mountain,	390
Ardes Bay,	276	Attock,	667, 690	Balearic Islands,	439	Batavia,	64, 894
Ardnamurchan Point,	144	Auch,	317	Balfurish,	657	Bath,	203
Ardrrossan,	242	Auckland Islands,	829	Bali Island,	894	Bath stone,	107
Ardvreck Castle,	254	— town and dis-		Balize,	835	Bathgate,	239
Arequipa,	880	— trict,	927	Balkans, the,	129, 483, 496	Baths of Diocletian, 472;	643
Arethusa, fountain of,	608	Aughrib, the, 270; town		Balkash,	734	— of Pharaoh,	643
Arezzo,	462	— of,	279	Balkh,	671	Bathurst,	779, 905, 914
Argæus, Mount,	604	Augsberg,	365	Ballarar,	918	Batman's Colony,	917
Argentine Confederation,	873	Augusta,	828	Ballerat,	250	Baton Rouge,	837
Argentine Republic,	885	Aulne, the,	309	Ballena,	278	Batougl Mountain,	390
Argbama mines,	615	Aunis,	310	Ballinasloe,	279	Batour,	894
Argish, the,	493	Aurochs of Bialowieza,	557	Ballston,	681	Battas, the,	894
Argolis,	505	Aurora borealis,	932	Ballycastle,	274	Bavaria,	362
Argos,	506	Aurungabad,	691	Ballymena,	274	Bavia,	765
Arguri, village of,	601	Austerlitz,	391	Ballyshannon,	276	Bayazid,	616
Argyleshire,	247	Austin,	837	Balm of Gilead,	772	Bayeux,	806
Arianzon,	433	Austral Islands,	929, 930	Balsam-trees,	583	Bayonne,	318
Arizé Mountains,	818	Australasia, 901, 909, 916, 918		Baltic provinces of Russia, 546		Beachy Head,	162, 202
Armaspes,	590	Australia,	62, 115-118	— Sea,	127, 511, 516	Beacon Hill, Victoria,	820
Arminium,	460	Australian lands,	576	Baltimore,	833	Beacons of Brecon,	233
Arizona,	844	Austria Proper,	386	Bambarra Country,	784	Beaconsfield,	198
Arkansas River and state—		Austrian Croatia,	403	Bamberg,	366	Bearn,	817
— 799, 839		— Empire, &c.—		Bamian,	669	Beas River,	689
Arklow,	270	— 334-386, 406		Banat, the,	403	Beaucaire,	320
Arles,	322	Austrian Italy,	474	Banbury,	197	Beaulieu River,	233, 251
Arlon,	334	Autun,	314	Banca Islands,	894	Beaumaris,	214
Armagh,	273	Auvergne,	312	Banda Isles,	895	Beauvais,	303
Armenia,	613	Auxerre, the,	314	— Oriental,	873	Bechnamas,	792
Armenian highlands—		Ava,	716	Bandon, the,	232	Becket's Spring,	193
— 7, 576, 598, 614		Avantine Mount,	471	Banff,	250	Bedford,	106, 197
Arnauts,	490	Avignon,	322	Banffshire,	280	Bedfordshire,	193

	PAGE		PAGE		PAGE		PAGE
Bedonins,	644	Bhomo,	718	Bohemia,		Breslau,	389
Beersheba,	635	Bheli tribes,	692	Böhmerswald, the,	363, 389	Brest,	309
Behar district,	681	Bhore Ghauts,	696	Bois-le-Duc,	345	Brethren of the Cross and	
Behistun,	658	Bhoot,	693	Bokhara,	4, 671	Sword,	546
Behring,	70, 71	Bhopal,	692	— Little,	734	Bretigny,	312
Behring's Strait,	574, 585	Bhotan,	706	Bolan Pass,	665	Briançon,	324
Belian Pass,	577	Bhampur,	692	Bolar-tagh,	577, 670	Bridge of Allan,	244
Beja, the,	402	Biarritz,	318	Bollvia,	880, 881	Bridgetown,	859
Beind-el-Jerid,	746	Bible lands,	2	Bolivian Andes,	800	Bridgewater,	208
— es-Sudan,	782	Bidassoa, the,	2, 317, 431	Bologna,	459, 60	Bridlington,	177
Belasa prairies,	765	Bielefeld,	351	Bolton,	174	Bridport,	208
Belom,	445	Bielukha Mounl,	588	Bombay,	695	Brieg,	431
Belfast,	274	Bienne Lake,	414	— presidency,	682	Brielle,	344
— Lough,	274	Big Bill Peak,	392	Bomersund,	552	Briens Lake,	414
Belgica, fort,	806	— Black River,	836	Bommelerwaard,	339	Brighton,	202
Belgium,	327, 328, 334, 696	Bight of Benin,	745	Bona,	763	— Victoria,	918
Belgrade,	404, 492	— Biafra,	745	Bonacca,	854	Brisbane,	916
Belize,	855	Bijapur,	696	Bo'ness,	289	Bristol,	187, 188
Bell Rock,	245, 246	Bikanir,	693	Bonin Islands,	893	— Channel,	203, 222
Belle Isle,	310	Bilbao,	432	Bonn,	381	Britannia tubular bridge,	215
Belled-el-Haram,	648	Billing's voyages,	73	Bonnington Linn,	231	British America,	811
Belleville,	616	Binary rivers of Asia,	579	Bononia,	460	— Burma,	719
Bellinzona,	421	Bindloes Island,	877	Bonpland, his fate,	102, 873	— Colombia,	820
Beloi-gorod,	553	Bingon,	359	Bora wind, the,	394, 395	— ethnology,	155
Beloochistan, 665; Hel-		Biorn, the Icelander's		Bordeaux,	316	— European posses-	
— ooches,	666	— voyage,	21	Bore of the Ganges,	681	— sions,	285
Belper,	180	Bir Castle,	621	Borgu,	784	British Guiana,	859, 865
Belud-el-Jerid,	753	Birds of Europe,	136	Borizoff,	559	— Islands,	190
Bemerton,	206	Birkenhead,	185	Borneo,	33, 576, 892, 895	— Kaffraria,	785
Ben Attow,	230	Birmingham,	195	Bornholm,	519	— languages,	157
— Avon,	230	Birr Castle,	272	Bórnu,	783	— minerals,	154
— Bury,	277	Birtha,	621	Boroughbridge,	176	— vegetation,	149
— Gorm,	277	Birythenes, the,	622	Borythenes, the,	542	— zoology, 148, 152, 153	
— Inawers,	246	Biscay,	431	Boscobel House,	186	Brittany,	309
— Lomond,	229	Bisitun,	658	Bosniacs,	491	Brixen,	392
— Tasmania,	923	Bison, the,	802	Bosnia, 491; Serai,	492	Broadlaw,	229, 240
— Macdhuil,	230, 250	Bithynia,	606	Bosporus,	483, 608	Brocken, mountain,	353
— More,	246	Bithynia,	485	Boston, England,	189	Brock, village of,	343
— Nevis,	229, 251	Bitlis, romantic site of,	617	— U.S.,	829	Bromberg,	379
— Sheeunta,	249	Bituminous coal-fields,	826	Botala, mount,	735	Bromok, volcano,	894
— Wyvis,	230, 253	Bivar, castle of,	433	Botallack copper-mines,	210	Bromsgrove,	194
Ben-an-Air,	248	Black Agnes, Countess of		Bothnian Gulf,	524, 550	Brome,	468
— Chanolois,	243	— March,	239	Bothwell Brig,	243	Brooklyn,	831
Benares,	685	Black country, the,	182	Bottoms of Illinois,	840	Broom Loch,	228
Benbulbin,	277	— Forest,	367, 382	Botzen,	392	Broomielaw,	237
Bencoolen,	894	— Isle,	251	Bougainville's voyage,	75	Brona,	255
Bend-a-Mer,	654	— Mountains,	223	Bouillon,	334	Brown Willy Mountain,	161
Bengal Bay,	574	— Sea, 128, 478, 483, 541		Boulogne,	305	Bruges,	331
— Presidency,	681	— Warrior River,	836	Bourbon Islands,	787	Brug,	419
Benguela,	448, 781	— winds of Kurdistan,	615	Bourbonnais,	312	Brundisium,	466, 490
Beni Hassan, tombs of,	773	Blackburn,	174	Bourg,	314	Brunel,	895
Benicia,	843	Blacklow Hill,	194	Bourges,	312	Brünn,	391
Benin,	781	Blackwater, 192, 271, 273, 282		Bournemouth,	204	Brunswick, city of,	354
Benisuef,	773	— River,	595	Bowley Bay,	285	— duchy of, 353, 354	
Berar district,	691	Bladenoch, the,	241	Bowness,	171	— Luneberg,	354
Berber tribes,	759, 761	Blagodat Hill,	593	Boxhill,	201	— Wolfenbuttel,	354
Berbee, river and country,	865	Blagoveshensk,	592, 596	Boyaca,	862	Brusa,	606, 608
Berence,	765	Blakiston's journey,	723	Boyle,	277	Brussels,	329
Beresosal,	545	Bianche Barkly nugget,	918	Boyne Water,	271	Bucephalia,	680
Berezina, the,	553	Bianchetagneford,	305	Bracara augusta,	447	Buchan Ness,	238, 249
Berezov,	592	Biasquet Isles,	283	Bradford,	178, 206	Buckeburg,	355
Bergama,	607	Bieberg,	394	Bradgate Park,	183	Buckinghamshire,	197, 198
Bergen-op-Zoom—		Bienheim, village of,	366	Braeriach,	230	Buda-Pesth,	401
337, 345, 526, 535		Biewfields,	855	Braga,	447	Buddhism, 585, 596, 733, 734	
Bergentstift,	537	Blisworth tunnel,	195	Braganza,	448	Budrun,	606
Berkshire,	204	Blois,	312	Brahestadt,	552	Buenos Ayres,	58, 88, 886
Berlin,	375	Blomfontein,	792	Brahmanism,	585	Buffalo, 531, 790; river,	337
Bermudas,	855, 860	Bloody Foreland,	275	Brahmaputra, 676; river,	579	Bug River,	562
Bernardin,	421	Blount's Springs,	836	Brahooes,	666	Builth,	223
Bernburg,	360	Blue Mountains, 116; of		Brandenburg,	375, 378	Bukharest,	494
Berne,	414	the Neigherries,	701	Branksome Tower,	240	Bukowina, the,	396, 397
Bernese Alps,	414, 420	Blue Mountains, Jamaica,	858	Bras d'Or,	818	Bulgaria,	492, 495
Berry,	312	— South,		Bravo Island,	755	Bullars of Buchan,	249
Berwick-on-Tweed,	168	— Australia,	903, 912	Bray,	270	Bunabashi, the,	607
Berwickshire,	289	Blue Nile,	747, 775	Brazil,	868-870	Bund-a-Mer,	854
Barwyn,	219	— Ridge, Alleghanies,	833	Brazil-nuts,	802	Bunderan,	276
Berytus,	630	Bluestack,	275	— wood,	802	Bundi,	633
Besançon,	314	Boa Vista,	871	Brazilian Mountains,	798	Bunker's Hill,	839
Bessarabia,	493	Boabab-tree,	755	Brazos, the,	837	Burdwan coal,	679
Betel-Nut Island,	720	Bocca Tigris,	728	Breadfruit-tree,	887	Bu-Regreb, the,	762
Bethania,	635	Bocco do Inferno,	872	Brecknockshire,	223	Bureya River,	597
Bethlehem,	624, 635	Bodeen Peak,	665	Brecon,	223	Burford quarries,	197
Bethphage,	633	Bodleian Library, Oxford,	197	Breda,	345	Burgh Head,	250
Bethsaida,	629	Bodmin,	210	Bremen,	355	Burgholm,	633
Beveren,	331	Boetia,	504	Bremer, the,	916	Birglen,	418
Beverley,	177	Bof of Allen,	272	Bremerhaven,	355	Burgos,	433
Beypore,	699	— River,	558	Brenner Pass,	392	Burgundy,	313
Beyrout,	636, 639	Bognor,	202	Brenta, the,	474, 476	Buriats, the,	596
Beziers,	319	Bogota,	863	Brentford,	200	Burke and Wills's journey,	120

	PAGE		PAGE		PAGE		PAGE
Burlington,	828	Campsie Hills,	244	Carlisle,	274	Cavendish's voyages,	59
Burmese Empire,	715, 719	<i>Canopus Martius</i> ,	471	Lough,	271	Cawdor Castle,	251
Burnham Thorpe,	191	Canada,	812, 813, 815, 818	Carlisle,	171	Cawnpore,	686, 687
Burning bush,	645	Canadian Lakes,	890	Bay,	859	Caxamarca, valley of,	880
Burntisland,	232	Canal du Midi,	319	Carlow,	272	Cayambe,	876
Burra-Burra mines,	921	Centre,	314	Carlsbad,	390	Cayenne,	867
Burton, captain,	113	Canals in England,	224	Carlsrona,	524, 532	Ceara, province of,	870
-on-Trent,	182	Canara Territory, 693;	700	Carlsruhe,	387	Cedars of Lebanon,	625
Bury St Edmunds,	192	North, 698; South,	700	Carlstadt,	404	Celobes,	876, 892, 895
Busaco,	447	Canary Islands,	439, 754	Carmel Mount,	626	Celestial Mountains—	
Bushire,	637, 662	Candia,	127, 495, 497	Carnae Alps,	130	Asia,	577, 538, 504, 734
Bussa,	784	Canen,	497	Carnatic, the,	698	Central Africa, 110, 111, 782	
Bute,	243	Cann River,	192	Carnedd Dafydd,	215	America,	852
Button's discoveries,	51	Canmanore,	700	Llewellyn,	215	Armenia,	614
Buxton,	181	Cannes,	325	Carnic Alps,	594	Australia,	101, 104
Byukkere, bay of,	483	Cannibal Islands,	899	Carniola,	394	Europe,	293
Byron's voyages,	74	Cantabrian Pyrenees,	432	Carnore Point,	270	German States,	356
Byzantium,	760	Canterbury,	200	Carolinias, the,	65, 335	Indian Railway,	697
<i>Byzantium</i> ,	485	Canthire,	247	Caroline Archipelago,	898	Mount Stuart,	120
		Canton, 728; river,	729	Carora,	865	Pyrenees,	317
Cabbage palm,	906	Canute's song,	190	Carpathian Mountains—		Cephalonia,	503
Cabul,	665-668	Canvey Island,	192	129, 139, 387, 396, 397,	493	<i>Cerassus</i> ,	610
Cacher,	719	Cape Agulhas,	745, 786	Carpentaria, its soil,	120	<i>Cerigos</i> ,	608, 609
Cader Berwyn,	219	Baba,	575	Carpet weaving,	194	<i>Cerios</i> ,	217
Idris,	161, 219	Blanco,	746	Carpi's journey to the		<i>Cerro de Sancti-estevan</i> ,	875
Cadiz,	438	Bon,	746	steppes,	23	Cette,	319
Cacuban Plain,	466	Breton,	817	Carn-tual,	262	Catigne,	491
Caelian Hill,	471	Clear,	282	Carrara,	466	Cattigue,	491
Caen,	306	Coast Castle,	780	<i>Cartha</i> ,	621	Ceuta,	439, 762
Caerleon (<i>Isca Silurum</i>),	187	Cod,	829	Cariboo gold-fields,	821	Cevennes Mountains,	313
Caermarthenshire,	215	Colonna,	505	Carrick-on-Shannon,	277	Ceylon,	576, 707-710
Caernarvonshire,	215, 216	Colony,	787-790	Carrick-Suir,	281	Chadda, the,	781, 783
Caerwent (<i>Venta Silurum</i>),	187	Comorin,	698	Carrickfergus,	204	Chagos group,	863
<i>Casarea</i> ,	611, 633	Diamond,	698	Carron Ironworks,	274	Chazres River,	507
Casfa, island of,	563	Farewell,	21, 808	Carse of Gowrie,	234, 246	<i>Chalchic</i> ,	198
Cagliari,	470	Finisterre, 129, 310, 434	434	Cartago,	863	Chalfont St Giles,	198
Cahir,	281	Forward,	793	<i>Carthago</i> ,	758	Chalk-ranges of Hamp-	
Cahirelveen,	283	Gaspe,	812	Carthagena,	437, 863	shire and Wilts,	162
Cahors,	316	Gracios a Dios,	853	Carthaginian navigators,	11	Chalons, 304; sur Saone,	314
<i>Caleus</i> , the,	695	Guardafui,	745, 784	<i>Carthaginian Settlers</i> ,	468	Chalus,	312
Cairngorm,	230, 250	Hatteras,	860	Territory,	760	Chambley,	324
Cairntoul,	230	Honduras,	853	<i>Carthago</i> ,	761, 855	Chamblay,	815
Cairo, or Al-Kahira,	771	Horn, 62, 885, 883, 889, 903	903	Cartier ascends the St		Chamouni,	130
pilgrimage,	649	Howe,	811	Lawrence,	38	Champagne,	328
Calthness,	255	La Hague,	286	Cascade range,	825	Champlain Lake, 64, 312, 328	
Cajeta,	466	Mala,	506	Cashel,	281	Chanarella mines,	884
Calabazo,	865	Matapan,	595	Cashgar,	734	Chander-nagore,	767
Calais,	305	May,	833	Cashmere,	594, 703, 704	Chang-mai,	717
Calcutta,	682	Negro,	781	Cashmere goats,	679	Channel Islands,	245
Caldero,	882, 884	Num,	760	Casine of Florence,	462	Charente, the,	310
Caldy Island,	221	of Good Hope,	30, 737	Caspian Gates,	677	Charleroi,	832
Calodon, the,	792	Ortega,	434	Caspian highlands,	578	Charles Island,	877
Calolumbia Bay,	863	Palmas,	755, 780	Sen,	2, 540, 566, 580, 592, 593, 670	Charleston,	65, 835, 859
Calodonian Canal, 229, 233, 252	700	Passaro,	469	Cassanaga,	830	Charlottesville,	818
Callant,	259	Pillar,	923	Cassel,	358	Charlwood Forest,	183
California,	841, 842	Prince of Wales,	810	Cassol,	864	Charran,	621
Californian gold regions,	825	Race,	819	Cassiquinari Canal,	864	Chartres,	312
Alps, 794;	846	Romania,	575	Cassiterides, or tin islands,	12	Charybdis,	463
vegetation, 843; Gulf,	273	St Augustin,	870	of Herodotus,	12	Chateauroux,	312
Callan,	254	Roque,	35	Castalian spring,	505	Chateaufault,	310
Callanish stones,	273	Vincent,	446	Castellannare,	466	Chatham,	201
Callao, port of,	879	Sable,	823	Castellon,	437	Island,	877
<i>Callipolis</i> ,	487	Samana,	858	Castle Council,	281	Islands,	929
Calvary,	397	Severo,	575	Douglas,	241	Chandofere, the,	812
Cam, the,	189	Spattel,	762	of St Angelo,	472	Chansey Archipelago,	287
Cameroon,	747	Tarifa,	239	Castlebar,	278	Chaves,	443
Cambay,	697	Town,	787, 790	Castlemaine,	918	Chee Tor,	181
gulf of,	679	Trafalgar,	438, 762	Castles of Europe and		Cheesewring,	210
Cambodia, 713, 717; river,	893	Verd Islands,	448	Asia,	483	Chelmer,	192
Cambrai,	305	Verde,	745, 755, 778	Castletown,	224	Chelmsford,	192
Cambrian Mountains,	161	Viscardo or Guiscarda, 508	508	Castries,	859	Cheltenham,	188
Cambridge, U. S.,	880	Wrath,	144, 254	Castro Giovanni,	469	Chemnitz,	358
England,	189	Capellante,	233	Castrovireyna,	878	Chenab River,	689
Observatory,	189	Capernaum,	627	Cat Island,	857	Chennapatnam,	698
University,	189	Capo d'Istria,	396	Catacombs of Paris,	302	Chepstow,	187
Cambridgeshire nightin-		Cappadoeia,	606, 611	Rome,	473	Cher, the,	311
gales,	196	Capri, isle of,	466	Catalonia,	435	Cherbourg,	305
Cambunian Mountains,	489	Capua,	465	Catania,	467, 468	Cherson,	562
Camden,	912, 914	Carahobe,	865	Catacracts of the Nile,	774	Cherwell,	197
Camel, the,	3	Carneas,	865	Catskill highlands,	824	Chesapeake Bay,	832
<i>Camelodunum</i> ,	192	Caradoc Hills,	161	Cattaro,	405, 491	Cheshire,	184
Camel's thorn,	3	Caravan travelling,	3	Cattagat,	511, 532	Cheshunt,	199
Camels of Siberia,	591	Caravanserai,	415	Cauca, the,	862	Cheist Bank,	207
Cammogue, the,	280	Carcaesonne,	319	Caucasian Gates, 577;	600	Chester,	185
Camp of the Golden		Cardiff,	222	military road,	600	Chesterfield,	180
Horde,	23	Cardigan Bay,	215	Caucasus, 539, 566, 577, 598	598	Cheviot Hills,	240
Campagna, the,	472	Cardiganshire,	220	Cauldron Linn,	220	Chicaco,	700
Campbetown,	248	<i>Caria</i> ,	606	Cavalla,	487	Chicago,	840
Campbor-tree,	738	Caribbean Sea,	801, 852, 862	Cavan,	276	Chichester,	202
Campine,	330, 334	Carinthia,	394	Cave of Trophonius,	505	Chiemsee, the,	562

	PAGE		PAGE		PAGE		PAGE
Chili, 881; Andes of,	882	Cochabamba,	881	Corra Linn,	231	Daghestan,	566
Chilian Andes,	795, 883	Cochin, kingdom of,	702	Corsica,	325	Dahomey, kingdom of,	780
Chilka Lake,	681, 698	— China,	325, 717	Cortes discovers Mexico,		Dahrel-Khotib Peak,	624
Chillon, castle of,	416	Cockermouth,	171	— &c.,	38	Dakota,	844
Chiloe,	883, 884	Cocoa-nut palm,	898	Cortez Island,	557	Dalai-Lama,	735
Chiltern Hills,	162, 197, 198	Coepang,	894	Corunna,	434	Dalecarlia,	528
Chimborazo,	876	Coffee-plant,	582	Corvo, island of,	448	Dalkeith,	239
China,	4, 720, 722, 734	Cognac,	311	Cos,	606	Dall, the,	528
— Proper,	721-725	Coimbatour,	700, 701	Cossacks of the Black Sea,	542	Dalmatia,	404, 405
— Seas,	574, 717, 722	Coimbra,	447	— Ukraine,	557	Dalmatian Archipelago,	405
Chincha Islands,	880	Coire,	421	Cossya district,	719	Damascus, 497, 624, 627, 649	
Chinchon, 423; Chinchona-trees,	878	Cujutepeque,	854	Costa Rica,	853, 855	Damaum,	448
Chinese dependencies,	732	Col de Balme,	324	Cote d'Or,	313	Damietta,	769
— frontier,	593	— Geant,	130	Cotentin, the,	306	Dampier's voyage, &c.,	64
— intercourse with		— Perthus,	435	Cotopaxi,	798, 876	Dane-mark,	511
— Russia,	734	Colchagua,	883	Cotswold Hills,	187, 188	Danewirke, the,	614
— Chinese plain,	576	Colchester,	192	Cottian Alps, 129, 320, 324, 457		Dangan,	271
— race,	729, 731	Colchis,	599	Cotton culture,	826	Danger Island,	929
— Tartary,	694	Coldstream,	239	Cotyaeum,	607	Daniel's Tomb,	661
— Turkestan,	734	Coleraine,	275	Coupee Rock,	287	Danish America,	806
— Wall,	723	Collina, volcano,	847	Courland, duchy of,	547	— Archipelago,	612
Chini,	485	Coll,	248	Court of Camels,	4	— Islands,	515;
Chinon,	212	Colmar,	305	Courtray,	332	— West Indian,	512
Chioggia,	476	Colne,	192	Cove of Cork,	282	Danish voyagers,	19
Chipping Norton,	197	Cologne,	355, 381	— Willows,	212	Dante and the Southern	
Chittagong,	719	Colombia,	861	Coventry,	194	— Cross,	23
Choaespes,	660	— on the Potomac,	826	Cow-tree of Venezuela,	802	Dantzic, 355; city, &c.,	318
Cholmogory,	555	Colombian Republic,	876	Cowes,	204	Danube (infant), 366;	
Choo-kiang River,	728	Colombo,	709	Cowper's grave,	191	— gates of, 387; river, 390, 398	
Chorazin,	627	Colonia Agrippina,	381	Crabbe's birthplace,	192	Danubian Principalities, 493	
Christchurch, England,	204	Colonsay,	248	Cracow,	395, 397	Dardanelles,	483, 607
— New Zealand,	927	Colorado,	759, 844	Cradle Mountain,	223	Darfur Territory,	784
Christiana,	528, 534	Colosseum, the, Rome,	472	Creetown,	241	Darjeel,	270
Christiansford,	534	Columbia,	799, 835	Crefeld,	382	Darrel Pass,	577, 600
Christianborg palace,	517	Columbus,	27, 32	Crescent City,	837	Darling, gulf of,	863
Christianshaab,	809	Comayagua,	853	Cressy,	305	Darling River,	903, 912
Christiansö,	519	Cominotto,	288	Crete,	496	Darlington,	170
Chuquisaca,	881	Commeragh Mountains,	281	Crickhowel,	223	Darmstadt,	359
Church Island,	277	Como,	459	Crim Tartary,	563	Darol-Jihad,	433
— Missionary Soci-		Comorn,	401	Crimea,	511, 560, 563	Dart, the,	209
— ties' discoveries,	113	Comoro Islands,	756	Croatia,	403, 491	Dartmouth,	161, 209
<i>Cilicia</i> ,	606	Compass Berg,	787	Crocodilopolis,	773	Dartmouth, 210; college,	828
Cilician Gates,	577	Compiègne,	303	Cromarty,	228, 253	Dar-zaleh Territory,	784
Cimbrian peninsula,	16	Conca d'Oro,	468	Cromer,	191	Darshur,	770
<i>Cimbrica Chersonesus</i> ,	511	Concans, the,	695	Cronwell's birthplace,	196	DATE Country,	759
<i>Cimmerian Bosphorus</i> ,	562	Concepcion,	883, 884	Cronborg Castle,	518	Dauphiné,	313, 323
Cincinnati,	838	Concord,	828	Cronstadt,	549	Davenport,	195
Cinnamon,	582	Confederate States,	823, 833	Crothall dye,	253	Davis Strait,	808
Cinque Ports,	202	Conga district,	448	Croton Aqueduct,	831	Davis's discoveries,	49
Cintra,	445	Congo,	773, 781	Croydon,	201	Dawlish,	210
Circassia,	566	Coniston Water,	172	Cruachan, Ben,	247	Day of Arafat,	651
Circassians,	600	Connaught,	276	Ctesiphon,	622	Dead Sea, 581; extent	
Circumnavigators,	53	Connecticut state,	829;	Cuba,	32, 439, 857	and depth, &c.,	624
Cîteaux, abbey of,	302	— River,	825	Cuchullin Hills,	252	Deal,	261
Citlal-tepetl,	847	Connemara,	278	Cuenca,	428, 877	Deben River,	192
Ciudad Bolívar,	865	Constance, 367; lake,	368	Culbine, barony of,	251	Debrecezin,	401
— Real,	428	Constantine,	763	Culloden Moor,	252	Deccan,	578, 692
— Rodrigo,	427	Constantinople,	485, 486	Cuma,	486	Deccan Island,	743
Civita Vecchia,	473	Conway,	215, 216	Cuma,	507	Deeken (Baron von der),	113
<i>Civitas Avelina Aquensis</i> ,	367	Cook's Island,	929, 930	Cumana, 865; horsemen of,	401	Dee (rivers),	217, 241, 249
Clackmannan,	244	— voyages,	75-78	Cumberland,	170, 839	Deel River,	280
Clamshell Cave,	248	Coomassie,	780	Cumbrays,	243	Delagoo Bay,	745, 784
Clare County,	279	Cooper's Creek, 120; river,	835	Cumbre Pass,	382	Delaware, the, 799; state	
— Island,	277	Coorg Territory,	701	Cumbrian Mountains,	160	and bay, 882; Indians,	833
Clarence, the,	912	Copenhagen,	817	Cunard steamers,	813	Delft,	344
— Peak and town,	755	Copiapó,	882, 884	Cundinamarca,	862	Delhi,	594, 686
Clausthal,	755	Copper-mines in Australia,	921	Curacao,	245	Delly,	894
Clear Island,	282	— Mountains, Cuba,	857	Curische-haft,	378	Delos,	607
Clermont,	312	Coppermine River,	799	Curragh of Kildare,	272	Delphi,	505
Clevedon,	208	Coquimbo,	833	Cushendall,	375	Delta of the Irawaddy,	719
Cleveland,	838	Coralline formations,	856	Cuteh,	697	— Nile,	769
Cleves,	382	Cordilleras of the coast,	881	— Gundava,	665	— Rhone,	322
Clew Bay,	277	— Spain,	438	Cuxhaven,	355	Dembea, plain of, 776;	
Clifton,	187	Corea,	732	Cuzco, great temple of,	878, 880	lake,	748
Cloacmacnoise,	Seven	Corean Peninsula,	722	Gwm Llewellyn,	223	Demerara,	665
Churches of,	272	Corentyn River,	865	Cyclades, the,	606	Denbigh,	217
Clonmel,	281	Corfu,	508	<i>Cydnus, the</i> ,	611	Denbighshire,	217
Cloudy Mountains,	577	Corinth, gulf of,	505, 508	<i>Cymri</i> ,	486	Dender, the,	328
Cloven Cliff,	370	Cork,	223	Cypresses,	486	Denderah,	773
Clumber,	182	Cormorant's cove,	248	Cyprus, 576; island of,	606, 611	Dendermonde,	331
Clwyd Vale,	217	Corn-brandy,	536	<i>Cyrenaica</i> ,	765	Denmark, 511, 512, 513, 630	
Clyde, the,	228, 231	— rafts of the Vistula,	7	<i>Cyrene</i> ,	765	Denver City,	844
Clydesdale,	238, 242	Cornouaille,	309	<i>Cyrene River</i> ,	579, 599	Depford,	201
Coalbrookdale,	185	Cornwall,	210	<i>Cythera Isle</i> ,	7	Derayah,	653
Coblentz,	242	— Jamaica,	358	<i>Cyzicus</i> ,	485	Derband, 566, 593; Pass of,	577
Coalbrookdale,	185	Cornwallis Island,	822	Czar Kolokol,	553	Derbyshire,	179, 180
Coburg, 360; city of,	816	Coro,	865	Czarskóe-seloe,	549	Derna,	765
— Gotha,	360	Coromandel Coast,	677	Czernowitz,	397	Derr,	776
				Dacca,	683	Derryane Abbey,	283
						Derwent, the, Tasmania,	923

	PAGE		PAGE		PAGE		PAGE
Berwent River, England,	371	Dragon's-blood tree,	757	Eel-town,	513	Erival Cone,	375
Desaguadero, the,	801	Draba, the,	761	Egedes-minde,	806	Erlivan,	601
—, table-land,	881	Drake's, Sir Francis, voy-		Eger, the,	363, 389, 390	Erlau,	401
Desert of Sinai,	646	—, ages,	54-57	Egerl, valley of,	755	Erne Lake and River,	276
Dessau,	380	Draken-berge,	791	Egga,	731	Ertboims,	519
Detmold-Lippe,	354, 355	Drance,	421	Egham,	202	Erzerum,	613, 616
Deule, the,	305	Drave, the,	393, 394, 398	Egripo,	507	Erzgebirge,	357, 389, 393
Deutschland,	349	Drei Herrn Spitz,	392	Egypt,	766	Escorial,	427
Devenish Island,	276	Drenthe,	346	Ehrenbreitstein,	331	Esdraelon, plain of,	632, 635
Deventer,	346	Dresden,	357	Ehrenburg palace,	360	Eagueva, the,	433
Doveron,	250	Dripping Well, Knares-		Rifel-gebirge,	561	Eahovnoi,	592
Devil's Gate,	844	—, borough,	179	Eg Island,	233	Eakdale,	241
—, Glen,	270	Drogheda,	271	Einseidien,	418	Eaki-Hissar,	607
—, Peak, Cape Town,	790	Droitwich,	103	Eiseloben,	377	Eanc,	773
—, Rock, Demerara,	866	Drontheim,	535	Eiscnach,	359	Espirito Santo, province,	870
—, Throat Bay,	191	Dryburgh Abbey,	240	Eisenberg,	360	Esquimaux tribes,	805
Devizes,	206	Dryhope Tower,	268, 269	Eisenerz,	393	Essen,	382
Devon, the,	244	Dublin,	268, 269	Ekaterinburg,	502, 533	Essequibo River,	865
Devonport,	209	Dudley,	194	Ekaterinodar,	566	Essex,	192
Devonshire,	203, 209	Dufferin's, Lord, voyage,	807	Ekaterinograd,	566	Essling,	357, 388
Dewsbury,	173	Dugong oil,	915	Ekaterinoslav,	562	Ethiopia,	547
Dhar,	692	Dumbarton Castle,	244	El Altar,	876	Ethiopian peasantry,	546
Dhwalagiri,	705	Dumbartonshire,	244	Elba, island of,	401, 403	Etremadura,	429
Diadem Peak,	931	Dumfries,	241	Elbe, the, 363, 389, 511, 513, 514	582	Estremoz,	445
Dianna's Peak,	755	Dun-Engus,	278	Elberfeld,	582	Etesian winds,	692
Diarbekr,	617	—, Mountain,	927	Elburz,	577, 598, 657, 662	Ethiopia,	775
Dieppe,	306	Dunbar,	339	Elohe palm-forests,	437	Ethiography of Europe,	138
Dijon,	314	Duncanby Head,	255	Elderslie,	243	Etna Mount,	467, 468
Dikokamanni Kirghises,	595	Dundaff Linn,	231	El-Dorado,	864	Eton,	198
Dillon's discovery,	79	Dundalk,	271	Eleanor crosses,	195	Etzaria,	461
Dinant,	332	Dundee, 245; harbour,	231	Elephanta, island of, 698, 774	642	Etzriek Pen,	240
Dinaric Alps,	130, 404, 491	Dundrum Bay,	274	—, <i>Eleusis</i> ,	605	Etzriekdale,	240
Dinas Brân,	418	Dunedin,	927	—, <i>Elcuthera</i> ,	857	Eubœa, island of,	506
Dingle,	283	Dunfermlineshire,	211, 245	El fin del Christiadad,	884	Euphrates River,	579, 614
Dingwall,	330, 353	Dungannon,	276	Elgin,	855	—, route to India,	623
Dinish Island,	283	Dungarvon,	281, 282	Eginsbire,	250	Eure, the,	312
<i>Dioscoridis Insula</i> ,	757	Dunghness,	290	El Gran Chaco,	855	Europa Point,	141, 239
Disco Island,	809	Dunkerry Beacon,	161, 208	—, Hessa,	642	Europe,	123-136
Dismal Swamp, the,	835	Dunkirk,	205	—, Hejes,	619, 648	European climate,	134
Diu,	448	Dunleary,	269	Eljah Mansur,	599	—, population,	137
Dividing Ridge,	912	Dunmore Head,	283	Elis,	505	—, Russia,	539-569
Diyah River,	615	Dunnet Head,	144, 228, 283	Elizabeth Castle,	237	—, states, their	
Dizful, 657; population,	661	Dunoon,	248	Eljem amphitheatre,	764	capitals, population, and	
Dnieper, the,	542, 556, 557	Dunrobin Castle,	255	El-Kharjeh,	774	area,	140
Dniester, the,	396, 542	Dunse,	239	Ellesmere Canal,	217	Ruscara language,	431
Do-ab, the,	683	Dunsinane,	246	Ellichpur,	691	<i>Ruscara</i> ,	541
Dobberan,	354	Dunst Hill,	361	Ellora,	691	Eryglades,	886
Dodabetta Peak,	677	Dunstable,	137	Elmina,	780	Evesham,	194
<i>Dodona temple and grove</i> ,	490	Dunston Pillar,	189	Elms, city of,	830	Evora,	446
Doggerbank,	146	Durance, the,	320, 322	EL Obfeld,	776	Evreux,	306
Doigelly,	219	Durazzo,	400	Elphin,	277	Exe, the,	209
Dollar Law, 240; town of,	245	Durban,	791	El-Sham,	632	Exeter,	209
Dolomite marble,	570	Durham, city,	169	Esinore,	518, 518	Exmoor,	209
Domberg of Revel,	547	Durrenberg mines,	391	Elton Lake,	581	Exmouth,	210
Dominica, 859; Dominican		Dürrenstein Castle,	388	Elvas,	446	Exofalla Yökul,	807
republic,	858	D'Urville's, Dumont, voy-		Ely,	189	Eyder River,	512
Domrémy,	304	—, age, 86; Terre Adelle,	87	Embsden,	353	Eyde,	781
Don, the,	249, 542, 560	Dusseldorf,	382	Embrum,	324	Eylau,	378
—, Cossacks,	562	Dutch discoveries,	46	<i>Emerita Augusta</i> ,	430	Eyub,	437
Donaghadee,	274	—, Guiana,	866	<i>Emesa</i> ,	632		
Donaueschingen,	367	Dutchman's Cairn,	212	Pimpingham,	184		
Doncaster,	179	Dwina,	542	Empire City,	831		
Donegal,	275-277	Dyaks, the,	895	Ems,	353, 361	Fair Havens,	497
Donetz, valley of,	544	Dyneveer Castle,	222	Emu,	907	—, Isle,	256
Donskoi monastery,	554	<i>Dyrrachium</i> ,	480	<i>Endless Mountains</i> ,	824	Fairfax,	192
Doonas Rapids,	281	Earthm,	202	Enfield,	200	Fairmount, village,	271
Dorchester,	207	—, East Dereham,	191	England, 144, 158, 159	146	Falaise,	306
Dordogne,	316	—, Indian Archipelago,	892	English Bay, Spitzbergen,	570	Falkirk,	244
Dordrecht,	344	—, Railway,	683	—, Channel,	146	Falkland Islands,	49, 836
Doreh Harbour,	899	Easter Island,	931	—, counties,	105	Falls of Feigumfoss,	534
<i>Doris</i> ,	604	Eaux-Bonnes of Pau,	318	—, harbour,	859	—, Foyers,	233
Dorking,	201, 202	—, Chaudes of Pau,	318	Enna,	469	—, Giomak,	233
Dornoch Firth, 224, 254;		Ebal Mount,	635	En-Nazireth,	635	—, Itamaritry,	871
town of,	255	Ebensee,	389	Ennis,	280	—, Moness,	233
Dorpat,	547	Ebro, basin of the, 318, 430, 432		Ennisceorthy,	271	—, St Anthony,	840
Dorsetshire,	206	Ebwy Valley,	187	Enniskillen,	276	—, the Potomac,	832
Douai,	305	<i>Ebatona</i> ,	658	Enns, the,	393	—, Troihitta,	527
Doubs, the,	314	Ecuador,	675	Entre Douro e Minho,	447	Falmouth,	211
Douce Mountain,	270	Eddleston Water,	240	Enzel,	657	Falster,	515
Douglas,	224	Eden River, 171; valley,	245	Epericy,	399	Falun,	532
Douro, the,	429, 432	<i>Edessa</i> ,	621	Epernay,	304	Faneuil Hall,	829
Dovedale,	181	Edin,	773	Ephesus,	607	Farnham,	262
Dover,	201, 202	Edge Hills,	194	Epping Forest,	192	Faro,	446
—, U. S.,	833	Edge's Island,	509	Epsom Downs,	202	Farô Islands,	21, 512, 521
Dovre-Field,	526	Edgeworthstown,	271	Epworth,	193	Fars, province of,	661
Down Eshutt,	764	Edible birds-nests,	894	Erbil,	618	Fayal, island of,	448
Down County,	274	Edinburgh,	238	Erekl coal-mines,	605	Fayum district,	773
Downpatrick,	274	Edmonson County, Ken-		Erturt,	377	Recamp,	306
Downs, the,	200	tucky,	539	Erie and Hudson Canal,	825	Féchos dos Morros,	869
Dragon Mountains,	791			—, Canal,	838	Federal States of America,	826

	PAGE		PAGE		PAGE		PAGE
Feigumfoss Falls,	534	Fossil ivory,	591, 598	Garnock, the,	242	Glorietta, the,	436
Feiran,	645	Foulness Island,	192	Garogue, the,	277	Gloucester city,	187
Feldberg, the,	367	Fountain of the Sun,	771	Garonne, the,	312, 316, 318	Glückstadt,	514
Feldkirch,	368	Foyie, the,	275, 276	Gascony,	316, 317	Goa,	448, 707
Felon Falls,	785	Franche Comté,	293, 326	Gastein Valley,	312	Goat Island,	816
Felujah Castle,	614	Franconia,	314	Gate of Canada,	311	Goatfall,	248
Fen counties,	162	Frankfurt-on-the-Oder—	362	Gatehouse,	241	Gobi (naked desert),	733
Fermanagh,	278	Frankfurt-on-the-Maine,	376, 339	Gates of Greece,	505	Godavary River,	677
Fermoy,	232	Franklin's last voyage,	32, 95	Gateshead,	170	Godhaub,	809
Fernando Po,	755	Franklin's last voyage,	32, 95	Gato,	781	Golconda,	691
Ferney,	416	Fraser River,	821	Gaul,	325, 328	Gold coast,	780
Fernezpore,	690	Fraserburgh,	250	Gaurisankar Peak,	705	— discoveries, 903, 908;	
Ferrara,	459, 460	Fraserburgh,	250	Gave, the,	317	— exports,	915, 918
Ferro Island,	764	Fraserburgh,	250	— de-Pao,	317	Gold regions of America,	803
Ferrol,	434	Fraserburgh,	250	Gaza,	633	Golden Gate,	843
Fersala,	463	Fraserburgh,	250	Gebel-Tarif,	636	— Horn,	485
Fez,	761	Fraserburgh,	250	Gedrosia,	291	Göbek höhúz Pass,	577, 611
Festiniog,	217, 219	Fraserburgh,	250	Gedrosia,	666	Golsjic,	255
Fiambala,	823	Fraserburgh,	250	Geelong,	916, 918	Gomurron,	657, 663
Fichtelgebirge,	363	Fraserburgh,	250	Gello,	525, 532	Gomera,	754
Fife,	245	Fraserburgh,	250	Gelderland,	345	Gomorrañ, 628; lakes,	635
Fiji Islands,	900	Fraserburgh,	250	Gemmi Pass,	420	Gonaives Bay,	858
Filey Bay,	177	Fraserburgh,	250	Geneva, canton of,	415, 416	Gondar,	777
Findhorn,	250, 251	Fraserburgh,	250	— Lake,	421	Goodwin Sands,	200
Fingal's Cave,	248	Fraserburgh,	250	Gennesaret, lake of,	468	Goree, islet of,	779
Finisterre,	302, 434	Fraserburgh,	250	Genoa,	458	Gori, legend of,	600
Finland,	523, 532, 550, 551	Fraserburgh,	250	Geographical knowledge		Gorillas,	12, 113
Finna,	548, 594	Fraserburgh,	250	of the ancients,	10	Göz district,	394
Fire volcano,	863	Fraserburgh,	250	of the middle ages,	19	Götha,	360, 627
— worshippers,	597, 694	Fraserburgh,	250	Geography of the Penta-		Gotenburg,	532
Firth of Clyde,	242	Fraserburgh,	250	teuch,	2	Gottingen,	853
— Forth,	146, 232	Fraserburgh,	250	George Town, in British		Gotland,	533
— Tay,	245	Fraserburgh,	250	Indo-Chinese posses-		Gottorp, palace of,	514
Fiskermees,	809	Fraserburgh,	250	sions,	720, 755	Gouda,	344
Flume,	404	Fraserburgh,	250	George Town, Demerara,	866	Goulburn, the,	903, 917
Flamborough Head,	177	Fraserburgh,	250	Georgia, Russia,	599, 600	Gouldja,	734
Flanders,	306	Fraserburgh,	250	— U. S.,	635, 836	Gowhatti,	718
Flavian amphitheatre,	472	Fraserburgh,	250	Georgian Islands,	930	Goyaz province,	870
Fleetwood,	175	Fraserburgh,	250	Gerizim, mount,	624, 635	Gozo,	288
Flemings in Norfolk,	191	Fraserburgh,	250	Germanic Confederation—		Graf Reynet,	787
Fleensburg,	514	Fraserburgh,	250	Germany,	368, 512	Graben-Horn,	130
Flourus,	332	Fraserburgh,	250	Gerona,	642	Graciosa, island of,	448
Flinders's voyage,	115	Fraserburgh,	250	Gethsemane, valley of,	436	Graciosa district,	394
Flintshire,	218	Fraserburgh,	250	Gettysburg,	832	Graham's Town,	790
Floating icebergs,	809	Fraserburgh,	250	Geysers of Iceland,	807	Grain Alps,	129, 324
Flodden Field,	168	Fraserburgh,	250	Ghara, the,	659, 693	Grain Coast of Africa,	780
Florence,	492	Fraserburgh,	250	Ghat,	685, 785	Grampians, the, 228, 229, 246	
Flores, island of,	448, 894	Fraserburgh,	250	Ghants, Eastern and		Gran Canaria,	754
Florida,	836	Fraserburgh,	250	Western,	578, 677	— Para, province of,	870
Flushing,	345	Fraserburgh,	250	Ghengis Khan,	630	Granada,	437
Fochabers,	232, 251	Fraserburgh,	250	Ghent,	331	Grand Chinese Canal,	726
Foggia,	466	Fraserburgh,	250	Chilan province,	660	— Mullrea,	377
Fogo Island,	755	Fraserburgh,	250	Chisib,	770, 772	Granitic, the,	605
Fois,	318	Fraserburgh,	250	Chizni,	667, 669	Grantham,	189
Folge Fonden,	526	Fraserburgh,	250	Chulbul, caves of,	669, 699	Granton,	239
Folkstone,	201	Fraserburgh,	250	Ghurkas, the,	706	Granville,	306
Fondi,	466	Fraserburgh,	250	Giant Mountains,	389, 483	Grasse,	325
Fontainebleau,	303	Fraserburgh,	250	Giant's Causeway,	274	Grassmere,	170
Fontenay,	332	Fraserburgh,	250	Gibraltar, 437; bay,	289, 439	Graz,	393
Forest cantons,	417	Fraserburgh,	250	Giessen,	359	Gravesend,	201
Forfarshire,	245	Fraserburgh,	250	Gihon, valley of,	633	Gray League,	420
Formentera, island of,	439	Fraserburgh,	250	Gilbert Islands,	898	Great Abaco,	357
Formosa Island,	575, 727	Fraserburgh,	250	Gilbert's voyage in search		— Barrier Reef,	962
Forres,	251	Fraserburgh,	250	of North-West Passage,	48	— Basin, the,	825
Fortaventura,	754	Fraserburgh,	250	Gilboa ridge,	626	— Bear Lake,	801
Fort Augustus,	252	Fraserburgh,	250	Gilead,	629	— Belt,	515
— Dearborn,	840	Fraserburgh,	250	Girgeh,	773	— Desert,	749
— Frontenac,	816	Fraserburgh,	250	Girgenti,	469	— of the Andes,	886
— Gaines,	836	Fraserburgh,	250	Girvan,	242	Fish River,	799
— Garry,	822	Fraserburgh,	250	Giurgevo,	494	Glen,	252
— George,	252, 779	Fraserburgh,	250	Glacier of Mount Ser-		Hordes,	594
— Good Hope,	822	Fraserburgh,	250	miento,	890	— Island,	382
— M'Henry,	833	Fraserburgh,	250	Glarus,	417, 418	Karoo Table-land,	789
— Nassau,	896	Fraserburgh,	250	Glasgow,	237	Kei River,	790
— Norman,	822	Fraserburgh,	250	Glaslyn,	215	Lake Van,	614
— Regent,	287	Fraserburgh,	250	Glastonbury,	208	Lakes,	800, 861
— Rotterdam,	896	Fraserburgh,	250	Glen Moriston,	251	Malvern,	194
— Sumter,	896	Fraserburgh,	250	— Roy,	251	Nephin,	277
— Vernoe,	593	Fraserburgh,	250	— Urquhart,	251	Pyramid,	772
— Victoria, British Col-		Fraserburgh,	250	Glenarm,	275	— River,	895
umbia,	820	Fraserburgh,	250	Glencoe,	230	Russia,	552
Fort Victoria, Malaysia,	896	Fraserburgh,	250	Glencolough,	270	— St Bernard,	420, 421
— William,	229, 252	Fraserburgh,	250	Glenelg, the,	917	Salt Desert,	663
— York,	822	Fraserburgh,	250	Glengairiff,	212	— Lake, 825, 841, 843	
— Zealandia,	867	Fraserburgh,	250	Glenlivet,	250	— Slave Lake,	801
Forth, the,	232	Fraserburgh,	250	Glenmore,	229	Tibet,	739
Fortunate Isles of Pliny,	16	Fraserburgh,	250	Glommen, the,	527	— Wall of China,	594, 732
						Greater Zab River,	615
						Grecian Archipelago,	478, 566
						Greece,	501, 603, 569, 610

	PAGE		PAGE		PAGE		PAGE
Greek Archipelago,	127	Guzerat territory,	696, 697	Hechingen,	382	Holyhead,	214
settlements in		Guzzeh,	636	Hecla Cove,	570	Holywell,	218
France, Italy, and Spain,	12	Gwadel,	666	— Mount,	807	Homburg,	361
Green Mountains (<i>Verte</i>		Gwalior principality and		Hegira, the,	649, 650	Homs,	632
<i>Monts</i>),	828	town,	692	Heidelberg,	368	Honda,	862
Greenland,	21, 612, 794, 806	Gwynnapp copper-mines,	211	Heights of Abraham,	815	Honduras,	853
Greenlaw,	239	<i>Gydes</i> ,	615	Heilbronn,	367	Hong-Kong,	729
Greenock,	243	Haarlem, 343; lake of,	339	Helder,	343	Honiton,	209
Greenstead,	193	Haddington,	239	Helensburgh,	244	Honolulu,	899
Greenwich,	201	Haddingtonshire,	239	Helge Ants Holm,	531	Hood Island,	877
Grenada, island of,	859	Hadersleben,	514	Helicon Mount,	505	Hooghly River,	631
Grenoble,	323	Hadrarnaut,	642, 652	Helige-dam,	354	Hoorn,	343
Gretna Green,	241	Hadrian's Villa,	473	Heliopolis,	632, 771	Hor Mount,	645
Grey Mare's Tail,	293	Hague,	488	Hellas,	501	Horseman Island,	535
Greytown,	855	Hainan Island,	314	Hellevoetsluis,	344	Horseshoe Falls, Niagara,	811
Griefswald,	377	Hainault,	192, 332	Helmsdale,	255	Hottentot Country,	787
Grimby,	189	Hakodadi,	439	Helmsdale,	255	Houston,	837
Grindenvald, the,	414	Hakuyt's Headland,	570	Helmund River,	679, 669	Hovas, race of the,	756
Grodno,	558	Hala Mountains,	663, 675	Helmsingfors,	650, 551	Howe of Fife,	245
Groningen,	346	Halberstadt,	377	Helvellyn,	170	Howth,	269
Gross Gloekner,	392	<i>Halicarnassus</i> ,	607	Helvetian Alps,	130	Hoy Island,	295
Gruyeres,	415	Halifax, England,	178	Hemel Hempstead,	198	Huanmanga,	830
Guachos of the pampas,	888	— Nova Scotia,	392	Heraclea,	605	Huancaavelica,	878, 880
Guadalaviar, the,	436	Hall,	392	Herat,	669	Huddersfield,	178
Guadalaxara,	428	Halle,	377	<i>Heracleum</i> ,	465	Hudson River, 799, 830;	
Guadaloupe,	325, 859	Halls, the,	605	Herefordshire,	186	canal,	825
Guadalquivir,	437	Hampden,	305	Herend porcelain,	399	Hudson's Bay, 794, 801, 812, 822	
Gudiana,	427	Hampden, 657, 658	657, 658	Herisan,	420	Company,	820
Guajan Island,	898	Hampshire,	202	Herm Island,	288	voyages,	50, 51
Guamsee, the,	880	Hampstead,	199	Hermanstadt,	403	Hue,	717
Guamahani,	857	Hampton Court,	201	Hermit Island,	889	Hugh Town,	212
Guano Islands,	880	Hanau-on-the-Maine,	358	Hermion Mount,	624, 635	Hulagu,	660
Guardia Vieja,	882	Hane River,	332	<i>Hermopolis</i> ,	507	Hull,	177
Guatamala,	853	Hanging Gardens,	622	<i>Hermus, the</i> ,	605	Humber, mouth of,	189
Guatavita Lake,	863	Hang-tehou,	727	Hernsand,	532	Basin,	163
Guaviare, the,	864	Hanover,	853	Herring-fishery,	191	Humboldt's researches,	66
Guayanoes, the,	865	Hansag-marsh,	399	Hertford,	198	Hungarian provinces,	398
Guayaquil,	876, 877	Hanse Towns,	353, 379, 555	Hertfordshire,	198	Hungary wines,	399
Guden Stream,	513	Hanseatic League,	355, 533	Herzegovina,	405, 491	Hungry Hill,	282
Guebres,	659	Han-yang,	727	Hesse-Cassel,	358	Hunter River,	908, 912
Gueders,	341	Haparanda,	532	Darmstadt,	358	Huntingdon,	196
Gagong Api, or Fire Moun-		Hapsburg Castle,	419	Homburg,	359	Huntingdonshire,	196
tain,	836	Haran,	621	Hestmann Island,	535	Hurdwar,	687
Gaiana,	865	Harbour Island,	857	<i>Hesudrus</i> ,	689	Hussein,	618
Gaicowar,	697	Hardanger Fiord,	526	Hexham,	168	Husum Harbour,	615
Guienne,	315	Harlech Castle,	219	Hielmar Lake,	532	Huy,	338
Guildford,	201	Harmattan,	749	High Alps,	491	Hvaloe,	635
Guinea fowls, grass, pigs,		Harper's Ferry,	823, 833, 835	— Asia,	577	Hyden Island,	517
worm,	782	Harrisburg,	832	Asian Mountains,	576	<i>Hydaspes</i> ,	689
Guineses,	305	Harrow,	199, 200	Level Bridge, New-		Hyderabad,	691, 697
Gulbrandsdalen,	536	Harrowgate,	179	castle,	166	Hydra,	507
Gulf of Akaba,	640, 642, 646	Hart Fell,	229	High Peak,	180	<i>Hydrates</i> ,	689
Bohnia,	523, 525, 540	Hartford,	830	Highgate,	199	Hyeres,	321
California,	799, 823, 842	Hartlepool,	170	Hildesheim,	353	<i>Hyphasis</i> ,	689
Cambay,	677	Harwich,	192	Hill of Howth,	269	Hythe,	202
Carpentaria,	120	Harz Mountains,	333, 374, 376	— Tara,	271	Iar, or West Connaught,	278
Corinth,	505	Haslar Hospital,	203	Hillah,	622	Ibi-Gamin Pass,	578
Cutch,	677	Hasselt,	334	Hills of Judea,	636	Ice Mountains of Iceland,	806
Dantzic,	377	Hastings,	202	Himalaya range—		— trade of Boston,	830
Darlen,	35, 861, 863	Hastings River,	912	103, 577, 578, 674, 703, 734		Iceland, 21, 512, 794, 806-808	
Dwina,	540	Hauptes Alps,	324	Himmelberg,	512	<i>Iconium</i> ,	611
Finland,	16, 540, 549	Havana,	857	Hindu-Kush,	14, 104, 667	Idaho,	844
Georgia,	820	Havel, the,	375	Hindustan,	673	Idria, mines of,	394
Guayaquil,	875	Haverford-west,	221	Hing-King,	733	Iffracombe,	210
Guinea,	488, 745, 778	Havre,	306	Hinnom, valley of,	633	Ii, or Gouldja,	734
Iskenderun,	610	Hawaii Islands,	898, 899	Hiogo, port of,	742	<i>Ilium</i> ,	607
Kabes,	745, 763	Hawick,	240	<i>Hyppo Regius</i> ,	763	Ilawarra,	914
Kandahak,	540	Hawiza,	657	Hissarlik,	607	Iler, the,	362
Livonia,	547	Hawkesbury, the,	904, 912	Hoang-chou,	727	Illman Sammit,	881
Lyons,	129	Hawthornden,	239	— ho,	722, 734, 579	Illniza, the,	876
Mansar,	708	Hayti,	857, 858	Hobart Town,	922, 924	Illinois,	840
Martaban,	579, 713	Hebrew-Phoenician fleet,	11	Hobson's Bay,	917	Illyria, kingdom of,	394
Mexico,	794, 799	Hebrides, the,	235, 252	Hochelaga,	39, 815	<i>Illyrians</i> ,	490
Omeqa,	539	Hebron Mount,	626, 636	Hochwald,	305	Ilim Lake,	543
Riga,	539	Heldersburgh,	244	Hog's Back,	201	Imbatra,	876
St Lawrence,	797, 817	Helicon Mount,	505	Hohenzollern,	382	Imperia,	599
— Vincent,	919	Helige-dam,	354	Holdenby House,	195	Imperial Canal,	723
Saloniki,	488	Heliopolis,	632, 771	Holland, or Hollow Land—		Inagua,	857
San Miguel,	803	Hellas,	501	128, 337, 338		Inchcolm,	232
Sidra,	745	Hellevoetsluis,	344	Hollander-byen,	518	Inchgarvie,	232
Suez,	640, 642	Hellevoetsluis,	255	Hollental, the,	367	Inchkeith,	233
— Stream,	134	Helmsdale,	255	Holstein,	511, 513	Indefatigable Island,	877
States,	836	Helmsingfors,	650, 551	Holsteinberg,	809	Independence,	840
— Gum resin,	757	Helmund River,	679, 669	Holvan, the,	657	Independent Tartary,	670
— Gummel,	783	Helmsingfors,	650, 551	— figs,	657	India,	673, 681, 711, 712
— Gumti, the,	688	Helmsingfors,	650, 551	Holly Land,	624	— by the Cape,	49
— Gurhwal, the,	578	Helmsingfors,	650, 551	— of the Moslem,	648	— rubber tree,	682
— Gurie,	447	Helmsingfors,	650, 551	Well, Malvern,	194	Indian Archipelago visited	
— Gut of Canoa,	817	Helmsingfors,	650, 551	— Wells of St Patrick,	274	by Arabs,	22

	PAGE		PAGE		PAGE		PAGE
Indian Choultry,	5	Jabalpur,	691	Kandabar,	669	Kilsby Tunnel,	196
— Ocean,	639	Jablony rudge,	595	Kandy,	709, 710	Kilsyth,	244
— Peninsular Railway,	695	Jackatalla,	701	Kangaroo Island,	115, 919	Kinburn,	560
— Territory,	840	Jackson,	836	Kangaroos,	907	Kincardineshire,	246
— tribes,	805	Jacob's Well,	635	Kano,	783, 784	King George's Sound, 118, 921	921
Indiana,	838	Jacobshaab,	809	Kansas,	840	— William Island,	822
Indianapolis,	838	Jaffa,	632	Kapunda,	921	— William's Town,	790
Indo-Chinese Peninsula—		Jaffnapatam,	710	Kara-denghis,	541	King-ki-tao,	733
— 713, 715		Jagra defile,	599	— River,	126	King's County,	272
Indo-Chinese plain,	576	Jahde,	375	Karakorum,	733	— Hill,	528
Indore principality,	692	Jalapa,	846	Kara-Kum Desert,	671	— Island,	280
Indre, the,	311	Jalomnitza, the,	492	Karakush,	618	Kingston, Canada,	816
Indus,	676	Jamaica,	358	Karamania,	606, 610	—, Jamaica,	853
Ingleborough,	592	James Island,	877	Karamany, the,	702	—, on Thames,	201
Ingul River,	569	— River,	834	Kara-tagh,	490	—, St Vincent,	859
Ingur, the,	599	Jamestown,	755	Karens, race of the,	719	Kingstown,	269
Inishmore,	278	Jan Mayen Island,	810	Karlowitz,	403	Kini Balu Mount,	895
Inkermann,	564	Janina,	490	Karisburg,	403	Kinnaird's Head,	249
Inkpen Beacon,	162	Japanese Empire,	736-738	Karnac,	774	Kinross,	245
Inland Prussia,	373	— Sea,	574, 575	Karqenas Strait,	843	Kinsale,	282
— Ann, the,	366	Jarra-wood,	922	Kars,	616	Kin-to-ching,	727
— valley of,	302, 420	Jassy,	494	Karst, the,	394	Kirauca, crater of,	898
Inner Hebrides,	236	Java,	576, 892, 894	Karun River,	660	Kirgis hordes,	592, 671
— Rhoden,	420	Jazartes River,	579, 570	Karyas,	489	Kirkcubright,	733
Innerloithen,	241	Jebel Attaka,	642	Kasan,	591	Kirkcaldy,	245
Innsbruck,	392	— el-Thelj,	753	Kashin,	657, 658	Kirkcubright,	241
In-Sban range,	577	— Haroun,	846	Kasbuk Mount,	598	Kirkintilloch,	244
Interlachen,	414	— Katerin,	644	Kaskaskia, mouth of the,	840	Kirkstall Abbey,	178
Inverary,	248	— Makmel range,	624	Kastri,	505	Kirkton River,	632
Invergordon,	254	— Mousa, 290, 614, 645, 761		Kattywar Peninsula,	697	Kissengen,	366
Inverness-shire,	251	— Serbal,	644	Kaveri, the,	677	Kistna River,	691
Investigator Strait,	919	— Sunnim,	624	Kuzan,	566	Kital-gorod,	553
Iona,	235, 248	Jedburgh,	240	Keban Maden,	615	Kisun,	736, 737, 742
Ionian Islands,	504, 506	Jelalabad,	669	Kedron, valley of,	633	Kizil-Irmak (Red River),	605
Iowa,	840, 841	Jemappes,	332	Keeling Islands,	894	— Kum Desert,	671
Ipsaca,	489	Jerbah,	764	Keiskamma River,	787, 790	Kizliar,	566
Ipswich,	912	Jericho,	627, 629	Keiss Castle,	265	Klagenfurth,	394
— on the Bremer,	196	Jersey,	286	Kelat,	666	Klausenburg,	403
Irak-Ajemi,	657	Jerusalem, 487, 626, 633-635		Kells,	271	Klofa Yöküs,	807
— Arabi,	620	Jethou Island,	288	Kehdal,	171	Klokans, or night-criers,	552
Iran,	614	Jethro's Well,	545	Kenia Mountain,	785	Knaresborough,	179
— Iravaddy, the,	713	Jeyapore,	693	Kemilworth,	194	— Castle,	177
Ireland, 144, 145, 259, 269		Jeziira-al-Arab,	623	Kenmare,	283	Knights of St John,	611
Irkut River,	595	Jhansi,	692	Keembebe, the,	828	Knill Court,	223
Irkutsk,	592, 595	Jhelum, 690; river,	689	Kennedy's overland jour- ney,	119	Knocera Hill,	277
Iron Gates of the Danube,	132	Jiddah,	648, 650	Kennet, the,	204	Knockmahon copper- mines,	281
Irish River,	588	Jihun, the,	605	Kent,	200	Knockmelledown Moun- tains,	281
Irtun,	432	Joachimsthal,	390	Kentucky,	838, 839	Koch Hissar Salt Lake,	608
Irvine, town and river,	242	Johnstone,	243	Kerason,	606, 610	Kodas, the,	605
Isar, the,	362, 364	Jollba,	747	Kerkah River,	680	Koenen range,	526
Ischia, island of,	466	Jönköping,	532	Kerkuk,	619	Koethen,	360
Isère, the,	323, 324	Joppa,	635, 663	Kerkuk,	657, 662, 663	Kola,	555
Iserlohn,	545	Jordan,	570, 624	Kerman,	658	Kolapov,	697
Isinglass,	187	Jorrallo,	787	Kermanshah,	562, 563	Kolima River,	558
Isis,	137	Joyce's Country,	693	Kerry,	562, 563	Kolyma Valley,	595
Iskenderun,	630	Juan de Fuca Strait,	273	Kertch,	171	Kolyvan,	592
Isla,	250	— Fernandez,	820	Keswick,	390	Komorn,	404
— de Lovos,	834	Judea,	834	Kettering,	390	Kong Mountains,	779
Islamabad,	704	Judges' Cave,	633	Kettle-land,	390	Kongsberg silver-mines,	529
Islands of the Czar,	550	Juggernaut,	830	Khandesh,	557	Konich,	605, 606
— grassy,	509	Julian Alps,	683	Kharkov,	708	Königsberg,	375
Islay,	248, 802	Julliana's Hope,	130, 394	Khartoum,	775, 776	Kongice, the,	362
Isle de France,	302	Jungfrau,	130, 414	Khatmandu,	671, 672	Königsstuhl,	375
— Leon,	438	Jura, island of,	246	Khing-Khan range,	577	Kootinga,	921
— Vaches,	302	Jura, mountain,	314, 414	Khiva,	672	Kopaukt, peak of the,	492
— of Ely,	189	Jutland,	511, 513	Khofend,	672	Kopoberg Mountains,	494
— Pines,	223, 241	Kabyles of Algeria,	760, 763	Khokan,	662	Kordofan,	775
— Portland,	206	Kachuo,	717	Khonds, wild tribes,	682	Korsora, battle of,	402
— St Mary,	212	Kadina,	921	Khorsabad,	618	Kotah,	603
— Sheppey,	200	Kaffra,	565	Khourgans, the,	550	Konynjik,	618
— Thame,	200	Kaffirs,	784	Khurd-Cabul defile,	667	Kovno,	559
— Wight,	204	Kaffraria,	790	Khuzistan,	660	Kow-lung Peninsula,	729
Ismail,	495	— Proper,	792	Khyber Pass,	668	Krabata, village of,	506
Izola,	528	Kahlenberg,	387	Kiechta,	591, 592, 593, 784	Krajova,	492
Ispahan,	657, 658	Kairwan,	764	Kidderminster,	194	Krajova,	494
Istapa,	853	Kaisariyeh, or Kaisariyeh,	606	Kiel,	514	Krasnojarsk,	592
Isthmus of Panama, 36, 794, 861		Kaiserbagh of Lucknow,	689	Kiev,	542, 556	Krasnojarsk,	592
— Perekop,	563	Kaisersterg,	387	Killeceman Castle,	282	Krenlin,	553
— Suez, 574, 638, 744		Kajar princes,	663	Kilda, St, Victoria,	918	Krenzberg, the,	600
— Tehuantepec,	852	Kalabagh,	690	Kildare,	272	Kronstadt,	403
Itarian Peninsula,	394	Kallhari Desert,	787	Kilimandjaro,	784	Kroomen,	780
Italian lakes,	133	Kalmar,	532	Kilkce,	280	Kuban, 542, 566; river,	569
Italy,	450-457	Kalos Limenas,	497	Kilkenny,	271, 273	Kuching,	895
Itarmarity Fall,	871	Kanchatka,	595, 596	Killala Bay,	280	Kudrét-halvassit,	615
Itasca Lake,	799	Kamenoi-Ostrog,	592	Killaloe,	280	Kuen-Lun range,	577, 734
Ichin, the,	203	Kampti,	691	Killarney,	283	Kufa,	622
Ihaca,	508	Kanagawa,	741	Kilmallock,	280	Kuka,	783
Ivica,	439			Kilmarnock,	242	Kiloch Cave,	363
Ivory Coast of Africa,	780			Kilrush,	280	Kulpa, the,	404

PAGE		PAGE		PAGE		PAGE	
Kumaon, 686, 705	Langston Harbour, 202	Libao, 647	Loch Rannoch, 246	— Rvan, 241			
Kunchinjunga Peak, 104, 705	Languedoc, 838	Liberian Republic, 780	— Shin, 234	— Skene, 232			
Kur River, 579, 599, 600	Lansing, 607, 630	Libertad, 854	— Tay, 231	— Vennacher, 246			
Kurdistan, 613, 615; mountains of, 577	Laodicea, 607, 630	Liburne, 316	Lochmaben, 241	Lockrby, 241			
Kurds, the, 577	Laon, 303	Libyan Wilderness, 771	Loeris, 504	Locusts, 561			
Kurile Isles, 575, 595, 596, 736	Laos country, 717	Lichtenstein, 717	Loddon, the, 204, 903, 917	Löffgrund stone, 625			
Kurnah, 622	La Paz, 881	Liddeadal, 240	Lofoden fishery, 535	Loggan Stone, the, 211			
Kurrachee, 686, 697	— Perouse's voyage, 78	Lidze, 352	Loiro, the, 309, 311	Lokeren, 331			
Kutaiah, 604, 607	Lapland, 541	Liffey, the, 268, 270	Lombardy, 458	Lombok Island, 894			
Kutais, 539	La Plata discovered, 36	Lifford, 275	London, 199	— Canada, 816			
	— town of, 881	Light-houses of Pharos, Ostia, and Ravenna, 9	Londonderry, 275	Lone Trees of Galveston, 337			
Laaland, 515	Laporte, 287	Lilim Fiord, 542	Long Island, 235, 829, 830	Longford, 271			
Labrador, coast of, 804, 820	Lapps of Norway, 538	Lille, 305	Lons-le-Saulnier, 314	Loo-Choo group, 736			
Labuan, 896	La Prairie, 815	Lima, vale of, 447; city of, 279	Loretto, 461	L'Orient, 310			
Laccadive Islands, 576, 710	Lar, 657	Limburg, Belgian, 234	Lorraine, 394	Los Pintados, 898			
La Chine, 815	Largs, 242	— Dutch, 346, 396	Los Tres Puntos, 884	Lossio, the, 250			
Laehsa, 653; pearl-fishery, 653	Larissa, 489	Limerick, 280	Lot, the, 316	Lotopagitis, 764			
Laconia, 505	Larissa, 489	Limes of Fribourg, 415	Lotus-caters, 764	Lough Allen, 277			
Ladinos, 852	Lassa, 375	Limestone rocks of Derbyshire, 630	— Conn., 278	— Corrib, 278			
Ladoga Lake, 543	Las Salinas, 886	Limousin, 511, 614	— Cullin, 278	— Derg, 280			
Ladrome Islands, 439, 898	Latakia, 630	Lincoln Cathedral, 841	— Foyie, 275	— Gull, 277			
Lafitte Fort, 837	Latrobe, the, 917	Links of Forth, 232	— Gur, 289	— Mask, 278			
Lagan, the, 274	Lauder, 239	Linthgowshire, 239	— Neagh, 273, 276	— Bee, 247, 273			
Lago Maggiore, 420	Lauenburg, 511, 614	Linn of Dee, 233	— Strangford, 274	— Swilly, 276			
Lagoons of Venetia, 474	Laughing Waterfall, 841	Linn of Dee, 233	Louisburg, 818	Louisen-Strasse, 404			
Lagos, 781	Lanneston, 924	Linton, 414	Louisiana, 836	Louisville, 839			
La Granja, 433	La Union, 854	Linz, 389	Louth, city of, 189, 271	Louvain, 330			
— Guayra, 865	Laurencekirk, 246	Lion's Head, Cape Town, 790	Louvre, 302	Lover's Leap, 508			
Lahijan, 657	Lauricocha Lake, 800, 878	Lipari Isles, 468	Low Archipelago, 929, 931	— Countries, 128, 333			
Lahn River, 358, 360	Lausanne, 416	Lippe, the, 380	— Peak, 180	— Howell, 830			
La Hogue, 307	Lauterbrunnen, 414	— Detmold, 394	Lower Bengal provinces, 681	— Egypt, 769			
Lahore, 690	Laval, 311	Lisbon, 445	— Guinea, 779, 781	— Novgorod, 554			
L'Aiguille de Puy, 320	La Vendée, 310	Lisburn, 274	— Nubia, 775	— Valais, 421			
La Joliette, 320	Laws of Oleron, 311	Lismore, 248, 282	Lowestoft, 192	— Ness, 144			
Lake Asphaltites, 638	Laybach, 394	Lissa, island of, 405	Lower Hills, 228, 241	Loxa, 877			
— Baikai, 588, 594, 595	Lea River, 192, 198	Litchfield, 182	Lübeck, 355	— Lütcke, 634			
— Balkash, 588	Leadhills, 194	Lithuania, grand-dukes of, 557	Lucerne, 417	— Lucknow, 688			
— Constance, 367, 382	Leamington, 194	Lithuanian forests, 378, 545	Ludlow, 186	— Lug, the, 223			
— Dembea, 777	Lebedeia, 505	Little Belt, 515	— Lundy Island, 210	— Lurgan, 273			
— District, 171	Lebanon, 577, 624	— Bokhara, 734	— Lutzen, 377	— Lutero, 497			
— Erie, 891, 812	Lech, the, 329	— England, 221	— Luxor, 774	— Luxur, 774			
— George, 812	Le Crau, 282	— Hampton, 202	— Luzon, coast of, 897	— Lycania, 606			
— Huron, 812	Lee, the, 178	— Horde, 694	— Lycia, 606				
— Ilmen, 554	Leeds, 182	— Maplestead, 193					
— Issikul, 588, 595	Leek, 346	— Russia, 556					
— Leon, 801	Leeuwarden, 858, 930	— St Bernard, 237					
— Managua, 855	Leeward Islands, 858, 930	— Sark, 237					
— Michigan, 825	Leghorn, 462	— Wallachia, 494					
— Moeris, 773	Legnago, 476	— Livadia, 605					
— Ngami, 788	Leicester, 183	— Liverpool, 173					
— Nicaragua, 855	Leichardt's overland journey, 119	— Livonia, 547					
— Ontario, 39	Leinster, 268	— Lizard Point, 11, 144; rocks of, 210					
— Peipus, 547	Leipzig, 357	— Llanberis, 216					
— St Clair, 923	Leith, 239	— Llandaff, 222					
— Superior, 799, 812	Leitmeritz, 390	— Llandello, 222					
— Tanganyika, 113	Leitrim, 276	— Llandudno, 216					
— Tchad, 747, 782, 783	Leixlip, 272	— Llangollen, 217, 218					
— Temponogos, 843	Le Mans, 311	— Llanidloes, 220					
— Tiberias, 637	Lemnos, isle of, 488, 496	— Llanos, or level plains, 798					
— Torrens, 118	Lé Morven, 314	— of Venezuela, 864					
— Urumiah, 619	Lena River, 588	Lledwy Valley, 219					
— Van, 614	Leominster, 428	Llyn Gun, 199					
— Winnipeg, 822	Leon, 429	Loango, 781					
— of Killarney, 283	— city of, 438	Lob Lake, 579, 734					
— the Thousand Islands, 812	— Isle de, 855	Locharay, 246					
Lake of the Woods, 840	Nicaragua, 855	— Assynt, 254					
Lamaists, the, 733, 735	Leontes, 627	— Avon, 234					
La Mancha, 438	Lepanto, 505, 509, 508	— Awe, 247					
Lambeth, 201	Lepontine Alps, 420	— Broom, 228					
Lammermoirs, 239	Lepsina, 505	— Corulsk, 252					
Lamongan Mount, 892	Le Puy, 320	— Dnebfour, 252					
Lampeter, 220	Lerida, 436	— Ell, 220, 252					
Lanarkshire, 242	Lerwick, 216	— Fyne, 248					
Lancashire, 172	Lesbos, 611	— Katrine, 246					
Lancaster Castle, 174	Lesser Antilles, 658	— Leven, 234; castle, 245					
L'Ancrese Bay, 287	— Asia, 694	— Lochy, 252					
Land light-house, 139	Letho, fountains of, 505	— Lomond, 233, 244					
— of Burns, 242	Letterkenny, 275	— Long, 244					
— Edom, 11	Letts, 548	— Marce, 253					
— Goshen, 789	Leucadia, 508	— Ness, 233, 251, 252					
Landes, the, 317	Leuk, 420	— Oich, 252					
Land's End, 210	Leukerbad, 420						
Landsborough's journey, 122	Levant, the, 124, 509						
Landskrona Mount, 397	Leven, the, 244						
Lange Gasse, 432	Lewes, 203						
Langeland, 515	Lewis, island of, 254						
Langen-Schwalbach, 361	Leyden, 329, 344						
Langside, 243	Liakov group, 591, 595						

	PAGE		PAGE		PAGE		PAGE
<i>Lycus</i> ,	615	Malin Head,	275	Mataro,	275	Mezières,	436
<i>Lydia</i> ,	606	Malines,	330	Matina,	895	Mhow,	692
Lyme Regis,	203	Mallow,	282	Matlock Bath,	180	Mbye, the,	693
Lymington,	204	Malmo,	532	Mato Grosso,	870	Miaco Lake,	737, 742
Lynemouth,	210	Malmesbury,	206	Matre Fiord,	526	Miana,	657
Lynn,	191, 830	Malmsey wine,	507	Matsmai,	743	Miask,	593
Lyon,	313	<i>Malvines</i> ,	890	Matterhorn,	130, 420, 421	Miasa River,	589
Lyonnais,	313	Malta,	288	Maule,	883	Michaelberg,	362
Lys, the,	323	Malvasian wine,	507	<i>Mauritania</i> ,	760	Michigan state, 833; lake, 840	
Lyttleton,	927	Malvern, 161, 193; hills, 194		Mauritius, the,	757	Micmac Indians,	318
Maas, estuary,	330	Malwa table-lands,	675	Mawddach,	219	Micronesia,	397
Maeano,	448, 728	Mam Tor,	181	May Island,	232	Middleburg,	345
Macarney's Island,	779	Mamelukes,	775	Mayenne,	311	Middleborough,	177
Macas, volcano,	876	Mammoth Cave, Kentucky, 839		Maynooth,	272	Middlesex,	199
Macassar,	896	Managua, town and lake, 855		Mayo,	277	_____ Jamaica,	858
Macclesfield,	185	Manama,	653	Mayotta Island,	757	Migliazza,	492
Macduff, village of,	250	Manasarowara Lake,	103	Mayotte, isle of,	325	Mignonette,	759
<i>Macedonia</i> ,	453	Manchester,	173	Maypo, battle of,	883	Milan,	459
Macgillivuddy's Reeks,	283	Manfalut,	769, 773	Mazanderan province,	660	Millford Haven,	230, 221
Mackenzie River,	794, 999	Mangalore,	700	Mazatlan,	850	Milis,	470
Mackenzie's adventures in North America,	66	Manhattan Island,	831	<i>Meander</i> ,	605	Military frontier colonies, 405	
M'Kinlay's journey in Australia,	122	Manilla,	61	Mearns, the,	246	Miltsin,	746
Macleay, the,	912	_____ extra Muros,	897	Meaux,	303	Milwaukee,	341
M'Clintock's search for Franklin,	86	Manna,	615	Mecca,	648-690	Minas Geraes,	869, 870
M'Clure's search for Franklin,	87	Mannheim,	368	Mechlin,	330	Minch Channel,	254
Macon,	314	Manning, the,	912	Mecklenburg-Schwerin,	354	Mincio,	474
Macquarie River,	904	Mauresa,	436	_____ Strelitz,	354	Mindello,	755
Madagascar,	756	Mans,	311	Medellin,	860	Minden,	381
Madeira discovered, 29; described,	753	Mansfield,	182	Medina, 487, 648; port of, 662		Mines of Sierra do Espin- haco,	869
Madeira, Brazil,	859	Mantchu Tartars,	732	_____ del Campo,	493	Mingrelia,	599
Madras,	693, 699	Manhua,	476	Medinet-el-Fayum,	773	Minho, the,	404, 447
_____ presidency,	698	Manzanares,	427	Medoe district,	316	Mimih,	773
Madrid,	427	Maories of New Zealand,	928	Medway,	290	Mining operations,	157
Madura,	700	Mar Forest,	249	Megante,	697	Minnchaha Falls,	841
Maduwar,	733	Maracaybo city,	865	Meerut,	687	Minnesota,	840, 841
Madzai Peak,	665	_____ Lake,	864	Megrung,	716	Minorca,	439
Magaris,	504	Maragatos,	429	Meinam, 713; river, 579, 716		Miosen Lake, 528; coun- try,	536
Maelström, the,	535	Maragha,	657, 660	Melning,	390	Miquillon Island,	325, 830
<i>Mæonia</i> ,	606	Maranhao,	871	Meirionydd,	219	Miramichi, the,	817
Measa Inferior,	495	Maranon, the,	800	Meissen,	889	Miranda,	432
Meastricht,	339, 346	Marash,	600, 610	Melanesia,	918	Mirzapur,	686
Meatra,	445	Marathon,	505	Melbourne,	115, 917, 918	Mississippi, the, 799; state of, 832, 836; bluffs,	839
Magdalena, falls of,	893	Marazion,	211	Mellila,	762	Missouri, the,	799, 849
_____ valley of,	822	Marburg, on Lahn,	358	Melksham,	306	Mistral, or north-west winds,	330
Magdeburg,	376	Marche, the,	312	Melrose Abbey,	240	Mitchell's Peak,	835
Magellan Strait,	794, 884	Marches, the,	461	Melton Mowbray,	133	Mitta, ruins at,	832
Magellan's discoveries, 37, 38		Marco Polo's journey to Asia,	24-27	Melville Bay, 810; island, 822		Mitau,	547
Mageroe Island,	125, 535	Madrid,	617	Memel, 578; Deeps,	872	Mitau,	570
Magharat,	615	<i>Mare Mortuum</i> ,	628	Memphis,	772, 839	Mitre Cape,	917
Magna Charta Island,	202	Maremma, the,	461	Mena Straits,	214	Mitta Mitta, the,	917
Magnesia ad Sipylum,	605	Marengo, field of,	458	Mendoza, the,	605	Mitylene,	606
Magyar race,	399	Margarita, field of,	364	Mendip Hills,	208	Mizen Head,	232
Mahabalipoor,	699	Margarita Island,	864	Mendoza,	882, 887, 888	Moab, plain of,	627
Mahanadi,	690	Margate,	201	Mendoza,	882, 887, 888	Moalka,	764
Mahawelli-ganga,	708	Margh Forest,	783	Mentone,	325	Mobie, 636; river,	825
Mahmudieh Canal,	775	Margh Forest,	783	Menzaleh Lake,	769	Mocha,	652
Mahratta confederacy,	696	Mariana Islands,	898	Mequinez,	762	Mocana, 324; tunnel,	438
Maidstone,	200	Mariæzél,	393	Mercur,	701	Modena,	459, 460
Maimatchin,	591, 595, 734	Maribonurg,	378, 379	Mercury Bay,	927	Moel-Siabot,	213
Main, the, Ireland,	271	Maritime Alps,	129	Merdasht, plain of the,	661	Moen Island,	515
Maine, province of,	311	_____ Cordillera,	862	Merida,	895	Moffat,	241
_____ River,	359	_____ Nigritia,	779	Merionethshire,	219	Moffan Island,	570
_____ state of,	827	Maritza, the,	457	Merlin,	219	Mogador,	11, 762
Mainland or Pomona Island,	216	Marlborough, England,	906	Merlin's,	239	Moguntiacum,	359
Mainz or Mayence,	369	_____ New Zealand, 927		Merse, the,	192	Mohacs, village of,	401
Majo Island,	755	Martinez, the,	457	Mersea Island,	163	Mohammedanism,	585
Maitland,	914	Mariborough, England,	906	Mersey, the,	606, 610	Mohammedanism,	585
Majores,	439	_____ New Zealand, 927		Mersivan,	606, 610	Mohammedanism,	585
Makiang or Cambodin,	714	Martign,	421	Merthyr-Tydfel,	622	Mohammedanism,	585
Malabar,	699, 700	Martigny,	421	Merve,	672	Mohammedanism,	585
Malacca,	575, 892	Martinique,	325, 859	Mesched Ali,	622	Mokattam Mount,	771
_____ strait of,	719	Martin's Fall,	822	_____ Hussein,	622	Mold,	215
Malachite, 633; mala- chite from Barra Barra, 921		Maryburgh, Ireland, 252, 272		Meshid,	657	Moldau, the,	339, 390
Malaga,	457	_____ Queensland, 916		Mesoloughi,	505	Moldavia,	396, 493
Malapide,	269	Maryland,	832	Mesopotamia,	629	Moie,	201
Malay Lake,	551	Mascara,	763	Messenia,	505	Molucca Islands,	28, 895
Malatiyah,	611, 616	Mascarene Islands,	757	Messina,	468	Mombas,	785
Malay Archipelago,	448	Masena,	784	Meta, the,	864	Mona,	214
Malayan Archipelago,	576	Massachusetts, 823; bay, 829		Meteora,	489	Monaghan,	276
_____ Peninsula,	720	Massacra Bay,	929	Metrachenny village,	772	Monaghan,	251
Malaysia,	717, 720, 892	Massowah,	749	Metz,	304	Monangahela,	862
Maldiv Islands,	576, 710	Massulipatam,	700	Menthe, the,	304	Mösch,	130
		Matanzas,	857	Meuse, valley of,	304	Mondego,	447
				_____ River,	323, 332	Monghyr,	683
				Mexican Gulf,	846	Mongol Tartar invasion,	23
				_____ Indians,	851	Mongolia,	4, 578, 591
				_____ monuments,	851	Monsirol Station,	436
				Mexico,	846-850	Monks of Mount Athos,	488
				Mezen, the,	542	Monmouth,	187

	PAGE		PAGE		PAGE		PAGE
Monmouthshire,	186	Mont Real,	39	Narew, the,	553	New Mexico,	845
Monrovia,	750	— Right,	417	Narewska, the,	558	— Orleans,	837
Monreale,	468	— Ruapahu,	936	Narragansett Bay,	830	— Philippines,	898
Mons,	332	— St Elias,	795, 810	Narrows, the,	859	— Plymouth,	927
Mont Blanc,	130, 324, 416	— Helens,	825	Narva,	547	— Providence,	857
— Cenis,	130, 324, 457	— Michael,	306	Naseby,	195	— Radnor,	223
— Corvin,	139	— Sinai,	646	Nashville,	839	— River,	190
— de-Marsan,	317	— Sugomac,	25	Nassau, 260; castle,	361	— Ross,	271
— Gendyre,	324	— Vernon,	833	— West Indies,	887	— Siberia,	531
— Iseran,	324	— Washington,	797, 824	Natal, colony,	784, 790	— South Wales,	910;
— Jorat,	416	— Wellington,	922, 924	Natchez,	836	— first settlement,	913
— Royal,	815	Mountain of the Cross,	690	Natron,	783	New Strelitz,	354
— Ventoux,	322	Mountains of Myrrh,	644	Natural bridges on the		— Westminster,	351
Montagna River,	353	— Scir,	647	Icononzo,	863	— York state,	830, 831
Montauban,	316	Mount's Bay,	11, 210	Nauhampa-tepetl,	847	— Zealand,	64, 925
Monte Gibello,	467	Mourgab, plain of,	661	Nauplia,	506	Newark, England,	183
— Rosa,	130, 421	Mourne Mountains,	274	Nauvoo,	811	— New Jersey,	
Monte Santo,	488	Mowna Kea, volcano,	898	Navan,	271	— U. S.,	833
Monte Video,	488	— Lon, volcano,	898	Navarino,	506	Newbury,	204
Montefige,	623	Moy, the,	278	Navarre,	317, 430	Newcastle, New South	
Montenegro,	405, 490, 491	Mozambique,	418	Navigator Islands,	929	Wales,	914
Montgomery, Wales,	220	— Channel,	756	Navy Bay,	863	Newcastle-on-Tyne,	168
— U. S.,	836	Maket Cathedral,	600	Naxos,	507	— under-Lyne,	182
Montmorenci Falls,	815	Muckish,	275	Nazareth,	695	Newfoundland, 794, 818, 819	
Montpelier,	319	Muckross Abbey,	249	— hill of,	620	Newhaven,	202, 239
Montreal,	312, 815	Mud River,	797	Naze of Norway,	535	— Massachusetts,	830
— Island,	322	Mujellibeh,	622	— Point,	144	Newport,	187
Montrose,	245	Mukden,	732	Neapolis,	457, 635	— Gate,	189
Montserrat,	859	Mulde, the,	360	Neapolitan provinces,	464	— under-Wight,	204
Mooltan,	690	Mules of Chili,	882	Neath,	229	— Massachusetts,	830
Moor of Rannoch,	246	Mulhouse,	305	Nebraska,	844	Newry,	274
Moorish geographers,	22	Mull, island of,	248	Neckar, the,	359, 366	Newton,	220
Moors in Granada,	437	— of Galloway, 220, 228, 241	241	Nedj,	642	— Butler,	296
Moosehead Lake,	528	Mullet, the,	277	Nedjed,	642	— Pery,	280
Mora,	528	Mullingar,	272	Needles,	204	— Stewart,	241, 296
Morat,	415	Muluya, the,	760	Negapatam,	790	Newton's birthplace,	189
Morava, basin of the,	492	Munich,	364	Negro family, variations,	799	Newtown-Limavady,	275
Moravia,	389, 391	Munster,	279, 380	— River,	869	Niagara, falls of,	801
Moray district, 250; fifth, 251	251	Mur, the,	393	Negroland,	782	— town of,	816
Morea,	595, 597	Murcia,	436, 437	Negropont,	507	Nias Island,	894
Moroton Bay,	117, 915	Murreesboro',	839	Neigherry Hills,	677, 701	Nicea,	608
Morgarten,	418	Murphy's Big-Trees Valley,	842	Naira,	896	Nicaragua, 801, 834; lake,	835
Morlaix,	310	Murray River, 909, 912, 917	917	Nelba Malla Mountains,	691	Nice,	374
Mormon city,	823, 843	Murri,	690	Nelson,	927	Nicobar Islands,	576
Morpeth,	168	Murrumbidgee,	903, 912	— River,	801	Nicolaevsk,	592, 595
Moscow,	552, 554	Murshodabad,	633	Nelson's birthplace,	191	Nicolafel,	562
— its black earth,	128	Murviadro,	437	Nen, source of the,	195	Nicomedia,	608
Moselle, the,	304, 381	Murzuk,	765	Nenagh,	281	Nicosia,	611
Moskva River,	552	Muscet,	642, 653	Nepaul state,	705	Niedem-wald,	417
Moslem pilgrimages,	649	Mush, on White River,	617	Nepean River,	914	Nieman,	377, 542, 557
Mosque of Omar,	633	Musk ox,	810	Nepin heights,	277	Nieveldt Bergen,	787
Mosquito territory,	854, 855	Musselburgh,	229	Nepo River,	800	Niezeanov Forest,	538
Mosul on the Tigris,	610, 617	Mussi, the,	691	Nerbuada, 674, 677, 691, 693	693	Niger, the,	747, 778, 782
Motala River,	532	Muta-hobo,	716	Nertohinsk,	590, 592, 595	Nigritia,	782
Mottlau,	379	Myene,	506	Nervion, the,	432	Nijni-Kamchatsk,	692
Moukden,	732	Mynach, the,	220	Nesenbach, the,	366	— Kolimek,	692
Moulins,	312	Myrhina in Leninos,	488	Ness River,	251	Nogovorod,	542, 554
Moulmein,	718	Myria,	606	Nestorian Christians,	660	Nile River,	113, 115
Mount Abrupt,	917	Mysore,	485, 701	Netherlands, the,	28, 337	— Valley,	770
— <i>Abyla</i> ,	290, 761	Naab, the,	363	— East India		— water,	747
— Arden,	919	Nais,	272	Company,	894	Nimeguan,	345
— Athos,	438	Nak, the,	362	Neuera Elia,	710	Nimrud,	618
— Baker,	821	Nablous,	635	Neufchatel,	414, 416	Nineveh,	615, 618
— Boerenberg,	810	Nafels,	413	Neusiedler-See,	393, 491	Ning-po,	727
— Brandon,	283	Nagasaki,	742	Neva, the,	542	Niort,	310
— Brown,	794, 919	Nagpur,	690, 691	Nevada,	844	Nipon,	736
— Calpe,	230	Nahr Ibrahim, the,	630	— de la Vinda,	879	Nishapur,	657, 663
— Carmel,	632	Nain, Labrador,	820	— de Tolima,	861	Nismes,	320
— Egmont,	927	Nairo,	391	Nevers,	312	Nithdale, 229; Nithdale,	241
— Elburz,	698	Nairnshire,	361	Neville's Cross,	240	Nivello, the,	317
— Elwund,	658	Nakhitchevan,	601	Nevis,	859	Nivernais,	312
— Etna,	498	Nakus or the 'Bell'		Neyyansk,	590	Nola,	466
— Everest,	104, 578	— Mountain,	644	New Amsterdam,	866	Non-fossiliferous rocks,	227
— Hor,	646	Namur,	332	— Archangel,	810	Nootka Sound,	820
— Humboldt,	923	Namsimo,	821	— Britain,	821	Noraghe,	470
— Ida,	497, 606	Nancy,	394	— Brunswick,	816, 817	Nordenfelds,	594
— Kilimanjaro,	113	Nangs Parbat (Naked)		— Caledonia,	325, 900	Nordfolk, England,	190
— Kotelusko,	903	— Mountain,	703	— Carthage,	437	— Virginia,	835
— Lebanon,	631	Nankin, or Nan-king,	727	— Castile,	427	— Island,	914
— Lofy,	917	Nantes,	309	— Cytherea,	931	Norio Alps,	130, 331
— Macedonia,	917	Nantle,	829	— Dongola,	776	Noricum,	393
— Maroy,	831	Nantucket Island,	829	— England States,	827	Normandy,	306
— Negro,	403	Naples,	464	— Forest,	203	Norrköping,	532
— of Olives,	624	Napoleon Vendée,	310	— Granada,	861, 862	Norrland,	534
— Olivet,	635	Napoli,	464	— Guatemala,	862	North Andaman,	719
— Pagus,	607	Napoli di Malvasia,	507	— Guinea,	62, 899	— Bay, Spitzbergen,	570
— Pascal,	879	Narbonne,	319	— Hampshire,	828	— Berwick,	239
— Pelvonx,	324	Narborough Island,	877	— Hebrides,	900	— Brabant,	343
— Perdu,	317			— Herrnhut,	809	— Cape,	126, 535, 569
— Pilatus,	417			— Jersey state,	832	— Coast,	144

	PAGE		PAGE		PAGE		PAGE
Ross,	186	St Augustine,	836	<i>Saltee</i> ,	762	Sardinia,	470
Ross's voyage,	85	— Ansteel,	211	Saloniki,	488	— island of,	325
Ross-shire,	253	— Bride's Bay,	220	Salt-pans of the Romans,	193	<i>Sardis</i> ,	607
Rostock,	354	— Brieuc,	310	— prairies,	825	Sari,	657, 660
Rother, the,	202	— Catherine's Convent—	644, 645	— Range Hills,	639	Sark Island,	288
Rother-thurm Pass,	403	— Charles River,	815	Saltaire,	178	Sarmatian Plain,	558
Rothsay, 243; castle,	243	— Christopher,	859	<i>Saltus Teutobergiensis</i> ,	355	Sarnen,	417
Rothiemurchus Forest,	234	— Clair, the,	812	Salween River,	579	Sarri-ma, or Island	548
Rotterdam,	341, 343	— Cloud,	303	Salwn, the,	714, 719	Country,	548
Rouen,	306	— Croix River,	811	Salza valley,	391	Sarthe, the,	311
Rouman women,	401	— Davids,	221	Salzberg,	391	<i>Sarus, the</i> ,	605
Roumani,	493	— David's Head,	144	Samaon group,	929	Saskatchewan,	825
Roumel, the,	433	— Denis,	303, 757	Samarang,	894	Sassari,	470
Roumelia,	483, 484	— Domingo,	36, 858	Samarcaud,	671	Sattara, military station,	696
Rousillon,	318	— Etienne,	313	— River,	671	— province of,	696
Rowandiz,	619	— Francis, Lower Canada,	814	<i>Samaria</i> ,	635	Saubach, the,	390
Roxburghshire,	240	— Gall,	419, 420	Sambas,	895	Saumur,	311
Roya, the,	324	— George, Bermuda,	860	Sambre, the,	328	Savali Island,	929
Royal Mount,	468	— Grenada,	859	— and Meuse,	332	Savani Peak,	659
Ruabon,	217	— Germain,	203	Samogitia,	378	Savanna River,	863
Ruatan,	854	— Gingham,	421	Samoiedes,	543, 594	Savannah,	836
Rugby, 195; its school,	195	— Gotthard,	417, 420	Samos,	606	— River,	835
Rügen Island,	373, 377	— Helena,	755	<i>Samosata</i> ,	621	Save, the,	398, 492
Ruhr, the,	280	— Heliers,	237	Samothraki, isle of,	496	Savo,	324
Rum Island,	352	— Hubert,	334	Samsun,	606, 610	Sawunt-Warree,	697
Rumania,	494	— Ives,	196, 211	San Antonio,	755	Saxe-Weimar-Eisenach,	359
Rumihast,	880	— Joe, Missouri,	844	— Felipe,	834	Saxony,	356
Rumili,	606	— John, Leeward Islands,	859	— de Benguela,	781	Sea Fell,	100
Runic inscriptions in		— New Brunswick,	817	— Fernando de Apure,	865	<i>Scamander</i> ,	607
Greenland,	21	— River,	816	— Francisco,	799	Scanderoon,	630
Runic race,	543	— John's, Canada,	815	— the,	869	Scandinavia,	16, 523-527
Ruin of Cutch,	677, 697	— Newfoundland,	819	— city of,	842	Scarborough, England,	177
Rummymede,	202	— Kilda,	236	— Pass,	832	— Tobago,	859
Rupel, the,	323	— Kitts,	553	— Jacinto,	837	Scariff Island,	283
Rupert Land,	821	— Lawrence,	799, 813	— Joaquim River,	825	Searpe, the,	305
Russian America,	804, 810	— Louis, the,	812	— Joaquin,	842	Scatterly Island,	280
— colonisation,	538	— Missouri,	840	— Jorgo, island of,	443	Schnaffhausen, Switzer-	
— commerce,	44	— on the Senegal,	773	— Jose,	855	land,	419, 420
— discoveries,	67-69	— Lucia,	859	— Juan,	887	Schnaffhausen, Germany,	367
— fisheries on the		— Malo,	310	— islet of,	858	Schamy,	599
Volga and Don,	545	— Margaret's Island,	221	— the,	801	Schaumburg-Lippe,	354
Russian Lapland,	553	— Mary, the,	812	— del Sur,	865	Schehallion,	246
— provinces,	646	— Mary's Isle,	325, 756	— d'Ulloa,	850	Scheldt, the,	305
Russo-American Fur Com-		— Loch,	240	— Lucar,	438	— River,	323, 329
pany,	596, 816	— Mathieu's Abbey,	310	— Luzia Island,	755	Schemnitz,	399
Russo-Greek Church,	594	— Manriec's, the,	812	— Mignol,	854	Scheveningen,	344
Rustchuk,	494, 496, 535	— Michael's Cave,	291	— island of,	448	Schiedam,	344
Ruthin,	217	— Michael's, island of,	448	— Nicolao Island,	755	Schintznach, baths of,	419
Rutlandshire,	183	— Mount,	210	— Paoli province,	872	Schlangenbad,	361
Ryde,	204	— Neots,	196	— Paulo,	872	Schlangenber mines,	590
Rye,	202	— Nicholas,	331	— de Loando,	781	Schleswig,	514
— House,	199	— Omer,	305	— Pedro,	887	Schmalkald,	358
Saalle, the,	360	— Paul,	841	— Roque,	291	Schneeokoppe,	374
Saardam,	343	— Peray,	324	— Salvador,	854	Schneeokoppe,	363
Saavedra's discoveries,	898	— Peter's,	472	— Sebastian,	870	Schönbrunn,	388
Sabadell,	436	— Port,	287	— Vicente,	755	Schuylikill, the,	832
Sabrina Land,	86	— Petersburg,	543, 548	— Vincente,	854	Schwabach,	361
Sacramento River, 799, 825, 842		— Pierre, isle of,	325	Sana,	652	Schwartzwald, the,	366
— city of,	842	— Isles of,	820	Sandhurst,	919	Schwarzbürgs,	361
— valley,	842	— Martinique,	859	Sandringham Hall,	191	Schweizerische Alpen Club,	421
Saddle Mountain,	563, 865	— Quentin,	203	Sandwich,	202	Schwerin,	354
<i>Sades</i> ,	438	— Regis,	812	— Islands,	898	Schwytz,	417, 418
Safed,	635	— Salvador,	857	Sandy Island,	292	Sclly Islands,	211
Saffron-Walden,	192	— Sauvcur,	306	<i>Sangarius</i> ,	605	Scinde province,	697
Sagalien Island—		— Sophia, church of,	485	Sans Souci,	376	Scio,	696
575, 595, 596, 738		— Thomas,	853, 859	Santa Catherina province,	870	Scone Palace,	247
Sagallentula River,	595	— Trond,	334	— Croce, mountain,	611	Scotland,	227-257
Sagar,	691	— Valery,	303	— Cruz,	754, 859	Serape, the,	240
Sage Prairies of the trap-		— Vincent,	859	— Fé,	843	Seur-na-Banachich,	252
pers,	825	Saintes,	310	— de Bogota,	863	— Gillean,	252
Sagres,	440	Saintonge,	310	— Maria, island of,	448	Seutari, 485, 490, 606, 608, 609	
Saguenay River,	812	Sakara,	770	— del Antigua,	863	Seyla,	468
<i>Saguntum</i> ,	427	Sakarla, the,	605, 607, 609	— Marta,	862	Sea Island cotton,	826, 835
Sahama Peak,	861	Sai Island,	755	— Maura,	508	— kings,	20
Sahara-bela-ma,	746	Salamanca,	429	— Rosa,	882	— of Aral,	670
Said, or Upper Egypt,	773	— Salamis,	603	— Sebastian,	432	— Azov,	541
Saida,	631	Salcey Forest,	195	Santander,	432, 862	— Marmora—	
Saigon, the,	717	Salecombe,	210	Santash Plain,	594	— Tanais,	560
Saikwah,	719	Saldanha Bay,	787	Santee River,	835	<i>Sebastie</i> ,	609
Saima Lake,	543	Salernina, the,	483	Santiago, Chill,	893	Sebastopol,	564
St Abb's Head,	239	Salerno,	466	— de Compostella,	434	Sebu, the,	561
— Albans,	193	Salghir,	565	— Cuba,	755	Sechio, the,	463
— Andrews,	245	— River,	563	— Island,	872	Sedan,	304
— wick,	817	Salines, the,	314	Santorin,	597	Sedgemoor,	208
St Anthony Falls,	841	Salisbury, 206; cathe-	206	Santos, the,	313	Seindan,	515
— Antonio,	819	— dral,	206	Sargossa,	430	Sego,	784
— Asaph,	211	Salisbury Plain,	205	Sarstoga,	831	Segovia,	432
— Aubin,	237			Saratov,	566	Segura, the,	436
				Sarawak,	895	Seine, the,	303

	PAGE		PAGE		PAGE		PAGE
Sefont, the,	215	Sierra Nevada—		Solomon's fleet,	11	Stour, Dorset,	207
Seir, mountains of,	546	497, 825, 842, 848		— Throne (Takht- i-Sulaiman),	675	Stourbridge,	194
Selama's Sainted Cape,	553	Sigmaringen,	382	Solvetz,	540	Strabur,	278
Selucia,	622	Sikandarabad,	691	Solway Firth,	170, 241	Straits of Bonifacio,	470
Seljukian princes,	672	Sikh kingdom,	689	Somersetshire,	208	— Corea,	787
— Turks,	240	Sikkim,	705	Somme, the,	305	— Gibraltar,	483
Selters,	361	Sikok,	736	Somnauth,	669	— Kertoh,	562
Seltzer waters,	381	Silbhy Hill,	206	Somulis tribes,	784	— Macassar,	895
Seminole Indians,	836	Silesia, Austrian,	391	Sondenfields,	534	— Magellan, 37, 794, 880	
Semipolatsk,	592, 694	— Prussian,	374	Song-ka, or Great River,	717	— Messina,	466, 468
Semiramis,	617	Silistria,	496	Sorata summit,	360	— Sunda,	894
Semlin,	404	Silkeborg,	515	Sonsonate,	354	Straitsund,	377
Sempach,	417	Silla de Caracas,	865	Sophia,	496	Stranraer,	241
Senegal, the,	12	— Torillos,	439	Sorata summit,	381	Strasbourg,	304
— gum,	779	Silurian rocks,	16, 229	Sostratus of Cnidus,	9	Stratford-on-Avon,	195
Senegambia,	13, 749, 779	Silver Mine range,	281	Sound, the,	511	Strathclyde, kingdom of,	244
Sens,	314	— River,	836	Sourabaya,	894	Strathmore,	228
Sephala,	626	— Tree,	788	South American rail- ways,	882	Strathspey,	231
Seraglio Point,	485	Simeropol,	565	South Shields,	170	Stromness,	256
Seraing,	333	Simla,	686	Southampton,	204	Stromoe,	522
Serampore,	693, 707	Simois, the,	607	Southend,	193	Stroud,	138
Serkier's Tower,	485	Simon's Bay,	787	Southland,	927	Stuhlweissenburg,	401
Serbal,	644, 645	Simpson,	420	Southwark,	201	Sturgeon fisheries,	545
Sereth, the,	396, 493	Simpson's River,	821	Spa,	333	Stuttgart,	893
Sergipe province,	370	Sinai,	640, 642-645	Spain,	423, 427-439	Styria,	893
Seringapur,	704	Sinclair Castle,	142, 255	Spalatro,	405	Styrian Alps,	393
Seringapatam,	701	Singapore,	719, 720	Spalding,	189	Subsidence of North and Baltic Seas,	524
Sert,	617	Sinnamary River,	867	Spandau,	376	Sudan,	784
Servia,	492	Sinope,	609	Spaniards in America,	36	Sudetic Mountains,	390
Sestos,	485	— <i>Arabicus</i> ,	639	Spanish Town, Jamaica,	558	Suez,	772, 773
Setubal,	446	— <i>Heracopolites</i> ,	640	Spar Cave,	252	Suffolk,	192
Seven Churches,	370	Sion, 420; situation,	420	Sparrow Hills,	553	Sugar-cane,	582
— Sisters,	535	Sioux Indians,	841	Sparta,	506	— Loaf, Gibraltar,	289
Severn basin,	193, 219	Sir or Sihun River,	579	Spean basin,	251	— Hill, Rio,	870
Seville,	437	Siragusa,	468	Speicherinsel,	379	— plantations,	826
Seychelles Archipelago,	757	Sir-i-kol Lake,	580, 670	Speissart, the,	363	Suil-vean, or Sugar-Loaf,	254
Shaftesbury,	207	Sitka Island, 804; forts,	810	Speke, Captain,	113	Suir, the,	280
Shamaki,	599	Sivas,	606, 609	Spencer's Gulf,	919	Sulaiman Mountains,	667, 675
Shammur tribes,	623	Siwalk Hills,	675	Spey,	231, 250, 251	Salmona,	667
Shang-hae,	727	Skagen,	514	Sphinx, the,	772	Saltaniah, plains of,	667
Shannon,	272	Skager-rack,	511	Spice Islands,	895, 899	Sulu Archipelago,	897
— Pot,	376	Skagstolsfjeld,	526	Spike Island,	282	Sumatra Island—	
Shap Fell,	171	Skapta Yökul,	807	Spire,	366	576, 707, 802, 893	
Shapur River,	661	Skärgrund, the,	524	Spiiti Pass,	678	Sumbawa Island,	894
Sharon,	626	Skutor,	524	Spitzbergen,	46, 569, 572	Sumeisat,	521
Shat-el-Arab,	614, 623, 660	— Slechn,	524	Spilgen village,	421	Sun worshippers,	617
Shechem,	635	Skaw Promontory,	514	Sponge fisheries,	631	Sunda Archipelago,	894
Sheerness,	201	Skellig Islands,	283	Sporades, the,	506, 507	— Islands,	892, 893
Sheffield,	179	Skerryvore Light-house,	248	Spre, the,	375	Sunderland,	170
Sheikh el Shuyukh,	622	Skiahos, island of,	488	Spring Hill,	834	Sundsvall,	532
Sheitan worshippers,	617	Skiddaw,	170	Springfield,	810	Sungari, the,	733
She-kaw-go,	840	Skye,	235, 252	Sprogö Island,	618	Sungaria,	734
Shells in Morocco,	760	Skypetars,	490	Spurn Point,	177	Sunium, promontory of,	505
Shemsiah,	617	Slaney,	290	Staaten Hook,	808	Suomesimaa, the,	550
Shenandoah Valley,	833	Slave Coast of Africa,	780	Stack Rocks,	226	Suonada Sea,	742
Shendi,	776	Slavonia,	403	Staffa,	235, 248	Sür,	631
Sherbrook,	915	Slavonians,	400	Stafford,	182	Surat,	696
Shetland Islands,	255	Slesvig, duchy of,	512	Staffordshire,	181	Surrey River,	866
Shites, sect of,	663	— town of,	514	Staines,	200	Swirey, England,	201
Shikarpoor,	697	Slieve Beg,	274	Stalacite caverns,	181	— Jamaica,	868
Shiraz,	651, 657, 661	— Bloom Mountains,	272	Stamford,	189	Susa,	457
Shiwan,	599, 600	— Car,	277	Stanovoi Mountains,	595	Susa by Chaospes stream—	
Shoa, kingdom of,	777	— Donard,	274	Stanz,	417	660, 661	
Shoreham,	202	— More,	274	Star Rivers, the,	280	Sass, the,	761
Shrewsbury,	185	— Snaght,	275	Staten Island,	231	Susquehanna River,	825
Shropshire,	185	Sligo,	277	States of the Church,	461	— Valley,	832
Shumla,	496	— Bay,	277	Staubach Falls,	414	Sussex,	202
Shushan,	660	Smolensk,	542	Stavropol,	568	Sutherland,	254
Shauster,	657, 661	Smyrna,	607	Stelvio Pass,	130	Suttler River,	689
Shyl, the,	493	— & Aidin Railway,	605	Steno Point,	532	Sutter's mill-race,	842
Slam,	716	Snefells Yökul,	807	Steppes of Tartary—		Suwan River Settlement,	921
Siberia,	576, 567, 588, 593	Snake Mountains,	590	128, 129, 561		Swansea Bay,	222
Sicily,	466, 467	Sneafell,	224	Stettin,	377	Sweden,	523, 524
Sid, the,	209	Sneeibitten,	527	Stettiner-haff,	373, 377	— and Norway,	535
Siddim, plain of,	628	Sneouberg, or Snowy Mountains,	747	Silton,	196	Swedish legislature,	536
Sidlaw Hills,	206, 229	Snowdon,	737	Stirling, county and town,	244	— Pomerania,	377
Sidmouth,	210	Society Islands, 339, 929, 930		Stockholm,	531	Sweetwater, the,	844
Sidney,	631	Socotra Isles,	757	Stockport,	185	Swinemunde,	377
Sidon,	381	Soda Lakes,	398	Stockton, England,	170	Switzerland, 407, 414, 422	
Siehegebirge,	463	Sodom, lake of,	635	— U. S.,	842	Sychar,	635
Sienna,	443	Sofala Coast,	785	Stoke Poges,	193	Syone,	774
Sierra d'Estrella,	427, 432	Soignies, forest of,	329	— upon-Trent,	132	Syr River,	670
— de Gaderama,	427, 432	Soissons,	303	Stonehaven,	246	Syra,	507
— Toledo,	857	Sokoto, empire of,	784	Stonehenge,	206	Syracuse,	831
— del Cobre,	869	Soleure,	416, 417	Stördal,	627	Syria,	622
— do Espinhaço,	869	Solimoes, the,	800	Storm Bay,	923		
— Mar,	869			Stornoway,	254	Table Bay,	787
— Leone,	749, 779, 780			Stour, the,	192, 200	— Mountain, 563, 787	
— Morena,	437						

	PAGE		PAGE		PAGE		PAGE
Vabor Mount,	626, 635	Thaso, Isle of,	496	Toulon,	320, 321	Tweeddale,	228
Vabriz,	657, 659	Thobes,	505, 774	Toulouse,	319	Twelve Pins of Bunabola,	278
Tacora,	880	Thess, plains of the,	401	Touraine,	311	Two Waters Mill,	198
Tadmor of the Desert—	4, 618, 632	Theresianopol,	403	Tournay,	332	Tyne Valley,	163
Taff Vale Viaduct,	427, 447	Theresopolis,	871	Tours,	311	Tynemouth,	168
— River,	323	Thermopylae, pass of,	505	Towy,	232	Typhoons,	893
Taganrog,	562	Thessaly,	489, 505	Trafalgar,	438	Zyge,	631, 632
Tagliamento, the,	474	Thetford,	191	Trajan forum and column,	472	Tyrol, the,	392
Tahiti,	930	Thiakl,	508	Tralee,	233	Tyrolese Alps,	364
Tain,	254	Thief Mountain,	535	Trans-Baikal district,	595	Tyrone,	276
Tai-wan,	727	Thingvalla Lake,	808	— Caucasian provinces,	598	Tysdrus,	764
Taj-Mahal,	686	Thiva,	505	— Ilian colonies,	592, 593	Tzernagara,	490
Takht-i-Sulaiman (Throne of Solomon),	704	Thonclagee,	270	— Vaal Republic,	787, 791	Tzympe Castle,	485
Talavera,	425	Thorn,	379	Transylvania,	403	Ucayali, the,	800
Talca,	883	Thorshavn,	522	Trap Islands,	235	Uch Kilisa,	616
Taman,	562	Thrace,	483	Tras-os-Montes,	447	Udine,	476
Tamar, the,	923	Thrasimenes Lake,	461	Traun-see,	389	Uitenhage,	790
Tamatave,	756	Three Lords' Peak,	392	Travancore state,	702	Ujein,	692
Tanah, the,	420	Thullan Mountains,	526	Trave, the,	356	Ujong Tanna,	720
Tanworth,	182	Thun, town and lake,	414	Trayemunde,	356	Ulan,	661
Tangier,	762	Thurgau,	419, 420	Travnik,	492	Ulm,	362, 367
Tanjore,	700	Thuringian Forest,	358	Treasure Lake of Guatavita,	863	Ulster,	273
Tanna Papua,	899	Thurles,	281	Treaty Point,	741	Ultima Thule,	13
Tantallon Castle,	239	Thurso,	255	Trebisond,	606, 610	Ulverstone,	172
Tapajos River,	869	Thyatira,	607	Tredogar,	187	Umbria,	461
Tapti, the,	691, 693	Tian-Shan,	538, 784	Trelleborg,	525	Umea,	504, 532
Tara Hill,	271	— Nan-loo,	734	Trent,	392	Umgani River,	791
Taranaki,	927	— Pe-loo,	784	— Valley,	180, 189, 194	Umrirts,	690
Taranto,	466	Tiber, the,	461, 471	Trentham Park,	181	Um-Shomer,	644
Tarbes,	317	Tiberias, lake of,	628	Trenton,	833	Umzimkulu,	791
Tarifa,	127	Tibet,	734, 735	Tresco Island,	212	Undercliff,	204
Tarn, the,	316	Tibetan highlands,	722	Treves,	382	United States, 523-526, 843-845	
Tarragona,	436	Ticino, the,	421	Treviso,	476	— States' Expedition to Rocky Mountains, 66; Columbia River, ib.;	
Tarshish,	11	Tides of British seas,	146	Trieste district,	394, 395	Mississippi,	66
Tarsus,	608, 611	Tien-tsin,	726	Trim,	271	United States of Colombia,	862
Tartus,	631	Tierra del Fuego,	37, 62, 888	Trincomali,	708, 709	Unterwalden,	417
Tashkend,	672	Tiflis,	598	Trinidad,	860	Upennivik,	810
Tasmania,	922	Tigranoceerta,	617	Tripoli,	624, 626, 630, 784	Upper Douro,	447
Tasman's Arch, Land,	923, 63	Tigré, kingdom of,	777	Trivandrum,	702	— Egypt,	773
Tassisdun,	706	Tigris, the, 577, 579, 611,	657	Trois Rivières,	815	— Guinea,	779, 780
Tattah,	697	Tilgite husbandry of Sufi folk,	192	Trois Rivières,	815	— Nile,	776
Taunton,	208	Tilsit,	378	Tromsøe,	535	— Parano,	860
Taurus range,	360	Timbuktu,	784	Trondhjem,	535	— Peru,	880
Taurica Chersonesus,	563	Timor Island,	894	Troon,	242	— Rhine,	421
Tauro-Caucasian range,	576	Tin-mines of America,	803	Troppan,	391	— Rhone,	420
Taurus range,	577, 604	Tinian Island,	898	Trosachs,	246	— Savine,	415
Tavy, the,	209	Tinos,	507	Trowbridge,	206	— Seine,	313
Tawe, the,	222	Titern Abbey,	187	Troy,	831	— Tigris,	617
Tay, the,	231, 246	Tinto Hill,	229	Troyes,	303	Valais,	421
Tehad Lake,	783	Tipperary,	281	Truro,	211	Upsal,	528, 532
Tehadir-dagh,	553	Tiree, island of,	248	Truxillo,	852	Uspalories,	497
Tchernomorski, the,	543	Titicaea Lake,	801, 880, 881	Tsara Roumanoska,	493	Ur of the Chaldees,	621
Tchukchi,	597	Tiumen,	592, 593	Tsin dynasty,	723	Ural mining district,	593
Tecacze, the,	775	Tiverton,	209	Tuam,	279	— Mountains,	123, 578
Tegern-see, the,	363	Tivoli,	473	Tuaricks of Sahara,	760	— River,	539, 542, 566
Tehama,	841	Tobago,	859	Tubingen,	367	Uralskaya Sopka,	123, 126
Teheran,	657, 658	Tobolsk,	538, 592, 593	Tuchel Heath,	374	Uranienborg Castle,	517
Teign, the,	209	Tocantins, the,	869	Tucuman,	887	Urbino,	461
Teignmouth,	210	Tokat,	606, 609	Tucuyo,	865	Urfah,	629
Telmessus,	607	Tokay,	402	Tudela,	430	Uri,	417
Temes, the,	402	Tolima,	428	Tugela River,	791	Uruguay,	873, 874
Temeswar,	403	Tolosa,	631	Tula,	554	Urumian,	657, 680
Tempe, vale of,	489	Tombigbee River,	836	Tullamore,	272	— Lake,	581, 619, 659
Temserim,	719	Tomboro volcano,	894	Tuloma River,	555	Usedom,	377
Tenby,	221	Tomsk,	592	Tumuli of the steppes,	600	Ushant,	309
Tenerife,	754	Tondern Harbour,	514	Tunbridge Wells,	201	Usk River,	233
Tenghri-Khan,	594	Tone, the,	208	Tundras,	538	— Valley,	187
Tennessee,	839	Tonga Islands,	929	Tunga Socorro,	862	Uspallata Pass,	887
Tensit, the,	761	Tongataboo Island,	929	Tunguragua Peak,	500, 876	Utacumund,	701
Tent Mountain,	563	Tongres,	394	Tunguses,	595	Utah, town and lake,	843
Tequendama Falls,	863	Tonquin,	717	Tunis,	763, 784	Utilla,	854
Terecia,	448	Tonquinese,	717	Turia,	457	Utmedland,	523
Terek, the,	566, 600	Töpitz,	390	Turkenschanze, the,	388	Utrecht,	329, 345
Termonde,	331	Toprak Kalan,	618	Turkestan, 576, 594, 670, 671	603-637	Uxbridge,	200
Terracina,	473	Torghatten Island,	535	Turkey in Asia,	478-500	Val d'Aoste,	130
Tersus, the,	605	Torjok,	554	— Europe,	478-500	— St Nicholas,	421
Tessin, canton of,	420	Tornes, the,	420	Turkomans,	671	Valais, the,	420
Tet, the,	318	Tornea,	532, 542, 552	Turk's Islands,	557	Valambrossa,	461
Teutoburger Wald,	354	Toronto,	816	Turnpike roads in Eng-land,	224	Valdai Hills,	128
Teutonic knights,	378, 547	Torquay,	210	Turon, 717; mountains,	904	— plateau,	541
Teverone,	471	Torrans Lake,	118	Tasaloosa,	836	Valdivia,	883, 884
Teviotdale,	240	— River,	920	Tascany,	481, 463	Valence,	324
Tewkesbury,	188	Torres Strait,	902	Tushielaw,	240	Valencia, Spain,	436, 439
Texas,	837, 840	— Vedras,	446	Tussock-grass,	889	— South America,	865
Thames,	163, 192, 197, 200	Tortosa,	436	Tver,	552	— Lake,	864
Thapsacus,	621	Tory Island,	276	Tweed, the,	231	Valenciennes,	305
		Totonicapan,	853				

	PAGE		PAGE		PAGE		PAGE
Valentia,	233	Vindhya Mountains, 676, 690	676, 690	West Flanders,	341	Wupper, the,	387
Valetta,	289	Vindonissa,	419	— Indies, 33, 704, 855, 856	356	Wurno,	784
Valladolid,	433	Vinegar Hill,	271	— Point Military Academy,	831	Wurtemberg,	362, 366
Valparaiso,	833	Virgin Isles,	439, 858	— Virginia,	831	Wurzburg,	366
Van,	617	Virginia,	61, 65, 833	West Russia,	557	Wyehwood Forest,	197
Van Diemen's Land, 63, 923	923	Vistula,	377, 391, 396, 512, 557, 559	Western Islands,	295, 448	Wye,	186
Vancover's discoveries, 79	79	Vitepak,	559	— Virginia,	835	Wymondham,	191
— Island, 794, 820	794, 820	Viterbo,	473	Westerwald, tue,	360, 361	Wyndcliff,	187
Vandalusia,	437	Viterbo,	473	Westmeath,	202		
Vannes,	310	Viti Islands,	900	Westmoreland,	171	Generalife, the,	437
Var, department of,	320	Vladimir,	556	Weston-super-Mare,	208	Xeres,	438
— River,	324	Vocal Memnon,	774	Westphalia,	380	Xingu River,	869
Varangian princes,	337	Vogelsberg, the,	359	Westport,	278	Xucar, the,	436
Varnas,	865	Voguls,	590, 594	Wetter Lake,	528		
Varna, bay and port,	496	Vola, field of,	559	Wexford County,	270, 271	Yak, or grunting ox,	734
Varyry,	270	Volga, the, 128, 496, 542, 566	128, 496, 542, 566	Weymouth,	201, 205, 207	Yakutes,	597
Vasco de Gama discovers		Volkhof River,	554	Wheeling,	335	Yakutsk,	589, 592, 595
Brazil,	35	Volta River,	780	Whernside,	175	Yambo,	648, 650
Vasconia,	317	Voorne Island,	344	Whitby,	177	Yang-tse-kiang, 579, 722, 734	579, 722, 734
Vasquos,	317	Vorarlberg, the,	302	White Hill, battle of,	391	Yaramles,	618
Vatican,	472	Vosges Mountains, 304, 811	304, 811	— Horse Vale,	204	Yare River,	190
Vatna Yokni,	807	Vostanf,	770	— House, Washington, 827	827	Yarkand,	579, 584
Vateluse,	322	Vou-chang,	727	— Land,	776	Yarmouth, 191; roads, 193	193
Vaud, canton of,	415	Vougeot,	314	— Maine, the,	363	Yarra Yarra, the,	917, 918
Vaudois, the,	457	Voyage of Hanno,	11	— Mountains,	824, 828	Yarrow Braes,	240
Vautis,	204			— Nile,	113, 747	Yarumjeh,	618
Vaddo,	738, 737, 741	Wabash, the,	838	— Sea,	43, 127, 540	Yazoo River,	836
Vallètri,	473	Wady-Keiran,	645	— Woman Mountain, 847	847	Yellow Pass, Rocky	
Velloro,	698, 700	— Gharandel,	644	Whitehaven,	175	Mountains,	822
Venetia,	406, 474	— Mousa,	646	Whittlebury Forest,	181	Yellow Sea,	574, 722
Venezuela,	30, 863	Wagram,	387, 388	Whittlesea-mere,	193	Yemen,	642, 652
Venezuelan coast chain, 797	797	Wahabi sectaries,	622	Whydah,	781	Yenesai River, 589; valley, 593	589, 593
Venice,	475	Wai-loi,	865	Wick,	255	Yenesick,	532
Ventnor,	204	Wakefield,	178	Wicklow,	269	Yenitschir,	489
Vera Cruz,	850	Walcheren,	339	Widdin,	486	Yeovil,	208
Verdun,	304	Waldeck,	361	Wielicza,	336, 337	Yeshil-Irmak,	609
Vermillion Sea,	846	Wales,	144, 213	Wiener Wald,	387	Yesso,	736, 737
Vermont, state of,	828	Walhalla, on the Danube, 362	362	Wiesbaden,	351	Yetholm,	240
Verne heights,	208	Wallachia,	493	Wigan,	174	Yezd,	657, 663
Vernoe fort,	594	Wallaroo mines, 921; bay, 921	921	Wigton,	241	Yezdis,	602
Verona,	476	Wallenstadt Lake,	417	Wigtonshire,	241	Ynyr Eriill,	217
Versailles,	303	Waulis group,	325	Wildbad-Gastein,	392	Yokabuma,	741
Versulam,	198	Walrus, the,	26	Willanow Castle,	559	Yökuls of Iceland,	896
Vesontio,	314	Walsall,	182	Willoughby, Sir Hugh, voyages,	41, 42	Yola,	313, 314
Vesuvius,	465	Walton-on-the-Naze,	193	Willow Head Cliffs,	644	Yore Valley,	179
Veta de Colquirirca,	879	Wantage,	205	Wills and Burke's journey, 121	121	York Cape and Peninsula, 919	919
Pariarirca,	879	Wareham,	207	Wilna,	559	— county and city, 175-178	175-178
malady,	882	Warragong chain,	917	Wilson's Promontory,	496	River,	333
Vettle's Giel,	537	Warrington,	174	Wilton,	306	Youghal,	282
Vevay,	416	Warsaw,	559	Wiltshire,	265	Ypres,	832
Vezelay,	314	Warta, the,	579	Winchelsea,	203	Yucatan,	35
Via Emilia,	459	Wartburg Castle,	359	Winchester,	203	Yung-Lang range,	577
Flammia,	459	Warwick,	194	Windermere,	171	Yuthia,	717
Via Mala,	421	Warwickshire,	194	Windsor,	193, 201		
Tiburina,	472	Wash outlet,	189	Windward Islands, 339, 380	339, 380	Zab, basin of the,	619
Viborg, Denmark,	513	Washington,	326	Winnipeg Lake,	801	Zacynthos,	508
Finland,	551	— territory,	844	Wironia,	547	Zagros Mountains,	577, 657
Vicuza,	476	Washington's Oak,	830	Wisebench,	190	Zambesi River,	713
Vichy,	312	Water volcano,	853	Wisby,	533	Zante,	503, 509
Vicksburg,	585	Waterford city,	281	Wisconsin,	810, 841	Zanzibar,	113, 784, 785
Vicolo de Poeti,	460	Waxholm,	531	Wismar,	354, 355	Zara,	405
Victoria, colony of—		Weald, the,	203	Witmar,	188	Zaulu Pass,	594
Hong-Kong,	120, 432, 916-920	Weimar,	358	Witney,	197	Zeland,	328, 333, 345
Bridge, Canada—		Well of Howara,	618	Witsand,	305	Zell,	853
Colleco,	813, 815	— Marah,	643	Wittenberg,	377	Zemzem Well, Mecca,	650
Island,	822	— Zemzem,	650	Wolfenbuttel,	354	Zenderud, the,	658
Nyanza Lake, 747	747	Wellbesley province,	720	Wolf's Crag,	239	Zenghis Khan's invasion,	23
Peak,	728	Wellingborough,	195	Wollaston Island,	822	Zermatt,	421
Regia,	802, 866	Wellington,	701	Wollongong,	914	Zion Mount,	631
Vienona, the,	889	Wells,	208	Wolverhampton,	182	Zirknitz Lake,	394
Vienna,	387, 838	— of Dea,	232	Wolverton,	198	Zmolno-gorod,	553
Vienne, the,	310, 311	— Moses,	643	Woodstock,	197	Zon of Scripture,	769
—, on the Rhone,	324	Welshpool,	220	Woolwich,	201	Zollern heights,	282
Vignemale,	817	Wenorn Lake,	528	Worcester,	133, 194	Zouaves of Tunis,	750
Vigo,	434	Wengern Alp,	414	Worksop,	182	Zonga River,	733
Vihaine, the,	309	Wenham Lake,	830	Worms,	359	Zug, 417; lake,	418
Villa of Mecenas,	473	Wensum River,	191	Worstead village,	191	Zukertoppen,	809
Villach,	394	Werria, the,	360	Worthing,	202	Zulu Land,	791
Villafrauca,	423, 476	Werribee River,	917	Wörthsee, the,	394	Zurich,	419
Vilvorde,	330	Weser, the,	353, 355, 380	Wrekin,	161, 219	Zurrah Lake,	579
Vimiera,	446	Wesley's birthplace,	189	Wrexham,	217	Zuzphen,	341, 345
Vincennes,	303	West Bromwich,	182	Wulfsten's narrative,	20, 21	Zuyder Zee,	338
				Wuller Lake,	703	Zwolle,	346

THE END.



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