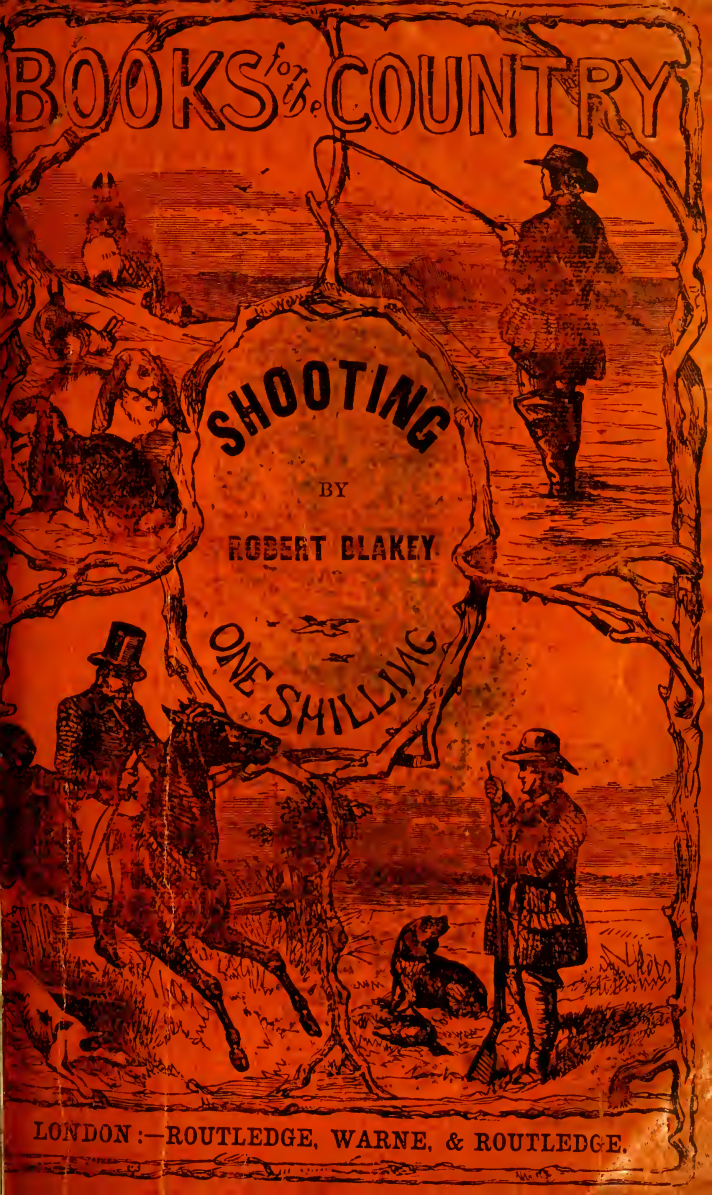
BOOKS for the COUNTRY



# SHOOTING

BY

ROBERT BLAKEY

ONE SHILLING

LONDON:—ROUTLEDGE, WARNE, & ROUTLEDGE.

# ROUTLEDGE'S POPULAR LIBRARIES.

"Books to please the million must not only be good but attractive; not simply strengthen the constitution, but please, if not tickle and excite, the palate. When the masses go to ROUTLEDGE'S they are at least sure of being gratified and pleased; they have still to acquire the same conviction in other quarters."—*The Times.*

## ROUTLEDGE'S CHEAP SERIES.

"Books you may hold in your hand are the most useful after all."—*Dr. Johnson.*

"This valuable Series now contains upwards of 230 volumes. They form a complete library of instructive, useful, and entertaining knowledge. Each work is sold separately, at prices varying from One to Two Shillings, and many of them are illustrated. They are admirably adapted for all Mechanics' Institutes, Soldiers' and Sailors' Libraries, or Village Book Clubs, and for all kinds of popular instruction. They embrace the Works of our best authors in the various departments of Biography, History, Fiction, &c.: and Books that formerly cost *pou* may now be obtained for *shillings.*

"No family ought to be without this Library, as it furnishes the readiest resources for that education which ought to accompany or succeed that of the boarding-school or academy, and it is infinitely more conducive than either to the cultivation of the intellect and the well-being of society."

Price 1*s.* each in Fancy Boards, except where specified.

CONTENTS OF THE SERIES—VIZ.:

1. Wide, Wide World (2*s.*). By Miss Wetherell.
5. Nelson (Life of). By James Allen.
6. Wellington (Life of). By Charles MacFarlane.
10. Vicar of Wakefield, and Life of Goldsmith. By Willmott.
12. Sir Robert Peel: His Life and Times.
13. The Arctic Regions (2*s.*). By P. L. Simmonds.
14. Queechy (2*s.*). By Miss Wetherell.
19. India. With Illustrations (1*s.* 6*d.*). By J. H. Stocqueler.
24. New Zealand. By G. B. Earp.
34. Two Years before the Mast (1*s.* 6*d.*). By Dana.
35. Representative Men. By R. W. Emerson.
42. Oliver Goldsmith's Life. By Washington Irving.
44. Lives of the Successors of Mahomet. By Washington Irving.
46. Nelson on Infidelity. Edited by the Rev. G. A. Rogers.
49. The Lamplighter (1*s.* 6*d.*). Cummins.
57. The Roving Englishman.
70. Shilling Cookery for the People. By A. Soyer.
71, 72. The History of the Reign of Ferdinand and Isabella (2 vols. 4*s.*). By W. H. Prescott.
82, 83. History of the Conquest of Mexico (2 vols. 4*s.*). By W. H. Prescott.
85, 86. The History of the Conquest of Peru (2 vols. 4*s.*). By W. H. Prescott.
92. Burmah and the Burmese. By K. H. R. Mackenzie.
96. The Pleasures, Objects, and Advantages of Literature. By the Rev. R. A. Willmott.
97. Biographical and Critical Essays (2*s.*). By W. H. Prescott.
100. Turkey (2*s.*). By the Roving Englishman.

London: ROUTLEDGE, WARNE, AND ROUTLEDGE.

105. Two Artists in Spain. By Macfarlane.
108. Woolfert's Roost, &c. By Washington Irving.
116. My Brother's Keeper. By Miss Wetherell.
118. The Watchman (1*s.* 6*d.*). By Maitland.
119. The Hidden Path. By Harland.
120. Sebastopol: the Story of its Fall. By G. R. Emerson.
121. The Song of Hiawatha (1*s.* 6*d.*). By Longfellow.
122. Robinson Crusoe (1*s.* 6*d.*). By Daniel Defoe.
130, 131. History of Philip the Second of Spain (2 vols. 4*s.*). By W. H. Prescott.
132. The Solitary Hunter, with Plates (1*s.* 6*d.*). By Palliser.
143. Wild Sports in the Far West (1*s.* 6*d.*). By Gerstaecker.
146. English Traits. By Emerson.
148. Hills of the Shatemuc (1*s.* 6*d.*). By Miss Warner.
149. The First Lieutenant's Story (2*s.*). By Lady C. Long.
154. Home and the World (1*s.* 6*d.*). By Mrs. Rives.
160, 161. Charles the Fifth (2 vols. 4*s.*). By Robertson and Prescott.
166. The Lucky Penny and other Tales (2*s.*). By Mrs. S. C. Hall.
167. Moss Side. By M. Harland.
168. Mabel Vaughan (1*s.* 6*d.*). By Cummins.
169. The Mutiny in India, to Taking of Lucknow (1*s.* 6*d.*).
173. Robert Burns and Sir Walter Scott. Two Lives (1*s.* 6*d.*). By the Rev. James White.
174. The Royal Princesses of England (2*s.*). By Mrs. Matthew Hall.
178. Aldershot and all About It (2*s.*). Illustrated by Birket Foster.
179. The Sepoy Revolt (2*s.*). By Henry Mead.
180. Wild Flowers, how to See and how to Gather them. With 171 Plates (2*s.*).
181. Evangeline. Longfellow.
182. Rats (with Anecdotes) (2*s.*). By Uncle James.
184. Forest Life in Norway and Sweden (2*s.*). By the Rev. H. Newland.
189. Marvels of Science (2*s.*). By Fullom, with Cuts.
190. British Columbia and Vancouver's Island (1*s.* 6*d.*). By Hazlitt.
194. Miles Standish, and other Poems. By Longfellow.
195. Eminent Men and Popular Books (2*s.*). (From the *Times.*)
196. Prescott's Philip the Second, Vol. 3. (2*s.*)
197. Burns' Poetical Works (2*s.*). Edited by Willmott.
200. 204. Bancroft's America. (5 Vols., 2*s.* per vol.)
206. What's in a Name? By Nickle Nichols.
207. The Pilgrim's Progress. By John Bunyan.
209. How to Make Money. By Freedley.
210. How to Farm Profitably (2*s.* 6*d.*). By Alderman Mechi.
217. A Mounted Trooper's Adventures in the Australian Constabulary (1*s.* 6*d.*). By W. Burrows.
222. The Vicissitudes of Italy (2*s.*). By A. L. V. Gretton.
228. The Dinner Question. By Tabitha Tickletooth.
229. Hints to Thinkers (1*s.* 6*d.*). By W. E. Baxter, Esq., M.P.
230. Biography and Criticism, from the "Times": A Second Series of "Eminent Men and Popular Books" (2*s.*).

# ROUTLEDGE'S USEFUL LIBRARY.

In fcap. 8vo, price 1*s.* each, cloth limp, or boards, unless expressed.

*The great dearth of Books of a thoroughly practical nature, suitable to the wants of that numerous class who really wish to become acquainted with common things, has induced the Publishers to commence the Useful Library.*

1. A NEW LETTER WRITER, for the Use of Ladies and Gentlemen; embodying letters on the simplest matters of life, with applications for Situations, &c.

2. HOME BOOK OF HOUSEHOLD ECONOMY; or, Domestic Hints for Persons of Moderate Income. Containing useful directions for the proper Labours of the Kitchen, the House, the Laundry, and the Dairy.

3. LANDMARKS OF THE HISTORY OF ENGLAND. By the Rev. J. WHITE, Author of "The Eighteen Christian Centuries." 1*s.* 6*d.*

4. LANDMARKS OF THE HISTORY OF GREECE. By the Rev. JAMES WHITE, Author of "The Landmarks of England." 1*s.* 6*d.*

5. COMMON THINGS OF EVERY-DAY LIFE. A Home Book for Mothers and Daughters. By ANNE BOWMAN.

GENERAL CONTENTS:—Household Economy and the Duties of a Wife and Mother—the Laundry—the Nursery—Health, and the Means to Preserve it—Management of Simple Disorders—Clothes: how to Wear, Make, and Pack them—and last, not least, Home Education.

6. THINGS WORTH KNOWING. By MARTIN DOYLE, Author of "Rural Economy," "Small Farms," &c., &c.

GENERAL CONTENTS:—Information upon Home Employment—Food: Meat—Bread—Hunger and Thirst—Water—Fermented Liquors—Habitations—Bodily Exercise—Sports—Walking—Swimming—Tea—Coffee—Sugar—Soap—Indian Corn—The Weather—Minerals—Medals—Gold—Silver—Mining—Money—Glass, &c.—The Use and Abuse of, and the Culture of, Tobacco and Snuff.

7. LAW OF LANDLORD AND TENANT (The), with copious Useful Forms. By W. A. HOLDSWORTH, Barrister-at-Law.

8. LIVES OF GOOD SERVANTS. By the Author of "Mary Powell."

9. HISTORY OF FRANCE, FROM THE CONQUEST OF GAUL, BY THE ROMANS, TO THE PEACE OF PARIS, 1856. By AMELIA B. EDWARDS.

10. THE LAW OF WILLS, EXECUTORS, AND ADMINISTRATORS, with Copious Forms. By W. A. HOLDSWORTH, Barrister-at-Law.

11. RUNDELL'S DOMESTIC COOKERY, unabridged, with Illustrations.

12. THE TRICKS of TRADE. New Edition, Revised and Edited by Dr. NUTTALL.

13. ONE THOUSAND HINTS FOR THE TABLE, with a few Words upon Wines.

London: ROUTLEDGE, WARNE, AND ROUTLEDGE.

# SHOOTING:



A

## MANUAL OF PRACTICAL INFORMATION

ON THIS BRANCH OF

## BRITISH FIELD SPORTS.

BY

ROBERT BLAKEY,

AUTHOR OF "ANGLING: HOW TO ANGLE, AND WHERE TO GO," ETC.

---

A New Edition, with Illustrations.

---

LONDON:
ROUTLEDGE, WARNE, & ROUTLEDGE,
FARRINGDON STREET;
NEW YORK: 56, WALKER STREET.
1859.

# CONTENTS.


PAGE

PRELIMINARY REMARKS .. .. .. .. .. .. 1

PART I.

CHAP.

I.—THE GUN .. .. .. .. .. .. .. 4

II.—POWDER AND SHOT .. .. .. .. .. 18

PART II.

THE DOG AND HIS MANAGEMENT.

III.—OF THE VARIOUS KINDS OF DOGS USED FOR SHOOTING PURPOSES .. .. .. .. .. .. 29

PART III.

IV.—ON THE MODES OF USING THE GUN AND THE DOG 38

PART IV.

V.—GROUSE SHOOTING .. .. .. .. .. 51

VI.—PARTRIDGE SHOOTING .. .. .. .. .. 66

VII.—PHEASANT SHOOTING .. .. .. .. .. 72

VIII.—QUAIL SHOOTING .. .. .. .. .. 80

IX.—WOODCOCK SHOOTING .. .. .. .. .. 84

CHAP. PAGE
X.—Snipe Shooting .. .. .. .. .. 94
XI.—Bustard Shooting .. .. .. .. .. 100
XII.—Fen-bird Shooting .. .. .. .. .. 102
XIII.—Sea-fowl Shooting .. .. .. .. .. 122
XIV.—Rook Shooting .. .. .. .. .. 142
XV.—Pigeon Shooting .. .. .. .. .. 145
XVI.—Shooting of Small Birds .. .. .. 153
XVII.—Rabbit Shooting .. .. .. .. .. 158
XVIII.—Deer Stalking .. .. .. .. .. 160

## APPENDIX.

Phraseology .. .. .. .. .. .. .. 172
Game Laws .. .. .. .. .. .. .. 172
On the Preserving of Birds for Stuffing .. .. 174
The Gun .. .. .. .. .. .. .. .. 176
The Rifle .. .. .. .. .. .. .. 178

# SHOOTING.

## PRELIMINARY REMARKS.

SHOOTING is one of the great branches of British field-sports, and is keenly relished, and almost universally practised, throughout every section of the kingdom. Though but of comparatively modern origin—dating from the discovery and application of fire-arms—it has, as an art, made rapid progress towards perfection. It has exercised a peculiar influence on the inhabitants of these islands, in sustaining and strengthening that invincible courage, and skilful use of warlike weapons, now rendered necessary for the maintenance of our national existence, and the consolidation of our independence and power.

Looking at shooting as a mere sporting art, it has many things to recommend it. It can be personally enjoyed. It does not bring a man into a crowd, where reflection is often impossible, but it leaves him at liberty to think and contemplate, and to measure out his amusement in strict accordance to his circumstances, strength, and inclination. Shooting augments the pedestrian capabilities of man, on the due balance and effective exercise of which so much of his real health of body and mind depends. Its pleasures are gently exciting, without precipitating him into a state of revelry and danger. Its well-regulated enjoyment is connected with all that is manly, energetic, and healthful. It is a wholesome mental tonic; giving the intellect that gentle material impulse so requisite for preventing it from sinking into that mopish nervousness, and sedentary sensibility, which impair a man's power to grapple with, and successfully overcome the necessary evils and perplexities of human life. "There is no one," says Zimmerman, "who may not, by quietly traversing the mountains with his gun, learn to feel how much the great secrets of nature will influence the heart, when assisted by the powers of the imagination. The sight of an agreeable landscape, the various points of view which the spacious plains afford, the freshness of the breeze, the beauties of the sky, and the appetite

which a long ramble procures, will give energy to health, and make every new step seem too short. The privation of every object that can recall the idea of dependence, accompanied by domestic comfort, wholesome exercises, and useful occupations, will add vigour to thought, and inebriate the heart with the most delicious sensations."

We hold the sport of shooting to be susceptible of imparting the most lively gratification to all well-constituted minds, and to be a most necessary relaxation from and counterpoise to the wasteful pressure of incessant toil and watchful thought. The social and individual advantages of English field-sports are beyond calculation. Men dwell upon a remembrance of them with a reverence bordering on idolatry. The pastimes of our forefathers have ever been of a manly and vigorous kind. The whole train of amusements in olden times was calculated to render the youthful generation active, sprightly, nimble, generous, and courageous, and to rear them up to useful and honourable manhood. With what enthusiasm and right good-feeling do we ponder over the pages of some of the old writers, who tell us that "in the holidays, in the summer and autumn, the gents are exercised in leaping, dancing, *shooting*, wrestling, and casting the stone, and practising at the target; and the maidens trip with their timbrels, and dance as long as they can see."

A love of field-sports generally, and of shooting in particular, takes us from the noise, and filth, and moral degradation incident to large towns. It places us in the midst of the cultivation of the soil—the real foundation of all national wealth and happiness. Every thing connected with the wanderings of the sportsman is calculated to foster the best and noblest feelings of the soul, and to impart to the mind the most lofty and sublime ideas of universal nature. To men of genius and contemplative habits, the roaming among the mountain wilds, and the green fields, gives rise to the most refined intellectual enjoyments. Such persons may be said to live in a world of their own, and are the recipients of joys and sorrows, with which the world at large doth not intermeddle. How pure, refined, and exquisite are the delights which fill the mind from gazing on the mountain pass, the wood, the rocks, and waterfalls!

Every art of amusement has its own set of rules to be known and observed. Even in the acquisition of pleasure, we are so constituted that we must pass through the gradation of regular instruction. Mind must be thrown into everything, before permanent delight can be realized and enjoyed. The art of shooting has, therefore, its maxims and code of rules to be learned and fixed into the judgment and understanding. No man can be a shooting sportsman without obtaining a knowledge of these, either by personal experience, or regular tuition, or more properly and most generally, from both. In accordance with this view of the subject to be treated of, we shall attempt to elucidate its various depart-

ments, under four principal heads; namely, THE GUN, AND ITS NECESSARY APPENDAGES; THE DOG, AND HIS MANAGEMENT; THE NECESSARY RULES OF THE ART OF SHOOTING, EMBODIED IN THE USE OF BOTH GUN AND DOG; and lastly, THE APPLICATION OF THESE RULES TO THE VARIOUS OBJECTS WHICH COME UNDER THE ORDINARY CATEGORY OF A SHOOTING SPORTSMAN.

We shall attempt to treat these several points with all possible clearness and brevity, and to impart to the young and aspiring sportsman such a bird's-eye view of the chief things he has to learn and attend to, as will greatly facilitate his acquisition of the whole art of shooting game of every kind.

# PART I.

## CHAPTER I.

### THE GUN.

Much has been written on the origin of fire-arms by antiquarians and others, but it is not requisite we should go to any extent into speculations of this sort. It is, however, interesting to a sportsman, and a kind of knowledge befitting his amusement, to have some general idea of the progressive steps of improvement which mark the history of this important instrument from time to time, down to the present day.

A species of *hand-gun* seems to have been the rudimental shape of our present fowling and military guns. It is said to have been invented by one Billius, a nobleman of Milan. It was simply an iron tube affixed to a club or stick. There was a hollow made in the breech for the priming powder, but without any cover. This was improved upon in the reign of Henry VI. by the adoption of a priming pan. The *stocked-gun* was the next step in the improvement of the instrument. The barrel was placed in a wooden stock or frame, but of nearly a straight figure. But this was soon found defective, and a curved stock was invented, which enabled the shooter to take a more ready and certain aim of his object. The *match-lock* and *wheel-lock* guns followed in the order of change. The first was used with a lighted match, brought into contact with the priming by means of a spring-trigger. The wheel-lock was made in the days of our Elizabeth, but, though aiding warlike purposes, it added little to the sporting facilities of the day. This gun was fired by means of friction, through the instrumentality of a wheel which passed rapidly over the edge of a piece of flint. This proved but a very heavy and clumsy affair. The next great step in a right direction was the *flint-lock*. This was long retained in use, and underwent various modifications down to modern times. The more recent improvement is the *percussion-lock*, of which we shall have something more to say by and by.

The shooter and the angler are differently situated in reference to a knowledge of their respective instruments of amusement. A fowling-piece is a thing involving danger; it is dangerous to the sportsman himself, and dangerous to others. A fishing-rod is a harmless object, of whatever materials it may be made. It is, therefore, requisite that the shooter should possess some general

knowledge not only of the materials of which his instrument is made, but of the artistic and mechanical skill by which it is constructed, and kept in good and safe order. There is no part of a gun which a sportsman should not be well acquainted with; for here an ignorance of what may be deemed a very trifling matter, may lead to disastrous and fatal consequences. Here knowledge undoubtedly confers both power and safety.

The *barrel* of a gun is of vital consideration, both in its construction and in its being kept in order. *Iron* is its chief ingredient; but then the *kind* of iron is of the highest moment. The best kind of this metal is that which possesses the highest degree of tenacity and ductility. Swedish iron is allowed to possess these qualifications or properties to a greater extent than the iron of any other country, and is, therefore, almost universally employed in the production of gun-barrels of any considerable value. But it must be remarked that this article, like many others, is often got up for *sale* and not for *safety;* and that spurious and cheap articles are made from kinds of iron that render them dangerous and worthless. When iron is mixed with certain mineral substances, it becomes unfit for safe gun-barrel making; but as every sportsman cannot command the knowledge of an expert chemist, nor pretend to be a clever gunmaker, people are necessarily left in a great measure to chance for the kind of instrument so necessary for their sport, as well as for their personal safety. The most prudent plan is to deal with gunsmiths of acknowledged skill and reputation, and who make a religious point of issuing out of their shops only such articles as will prove both safe and effective. We believe the very high price which is occasionally put upon articles from fashionable emporiums of this kind, have inspired a sort of dread among sportsmen of moderate fortunes, and they often seem driven to cheaper stores; but we think the evil is now considerably abated, and that a good and safe gun may now be had at a reasonable sum.

But without aiming at a scientific knowledge of iron or of gunmaking, a sportsman should, nevertheless, be acquainted with a few plain principles respecting the nature and goodness of the instrument of his amusement, and of its fitness for the end designed. *Spanish* gun-barrels have for long been highly prized, and generally very justly too. We have seen some solitary specimens of such guns as we never expect to see again. These Spanish articles are made of a species of iron that is remarkably well hammered, and which goes under the technical name of *scraps*, being chiefly composed of the old nails in the shoes of the horses, mules, and asses, used as beasts of burden in Spain. The *Damascus* barrels were once more highly esteemed than they now are. They were made of highly-tempered iron and steel, and hammered with extraordinary labour and polish. There are several kinds of iron which are now generally used for fowling-pieces; such as *wire-twist iron, Wiswould's iron, stub-twist iron, charcoal iron, threepenny and twopenny skelp iron,* and *sham-dam skelp.* Among all these varieties, the

stub-twist is considered the best; but it is now both high-priced, and, like most articles of value, liable to considerable adulteration. When it can be had in any degree of purity, most gun-makers are inclined to give it a decided preference both for shooting purposes and safety.

Mr. Greener has furnished a test, by which spurious gun-metal may be detected from the real stub-twist iron. He says, "Require the gun-maker to stain the barrel under examination with the *smoke-brown* (a staining composition of which he gives an account in his book) and he will not be able to accomplish it, if the barrel be not genuine; whereas nothing is easier, if it be really made of stubs twisted. The matter may be thus explained; hydrogen gas acts only on iron, steel resists its action; so that, when a barrel is properly finished, the steel remains quite bright, while the iron has become a beautiful jet-black, which will be easily recognised by attention to the appearance."

The proving or testing of gun-barrels is such a vital matter to all who have to use them, either for amusement, or war, that the legislature has been obliged to step in, and endeavour to secure individuals from serious injuries, and often from certain death itself. It is not always from a defect of the metal of which a fowling-piece is made that danger springs; a defect in the workmanship is equally pregnant with serious consequences. For a long period this country suffered severely from the want of proper attention to the subject; but the gun-makers themselves took the matter up, and established a proof-house by which barrels could be tested. In 1813, this trade was incorporated by Act of Parliament; and by the powers granted to it, it was made penal to sell any gun without having it first proved at one of the proof-houses established by the company in London and Birmingham. But these enactments were evaded; and such great quantities of unsafe guns were thrown on the market, that the legislature had again to come to the rescue, and pass, in 1815, another more stringent enactment. "It was enacted that no barrel should be received by any person to rib, stock, or finish, that had not been duly proved, under a penalty of 20*l*." It was also enacted that all barrels shall be sent immediately from the maker to the proof-house before the same shall be sold, or transmitted for sale to any person whatever. A penalty of 20*l*. is attached to the breach of this clause; and it further visits with the like penalty any one receiving such barrel to make up. The act also imposed the same penalty upon the forger of the proof-mark of the London company, or that of the Birmingham company.

We do not feel inclined to enter into the chief modes of manufacturing fowling-pieces, such as the boring and moulding them. These matters lie, in our opinion, beyond the province of the sportsman. But there are still a variety of things connected with his gun, so vitally interesting to himself to know, that we shall venture to enumerate some of them, without entering into nice speculations, or fractional or fastidious differences. Our main

object is, to impart substantial information, and to leave matters of mere fancy and opinion to others.

We must here make a few remarks on the *double-barrelled gun.* The general use of this instrument in sporting has greatly increased within the present century; and it has, likewise, undergone numerous important alterations and improvements. When first brought into action one barrel lay over the other, each having a separate pan, hammer, and hammerspring. The barrels were consequently made to turn round at the spot where their breeches were fixed to the stock; and it was so contrived that, when one barrel was fired off, the other was brought into its place by the simple pressure of a spring by the right hand, while, with the left, the barrels were turned on their common centre. This kind of gun was always found a clumsy contrivance; and the locks which were commonly appended to them were of a complex description. The next step in improvement was an instrument that did not allow the barrels to turn round upon an axis; but, on the contrary, they were fixed one over the other, and each had a separate lock and trigger, that for the under-barrel being, consequently, placed lower than the other. Still, although pieces of this construction possessed a great advantage over those that turned round, in the quickness of their firing, yet they were subject to one inconvenience from which the others were exempt, and which arose from the situation of the under-barrel; for that being fired under the same line of aim with the upper-one, must necessarily shoot low.

The present method of placing the barrels in juxtaposition with each other side by side is a great improvement; but there are still many things connected with guns of this description which require consideration, with a view to readiness of use, and facility of movement. It has been often a matter of serious complaint that each barrel is liable to be filed away so much at the breech, and likewise at the muzzle, in order to bring these two parts of the barrels as near together as possible. This renders the instrument unsafe. There are, also, important questions connected with the use of the double-barrelled gun, as to the way in which a true aim is to be obtained by it. These questions have, at various times, given rise to long discussions both in sporting journals, and sporting books, and very contrary opinions and suggestions have been the result. Still, there has been much light thrown on the general question, and decided improvements made within the last few years. The following question, in different forms, has often been asked:—"What is the best method of making double-barrelled guns, so that a correct aim may be taken from the centre of the barrels?" The following is the substance of the general replies: If the barrels were placed parallel to each other, it would be but a small objection having the sight between them; but as guns are commonly made, the thickness between the bores of each at the breech is three-sixteenths of an inch, and at the muzzle one-sixteenth. Therefore, if the length of a pair of barrels was two feet six

inches, which is the ordinary length, and the sight taken from the centre, and a ball was projected from one of them, it would make one-eighth of an inch declination from its true course in every two feet six inches it had to travel, which would make, in forty yards, a declination of *six inches*. From this cause, the right-hand barrel always shoots to the left, and *vice versa*. Now, to remedy this, suppose the thickness between the two barrels to be at the breech three-sixteenths of an inch, then let the space at the muzzle be the same; and where the barrels are thus laid together, and the sight placed between them, the ball would only make a declination of half an inch (the bore being five-eighths of an inch), being the distance between the centre of the barrel-bore and the exterior of the barrel-surface. The method by which this error is attempted to be rectified, by filing away so much of the breech-surface as shall bring the calibers of the barrels into a more rectilinear direction, is considered nothing more than remedying one defect by creating another—and a defect, too, pregnant with great hazard to life and limb. The great matter to be accomplished is, that the junction of the gun-barrels should be so made that the centres of the calibers of the muzzles, and the centres of the calibers of the breeches, if not exactly equidistant, should at least be considerably more so than is commonly effected; the approximation being in general in direct ratio to the length of the barrels.

On what are called the *Elevation* and the *Elevated Rib* of a gun, there has been a great deal written. These points involve nice and abstruse questions as to the precise movements of bodies thrown out of projectiles generally. The line which a charge of shot takes when fired from a double gun, is called the *line of impulse*. Whether it be *rectilinear* or *curvilinear* is still a point of dispute. But one thing is certain, that the shot is under the influence of the ordinary and universal law of gravitation, which impresses upon it a constant tendency to fall to the ground. The distance to which its flight may be prolonged depends upon the goodness and conformation of the gun, the materials with which it may be loaded, and the various minute matters which constitute the tact, aim, &c., of the person using the instrument. A curvilinear direction of the shot is assumed as a fact by gunmakers, and their grand object is to bring the shot to the mark aimed at by the employment of mechanical expedients—such as straight stock, or an artificial elevation of the muzzle of the piece, in proportion to the length of the barrel. All these matters, though lying within the express business of the gunsmith, are still matters of which the sportsman should know something, because they bear directly upon practical results of great moment to his own safety.

On the *Elevated Rib* Colonel Hawker and Mr. Greener have written at some length. Their opinions are entitled to great weight on this question. Both maintain the different lengths of barrel require a corresponding height of the rib, and that a greater height is required for a person accustomed to use a crooked stock,

and *vice versâ*. Both writers likewise maintain that the elevation of rib commonly met with is not sufficient. The usual elevations do not deliver the shot at the mark even at forty yards, with a usual charge of powder, and where the shot are of more than average size, there must be a great defalcation in the result. Mr. Greener says that the experiments he has made show that in heavy charges of shot the droop is full *twelve inches in forty yards;* but that with less charges of shot the line of flight will be more direct.

The great advantage of a double-barrelled gun over a single one is now generally admitted by all sportsmen; but we still find some shooters prefer the latter, but this preference depends, in almost all cases, upon some accidental circumstance or individual fancy. The quantity of game to be obtained, especially in the earlier sections of the shooting season, is much greater with a double than with a single gun. The weight is generally greater in the former than in the latter, but habit and custom soon bring the matter to an equality on this point.

On the calibre or bore, the length and weight of barrels, their killing range, their force, the regularity of their effect, their recoil, their liability to burst, much might be written; for on all these several subjects there have been, and still are, considerable differences of opinion. On these questions we shall be as brief as is compatible with perspicuity.

*Calibre or Bore.*—It is recommended on high authority that *flint guns* should not be bored cylindrically through, but that a little tightness or contraction just where the shot first moves should be preserved. This suggestion has for many years been pretty generally attended to by gunsmiths. It is of importance that every purchaser of a fowling-piece should ascertain by the gauge the exact diameter of each portion of the bore of the piece, that he may adapt his wadding accordingly. The proper wadding for these kind of relieved barrels is that which has some considerable degree of firmness, with a certain portion of elasticity. Beckworth's wadding is of this kind. There are, however, many barrels now made which are bored cylindrically throughout; and it is said by many competent authorities that such pieces shoot remarkably well.

*Percussion-barrels* are commonly made heavier and stronger than the barrels of the flint gun. It is now the practice to bore such barrels with a little relief forward, which Colonel Hawker maintains has the effect of making the gun shoot as close as it can do compatible with the quickness and strength required. The increased weight of the percussion-barrel has, however, been objected to; but to enter into the discussion would occupy too much of our space. We must leave the reader to obtain any further information on the point from more voluminous treatises on the gun.

*Length and weight of Barrels.*—There has been a great innovation on former times as to the length of gun barrels. It was for long considered as an indisputable maxim, that the longer the barrel, and the smaller the bore, the farther a gun would kill, and send

its shot with effect. Now, however, the barrel is considerably shortened, and with good effects. But here again some sportsmen apprehend we have run into an opposite error, and are now making them too short. Mr. Robins, who seems to have paid great attention to this matter, says that sportsmen may please themselves whether the length of their barrels be from *twenty-eight* to *forty* inches; but that if they either go above or below these dimensions, they will find that the range of the shot will begin to fail them. We would say, that as matters stand at present, the general opinion is in favour of moderate length of barrel. Such fowling-pieces are decidedly more adapted for general purposes, more portable, and are free from many inconveniences to which very long guns are liable. The *Oakeligh Shooting Code* gives the following judgment on the matter:—"The fowling-piece to be recommended for general use is a double-barrelled detonator, weighing about eight pounds; the barrels thirty or thirty-two inches in length, sixteen gauge, and made of twisted stubs. It is not sportsmanlike to use double barrels of a greater calibre; nor are longer barrels convenient on account of their weight, although additional length, not carried to an extreme, or a larger calibre, may probably render them more effective, in so far as they will sustain a heavier charge. Single barrels, for general use, may be *thirty-four* inches long and *fourteen* gauge." The same authority says, that "the barrels of the grousing gun should be thirty-two inches long, sixteen gauge; a single barrel for grouse-shooting should be thirty-six inches long, and fourteen or fifteen gauge. If selected for partridge-shooting only, the barrels should be thirty inches long, and sixteen gauge; or a single barrel thirty-four inches, and fourteen or fifteen gauge. If selected for cover-shooting only, the barrels should be only twenty-eight inches by sixteen gauge; or single barrels thirty-two inches, and fifteen gauge.

*Extent of Range.*—There is on this subject no small degree of contrariety of opinion. There have been the most opposite notions entertained by the most distinguished sportsmen. We cannot, therefore, pretend to solve the problem in dispute. Two points are to be attained by all guns, to keep the shot from being scattered, and to give them the greatest amount of *force* or *propulsion*. These are the *ends*, but the means best calculated to effect these ends give rise to numerous and conflicting theories and expedients. Some think that the muzzle of the gun should be a little widened; some advise the mixing of oil and water with the shot; and some place all their faith in well-regulated charges of powder. There are advantages attending all these methods, but not to the extent which their respective advocates maintain. The distance of range that most fowling-pieces will carry, on ordinary occasions, is *forty yards*. Of course we have heard of wonderful long shots since we ever took a gun in hand, which is full forty years ago, and we have actually *seen* long shots. But these are the exceptions to general rules. We think that from general observation it will be found

that from twenty-five to thirty yards is about the average distance at which nine out of ten of every bird is killed. Many are wounded, nay even killed dead, at forty, fifty, and even sixty; but it is clear that these are but solitary cases, and are chiefly the effects of mere chance or random shots, hitting some vital member of the body.

*The Force or Recoil of a Gun.*—All guns have a greater or less recoil, proceeding from the mechanical principle, that all force begets force. Inequalities of the bore of guns, contractions at their breeches, the too great quantities of powder or shot used, dampness and confined air, &c., &c., are the commonly prevailing causes of guns recoiling unpleasantly. Even the material and peculiar construction of the instrument lend their aid to produce the same effect.

*Bursting of Gun Barrels.*—We sometimes hear of the bursting of barrels which have come from the manufactories of the first houses of respectability in the kingdom. These accidents often depend upon causes that are little known or lie hid from observation. They are often, however, lamentable in their consequences, and demand the constant attention of the sportsman to be upon his guard against the occurrence. The selfsame causes which produce great recoils in a gun, may produce its explosion. The recoil and the bursting differ only in degree and intensity. Overloading a piece, immersing its muzzle under water and firing it off, leaving a ram-rod in a piece and firing it off with it, and a hundred other things may produce this effect. There is no recipe to be given that will supersede attention and care to the various matters which are fully stated to the sportsman in most works on the subject. If he neglect these, he must take the consequences.

The next important part of a gun is the Lock. This is a nice and rather intricate piece of mechanism, but one of which the shooter should have a general—nay, we might properly urge, a minute knowledge. The manufacture of this part of the fowling-piece has been carried to great perfection in England, especially within the last thirty years.

The first spring-locks for guns date their origin from about the middle of the sixteenth century, and were first made at Nuremburg, in Germany. The inventor and general manufacturer of them is said to have realized an independent fortune by them. He made many alterations and improvements on his first model; and his son, who carried on the business for nearly a half century after his death, introduced still more decided and important alterations.

The *Flint-lock* is still partially in use, especially among old sportsmen; and it has been brought to a very high state of finish and perfection. Locks of this sort, when made by first-rate gunsmiths, display a vast superiority over those of fifty years back. With respect to this lock generally, it has been observed that if the main-spring be too strong in proportion to that of the hammer, the cock is often broken for want of resistance; and if the hammer, or feather-spring, be too stiff, or should shut down with too much

force, it becomes difficult to throw even with a strong main-spring. This is not only a sad fault, but the hammer, by thus coming down, escapes, in a certain degree, from the influence of the spring, and consequently loses its pressure on the pan; by which defect the priming is not so closely covered, and the hammer is apt to re-act, instead of obeying the main-spring. The proper plan is, to let the hammer shut down dull, and fly back smart. The main-spring, to be properly regulated, should at first pull up very hard, and then draw progressively easier; and for this reason, it requires an accession of force after it has recovered the first sudden escape from the scear-spring, otherwise it will go slow with a flint, and be liable either to cause a snap, or allow the cock to be blown back with a detonator.* Gun-flints are obtained in those parts of the kingdom that abound with chalk. What portion of them are still used, are chiefly obtained from Wiltshire and Norfolk. Those of a black colour are considered the best.

The *Percussion-lock* being now in almost universal use, we shall direct the reader's attention to it, as briefly as we can. Like all other great alterations, the innovation met at first with considerable opposition. For long it was prognosticated it would prove a failure; but this has not, however, been the case. It has had now more than thirty years' trial, and has during the whole of that period gone on in a progressive order in gaining the sportsman's support and approval. The Rev. Mr. Forsyth was the inventor of it, and his patent expired in 1821. Since then there have been considerable improvements made on it, and it is at this moment looked upon as one of those pieces of mechanism which has attained its zenith of human skill and polish.

The important point gained by the percussion-lock is the quickness of ignition. "In a flint-gun," says Colonel Hawker, "when the powder is ignited, it keeps rushing out of the touch-hole, there being no hindrance that way; and the train, as we may term it, has to keep burning until a much greater degree of force is generated than can escape through that vent, or a sufficient power is created to move the body of the charge. In the percussion-gun, as soon as the fire is communicated, the touch-hole is partially closed, and an obstacle presented to the escape of the powder that way; so that a force equal to move the charge is generated in one half the time. It is this circumstance that constitutes the difference between the flint and the percussion gun." We may observe in passing that the reader who feels an interest in the question as to the comparative value of the flint, and the percussion-locks, will find the experiments of Mr. Noble, detailed in the *Sporting Magazine*, vol. xx; these having been conducted to test the qualities of both kinds of locks. Colonel Hawker's opinion on this question, will be found in the last edition of his work.

There have been various attempts made, from time to time, to form a complete *safety* lock; such a lock, in fact, as would secure

* Colonel Hawker.

the sportsman, or any other person using a gun, from accidents. Among the various contrivances of this sort, we may mention, the safety lock of Dr. Somerville, that made by Baron De Berenger, Mr. Redford's lock, Mr. Golding's safety gun, and the safety and graduating stops of Mr. Manton. There is something good in all these: but the main object or aim of them all has not as yet been attained. Most of the improvements of this stamp have been indirectly useful, not only as affording valuable suggestions on the lock generally, but in reference to other parts of the fowling-piece not immediately connected with the instrument of ignition.

The GUNSTOCK is an important section of the fowling-piece. In fixing upon the length, bend, and cutting of the stock, there has been much nicety laid down for the guidance of gun-makers. Col. Hawker maintains that the framing of a stock of a gun should vary with the precise make of the man who has to use it. It should be fitted to the shooter, who should have his measure for its several parts as formally entered into the gunsmith's books as a man has in his tailor's for a suit of clothes. Some manufacturers have a machine, or *stock gauge*, by which they measure the outline of their customers as regards their length of arm, neck, &c., so as to furnish each man with a gun-stock that will agree with his peculiar bodily conformation. This has something like common sense to recommend it. It has been justly observed that there is full as much skill required to fit a man with a gun-stock, in agreement with his make, as there is to fit a dandy with a complete suit of clothes.

We have now gone through a partial notice of the three chief portions or members of the fowling-piece: the *barrel*, the *lock*, and the *gunstock*. A general knowledge of the nature and power of these several agents is absolutely necessary for the effective and safe use of all sporting projectiles. There are other minor matters connected with the gun, with which all who use it should be familiar by name, and these are the *technical* terms applied to its numerous parts. An acquaintance with these smooths the intercourse between sportsmen themselves, as well as between the gunsmith and them, by whom they are constantly used. We shall here transcribe them.

*Bolts.*—Irons which enter the loops or eyes of the barrel to fasten it to the stock.

*Bridle.*—A polished piece of steel which caps the tumbler, and is secured by two screws. It likewise receives the scear-screw.

*Butt of Stock.*—The shouldered extremity of the stock.

*Cap.*—It covers the ramrod screw-cap; is also used for the tip of the stock.

*Casting off.*—The outward inclination given to the butt-end of the gun being intended to incline the line of aim inwards.

*Chain or Swivel.*—A small catch suspended from the neck of the tumbler, to receive the extremity of the mainspring.

*Chamber.*—The central cavity within the breech to receive the powder. The *ante-chamber* is the small one which connects these with the touch-hole.

*Cock.*—In the flint-gun it holds in its jaws the flint; in the percussion-gun it is equally a cock, but there it is more frequently called the *striker*.

*Cock-screw.*—The screw that brings the jaws of the cock together.

*Cup.*—The cavity seen at the top of many of the improved breechings.

*Escutcheons.*—Ornamental pieces of silver to prevent the bolts from defacing the stock when the turnscrew and pincers are applied. Escutcheons are likewise used on other parts to receive initials, crests, shields, &c.

*False Breech.*—This receives the *butt* or nose of the breech when the barrel is fastened into the stock.

*Elevated Breech or Rib.*—It is a top piece much elevated, first used by Mr. Joseph Manton.

*Fence.*—The part between the cock and pan which receives the solid stock.

*Guard.*—The bow which defends the trigger.

*Hammer-spring.*—That on which the hammer moves.

*Hammer-bridle.*—The part in which the tail of the hammer works.

*Heel-plate.*—The plate with which the heel of the stock is tipped.

*Jaws.*—The lips of the cock which holds the flint.

*Lock-plate.*—Supports the principal works of the lock.

*Main-spring.*—That by which the tumbler is worked with the cock.

*Nipple or Pivot.*—The small iron pillar that receives the copper cap of the detonator.

*Pipes.*—Tubes to receive the ramrod.

*Rib.*—Central piece of iron which unites the barrels and receives the ramrod.

*Scroll-guard.*—An extension of the guard which receives the right hand in fixing the gun.

*Scear.*—That which catches the tumbler for half or whole-cock, and being pushed up by the trigger.

*Scear-spring.*—The spring which holds the scear in the notches of the tumbler at either half or whole-cock.

*Side-nail.*—A screw which fastens on the lock.

*Sight.*—A patch of metal, usually of silver, placed near the gun-barrel to direct the aim.

*Spring-cramp.*—A useful instrument to assist both in taking to pieces and putting together the parts of the lock.

*Tail.*—The neck, shoulder, or arch of the hammer.

*Top-piece.*—This opposes the rib which unites the lower arches of the barrel. When it is very prominent behind it is called the *elevated* rib.

*Trigger-plate.*—The triggers work in it.

*Trigger-springs.*—Are small springs found in some highly-finished locks, and are intended to keep the triggers close to the screw.

*Tumbler.*—The moveable centre-piece of a lock which falls with, and is subservient to, the cock.

*Tumbler-screw.*—This fastens on the cock.

*Vent-hole.*—Sometimes there are two or three vent-holes which are intended to let out the gas in a detonator, and thus to lessen the recoil.

*Worm.*—The screw at the end of the ramrod.

It is now requisite to make a few observations on the best methods of preserving guns, and keeping them in a clean and working order; and here it may be remarked at the outset, that a real sportsman ought to look to this part of his duty HIMSELF, and not to depend upon others for its effective and faithful discharge. In fact, such an instrument as a gun should never be placed under any one's care but the person himself who is to use it. Every one who has had any extensive acquaintance with the management of fowling-pieces, knows that great carelessness is displayed in reference to them by the majority of servants.

All fowling-guns require to be taken completely to pieces at stated times, to be regulated by the frequency of their use, or the situation in which they may have been kept. Twice a year is considered not too often to look into every crevice of the instrument, taking most especial care to overlook nothing—not even the smallest screw or spring. To do this work completely, and in a masterly style, the sportsman should obtain the use of a bench, vice, turnscrews of various dimensions, from an eighth to half an inch, the latter size being required for the cock-screw, breech-screws, and for raising the bolts which bind the barrel to the stock. The spring-cramp is a necessary article in this matter of overhauling the entire fabric of a fowling-piece. When a sportsman is not situated in the immediate vicinity of an experienced gunsmith, he ought to have by him at all times duplicates of all the necessary parts of his instrument, and these will supply him on all contingencies with what may be requisite to keep him in working order.

The following instructions may prove of service. In taking off the *main-spring*, let the lock be placed on full cock; then cramp the main-spring; when this is effected, let down the cock, and the main-spring will fall off. When the lock has again to be fitted in, let the cock be left down; then hook the end of the main-spring on the swivel or chain; move it up, and place it into a position on the lock-plate. When this is done, unscrew the cramp, and the lock is once more fit for use. When the hammer has to be taken off, first shut it down carefully, cramp the spring until, by shaking the lock, the hammer is heard to rattle. Stopping here, take out the screw behind, and the hammer will fall off. The replacing it again only requires the putting it in its former situation, turning the screw, and setting the spring at liberty. If it be requisite to take the hammer-spring out, the hammer must first be released, and the main-spring likewise, to enable the operator to get at the screw behind. The hammer-spring must then be cramped, till it is taken out and put on again to receive the hammer.

To take to pieces all the small springs of the lock, requires con-

siderable care. The several screws must be kept distinct: any little mistake is this matter may produce serious results. When the main-spring is taken off, unscrew and take out the scear, by half cocking the lock. Clasp the fore part of the lock firmly, at the same time pressing the thumb against the back part of the cock, directing it forward, while the scear, and scear-spring, being now pressed together by the forefinger and thumb, will readily enable the operator to take out the scear-screw. When this is done, undo the two screws, take off the bridle, and then unscrew and take out the scear-spring. The cock must next be unscrewed, which will readily separate from the tumbler, if it be gently shaken or tapped. Take out the tumbler, and the lock is now analysed into its component parts.

When it has to be reconstituted again, the following directions should be sedulously attended to. Put the tumbler in its place, and screw on the cock; do the same thing with the scear-spring, and set on the bridle with the two upper screws. Put in the scear, but in order to open a clear passage for the screw of the scear, see that you again, as before, press the forefinger and thumb on the scear and scear-spring, and likewise that you again push the cock forward, as when in the act of taking off the scear. Unless there be a pressure of this kind, it is not easy to place the hole of the scear opposite the hole of the bridle; and without this is effected the scear-screw will not enter. Great trouble often ensues from want of attention to this and other trifling points. Now the cock must be let down to admit of putting on the main-spring; and then the process is finished. In a detonating gun there is not near the same amount of trouble in dismembering the fowling-piece. The pivot, or nipple, should be now and then removed, and carefully examined, that the first approaches of corrosion may be removed before any injury is inflicted. When a gun is purchased, it ought to be provided with spare pivots, all mathematically adjusted to the barrel. It is likewise a good practice to put a little olive-oil with a camel's-hair pencil on the pivot-nail, or centre of the tumbler, on which almost all the works of both flint and percussion guns move. The same may be applied with advantage to the lock-plate under the works. In flint-guns a little oil under the hammer is likewise useful. Mr. Lancaster, in his printed directions given to gentlemen who buy percussion guns, gives us the following directions:— "Always clean those parts of the barrels and locks that the detonating powder acts upon with a wet rag; then rub them dry, and leave them in oil to prevent rust. The pegs should not be taken out too often. Before you take out the barrels, bring the locks to half-cock. The locks do not require to be taken off every time the gun is used; once a fortnight is quite sufficient. Put a little fine oil to the parts where there is friction; but if the gun has been used on a wet day, the locks should be taken off to be cleaned, and oiled immediately." When, by accident or neglect, a lock becomes completely rusty, both within and without, it ought to be plunged

into warm water, and well scrubbed with a hard brush, with a free use of fine sand, emery powder, or levigated glass. The rust will effectually be removed and will not injure the gun, providing it is but a recent accumulation of rust; but if it is of long standing, it may have eaten into the core of the metal, and produced vital injury.

*Cleansing of Guns.*—The attention to the barrel of a gun, to keep it clean, is an important part of a sportsman's duty. Most men have peculiar methods of their own; and though all employ the leading or primary elements of cleanliness, yet they differ as to their precise application. On a point so apparently simple, it is astonishing to find so many opposite plans, and many of them enforced with a dogmatism and jealous obstinacy that seem vastly out of place on such a matter. The following, among many other methods, is chosen, because we have found it always to answer the desired end. Provide some boiling water, and an empty pail; detach the barrel from the stock, and with a clearing-rod furnished with tow, we begin to pour the hot water down each barrel. We scour it well with the clearing rod, and discharge the barrel of the foul water. Place hot water in it a second time, and wipe out the barrels with fresh tow, until they are completely dry, both without and within. Should there be any moisture lurking within the screw-joints of the breech and touch-hole, it is a good plan to let down an iron plug of red heat, which, being moved up and down the barrel or barrels for half a minute, will effectually absorb every particle of moisture or damp. All this should be done by the sportsman's own hand; and not, if it can be avoided, left to another person to do. There is an old maxim which applies to gun-preserving very forcibly: "What a man wishes to have well done, he should do it himself."

How often a gun should be cleaned must depend upon many circumstances. There is a great difference of guns in accumulating dirt. This arises, perhaps, from their different degrees of internal finish. Then, again, we find some kinds of powder foul more than others; and small shot does the same thing more readily than large. Waddings, too, have an effect; some keeping the gun comparatively clean much longer than others. It is commonly maintained by practical shooters, that a barrel should be cleaned after the firing of *twenty shots*. But there can be no invariable rule laid down in such a case. A man that is careful, that understands what a gun is, and knows the peculiarities of the one he is in the habit of daily using, cannot err very far from the right path in this matter. It is always safe to be over anxious rather than otherwise on a point of such great importance.

To remove rust from the inside of the barrel, some sportsmen recommend an ashen rod, turned a few inches longer than the barrel, and so nearly of the size of the bore, as to allow of the following process. Let one end of the rod be cut lengthwise, so as to make a slit of six inches long, into which slit enter as much of fine emery paper as will completely fill up the bore of the barrel,

taking care, in folding the paper tightly round the wood, that the emery surface is outward. Force it into the barrel by screwing it downwards from the top to the bottom; and repeat the process till the barrel is as clean and as polished as when it left the maker's hands. No sand or coarse stuff of any kind should be used.

It is of great moment that every sportsman, when he comes home, or goes into any house whatever, should keep a watchful eye on his fowling-piece. He ought always to displace the cap, and throw out the priming. But even this does not always secure an immunity from fatal accidents. A few stray grains of powder may still be productive of an explosion. It is a wise and considerate plan, when a shooter arrives at a door, to remove the cap, if a percussion gun, or if flint, throw out the priming, let down the spring of the lock, draw the ramrod, and dropping down the barrel, put the gun away into a closet, or otherwise suspend it, out of ordinary reach. A man of right feeling cannot be too careful on such occasions.

---

## CHAPTER II.

### POWDER AND SHOT.

It is now requisite we should make a few observations on powder and shot, without which the gun, notwithstanding its artful mechanism, is a dead letter.

The discovery of gunpowder produced a complete revolution, not only in the art of sporting, but in the still more serious and important art of war. The origin of this explosive substance has given rise to long discussions, and great diversity of opinion, among philosophers and antiquaries. Some have given it a very ancient date, while others bring its discovery within comparatively recent times. Grose quotes a passage from "Grey's Gunnery," published in 1731, to the following effect: "In the life of Apollonius Tyanæus, written by Philostratus about 1,500 years ago, there is the following passage concerning the people of India, called Oxydracæ: 'These truly wise men dwelt between the rivers Hyphasis and Ganges. Their country Alexander the Great never entered, deterred, not by fear of the inhabitants, but, as I suppose, by religious considerations; for, had he passed the Hyphasis, he might doubtless have made himself master of the country all around them; but their cities he could never have taken, though he had led a thousand as brave as Achilles, or three thousand such as Ajax, to the assault; for they came not into the field to fight those who attack them, but these holy men, beloved by the gods, overthrew

their enemies with tempests and thunderbolts, hurled upon them from above.'" In "Norton's Gunner" (1664), it is said, "That the invention and use, as well of ordinance as gunpowder, was in the *eighty-fifth* year of our Lord made known and practised in the great and ingenious Kingdom of China; and that in the Maritime provencines thereof there yet remain certain pieces of ordinance, both of iron and brass, with the memory of their years of founding engraved upon them, and the arms of King Vitney, who, he saith, was the inventor." In the works of Roger Bacon, written at Oxford, in 1270, the ingredients which constitute gunpowder are expressly named. It is there stated that the effects of this powder when inflamed, are productive of a noise like thunder, and a vivid flash like lightning.

The champions on the other side of the question maintain that the merit of the invention belongs to Barthold Schwartz, a German monk. The story runs thus:—that he mixed together nitre, sulphur, and charcoal, for some medicinal purpose, and a spark falling accidentally upon the mixture, it exploded. The reader will find the subject discussed pretty fully, in the works of Friar Bacon, Polydore Virgil, Baptista Porta, Spondanus, Bishop Watson, and others.

Gunpowder is well known to be a mixture, substantially made up of saltpetre, sulphur, and charcoal; but the proportions of each article varies in different manufacturing establishments. Dr. Ure tells us:—"This explosive substance consists of an intimate mixture, in determined proportions, of saltpetre, charcoal, and sulphur; and is better in proportion (everything else being equal) to the quality of these ingredients. The nitre in particular should be perfectly refined by successive crystallizations, and finally freed from adhered water, by proper drying, or by fusion in iron pots at a regulated heat. Nothing can surpass in these respects the nitre prepared in the Government powder mills at Waltham Abbey. It is tested by adding to its solution in distilled water nitrate of silver, with which it occasions no perceptible opalescence. The sulphur ought, also, to be of the finest quality, and purified by skimming, or even sublimation, if at all necessary. The charcoal should be newly made, it should burn without leaving any sensible residuum, be dry, sonorous, light, and easily pulverized. The charcoal for gunpowder is made either of alder, willow, or dogwood, the latter being preferred, which is cut into lengths, and ignited in iron cylinders, the wood before charring being carefully stripped of its bark. The three ingredients being thus prepared, are ready for manufacturing into gunpowder. They are first separately ground to a fine powder, which is passed through proper sieves or bolting machines; secondly, they are mixed together in certain proportions, but which do not seem to be definitely determined, for they differ in different establishments of great respectability as is shown in the following table:—

| | Nitre. | Charcoal. | Sulphur. |
|---|---|---|---|
| Royal Mills at Waltham Abbey | 75 | 15 | 10 |
| French for War . . . | 75 | 12·5 | 12·5 |
| Do. for Sportsmen . . | 78 | 12 | 10 |
| Do. for Mining . . . | 65 | 15 | 20 |
| Chaptal's proportions . . | 77 | 14 | 9 |
| Chinese do. . . . . | 75·4 | 14·4 | 9·9 |
| Mr. Napier's . . . . | 80 | 15 | 5 |

Thirdly, the composition is then sent to the gunpowder-mill, which consists of two edgestones of a calcareous nature, turning by means of a shaft on a bedstone of the same nature, which gives no sparks, as sandstones would be apt to do. On this bedstone the composition is spread, and moistened with as small a quantity of water as will, in conjunction with the weight of the revolving stones, bring it into a proper body of *cake*, but not of *paste*. When the cake has been thoroughly incorporated, it is sent to the corning-house, where a separate mill is employed to form the cake into grains of corn. Fourthly, here it is first pressed into a hard firm mass, then broken into small lumps, after which the graining is executed by placing these lumps in sieves, on each of which is laid a disc of *lignum vitæ*. The sieves are made of parchment skins perforated with numerous round holes. Several such sieves are fixed in a frame which, by proper machinery, has such a motion given to it, as to make the *lignum vitæ* runner in each sieve move round with considerable velocity, so as to break the lumps of the cake, and force the substance through the sieves, forming grains of several sizes. The granular particles are afterwards separated from the finer dust by proper sieves and reels. Fifthly, the corned powder is next hardened, and the rougher edges taken off by being revolved in a close reel or cask, turning rapidly on its axis. This vessel somewhat resembles a barrel churn; it should be only half full at each operation, and has frequently square bars inside, parallel to its axis, to aid the polish by the attrition. Sixthly, the gunpowder is now dried, which is done generally by a steam heat, or by transmitting a body of air, slightly heated in another chamber over canvass shelves, covered with the damp gunpowder."*

There is a common-sense fitness in a man understanding the general nature of the thing he is daily using, and this is the reason why we have here gone into the manufacture of gunpowder so minutely. The inquiry has a necessary connection likewise with many other statements, which we shall have to make relative to the use of this remarkable explosive compound.

As to the relative size of the grains of powder to be used in sporting amusements, there is now a considerable diversity of opinion; some affirming one thing, and some another. This question cannot be definitely settled, unless we take into account the nature of our guns, the purposes for which they are made, the kind

* Chemical Dictionary.

of game we are in pursuit of, and a score of other matters; all of which are calculated to modify the judgment, and to cause it to preponderate either to the one side or the other. Mr. Greener maintains that, if we obtain powder of fine grain, and powder composed of the same ingredients, larger grained, the latter will be found to be stronger than the former. He tells us, he has made many experiments both by rifle and musket, and the coarser grained always predominated over the smaller kinds. These results have been denied by other respectable sporting authorities. Hawker says, the best powder for copper-cap guns is the *fine* cylinder of Curtis and Hervey, the large grained powder being liable to miss fire. But the same authority qualifies the decision by afterwards stating, "I have invariably observed that small grained powder fails to answer in large guns; particularly on salt water, and in damp weather. It always shoots weak beyond fifty or sixty yards, and is very liable to hang fire. If a punt-gun is loaded with fine powder, and brought in at night, the chances are that it would hang fire in the morning. But with coarse cannon powder, I have known a gun that has been loaded for a fortnight go off as well as possible, by merely being probed, and fresh primed."

How far the *glazing of powder* is advantageous, is likewise a disputable question. Many sportsmen affirm, that they failed to detect any difference between the glazed and the unglazed articles. We think ourselves, that the question may be safely resolved into one of fancy and taste. It will be found to rest on no other basis.

On the ratio of force with which different kinds of powder act on resisting bodies, much curious and valuable information has been communicated to the sporting world of late years. The substance of such information we shall attempt to condense into as brief a space as is compatible with clearness.

A gun loaded with ball does not kick so severely as one loaded with shot, and among the different sorts of shot, that which is the smallest causes the greatest recoil against the shoulder. A gun loaded with a quantity of sand, equal in weight to a charge of snipe-shot, is said to kick still more. If, in loading, a space be left between the wadding and the charge, the gun either recoils violently or bursts. If the muzzle of a gun has accidentally been stuck into the ground, so as to be stopped up with clay, or even with snow, or if it be fired with its muzzle plunged into water, it will in all probability burst. The cause of these apparently contradictory results is, that every force requires *time* to produce its effect; and if the *time* requisite for the elastic vapour within to force out the sides of the barrel, is less than that in which the condensation of the air near the wadding is conveyed in sufficient force to drive the impediment from the muzzle, then the barrel must burst. It occasionally happens that these two forces are so equally balanced that the barrel only swells, the obstacle giving way before the piece actually bursts. This explanation will appear more obvious if we trace, step by step, the circumstances which

arise on discharging a gun loaded with powder confined by a cylindrical piece of wadding, and having its muzzle filled with clay, or some other substance, offering a moderate degree of resistance. In such a case, the first effect of the explosion is to produce an enormous pressure on everything confining it, and to advance the wadding through a very small space. Here let us consider it as at rest for a moment, and examine its condition. The portion of air in immediate contact with the wadding is condensed, and if the wadding were to remain at rest, the air throughout the tube would soon acquire a uniform density. But this would require a small interval of time, for the condensation next the wadding would travel with the velocity of sound to the other end, from whence, being reflected back, a series of waves would be generated, which, aided by the friction of the tube, would ultimately destroy the motion. But until the first wave reaches the impediment at the muzzle, the air can exert no pressure against it. Now, if the velocity communicated to the wadding is very much greater than that of sound, the condensation of the air immediately in advance of it may be very great before the resistance transmitted to the muzzle is at all considerable; in which case the mutual repulsion of the particles of the air so compressed will offer an absolute barrier to the advance of the wadding. If this explanation be correct, additional recoil when a gun is loaded with small shot or sand, may arise in some measure from the condensation of the air contained between their particles, but chiefly from the velocity communicated by the explosion to those particles of the substances in immediate contact with the powder being greater than that with which a wave can be transmitted through them. It otherwise affords a reason for the success usually attending the blasting of rocks. That the destruction of the gun-barrel does not arise from the property possessed by fluids, and in some measure also by sand and small shot, of pressing equally in all directions, and thus exciting a force against a large portion of the interior surface, seems to be proved by a circumstance mentioned by Le Vaillant and other travellers, that, for the purpose of taking birds without injuring their plumage, they filled the barrel of their fowling-pieces with water, instead of loading them with a charge of shot. The same reasoning explains a curious phenomenon which occurs in firing a still more powerfully-explosive substance. If we put a small quantity of fulminating silver upon the face of an anvil, and strike it slightly with a hammer, it explodes; but instead of breaking either the hammer or the anvil, it is found that that part of the face of each in contact with the fulminating silver is damaged. In this case, the velocity communicated by the elastic matter disengaged may be greater than the velocity of a wave traversing steel; so that the particles at the surface are driven by the explosion so near to those next adjacent, that when the compelled force is removed, the repulsion of the particles within the mass drives back those nearer the surface with such force that they pass beyond the limits of attraction,

and are separated in the shape of powder. The success of the experiment of firing a tallow candle through a deal board would be explained in the same manner, by supposing the velocity of a wave propagated through deal to be greater than that of a wave passing through tallow.*

Many sportsmen regularly institute experiments to try the strength of their powder. The chief circumstance relative to the goodness of powder generally arises from the quality of the nitre in its composition. This chemical ingredient having a strong disposition for absorbing moisture from the air, requires that it should be rendered as pure as possible. It is often mixed with common salt, and this is very injurious to the powder. In all good powder its expansive force is in proportion to the quick communication of the fire through its entire mass. This is the principle that regulates its fitness for sporting purposes.

The method of trying powder instituted and followed at present by the Board of Ordnance, is as follows. The triers first take out of the several barrels of gunpowder a measure-full, of about the size of a thimble, which is spread upon a sheet of fine writing-paper, and then fired. If the inflammation be very rapid, the smoke rises perpendicular; and if the paper be neither burned nor spotted, it is then judged to be good powder. Then two drachms of the same powder are exactly weighed and put into an *epruevette*, which, if it raises a weight of twenty-four pounds to the height of three inches and a half, is received into the Government magazine as proved.

This powder trier just mentioned, called an *epruevette*, may be seen in many gunsmith's shops. It does not, however, test the power of the explosive substance with very great nicety, but still it is a useful instrument, because it furnishes the sportsman with a general idea on the subject, which enables him in many cases to detect a bad and impure commodity.

The following observations on powder by the *Oakleigh Shooting Club* are entitled to notice:—"The Dartford gunpowder bought from one retailer will fire smart and strong, while a similar article obtained from another will be comparatively weak and slow of ignition. This difference in the quality of powder is occasioned by exposure to different atmospheres. Gunpowder is generally purchased by the shooter at a provincial town at some distance from the manufacturers. One shop or warehouse is dry; another is damp. One package of powder may have lain only twenty-four hours in the front boot of the London mail, in July, to the imminent danger of the cigar-whiffer on the coach-box; another may have been sweating three weeks in a canal-boat, in March; hence the various degrees of liability to imbibe moisture before the powder comes into the retailer's possession, and while in his keeping. Damp not only affects the nitre, of which gunpowder is chiefly composed, and thereby occasions loss of strength; but it also ope-

* See Babbage's "Economy of Machinery."

rates prejudicially on the ingredients which contribute to instantaneous ignition."

The *percussion gunpowders* require a passing notice. The application of these combustibles have effected great changes in sporting art, and the science of projectiles generally. Detonating substances are but of modern date.

The discovery of *fulminating mercury*, which forms the percussion powder now in use, is attributed to Mr. Howard; the full particulars of which are detailed in the *Philosophical Transactions*. Its manufacture is effected in the following manner:—A hundred grains of mercury are to be dissolved by heat in an ounce and a half, by measure, of nitric acid. This solution being poured cold into two ounces, by measure, of alcohol in a glass vessel, heat is to be applied till effervescence is excited. A white vapour undulates on the surface, and a powder is gradually precipitated, which is to be immediately collected on a filter, well washed, and cautiously dried with a very moderate heat. This powder detonates loudly by gentle heat or slight friction. The fulminating mercury should be moistened with about thirty per cent. of water, then triturated in a mortar, and afterwards mixed with the sixth part of its weight of gunpowder. Matches, caps, &c., made in this manner resist damp, and do not corrode the instrument which contains the powder. It has been often ascertained by experiment, that they have frequently ignited after having been immersed in water. This is the method which is adopted in the manufacture of percussion caps.

### THE DIFFERENT KINDS AND SIZES OF SHOT.

There is some little confusion about shot, on account of the sizes and numbers not coinciding in all the manufactories of it. This circumstance tends to mislead sportsmen, and very often to give rise to false theories and ideas about the force and resistance of projectile instruments generally. An ounce of No. 7 shot out of Messrs. Walker and Parker's manufactory contains 341 pellets; and the same weight from Mr. Beaumont's, 398. Add to this, that in some places the usual numbers are reversed. The following is a list of the shot in Messrs. Walker's firm, with letterings, number-marks, and the number of pellets in an ounce:—

| | | | |
|---|---|---|---|
| AA | 40 | 4 | 177 |
| A | 50 | 5 | 218 |
| BB | 58 | 6 | 280 |
| B | 75 | 7 | 341 |
| 1 | 82 | 8 | 600 |
| 2 | 112 | 9 | 984 |
| 3 | 135 | 10 | 1,726 |

Mould, drop, or swan-shot, are of large size, and commonly used for wild-fowl shooting. They are lettered, and the pellets numbered as follows;—

| | Number of Pellets to 1 oz. |
|---|---|
| LG | 5½ |
| MG | (hardly) 9 |
| SG | 11 |
| SSG | 15 |
| SSSG | 17 |

To what degree the various sorts of shot are effective, is a question not at all settled at the present day. Where opposite opinions prevail it is difficult to decide, and it is a folly to be dogmatical. Some sportsmen of distinction maintain that for ordinary purposes of game shooting, No. 7 is the best kind of shot that can be used. It lies closer and more compact to the barrel than any other. Other sportsmen, again, think the Nos. 3 and 4 are to be preferred to any other sizes for common every-day work in the prime of the shooting-season. Captain Williamson pleads for No. 9, and General Hanger for No. 2. Another great authority tells us, that in the first month of partridge-shooting, shot No. 5 should be used; and for this reason: at this time the birds spring at hand, and we seldom fire at more than the distance of forty yards. If a shooter takes a fair aim he can scarcely fail to do some mischief by such a circle or disc of shots. Hares, likewise, at this period sit closer, and being but thinly covered with fur, may easily be killed with this sized shot at thirty or thirty-five paces. In snipe and quail shooting this shot is the most eligible. When October advances, the birds are stronger on the wing, and then No. 3 will be found more suitable. This shot, it is maintained, possesses a proper medium between shot too large and that which is too small, and will kill a partridge at fifty yards with certainty. It is adapted for all kinds of game. It is contended that distant objects may be shot by large shot; but this consideration cannot bear upon the question which involves the killing a number of birds within a comparatively short range, and where the shots are numerous. With these statements we shall leave the reader to his own fancy and experience. To go on alluding to the various and conflicting ideas on the subject, would only perplex instead of enlighten his judgment on the controverted point of dispute.

*Mixed shot* is used by some sportsmen, who have given a high opinion of the practice. But there again we find many dissentients. Some sportsmen have even ridiculed the idea of such a thing in no measured language. The same difference of opinion hangs around the *patent shot cartridges of Ely;* therefore we shall say nothing on the matter. Shooting has its fanciful enthusiasts as well as everything else.

*The Copper Caps and Cap Chargers* are of considerable importance, and are entitled to consideration. They are now of almost universal use. In the purchase of copper caps it is prudent to make a trial of one or two taken promiscuously from the mass, to prevent disappointment. All foreign caps are to be purchased with care; some are excellent; others wretchedly bad, and even dange-

rous. All caps should be cupped to the exact gauge of the diameter of the nipple. Should they be too small they will not explode; if too large, the cap of the second nipple will be apt to fly off when the other is fired.

Mr. Greener treats of *iron percussion caps* in the *New Sporting Magazine* (No. 65). These he recommends on the grounds of the tendency of the copper caps to become injured when exposed to damp to such a degree as to be converted into a paste incapable of ignition. He maintains that when powder is flashed or exploded around the nipple of a gun, the residue left attracts moisture instantaneously. To remedy this, the use of iron caps is enforced. "They are much easier to explode, they detach no broken particles to wound the shooter, nor even expand so much as to stick in the head of the striker. They do not stain the hands, and they might be made cheaper."

The *Cap-charger* is a useful appendage to the cap system. It is of French invention. There are several varieties of them; some long, and some round; but we think the latter have the preference in public estimation.

*Gun-waddings* are matters of moment, and exercise a considerable influence over the sports of the shooter. However good a gun may be, and however excellent all its main appendages—powder, shot, &c.—still they may all be rendered abortive if the proper wadding be not used. But we find in all questions relative to shooting, that in proportion to their real intrinsic importance, so likewise is the uncertainty and dubiety which hang about them. Some recommend card wadding, some hat wadding, and some pasteboard. However, it is of great moment that whatever material is chosen for this purpose, it should be strictly regulated according to the bore of the barrel. Wadding punches are often made for distinct barrels, when more guns than one are used. The range and delivery of the shot are greatly influenced by the wadding. The common opinions on the matter are that all waddings should be quite close to the barrel, but not rammed too hard. The material should be rather softish in its nature, and yielding to a certain extent, but still of sufficient consistency to carry the shot in a body to a certain distance from the muzzle of the piece. For if the wadding is rammed too close, or is of a hard and rigid nature, such as stiff brown paper, the piece will recoil, and the shot will spread more wide; if, on the contrary, the wadding is not sufficiently close, and is composed of a slight and too pliant material, such as wool or cotton, it will not be of sufficient consistency to carry shot, and the discharge will lose its proper force. Besides, a certain portion of the shot, which is more immediately in contact with the wadding, will be melted by the explosion of the powder. Mr. Greener says that a substantial wadding between the powder and the shot is equal to a considerable artificial friction in improving the strength with which the powder expels the shot. It answers the purpose of completely preventing the explosive matter becoming

mixed with the shot; and the powder is confined the same as it would be were there a ball in the barrel that fitted tight. Thus the whole force is properly exerted.

*Walker's metallic gun-waddings* have a considerable reputation among sportsmen. Their metallic edges are said to prevent the surface of the barrel from becoming leaded. Other waddings are likewise recommended, as Joyce's, Wilkinson's and Beckwith's. The main thing is to keep the whole charge in the gun as compact as possible, in acting least offensively on the gun, and most effectively on the object aimed at.

We have as yet said nothing about the *Rifle-gun*, which is partially used for sporting purposes, such as deer-stalking, and rook-shooting. The barrel in all rifles is much stronger and heavier than the ordinary fowling-pieces. Its bore has long been manufactured with indentations within, which form spiral grooves throughout its entire extent. The principle on which all rifles are made, and the object they aim to accomplish, is to impart to the ball a rotatory or spinning motion round its axis, as it passes out through the barrel. The old mode of manufacturing articles of this kind failed to accomplish this purpose to any great extent; but modern art has effected a considerable change for the better. The barrel of a rifle is now cut with only two opposite grooves, and the ball being framed with a projected belt or zone round its equator, of the same form as the grooves, it enters so readily into these hollows, that little or no force is required to press it down upon the powder. The general result has been that guns of this character carry either ball or large shot much further, and with a vastly increased impetus than the common flint or percussion fowling-projectiles. The locks for rifles have, likewise, undergone a great change in recent times, and many important alterations and improvements have been effected in their structure and mechanism. The reversing the position of the main-spring, has increased the general compactness and strength of the works, and also rendered them more powerful, durable, and easy of repair. The ignition of the powder is so certain, that a misfire is rare in good rifles. They are getting daily into more general use in sporting circles, not only in this country, but on the continent, and in the American states.

We shall now bring our observations and descriptions of the gun to a close, but we beg to remark, before leaving, that every reader of sporting works on this instrument must have noticed the very conflicting opinions respecting its uses, and the nature and character of its prominent attributes. These opinions are so contradictory, and are often propounded in such a spirit of confidence and dogmatism, that the impression is forced upon us, that the true theory of projectiles is but very imperfectly developed as yet. We have still to learn a good deal, before we can be said to have mastered the subject. The various experiments that have, from time to time, been made by scientific sportsmen and practical mechanics, have not been conducted with that judgment which

might have been anticipated. We find in almost all the more elaborate treatises on the gun, a loose and inconsequential mode of reasoning adopted. Facts are mingled with theories, and theories with facts; and there is no regularly concatenated chain of reasoning and observation on the matter. The systematic writers on the fowling-piece seem, in many cases, to have set out in their inquiries with some preconceived theory or other, and are more desirous of turning and twisting facts in accordance with their preconceived notions, then in arranging them in that logical order which can alone lead to the establishment of general truths. Besides, the mere mercantile enterprises connected with sporting, have tended in many cases to prevent the free current of inquiry into the offices of the gun. A gun-maker invents something which he conceives of importance. He takes out a patent at a considerable expense. He is naturally anxious to have his invention recommended, and puffed off in every direction. Sportsmen are generally greedy listeners to all novelties. The invention is found, when tested by a pretty general use, not to realize all the advantages anticipated from it. It is then taken out to nurse, and to be bolstered up with a mass of theoretical speculation, which appears on the surface very profound and searching, but which is, in fact, nothing but a series of ill-digested notions and gratuitous assumptions. Readers are bandied about from one theory to another, till all is obscurity and chaos.

Another remark we shall venture to make. Sportsmen find, that every gun is an instrument *per se*. It has a character of its own; and the person that may be accustomed to it feels quite strange when a new piece is placed in his hands. We have often been struck, and amused besides, with the conversation of game-keepers and others about their respective fowling-pieces. They talk of them, as if they had life and volition. They say, "I know that gun well; she'll do very well in one way, but she's obstinate in another. She's a curious tempered piece. I have known her on a particular day take the sulks, and no good could be done with her; at other times she killed all before her." The fact is, that the gun is an embodiment of very important and hidden principles of mechanics and chemistry. We see the effect of it; but the *causes* are often, and, indeed, in nine cases out of ten, wrapped in impenetrable mystery. Daily experience is the only means of obtaining a perfect knowledge of the capabilities of a projectile, because its powers are so easily modified by causes which escape ordinary observation. This is the reason, why practical men gain such a stock of useful information on the use of fowling-pieces, though they are seldom able to impart that knowledge to others.

# PART II.

## THE DOG, AND HIS MANAGEMENT.

---

## CHAPTER III.

### ON THE VARIOUS KINDS OF DOGS USED FOR SHOOTING PURPOSES.

THE dog is an important element in the sportsman's art; and however well equipped he may be in gun, and powder, and shot, his success in the moors or in the fields would be very limited indeed, were he deprived of his canine assistants.

The use of dogs for game purposes is of very ancient date; as ancient, indeed, as to run into the fabulous ages of the human family. But the employment of them, in conjunction with the use of fire-arms, is of comparative modern origin; and to this use of them we purpose confining our observations.

*The Setter* (*Canis Index*, Linn.) is a species of the dog known and used for tracing and marking game from the early section of the sixteenth century. We are told, that Robert Dudley, Duke of Northumberland, as early as 1555, had succeeded in training a setter to the net. The chief varieties of the setter are the English and the Irish. The English dog does not materially differ from the pointer in size, but his make is more loose and attenuated, and his quickness and rapidity of motion is greater. The setter is fleet, and enduring, and sagacious, docile, and of warm personal attachments. Mr. Bell, in his history of *British Quadrupeds*, says of the setter:—"By far the most interesting, and, if I may so employ the term, amiable animal I have ever known, was a bitch of this kind, formerly belonging to my father, which he had from a puppy, and which, although never regularly broke, was the best dog in the field he ever possessed. The very expression of poor Juno's countenance was full of sensibility and affection. She appeared to be always on the watch to evince her love and gratitude to those who were kind to her; and the instinct of attachment was in her so powerful, that it showed itself in her conduct to other animals, as well as to her human friends."

The English setter may be met with of almost all colours. But many sportsmen entertain a particular fancy for dogs of a certain

tint; and fashion, as well as caprice, has exercised no inconsiderable influence over the market price of setters, solely from the colours they possessed.

The Irish setter is distinguished by his reddish colour. He is a fine-looking animal, of vigorous powers, and excellent sporting capabilities. By those who have experienced his aid in sporting, he is said to require more breaking in than the English setter, and to be liable to little irregularities in his movements in the field or moor.

The nature of the setter generally was well understood two centuries and a half ago. Gervase Markham, in his work, "The Art of Fowling," says, "I know that in divers places in this kingdom the *setting* dogs are to be taught (so that men of ability may have them at their pleasure); yet likewise I know they are sold at such great rates and prices, that no industrious man whatsoever (which either loves the sport or would be partaker of the benefit) but will be glad to learn how to make a dog himself, and so both save his purse and make his pleasure and profit both more sure and more delicate; for this I must assure all men that buy their dogs from mercenary teachers, that evermore those salesmen do reserve in their own bosoms some one secret or another, for the want of knowledge whereof the purchaser quickly finds his dog imperfect, and so is forced upon every disorder or alteration of keeping to send the dog back to his first master anew to be reformed, which, drawing on you a new price, makes the dog's certain price without end, and without valuation. This fault to redress, and to make every man the true master of his own work, I will show you here, in a brief and compendious manner, all the mysteries and secrets which lie hid in this laborious business. The first thing, therefore, you must learn in this art, is to make a true selection of your dog which you intend to apply to this purpose of setting; and in this selection you shall observe, that although any dog which is perfect, and of good scent, and naturally addicted to the hunting of feathers, as whether it be the land-spaniel, water-spaniel, or else the mongrels between either or both of these kinds, or the mongrels of either of these kinds, either with the shallow-flewed hound, the tumbler, the lurcher, or indeed the small bastard mastiff, may be brought to this perfection in setting (as I have seen by daily experience, both in this and in other nations); yet is there none so excellent indeed as the true-bred land-spaniel, being of a nimble and good size, rather small than gross, and of courageous and fiery metal, evermore loving and desiring toil, when toil seems most irksome and weary, which although you cannot know in a whelp so young, as it is intended he must be when you first begin to train him to this purpose, yet you may have a strong speculation therein if you choose him from a right litter or breed, wherein by succession you have known that the whole generation have been endowed with all these qualities, as namely, that he is a strong, lusty, and nimble ranger, both of active foot, wanton tail, and busy nostril; that his toil is

without weariness, his search without changeableness, and yet that no delight nor desire transport him beyond fear or obedience; for it is the perfectest character of the most perfect spaniel ever to be fearful and loving to him that is his master and keeper. I confess I have seen excellent rare setting dogs made in the Low Countries, which have been of a bastard tumbler's kind, and indeed I have found in them (if I may so term it) a greater wisdom (which, indeed, is but a greater fear) than in our land-spaniels; but, comparing the whole work together, that is, the labour of ranging, the scent in finding, and the act of setting, they have been much inferior to our dogs, and not able to make their ways in the sharp thickets and troublesome covers, nor stand up with them in the large and spacious campaigns. To speak then, in a word, touching the best choice of this setting dog, let him be as near as you can the best bred spaniel that you can procure; and though some have been curious in observing their colours, as giving pre-eminence to the motley, the liver-head, or the white or black spotted; yet, questionless, it is but a vain curiosity, for no colour is amiss for this purpose, provided the natural qualities be perfect, and answerable for the work to which end you intend them."

The *Pointer* (*Canis Avicularis*, Linn.) is a sporting dog of various kinds, the English, Spanish, Russian, and French breeds. His origin is uncertain, but he is supposed to be of a mixed breed, something between the hound and spaniel. The French pointer is esteemed for his beauty, but he is considered too insignificant for the sportsman's art in this country. The Spanish breed is heavy and grave, though of good enduring qualities. Pointers have not been very long known in Great Britain; but since attention has been paid to them here they have multiplied prodigiously, not only in the parent country, but in all her colonial and foreign possessions. The pointer is not considered so handsome in make nor so engaging in manners as the setter; but his memory is more retentive, and, according to some writers, he has the faculty of transmitting to his posterity the sporting qualities of his own nature. There are some remarkable stories told of this kind of dog—stories to which we can scarcely give any credit. There is a standing one related in most books on sporting, which we shall transcribe, rather for fashion's sake than for any other motive; but it is supported by unquestionable authorities, if authority in such cases is to go for anything. The French academicians make mention of a dog of Germany which could call in an intelligible manner for tea, coffee, chocolate, &c. The account was gained from an eye-witness, who was no less a person than the celebrated Leibnitz, who communicated it to the Royal Academy of France. This dog was of a middling size, and was the property of a peasant in Saxony. A little boy, the peasant's son, imagined he perceived in the dog's voice an indistinct resemblance to certain words, and therefore took it into his head to teach him to speak. For this purpose he spared neither time nor pains with his pupil, who was about three years

old when his learned education commenced; and at length he made such a progress in language as to be able to articulate no less than thirty words. It appears, however, that he was somewhat of a truant, and did not very willingly exert his talents, being rather pressed into the service of literature; and it was necessary that the words should be first pronounced to him each time, which he, as it were, echoed from his preceptor. Leibnitz, however, asserts that he himself heard him speak, and the French academicians add, that unless they had received the testimony of so great a man as Leibnitz, they should scarcely have dared to report the circumstance.

There have been great improvements in the pointer from cross-breedings. The power of nose is much increased, and also the capacity to sustain continued labour in the fields. It is maintained that a cross between a setter and a pointer is either very good or very bad; and the latter condition is the rule, and the former the exception. The Russian pointer is not considered so valuable as either the English or the French. He is rough-coated, grim visaged, and obstinate and self-willed in disposition. He is, however, of enduring patience.

The *Spaniel* (*Can. Fam. Extrarius*, Linn.) dates from the most remote records of time. He is of Eastern extraction. In most of the countries bordering on the Asiatic side of the Mediterranean, game of all kinds is either taken by net or by shooting, and the dog is taught in accordance with these two different modes of sporting. There are more varieties of this dog than any other. For sporting purposes there are three species that are commonly fixed upon by shooters: *springers*, *cockers*, and *water-spaniels*. Writers on these several kinds have, however, differed very much both in describing their bodily as well as sporting attributes. The *springer* is characterized by his ardour and bustle, and on some game enterprises is, on this account, not a useful dog. The *cocker* is a great favourite. He has a shorter and rounder head than the springer, as well as smaller in bulk, and more compactly built in his frame. His ears are commonly long and well feathered as well as his tail. His hair is curly, and his colour considerably diversified. The mode of educating him for the sportsman differs among different sporting circles; some follow one plan, and some another. The following is the common method adopted:—He should be taken out early to the field, as early as four and five months old, when he should be allowed to race freely about in all directions, and hunt up everything that has life; and the signal for breaking should not be made until he has manifested a preference for some objects above others. As soon as he begins to hunt fowls, in preference to other living objects, as rats, &c., we should immediately commence to give him training lessons, the first of which is, that he be learned to chase at your command only, and the animals he hunts should be such as you wish to habituate him to, and not those he might be led to choose himself. Having been thoroughly brought to yield to this first lesson of obedience, he must be next

taught "to fetch and carry;" and that, in doing this, he shall not tear or spoil his game, or whatever he may have in his mouth.

The *Water-spaniel* (*Canis Aquaticus*, Linn.).—This is a sturdy dog, with crisped hair, and of variable statue, according to the sporting duties he has to be engaged in. Those of this species that have to be employed on the banks of rivers, moors, or lakes, should be small, but strong and spirited. Old Gervase Markham says, "The water-dog is a creature of such general use, and so frequently in use here in England, that it is needless to make any large description of him; the rather, since not any amongst us is so simple that he cannot say where he sees him. This is a water-dog, or a dog bred for the water; yet because in this (as in other creatures) there are other characters and forms which pretend more excellency, and figure a greater height of virtue than others do, I will here describe, as near as I can, the best proportions of a perfect water-dog, First, for the colour of the best water-dog, albeit some (which are curious in all things) will ascribe more excellence to one colour than to another, as the black to be the best and hardest, the liver-hued swiftest in swimming, and the pied or spotted dog, quickest at scent; yet, in truth, it is not so, for all colours are alike, and so a dog of any of the former colours may be excellent good dogs, and may be excellent good curs, according to their first hardening and training; for instruction is the liquor wherewith they are seasoned, and if they be well handled at first they will never smell of that discretion; and if they be ill handled they will ever stink of that folly; for nature is a true mistress, and bestows her gifts freely, and it is only nature which abuseth them." This old and venerable author then proceeds to descant on the proportions, shape, and covering of this water-dog, and of other matters connected with his use as an animal for sporting purposes. He then enters upon the subject of training this dog, on which he remarks: "Now, for the manner of training or bringing up this water-dog, it is to be understood that you cannot begin too early with him; that is to say, that even when you first wean him, and teach him to lap, for even then you shall begin to teach him to crouch and lie close, not daring to stir or move from the posture in which you put him without your especial license, cherishing it ever when it doth your will, and correcting it when it doth the contrary; and always observing this maxim in the first teaching of him, that you never let your dog eat or taste any meat but when he doth something to deserve it, that custom may make him know food is a thing which cometh not by chance or the bounty of your hand, but for reward or merit when he doth your commandment; and this will not only make him willing to learn, but apt to remember and retain what he hath learnt, and diligently to perform your pleasure without stick or amazement, the characters of your demands being so deeply imprinted in his knowledge; and to this end you must have no more teachers, no more feeders, cherishers, or correctors but one—for multiplicity breeds confusion, and to

teach divers ways is to teach no way well; also you must be very constant to the words of directions by which you teach, cherishing such as are good and most significant for your purpose, and fittest for the action you would have the dog do, and by no means alter that word which you first use. When therefore you have made your whelps understand these several sounds or words, and that he will crouch and lie down at your feet, how you please, and as long as you please, and that with a single word, or a look only, you shall then proceed and teach him to lead in a line and collar, following you at your heels in decent and comely order, neither treading upon your heels or going before or side by you, which shows too much haste, nor hanging back or straining your line by the means of too much sloth, but following in decent and orderly manner without offence either to the dog or his leader, and this kind of leading is to make the whelp familiar with you that he may love and acknowledge you and no one else. When this general obedience is taught (which is done by observation of his going, and moving him by sights or sports, which may tempt him to stay beyond his bounds, and then to correct his offences, and to cherish and reward his obedience), you shall then teach him to fetch and carry anything you shall throw forth out of your hand." The author goes on to lay much stress on learning the dog how to fetch and carry properly, and to learn him also to seek for things that may be wanting. He should likewise be taught to read your wishes in your countenance, gestures, and motions, so that he may divine your wants without your speaking a single word. All this is very minutely and circumstantially dwelt upon, and enforced with much good feeling and sound sense.

The *Retriever*.—This is a useful dog, but of uncertain parentage. He is required to act many parts—to make a tolerable pointer, a better setter, and a handy hunter in thick covers after wounded game. To be perfect in his calling he should, on the very glance of your eye, spring among tangled woods and briars, or rush into the water and bring you out a dead or wounded bird. He is, to use a common phrase, "a Jack of all trades." This kind of dog is a necessary appendage to a regular shooting establishment. It is astonishing how sagacious he becomes by proper training, and how much his labours facilitate the acquisition of a good day's sport. The great error to guard against, is the haste and impatience which are embodied in the dog's nature.

*On the Breeding, Breaking, and Training of Spaniels, Setters, and Pointers generally*, there has been much written, and the subject is of vital importance to the movements and amusements of the true sportsman. The training of all these different kinds of animals partakes of the same common character. There are special rules and exceptions, but these do not affect the regular course of education and discipline.

The breeding of dogs for shooting purposes is a matter sedulously attended to by all shooters. When a good and proper stock

is bred from, there is a certainty that the result will not disappoint our rational expectations. This is a subject, however, which would require far too much of our space to do it anything like justice; we must therefore refer the reader to such regular treatises on the breeding of dogs of all kinds as he will find in the sporting literature of this and other countries. The discussions and regulations of the matter are so comprehensive and voluminous, that a large volume itself will scarcely do it full honours.

The methods of breaking dogs have not essentially varied from those adopted two centuries ago in England. There has been less of real innovation here than in most things connected with shooting. There have been a vast number of treatises, dissertations, and essays, written on this subject, and no little difference of opinion produced, chiefly, however, on points of minor importance. It would be impossible to write anything that could fairly lay claim to originality on the breaking of dogs; therefore we must content ourselves with merely giving the general outline of the systems generally pursued, without taking upon us the duties of chalking out new paths, and propounding novel theories.

In breaking in the *setter*, it is recommended that you lead him out and keep him close to your heels. If he attempt to pass beyond you, give him three or four snatches of his leading string with all your force; and speak a kind and encouraging word to him. Such treatment will soon repress his exuberant ardour, and teach him to walk steadily by you, and keep step with you. This is a lesson of very great utility. After he is master of this elementary rule, let him loose with his collar on; and after having emptied himself, and gambolled a ring or two, call him in gently and mildly. Take him into some highway where there is plenty of loose sand which does not retain scents of any kind. If he shows a desire to inquire at gates, stiles, doors, &c., give him a little reproof by immediately calling him to order; and upon a compliance with the word of command, give him a little reward in the shape of a piece of pudding or hard boiled liver. Bread is not so eligible, being generally too dry. As the setter runs by himself, he should never be trained in company. In an enclosed country where the boundaries do not include more than six or eight acres, an active man may, by hard labour, keep a dog to work; but in the *fieldings*, his attempts to do this would prove fruitless. In a wide country where the setter has ample scope for roaming about, the breaker must necessarily contract his beat, or he will not see the faults of his pupil, nor be able to reward his good performances. Under such circumstances a horse is a valuable adjunct. This will enable a man to keep up with the fleetness of the dog, and to take cognizance of all his movements and doings. When the dog has been thoroughly taught the terms of reclamation without fear, he may be taken into the field, choosing an afternoon rather than a morning, that he may not be diverted from his proper game, by running after hares and rabbits.

He ought to be hunted with a muzzle, until the danger of sheep chasing is over. It must be made large enough for free respiration, and yet not to give liberty of breaking, so as to get blood, should he by chance run a sheep down before he can be beaten off. High expectations must not be entertained from the first two or three trial trips. He should be expected and taught to *find*, before he is considered able to *hunt;* and, until he shows a preference for some particular feather, it is absurd to check him. To reward and encourage a dog for chasing his game is a good plan, and is the only sure method of weaning him from the pursuit of larks and small birds. It is a nice point of his training to get him to fetch the *shot bird;* but this depends upon too many circumstances to be dealt with by any general rule.

The *pointer* is generally considered not so difficult to break in as the setter. He is expected to *stand*, to indicate the presence of birds he winds and scents. The setter's instinctive disposition is to crouch rather than point or stand. For many years back the pointer has been the more popular of the two; and it is considered by good judges that this preference is well founded. The pointer is more easily steadied than the setter, suffers less from heat, his cast of hair being lighter; and when once thoroughly trained, he does not forget his lessons so speedily as the setter. But there is something like a balance or compensating principle between them. The pointer is not so hardy in his feet as his rival, and consequently does not suffer so much in long rambles over the moors, in very hot weather.

An indispensable requisite to all good dog-training is, to begin early. There is likewise another valuable ingredient in the art, namely, that the words of encouragement or reproof be always uniformly adhered to. The following is a kind of catalogue of phrases, or dictionary of words usually connected with the subject. The word *Steady!* ought to be used when all dogs enter a field, especially young ones. *Take heed!* implies the same thing. When a dog is seen very busy and active with his nose and tail, feathering as he hunts, then the word *To-ho!* in a mild, but sufficiently marked and loud tone for the animal's hearing should be used, to cheer as well as to inspire caution. *Down!* or *Down Charge!* is a command to the dogs to crouch or drop to the birds. *Back!* brings the dogs back again to your feet. *Seek out!* sends them off again in quest of game; but a *wave of the hand* is considered much better where it is expected birds are near. *Hie on!* gives a spur to the timid dog to leave your feet; and *Seek out!* orders him to hunt. *Go seek!* should be impressed on a dog's memory as a command to look out for something considered as lost or wanting; and the term is distinguished from *seek out*, by dogs that are properly trained. *Hold up!* is used to prevent the dropping of the nose to the earth to catch the scent, which, although the odorous particles may not have disappeared from the spot the birds stood on, are chiefly floating in the air; consequently, by holding up his

head down wind, he comes in contact with the scent of the birds almost immediately. The puzzle peg is used as a last resource when *Hold up!* is not attended to.

*Ware!* is a word of caution; and *Ware hare!* is to check the animal from running after the hare, when partridges, grouse, or pheasants are at hand. It is a good device to accustom a dog to attend to *signs* as well as words; for a wave of the hand will often do more execution, than loud and frequent shouting.

*On shooting habiliments and appurtenances* we beg to make a remark or two. A shooting sportsman should be conveniently and appropriately clad. Ease, comfort, and safety, are the three leading points to be attended to. The coats or jackets should be well supplied with capacious pockets; those for hares should be lined with oil-skin; indeed, all shooting pockets are the better of a lining of this kind. There is commonly a multitude of articles to fill them with: waddings, loose caps, or cap-charger, gun knife, and, peradventure, snuff and cigars. To all shooters of forty years and upwards we would recommend flannel shirts, no matter how warm the weather. Of course there must be a diversity of dress for the shooting seasons of the year; his autumn, his winter, and his wild-fowl dresses. Laced half-boots, with gaiters to reach above the knee, are desirable things. Thick woollen stockings, made of soft *yarn*, not *worsted*. The great secret of keeping the feet in good order during continued walking, is the use of the right sort of stockings or socks; and none really answer the purpose so completely and pleasantly as the fine wool made into thick yarn, and home knit. To those who have tender feet, a little soap rubbed on the sole of a stocking will answer a beneficial end. When suffering from thirst, there is nothing more refreshing than to take a little hard crust of bread and soak it in cold water, and eat it. Avoid, if possible, *drinking* any quantity of this fluid when hot. But bread and water, to sip and eat, is a most refreshing and grateful beverage. It is vastly superior to any purely stimulating liquors during the hours of exercise. These are never taken but to a disadvantage. They diminish the muscular and active powers, and produce mischiefs in a variety of ways.

There are several other items of moment constituting the regular equipment of the shooting sportsman. The shot, powder, wadding, caps or flints, are matters of course; but in addition to these, an oil-skin cover for the gun, or at least a *lock-cover*, is very requisite. A nipple-wrench, gun-pincher, turnscrew, probe, &c., may either be had separately or in a sporting knife, which embraces them all, and is useful in many other capacities. A good deal of the success, and nine-tenths of the real pleasure derivable from shooting, depends upon the right management of the *commissariat* department.

# PART III.

## CHAPTER IV.

### ON THE MODES OF USING THE GUN, AND THE DOG.

Now, when we have obtained the gun and its necessary appendage the dog, we must give some few detailed instructions as to the best manner of shooting or sporting with them.

*The examination or trial of a fowling-piece* is an important matter. If possible, a trial of a gun should always be made before a purchase. Having found that it fits well to the shoulder, and handles pleasantly, then look at the locks, and examine their several parts that they are of right finish and adjustment. "Next, let the breeching be taken out; and, remember that the screw, both male and female, be examined carefully; that the male ribs and the female indentations fit so closely together as to harbour no wet; but that, when screwed up, they make a solid mass. This is often little attended to; but, if the amateur will take out the breeches of some of the cheap guns, he will be convinced, by the ill-fitting of these important parts together, how liable such guns must be to corrode and eventually burst. We therefore say, buy no gun that shows any marks of disunion between the breech-screw and the barrel; also, look down it against the glare of a large candle, and if any flaw appears, let it be carefully examined with callipers. The breech or breeches being replaced, proceed to an equally close examination of every other part of the barrel. Next examine the stock and its mountings; and being satisfied of their soundness, strength of parts, and general unity of action throughout, the next step is to try the shooting of the gun yourself. Gun-makers will *themselves* try a gun before you, and many of them will do it fairly; but others have various modes of giving unfair advantage to the gun, and taking them also themselves. In the range, for instance, there are methods of slightly balling the shot, so as to make them exhibit a most tempting garnish. If you are on the premises of the gun-maker, unless he can show a space of fifty yards in length, how can you form an opinion of what may be the killing extent of the range of this, or indeed of any gun you may try there? And even if you are satisfied the piece will carry its shot so far

with a fair elevation only, do not fail to mark the depth of indentation they make on the wall or target. Without this proof of the strength of the delivery of its charge, the shot may ball among the feathers of your game when you come to use it, but not enter the vitals or break a wing. Let a good sized trimmer afloat, and blaze away at that, having some observant person with you to mark the effects of the shot. Snow on the ground affords a good indication of the range and garnish of a gun, as well as of its elevation, if you accurately measure the distance."

*An iron target*, however, forms a sufficiently efficient mode of trying both the range, garnish, and force of the shot. Chalk it well over, and renew the chalking after each firing. It would be well also to have a large linen sheet, or otherwise several large sheets of white paper pasted together, and placed under the target to catch the shot, whose figure, by being more or less indented, would show the greater or less force with which they were propelled against the iron. The surface of the paper laid down must, however, be large, or the rebound of the shot would carry them beyond its limits. Let the trials also be varied by using different proportions of powder and shot, not only as regards their own relative proportion towards each other, but likewise as they relate to the gun. Let daily trials also be made under every variety of circumstance; as the methods of loading the gun, of holding it, its state of being clean or foul; the state of weather, likewise, whether it be dry or moist, windy or calm.

*Milled board*, or very strong brown paper, either of them, will make an excellent target, when an iron one is not to be procured. Each sheet should be hung by tenter-hooks against a wall; or, in preference, to a square of boarding raised on a pole. The dimensions of the square (or it may be a circle if the trier pleases) will rest with the sportsman; we should recommend one about a foot and a half, marked off in squares, and the same crosswise if a circle be employed. The paper, when it is used, should also, like a draught-board, be squared around by chalked lines, drawn an inch and a half or two inches apart. At proper distances on the outer circumferences of the target or wall to be shot against, let tenter-hooks be placed to secure the brown paper. Measure off the ground to certain distances, commencing at fifteen yards, and increase each trial by five, until it arrives to fifty yards, with as many more as the trier pleases. As soon as a shot has been made, note the range, the charge used, the number of shot which have entered each *square*, and the depth to which they have penetrated. Chalk over each indentation, and repeat the experiment at another distance.

*The squares of the target*, or circles within the circle, if a round one be preferred, should exhibit marked superfices, somewhat in unison with the usual solid dimensions of the various game. The first square therefore may be two inches, which will take in the snipe, as that of two and a half may be considered appropriate to the dimen-

sions of the quail, of three and a.half to the woodcock and young partridges. Older birds would spread their limits to four inches; the grouse to four and a half; and the pheasant, if a hen, to five; and a full grown cock would hardly escape any shot that struck within the limits of the square of five and a-half. Of course the tips of the wings of the birds here mentioned might meet a shot which extended beyond the limits appropriated to it. We only give some clue to a knowledge of what may be expected from the garnish of a gun as displayed on the trial. We have not yet observed that when much accuracy is required in the trials, particularly if made by an unsteady hand, a "rest" will be a great assistance in gaining a just indication of the shooting of the piece. It is not unlikely that *some* may call this wire-drawing; we are, however, certain they will not belong to the body of reflecting or experienced sportsmen; they will know better how to appreciate rule, method, and illustration.*

## LOADING THE GUN.

No small portion of success in shooting depends upon the method of loading a gun. There is quite an art in this. Some sportsmen attribute the chief success they obtain over many of their companions in the field or the moors to the knack they possess of duly proportioning their charge to the fowling-piece they have. All general rules on the subject must be laid down with several qualifications and reservations. It is recommended to squib off the gun at the commencement of each day, that it may dry and warm the barrel, and absorb any moisture that may be collected in it. Having drawn up the cock, and removed the broken cap, or wiped the edge of the flint if that is used, both to remove foulness and to observe that it is not broken, hold the gun upright, and in that position pour in the powder, striking the butt-end of the piece against the ground, to carry down such grains of powder as may be lodged against the sides of the barrel, and also to settle the mass. Next pass the powder-wad down until it reaches the powder, on which it ought to be pressed as lightly as possible. This done, pour down the shot also, and give a shake or two to settle them evenly and solidly in their bed. Place over them a wadding of sufficient substance and elasticity to maintain the shot steadily in their position, for which purpose give a pressure to the wad, but do not ram it hard. It is common, however, to give the first charge a little more pressure than the subsequent ones. We are now supposing ourselves giving directions for charging a percussion-gun. It may be proper, therefore, when the powder is wadded, to observe whether it makes its way into the nipple by the pressure of the confined air, made in passing down the wad. It does not always follow, that if the powder is not seen in the

* Blane's Encyclopedia of Rural Sports.

pivot, it will not explode; it is nevertheless more satisfactory to see it there; and when we do not, we should give the breech a slight tap or two to introduce it further up the touch-hole. The non-appearance of the powder at the touch-hole is more likely to happen to the perforated or serrated waddings, made to let out the confined air, than when the wad was introduced entire. The last act of gun-loading is that of putting on a fresh cap, and letting the cock down very gently to fasten on the nipple. In charging the flint gun it is also prudent to squib it first, and then to introduce the powder and shot into the barrel. Introduce sufficient priming, but not so much as that the pan-cover should crush it. If a double gun be employed, it will be optional with the sportsman to load both barrels alike, or to give, as many do, a somewhat heavier charge to the second barrel, be it right or left, that the gunner usually fires on the longest shots. If the quantities of powder used are the same in both barrels, the size of the shot may at least be somewhat larger for the second barrel. Many shooters increase the quantity of shot for the charge of the second barrel, which can only be expedient when the weight of the powder is somewhat increased likewise; and even then, by many, its propriety has been often questioned. It is always more or less dangerous to alter the exact proportions between the powder and shot which experience has pointed out precisely suit the piece. When a gun has been discharged, it is a good practice to load it immediately, while the barrel is still warm; for when allowed to cool, and moisture begins to settle on its inner surface, it catches some of the finer particles of the powder-charge, and either decomposes them there, or prevents them falling to the bottom; and in either case the detention diminishes the projectile force which is to act on the shot.

*The just proportions of powder and shot* is a matter of vital interest to a sportsman, and one to which he ought to pay particular and marked attention. In fact, it is one of the branches of study of which he should make himself completely master. It requires, however, nice observation, and a just method of reasoning, and establishing general rules, and marking their occasional exceptions: all of which mental habits are by no means very common among the ordinary run of sportsmen. Hence it is that we find the actual practice of shooting so loose and unscientific; and when a man does succeed in acquiring the art in the highest degree of practical skill, yet he seldom has the power of conveying his knowledge to others, or of marking with sufficient clearness the various steps by which he has attained a mastery over his craft. Between just theories and accurate practice there is always a great void; and it only now and then happens that the one is made to throw light on the other.

Many trials must be made with every fowling-piece before it can be fully ascertained what proportions of powder and shot suit it best, and produce the pleasantest and most effective method of

using it. When, however, something like a general idea on the point is once obtained, we should make a series of what may be called *small experiments*, in the way of variations in the quantity of loading, that you may fairly test the truth of the general notions you may have been induced to form. It is an established practice to use a little less powder in a detonating piece than in a flint gun, but the exact disproportion is not a matter that can be subjected to any general rule; from a fourth to a fifth less is often adopted. Col. Hawker says, "to load a single gun of six, or double gun of seven, eight, or nine pounds' weight, take a steel charger, which holds precisely an ounce and a half of shot; fill it brimful of powder, from which first prime, and then put the remainder into the barrel; to this add the same measure bumperful of shot, and then regulate the tops of your flasks and belts accordingly." This is prescribed, be it remembered, for a flint gun. The same authority says that for a gun of twelve pounds these proportions may be doubled; for one of eighteen, trebled; and for one of twenty-four, quadrupled. Although these proportions for powder be correct, yet the experience of shooters shows that a certain diminution of the quantity of shot should be made for each kind of gun now mentioned. The commonly received regulations are the following:—The sixth part of an ounce of powder for a single percussion-gun, and the seventh for a double. The weight of shot for an ordinary piece of this kind may be one ounce and three-quarters; a heavier gun will bear one ounce and seven-eighths. For a double gun an ounce and three-eighths may be used for the left barrel, and for the other an ounce and five-eighths. Many sportsmen load the left barrel with less shot than the right, which has to be fired at a greater distance than the first. It is an excellent rule for a young sportsman to make experiments on the gun he uses, beginning with small quantities of powder and shot, and noticing the effects produced by an increase, and to ascertain with the most scrupulous care and nicety that exact quantity which seems to suit the piece he has. All mere written rules only serve as general landmarks or finger-posts; they cannot supply the place of well-regulated experiments and accurate observations. It may be remarked, as a leading maxim in game-shooting, that *heavy* loading will not facilitate his sporting success. If too much shot be put into a gun, the expansive force by which the charge is thrown out will be disregarded, and in consequence both its range and propulsive power will be diminished; if, on the other hand, too much powder be used, it may be ejected, or at least disturbed, before it acts on the mass of shot. These are the results of experience.

It is proper to give a word of caution relative to loading a gun. If it be a double one, the ramrod should not be put down one barrel whilst the other is loading, because if a stray grain of shot gets down it, it may be so fixed with the ramrod in the barrel as to be got out with difficulty, and it may even injure the internal coating of the barrel. It is also a prudent rule that after the fired

barrel has been re-charged, the piece should be slightly shaken, so that it may be ascertained whether the shot in the right-hand barrel has been removed; if there be a rattling or vibrating sound against the sides of the gun, then the charge must be more firmly rammed down. The slightest shake of the barrel will detect the loosened shot.

As it is requisite that on the subject of loading there should be the fullest and most varied information, we shall add to what has already been said, the opinion of Mr. Greener. The proper charge of a gun, he says, is as follows:—With regard to powder, suppose you begin with two drachms, and vary the charge one-eighth of a drachm each shot up to three and a half drachms, or as may be required, according to the length and bore of the gun, and for precision taking three shots for each charge, at a sufficient number of sheets of paper; whichever you find strongest, with the least quantity of powder, that is the best charge, as very likely the two additions of powder will shoot equally strong, and yet not stronger, because more of it remains unburnt. Therefore the least quantity that shoots equally strong is the proper charge, which having once ascertained, never change for any other person's plan. In respect to the proportion of shot, all guns, according to their bore and length, will shoot a certain weight and a certain size of shot best. A great deal of shot in a small bore lies too far up the barrel, and creates an unnecessary friction, and the shot by the compression at the moment of expulsion becomes all shapes—a circumstance which considerably affects and modifies its flight. If too great a weight, the powder has not power to drive it with the speed and force required to be efficacious, because the weight is too great in proportion. Those who reason from mathematical calculation will object to this doctrine. They say, the greater the weight the greater the effect. No doubt it is so, if thrown with a proportionate force; but that cannot be obtained with a small gun. We must adapt the weight of projectile force to the power we are in possession of, and from experiments, accurately made and recorded, we find that a fourteen gauge, two feet eight barrel, should never be loaded with above an ounce and a half of shot (No. 6 will suit best), and the utmost powder she will burn. A fifteen gauge will not require more than one ounce and a quarter, and no doubt No. 7 would be thrown by her quite as strong as No. 6 by the fourteen-gauge gun, and do as much execution at forty yards with less recoil; and, setting aside all other reasons, we should prefer a fifteen-gauge gun, if both be of a length, as we should find as much execution at the same distance as with the other.

The *art of shooting flying* is one of great skill and dexterity. There are, therefore, all manner of grades of excellence in the sport; some will feel a degree of self-complacency if they hit one bird in ten; while others will only miss one out of an equal number. A good deal of the proficiency in shooting birds on the wing may be referred to bodily temperament; some persons are so nervously constituted, and so hurried in their movements, that they never

attain the degree of coolness and self-possession requisite for a good and steady marksman, Fear and anxiety shake their system too violently, and many fire off their pieces without obtaining any decided aim whatever. The real foundation of the art of shooting flying proceeds from that powerful and singular sympathy between the eye and the hand; what the one sees, the other does. We learn the art almost intuitively of measuring distances, and directing objects to a definite mark; and so readily is this effected, that very often the best shots are totally unconscious of the internal process which is continually going on in their understandings when in pursuit of their game. Some sportsmen shut one eye, some keep both open. There is no rule on this matter; it is entirely resolvable into habit and early training in shooting flying. The great drawback to all failures is a want of coolness; still many writers say that this may be enjoyed in too great an access, and that many birds are lost from the fingers being too slow in their movements after the game is on the wing.

It is good to go through the entire manual training of shooting to obtain a mastery over it. It is, therefore, recommended that young beginners should proceed in something like the following order:—Let the handling and shouldering of the gun be expertly acquired in its unloaded state, taking care to look at the height, length of arm, and inclination of shoulder of the pupil. This handling of the fowling-piece should be practised for an hour or two for some days, until complete familiarity with all the required movements is obtained. He should be expert in raising or depressing his gun to every kind of level, and taking an aim at various objects. To hold the gun firm to the shoulder is a primary matter of moment, for anything like looseness and unsteadiness in this particular is entirely incompatible with the art of shooting flying. It is likewise recommended to place the left hand close, or nearly close, to the trigger, as this secures, in a great measure, any injury from the bursting of the piece. This precautionary rule is, however, neglected by a vast number of able and expert shooters, who have perfect confidence in their guns; and they likewise maintain that by placing the hand a little forward it prevents the piece from being point-heavy, which produces an unpleasant feeling in the sportsman.

When the necessary initiatory rules have been sufficiently observed, the shooting pupil should be taken into the fields and practised at shooting living objects. Some recommend firing at swallows and martins, but this is not a judicious practice. Their movements through the air are altogether different from those which distinguish game of all kinds. Sparrows having been entrapped, and pieces of paper put round their neck, and then let off, make very good marks. It is considered advisable to induce the pupil to learn the art of keeping both his eyes open; but sometimes we have seen, that this is an extremely difficult matter to attain, as young lads are often from infancy accustomed to take

aims at anything only with one eye—the right one. These early habits are sometimes so powerful, that it is almost hopeless to expect their relinquishment in after life. Quickness of motion should be learned; but the happy medium between *snap shots* and *dead slow* should be the main thing looked at and sedulously studied.

To cultivate a steady and decisive mode of walking and standing is very advantageous for successful shooting. Anything like trepidation and an indecisive gait are inimical to successful sport. It is said that a firm placing of the limbs greatly assists the arms in readily and gracefully elevating and presenting the gun. The fowling-piece should be carried barrel upwards, and sloped towards the left arm, the lock being clasped by the hand of that side, the fingers embracing the stock, which allows the arm, though supporting the gun, yet to do it with readiness and ease, and to be placed with facility within the grasp of the hand previous to the meditated elevation. The lesson to the pupil is "to carry the gun with the cock inwards and down, and the side of the stock embedded against the inside of your left arm, taking an easy position, considerably below the chest."

Another maxim is given from the same authority. "In the act of cocking, let your forefinger quit the front of the trigger, and, extending itself sloping forward through the guard, only feel the side of it with a gentle pressure. Your body, by this action of throwing out the butt, combined with the step-out of the left leg in taking form, will be brought with its weight principally upon that limb; a position assumed as more immediately called for, when the flight is nearly in a line from you, or to the left, which will comprise four out of five of all your shots." Again, when the word *Present!* is either used audibly, or mentally, the following directions are given. Let the barrel, at this moment inclined over the left shoulder, be swept in a circle forwards with a smart motion, the fore-finger of the right hand (sloping, as we have before placed it through the guard, and clear of the front of the trigger) being, as it were, the centre of motion upon which the gun turns during the sweep; by which action the butt should be raised nearly to its full height, and then bring it back with something of a thump into its place within the shoulder, whilst at the same time an increasing grasp with the left hand, which till now has kept its hold rather loosely, combines with that of the right hand upon the gripe of the stock, to keep it firmly there. The direction of the barrel to the mark, or what may be termed the *line of level*, to be taken, in the first instance, a little below that which, as already drawn by the eye to the object, we may distinguish by the name of the *line of sight*. The latter should be firm and immoveable; to which a precise adjustment of the line of level must finally be made by an easy flexure of the upper part of the body altogether, but without any loosening or twisting of the butt from its firm hold within the shoulder; and on the instant that you get these two lines in con-

tact, or, in other words, at the moment that you bring the muzzle of your gun from your first level below, to bear direct upon the object.

It may here be observed, that all these written directions are, from their very nature, very obscure, and very inadequately fitted to teach shooting by mere words. The *eye* is the grand organ for taking in rapidly and surely instructions on the matter; and for a young shooter to have the advantages of being a few days in the fields or moors with an experienced marksman, is to be in a position of gaining more information in this short space of time, than he could acquire were he to read scores of volumes. All written descriptions of material objects are constitutionally limited and imperfect; they can give a considerable portion of useful knowledge, but chiefly by conveying it in general terms, and compendious maxims, not by dealing too much in matters of detail and mere routine.

At the same time, in matters of this kind we feel justified in laying before the reader the candid opinions of sportsmen, who have paid great attention to this subject of shooting birds on their flight, in order that he may have the fullest information on the subject, and know, what opinionscirculate in the sporting world among some of its most distinguished members. Col. Hawker directs the young beginner as follows:—Before an object *crossing*—full high for a bird *rising* up, or flying away very *low*, and between the ears of hares and rabbits running *straight away;* all this, of course, in proportion to the distance; and if we consider the velocity with which a bird flies, we shall rarely err by firing at the crossing bird when at *forty yards*, at *least five or six inches before it*. As the barrels of double guns usually shoot a little inwards at long distances, there is so far a preference in favour of the right barrel for an object crossing to the left, and *vice versâ*, that, if we were beating along the sides of a hedge, it would be best to keep the barrel next to it in a state of preparation. Till the pupil is fully master of all this, he will find great assistance from the sight, which he should have precisely on the intended point when he fires; he will thus by degrees attain the art of killing game in good style, which is to fix his eyes on the object, and fire the moment he has brought up the gun. He may then, ultimately, acquire the knack of killing *snap shots*, and bring down a November bird the moment he tops the stubble, or a rabbit popping in a furze-brake, with more certainty than he once used to shoot a young grouse in August, or a partridge in September.* Another writer tells us that, in taking aim, the point of the gun or sight, in a right line from the mark upon the breech, should be levelled point-blank with the object; and then the finger must instantaneously pull the trigger, as on this quickness of the hand, the whole art of shooting depends. This we think altogether erroneous; if followed out to the full

* Hawker, p. 134.

extent, it would soon show itself in its true colours. Another author takes a different and more rational view of the matter. He says, that when a bird gets up he is certain he cannot kill it (we must premise, that his gun is uncharged), therefore he can wait to any length, until he gets it at the end of his gun. He must never draw unless positive of seeing the bird in that very point of situation. Let it go; every fresh spring of the bird will make the sportsman more composed; and as the tremor wears off, he will grow more uniform in his manner of getting to it, till, at last, he will cover it almost to a certainty, or very near the same distance. Let him accustom himself not to take his gun from his arm till the bird is on the wing, and never to vary his eye from the very one he first fixed upon. Three words should be mentally used with a pause between, before he puts his piece to his shoulder; this will keep him, as it were, in awe of himself; and as there is no charm in any particular combination of letters at this time, *Hold! Halt! Now!* may serve as well as any. A day thus spent, he may put some powder in the pan, and flash away in that manner; the next, pursuing the former direction till he can stare with steadiness, and pull with a wink. The day following load with powder only; and to continue this lesson two or three days, more or less, till he is as calm as if the leather was still in the chaps. Now the grand and last trial—complete loading. If he feels any flutter or anxiety on his advance to the point, let him draw his shot at once; nay, powder also, before he goes up to his dog, and repeat this, *toties quoties*, till he has whipped himself into good temper, and disappointed himself into the accomplishment of his wishes. In cross-shooting, if a bird goes to the left, step forward with the right foot, and the contrary, if to the right hand. This removes at once the complaint often made, of not killing so well one way as the other. Shoot at the head in every direction, if possible; and there cannot be any necessity for greater allowance. In elevation, let the front of the guard be a stop for the gripe of the left hand, in which situation, if the barrel should burst, it will not be so liable to be injured; and the thumb being erect, an avenue is artificially made by means of its corresponding with the cock-nail, that gives great direction to the eye.*

Another good rule is, that as soon as the eye bears on the object to be fired at, provided that the muzzle of the gun does the same, then it is proper to fire; for, when the eye dwells too long, the distance becomes increased, and the sight is, likewise, impaired.

On a matter of such nicety and importance, it would be almost unpardonable to omit the opinion of Mr. Daniel on the question. He says:—"The young shooter should make himself perfectly acquainted with distance; with that knowledge in open shooting, he will never put the gun to his shoulder until the bird has flown a proper length, and then fire the instant the sight of it is caught.

* Rev. B. Symonds.

To kill birds flying across either to the right or left, allowance must be made by the shooter both for the distance he is from them, the strength of the birds, and also the velocity of their motion: for it must be taken into account that the flight of a partridge in November will be greatly accelerated to what it was two months before. Practice alone can teach these *minutiæ*, which, if fixed at any given space, or attempted to be uniformly regulated upon paper, might lead the marksman erroneously in the field. It may, however, be mentioned, that in a cross-shot to the right the difficulty is very much increased, if the right leg is first when the birds rise; the gun cannot then be brought but a very trifle beyond a straight line to the right, and frequently gentlemen stand with their feet thirty inches apart when in the act of firing—a position that effectually prevents them bringing their guns to bear upon a crossing object. When dogs point, or when game has been marked, and expected to spring, the walk should be with short and easy steps; the body can then be easily turned upon the legs, as if on a pivot, and the range of the bird commanded, even if it should fly quite round the sportsman. The science of aiming accurately, however, will be of little service, except the gun be held steady from all starting or flinching in the action of firing; it is to small purpose to traverse the gun with the celerity of a bird flying rapidly in a transverse direction, if the person suspends that motion when he touches the trigger to pull it. In this interlapse between the beginning of the pull and the appulse of the shot to fire, and thirty or forty yards distance (be the pull and stroke of the cock as short, and the fire as quick as possible), any bird of game will, in a serene day, gain progressively in its flight above two yards, and with a rough wind, considerably more. Quickness of sight, and steady aiming, will never constitute a marksman, unless the motion of the gun corresponds with them, and receives no check whilst in the act of drawing the trigger." *

It forms one of the standing topics of discussion among shooting sportsman, *What is the average distance of a fair shot?* There has been a great deal written on this question. Forty yards is, however, pretty generally allowed to be a fair average shot; but there are many shots fatal at almost double that distance. But the subject is not susceptible of any determined solution; most sportsmen know, to a tolerable certainty what can, and what cannot be accomplished by their fowling-pieces.

*Shooting in company* has begot a code of laws for the government of the parties. All birds that cross should be considered as belonging to the gunner to whose side their heads are pointed, unless a previous understanding is come to, that either party may take an after-shot at a tailing bird. When single birds rise and go away fair for either party, it may be proper to have it previously understood that such should be taken alternately by each shooter.

* Rural Sports, vol. iii. p. 488.

*Precautionary observations* are commonly appended to all formal treatises on the gun. These are often of great value; but it is singular to witness how often they are disregarded. The *habit* should be formed to attend to certain minute matters; when this is acquired, it becomes second nature, and affords a firm confidence in the mind of the sportsman himself, as well as in that of his friend. A gun should be always held with the left hand, and close to the guard; all the requisite steadiness for taking aim, and even of motion, in following the flight of a bird, can be obtained in this manner, even if the piece be of the heaviest description. With double-barrelled guns, the shooter, when he fires one barrel, should uncock the other previous to reloading. A sense of self-preservation should always influence a man with a fowling-piece in his hand. The carrying of a gun in a safe position is one of the fundamental maxims which should be inculcated upon every young and perhaps volatile sportsman. Until he understands and practises it regularly, he can never be a pleasant or safe companion in the fields or moors. We have seen, in our limited experience, scores of men with whom it seemed dangerous to traverse a field, who had no idea or care either of their own or other people's lives, and whose every movement was characterized by a wanton negligence and an inconsiderate precipitancy. These errors should be carefully rectified.

The following matters are likewise worthy of the sportsman's attention:—

1st. If you or your dog should at any time get a severe blow, let the wounded part be instantly fomented with warm water, as hot as can be borne, for at least half an hour, and you will thereby reduce your sufferings or impediment from sport to at least half its duration.

2nd. If you burn yourself in shooting or otherwise, wrap the part affected immediately in cotton, the application of which, it has been proved, acts like magic on a burn.

3rd. If you should take cold, and the inflammatory process seems rapid, bathe your feet in warm water as hot as you can bear it; if a little salt or bran, or both, be added, so much the better. Get into a warm bed, and take some whey, or whatever you can get to promote perspiration.

4th. Never fast too long, and avoid, whenever you can, anything approaching to excessive fatigue.

5th. Never go out with quite an empty stomach to wait for game of any kind, particularly in the morning. Should you wish to rise early, before any of the household are up, you can have a little crust of bread or a biscuit, with a glass of milk, left for your use the night before. This may be taken with a little sugar, nutmeg, ginger, and the yoke of an egg. These items are superior to what is called the "Doctor" (rum and milk), because you then dispense with taking spirit in the morning; a habit that should always be

avoided, except you are sporting in a country where ague is prevalent. In this case a little spirit is advantageous.

6th. Never sit down with wet feet, nor with wet clothes on any part of your body; if a change cannot be procured, keep walking about, or, what is better, go to bed, till some dry clothes can be procured; or, if you want to start again, after taking refreshment, first wet your feet with spirits or essence of mustard, and then be as quick as possible in taking your refreshments. Many apply the spirit to the stomach instead of the feet, but this is invariably bad. Nothing produces chilly and damp kind of feelings readier than spirit taken internally under such circumstances. To keep the frame warm, dry, and comfortable, is the surest plan of increasing your sporting pleasures, and of making them really conducive to health.

# PART IV.

## CHAPTER V.

We have now treated of what may be termed the elementary departments of the art or science of shooting; the nature of the gun, of the powder and shot, of the wadding, of the dog, and of the first rudiments of the sportsman's craft, considered as matters of a purely mechanical kind. We have now to enter upon a different field of inquiry and description: that of treating of the various kinds of game to which shooting is commonly applied. In one sense of the word, *game* is one of a very indefinite meaning. There are no limits to the objects that a man may shoot with a gun. Some may call lions and elephants game, because they are often destroyed by this instrument alone. We must, however, draw a more definite line of demarcation, and avoid extreme and far-fetched classifications. The term shooting or sporting with the gun is commonly limited to certain kinds of the feathered creation, with now and then an application of the projectile to the killing of a few small animals, as the hare, the rabbit, and occasionally the deer. To this general outline we shall confine ourselves.

### GROUSE SHOOTING.

Sir William Jardine tells us (in his *Naturalist's Library*, vol. iv.), that "by the word *grouse*, we, in general language, are apt to associate our ideas with the common muir-fowl. But in the technical terms of ornithology the generic name, *Grouse* and *Tetrao*, is restricted to those bearing the form of the European wood grouse, dusky grouse of America, &c. They are the largest birds of the family, of a very round and powerful form, and frequent heathy forests in preference to the wild and open muir, perch and often roost upon trees, where young shoots and tender bark supply them with food; and although the legs are plumed with short feathers, the toes are naked. The tail is composed of broad feathers, and is proportionably long and rounded. They are mostly polygamous, and the females and young differ considerably from the males, the plumage of the former being shades of brown and tawny, with black bars and markings, the colours of the latter distributed in broad masses of black, glossy green, or steel-blue, and deep brown.

They inhabit North America and Europe; those of the latter country extending into Northern Asia."

### THE WOOD GROUSE, OR CAPERCALLIE.

The *Wood Grouse*, or *Capercallie* (*Tetrao Urogallus*, Linn.) is sometimes called the *Cock-of-the-wood*, and sometimes the *Giant Grouse*, from his great size and imposing appearance. He stands at the head of feathered game in these islands, but he is very seldom to be met with. From certain historical accounts, it appears they were once very abundant in the forests of both Scotland and Ireland. Bewick describes him thus:—"He is as large as a turkey, and is about two feet nine inches in length, and weighs from twelve to fifteen pounds. The bill is very strong, convex, and of a horny colour; over each eye there is a naked skin of a bright red colour; the eyes are hazel, the nostrils are small, and almost hid under a covering of short feathers, which extend under the throat, and are there much longer than the rest, and of a black colour; the head and neck are elegantly marked with small transverse lines of black and gray, as are also the back and wings, but more irregularly; the breast is black, richly glossed with green on the upper part, and mixed with a few white feathers on the belly and thighs; the sides are marked like the neck; the tail consists of eighteen feathers, which are black, those on the sides are marked with a few white spots; the legs are very stout, and covered with brown feathers; the toes are furnished on each side with a strong pectinated membrane. The female is considerably less than the male, and differs greatly in her colours: the throat is red; the transverse bars on the head, neck, and back, are red and black; the breast is of a pale orange colour; belly barred with orange and black, the top of each feather is white; the back and wings are mottled with reddish brown and black, the scapulars tipped with white; the tail is of a deep rust colour, barred with black and tipped with white."*

The pairing of this magnificent bird commences about the spring, the sexes having congregated together in packs during the winter of fifty or a hundred in number. When the pairing is effected, the female makes a rude kind of nest, lays from eight to sixteen eggs, in some suitable place where she can sit undisturbed on and hatch them in security. The young, like farm-yard fowls, are active and stirring as soon as they leave the shell, and it is even said that they have frequently been seen running about with part of that appendage hanging to them.

These birds being so rare in Britain, their shooting can scarcely require any lengthy remarks. In some parts of the continent, particularly in Sweden, they form an important item in the game-list of birds. They are commonly in this country flushed from the ground in autumn, when they are feeding on a species of berry, of

* Birds, p. 296.

which they are passionately fond. Their flights are but very short, and if there are any trees in the way they commonly alight upon the branches. In the forest the capercallie does not always present an easy mark, for, dipping down from the pines nearly to the ground, as is frequently the case, they are often almost out of distance before one can properly take aim. No. 1 or 2 shot may answer very well, at short range, to kill the hens; but for the cocks the sportsman should be provided with much larger. Towards the commencement and during the continuance of the winter, the capercallies are generally in packs; these, which are usually composed wholly of cocks (the hens keeping apart), do not separate until the approach of spring. These packs, which are said to contain fifty or a hundred birds, usually hold to the sides of the numerous lakes and morasses, with which the northern forests abound; and to *stalk* the same in the winter time with a good rifle, is no ignoble amusement. Among other expedients resorted to in the northern forests for the destruction of the capercallie is the following:—"During the autumnal months, after flushing and dispersing the brood, people place themselves in ambush, and imitate the cry of the old or young birds, as circumstances may require. By thus attracting them to the spot, they are often enabled to shoot the whole brood in succession. * * *. The capercallie is shot in the night-time by torch-light. This plan, which is said to be very destructive, is confined to the southern provinces of Sweden, for in the more northern parts of the country I never heard of its being adopted. In Smaland and Ostrogothland this is said to be effected in the following manner:—Towards nightfall people watch the last flight of the capercallie before they go to roost. The direction they have taken in the forest is then carefully marked by means of a prostrate tree, or by one which is felled expressly for the purpose. After dark, two men start in pursuit of the birds; one of them is provided with a gun, the other with a long pole, to either end of which a flambeau is attached. The man with the flambeaux now goes in advance, the other remaining at the prostrate tree, to keep it and the two lights in an exact line with each other; by this curious contrivance they cannot well go astray in the forest. Thus they proceed, occasionally halting and taking a fresh mark, until they come near to the spot where they may have some reason to suppose the birds are roosting. They now carefully examine the trees, and when they discover the objects of their pursuit, which are said stupidly to remain gazing at the fire blazing beneath, they shoot them at their leisure. Should there be capercallies in the same tree, however, it is always necessary to shoot those in the lower branches in the first instance; for unless one of these birds falls on its companions, it is said the rest will never move, and in consequence the whole of them may be readily killed."

There have various attempts been made of late years to introduce these birds into Great Britain. The late Mr. Fowell Buxton and

* Lloyd's Field Sports in Norway and Sweden.

the Earl of Breadalbane, spared neither money nor care to have them reared in this country. But the success attendant on their anxiety has not been great.

### THE BLACK GROUSE.

The *Black Grouse* (*Tetrao Tetrix*, Linn.) is a noble looking bird, it is commonly designated the *Blackcock*, and the female the *Grayhen*. The male bird is from one foot ten inches to two feet in length; and we have seen two or three specimens which have exceeded this by three inches. The breadth is about two feet nine inches. The ordinary weight is nearly four pounds; but some stray birds in the moors of Cumberland, have gone beyond this by half a pound and more. The bill is of dusky black, the eyes dark blue, below each eye there is a spot of a dingy white colour, and above the larger, one of a bright scarlet. The plumage of the whole bird is very imposing. It is black, very glossy over the neck and rump, tinged with a shining blue colour. The coverts of the wings are a sort of dull brown, the greater are white, which run along to the ridge of the wings, forming a spot of that colour upon the shoulder when the wing is closed. The quills are brown; the lower parts and tips of the secondary ones are white, forming a bar of white across the wing. There is likewise a spot of white upon the bastard wing. The legs and thighs are tolerably thickly covered with dark brown, mottled with white feathers. The toes are toothed on the edges like those of the capercallie. The tail is much forked, and consists of sixteen black feathers; the end of the outer feather, which curves outwardly, seems as if separated or cut off. The feathers under the tail, and the inner covers of the wings, are of a pure white. The female bird of the *black grouse* is considerably less than the male; it is only one foot six inches long, and in breadth two feet six inches. Its weight averages about two pounds. As, in the male bird there is a dusky mark beneath the eye. The head and neck are marked alternately with bars or stripes of dull red and black; and the breast has a dusky white and black appearance. The coverts of the wings, the back, and the tail, are of the same colour as the neck, with the exception of the red being of a deeper hue. The inner webs of the quill feathers are spotted with black and white. The inner coverts of the wings are white, and there is a white spot on the shoulder of both the male and female birds. In the latter, the tail is slightly forked, and it consists of eighteen feathers richly variegated with red and black. Under the tail the feathers are white, marked with a few bars of black and orange. The nest on the ground is of the most simple and artless kind. The female lays from six to eight eggs, which are of a dull yellowish white colour, marked with a number of very small ferruginous specks, and towards the smaller end with some blotches of the same hue. They are hatched late in the

summer. The young males quit their mother in the beginning of the winter, and keep in flocks of seven or eight until spring. During that period they frequent the woods. In their first feather they resemble their mother, and do not acquire their full plumage till near the end of autumn, when it gradually changes, and assumes that blueish black colour which it afterwards retains.

The black grouse, like other members of the grouse family are polygamous, and in January, February, and March, the plumage of the male bird assumes a rich glossy steel blue, which, with his noble bearing, makes him look very imposing. In the warm days at the end of winter, the males after feeding may be seen congregated together on some turf-furze, sheep-fold, or rude paling, pluming their wings, and practising various devices to attract the notice of the female. Should the weather continue warm and favourable, these groups are gradually broken up. "Here, after perhaps, many battles have been fought and rivals vanquished, the noble full-dressed black cock takes his stand, commencing at first dawn; and where the game is abundant, the hill on every side repeats the murmuring call almost before the utterers can be distinguished. The cocks strut around the spot selected, trailing their wings, inflating the throat and neck, raising and expanding their tails, and puffing up the plumage of those parts, and the now brilliant wattle above the eyes, displaying the beautifully contrasting white under-covers, and imitating, as it were, the attitudes of the little turkey-cock. He is soon heard by the females, who crowd round their lord and master."* After incubation is fairly commenced, this fighting among the males is at an end; and they then separate themselves from the females, retire among brushwood and large fern beds to complete the process of moulting; and leave to the females the entire charge of the young. When these are hatched, the mother guides them to some high situation where there is plenty of shelter from long grass and luxuriant herbage, and where plenty of food can be readily obtained. This consists in the summer of the seeds of the cranberry, crowberry, and blackberry, &c.; and in the winter they feed on the fir shoots, and the catkins of hazel and birch, which impart to their flesh a peculiar flavour, well known to epicures.

These fine birds are to be found in many districts of England; on Leith Hill, Ashdown in St. Leonards', and in the New, and in the Bere forests. They are likewise found in considerable numbers on the estates of the Marquis of Anglesea, at Bean Dessert, Staffordshire, Barnstable, Devonshire, and in many of the moor districts of Northumberland, Durham, Cumberland, Westmorland, and Yorkshire. It is now a general opinion that this kind of game has increased considerably in all parts of the kingdom of late years.

The shooting of the black grouse does not commence till the 1st of September; and they are considered *royal game*. They are, in

*Sir William Jardine.

the main, shy birds, but those who are acquainted with their haunts will find no great difficulty in reaching them. They are partial to long ling and roughish copse-wood. Under the bank of a deep ravine, particularly in mid-day, and if there be a cold wind blowing, they will be very readily found. The young are comparatively tame till they have moulted; and the sportsman has often almost to kick them out from among low thick brushwood. After they get their new coat of feathers on, they seem to increase in wisdom and cunning; and often set the dodges of the shooter completely at defiance.

Black grouse require full sized shot; and many sportsmen prefer a single to a double barrelled gun. It is not considered according to the strict laws of sporting to kill the hen bird.

There are great numbers of black grouse in Russia, and their capture is effected in the following manner. Huts full of loop-holes, like little forts, are built purposely in the woods for these birds. Decoy birds are placed at a short distance from these spots; these are mere artificial imitations made of black cloth. As the grouse assemble the shooters fire through the openings, and if the sportsman succeed in keeping himself out of sight, the birds are not frightened by the mere report of the gun; and on this account great quantities are killed. During the winter season in Siberia, the inhabitants take numbers of these birds in the following fashion. A certain number of poles are laid horizontally on forked sticks in the open forests of birch; small branches of corn are fixed to them by way of a lure; and, at a short distance, certain tall baskets of a conical figure are placed with the broadest part uppermost; just within the mouth of the basket is placed a small wheel, through which passes an axis so nicely fixed as to admit it to play very readily, and on the least touch, either on one side or the other, to drop down and again recover its position. The birds are soon attracted by the corn on the horizontal poles, and after alighting upon them, and feeding, they fly to the baskets and attempt to settle on their tops, when the wheel drops sideways, and they fall headlong into the snare.

### THE RED GROUSE.

The *Red Grouse* (*Tetras Scoticus,* Linn.).—This bird forms the staple article of grouse-shooting, especially in the northern parts of Great Britain. Its length is about fifteen inches, and weight about nineteen ounces. The bill is black, the eyes hazel, and the nostrils shaded with small red and black feathers. At the base of the lower bill there is a white spot on each side. The throat is red, and each eye is arched with a large naked spot. The body is beautifully mottled with red and black, which give it a tortoise-shell appearance. The breast and belly are of a purple hue, and crossed with small dusky lines. The tail consists of sixteen feathers, of equal lengths; and the four middlemost are barred

with red, and the others are black. The quills are of a dusky colour, and the legs are clothed with soft white feathers down to the very claws, which are of a strong texture, and of a light brown colour. The female is a little less than the male. The naked skin above each eye is not so conspicuous, and the colours of its plumage, in general, much lighter than those of the male.

This species of grouse pair in the spring, and lay from five to ten eggs: we have once or twice found twelve; this, however, is considered rare. Sometimes these are found on the bare ground, and sometimes on a rude kind of nest, made of moss and a little heather. This is generally placed in a somewhat sheltered position. Both male and female birds attend to the young; and guard them as well as they can against their numerous enemies, in the shape of vermin, and birds of prey. The young, or *poults*, follow the mother the entire summer, in the same manner as partridges do; nor is the male bird wanting in his attendance on the brood, but is generally observed to remain at a short distance from them. The practice of burning the ling is often very destructive to eggs of the grouse; and many thousands are annually destroyed in this way.

The habits of the red grouse display a strong feeling for domestication, and are not nearly of so wild a nature as some other of the grouse family. They have occasionally been entirely tamed. A gentleman in Ireland, not many years ago, had two brace of birds for several seasons so domesticated that he used to take them into his parlour, where they played with his setter dogs. And they are often found descending from the moors and locating in the vicinity of corn-fields, and shelter themselves among the stubble, both of barley and oats. In most severe winters when pressed for food, they will leave the hills and visit the cultivated grounds, and will even be found occasionally sitting perched on the tops of the labourers' dwellings.

The shooting of the red grouse has been extensively written about, and many minute particulars, as well as contrary opinions, has been laid before the public on the subject. We cannot enter into the personal experience of every distinguished sportsman who has favoured the world with them through the press; but we purpose giving the reader a bird's-eye view of the main features of the sport, and allow him to fill up the vacuum by his own practice and doings on the matter. At the same time we shall avail ourselves of such old and acknowledged authorities as have long been familiar to those who have felt an interest in the literature of sporting.

Mr. Daniel informs us, that in shooting red grouse the old English spaniel or setter is of more use than the smooth pointer. The former has a better nose, and his feet are defended by long hair from the chaffing effects of the long ling, which, in dry weather cuts like wire. Setters are, for the most part, higher mettled than pointers, and display more zeal and untiring courage. They require, however, a plentiful supply of water; and this is sometimes

a great drawback to their use during the very hot months of August and September. We have known, however, some gentlemen well skilled in grouse-shooting, who have taken the pointer in preference to any other kind of dog; so that perhaps, upon the whole, there may be a fair balance of advantages accorded to each kind.

The red grouse differ in numbers and in size according to the season. Wet, cold, ungenial weather not only retards the pairing of the birds, but is likewise extremely prejudicial to the hatching of the broods, which delight in fine sunny days, and revel in the luxury of a dry atmosphere. When they emerge from the shell they assume among sportsmen the name of *cheepers*, and when they advance to a more stately size they are called *poults*. They are to be found on their feeding grounds both in the mornings and evenings; and if they are disturbed, they seek out some favourite spot of shelter, chiefly preferring those sections of the moors which abound with long ling and roughish brushwood.

The time of the year has considerable influence on the habits and movements of the grouse. Frosty weather is favourable for their capture, as they seem then very torpid and lifeless. Wet and windy weather is not favourable to the shooter. At such times the birds leave the high grounds, and seek out sheltered spots in some comparatively dry and secluded localities. Red grouse generally grow very wild in the months of November and December; although when the season is any way favourable some good days' sport may still be obtained. The lower and sheltered grounds are then the best places to find them; for the advancing season is daily cutting off their resources in food, and they are driven to seek provender in lower and more cultivated grounds.

In rising, grouse almost take a perpendicular direction, and then go in a straight line at an elevation of ten or twelve yards. The exact moment to fire is when they are just about to change from the perpendicular to the rectilinear direction. There is a sort of pause in their flight, which is favourable to the sportsman, when he can avail himself of this movement. But this requires a quick eye, and considerable practice. When the red grouse begin to associate in large numbers, as they invariably do about the end of October, or the first or second week in November, they are approached with considerable difficulty; for they post sentinel birds to keep a look out, and it is a mere thing of chance if you can near them by a hundred and fifty yards. When the weather, however, becomes and continues long cold, this wildness is considerably abated, and they often show themselves as tame as barndoor fowls.

Colonel Hawker tells us that "for shooting grouse select a fine sunshiny day, from about eight till five in August and September, and from eleven to three at the later periods of the season, as they are then extremely wild, and will only lie tolerably during the few hours which are favoured by a warm sun. Unless the weather is very fine, you will see them running and getting up five hundred yards before you. In this case, let one person take an immense

ircle, so as to head them; while the other remains behind to press hem forward when he is ready; and, above all things, you should, or killing them at this time, use either No. 1, 2, or 3 shot, in the argest single gun you can possibly manage; or, what is better, a ood stout double gun, with Ely's cartridges. Grouse take a arder blow than partridges, and do not fly quite so regular and teady."

On prolonging a tour on the northern moors till the season is omewhat advanced, Mr. Lascelles has the following very judicious bservations:—"In October the weather, though generally in this ountry (the northern moors) fine and open, is yet not so op-ressively hot as in the two preceding months; the autumnal reezes impart their invigorating assistance, and give a new life to very object around; the earth retains a greater portion of re-eshing dew, and no longer presents an obstinate and un-rofitable surface; all game are then on the move, and we are no onger obliged to search for them in places as impenetrable to the portsman as the overpowering heat from which they have escaped. rouse, partridge, pheasant, hare,—nothing comes amiss—and all re attainable; for the first-mentioned bird (grouse), if he has not een disturbed since August, will now lie as well on a fine day as e would at the commencement of the season; and, in point of xcellence, there is no comparison. The common weight is about wenty-three ounces, though I have killed them as high as twenty-ix; and I know an instance of one being shot in Yorkshire which, ven after it had travelled to London in the hottest weather imagin-ble, weighed thirty-two ounces. They increase in size and full-ess of feather until November; and then, in my opinion, have a obler appearance than any other description of game whatever; o pursue them, however, with any chance of success so late in the eason, your method must be entirely altered, and you cannot go bout it too quickly. A good stout-barrelled gun, that carries a rge charge, and one steady old dog, will be the most effective; and o have a still greater advantage, you should select the middle of ne day, when the sun is in full power, and the morning of which as been frosty. There is every excuse for a person in this case sing all the means which ingenuity and experience may suggest. ou will see, perhaps, a pack of grouse running from you, at the istance of five hundred yards, and it would be the height of im-rudence to follow them up, under the idea of being able to get shot; probably, at the next step you took, they would all rise ogether and fly for a mile, and would invariably serve you in the ame manner if in a similar way pursued. There are various strata-ems made use of, both to draw them to you, and to induce them o lie till you can come within shot. To attain the first, you are ither to go by a circuitous route and secrete yourself behind a wall, r in a pit, in the exact line in which they are running, and await heir approach; or you are, in this situation, to endeavour to hasten , by imitating the noise they make, and calling them to you; but in

this case there should always be another in company to remain in or near the place you first went from, that their attention may be principally confined to him, and taken off from you; and, in order to make them lie, your dog must bear the principal part; for on seeing them on foot, if he goes round and stands in the face of them, they will stop instantly, and four times out of five will allow you to get within shot."*

If a sportsman be alone shooting the red grouse, he ought not to travel far, but hunt the ground well. This plan not only saves much fatigue, but often leads to success. Birds do not generally take very extended flights; and if the ground should be irregular and undulated, they will commonly be found on the sides of some cosy hill, or knoll, or where the ling is long and strong. Birds are always variable even when there is no apparent cause to the sportman's comprehension for their being so. Their movements depend upon causes which are hidden from our scrutiny, and which we have no means of tracing. There is always a chance of meeting with birds where the berries of the ling are plentiful, particularly if these localities be visited at a proper time of the day. Noontide is not a very suitable period; but when the mists hang long on the mountain's brow, it is sometimes the only time a shooter has to practise his art; and, therefore, must make the best of it.

### THE PTARMIGAN.

*The Ptarmigan, or White Grouse* (*Tetrao Lagopus*, Linn.), is another interesting section of the grouse family; interesting both to the naturalist and the sportsman. It is known in almost every part of Europe, the northern portions of Asia, and America, and some writers say, even in Africa. This bird is nearly of the same size as the red grouse. Its bill is black, and its summer plumage is a pale brown, or ash colour, and the upper parts of the body are mottled with a number of small dusky spots and bars. On the head and neck these bars are broader, and more intermingled with white; as are likewise the wings, with the exception of the shafts of the quills, which are black. In the winter season this plumage is changed into pure white, except that in the male there is a black line between the bill and the eye. The tail consists of sixteen feathers, the two middle ones being ash-coloured in summer, and white in winter; the two next slightly marked with white near the ends, and the rest are wholly black. The upper tail coverts are tolerably long, and almost cover the tail entire. This bird is partial to high and lofty grounds, and can brave the most intense cold. It even lives and thrives under the cold of Greenland. In Britain it is chiefly found in the Highlands of Scotland, in the Hebrides and Orkney islands, and occasionally in the more elevated localities of Cumberland and Wales. Buffon tells us, that it sedulously avoids

* Letters, x.

neat, and loves the biting frosts on the tops of the highest mountains; and when the snow melts on the sides of the hills, it constantly ascends to loftier regions, till it gains the summits on which it forms holes, and burrows in the snow. These birds pair at the same period as the ordinary grouse. The female lays eight or ten eggs, which are white spotted with brown. There is no form of nest prepared: they are laid on the bare ground. In winter they congregate in flocks; and they are so little accustomed to the devices of the fowler, that they suffer themselves to be easily taken either with snare or gun. They feed on the wild and rough productions of the hills, which impart a bitter taste to their flesh, though it is not by any means unpalatable; it is of dark colour, and somewhat of the taste of the hare.

This kind of grouse has engaged great attention from sporting writers on account of the singularity of its character and habits, and many valuable and philosophic reflections on the general *harmonies of nature* have been made on the subject. It is contended, that its plumage is admirably and singularly fitted to the general appearance of the grounds it frequents. The brown patches of heath on the rocky declivities of the mountains assimilate strikingly in their broken and blended tints with the summer plumage of the bird, and fitly suits the object of concealment. When the whole country is covered with snow, and presents one extended mass of dazzling whitness, the dress of the bird is again suited to this change of external nature, and greatly aids its safety and security. The plumage is now not only white, but very thick and downy; and even its legs are now thickly studded with feathers like hairs, which secure its limbs to the very toes. "The winter colour of the ptarmigan, therefore, in conjunction with its increased fulness of plumage, tends to limit the expenditure of the vital heat generated in the system; some expenditure, however, must and does take place beyond that of summer, to meet which, the energies of the system are taxed to increase the ratio of its production. This power in the animal system of generating heat, is the principle upon which all animals are enabled to withstand the effects of cold, and to preserve life and health in a low temperature. * * * * Recent experiments have proved beyond doubt, that the change is that of the colour, not of the feather; at least the plumage does not undergo a general moult for the purpose. The moult of those birds, which, like the ptarmigan, change their livery, appears to be gradual, in order that the system may not be taxed too much, seeing that it has already to struggle with the debilitating effects of cold. Besides all this, it is scarcely reasonable to suppose that the young ptarmigans should have the brown plumage of their parents to moult, when they have only just assumed it. The rationale then appears to be thus: as the winter approaches, the summer dress loses its colour, and gradually passes into the white, while, at the same time, an addition of new white feathers increases the fulness of the plumage to keep up vital heat. On the approach

of spring the older feathers of the past year are thrown off, their place being supplied by coloured ones; while the white ones that sprang up as the winter set in, gradually gain the hue which was then denied them. Hence, in spring, ptarmigans are seen in a livery irregularly party-coloured; these having acquired their tints, will be moulted in autumn, so that no individual feather undergoes more than one mutation. It will be seen from this, that the moult is never simultaneously performed, but that a partial loss and accession of feathers, except in the depth of winter, is almost constantly taking place."

As we have already intimated, the ptarmigan family are to be met with in all the elevated and Alpine regions of Europe, and in North America. The Greenlanders capture them by nooses hung to a long line drawn by two men, who drop them over their necks. They eat them with train oil, or lard; and their skins are converted into shirts to wear next the skin. The Laplanders take them by forming a hedge with the boughs of birch trees, leaving small openings at certain intervals, and hanging on each a snare, the birds being tempted to come and feed on the buds of catkins of the birch tree, and when they pass through the openings they are caught. In North America, in the territories of the Hudson's Bay Company, and in the neighbouring countries, there are immense numbers of the ptarmigans taken every season. And here it is curious and instructive to notice, that as the frost is here intense every feather of the bird, with the exception of those of the wings and tail, becomes double—a downy one shooting out from the base of each, which provision seems admirably fitted to protect the bird from the piercing effects of the long continued cold. In the months of October and November flocks of two and three hundred assemble and fix their residence among the willows, the tops of which they greedily devour as food. Hence they are often called the *willow partridge*. We are told by travellers, that their flesh is much esteemed at Hudson's Bay, and in many provinces of North America. Nets twenty feet square, and supported on poles, are used for the capture of these birds; and they are so numerous that *ten thousand* have been taken from the November to April.

### ON THE SEVERAL CHIEF LOCALITIES FOR GROUSE.

"Yet grouse of other kind
The fowler often finds, of larger growth
And glossy jet, Black game, or Heathcock termed.
Nor are the Red on every healthy moor
Or rocky mountain found; full many a waste,
Washed by the southern, or the western main,
Has ne'er received them, though abundant else
In store of footed, or of feathered game."

FOWLING.

We may gather from the general conversation of sportsmen in London, that the grouse shooting, of which they are so passionately

enamoured, lies all to the *north*. To go to the *moors* is known to be almost synonymous with going to some of the northern localities of the kingdom. Formerly this was not so exclusively the case. There used to be found considerable quantities of black grouse in the New Forest of Hampshire, in some places in Devonshire, Derbyshire, and Staffordshire; but it is now questionable if there be any, either of this species of the grouse family, or of the red grouse, in these parts of England at the present day. The moors of Yorkshire are the nearest spots where any portion of grouse can readily be obtained; and even here, there has been for several years a diminution of their numbers progressively going on. The increase of manufacturing and mining operations in this section of the kingdom has been the chief cause of the decline of grouse shooting over many of the fine districts of moorland in this direction.

The cheap and rapid mode of travelling by railway has, however, thrown open considerable tracts of moorland to the English shooter, that were scarcely accessible before; he can traverse the country from London to the distant Highlands of Scotland in a few hours, and can find moors and game to his heart's content. There are extensive ranges of grousing country near home; the moors of Westmoreland, Cumberland, and Northumberland, are very extensive, and there are great numbers of grouse upon them, of all kinds. The shooting districts belonging to Lord Lowther, in Westmoreland, are immense, the sportsman may walk thirty miles and scarcely get beyond them: here the country is so wild, bleak, and mountainous, that a guide is always requisite for strangers, and a pocket compass indispensable. The Cumberland moors are likewise very fruitful of grouse, in some of their localities; and here too, the country is exceedingly wild and rugged. In the neighbourhood of Hexham, in Northumberland, and in the moors belonging to the Duke of Northumberland, at Keilder Castle, there is a goodly portion of grouse, and the range of country is a very interesting one in point of scenery.

But the great moor tracts in Scotland are the chief places for finding an abundance of sport; the whole country, with the exception of a few miles of cultivated land, here and there, by the sides of some river or estuary, is one immense moor, broken into artificial divisions by high and lofty mountains, covered at their summits, in some instances, with eternal snows. This is the sportsman's land of promise—the land flowing with "the milk and honey" of his amusement. We can conceive nothing more heart-stirring and exhilarating than a tour to those wild tracts in search of the grouse, where Nature appears in her roughest attire and rugged grandeur.

This comparatively Alpine country can now, by railway and steamboat, be threaded in all its localities, at a very small cost of time and money. The sportsman can transport himself, in a few hours, from one spot to another a couple of hundred miles distant, and this gives him a great command of the whole country. If one spot is not equal to his expectations, he can remove himself and

establishment to another, an advantage which the grouse shooters of former times did not possess—then, a removal to any great distance engrossed nearly half of the shooting season, and was attended with great expense.

To descant on the noble scenery which a Highland shooting excursion unfolds, is superfluous, as those remarkable localities have been often described in the books for tourists, anglers, &c.; but still, to an intelligent and imaginative grouse-shooter, these mountain passes must be ever new and full of interest. Not one, nor fifty visits can divest them of their thrilling and engrossing interest. In many places the sportsman will find guides indispensable, especially if he wander among the more northern of the Alpine elevations, such as *Ben-na-buird*, *Cairngorum*, and *Ben-macdui*, which raise their snowy peaks nearly four thousand feet above the level of the ocean. An expedition with the gun to any of these parts is quite an adventure, and must be performed on foot, and with an ample supply of provisions, as there are few cottages in those extended and tremendous wildernesses. Everything here is upon a scale of singularly wild and rugged magnificence. The mountain torrents—some of which are almost one continued waterfall, foaming and dashing over ledges of rock, are of the most picturesque and lively description, and rivet the mind of the spectator by their gloomy grandeur and turbulence. The higher glens are likewise surrounded and hemmed in by frowning rocks and precipices, clothed with the natural birch and wild-blowing heather, and so far removed from human ken, and human sympathy, that they are seldom visited, save by the red deer and the eagle. Here shooting is both a fatiguing and dangerous amusement; for if the sportsman be a complete novice to scenes of this kind, the chances are that he will tumble over some pointed and half-hidden elevation, and break both his head and his fowling-piece. When less elevated localities are frequented, the shooter will find a small Highland pony of some benefit; though attended with care and trouble, it will transport him more easily over a larger tract of country; but where a man is of robust health, and has youth on his side, there is nothing like foot exercise, it keeps him independent in his movements and rambles, improves his health and spirits, and enables him to enjoy his sport with a gratifying intenseness, unknown to the pampered body, and the luxurious lounger. Exercise on foot is one of those things that a man may even be intemperate with, without any permanent injury to his constitution.

There are considerable ranges of grousing grounds in Wales: the Black mountains which divide the counties of Hereford and Brecknock have some good sporting localities. The country is like the Highlands, wild and rugged, and the sportsman will find some of the higher elevations laborious to reach. The only method, in many cases, is to follow the rough paths of the mountain torrents, which, being dry, afford a kind of winding path to the highest grounds. The picturesque beauty of the country is beyond all

lescription and praise, and must be seen to be duly appreciated.

There are some fair shooting grounds in Ireland for grouse, but they are far behind Scotland, and even some parts of Wales. In the counties of Cork, Limerick, and Tipperary, in the vicinity of the Galty mountains, there are both black and red grouse, with a fair sprinkling of other kinds of game. There is likewise a fair portion of grouse in the Kerry, Wicklow, Clogheen, and Negagh mountains. The moor bird shooting is not quite so fatiguing in Ireland as in Scotland, but the general accommodation is superior in the latter country to that of the former. Ireland is highly extolled by some sportsmen for grouse shooting, while others speak very indifferently of its supplies of this kind of game; but we believe that the truth will be found to be, that in some well preserved localities there is a great abundance of them, while in others, which are equally prolific, there is a remarkable scarcity, arising chiefly from poaching and indirect means taken to destroy them. We have often, in travelling through this country, remarked that wherever there was a numerous and poor peasantry, game of all kinds was scarce. We can easily fancy how precious to a half-starved Irishman would a well-stocked preserve of grouse be; and how difficult it would prove for Pat to keep his hands off them, as a nice relish to his few scanty and half-rotten potatoes. Legislators and moralists may talk till doomsday, before they could make any impression under such circumstances.

We shall make a remark or two on the best methods of preserving grouse after being shot. They have often to be transported to a great distance, and it is of moment that they should be so packed up as to keep them sweet and agreeable when they reach their destination. This is certainly not now so highly essential a matter as it was some years back, because the railway transit is now so expeditious, that birds, without almost any preparation, may be sent in perfectly good order to the most distant part of the kingdom. One sportsman recommends the taking out the entrails of the bird, and then putting it in linen cloth; and another cautions us against this practice, and says we should let the inside alone, only wiping the bird, and not pack it till quite dry. Bladders should be procured, and a brace or more should be placed in one, if it is large enough, tie the bladder tight round the neck, and seal it with sealing-wax, to prevent the air from getting in; and in this state, if placed in boxes, they will keep sound and useable for three weeks or a month. Col. Hawker says, "to send grouse any distance, put pepper to the parts where they have been shot, as well as into their mouths, then pack them, carefully separated from each other, and kept as air tight as possible in boxes of hops."

---

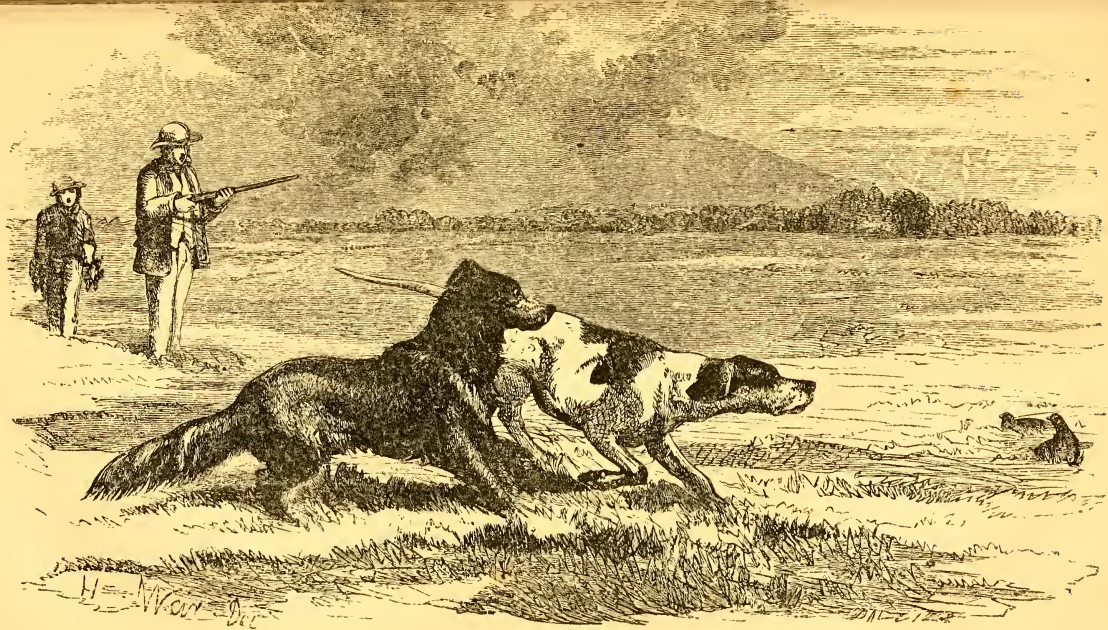
## CHAPTER VI.

### PARTRIDGE SHOOTING.

"September comes to cheer the fowler's heart,
And raise his anxious hopes; day after day
He marks the fruitful country change around
With eager eye. First, from the fertile meads,
Divested of their widely waving load,
The pregnant hay-rick rises. Gentle swains,
If chance should lead you to the chosen spot,
Where the shy partridge forms her simple nest,
The embryo offspring spare; and when your scythe
Levels the grassy valleys, should your foot
Approach the helpless brood, step back with care,
Nor our fond hopes destroy."

VINCENT.

THE PARTRIDGE of Britain (*Tetrao Perdix*, Linn.) is of two kinds; the one is the gray or common partridge, and the other is sometimes termed the French partridge. Bewick describes the common partridge as follows:—It is about thirteen inches in length. Bill light brown, eyes hazel, the general colour of its plumage is brown and ash, beautifully mixed with black. Each feather is streaked down the middle with buff, and the sides of the head are tawny. Under each eye is a small saffron-coloured spot, which has a granulated appearance, and between the eye and the ear there is a naked portion of skin of a bright scarlet, which is not very conspicuous but in old birds. There is a crescent on the breast of a deep chestnut; and the tail is short and drooping; the legs are a greenish white, and furnished with a small nob behind. The female has no crescent on her breast, and her plumage in general is not so distinctive and bright as that of the male. The moult takes place once a year. Partridges are chiefly found in temperate climates, the extremes of heat and cold being equally unfavourable to them. They are nowhere in greater plenty than in this island, where, in their season, they contribute to the entertainment of a vast number of sportsmen. It is much to be regretted, however, that the means taken to preserve this valuable bird should, in a variety of instances, prove its destruction; the proper guardians of the eggs and young ones, tied down by ungenerous restrictions, are led to consider them as a growing evil, and not only connive at their destruction, but too frequently assist in it. Partridges pair early in the spring; and once united it is rare that anything but death separates them. The female lays from fourteen to eighteen or twenty eggs, making her nest of dry leaves and grass upon the ground. The young birds run as soon as hatched, frequently encumbered with a part of the shell attached to them. It is no



Partridge Shooting.

unusual thing also to introduce partridge's eggs under the common hen, who hatches and rears them as her own: in this case the young birds require to be fed with ant's eggs, which are their favourite food, and without which it is impossible to bring them up; they likewise eat insects, and, when full grown, all kinds of grain and plants. The affection of the partridge for her young is peculiarly strong and lively: she is also greatly assisted in the care of rearing them by her mate; they together lead them in common, call them together, gather for them their suitable food, and assist in procuring it by scratching the ground. They frequently sit close to each other, covering their offspring like the hen. In this situation they are not easily flushed; the sportsman who is attentive to the preservation of his game will carefully avoid giving any disturbance to a scene so truly interesting; but should the pointer come too near, or run in upon them, there are few who are ignorant of the confusion that follows. The male first gives the signal of alarm by a peculiar cry of distress, throwing himself at the same moment more immediately in the way of danger, in order to deceive or mislead the enemy; he flies, or rather runs along the ground, hanging his wings, and exhibiting every symptom of debility and weakness, in order to decoy the dog, in the too eager expectation of an easy prey, to a distance from the covey. The female flies off in a contrary direction and to a greater distance, but returns soon after by secret paths, and she then commonly finds her scattered brood closely squatted among the grass, and collecting them with haste by her "jucking," she leads them from the danger before the dog has had time to return from the pursuit.

The partridge lives chiefly upon grain, along with the small seeds from other plants. Her nest is rather a rough one. It is made on the ground in grass fields, among standing corn, in clover, in furze, and sometimes even at the top of a ditch. The eggs are generally laid in the month of May; and from this time to the latter end of June, the process of incubation or nidification takes place. In all the stages of this task the male bird takes a certain share. When the brood is hatched, he manifests the greatest solicitude in leading them abroad in search of ants' eggs, and larvæ among insects. His call is in a sharper key than that of the female. Naturalists have noticed that the two birds have various notes or cries, as if to distinguish their several states or conditions, as to safety, food, or danger. Their *jucking* is well known when they settle down in the evening. Mr. Lascelles tells us that he has often watched their movements, and listened to their cries for hours; and always observed the male bird as being even more solicitous, in appearance at least, than the female, for the provision and protection of the brood. This care, however, is left to the female as soon as the birds are able to fly. Her watchfulness still continues, and seems even increased. She is never far from them, but searches for food for them and leads them abroad to their scratching ground, and when they seem tired, she gathers them all

around her with great care. When they are about their full size, or within a third of her own bulk, they are left in a great measure to shift for themselves.

## THE SHOOTING OF PARTRIDGE.

The shooting of partridges is a popular sport; it is more universally entered into than any other of the sporting amusements of Britain. It is more homely and domestic than moor shooting; and can be enjoyed by the comparatively weak and aged. The successful prosecution of it must necessarily vary with the numerous circumstances under which it is enjoyed. If a sportsman has a limited estate to shoot over with which he is well acquainted; if he has taken himself great care of his coveys of birds; knows their haunts, their times of feeding, and resting; if his enclosures are small, and well fitted for the birds taking short flights; if these, and a hundred other minute and favourable matters fall to his lot, his sport may, all other things being equal, be reasonably expected to be much superior to what a mere stranger to the locality would find. There are scarcely any two shooting localities, or any two sportsmen, that can be fairly put on a par with each other, in all their diversified characters; therefore, it is that we find so many varied accounts of the sport, and so many different adventures encountered in its prosecution. Every shooter has a history or tale of his own to tell; he has joys and sorrow, with which strangers do not intermeddle; and lives and moves in a little world of his own creation.

We are told by distinguished sportsmen, that the *footing* of partridges, though a very requisite qualification in pointers, is one of the last things that should be expected from them; for they are not to be relied on until they get fairly to comprehend from the sportsman that they are not to *catch* the bird; the only thing required of them is to *point out* where it is. It is well known that partridges will generally lie closer and better to dogs that *wind* them, than to those that *track* them; the reason given for this is, that when they are winded, the dogs do not go straightforward towards them, but follow the scent left by their devious course. When birds see dogs trace their footsteps down wind they will fly off, for they cannot take the scent till they are near them. Another matter is of some importance in commencing partridge shooting in September, and that is, that dogs brought immediately from the moors, and put upon the hunting of the partridge, are in many cases unfit for the purpose for some days, till they are again *broken in* to their new task. The hunting of grouse in the moors is an altogether different operation from the work to be done in the fields in September. A dog that is really well trained will soon find himself at home in both occupations; but when this is not the case, there will always be more or less of

disappointment experienced from the sudden transition from two such opposite modes of life.

Some sportsmen recommend being very early in the field for the partridge, while others maintain this is a comparatively useless custom. Colonel Hawker says he never witnessed any great execution done before breakfast. To this it has been answered "True; but, without putting ourselves to the expense of sending two or three sturdy fellows to warn off intruders, if the birds have escaped being killed by that time, they are certainly dispersed abroad; and the advantage of our knowing their feeding and basking grounds is nullified." We think, however, that the Colonel is in this instance substantially correct. We have often ourselves made early starts when the weather appeared very auspicious; and we must say that we never succeeded to our wishes, nor did we ever do much execution till the sun had risen for some time, or the noon-day hour arrived. We believe that if we could take anything like an accurate census of sportsmen's success in partridge shooting during the months of September and October, we would find the most productive hours to range from eleven till three in the afternoon. Of course general rules of this kind cannot be laid down but with numerous reservations and qualifications; but we believe the result of a test of this kind would establish the truth of the point without any doubt. There are other advantages to be realised by the sportsman, unconnected with the capture of game, which are worth notice. The habit induces good health, and tends very much to strengthen and preserve it. It has an excellent and sustaining effect on the animal spirits; and these are no mean things connected with successful sporting with the gun. After the month of October, and from this to the end of the partridge season, we should not insist on being earlier in the field than about mid-day. The weather now becomes sour and ungenial in the fore part of the day.

The time of year and the weather have a great influence over the birds, as well as the state they have been in relative to quietness from previous fowling excursions. The flights they take vary with the nature of the country they are bred in. Where the enclosures are small, and the general aspect of the country undulating, short flights are taken; but where the fields are of large extent, and the landscape bears a champagne aspect, there, on the contrary, the birds will often take a mile or two at one bound.

It is laid down as a general rule, that a prudent sportsman will not injure his diversion by following the birds every day in the same track. Relative to the shooting of partridge in windy weather there have been keen discussions. The weight of argument seems decidedly, however, in favour of those who maintain that this kind of weather is not upon the whole favourable to sport. Indeed, boisterous weather can only be favourable under one view, and that is, because birds do not so readily hear the approach of the sportsman. It may likewise be observed, that in a high wind they seem bewildered and stunned, and will often lie so close as to afford good

sport; but then it is again found from experience that for one windy day that they will lie like stones, they will prove ten days as wild as hawks, particularly if there be showers of rain with the wind. In the latter case they generally take themselves to the woods and to furze, and coleseed is said then to entice them. In Ireland, partridges in a high wind uniformly make for the potato fields. In weather of this kind the sportsman should always take the windward side of his beat, otherwise he will run a chance of driving them off his grounds, and into the hands of other parties who may be abroad.

*Mid-day* shooting claims our notice. As a common rule, in ordinarily fine weather, the birds leave their feeding localities about ten o'clock in the month of September, and eleven in October, but after this period their movements and habits put on a less and less aspect of regularity, and timely calculation is set oftener at defiance. The weather, constantly very variable in our climate, is the chief cause of all this. When we have a rapid succession of rain, sleet, snow, wind, and sunshine, we have a variety of disturbing causes operating on both the sportsman and the birds; therefore any universal rules must, in such cases, prove of little use. The stubbles may be tried in mid-day, sometimes with advantage, for the birds do not always leave these places for basking grounds. These stubbles are the principal feeding localities, and as the day advances they are almost sure to be found at one time or another. When birds of prey come in sight, coveys will often disperse, which is favourable to the sportsman. One bird will perhaps take shelter near a clod of earth, another will run behind a tuft of grass or a low piece of copse, and a furze-bush may shelter another. Sometimes the partridge is disposed to lie, in the latter end of the season, in foul lands, such as are left in a rough state before the agricultural operations of spring commence.

There is always a preponderance of cock birds among partridges, and this often tends to check the breed considerably. The hens are so tormented by a number of males, that she drops one egg in one place, and another in a different spot. It is said the best mode to destroy the superabundance of males is, during the first three weeks of the season, to net the covey, and destroy all the old cocks, leaving as many young hens, and even one less; for it is certainly better that the old hen should look for the cock, than a number of cocks run after one hen. It should be recollected, that where old birds are left, they will at the pairing season drive off the young ones and prevent their breeding; for let any sportsman declare if ever one find a brace of partridges in the shooting season that have not bred, and are termed by sportsmen a *gelt pair*, he has found a covey near the same place where he found them; a circumstance which can only be accounted for by the old birds driving the young ones from the ground and preventing their breeding there. It is, therefore, a wrong notion that some birds should not be killed every year; and those gentlemen who have manors will find, by

not allowing some to be killed, that in a short time their grounds will be entirely destitute of game. We are told that the late Earl of Kingston had a great quantity of grouse on his mountains in Ireland before they were preserved, but he thought that by leaving them quiet for a couple of seasons, that he should have had a much greater abundance; he therefore did not allow a shot to be fired on those mountains for two seasons, and it is well known they were carefully preserved during the whole time. On collecting, however, a large party the third season, and going out to grouse, many of the gentlemen who had been in the habit of going out to shoot there prior to its being preserved, were surprised to find a great scarcity; and the reason of this was, that the older birds drove the young ones off, and all the mountains adjoining his lordship's preserves were swarming with game, although they had not been preserved.

The principle of *domesticity* is not very strong in the partridge. Those birds which have been reared under a hen soon manifest their dislike to confinement. They gradually become wild, and eventually fly off altogether to enjoy their native freedom.

It is an established maxim in partridge shooting, that *broken coveys yield the best sport.* It has been whimsically said, that while the young birds have the old ones with them they are "up to every move on the board." Deprived of their natural leaders and protectors, they seem lost, and have no settled idea of safety. This is the fortunate time for sportsmen to make play upon them and press his dogs to ferret them out, and trace them from one spot to another.

As the season advances, the size of the shot to be used for partridge shooting should be enlarged. For the first fortnight Nos. 5 and 6 are recommended; after this Nos. 4 and 5. In October, No. 3 will be found the most eligible.

The *Red-legged* or *Guernsey Partridge* (*Tetrao Rufus*, Linn.) This is often called the French partridge. It is larger than the gray one, and the bill and irides are red. The forehead is gray brown; the hind head is rufous brown; the chin and throat white, encircled with black; and there is likewise a band of white over each eye to the hind head. The fore part of the neck and sides of it are cinereous, with two spots of black on each feather, and the hind part of the neck is rufous brown. The back, wings, and rump, are of a grayish brown; the breast, pale ash colour. The belly, sides, and thighs, are rufous; the sides marked with lunular streaks of white, black, and orange. The quills are gray brown, with the outer edges yellowish. The tail is composed of sixteen feathers; the four middle ones are rufous on both sides. The legs are red, and the male only has the blunt knob or spur behind. It is a common pastime in the Isle of Cyprus to use these birds as we do game-cocks, for the rational amusement of the people.

This kind of partridge is very abundant in most parts of Europe, Asia, and Africa. Surprising stories are told of their numbers in

some countries. In the Isle of Nansio they are so common as to amount to a positive nuisance. The inhabitants make a rule to collect as many eggs as possible every year, in order to lessen the breed, which, in some seasons, have been so numerous as to have eaten up the entire produce of the harvest crops. These eggs, which are taken by thousands, are prepared with different sauces, and supply the people for a considerable time. Tournefort says that partridges are so tame in the Isle of Scio, that they are driven to seek their food in the fields, like so many sheep, and that each family intrusts its partridges to the common keeper, who brings them back in the evening, and he calls them together with a whistle, even in the daytime. Another writer tells us that in the country around Trebizond, a man was seen leading above four thousand partridges; he marched on the ground, while the birds followed him in the air, until he reached a certain camp, three days' journey from Trebizond; when he slept, the birds alighted to repose around him, and he could take as many of their number as he pleased. We are told that in Provençe, in France, persons have acquired the art of assembling numerous flocks of partridges, which obey the voice of their conductors with wonderful docility. Willoughby mentions that a man in Sussex had, by great skill and attention, made a covey of partridges so tame, that he drove them before him, upon the strength of a wager, from out of the county to London, although they were free, and had their wings fully grown, and in right feather.

These red partridges make choice of mountainous regions, and well covered with wood; their flesh is tender and white, and by many gastronomes are considered of a richer flavour than the gray partridge. In France they make them into pies, which are highly esteemed.

They differ from the common partridge in some points—they are found in flocks, while the common species are only known in coveys, and the red bird perches likewise on trees, which the ordinary bird never does.

---

## CHAPTER VII.

### PHEASANT SHOOTING.

"Ah! what avails his glossy, varying dyes,
His purpled crest, and scarlet circled eyes,
The vivid green his shining plumes unfold,
His painted wings, and breast that flames with gold!" POPE.

THERE are two sporting varieties of the pheasant, the *Phasianus Colchicus*, Linn., and the *Phasianus Torquatus* of Ternwick. They

Pheasant Shooting.

interbreed, however, and from this circumstance it has been conjectured by naturalists that the difference between them arises more from accidental causes than from any distinct law of a fixed variety.

The common pheasant is described as being two feet eleven inches in length. The bill is of a pale horn colour, and the nostrils are hidden under an arched covering. The eyes are yellow, and surrounded by a space, in appearance like scarlet cloth finely spotted with black. Under each eye there is a small patch of short feathers, of a dark glossy purple; the upper sections of the head and neck are of a deep purple, inclining to glossy green and blue. The lower parts of the neck and breast are of a reddish chestnut, with black indented edges, and the sides and lower portion of the breast is of the same hue, with pretty large tips of black to each feather, which in various lights vary to a glossy purple. The belly and vent are dusky; the back and scapulars beautifully variegated with black and white, or cream colour speckled with black, and mixed with deep orange on all the feathers, edged with black. On the lower parts of the back is a mixture of green; the quills are dusky, freckled with white. The wing-coverts are brown, glossed with green and edged with white; the rump is a pale reddish brown, and the two middle feathers of the tail are about twenty inches long, the shortest on each side less than five, and are of a reddish brown, marked with transverse bars of black. The legs are dusky, with a short blunt spur on each, but in some old birds the spurs are sharp as needles, and between the toes there is a strong membrane. The female is a good deal less, and is not gifted with that variety and brilliancy of plumage which characterizes the male; her general colours are light and dark brown, mixed with black; the breast and belly are beautifully freckled with small black spots on a light ground, the tail is short, and barred, somewhat resembling that of the male, but not so strikingly interesting; the space around and about the eye is covered with feathers. The common pheasant is generally found in low and woody localities, on the borders of plains, on which they delight to gambol and sport; during the night they roost on the branches of trees. They are distinguished by a great shyness, and do not associate much together, except during the months of March and April, when the male is in quest of the female; they are then easily known by the noise which they make in crowing and clapping their wings, and which may be heard at a considerable distance. The hens make their nests on the ground, like the partridge, and lay from twelve to fifteen olive coloured eggs, which are smaller than those of the domestic hen. The young run after the mother as soon as freed from the shell. During the breeding season, it has been often ascertained that the cock pheasant will intermix with our common hens, and produce a hybrid breed.

Sir William Jardine, in his *Naturalist's Library*, tells us that "it is now generally admitted that the pheasant was originally introduced into Europe from the banks of the Phasis (now the Rioni), a

river in Colchis, in Asia Minor. The Greeks, in the ascent of the stream, were attracted by their beauty, and the bird being so easily domesticated, a valuable addition to the luxury of themselves and Romans was soon secured, and rapidly extended itself over the southern countries of Europe. They appeared at the expensive and superabundant repasts of the ancients, and, for a time, bore the palm for novelty; and Heliogabalus, in his ostentatious displays, is said to have fed the lions of his menagerie with them. The pheasant may be said to have been originally restricted to the Asiatic continent, extending over the greater part of it, and reaching to China, and the confines of Tartary.

The pheasant, though not originally belonging to the American continent, has been introduced to it; and is now pretty numerous in some of the British possessions, and in the United States. They are, however, not very well adapted for moving from place to place, on account of the shortness of their wings. On this account, we are told, they are kept in complete imprisonment in the Isolo Madre, in the Lago Maggiore, at Turin, as they are not able to make their flight over the lake. When they make the attempt they generally perish. It is stated by Sonnini, and other travellers, that the pheasants of some of the northern islands of the Archipelago, and which come thither from the woods of Thessalia, are larger and handsomer than those of other countries; and that it is a great source of amusement among the Turks to let birds of prey, which they carry in their hands, fly at them. When the pheasant takes its flight, the bird of prey, which they let loose, hovering above, compels it to perch on some tree; he then places himself on another branch, over its head, and keeps it in such terror, that it suffers itself to be approached, and easily taken alive. This fact, it is remarked, sufficiently developes the mystery of fascination.

There are six varieties of the pheasant, exclusive of the common; namely, the gold, the silver, the ring-necks, the white, the pied, and the Bohemian.

That the ring-necked pheasant and the common pheasant interbreed has been denied, or at least doubted, by several naturalists of note. The ringed pheasant, it is said, chiefly inhabits the forests of China, where the common species are likewise very abundant; but there is no issue that would indicate anything like an intermingling of the two kinds. The eggs of the ringed bird are of a pale bluish colour, and marked with small blotches of a deeper tint; while those of the common pheasant are of an olive white, and are destitute of any spots. In a wild state the ringed species are uniformly less in size than the common bird, both in length of body and in tail. The head of the former is of a whitish fawn colour, tinted with bluish green; and above each eye there are two white lines, which constitute a sort of eyebrow. The marking in the back of the ringed kind is different and smaller; and the rump feathers display the same peculiar tints which the mixture of fawn and green-

sh blue exhibits. But the most distinctive mark of difference is, hat the white ring is broadest upon the sides of the neck, a circumstance which cannot be overlooked in considering this question of identity. The female of the ringed pheasant is likewise less than the female of the common kind, both in size and in length of tail. The entire question, however, of distinctive individuality, is not by any means satisfactorily disposed of. More decided facts and experiments are wanted to settle the point. Sir William Jardine says, "The pheasant sometimes also crosses with the domestic fowl. Temminck mentions this as requiring great attention to accomplish; but where poultry are kept upon the borders of a wood abounding with pheasants, it occasionally happens, and would do so more frequently if favourable opportunities occurred; a specimen in my own possession, exhibiting all the mixed characters, was procured in a wild state. M. Temminck also records a solitary instance of a mule between the female pheasant and male golden bird, which exhibited a curious but splendid mixture; all his endeavours, however, to procure a second specimen were ineffectual. The common pheasant also breeds freely with the ringed bird, and the offspring is productive. This has been considered by many as a proof that these two birds were identical; but in the whole of this order, and its corresponding one among quadrupeds, this law has a much more extended modification, and can scarcely be taken as a criterion, except in very opposite instances."

The rearing and preserving of pheasants is an important branch of sporting science. The bird is not possessed of a very strong domestic principle, but seems always anxious to regain and secure its natural freedom, whenever it can do so. This has been the chief barrier against an almost unlimited increase of them. Could they have been housed, and headed, and secured at night like our common farm-poultry, they would have multiplied surprisingly; but it has been found over and over again that the young birds which may have been hatched under a hen, although they apparently might assume many of the habits of tameness and domesticity which mark the common poultry of our country, yet if any one approached them unawares, they would fly off to the nearest cover in a state of complete wildness.

The birds are, however, in many cases collected together in considerable quantities, which go under the name of *batteaux*, where they serve for gala days of sport to the nobility and gentry. We have ourselves always looked upon these exhibitions with pain, and we conceive them totally opposed in principle to the real spirit of English sports. We never could comprehend a man's feelings in killing a quantity of game under such circumstances. *Sport* it certainly is not. To enjoy and obtain this there must be a given portion of uncertainty and trouble connected with its prosecution. If a man could kill all the game of an extensive and well-stocked preserve in an hour, there would be no *sport* in the

case, in the true sense of the word. It would be one of the dullest and most uninteresting acts of his life; but where he has to seek, and to find, and to ramble for miles through a thickly-wooded or moorish country, there is pleasurable excitement produced, and this is the creative and sustaining principle of pure sport, and the true source of all the enjoyments which the pursuit of wild animals can confer on man. It is to wander about; the hopes entertained here, and the fears there; the disappointments met with on the eve of realized advantages, that constitute the current of exhilarating feeling and lively sentiment, which we connect with the healthy and natural indulgence in field sports generally. It is a bad spirit for a real sportsman to cherish to be always craving for great success, and to be perpetually out of humour both with himself and every one about him, if he does not get his bag sooner and better filled than all his neighbours and competitors. There is an exclusive and selfish bitterness lying at the root of all such trains of thought and the habits they engender; and the best receipt for eradicating this pernicious principle is, to look lightly and carelessly on the sport, and to make it a *means*, and not an *end*.

Indeed, we know from experience, as well as from what is daily passing around us, that it is impossible to keep large collections of pheasants from depredations. The slightest noise disturbs them in the night-time, and induces them to crow; and this discovers the places in which they are congregated, so that their destruction is almost inevitable.

Pheasants are subject to considerable mutations and ailments. One of the most singular of its changes is, that in certain cases, and in certain years of its existence, the female bird puts on the appearance of the male. This curious fact engaged the late Dr. John Hunter in a series of experiments with a view to ascertain whether there was in reality any transfer of gender accompanied by this change of plumage and outward appearance. But he found no organic change whatever. The diseases these birds are subject to are but little understood. It is said, that they die off suddenly about the time they are throwing off their crest and tail feathers, without any apparent illness, having an abundance of food, of which ants and their eggs form a part. Good air, exercise, and even choice grass plots, will not stay the ravages of the complaint. It has been recommended by way of cure, that as in Asiatic countries, of which the bird is a native, it lives very much on aromatic plants, all remedial measures should take this circumstance into consideration. Spices and stimulants are recommended, with nutritious diet, chopped eggs, and shred beef. Pepper pods, and other aromatics, are likewise used, in certain small quantities. In spite, however, of all care, great mortality sometimes prevails among the pheasants of particular localities. They seem to be afflicted with some epidemic distemper, which baffles all the skill of gamekeepers, and the erudite speculations of the naturalist.

The shooting of the pheasant commences on the 1st of October, which is an interesting day to aristocratic sportsmen, with their well trained dogs.

"See how with emulative zeal they strive,
Thread the loose sedge, and through the thicket drive!
No babbling voice the bosom falsely warms,
Or swells the panting heart with vain alarms,
Till all at once their choral tongues proclaim,
The secret refuge of the lurking game.
Swift is their course; no lengthened warnings now
Space to collect the scattered thoughts allow;
No wary *pointer* shows his cautious eyes,
Where from his russet couch the bird shall rise;
Perhaps light running o'er the mossy ground,
His devious steps your sanguine hopes confound;
Or, by the tangled branches hid from sight,
Sudden he tries his unexpected flight;
Soon as the ready dogs their quarry spring,
And swift he spreads his variegated wing,
Ceased is their cry; with silent look they wait,
Till the loud gun decides the event of fate."—PYE.

There are various opinions held among sportsmen as to the readiness with which pheasants may be shot; some holding it is difficult, while others make very light of the matter. This is not a question which any kind of authority can determine. In fact, the shooting of the bird is easy to one man and not to another, depending more on his constitutional habits and temperament than his skill with the gun and the dogs. The noise which a pheasant makes when he bangs out of his cover, often shakes a nervous man's frame a little; and a very slight shake of this kind, at such a critical moment, will exercise a powerful influence on the result of his firing. Steadiness is the great matter in exploits of this kind; it determines the relative portion of skill which a man throws into such pursuits.

Some persons recommend the spaniel for pheasant shooting before any other kind of game dog. They say they cannot be too strong, too short upon the leg, or have too much courage; the thickness of the cover requires strength, zeal, and resolution to surmount it. Some shooters use beagles in pheasant shooting with good effect; and even terriers are employed in some districts. But everything depends upon the localities where dogs are employed. In thick hedgerows, furze plantations, young woods, and in tangled underwood of any kind, such dogs as the beagle and terrier are better suited for pheasant sporting than the spaniel; but where the grounds are comparatively open, we think the latter are to be preferred.

Early in the field for pheasant shooting is recommended; and the sportsman should scour the stubbles of wheat, barley, and bean

fields well. In very bright days, the woods should be carefully looked after, for the birds often betake themselves to them in such weather. Cover beating is very essential in pheasant shooting. The grounds should be thoroughly tried both with the dogs and the beaters. A nide of pheasants are often found huddled together within a very small compass. Every section and crevice of a cover should be run over; as they are frequently found at times and occasions when the sportsman is not expecting them. It is not sportsmanlike to kill the hen pheasant.

> "But when the *hen* to thy discerning view,
> Her sable pinions spreads, of duskier hue,
> The attendant keeper's prudent warning hear,
> And spare the offspring of the future year;
> Else should the fine, which custom laid of old,
> Avenge her slaughter by the forfeit, gold."—PYE.

Great attention is requisite to the proper training of dogs. When this is not the case, as Mr. Daniel observes, "they disturb the pheasants, who first fly up, and perch upon the lower boughs; and the ground of the covert is in vain traversed, and beat for birds that are already some yards above it; in short, a spaniel that follows a hare further than whilst in view, is never worth keeping. Other circumstances to be minded are, that when a spaniel is once put into covert he is never to quit it to range in the fields, which some slippery ones will do, whilst their owners are beating within it. When a spaniel owns a haunt, and quests freely, there should be no disappointment; whenever the notes are doubled, their master should be certain there is game, and accordingly press forward. Much depends upon the practice which spaniels have; the constant use, and the killing of game to them is as essential to the steadiness of a high-mettled spaniel, as to a high-bred fox-hound: neither can be worked too hard, if kept well in blood." The writer goes then on to state, that one of the chief conditions of obtaining this desirable end, is, that the dogs be of pure breed. There must be no cross of the hound in them; if there be, the contamination will display itself even for many generations, and all such dogs will hunt the hare in preference to winged game of any description. And Mr. Daniel corroborates this. "A stronger instance," says he, "could not well be exhibited than in the spaniels of the deceased Lord Waltham and Mr. Hoare. A road only parted the seats of the two gentlemen, and their gamekeepers frequently shot in the woods together; their dogs were equally handsome, but those of the former would drive hares the whole day through, and consequently sprung everything that accidentally lay in their course; whilst those of the latter no more ran hares than they did sheep; they would indeed find hares, but follow no further than they saw them. They were always in their places, twisting round every stub with that agility, and possessed of such fineness of nose, that neither woodcock nor pheasant could escape their search. Lord Waltham's spaniel bitches had originally a cross

of the beagle; and although this was tried to be remedied by resorting to the best dogs, the tendency to *hare* could never be subdued."

A similar case is well known to have occurred in the North of England, about half a century ago, among the dogs of the late Ralph Lambton, Esq. He had some favourite spaniel bitches that had originally a cross with a bloodhound; and this corruption was continually manifesting itself in the conduct of his shooting dogs, whenever sheep or domestic animals of any kind thwarted their movements. The old and excellent sportsman used jocularly to maintain, that they would retain their taint, as mankind are doomed to bear the weight of their original transgression till the end of their existence.

We have often seen dogs more at fault in pheasant shooting than in almost anything else. Whether it be the particular nature of the ground in which these birds locate themselves, or whether there be anything peculiar in their scent, we cannot determine; but we have often seen conduct followed by even the best dogs, that would never have been looked for in any other kind of sporting. We state these impressions on our memory, without attempting anything like a solution of the matter.

The season of the year is always to be taken into consideration in following any particular plan as to pheasant shooting. There is a difference between October and January in this matter. At the fall of the leaf the birds are scarcer, and a vast deal more cunning and evasive; and they take the alarm at the slightest noise that indicates the approaching visit of a sportsman. In the opinion of many able sportsmen, December ought to close the pheasant shooting; for it is contended that if prolonged later in the season, the birds will fly off and mate with other birds, and will not be likely to remain if there be a long-continued shooting noise in every direction around them.

*Battue-shooting* is common in all parts of Europe, as well as in Great Britain, where it has become more in vogue within the last forty years. As we have said, we cannot approve of such exhibitions, as they tend to bring the sportsman's art into disrepute. In most books on shooting we have various accounts of the most distinguished of these gatherings among the nobility and gentry, but they are of little or no interest to the real sportsman. Mr. Daniel tells us of a day's *battue* on Mr. Colquhoun's manor, at Writham, in Norfolk, when the late Duke of Bedford and six other gentlemen, in the year 1796, killed eighty cock pheasants and forty hares, besides a considerable number of partridges, in one day. Mr. Coke, also in one day, in October, 1797, upon his manor, at Warham, and within a mile's circumference, bagged forty brace of partridges in eight hours, at ninety-three shots; every bird was killed singly. The day before, on the same spot, he killed twenty-two brace and a half in three hours. In 1801, the same gentleman killed in five days, 726 partridges. In January 1803, Mr. Coke, Sir John Shelley, and Mr. T. Sheridan, went over to Houghton, in

Norfolk, on a *chasse* for their friend Lord Cholmondeley, and killed there, with their three guns only, in one day, fourteen brace and a half of hares, sixteen couple of rabbits, twenty-four brace of pheasants, thirteen brace of partridges, and sixteen couple of woodcocks. All these achievements, fifty years back, have been eclipsed by the exploits in more modern batteaux in England; but the particulars of them we refrain from giving in detail.

On the Continent similar sports have long been indulged in, and to a greater extent than in this country. We are told that game was so splentiful in Bohemia in 1753, that the Emperor Francis I., made a shooting excursion to one of the estates of the Prince Colleredo; in the space of eighteen days the imperial sportsman fired 116,209 shots, and killed 19,545 partridges, 18,243 hares, 9,499 pheasants, with other inferior game, amounting in all to 47,950.

In Sweden there is something of the battue shooting prevalent, but different in some essential particulars from what is followed here and in France and Germany. Indeed, all over the Continent we find innumerable traces of this kind of sporting with the gun, but yet not of the kind which can add much either to a true sportsman's knowledge or his love for his favourite amusement. In everything of this kind there must be some portion of reason and sentiment thrown into them, or they cease to have any hold on the good feelings of the world at large.

---

## CHAPTER VIII.

### QUAIL SHOOTING.

THE QUAIL (*Tetrao Coturnix*, Linn.) is described as follows:—It is nearly seven inches long; some approach even to eight. The bill is dusky; the irides hazel, and in old males yellow; the crown of the head is black, transversely marked with rufous brown, and down the middle is a yellowish white line. Above the eye, in a backward direction, is another line of the same colour, and on the chin and throat is a black mark, which has a turn upwards towards the ears. The remaining parts are white, and the hind portion of the neck is black. The scapulars and tail-coverts are of a rufous brown tint, and the middle of each feather is streaked with yellowish white, surrounded more or less with black. The sides are of the same colour, but not having quite so much of the white streaks. The breast is light ferruginous brown, shafts white, belly paler. The wing-coverts are pale rufous brown, streaked like the back, but more minutely distributed. The quills are dusky; the outer webs more or less mottled with yellowish white. The tail is dusky, tipped with white, and consists of twelve short feathers hidden by

the coverts. The hen bird is distinguished by having little or no black on the chin or throat, and by a dusky mark passing from the ears downwards. Some black spots are likewise seen on the chest, and the coverts of the wings are barred with yellowish white streaks.

This bird is known in almost all the countries of the world, with the exception, it is said, of America, where it has not hitherto been discovered. Their numbers on the continent of Europe are very great, much more so than in England, Wales, and Scotland. They are often met with in Ireland in large quantities.

The quail is a migratory bird, and though many attempts have been made to naturalize them in this country, the instinctive desire to migrate, has hitherto frustrated all such enterprises. They have engaged the attention of the naturalist and the sportsman from the earliest times. Pliny says, "They alight in such numbers on ships, (and which is always in the night), by their settling on the masts, sails, &c., &c., as to bear down barks and small vessels, and finally sink them, and on that account the sailors have a great dread of them, when they approach near to land." In the autumn there are immense flocks of these birds found crossing the Mediterranean from Italy to Africa, taking on their route, both in going and returning, the various islands of the Archipelago as their resting places. They are often in such prodigious numbers as to absolutely cover the entire face of the country. In Alexandria they are so common, that they can be readily bought for a farthing each. It has been known, that crews of merchant vessels have been so much confined to feeding on them, that certain diseases have been induced from their frequent use, and that complaints have formerly been made on the subject to the British consul at Alexandria. These birds assemble in autumn on the northern shores to emigrate southward; and it has been often noticed, that they delay their departure until the north wind arises, when towards sun-set the entire body take wing, and display such swiftness as to traverse fifty leagues by break of day. In Italy, Sicily, and most of the Greek islands, they arrive at a stated season in vast numbers, and with singular punctuality, not differing, in the average of years, above a day or two at the utmost. One hundred thousand have been known to be caught at one time. They are run after during the night, and great numbers perish in the chase. In Sicily, there is quite a sensation produced when they arrive. Crowds are assembled of all ages and stations of life to witness the sight. The number of boats is likewise astonishing; and their passengers all carry guns and pistols, to try their luck at the feathered strangers. They were so abundant on the island of Capri, at the entrance of the Gulf of Naples, that they constituted the chief source of revenue of the bishops of the place. There were one hundred and sixty thousand captured in one season. In China, and in many of the islands in the eastern seas, they are often so numerous as to obscure the sun in their flights.

The quail has been long famous for his pugnacious habits. He fights keenly and hard. The Greeks and Romans were great fighters of this bird; and the conqueror in a regular pitched battle was highly prized. Indeed, in such estimation was he held, that we are told, that Augustus put a prefect of Egypt to death for having brought a conqueror to the table to be eaten. We find some of the middle age writers speaking of the combats with this bird, and comparing them to those between cocks. Henry III., King of Castile, employed much of his time in catching quails for the purpose of matching them in fights; and the Castilians generally hunted them morning and evening, and had regular combats with them at places adapted for the purpose. Scaliger tells us, that the Italians have gardens purposely laid out to hunt them in; and which are fitted up in a very costly manner, and where, with the quail-pipes, they pursue the bird as a great amusement. Burnes, in his *Travels in Bokhara*, tells us, that "he arrived at the season of the quails, when every one who could escape from his other avocations was engaged in hawking, netting, or fighting these courageous little birds. Every Tuesday morning the chief had a meeting in his court-yard to encourage this sport. He used to send for us to witness it; it is by no means destitute of amusement, whether we regard the men, or the birds; for chief, servant, and subject were here on an equality, the quails being the heroes, not the men. They are carried about in bags, and enticed to fight with each other for grain which is sprinkled between them. When the quail once runs, he is worthless, and immediately slain; but they seldom made a precipitate retreat. Nothing can exceed the passion of the Affghans for this kind of sport; almost every boy in the street may be seen with a quail in his hand, and crowds assemble in all parts of the city to witness their game battles." These birds are very abundant in India, and they are entrapped by various devices, and in great quantities, both for food and for fighting purposes. Johnson, in his *Indian Field Sports*, tells us, that the Hindoos "equip themselves with a frame-work of split bamboos, resembling the frame of a paper kite, the shape of the top of a coffin, and the height of a man, to which green bushes are fastened, leaving two loop-holes to see through, and one lower down for their rod to be inserted through. This frame-work, which is very light, they fasten before them, when they are in the act of catching birds, by which means they have both the hands at liberty, and are completely concealed from the view of the birds. The rod which they use is about twenty-four feet long, resembling a fishing-rod, the parts are inserted within one another, and the whole contained within a walking-stick. They also carry with them horse-hair nooses of different sizes and strength, which they fasten to the rod; likewise bird-lime, and a variety of calls for the different kinds of birds, with which they imitate them to the greatest nicety. They take with them likewise two lines, to which horse-hair nooses are attached for catching larger birds, and a bag or net to carry their

game. Thus equipped, they sally forth; and as they proceed through the different covers they use calls for such birds as generally resort there, which from constant practice is well known to them, and, if birds answer their call, they prepare accordingly for catching them. Supposing it to be a bevy of quails, they continue calling them, until they get quite close; they then arm the top of their rod with a feather smeared with bird-lime, and pass it through the loop-hole in their frame of ambush, and to which they continue adding other parts, until they have five or six out, which they use with great dexterity, and touch one of the quails with a feather which adheres to them: they then withdraw the rod, arm it again, and touch three or four more in the same manner, before they attempt to snare any of them."

The quail lays more eggs in some countries than in others. In Italy and France, from fifteen to twenty is the average number; but in hotter sections of the Asiatic and African continents, twenty-five and thirty are sometimes found in one nest. This large number of eggs accounts in some measure for their great numbers. Some sportsmen maintain, that they hatch twice a year; but this does not seem to be a well established fact. Where a second bevy of quails may have been met with, it has, perhaps, been the result of accident, and not fairly ascribable to any general law of increase. This subject is touched upon in a communication inserted in the *New Sporting Magazine*, vol. v., wherein it is said, "This place" (the Isle of Thanet) "was formerly so famous for them" (quails), "either from its vicinity to the French shore, or the quantity of grain which is cultivated, that people come from great distances for the express purpose of quail shooting; of late years, however, their numbers have considerably decreased, but still the sportsmen in the beginning of September, may commonly kill from two to three brace a day. Along the banks of the Thames, below Purfleet, several farmers and sportsmen have assured me, that about the beginning of November, a time at which the departure of the main body has taken place, a small number of quails make their appearance, and continue during the winter always at a short distance from the river's edge; these are evidently the young birds of the second bevy, who, for some reason, seek that particular situation after the migration of the rest of their species."

Quail shooting is chiefly confined in Britain to some particular sections of it: to the counties of Essex, Kent, Cambridgeshire, Suffolk, and Norfolk. The bevies seldom exceed ten in number, and are generally under that figure. They are to be found in the evenings feeding in corn-fields, and sometimes they lie remarkably still, and may readily be approached, and at other times they are as wild as possible. A steady dog is indispensable; but it must be remarked, by way of caution, that most dogs are apt to be spoiled for some time after they have been employed in tracing these birds. Common partridge shot is recommended, but some quail shooters prefer No. 7.

A writer of travels in the East has the following remarks respecting the quail:—"In Egypt, when these birds arrive in the month of September, I have more than once seen the Arabs killing and laming them by throwing short sticks at them. During the time that the Capitani Bey blockaded the harbour of Alexandria with his Turkish squadron, one of the Greek sailors of his ship had caught two or three which had perched on the rigging. The Mussulman rewarded him generously, and desirous of varying the hard fare which a blockading squadron has usually to sustain, by a more ample supply of such a delicate rarity, promised a piastre for every quail that should be brought to him. In a few days, the riggings, sails, and yards, were covered with flocks of quails; great numbers were caught of course, and every one was brought into the cabin, as the price had been so liberally fixed. To escape the dilemma of either ruining his purse or breaking his promise, the Capitani Bey resorted to the alternative of standing out to sea, as by removing from the coast he got rid of the visits of these expensive strangers."*

---

## CHAPTER IX.

### WOODCOCK SHOOTING.

Woodcock shooting is delightfully pleasant and exciting. It has been called the "Fox-hunting of Shooting," a very appropriate and expressive phrase, at once descriptive of its character and dignity.

The *Woodcock* (*Scolopax Rusticola*, Linn.) is placed by naturalists at the head of the *snipe* genus. It is described by Bewick and others as follows:—Its length is about fourteen inches, twenty-six in breadth, and its weight about twelve ounces, though sometimes it is found to the extent of fourteen. The shape of the head is considered somewhat curious, being more obtusely triangular than round, and the eyes are placed very forward near the top of the ears, and nearly in a line with the corners of the mouth. The upper mandible, which measures about three inches, is furrowed nearly its entire length, and at the tip it projects beyond and hangs over the under one, ending in a kind of knob, which, resembling those of others of the same genus, is susceptible of the finest feeling, and calculated by that means for aiding, perhaps by an acute sense of smell, to find the small worms in the soft and moist grounds, from whence it extracts them with its sharp-pointed tongue. By means of its bill it likewise turns over and tosses about the fallen leaves in search of insects which take shelter underneath. By the entire

* Letters from the Campagna Felice.

conformation of the bird, and particularly from the structure of its head, we have an opportunity of displaying some of the wonderful contrivances which Nature has instituted for the sustenance and preservation of her various orders of animated beings. From the extreme sensibility of the mouth of the woodcock, some structural peculiarities are required to gain a given end or object—the capture of insects deeply embedded in either mud, earth, or decayed wood.

The woodcock, it has often been said, is naturally a shy and retiring bird, rarely taking wing by day, unless disturbed; but just as daylight is dying away, it quits the wood, and nearly at the same instant tries to reach some meadows in search of wet and splashy places and moist grounds in search for food. As the day dawns, it again returns to its hiding place. Thus, when most other birds are recruiting exhausted nature by sleep, woodcocks are rambling through the dark, directed by an exquisite sense of feeling conveyed to them by their long and singularly-constructed bill. The eye is not called into use, and, like the mole, they may be said to feed beneath the surface; and by the remarkable sensibility of the instrument which is thrust into the soft earth, not a worm nor a grub, however small, can escape that is within its reach. The eyes of the bird are large in proportion to its general bulk of body, and, like those of some other noctural birds, are particularly constructed for collecting the faint rays of light in the darkened vales and sequestered woodlands during its nocturnal excursions. The birds of this class are thus enabled to avoid hitting against trees and other obstacles that oppose themselves in their flight. The nerves in their bills, like in those of the duck tribe, are very numerous, and highly sensible of the most minute touch. A woodcock in a menagerie has been known to discover and draw forth every worm in the ground, which was dug up to enable him to bore with his bill; and worms put into a large garden-pot covered with earth, five or six inches deep, were cleared away by the next morning without one being left. The enormous quantity of worms which woodcocks devour is scarcely credible; indeed, it would be a constant labour for any one person to procure such food in sufficient quantity for two or three of these birds. The difficulty of collecting a sufficiency of such precarious aliments has led experimenters to try if bread and milk would not be a good substitute, and we are told that the result has been, that by placing clean washed worms into the mess, the bird soon acquired the taste for the new food, and eventually would eat a basin of milk and bread in twenty-four hours, besides the worms and grubs it could obtain. The digestive powers of the woodcock are remarkably vigorous and rapid. On anatomical examination there is very little found in its stomach and intestines, save a few fibres of a vegetable texture, and a little sand, mixed with small stones and gravel.*

There are three varieties of *British woodcocks*. On this point

* See Bewick, Blumenbach, and Montague.

Dr. Latham says:—"In the first, the head is of a pale red, body white, and the wings brown; the second is of a dun, or rather cream colour; and the third of a pure white. Dr. Heysham, in his *Catalogue of Cumberland Animals*, mentions having met with one, the general colour of which was a fine pale ash, with frequent bars of a very delicate rufous; tail brown, tipped with white; and the bill and legs a flesh colour. In addition to these, some other varieties are taken notice of by the late Marmaduke Tunstall, Esq., of Wycliff, in his interleaved books of ornithology. Mr. Daniel seems likewise to be aware of such a difference, for he observes that there are different sizes of woodcocks. Those found in the first part of the season are of the largest size, fly heavily, and their heads appear to be muffled, especially the under parts, with short feathers. The most numerous tribe, which arrive in November and December, are rather smaller, their heads less, the feathers smoother, and the bills shorter. Woodcocks that arrive in this country about Candlemas, are likewise small, and differ in their manner of flying; are quicker of wing, take pretty long flights, and are well known to be very difficult to shoot, on account of their not rising above the spray, like the larger muffled woodcocks, but make their way for some distance as it were among the boughs. Mr. Baillon also notices two kinds of woodcocks. The largest arrive first, and may be distinguished from the others by the colour of their legs, which are of a grayish tint, inclining to rose colour. The smaller kind have a coating similar to that of the common woodcock, but their legs are blue. Variegated plumage and other anomalies now and then occur among these birds; thus, a pure white one has been seen, and we can only wonder that still greater variations do not frequently take place; for although most sporting works, in their account of the woodcock, usually confine his foreign residence to the North of Europe, yet it should be known that he is likewise found in all the climates, both hot and cold, in the old continent, as well as in North and South America. It is, however, a curious fact, that he is everywhere an emigrating bird. His migrations in some countries appear, however, to be confined to a journey from the plains to the mountains, and *vice versâ*. In Europe he is located during the summer on the Alps, Pyrenees, and other lofty mountains, from whence he migrates to the regions below, and probably some reach us. His universality thus established, we need not be surprised that he should thus *sport* into varieties, seeing that every locality, according to its proximity or remoteness from what may be considered as its attracting spot for domestication for the time, has its influence over the size, colour, and even the aptitudes of the animal."

The *sex* of the woodcock has given rise to some discussions among sportsmen and naturalists. It has been considered as entirely unmarked by any external signs; but internally it can be readily detected. Mr. Pennant, however, thinks the question may be easily set at rest, even from the examination of the bird's feathers, which

in the *hen* presents a narrow stripe of white along the lower part of the exterior veil of the feather. In the male bird it is different; the same feather at the same part is beautifully and regularly spotted with black and reddish white. Many sportsmen maintain that there is another criterion, namely, the greater size of the female bird; but this is not invariably to be relied on.

The female woodcock makes her nest on the bare ground, and very often chooses the root or stump of a decayed tree for the locality. The nest is very carelessly formed of a few dried fibres and leaves, upon which she commonly lays four or five eggs, a shade larger than those of pigeons, and of a rusty green colour, blotched and marked with dusky ill-defined spots. The young leave the nest as soon as they are freed from the shell; but the parent bird continues to attend them until they can provide for themselves. Buffon informs us that the mother will sometimes take a weak bird under its throat and carry it more than a thousand paces.

The flesh of the woodcock is held in high estimation by all lovers of good and dainty eating; and hence it is eagerly sought after by many sportsmen. It need scarcely be remarked that, in cooking it, the entrails are not drawn, but roasted within the bird, from whence they drop out with the gravy, upon slices of toasted bread, and are relished as a delicious kind of sauce. The Italians and French have each particular modes of cooking this bird, which they do in such capital style as to leave an impression on the palate for some time after.

On the migration of the woodcock, it is requisite we should make a remark or two. They mostly arrive in the south of England during the month of October. They do not come in large flocks, but keep dropping in one by one, till about the month of December. They are very probably much influenced in their movements from the wind, which if it blow from a continental quarter is more likely to aid their flight than a current in the opposite direction. They must have the instinctive precaution of landing only in the night, or in dark misty weather, for they are never seen to arrive, but are frequently discovered next morning in any ditch which affords them shelter, and particularly after the extraordinary fatigue occasioned by the adverse winds which they have often to encounter in their aërial flight. They do not remain on the shores to take their rest longer than a day, but commonly find themselves sufficiently recruited in that time to proceed inland to the very same haunts which they left the preceding season. In stormy weather they retire to the mossy moors and high bleak mountainous parts of the country; but as soon as the frost sets in, and the snow begins to fall, they return to lower and warmer situations, where they meet with boggy grounds and springs, and little oozing mossy rills which are rarely frozen, and seek the shelter of the close bushes of holly, furze, and brakes in the woody glens, or hollow dells which are covered with underwood; there they remain concealed during the day, and remove to different haunts, and feed only in the night.

From the commencement of March to the end of the month, or sometimes to the middle of April, woodcocks keep drawing towards the coasts, and avail themselves of the first fair wind to return to their native woods. Should it happen to continue long to blow adversely, they are thereby detained; and as their numbers increase, they are more easily found and destroyed by their numerous enemies.

Other accounts somewhat vary this migratory process. It is stated that they leave the north with the first frost, and travel slowly south till they come to their accustomed winter quarters. They do not usually make a quick voyage, but fly from wood to wood, reposing and feeding on their journey; they prefer for their haunts woods near moist and marshy springs. They hide themselves under thick bushes in the day, and fly abroad to feed in the dusk of the evening. A laurel or holly bush is a favourite place for their repose. The thick and varnished leaves of these trees prevent the radiation of heat from the soil, and they are less affected by the refrigerating influence of a clear sky, so that they afford a warm and cosy seat for the woodcock. These birds usually begin to fly north on the first approach of spring, and their flights are generally longer and their rests fewer at this season than in autumn. In the autumn they are driven from the north to the south by the want of food, and they stop wherever they can find it. In the spring there is the influence of another powerful instinct added to this—the sexual feeling. They migrate in pairs, and pass as speedily as possible to the place where they are likely to find food, and rear their young, and of which the old birds have already had the experience of former years. Scarcely any woodcocks winter in any part of Germany. In France there are a few found, particularly in the southern departments, and in Normandy and Britany. The woods of England, especially of the west and south, contain always a certain quantity of these birds; but there are far more in the moist soil and warmer climate of Ireland. In the woods of southern Italy and Greece, near marshes, they are far more abundant; and they extend in quantities over the Greek islands, Asia Minor, and Northern Africa.

Woodcocks have been known to settle upon a vessel at sea. Mr. Travers of Cornwall records an instance, when at a distance from land unusual for birds to be seen, a bird was discovered hovering over the ship. When first discerned, it was high in the air, but gradually descended, and after making several circuits around, at length alighted on the deck; it was so exhausted that it allowed itself to be taken up by the hand.

In their flight, woodcocks, like other birds, are attracted by a glare of light, and many instances have occurred at the Cromer and Eddystone lighthouses, of their falling victims to it. In 1797, at the lighthouse upon the Hill of Howth, the man who attended it was surprised by a violent stroke against the windows, which broke a pane of plate-glass cast for the place, more than three-eighths of an inch thick. On examining the balcony that surrounds the light, he

found a woodcock, which had flown with such violence as to break his bill, head, breast-bone, and both wings. The man had often found birds which had killed themselves, by flying against the windows, but never before knew the glass to be injured.

Upon the coast of Sussex woodcocks have been seen at their first arrival, in considerable numbers, in the church-yard, and even in the streets of Rye, but during the night, the usual time of their flying, they removed farther inland and dispersed. At their first coming on the coast, they are commonly poor in condition, as if weakened and wasted through great exertion, and are likewise sometimes scurfy, though not so much so as before their return in the spring. The taste of the flesh also undergoes a great change; it is insipid on their arrival, but when they have been a short time feeding in the country, its flavour is greatly improved both in richness and delicacy. If a woodcock is shot just before its departure, it bleeds plentifully, whereas at the beginning of winter scarcely any blood flows from the wounds. By this it would seem, that in those countries where they have their summer residence, they have a different nourishment to what they find here. Probably the luxuriant and succulent food which they meet with among us, prepares them for breeding in those countries to which they retire with the companions of their choice.

It is a well-known fact that the time of their appearance and disappearance in Sweden, coincides exactly with that of their arrival in, and departure from, Great Britain. Their autumnal and vernal appearances on the coast of Suffolk, have been accurately noticed. They come over sparingly in the first week of October, the greater numbers not arriving till November and December, and always after sunset. It is the wind and not the moon which determines the time of their arrival; and it is probable that this should be the case, as they come hither in quest of food, which fails them in the places they leave. If the wind has been favourable for their flight, their stay on the coast where they drop is short, if any; but if they have been forced to struggle with an adverse gale, such as a ship can hardly make head against, they rest a day or two to recover their strength. So greatly have they been exhausted, that on many occasions they have been taken up in Southwold streets, nearly dead. They do not come gregariously, but separate and dispersed.

In the same manner as woodcocks quit us, they retire from France, Germany, and Italy, making the northern and cold situations their universal rendezvous. They visit Burgundy the latter end of October, but continue there only four or five weeks; it being a dry country, they are forced away for want of sustenance, by the first frost. In the winter they are found in great plenty as far south as Smyrna, and Aleppo. During the same season, they appear in vast quantities in Barbary, where the Africans call them the "ass of the partridge." It has been asserted that some have appeared as far south as Egypt, which is the remotest migration to which they can be traced on that side of the eastern world; on the other side

they are common in Japan. The woodcocks that resort to the countries of the Levant, probably come from the deserts of Siberia or Tartary, or the old mountains of Armenia. In the neighbourhood of Athens, hares and other game are purchased for little more than the value of powder and shot. In winter, woodcocks abound, descending, after snow on the mountains, into the plains, and suddenly retiring if the weather continues severe. They enter the gardens of the town in great distress, rather than cross the sea, and are sometimes caught with the hand.

It is now fully ascertained that woodcocks occasionally breed in this country, and even as far north as the Orkney Islands. These settlements are, however, but rare, amounting to a case or two every season.

It is maintained that these birds are not nearly so plentiful as they were some forty years ago in this country. Perhaps this may really be the case; but we have some doubts of the fact. It is so much the fashion to magnify the past at the expense of the present, that we do not attach so much credit to these bygone statements, as some writers do. There is a greater number of sportsmen now than formerly, at least in the shooting art; and this may account for fewer woodcocks being killed now by any single person. The sport, we apprehend, is more generally diffused, but not seriously, if at all, diminished from former times.

Cock spaniels are considered the best dogs to be used in woodcock shooting. Some use setters or pointers; but they are considered inferior to the spaniel where the woods are extensive, and thickly set with underwood, and brambles, and thorns. This kind of dog should, however, be well trained, and should be taught both to hunt close, or widely, just as circumstances require. Both beaters and markers are required in extensive woods. This employment of beaters and markers requires a regularly digested plan of operations, and a minute regard to particulars and instructions previously agreed upon among the parties. They must take their stations at a given spot, and pay attention to each other's signs and movements, otherwise they will be working at cross purposes, and prove worse than useless. Many beaters take sticks, and other similar things with them, with which to beat the bushes and underwood; while the markers ascend some elevated piece of ground, or even some tree, and when the birds rise, mark accurately where they drop, and give correct instructions to the gunner.

Large quantities of woodcocks are taken by means of nets and traps, and find their way to the London markets, where they generally bring tolerably high prices. It is said that in the neighbourhood of Torrington, in Devonshire, these birds are so numerous throughout the season, that they have been killed to the value of nearly two thousand pounds in one year. Catching them by nets and springs is common in the hilly countries of Cumberland, Westmoreland, and Durham. The same practices are in operation in Wales to a great extent. Mr. Dobson says, "The poacher's dog

in Wales is an ugly raw-boned, cross-made derivation from the light-setter, degraded through half-a-dozen generations of bastardy; than which, with a view of being made into pointers, it is not possible to conceive more unpromising materials; and upon which, therefore, if such be the effects producible, it is fair to conclude what a similar discipline is capable of doing with superior natures. By hunger and hard work, both of which they get plenty, they are brought down to obedience; and their draw upon a cock in-a wood, under the dread of their master's arm, with the power of which they soon become acquainted, is wrought into a full stop."

A few years back, there was a regular system of shooting and entrapping the woodcock pursued in Scotland, for the Edinburgh and Glasgow markets. In some localities, in this part of Britain, the bird is very common, and there is a varied abundance of food for their support, particularly in the western side of the island, where the winter season is comparatively mild and open, and the springs and boggy grounds are free from frost. In a letter written somewhere about 1826, Sir Walter Scott wrote to a friend in the following strain, "I have been out for two or three days endeavouring to obtain a shot or two at a woodcock, but I have not been successful; the fact is, these birds are now taken off wholesale by a band of men who do nothing else for the season but kill them, and they find a ready and profitable market for them in all our large and populous Scottish cities and towns. I was lately informed by one poulterer of Edinburgh, that he had paid one man nearly one hundred pounds last season for woodcocks, which he had chiefly shot in the western parts of Argyleshire and Invernesshire. This seems prodigious." It is likewise stated in the work from which this letter is taken (*Annals of Sporting, Edinburgh*, 1829), that formal applications had been made to the magistracy of several districts in Scotland, to endeavour to put a stop to this wholesale destruction and traffic.

It would appear, that poaching for woodcocks must have attained a high state of repute formerly, from the zeal and contrivances displayed to capture these birds. Gervase Markham, more than two centuries ago, describes a *stalking horse* which was used for this purpose. He says, "When a man" (we modernize the orthography), "intends to compass a shooting among fowls, he must have some moving shadow or shelter to walk by him; in this case there is nothing better than the *stalking horse*, which is an old jade trained up for that use, which being stripped naked, and having nothing but a string about the nether chap, of two or three yards long, will gently, and as you have occasion to urge him, walk up and down in the water which way you will have him, feeding and eating upon the grass, and other stuff that grows therein; and then being hardy and stout, without taking any affright at the report of the piece behind his forequarter, bending your body down low by his side, and keeping his body still full between you and the fowl. Then having (as before showed) chosen your mark, you shall take

your aim from before the fore-part of the horse, shooting as it were between the horse's neck and the water, which is more safe and surer than taking the level under the horse's belly, and much lesser to be perceived; the shoulder of the horse covering the body of the man, and the horse's legs shadowing the legs of the man also; and as thus you stalk upon the great blank waters, so you may stalk also along the banks of brooks or greater rivers, by little and little winning the fowl to as near a station as can be desired; and thus you may do also upon the firm ground, whether it be on moor, heath, or other rotten earth, or else upon the tilthe where green corn groweth; or generally in any other haunt where fowls are accustomed to feed or abide."* This contrivance was long in use in many parts of England, both for shooting woodcocks, and wild fowl. In Markham's day, however, the dog was likewise used along with it, whose movements and use he further describes in the following words. "And as you make use of this stalking horse, so must you not any wise want your dog, for he is as useful at this time as at any other, nor can you do well anything without him especially if it be upon rivers, or broad deep waters; yet you should have him in obedience, that whilst you are stalking you may leave him with your bags, saddle, bridle, and other needments, where he may lie close, and never stir till you have shot, and then upon the least gibbet or call to come running unto you, and to fetch forth what you shall kill; which with a small practice, he will do readily and willingly, after you have made him understand your mind, for they are creatures of wonderful great capacity, and naturally inclined to the sport, so that, being kept in true awe, there is nothing which they will not with great readiness perform." To make this artificial stalking horse, Markham gives the following directions. "Take any pieces of old canvas, and having made it in the shape or proportion of a horse with the head bending downwards, as if he grassed, and stopping it with dry straw, moss, flocks, or any other light matter, let it be painted as near the colour of a horse as you can devise, of which the brown is the best; and in the midst let it be fixed to a staff with a pick of iron in it to strike down in the ground at your pleasure, and stand fast whilst you choose your mark, as also to turn and wind any way you please, either for your advantage of the wind, or for the better taking of your level; and it must be made so portable, that you may bear it easily with one hand, moving and wagging in such wise, that it may seem to move and grass as it goeth; neither must this in any wise exceed the ordinary stature or proportion of a common horse, for to be too low or little will not cover the man, and to be too big and huge will be both monstrous and troublesome, and give affright to the fowls; therefore, the mean in this is the best measure, and only worth the observation." The author tells us, likewise, that the figures of other animals were sometimes used for *stalking;* such as

* Art of Fowling.

the ox, stag, &c. He is urgent in recommending that, whatever animal is imitated, it should be made "true in form, and correct in proportions, as well as coloured to the life." The best time for stalking was at early morn, or dewy eve.

Ireland is highly praised for its woodcock sporting. Colonel Hawker says, "that a real good sportsman feels more gratified by flushing and killing a woodcock, or even a few snipes, than bags full of game that have been reared on his own or neighbour's estate. Localities of cock shooting are widely distributed over the British dominions. Ireland throughout is unquestionably the very best spot for a zealot in cock and snipe shooting; the nature of the ground, inclined as it is to bog and marsh, suits the one and the other of these birds." On the same subject, Mr. Thornhill says, "If a sportsman is fond of cock shooting, it will repay him well for his trouble to take a trip to Ireland; it is not material what part to recommend, as it is impossible almost to go to a bad place for sport. As to asking leave, it is needless; as the only cause of jealousy that can subsist between the visitor and the owner of the ground will be for not acquainting him of his coming, in order that he might have it in his power to receive him in the usual hospitable manner, by providing beaters to show him sport, giving him the best of fare, a good bottle of claret, a sincere and hearty welcome, assuring his guest, the longer he stays and honours him with his company, the more welcome he is, and the happier he will make him." *

* On the nature of the Woodcock, and the Sporting connected with it, see Bewick, Montague, Blane, and other writers.

# CHAPTER X.

## SNIPE SHOOTING.

"The snipe is hardly ever found
In woods, he's fond of open ground;
The rushy pond, the quiet brook,
But chiefly to the marshes look;
The splashy heath, and boggy moor
Yield frequently an ample store:
Stick to them well when this the case is,
They very quickly change their places;
To-day the sportsman can pursue
The numerous game *till all is blue*,
To-morrow he goes out again,
But mayn't a single shot obtain;
Affected by the wind and weather,
They often flock away together;
Sometimes they to the hill repair,
Rising in wisps all wildly there;
Vain the pursuit; but if a gale
Should quickly from the east prevail,
Or even from the boisterous north,
Again you ought to sally forth."—WATT.

SNIPE shooting is one of the most lively amusements in which a sportsman can indulge. It can be enjoyed in almost all parts of the kingdom; and though it does not bring so much *grist to the mill*, nor replenish the *pot* so liberally as some other kinds of shooting, it makes up for these deficiencies by an increased amount of pleasurable excitement, and healthy and agreeable exercise.

There are three different kinds of snipes known to the British sportsman. The *Great Snipe* (*Scolopax Major*, Linn.) is a comparatively rare bird. The upper portion of its plumage nearly resembles that of the common snipe. The breast, sides, belly, and vent, are white, spotted, barred, and undulated with black. Its weight is about eight ounces, and length sixteen. The bill is like the shape of the woodcock's, and about four inches long. The crown of the head is black, and divided down the centre by a pale stripe, and over and beneath each eye there is another of the same. The upper parts of the body resemble those of the common snipe; the feathers on the neck, breast, and sides, are edged with a dusky white, and those of the belly spotted with the colour. The middle, however, is quite plain. The quills are dusky, and the tail reddish; the two middle feathers of which are plain, and the others barred with black. The legs are black. This bird is not common in England; but only occasionally met with, chiefly in the counties of Lancashire and Kent. Some designate them the *solitary snipe*, from always being found alone. The bird is found in Germany and Siberia.

The *Common Snipe* (*Scolopax Gallinago*, Linn.) or the *Heather*

*Snipe,* is described as about four ounces in weight, and nearly twelve inches in length. The bill is three inches long, and of a dusky colour: and in some individual cases, the base is light, flattish, and rough at the ends; the irides dusky. The crown of the head is black, with a longitudinal light rufous line down the middle; and another line passes from the base of the upper mandible of the same colour on each side over the eyes. Between the bill and the eye there is a dusky line. The throat is white; and the cheeks, neck, and upper breast, are mottled with black and light coloured patches. The back and scapulars are black, barred with brown, and striped with yellowish buff-coloured longitudinal lines. The quills are black; the first edged with white, and the secondaries are tipped with the same; and those next the body are, with their coverts, striated and barred with an iron-gray colour. The lower breast and belly are white; upper tail coverts brown, barred with black. The tail consists of fourteen black feathers, barred and spotted with dull orange red towards the end, and with a narrow bar of black near the tip, where it is of a pale rufous colour. The legs vary; in some they are dusky, or lead-coloured, and in others black.

The *Jack Snipe* (*Scolopax Gallinula,* Linn.). This species is commonly described as about half the size of the common snipe, and weighs about two ounces. Its length is about two inches and a half. The bill is nearly two inches long, of a lead colour, black at the point, and the upper mandible of a light colour, and the irides black. The crown of the head is black, and slightly edged with rust colour, bordered on each side with a yellowish streak, beneath which is a dusky one; and close above the eye is another streak of a light colour. From the bill to the eye is a dusky stroke. The black is varied with ferruginous brown, and dusky. The back, rump, and scapulars are of a fine, glossy, changeable green and purple, the exterior webs of the latter deep buff colour, forming the two conspicuous lines from the shoulder to the tail. The quills are dusky, and so likewise are the wing-coverts, bordered with brown. The lower breast, and all beneath, is white. The tail is cuneiform, consisting of twelve pointed dusky feathers, dashed more or less with an iron-gray. The legs are of a greenish hue. The jack snipe comes latter in the season than the common snipe, and no instances are known of its ever having remained in this country during the breeding season. It is very common in most countries of Europe, as well as in the various states of North America.

We find from the accounts of travellers and naturalists that the common snipe is almost universally distributed throughout the globe. In all the old countries in Europe, they are tolerably abundant; and in Africa, Asia, and the islands of the Indian ocean, they are likewise to be found. In the American continent they are very numerous, especially in the states of North and South Carolina. In Egypt they are found in the rice-fields or plantations in such swarms, that it is no uncommon achievement for a man to

shoot a basketful in a day. It is said, however, that the sport here is fatiguing, from the light earth of the rice-grounds being so deeply impregnated with water, that the shooter sinks at every step he takes, and sometimes above his knees. Snipes arrive in Lower Egypt at the beginning of November, and pass the entire winter there.

These birds begin to *pipe* in the first week in April. Many breed in this country. Their nests are composed of dried grass and plants, and now and then an intermixture of feathers. They lay four or five eggs—sometimes six are found—of a dirty olive-colour, marked irregularly with dusky spots. The young seem ugly and shapeless. It has been well ascertained that the mother never deserts them until their bills have become long, and of sufficient firmness to enable them to seek and procure food for themselves. When disturbed much in the breeding season, they soar very high, and the male bird will keep on the wing for an hour together, mounting like a lark, and uttering a shrill and piping noise. It then descends with great velocity, and makes a bleating sound, resembling that of a goat, while his repeated alternately round the spot which the female occupies, especially if she is then hatching her eggs.

Snipes of all kinds feed mostly on worms and insects, which abound in moist grounds and marshy localities. Snails have occasionally been found in their stomachs. Their flesh is rich and savoury; and they are cooked in the same manner as woodcocks, without extracting the entrails.

From observations made by a gentleman in Norfolk, some years ago, and furnished by Mr. Daniel, it appeared that the common snipe arrived in the vicinity of Norwich in the early part of September, and stopped for a day or two, or perhaps only for a few hours. They often came in large flocks, and lay very light on the ground. At the end of October the greatest number had made their appearance; but as soon as the cold weather commenced, they almost entirely disappeared, and returned no more until March, previous to their final departure. During the frost the spring ditches were carefully searched, which remained free of ice, and presented both food and shelter; but excepting on two or three early days of frost, very few birds were found. The forwardness or backwardness of spring seemed invariably to regulate their movements, which induced this gentleman to remark the coincidence of the time of the flowering of wild plants and that of the re-appearance of the snipes. In February a few punctually arrived, but on frost setting in, drove them back again. The marshes were searched, but not a snipe could be seen, In March they again visited the moist grounds and springs in considerable numbers, in company with a large flock of lapwings; but in a few days they left for other countries. The next spring, being a very early one, many snipes made their appearance in the first week of March; they were in flocks, and lay very light on the ground · but

in a fortnight they had all gone away. It would appear from this, that the kind of weather has a great deal to do with the flights of the snipe; and that they have a very powerful and unerring instinct which directs and guides them, as to the localities where sufficient food will be found for a certain length of time.

Snipe shooting, as we have already observed, affords a large portion of amusement to the sportsman. Mr. Thornhill considers it no bad test of a man's love of genuine sport, to feel a strong partiality for this kind of shooting. He observes:—"Snipe shooting is a sport the best calculated (grousing excepted) to try the keenness of the sportsman, to ascertain his bottom, and if he can stand labour, water, mire, swamps and bogs. He should be possessed of a strong constitution, not liable to catch cold, and have all the fortitude, as well as exertion, of a water-spaniel; he should be habitually inured to wet, dirt, and difficulty, and not be deterred by cold or severe weather." Mr. Daniel says:—"Snipe shooting, when the birds are plentiful, is an excellent diversion: they are said to puzzle the marksman by the irregular twistings of their flight when first sprung; but this difficulty is soon surmounted if the birds are suffered to reach to a certain distance, when their flight becomes steady, and easy to traverse with the gun; there is no reason to be apprehensive of their getting out of the range of the shot, as they will fall to the ground if struck but slightly with the smallest grain. Snipes, like the woodcocks, and many other birds, always fly against the wind; therefore, by keeping the wind at his back, the sportsman has this advantage of the bird when it rises, that it presents a fairer mark. These birds are scarcely good till November, when they get very fat. In hard, frosty, and more particularly in snowy weather, snipes resort in numbers to warm springs, where the rills continue open, and run with a gentle stream; these, on account of their long bills, are then the only places where they can hunt for food. Snipes will generally lie well to a pointer, and some dogs have a singular knack of finding and standing to them."

There is much contradiction among sportsmen as to the easiness of shooting snipes. Some still contend they are very difficult to bring to the ground, and others make a light matter of it. To be cool and collected is a great point gained; for where there is perturbation and flustering, the chances are very much against the shooter. The motion of the bird is irregular, and is supposed to arise from the nature of its visual organs, being so constructed as to see things in daylight very indistinctly and obscurely; and this induces those gyrations and whirling motions which prove so embarrassing to the sportsman. It must be remembered that in snipe, as well as in woodcock shooting, there is what is called a *knack* to be obtained; a rapidity of action, and promptness of aim, which practice, joined to a particular temperament of body and mind, alone secure. It has been remarked, on this subject, "It is thus we see, in some writings, that the snipe is the hardest to

hit of all birds; whereas, in others, it is said to be anything but difficult to bring down a snipe. In our opinion, however, there are two methods of hitting him with moderate certainty; the one is by snap-shooting, which is a habit gained by some, but not to be critically described by any, except we regard it as a consentaneous action of eye and hand at the same moment. The other certain mode of snipe-shooting is to put the gun into the hand of the cool and deliberate marksman, who, nothing flurried, waits his opportunity, and the moment the bird settles into its course, arrests that course by a shot." Another authority says:—"The shooter will bring down a snipe with much less difficulty at from fifteen to twenty paces than at any other distance. The aim is thus taken just before the bird begins to make its cross flights, but before it has attained its full speed. The irregularity of its flight is of little consequence during the first and second twisting before the bird is safely on the wing, since its flight is then comparatively tardy. But let the snipe fly ten yards from whence it sprang—let it be, for instance, twenty-five paces distant from the gun—it is then at the top of its speed, and in the very midst of its sidelong, elliptical gyrations, and more than a match for the majority of shooters."*

With respect to the use of dogs in snipe shooting, there is a considerable diversity of opinion among sportsmen, some dispensing with dogs altogether; while others maintain that they are not only necessary, but that some particular dogs are more to be depended on in the finding of these birds than others. For ourselves we have tried both plans, and have killed nearly equal quantities by both; therefore we are somewhat in the position of the ass in the fable, which was placed between the two bundles of hay, and did not know which to choose. Seriously speaking, however, we do think that the weight of evidence and authority are in favour of dogs, but the *kind* of dog may be safely left to the sportsman's own fancy, or the precise circumstances in which he may be placed. It has been said that even in Ireland snipe shooters not only have dogs, but beaters and markers in addition.

Mr. Thornhill relates a story of a Mr. Molloy, a Quartermaster of the 64th Regiment. While he was quartered at Genevra Barracks, Ireland, he became passionately enamoured of snipe shooting. After his duty was done, or if he could obtain special leave for a day, he regularly equipped himself for sporting; and he had always the good luck to spring his jack-snipe, at which he fired. He followed up immediately, and the bird dropped so close to him often, that he was firmly persuaded he had killed it. He used to run with breathless eagerness to lay hold of his prize; when lo! it would again rise and fly a little farther. On one day he fired *eighteen* times at it, and each time he thought he had killed it. It served him for a whole season. At length, he was one day crossing the bog in which it lay, when it rose up, and he exclaimed, "There's my old friend!" and threw a stick at it, and

* Oakleigh Shooting Code.

killed it on the spot. Whenever any of his brother officers found a jack-snipe, they were always sure to say, "There goes *Quarter-master* Molloy."

On the abundance of snipes formerly, Mr. Daniel tells us, "Snipes in the Cambridgeshire fens were, thirty years ago, most abundant; those brought to Cambridge market, which at that time were all shot birds, sold at threepence to fivepence each. In 1775, the compiler killed, in three mornings, thirty-three couple of snipes; and from having known his father's men catch them by drawing with a net in the night-time, he mentioned to a person near Milton Fen his surprise that this mode of taking them had not been resorted to. The fenman inquired what sort of net was to be used, and was told a lark-net would answer the purpose of a trial; this the fenman soon borrowed, and the first night of his making the experiment, caught as many snipes as a small hamper could contain. The practice soon became general, and the netted were so much better than the shot birds, that the latter would scarcely find a purchaser in the market. The price at Cambridge has increased to a shilling, and sometimes eighteen pence apiece. The Duke of Marlborough's gamekeeper, some years since, killed twenty-two snipes at one shot."

A French sporting writer tells us, that in the year 1793, there were such immense flocks of snipes settled along the south-eastern coast of France, that they were taken in cart-loads. They were so weak and feeble, that the peasants used to knock them down with their hands or their hats. As this occurred at the dreadful climax of the revolutionary frenzy, the country people thought the presence of these birds in such multitudes was a miracle, and very few, in consequence of this notion, were eaten.*

The localities for good snipe shooting are various. In England, Cambridgeshire, Lincolnshire, and Northamptonshire, are favourite counties, and the Essex marshes have been long known and celebrated for snipe sporting. The birds are likewise to be found in several places in the northern part of England, in Yorkshire, Durham, Cumberland, and Westmorland. They are, on the whole, more numerous in Scotland than in England. In the former country wisps of thirty and forty are not uncommon in the boggy and marshy lands, near the lochs and rivers of this part of Britain. Ireland, however, carries off the palm for the great abundance of snipes. It is no uncommon sporting achievement to kill forty or fifty brace in a few hours. They are to be met with in every section of the country. In North and South Wales there is likewise good sport. We have known twenty brace killed among the mountain bogs there in four hours, and this, too, in comparatively unfavourable weather. We can scarcely move in any direction in South Wales without meeting with vast numbers of these birds, only we must seek after and follow them in very odd places, and must never grumble to plunge up to the middle to gain our object.

* La Chasse, de Normandie, 1801.

This sport is undoubtedly a very exciting one, but it must be purchased at a certain cost of bodily labour, privation, and uncomfortableness.

---

## CHAPTER XI.

### BUSTARD SHOOTING.

The Greater Bustard (*Otis Tarda*, Linn.) is one of the rarest, and largest of British game birds. It is about four feet long, and from twenty-five to thirty pounds weight; its bill is strong, and rather convex, its eyes are red, and head and neck ash-coloured; on each side of the lower bill is a tuft of feathers, from five to nine inches long, the back of which is barred transversely with black and rust colour; the large quill feathers are brown, and the belly white. There are twenty feathers in the tail, the middle ones are of a rust colour, barred with deep black, and those on each side are white; the legs are long and naked beyond the knees, and are of a dusky colour. The bird has no hind toe, its nails are short, strong, and of considerable convexity, both above and below, and the bottom of the foot is furnished with a callous prominence, which serves the purpose of a heel. The female bird is smaller in size than the male. The crown of the head of the former is of a deep orange, crossed with transverse black lines; the rest of the head is brown. The lower part of the foreside of the neck is ash-coloured, and she is destitute of the tuft on each side of the head; in other respects her plumage resembles that of the male, with the exception that the colours of the back and wings are less vivid and glossy. The male has an appendage peculiar to himself, being a kind of *pouch*, capable of containing nearly seven pints of water, the entrance to which is immediately under the tongue. It is supposed that the bird fills this with water, to supply its wants in those dry and thirsty plains which it inhabits. Some naturalists say, that the male furnishes the female with a portion of the liquid, when she is sitting on her eggs. From the accounts of travellers, it would appear that the male bustard applies the water to a singular use in Morocco, where the hawk is employed to capture it; when it is attacked by its enemy, it squirts the water out of its pouch against its assailant, and by this device often baffles its pursuer. The female bustard makes no kind of nest, but simply scratches a hole in some dry field, drops two eggs upon the ground, as large as those of a goose, and of a pale olive brown, sprinkled irregularly with a number of small dark spots, resembling the brown colour of the plumage; she sits upon these eggs thirty days, she seems to watch them with

great jealousy, and it is said, if any one handles them in her absence she immediately abandons them.

Bustards feed on corn and vegetables of various kinds—they likewise devour great quantities of earthworms. Like the ostrich, they even swallow small pebbles, and bits of metal. Buffon relates a somewhat strange story of one that was opened before the Royal Academicians of France, in the stomach of which there were *ninety doubloons*, all worn and polished by the attrition of the coats of the stomach.

Shooting the bustard was once a very favourite sport with the gentlemen of England. All kinds of contrivances used to be employed to gain upon the wary bird; carts and coaches, in which gunners were concealed, was a favourite dodge, and Markham tells us, that in his time, nearly two centuries and a half ago, the *stalking horse* was the surest mode of capture. It was a great achievement to get a shot at the bird, and a still greater, to kill him; it was not an uncommon thing for even greyhounds to course for bustards—as they display always a great reluctance to take wing, they were often successfully overtaken by the dogs, and secured.

The *Little Bustard* (*Otis Tetrax*, Linn.)—This is a very small species of the bustard, only being sixteen inches in length, and thirty-five in breadth, with outstretched wings; its weight is about twenty-five ounces. Bewick says, "It is very uncommon in this country; we have only seen two, both of them females. It is, however, common in France, where it is taken in nets, like the partridge; but it is not an easy prey, being a very shy and cunning bird; if disturbed, it flies two or three hundred paces, not far from the ground, and then runs away much faster than any one can follow on foot. The female lays in June, to the number of three or four eggs, of a glossy green, and, as soon as the young are hatched she leads them about as the hen does her chickens, and they are able to fly about the middle of August."

The *great bustard*, half a century ago, was often met with in the southern and south-eastern counties of England, and was occasionally found upon the wolds of Yorkshire. About thirty years ago two fine male birds were shot in Northumberland, which weighed about twenty-five pounds each. Salisbury Plain has long been noted for them, but we believe, at the present hour, they are but seldom seen, even in this favourite locality. In Scotland they have not been met with for many years. There have a few stray birds been taken in the high grounds in Wales, within the last ten years. It is very common in Russia, Germany, and Tartary.

## CHAPTER XII.

### FEN-BIRD SHOOTING.

This is an extensive field of sporting recreation with the gun, and embraces an immense variety of game. It has, however, a distinctive character, and though its objects of sport are numerous, there is still such a family likeness running through them, as to warrant their being brought under one particular head of treatment.

*The Bittern* (*Ardea Stellaris*, Linn.) bears a strong resemblance to the heron family, only it is smaller, and has a different plumage. The feathers on the top of its head are black, and those on the hind head, neck, and breast, are long and loose. The general colour of the bird is a dull pale yellow, but very interestingly variegated with spots and bars of black. The greater covert and quill feathers are ferruginous, and barred with black in a very regular manner. The tail is short, and the legs of a pale green hue, the toes and claws are very long and slender, and the middle claw is serrated on the inner edge. The female is somewhat less than the male, and not of such a bright plumage, the feathers on the neck not being so long and flowing. Its bill is considerably shorter than the bill of the heron, and likewise weaker. It makes its nest among rushes and sedges, and is in all respects a regular visitor of the fen districts; it makes its nest in April. The female lays from four to six eggs, which are of a pale greenish ash colour, and she sits upon them twenty-five days. When they are hatched, the young seem naked and ugly looking, having the appearance of being all legs and neck; they never venture from the nest until about twenty days after they are hatched, during which time they are carefully watched and fed by the old birds. Their common food are slugs, small fish, and frogs. In February and March the male bitterns make a deep hollow noise, morning and evening, which ceases after the breeding season commences. This is called the *booming* of the bittern, and has been often noticed both by poets and naturalists. Col. Montague observes: "Those who have walked, on a summer's evening, by the sedgy sides of unfrequented rivers, must remember a variety of notes from different water fowl, the loud scream of the wild goose, the croaking of the mallard, the whining of the lapwing, and the tremulous neighings of the jack-snipe. But of all these sounds, there is none so dismally hollow as the *booming* of the bittern. It is impossible for words to give those who have not heard this evening call, an adequate idea of its solemnity. It is like the interrupted bellowing of a bull, but hollower and

louder, and is heard at a mile distance, as if issuing from some formidable being that resided at the bottom of the waters. This is the bittern, whose windpipe is fitted to produce the sound for which it is remarkable; the lower part of it dividing into the lungs being supplied with a thin loose membrane, that can be filled with a large body of air, and exploded at pleasure. These bellowing explosions are chiefly heard from the beginning of the spring to the end of autumn, and are the usual calls during the pairing season. From the loudness and solemnity of the note, many have been led to suppose that the bird made use of some external instrument to produce it, and that so small a body could never eject such a quantity of tone. The common people are of opinion that it thrusts its bill into a reed, which serves as a pipe for swelling the note above its natural pitch, while others imagine that the bittern puts its head under water, and then, by blowing violently, produces its boomings. The fact is, that the bird is sufficiently provided by nature for this call, and it is often heard where there are neither reeds nor water to assist its sonorous invitations. It hides in the sedges by day, and begins its call in the evening, booming six or eight times, and then discontinuing for eight or ten minutes, it renews the same sound. In Scotland, the sound of the bittern is so very common that every child is familiar with it, though the birds, from being shy, are not often seen. The poet Thomson seems to have had a very erroneous opinion of the manner in which the bird produces the noise, when he says:—

"So that scarce
The bittern knows his time with bill engulfed,
To shake the sounding marsh."

On the contrary, I have repeatedly remarked that the bittern usually booms while flying high in the air; its lofty spiral flight is, indeed, a matter of common remark—

"Swift as the bittern soars on spiral wing."—*Southey.*

A line which, I may remark, is not very ornithological, inasmuch as neither the bittern nor any other kind of bird has spiral wings. Southey, however, seems to have been well acquainted with the boom of the bittern—

"At evening, o'er the swampy plain,
The bittern's boom came far."

The shooting of the bittern can scarcely be called a sport or amusement, as their numbers are but limited, and they are seldom sought for as especial objects of game. They are easily shot. They rise heavily on the wing, and move forward in a slow and deliberate pace, and are, therefore, a good mark for the fowler. We have seen them, however, rise rapidly, and with spiral motions, and when this is the case they are not very readily shot. A double gun is of advantage in seeking for this shy bird. When wounded it fights hard, and when driven to extremity will attack a man with vigour, and the most undaunted courage, striking his legs with its bill, and even in some cases aiming a blow at his head. This bird

was once held in high esteem at the tables of the great, and is still highly prized by the real sportsman.

*The Heron* (*Ardea Major*, Linn.).—There are few enthusiasts of the gun who will not give themselves a good deal of trouble to have a shot at the heron. He is, when on the wing, a noble looking bird. The habits of this curious object of sport are very singular, but seem admirably fitted by nature for the purposes it has in view. Buffon calls it "a picture of wretchedness, anxiety, and indigence, condemned to struggle perpetually with misery and want, and sickened by the restless cravings of a famished appetite;" but all this is mere delusion. The bird is just as happy as any other bird is; and it follows its instinctive habits and purposes with the same unerring regularity which we every way see around us, in every part of the feathered creation. It is seen to stand for hours fixed like a stake to a given spot—no evidence of life in it—watching, with intense look and a fixity of purpose, for the moment the trout or the minnow shall come within the range of its long cranked neck. Its movements are among the wonders of this class of fen-birds: they display so much artistic skill in their direction and ends.

In Mr. Wood's edition of "White's Selborne," he says, in a note, "The heron or hern is still not uncommon in England, and may be often seen near water. In the summer of this year, 1853, while passing Canterbury on the South Eastern Railway, I saw four herons standing close on the banks of the Stour. They of course took to flight as the train passed by, and were accompanied by three magpies, which started from the same spot. The common crow is very apt to attack the heron as it flies along. I have seen an unfortunate heron passing by Lord Barrington's estate, near Shrivenham, completely mobbed by crows, who continued their annoyance until the birds were out of sight . . . . There are upwards of thirty regular heronries in England . . . This bird will carry away an amazing quantity of shot if fired at. I once succeeded in surprising a heron on the banks of the Isis, as it was standing on one leg and watching the water. I was in a boat at the time, having a gun under a cushion for the benefit of the water-fowl. The heron's wings looked so impenetrable, that before firing I roused the bird, and caused it to open its wings ready for flight, when the entire charge came against its side with a sound audible in the boat. The heron, however, flew off apparently unconcerned, and continued its flight far over the fields with undiminished strength."*

The voracity of the heron is proverbial. It is surprising the quantity of fish they will devour in twenty-four hours; some young birds have been known to consume fifty small roach in a day. These birds make their nests of pieces of stick, lined with wool and feathers, and the female lays five or six eggs, of a pale green

* Wood's Edition, Routledge and Co. London, 1854.

colour. During incubation, the male bird passes much of his time perched by the side of the female. They desert their nests during the winter season, except in the month of February, when they pay them again a visit, and put them into a state of repair.

Although the heron is a greedy eater, it is long, lank, and awkward in shape. It seldom weighs more than three or four pounds, notwithstanding it measures about three feet in length, and the breadth of its wings, from tip to tip, is above five feet. The bill is full six inches long, straight, pointed, strong, and serrated; and the upper mandible is of a yellowish horn colour, running dark towards the ridge, and the under one is yellow. A bare skin is extended from the beak towards the eyes, the irides of which are yellow, which gives them a fierce and penetrating aspect. The brow and crown of the head are white; the eyes bordered by black lines, which stretch along to the nape of the neck, where they join a long, flowing, pendant crest of the same colour. The upper part of the neck, in some birds, is white, in others pale ash coloured; and the fore part, lower down, is spotted with a double row of black feathers, those falling over the breast being long, loose, and unwebbed. The shoulder and scapular feathers are likewise of the same kind of texture, of a gray colour, generally streaked with white, and spread over its down-clothed back. The ridge of the wing is white, coverts and secondaries lead-colour, and bastard wings and quills of a bluish black, as are also the long soft feathers which take their rise on the sides under the wings. These fall down, meet their tips, and hide all the under parts; the latter, next the skin, being covered with a thick, matted, dirty-white down, except about the belly and vent, which are almost bare. The tail is short, and is constituted of twelve feathers of a brownish-red colour. The legs are dirty-green, long, bare above the knees, and the middle claw is jagged on the inner edge.

The female bird differs from the male in not possessing the long flowing crest, or the long feathers which ornament the breast of the male. The entire plumage of the female is comparatively more subdued and uninteresting.

Shooting the heron may generally be referred more to chance than any settled plan of sporting with the gun. The extreme shyness and cunning of the bird makes it difficult to get within a shooting range of it, and it is commonly only by accident that the sportsman falls upon it unawares and secures it. When not fatally wounded at first, it will turn upon both the shooter and the dog, if he has one; and with its hard pointed bill can inflict a sharp wound. We once shot one in the north of England, which was merely winged. When it fell, a trout of ten inches dropped out of its mouth. On our dog approaching it, it was struck upon the forehead by the bird's bill, and a wound more than half an inch deep inflicted upon it. Such occurrences are far from being rare in the shooting annals of this curious specimen of the fen-birds.

In England herons were for centuries considered royal game, and

protected as such by the law. Whoever destroyed their eggs was liable to a penalty of twenty shillings for each offence. When heron-hawking was a favourite diversion among the nobility and gentry, the bird was considered a rich dainty at their tables.

The *Great White Heron* (*Ardea Alba*, Linn.) is seldom found in Great Britain. It is much about the same size as the common heron, only its legs are a little longer. It is devoid of a crest, and its plumage is entirely white; its bill is yellow, and its legs black. It is found in considerable numbers in the Russian dominions, and in most of the countries contiguous to the Caspian and Black Seas and the lakes of Tartary. It is met with in the United States of America from June to October, and is often shot in these localities.

The *Night Heron* (*Ardea Nycticorax*, Linn.) is only about twenty inches in length. The bill is nearly four inches long, slightly arched, strong, black, and inclining to yellow at its base. The skin from the beak round the eye is bare, of a greenish hue, and its irides are yellow. A white line is extended from the beak, and over each eye a black patch, glossed with green, covers the crown of the head and nape of the neck, from which three long and narrow white feathers, tipped with brown, hang loose and waving. The hinder part of the neck, coverts of the wings, sides, and tail, are ash-coloured, and the throat is white. The fore part of the neck, breast, and belly, are of a yellowish white, approaching to buff; the back is black, and the legs a greenish yellow. The female bird is nearly of the same dimensions, but she differs considerably in her plumage from the male. The former is less bright, distinct, and vividly portrayed; neither has she the delicate plumes which flow from the head of the male.

The night heron frequents the sea-shores, rivers, and inland lakes and marshes, and lives upon crickets, slugs, frogs, reptiles, and fish. It remains concealed during the day, and does not roam abroad until the approach of nightfall. It is heard and known by its rough, harsh, discordant cry, which is by some compared to the noise made by a person striving to vomit. She builds her nest on rocky cliffs, and lays three or four white eggs. Birds of this kind are very difficult to shoot, on account of their extreme caution and wariness.

The *Ruff* (*Tringa pugnax*, Linn.)—This is a fen-bird of a peculiar kind. The length of the ruff is about twelve inches, and its weight ranges between six and eight ounces. The bill is about an inch long, and is tipped with black, but reddish at the base. The distinctive mark which separates the male from the female is the singular wide-spreading, variegated tuft of feathers, which in the breeding-season grows out of their necks. This tuft, a portion of which stands up like ears behind each eye, is in some black, in others black and yellow, and in some rather rare cases white, rust-colour, or barred with glossy violet, black and white. The entire face of the bird is covered with reddish tubercles, or pimples; the wing coverts are brownish ash-colour; the upper parts and the breast are generally marked with transverse bars, and the scapulars with

oundish shaped glossy black spots, on a rusty-coloured ground. The quills are dusky; the belly, vent, and tail coverts are white. The tail is brown, and the four middle feathers in it are barred with black. The legs are of a yellowish hue. The male does not acquire the ornament of his neck till the second season, and before that time is not easily distinguished from the female, except by being larger. After the moulting, at the end of June, he loses his ruff and the red tubercles on the face; and from that time until the spring of the year, he again, in the plumage, looks like his mate. This singular tuft in the male bird, it has been remarked, is not a warlike ornament, but only a kind of defensive armour, fitted, by the length, stiffness, and closeness of the feathers, to ward off the blows of an assailant.

The *reeve*, or female, is smaller than the ruff, and is entirely destitute of the collar of feathers around the neck. She is brown in the upper parts, and the middle of each feather is dusky, and the larger quills are of the same hue. The secondaries are of rufous brown, and the legs are yellowish. She lays four eggs in the grass, the ground-colour of which is white, with iron-coloured spots. There is a kind of understood rule among sportsmen not to take the reeves, for two reasons: first, because they are smaller; and, secondly, by sparing them the breed is increased. When the reeves arrive, the male bird or ruff takes to what is called *hilling;* that is, he chooses a peculiar spot for love adventures, which is generally some elevated locality. Each ruff is said to take possession of some small mound, or part of a hill, which he wears quite bare by *hilling*, or wearing it away with his feet. Mr. Daniel tells us that "When a reeve alights, the ruffs immediately fall to fighting; they use the same action in fighting as a game-cock—place their bills to the ground, and spread their ruffs. When a fowler discovers one of these *hills*, he places his net over-night, which is of the same kind as those called *clop*, or day-nets, only it is generally single, and is about fourteen yards long and four broad. At daybreak he resorts to his stand, at the distance of one, two, three, or four hundred yards from the nets—the later the season the shyer the birds, and he must keep the further off. He then makes his pull, taking such birds as are within reach; after that he places his stuffed birds, or *stales*, to entice those that are continually traversing the fen. A fowler has been known to catch forty-four birds at the first haul, and the whole taken in the morning were six dozen. When the *stales* are set, seldom more than two or three are taken at a time. An experienced fowler will take forty or fifty dozen in a season; they are fattened for the table with bread and milk, hempseed, and sometimes boiled wheat; but if expedition is required sugar is added, which in a fortnight makes them a lump of fat; they then sell for half-a-crown each. Great nicety is required to kill them at the highest pitch of fatness; if that is passed over, the birds are apt to fall away. The method of killing them is by cutting off the head with a pair of scissors;

the quantity of blood that issues is very great, considering the size of the bird. Like the woodcock, they are dressed with their intestines; and, when killed at the critical time, epicures declare them to be the most delicious of all morsels."

These birds leave Great Britain in the winter, and are then supposed to associate with others of the fen-bird species, among which they are no longer recognised as the ruff and the reeve. In the spring, as soon as they arrive again in England, and take up their residence in the fenny districts, where they were bred, they then become the objects of the fowler's and the shooter's sport.

The autumnal catching is commonly about Michaelmas, at which time few old males are taken, from which an opinion has been entertained that they migrate before the females and young. It is, however, more probable that the few which are left after the spring fowling, like other polygamous birds, keep in parties separate from the female and her brood till the return of spring. That some old ruffs are occasionally taken in the autumnal fowling we have the assertion of experienced fowlers; but we must admit others declare none are taken at this season. It must, however, be recollected that in the autumn the characteristic long feathers have been discharged, and consequently young and old males have equally their plain dress; and this circumstance may tend to give rise to the contrary judgments on the matter. It does not appear to be the opinion of fowlers that the males are more than one season arriving at maturity, because the ruffs taken in the spring, destitute of the characteristic long feathers, which constitute their principal distinction, are comparatively few to those possessing the ruff; the opinion, therefore, that these ruffless males are birds of a very late brood of the preceding season, is a reasonable conjecture.

The shooting of the ruff and reeve is confined to particular localities in England; chiefly to the fens of Lincolnshire, Cambrigeshire, Isle of Ely, and to the East Riding of Yorkshire. There are likewise a few to be found in the fenny districts about Bridgwater, in Somersetshire, but these having been considerably drained of late years, the birds are now scarcer. In the marshy lands between Boston and Spilsby, they may yet be met with in considerable numbers. These birds are tolerably easy shooting—no particular dexterity with the fowling piece is required.

The *Knot* (*Tringa Canutus*, Linn.) is another of the sporting fen-birds. It is associated with royalty. We are informed from history, that King Canute was so fond of eating them, that the bird itself became known by the name of knute, or knout, as this king's name was expressed by his subjects, and, in the course of time the word became shortenened to *knot* when applied to the bird. It measures about nine inches, has a tail of a dusky brown colour, of rather more than an inch long. The extent of the wings is about fifteen inches; and its weight is about two ounces eight drachms. The bill is one inch and three-eights long, black at the tip and dusky, fading into orange towards the base. The tongue is nearly

of the same length, and is sharp and horny at the point. The sides of the head, neck, and breast, are cinereous, edged with ash-coloured gray; and the chin is white, with a stroke of the same colour passing over each eye. All the upper parts of the plumage are darkish brown, but more deep and glossy on the crown of the head, back, and scapulars, and each feather is edged with ash or gray. The under parts are a cream-coloured white, streaked or spotted with brown on the sides and vent. The great coverts of the wings are tipped with white, which form a bar across them when extended; and the legs are of a yellowish hue, and short, not measuring more than two inches and an eighth, from the middle of the toe to the knee. The thighs are feathered nearly to the knee, and the toes are divided without any connecting membrane.

These birds are more easily taken with nets than shot. When the sportsman is following them with the gun, they generally run very fast; and it is always a matter of considerable labour and time before he can make them rise within a fair range. Their motions are quick when on the wing—a little whirling and unsteady. When a severe frost sets in, they betake themselves to the sea shore, where they are easier killed with the gun, than upon the fenny marshes. They are netted by the fowlers in Lincolnshire, in great numbers. They are decoyed into the nets by carved wooden figures painted to represent themselves, and placed within them, much in the same manner as the ruff is taken. The knot is likewise fattened for sale, and esteemed by many equal to the ruff in delicacy of flavour. The best season for its capture is from August to November.

The *Red Shank or Pool Snipe* (*Scolopax Calidris*, Linn.)—This fen-bird is rather a favourite with many sportsmen, as it affords them a good deal of amusement at certain periods of the year. It is twelve inches long, and twenty-one broad, and weighs about five ounces and a half. The bill from the tip to the corners of the mouth is nearly two inches long, blackish at the point, and red towards the base. The feathers on the top of the head are dark brown, edged with a pale rufous hue. Over each eye there is a whitish line, from the corners of which dark-brown spots extend to the beak. The irides are hazel. The hinder part of the neck is obscurely spotted with dark brown, on a rusty ash-coloured ground. The throat and fore part are more distinctly marked or streaked with spots of the same colour. The breast and belly are white, tinged with ash, the spots are thinly distributed, and are shaped something like the heads of arrows or darts. The general appearance of the upper parts of the plumage is glossy olive brown, and those on the shoulders, scapulars, and tertials are transversely marked with the same coloured waved bars, on a pale rusty ground. The bastard wing and chief quills are dark brown; and the inner webs of the latter are deeply edged with white, freckled with brown; and some of these quills next the secondaries are beautifully marked near their tips with narrow brown lines, exactly

pointed and shaped to the form of each feather. Several of the secondaries are barred in the same fashion, and some are white. The back is white; the tail feathers and coverts are elegantly marked with alternate bars of dusky and white. The middle ones are slightly tinged with rust colour. The legs are red, and measure from the end of the toes to the upper bare part of the thigh, four inches and a half.

The red shank is of a solitary character, being mostly seen alone, or in pairs only. It is an inhabitant of the fenny districts, of the wet and marshy lands, where it breeds and rears its young. It lays four eggs, of a whitish hue, tinged with olive, and freckled with irregular spots of black, chiefly on the broad end of the egg. It flies round its nest when disturbed, making a noise similar to the lapwing. The red shank is not very easily shot. Its flights are rapid, and its movements spiral. It affords, however, excellent sport to a young shooter.

The *Godwit* (*Scolopax Ægocepala*, Linn.)—This is a fen bird, of which there are several varieties, or at least there is a considerable difference of plumage among the class; and this circumstance has given rise to many attempts among sportsmen and naturalists to increase the number of species. The length of the bird, from the extreme end of the bill to the tip of the tail, is twelve inches, and to the end of the toes nearly fifteen inches. Its breadth is twenty-one inches and a quarter, and its weight is five ounces and two drachms. The bill is of a slender conformation, measuring two inches and a half from the corners of the mouth to the tip, and is for half its length, nearest to the base, of a reddish cast, and the other part black. The irides are hazel. The head, breast, neck, and belly, are spotted in streaks, mottled and barred with dingy ash-brown and dull white, which become darker towards the hinder part of the neck. The throat is white, and lines of the same colour pass from the upper sides of the beak over each eye, from the corners of which two brown ones are extended to the nostrils. The shoulders, scapulars, lesser coverts, and tail, are of a glossy olive-brown. The feathers on all these parts are indented on the edges, to a greater or less extent, with triangular-shaped white spots. The back is white, and the rump barred with waved lines of ash-coloured brown and dingy white. The feathers about the vent are marked in a similar manner, but with a larger proportion of white in them. The tail and coverts are likewise barred with narrow waved lines, of a dull ash-colour, and in some specimens are nearly black and white. Five of the chief quills are dark brown, tinged with olive; the shaft of the first quill is white; the next six are, in the male, rather deeply tinged with white, and slightly spotted, barred with brown. The secondaries, as far as uncovered, when the wings are extended, are of the same snowy whiteness as the back. The feathers which cover the upper part of the thighs, and those near them, are bluish, with a reddish or vinous hue. The legs are of a deep orange red, and measure from the end of the

middle toe-nail to the upper part of the thigh, five inches and a half.

Colonel Montague says there is a larger kind of *godwit* than this; one weighing twelve ounces, and measuring about eighteen inches in length. The godwit was known formerly as a permanent resident with us, resorting to the fens from the moors, where they are taken by means of a *stale* or stuffed bird, after the manner of the ruff and reeves. Towards the winter the goodwit may be seen at the mouths of many of our large rivers, and, as we understand, it was then a very popular object of pursuit to water-fowl shooters. At Hudson's Bay it packs in such numbers, that there have been fifty and sixty of them killed at one shot. There is another variety of the godwit besides that above mentioned, having the greater covert of its wings so deeply margined with light gray brown as to appear almost all white at a distance, and the sides of the body have a few long streaks of brown. The bird is met with in various parts of Europe, Asia, and America; and in Great Britain, in the spring and summer, it takes up its residence in the fenny districts and marshy grounds, where it rears its young, and feeds upon small worms and insects. During these seasons it only removes from one boggy locality to another; but when severer frosts come in winter, it betakes itself to the salt-marshes and sea-shores. The flesh of the godwit is highly esteemed by epicures, and sells at a high figure.*

The *Wheatear* (*Motacilla Œnanthe*, Linn.)—This is a small bird for small sportsmen. It is often shot on the Brighton Down, and is taken there, and in some other neighbouring localities, in great numbers, by means of two turfs placed on edge, at each end of which a small horse-hair noose is fixed to a stick, which the bird, either in search of food or to evade a storm of rain, attempts to get under, and is caught. Colonel Montague says, "In confinement they are almost continually in song, and sing by night as well as day; they have a very pleasant, variable, and agreeable song, different from all other birds; sometimes it is very loud, and they continue it a great length of time, not continually breaking off like a robin-redbreast and some other birds; but their winter song is best and most varied." The following beautiful lines on this interesting migratory bird, are from the pen of Miss Charlotte Smith:—

"From that deep sheltered solitude
Where, in some quarry, wild and rude,
Your feathered mother reared her brood,
Why, pilgrim, did you brave
The upland winds, so bleak and keen,
To seek these hills, whose slopes between,
Wide stretched in gray expanse, is seen
The ocean's toiling wave?

* Bewick, Montague, and Blane.

"Alas! and has not *instinct* said,
That luxury's toils for you are laid,
And that, by groundless fears betrayed,
You ne'er perhaps may know
Those regions where the embowering vine
Loves round the luscious fig to twine,
And mild the suns of winter shine,
And flowers perennial blow?

"To take you shepherds' boys prepare
The hollow turf, the noose of hair;
Of those weak terrors well aware,
That bid you vainly dread
The shadows floating o'er the downs,
Or murmuring gale that round the stones
Of some old beacon as it moans,
Scarce moves the thistle's head.

"And if a cloud obscures the sun,
With faint and fluttering heart you run,
And to the pit-fall you should shun
Resort in trembling haste;
While on the dewy cloud so high,
The lark (sweet minstrel of the sky)
Sings in the morning's beamy eye,
And bathes his spotted breast."

The *Landrail* or *Corncrake* (*Rallus Crex*, Linn.)—We have known many keen sportsmen rather fond of landrail shooting, not so much from the abundance of what may be called sport, if the number of birds captured is to form the estimate, but from the number of *disappointments* which they experienced. Tantalizing is an element in fowling amusements of considerable value. It would not do to have things all our own way; there would then be no *sport*, in the proper sense of the word. To those minds who like a little excitement and drollery with their shooting excursions, we would recommend them to set about the pursuit of the corncrake. We have ourselves spent many an agreeable hour in rambling after them, and often without being able to take one of them.

The landrail is rather more than nine inches long, and its general bulk of body is considerably compressed. The bill is light brown, and its eyes hazel. Most of the feathers on the upper part of the plumage are of a dark brown hue, edged with pale rust; both winged coverts and quills are of a deep chestnut colour. The fore-part of the neck and breast are pale and ash, and a streak of the same colour extends over each eye, from the bill to the side of the neck. The belly is a yellowish white, and the thighs, sides, and vent, are marked with faint rusty-coloured bars. The legs are a pale flesh red.

These birds make their appearance about the same time as the quail, and frequent the same localities, and hence, in some countries, the landrail is called the king of the quails. Its cry is well known, and when once heard cannot be easily forgotten. It shelters among the long grass, and is rarely seen, for it invariably skulks among the thickest parts of the herbage, and runs so quickly through it, that it is, in nine cases out of ten, impossible to overtake it. When hard pressed by a dog, it will sometimes stop short and squat down, by which device the dog overshoots the spot, and loses the trace of it. It seldom springs but when driven to extremity, and generally flies with its legs hanging down, but never to any great distance. When it alights, it sets off running with surprising speed, and before the fowler reaches the spot, is far out of his reach.

The nest of the landrail is made of dry grass, and a few soft leaves, and a little moss mixed up with the whole. It is commonly embedded in some hollow part of the surface of the field, but occasionally it is met with on high and even ground. The female lays ten or twelve eggs of a dull white colour, and the young, as soon as they escape from the shell, run with surprising swiftness.

This bird leaves the island before the winter, and repairs to other countries in search of its food, which consists chiefly of slugs, of which it destroys a prodigious quantity. It likewise devours worms and insects, as well as seeds of various kinds. On its first arrival in England, it is so lean as to weigh less than six ounces, from which one would conclude that it must have come from very distant parts; before its departure, however, it has been known to exceed nine ounces. Its flesh is considered a great delicacy.

Mr. White says—"A man brought me a landrail, or daker-hen, a bird so rare in this district that we seldom see more than one or two in a season, and those only in autumn. This is deemed a bird of passage by all the writers, yet, from its formation, seems to be poorly qualified for migration; for its wings are short, and placed so forward and out of the centre of gravity, that it flies in a very heavy and embarrassed manner, with its legs hanging down, and can hardly be sprung a second time, as it runs very fast, and seems to depend more on the swiftness of its feet than on its flying. When we came to draw it, we found the entrails so soft and tender, that in appearance they might have been dressed like the ropes of a woodcock. The craw, or crop, was small and lank, containing a mucus, the gizzard thick and strong, and filled with small shell-snails, some whole, and many ground to pieces, through the attrition which is occasioned by the muscular force and motion of the intestine. We saw no gravel among the food."

That the bird is a migratory one there can be little doubt, though from its conformation it seems ill adapted for any long and extensive flights. Its wings are short, and they are not placed in the centre of gravity. Its unwillingness to rise upon the wing arises from its slow and sluggish disposition, and its great timidity, for it

will sometimes squat so closely to the ground as to suffer itself to be taken up by the hand, and yet it will at times run with prodigious swiftness.

*The Plovers and their varieties.*—These are a numerous family, and are not destitute of interest to the sportsman.

*The Great Plover.* (*Charadrius Œdicnemus.* Linn.)—Some sporting writers call this the *stone curlew,* and Norfolk plover, and consider it a diminutive type of the bustard. It is about sixteen inches long, bill of a moderate length, eyes and eyelids of a pale yellow hue, with a pale streak above and below, which forms a very characteristic mark. The upper parts of the body are tawny brown, and on each feather there is a dark streak down the centre. The fore part of the neck and breast are nearly of the same colour, but much paler. The belly, thighs, and vent, are of a pale yellowish white, and the quills are black. The tail is short and rounded, and a dark band crosses the middle of each feather. The tips are black, and the rest white: the legs are yellow, and naked above the knees, which are very thick, as if swollen, and its claws are black.

This bird is found in considerable numbers in Norfolk, and in some of the more southern counties of England. It is not known in the northern parts of the island. It frequents dry and stony places, by the sides of sloping banks. It makes no nest; the female lays two or three eggs on the bare ground, sheltered by a stone, or in some small hole formed in the sand. The eggs are of a dirty-white colour, marked with deep red spots, mixed with slight streaks. Although this bird has great power of wing, and flies with great strength, it is seldom seen during the day, except it is surprised, when it springs to some distance, and commonly makes its escape before the sportsman comes within gun-shot. It runs along the ground nearly as swiftly as a dog. After running some time, it stops short, holding its head and body still, and on hearing the least noise it squats close on the ground. In the evening it comes out in quest of food, and may then be heard at a great distance. Its cry is singularly hoarse, and has been compared to the turning of a rusty handle. Its food consists chiefly of worms. It is said to be tender and savoury eating when young, but when aged to be dry, hard, and black. In White's *History of Selborne,* it is stated that the young run immediately from the nest almost as soon as they are excluded, and that the female leads them to some stony field, where they bask, skulking among the stones, which they resemble so closely in colour as not easily to be discovered.

This bird is migratory. It arrives in this country in April, and remains all the spring and summer, and at the commencement of autumn prepares to take leave by getting together in flocks. It is supposed that these plovers retire to Spain, and frequent the sheep-walks with which that country abounds.

These birds are difficult to approach, and tantalize both the gunner and his dog. We happen to know one sportsman who was

so lucky as to shoot three in one day, but he had to toil hardly for his prize.

*The Lapwing, or Pewit.* (*Fringilla Venellus.* Linn.)—This is a common bird among sportsmen; it falls in our way in every direction, where there is poor, barren, and moist land. Its weight is about eight ounces. The plumage, taken altogether, is beautiful, and the male and female greatly resemble each other, the latter, however, being rather the smaller of the two. They live mostly on worms, and when it visits, at particular seasons, the sea-shore, it then lives on an abundant supply of *mollusca*. It is a well-known bird, chiefly by its singular cries when flying, and its motions are agile and frolicsome. The female lays four eggs, of a dirty olive colour, spotted with black, which she deposits in some small indentation in the ground, having previously made a kind of rude nest, composed of a little dry grass and heather. The young brood set out on their travels as soon as they leave the shell, and the parent bird displays a great deal of tenderness and solicitude over them. When a stranger is near, or even if he be a quarter of a mile off, she raises an alarm by rising in the air, and making many circumvolutions, both to attract and distract his attention. When an enemy approaches near to her resting-place, where her young are crouched, she will often alight on the ground, and run among our feet, and feign lameness, very much in the same manner as partridges do under the same circumstances. Buffon says, that about the latter end of July the lapwings have their gatherings, both old and young. They hover for some time in the air, at a considerable elevation. On these occasions they perform so many and such regular evolutions, that some writers have supposed that they are drilling their young in the art of flying.

At certain seasons these birds search the dry heather of the downs for insects and grubs; and not long after they are found feeding on shell-fish in the moist and swampy ditches. They are fine eating, and their eggs bear a high price in the market.

The shooting of them in the summer months is a fine recreation. It requires a peculiar knack to bring them down with certainty. The rapidity with which they vary their position when on the ground, seldom admits of a grand combination for a sitting, or rather a running shot. On the whole, when on the wing, their mode of flight is favourable to the shot telling upon them in vital quarters. No. 4 shot is generally recommmended for this bird.

The *Golden Plover* (*Charadrius Pluvialis*, Linn.)—This bird is described as being about seven or eight ounces in weight, and its length about ten inches and a half. The bill is a little more than one inch in length, dusky in its hue. The irides are hazel. The general plumage above is dusky, spotted with greenish yellow, brighter on the back and scapulars, and palest on the wing-coverts. The sides, head, and neck of the body are lighter-coloured; and the middle of the belly and vent are white. The quills are dusky.

slightly margined at the tip with gray. The tail is dusky, spotted with yellow, and of a dull white hue. The legs are black.

The golden plover is very common in this country, and indeed in almost all the other countries in Europe. In America it is very numerous, from Hudson's Bay as far as Carolina, migrating from one locality to another, according to the seasons that produce its food. The male and female are very nearly alike in size and plumage. In young birds the yellow spots are not very prominent, as the plumage at this period of their growth inclines more to a gray hue.

These plovers used formerly to be killed in great quantities by means of a stalking horse. If you fire at these birds as they fly over you, they will dart down for the moment, and spread in every direction; so that by taking a random shot with your first barrel, you may often bring down the birds to a fair one for the second.

The *Gray Plover* (*Tringa Squatarola*, Linn.)—Authors and sportsmen differ in their classification of this bird; some making it a lapwing, and some a species of sand-piper. It is about eleven or twelve inches long, and varies from twenty-four to twenty-five broad. Its general weight is about seven ounces. Its bill is black: the head, back, and wing-coverts, are of a dull dusky brown, edged with greenish ash-colour, and some with white. The cheeks and throat are white, and marked with oblong dusky spots. The belly, sides, and rump, are white, the sides being marked with a few scattered dusky spots. The outer web of the quills are black; and the lower parts of the inner webs of the first four are white. The feathers of the tail are marked with alternate bars of black and white. The legs are of a dull green hue, and the hind toe is small.

The gray plover is not very common in Great Britain. It is occasionally met with in large flocks on the sea-coast. Its flesh is esteemed a great delicacy.

In cold and frosty weather these birds seek their food on lands near the sea-shore, and in open weather they frequent ploughed fields, especially if sown with grain. After feeding they fly for some watering spot, where they wash their beaks and feet, and seem to delight themselves much in this habit. In the night-time they run up and down, feeding on the worms which are then out of the ground, and of which they devour a great quantity. Mr. Daniel says that "at this time they always make a small cry, as if to keep their flock together till day-break, when they unite and fly to the coast. They are sometimes taken in nets at their first coming, and the fowler is cautious to set his nets to play with the wind. For instance, when the wind is easterly, they may fly westerly. The north-west is the worst wind to take them; all sea-fowl fly against the wind whenever they design to rest on the land. The preferable places for setting the nets are in large common fields of green corn, and near to water. Their flesh is very delicate. In Carolina they are seen in the valleys, near the mountains, in great

numbers, but seldom alight. They are, we are told, very common in Siberia, appearing there in autumn in vast flocks, coming from the extreme north, where they breed."

The bird is very common in Ireland. They arrive there in immense quantities. They are difficult to get within gun-shot, being wary and extremely shy.

The *Water-rail* (*Rallus Aquaticus*, Linn.)—This is a curious specimen of the fen-bird. He resembles the landrail in general appearance and figure, but is quite distinct in his habits and instincts. The water-rail is one day crouched in the long grass of a high district, and in the next he is squatted on, or flying about, the marshy and boggy grounds. When hunted closely he may be readily sprung, and makes a passable shot.

Colonel Montague says of this bird,—"It seldom takes wing, but dives on the least alarm, and will remain under water, amongst the reeds or other aquatic plants, with only its bill above for respiration. Its nest is formed, like the rest of the grebes, of a prodigious quantity of flags, or other water plants, but is generally fastened to the reeds or flags, in order to prevent its being carried away by the current. Temminck gives a similar statement. The eggs are five or six in number, of a dirty white; the shape oblong, and less than those of the pigeon. These are generally covered with weeds, so that when the bird quits her nest suddenly they are not exposed to view. In large rivers, these birds are frequently devoured by pike and trout while they are diving in pursuit of small fish. We once took from the stomach of the last a water-rail weighing fifteen ounces, the trout weighing only four pounds. After the breeding season, the bird is frequently found in some of our inlets of the sea, where it is said to feed on shrimps."

The *Gallinule, or Moorhen* (*Fortica Chloropus*, Linn.)—This is another fen-bird which engages the attention of young and amateur sportsmen. In many of its habits it is very like the water-rail. The moorhen is not met with in any great numbers; but they are scattered here and there over almost every country. It is not ascertained whether they migrate, or not; but it is well known that they change their place according to the seasons of the year; frequenting elevated tracts in summer, and more sheltered ones in the winter. It is very common in Great Britain, and sportsmen meet with it on the borders of rivers and ponds, where willows and sedges grow. Mr. Daniel says, "It is like the water-rail; it conceals itself during the day; in the evening it runs and skulks by the margin of the waters, among the roots of the bushes, oziers, and long loose herbage which overhang the banks, in quest of its food, which consists of insects, worms, aquatic plants, and seeds; it will likewise pick up corn from the neighbouring stubbles; it is at all times very good eating, but from September to December the flesh is extremely delicious."

The nest of the female moorhen is made of reeds and rushes,

pretty closely woven together. It is placed in some corner or chink by the side of water, or upon the stump of an old tree root. She lays seven eggs, which are about two inches in length, of yellowish white hue, marked with a good many irregularly placed spots of a reddish colour. Some writers affirm that during incubation, she never leaves the nest without covering the eggs with leaves. She has two, and sometimes three hatchings during the summer. The young ones take to the water very soon after they leave the shell.

The length of the bird is about fourteen inches, and the breadth twenty-two. It weighs from twelve to fifteen ounces. The bill is red, with a greenish yellow tip, and about an inch long. The head is small and black, except a white spot under each eye. The irides are red. The colour of the plumage is sooty-black, tinged with shining olive green. The outer edge of the wing, outside feathers of the tail, and under-tail coverts, are of a dirty white appearance. The legs of a pale yellow to dark green. Their toes are very long, their sides are broad, and furnished with membraneous edgings, which enable the moorhen to swim, and run rapidly over the surface of slimy mud. Its feathers are thickly set, and bedded in down.

The moorhen is difficult to shoot in the water; it dives the moment it sees the flash of the gun. The best method of killing it is to aim a little below it in the water; this is often found effectual by sportsmen.

The *Coot* (*Fulica Atra*, Linn.)—This bird is well known throughout England, and permanently resides here. Its common weight is about twenty-eight ounces, and it is fifteen inches in length. The bill is of a greenish white hue, and about an inch and a quarter in length. The irides are red. The upper portion of the plumage is black, except the outer edges of the wings, and a spot under each eye, which are white. The under parts of the body are of a hoary dark ash or lead colour. The skin is protected with a coat of thick down, and covered with feathers closely bedded together. The thighs are placed far behind, and are strong, fleshy, and yellow above the knees.

The common coot has so many features in unison with the water-rail and moorhen, that many writers have considered them as belonging to the same species. Others again describe the coot as a distinct genus, chiefly on account of its being fin-footed, and from its constant attachment to the water, which it seldom leaves. With this bird naturalists commence to arrange the general tribe of swimmers, and place it among those that are the most completely dependent upon the watery element for their subsistence. It swims and dives with as much ease as almost any other of the aquatic tribes, and, also, like those which seldom venture on land, it is a bad traveller, and may be said not to travel, but to splash and waddle between one water and another, with a laboured, ill-balanced, and awkward gait.

The *Greater Coot* (*Fulica Aterrima*, Linn.)—This bird is of a

larger size than the last, but differs little in colour or plumage, except its being a shade darker. It is found in Lancashire, and in Scotland. In many sections of the European continent these birds are very plentiful. There is a curious anecdote told of a bald coot, that built her nest in Sir William Middleton's lake, at Belsay Castle, in the county of Northumberland. The rushes of which it was constructed having been loosened by a high wind, the nest was driven about, and floated upon the surface of the water, in every direction, notwithstanding which, the female continued to sit, and brought forth her young upon her moveable habitation.

For cooking these birds the following recipe has been given from high authority. After picking them, take off the black down, by means of powdered black rosin and boiling water, and then let them soak all night in cold spring-water. This process makes them look as delicate as a chicken, and to become tolerably tender and juicy. Unless this be done, the skin, in roasting, becomes oily, and has a strong fishy taste and smell: and when taken off becomes dry, and good for nothing. But, after all, the best method is to skin them at once, and after soaking them twenty-four hours in cold spring-water, repeatedly changed, they can be made into a pudding or pie, or into soup. By these means, the skin is got rid of, without losing the juice of the flesh; and their fishy taste is, in a great degree, drawn off by steam.

Mr. Daniel says,—"The female makes her nest in the rushes, surrounded by the water, with a large quantity of coarse dried weeds matted together, and lines it with fine soft grass. She lays from twelve to fifteen (some say eighteen or twenty) eggs, about the size of a pullet's, and of a pale brownish colour speckled with numerous small dark spots, which at the thicker end seem as if they had run into each other, and formed bigger blotches. So soon as the young quit the shell, they plunge into the water, and dive and swim with much ease; but they still gather together about the mother, take shelter under her wings, and do not forsake her for some time. From the circumstance of coots laying so numerously, and hatching twice in the season, they might be expected to be more abundant; but they are at first covered with a sooty-coloured down, and are of a shapeless appearance; and while in this state, and before they have learned from experience to shun their foes, the moor buzzard, kite, and other of the hawk tribe, make dreadful havoc among them. The pike is likewise an indiscriminate devourer of these birds. The young coots are extremely good put into pies, or boiled with onions, like rabbits; and in the winter, when fat, and they haunt the sea-shore, they are of as high flavour and equally as pleasant to taste as the widgeon."

The coot is a difficult bird to flush, and to obtain a fair flying shot at. The suspicious and stealthy habits of these birds keep them for ever out of sight, and dogs are seldom able to make much impression upon them in rousing them from their lurking holes. We have seen them pursued in France by two shooters, one on

each side of a narrow and sedgy stream, when, with the addition of a couple of industrious dogs, execution is sometimes done, and a few brace bagged in the course of a day; but it is only in some favoured locality that success can be realized even in that country, where the birds are more numerous than they are with us. It is not often that these birds are regularly sought after by gunners in England; the shooting of them belongs rather to the stray or catch-luck of the sportsman than to his ordinary course of amusement.

In many of the rivers that lie along the south-eastern portion of the coast of France, and which are of a sedgy and torpid character, the coots are very numerous; but what is somewhat curious, the inhabitants in rural districts consider them very ominous, and whenever they see one fly out from its hiding-place, they cross themselves, and look upon the circumstance as dire and threatening. This may, perhaps, be susceptible of some degree of explanation, when we consider the shy and retiring habits of the bird. These give rise to mystery. What is not often placed before the senses becomes impressed with the attributes of spiritual agency, and an unknown power. This has been the case in all ages, and with almost every member of animated creation. A great deal of the religious feeling of savages has no other foundation than this.

The *Curlew* (*Scolopax Aquata*, Linn.).—We have often found shooting the curlew a favourite diversion; but he is a shy bird, and requires the utmost circumspection in all attempts to get within range of him. He measures about two feet in length, and from the tip of each wing averages about three feet. The bill is full seven inches in length, regularly curved, and of a tender substance at the point, which is blunt. The upper mandible is of a blackish hue, gradually running into brown towards the base; and the under one is flesh-coloured. The head, neck, and upper part of the back, and wing-coverts, are of a pale brown, and the middle of each feather is black, fringed and deeply indented with pale rust, or light gray. The breast, belly, and lower portion of the beak, are of a dull white, thinly spotted with black; and the two former with oblong strokes of the same colour mathematically set. The quills are black, the inner webs being crossed or spotted with white. The tail is barred with black, on a white ground tinged with red. The legs are bare a little above the knee, and of a bluish hue, and the toes are thick and strong, and flat on the under side.

These birds differ considerably both in size and plumage; some weighing twenty-four ounces, and others thirty, and even upwards. In the general plumage of some kinds, the white parts are much more distinct and clearly defined than in others, which are more uniformly gray, and tinged with pale brown. The female is very much like the male. She makes her nest upon the ground, in a dry tuft of rushes or grass, or of such withered materials as are found near the spot. She lays four eggs, of a greenish hue, which have a number of brown spots irregularly distributed over them.

The food of these birds consists of worms, flies, and insects, which

they pick out of the soft mossy ground by the pools or water in such parts of the country as they frequent. In winter they depart to the sea-side, where they are seen in great numbers, then live on worms, marine insects, and other fishy materials, which they pick up on the beach, and among the loose rocks and pools left by the retiring tide. The flesh of the curlew has been characterized by some as very good, and of a fine flavour; while others have unceremoniously condemned it. The truth is, when they live in the moors, and feed on insects, and other things in the boggy ground, they are excellent eating; but after they have been a short time by the sea-coast, and obliged to live on salt-water diet, their flesh becomes strong and unsavoury. The bird was held in high repute in former times, as the old proverb tells us:—

A curlew, be she white, or be she black,
She carries twelvepence on her back.

As we have said, the bird is a shy and suspicious one, and is very difficult to approach with the gun and dog. In fact, we have often failed in getting near it, when the number of birds was great. The only chance is to steal a march upon it, by getting round some hill, or elevated piece of ground, and then trying our luck at a random shot. These birds require rather heavy shot; No. 3 and No. 2 are commonly found requisite.

These birds are very numerous in some districts of Ireland, and in the boggy moor grounds in all the counties of Yorkshire, Durham, Cumberland, Westmoreland, and Northumberland, they are found in considerable numbers. These birds are always more or less difficult to approach within gun-shot. They are cunning and artful, and attempt to lead the sportsman astray, much in the same manner as the plover does. The only way of getting near them is to take the advantage of some cover; a hill, a wall, a bush, or something of the kind; but even with all or any of these screens or aids, it is often surprising to witness with what keenness of sight they will espy an enemy, and how rapidly they will wheel round and get out of the reach of his weapon. What we now state refers to the sojourn of the birds in the moors and spongy grounds during the summer months for the purposes of incubation. They are often more approachable when they frequent the sea-shore in winter; and they evidently seem to throw off here a goodly portion of their constitutional timidity and suspicion, for we have often got within reach of them, even in a direct line, so as to bring them down with a good fowling-piece. When they are pursued in the moors, dogs are useless; nay, worse—they disturb the birds long before the sight of the sportsman himself makes any impression upon them. In curlew shooting by the sea-side, dogs are entirely unnecessary.

These birds are very numerous in Ireland, and in some districts are shot in great numbers through the summer months. They likewise abound in the swampy moors of Scotland.

Punt-shooting for this bird by the sea-side is sometimes followed by sportsmen. It is both amusing and exciting. They gather together in great numbers in autumn, roosting in some particular and favourite localities, not far distant from each other. These spots require to be well known by the shooters previous to their operations. When they are approached by means of a punt or boat, which should be done in fine frosty weather at full tide, and just after or before day-break, the party should conceal themselves by stooping or lying down in the punt, and then, when within range, a raking fire from each gunner should be made. Sometimes a good bag of birds is obtained in this way.

There is a species called the *little curlew*, which affords some sport. These birds are found in considerable numbers on the Essex coast and some parts of South Wales.

---

## CHAPTER XIII.

### SEA-FOWL SHOOTING.

Sea-fowl shooting is a highly-exciting and laborious pursuit. It has, however, many redeeming qualities, which, to a vigorous body and mind, full of ardent sporting enthusiasm, and of a love of the novel, picturesque, and sublime of nature, prove a sufficient compensation for all the perils and toils that attend it.

Sea-fowl, according to the nomenclature of sportsmen, are a very numerous family. We shall treat of them in the order commonly followed by other writers on the subject.

The *Stormy Petrel* (*Procellaria Pelagica*, Linn.)—This, to many sportsmen, is a bird of interest, chiefly from the difficulty attending his capture. It is the least among the web-footed birds known, and is about the size of the common swallow. These birds are well-known omens to mariners, often congregating in considerable numbers about the wake of the ship. They are heard only at night, and are recognized by their shrill and piercing cry. The following account of this singular bird is taken from Loudon's *Magazine of Natural History*:—"As the stormy petrel is scarcely ever seen near the land, except in very boisterous weather, one of the natives of the island of St. Hilda, for a trifling remuneration, agreed to traverse the face of a huge rock and fetch me some petrels out of its fissures. Accordingly, accoutred with a rope of hemp and hog's bristles coiled over his shoulders, he proceeded to the cliff. Having made one end fast by means of a stake, he threw the coil over the face of the rock, and gradually lowered himself down, but with the utmost caution and circumspection, carefully pressing his foot hard

ıpon the narrow ridges before he at all loosened his firm grasp of :he rope, which he never altogether abandoned. I had previously :hrown myself upon my chest, to enable me to have a better view of him by looking over the cliff, and certainly to see the dexterity ınd bravery with which he threw himself from one aperture to ınother was truly grand. The trembling roar of the Atlantic was ‘oaming many hundreds of feet beneath, and dashing its curling, :ream-like surge against the dark base of the cliff in sheets of the nost beautiful white, while the herring and black-backed gulls, ılternately sweeping past him, so as to be almost within reach of his ırm, threw a wildness into the scene by the discordant scream of :he former, and the laughing, oft-repeated bark of the latter. This, ıowever, he appeared entirely to disregard, and, continuing his ;earch, returned in about half an hour with seven or eight of the ;tormy petrels tied up in an old stocking and a pair of the Manx ›uffins, together with their eggs. The birds, he told me, he had no lifficulty in capturing. The eggs of the stormy petrel are sur-›risingly large, considering the diminutive size of the bird, being ıs large as those of the thrush. The female lays two eggs of a lirty or dingy white, encircled at the larger end by a ring of fine ust-coloured freckles. The birds merely collect a few pieces of lried grass, with a feather or two, barely sufficient to prevent the ;ggs from rolling or moving on the rock.”

The *Gull Family* (*Larus*, Linn.).—Some sportsmen count eleven lifferent species of this bird. Colonel Hawker maintains there are hirteen. They have all, however, a great family resemblance. Their leading characteristics are a compressed bill, elongated and ›ointed, with the upper mandible turned towards the end, and the ower underneath forming a salient angle. Their nostrils, placed owards the middle of the bill, are long, narrow, and bored hrough. Their tail is full, and legs rather long, and the thumb hort. All the gull tribes are more or less objects of the gunner’s ›ort, and the shooting of them is often attended with considerable xcitement and pleasure; not so much on account of the birds hemselves, considered in the light of game, as from the interesting ocalities to which the sportsman is directed in the pursuit of them. These birds generally congregate in vast flocks in those parts of he coast of Great Britain that are high, abrupt, and little fre-quented by either boats or land travellers; and where, in fact, the ‘ugged nature of the cliffs, and the air of solitude and desolation ıround, seem to impart to them ideas of comparative safety and etirement. To a man with a fowling-piece in his hand, and who can elish the grand and sublime of nature under all aspects, we know f nothing more grateful, than a ramble along the headlands of the ›oast in quest of these birds. Everything around is vast and im-›osing. The ocean imparts a solemn feeling over the most volatile ınderstanding, and directs the thoughts to objects of contemplation, oth agreeable and improving. We dive into nature’s secrets by uch sporting rambles among the feathered tribes in this section

of her vast domains, and can scan the singular economy that prevails in the congregated families that are here bred and nourished by her paternal hand. The enterprising fowler scrambles from one cliff to another, sometimes with fear and trepidation, while he often recognizes birds of which he knew little or nothing before; and perchance may cast his eye on the nest of the eagle, whose marauding flights are marked in every direction with blood and rapine.

"High from the summit of a craggy cliff
Hung o'er the deep, such as amazing frowns
On utmost Kilda's shore, whose lonely race
Resign the setting sun to Indian worlds,
The royal eagle draws his vigorous young.
Strong pounced, and ardent with paternal fire,
Now fit to raise a kingdom of their own,
He drives them from the fort, the towering seat,
For ages of his empire; which in peace
Unstained he hold, while many a league to sea
He wings his course, and preys in distant isles."

THOMSON.

To point out all specific localities where gull shooting can be best obtained in this country, and where all the indirect advantages derived from it can be realized, would lead us too much into matters of detail. But we may remark that the northern parts of the kingdom are more prolific of these birds than the southern. They are found in inconceivable numbers in the Fern Islands, off the coast of Northumberland; and all around the northern and western parts of Scotland they are to be found equally numerous, in particular rocky localities. In the Orkney and Hebrides Islands there is good sport; for we conceive that most sportsmen who have had opportunities of enjoying this species of shooting, must have remarked, that the farther you extend north, and get into comparatively unfrequented places, the less shy the birds become, and the richer harvest awaits the gunner. The weather, too, has a great influence over sport. All these different kinds of sea-fowl are more approachable in stormy than in fine weather; only the latter is not so pleasant to the sportsman himself. But there is no getting all matters to square evenly in sporting practices. The good must be blended with the evil, to make even sport itself keenly relished.

The *Swan family* (*Anas*, Linn.).—These birds have long been illustrious among sportsmen. The ancients consecrated them to *Apollo* and the *Muses*. Callimachus, in his hymn upon the island of Debos, says—

"When from Pactolus' golden banks
Apollo's tuneful songsters, snowy swans,
Steering their flight, seven times their circling course,
Wheel round the island, carolling meantime
Soft melody, the favourites of the nine,

Thus ushering to birth with dulcet sounds
The god of harmony, and hence seven strings
Hereafter to his golden lyre he gave;
For ere the eighth soft concert was begun
He sprung to birth."—DOD'S CALLIMACHUS.

These birds are considered at the head of the web-footed birds, and to shoot them is considered a great and honourable achievement among gunners. The *hoofers* or wild swans are very easily killed, if the fire be directed towards the head or under the wing; but they are almost shot proof in other parts of their body. The flight of the swan is very rapid. Hearne says, "Notwithstanding their size, these birds are so extremely swift on the wing when in full feather, as to make them more difficult to shoot than almost any others, it being frequently necessary to take sight ten or twelve feet before the bills. This, however, is only when they are flying before the wind in a brisk gale, at which time they seldom fly at a less rate than an hundred miles an hour; but when flying across the wind, or against it, they are not able to make any great progress."

The swan measures five feet in length, and above seven in breadth, and weighs from thirteen to sixteen pounds. The bill is three inches long, of a yellowish hue from the base to the middle, and thence to the tip, black. The bare space from the bill over the eye and eyelids is yellow; and the entire plumage in adult birds is of a pure white; and they are clothed, next to the skin, with a thick fine down. The legs are black.

This species of swan usually congregate together—keeping in groups or families, except at the pairing season, and when the severe frosts of winter overtake them. At this season they assemble in prodigious quantities, near great rivers and lakes, situated in thinly inhabited countries in the northern parts of Europe, Asia, and America. When the weather becomes very severe, they shape their flight very high in the air, and divide their number in quest of more genial temperature. In such hard winters they are sometimes met with in various sections of Great Britain, and in other more southern countries of Europe. The rule as to their migrations has been observed in America. They do not, however, remain longer than to the approaching spring, when they again retire northward to the arctic regions to breed. In these movements to and fro, a few straggling birds stop short, and perform the offices of incubation by the way; for it has been ascertained that they breed in the Hebrides, the Orkney, Shetland, and other solitary isles. But the great body of them go far north, and are to be met with in the large rivers and lakes near Hudson's Bay, and those of Kamtschatka, Lapland, and Iceland. They are said to return to the latter place in flocks of about a hundred at a time in the spring, and also to pour in upon that island from the north, in nearly the same manner, on their way southward in the autumn.

The *Swan Goose* (*Anas Cygnoides*, Linn.) is another interesting species of this family of web-footed birds. It is a full yard in length, and is of the size between the swan and the common goose. It is known from the goose by its stately deportment, and by its having a large knob on the root of the upper mandible, and a skin almost bare of feathers, hanging down like a pouch or wattle under the throat. A white line or fillet is extended from the corners of the mouth over the front of the brow. The hue of the bill is orange, and the irides of a reddish brown. A dark brown or black stripe runs down the hinder part of the neck, from the head to the back. The fore part of the neck and the breast are yellowish brown, and the back, and all the upper parts, brownish gray, fringed with a light colour. The legs are orange.

Some writers maintain that these birds came originally from Guinea, in Africa. The breed now, however, is very common everywhere, and they are widely and numerously dispersed, both in a wild and domestic state. They are found in great numbers about Baikal, an eastern section of Siberia, and likewise in Kamtschatka. They are kept in a state of domestication in most of the Russian provinces.

The *Mute Swan* (*Anas Cygnus Mansuetus*, Linn.). The plumage of this swan is of a snowy whiteness. It is much larger than the wild swan; often weighing twenty-five pounds, and measuring three feet and a half in length. The female frames her nest among the rough herbage, near the water's edge. She lays from six to eight large white eggs, and she sits on them for the space of six weeks—some say eight—before they are hatched. The young do not acquire their full plumage till the second year.

The swan, from the earliest records of our history, has been protected on the river Thames as our royal property, and it continues at this day to be accounted felony to steal their eggs. By this means their increase is secured, and they prove highly ornamental to the river scenery generally. We are told that, in the reign of Edward IV., the estimation in which they were held was such, that no one who possessed a freehold of less than the clear yearly value of five marks, was permitted even to keep any. In those times hardly a piece of water was left unoccupied by these birds, as well on account of the gratification they gave to the eye of their lordly owners, as that which they also afforded when they graced the sumptuous boards at the splendid feasts of that period; but the fashions of those days have now passed away, and swans are not now as common as they were formerly, being by most people considered a coarse kind of food, and consequently held in little estimation; but the cygnets (the young swans) are still fattened for the table, and are sold for a guinea each, and even more; hence we may infer that they are better food than is generally imagined.

*Wild Geese* (*Anser*, Linn.).—These birds form an important item in the shooter's vocabulary. Six different species visit the British shores in winter. The *gray-lag* is one of these birds, and is the

origin of our common domestic goose. These are well known to all country people in Britain, from the circumstance of their always flying in a particular figure—that of a wedge. They are a difficult bird to approach in regular hunting form. They are shy and wary to a proverb. When they arrive in winter, they frequent the sea-coast, and little rivulets and creeks, feeding on marine and other grasses, and display a great partiality to green wheat. The only mode of getting within range of them is by ambush, or advancing upon them under cover of some kind. Colonel Hawker recommends that we "ascertain in the water meads what part they have used (which we shall be able to see by their dung and feathers), and then we should wait for them at dusk in some ambush that commands the fresh places adjoining. Contrive, if possible, to get the line of a dyke or drain, so as to take their company in the flank." Mr. Daniel likewise says:—"Their flight is always (except in thick fogs) very elevated; their motion is smooth, accompanied with little rustling, and the play of the wings seems never to exceed two or three inches; the regularity with which they are marshalled implies a sort of intelligence superior to that of other birds, which migrate in disorderly bodies. The arrangement observed by the geese is at once calculated to preserve the ranks entire, to break the resistance of the air, and to lessen the exertion of the squadron. They form two oblique lines, like the letter V; or, if their number be small, only one line; generally they amount to forty or fifty, and each keeps its rank with admirable exactness; the chief, who occupies the point of the angle, and first cleaves the air, retires, when fatigued, to the rear, and the rest by turns assume the station of the van. Pliny describes the wonderful harmony that prevails in these flights, and remarks that, unlike the cranes and the storks, which journey in the obscurity of the night, the geese are seen pursuing their route in broad day."

The wild goose generally weighs about ten pounds; and measures two feet nine inches in length, and five feet in breadth. The bill is thick at the base, tapers towards the tip, and is of a dullish red hue, with the nail white. The head and neck are brown, tinged with dull yellow, and from the separation of the feathers, the latter appears striped downwards. The upper part of the plumage is of a deep brown, mixed with ash-gray; each feather is lighter on the edges, and the lesser coverts are tipped with white. The shafts of the leading quills are white, and the webs gray, and the tips black. The secondaries are black, tinged with white. The breast and belly are crossed and clouded with dusky and ash colours on a whitish ground. The tail feathers and vent are of a snowy whiteness. The middle feathers of the tail are dusky, tipped with white; those adjoining more deeply tipped, and the exterior ones are nearly all white. The legs are pale red.

During any succession of frosty days, especially if accompanied with a snow-storm, there are few places on the British coast which

will not afford more or less of wild goose shooting. If going on the water, or into the marshes, after these birds, does not suit the sportsman's convenience or choice, by attending the brooks and small rivers that are only partially frozen, and following their course, he may frequently find diversion, and be almost certain of meeting with some of these birds. There are many localities on the moor districts of the north of England where these wild geese frequent every winter, even when it has not been very cold or stormy.

The *Siberian Goose* (*Anser Ruficollis*, Linn.)—This is called the laughing goose, or white fronted. These are seldom seen in this country. Colonel Hawker tells us, that they were unknown here till the frost of 1830, when there were eighty of them alighted in a field near the village of Wilford, where, he says, they were beset by a swarm of gunners, and attacked, but only with very moderate success. The gallant Colonel himself succeeded, however, on the following day, in bringing down twenty. They are described as very hard to kill.

The *Cormorant* (*Pelicanus Corbo*, Linn.)—There are three varieties of this bird known to shooters; the great black, the cole-goose, and the crested. The common cormorant weighs about from four to seven pounds, and the size varies from thirty-five inches to four feet six inches in breadth. The bill, to the corners of the mouth, measures four inches, and its ridge two and three quarters. It is of a dark horny consistency, and the tip, or nail, of the upper bill is much hooked and sharpened. From the base of this it is furrowed on each side nearly to the top, without any visible appearance of nostrils. The lower bill is compressed, and covered, about the gape of the mouth, with a naked yellowish skin, extended under the chin and throat, where it hangs loose, and forms a kind of pouch, which, together with the springing blade on each side forming its rim, is capable of extension to a great width, and by it the bird is enabled to swallow prey apparently too large to be admitted into its throat. The skin about the eyes is naked, and of the same colour as the pouch; the eyes, which have a remarkably wild stare, and are placed near the bill, look like two little greenish glass globes. The crown of the head and neck are black; and on the hinder part of the former the feathers appear elongated, and form a sort of loose crest. In some specimens of the cormorant the throat is white, with a kind of stripe passing from it, upwards, behind each eye. In others the cheeks and throat are mixed with brown and white; while in other species the head and neck are streaked with scratches of the latter colour. The middle of the belly is white, with a patch of the same colour over each thigh. All the under parts, however, together with the back and rump, are commonly of a glossy blue black, with green shades. The shoulders, scapulars, and wing-coverts, are of a bronze brown hue, tinged and glossed with green; and each feather is bordered with shining bluish black. The secondary quills are nearly of the

ame colour. The coverts and primaries are dusky. The tail consists of fourteen stiff husky feathers, which look as if they were discoloured by being dipped in mud or dirty kennel-water. The egs are thick, strong, black, and coarse, about two inches and a alf long, and the outer toe is more than four inches in length.

The cormorant is a native of almost every climate. They abound n great numbers in Greenland and Nova Zembla, and parts ad acent; and the natives have a curious method of taking them, by neans of lures or decoys. They make use of the jugular pouch of he bird for a bladder to float their fishing-darts, after they are hrown. Their skins, which are tough and leathery, are used for arments, and their flesh for food. But it is said that the eggs of he bird are too fœtid even to be eaten by Greenlanders.

These birds usually assemble in flocks on the summits and inaccessible parts of the rocks which overhang or are surrounded by he sea, upon which the female makes her nest of the withered ea-tang, weeds, sticks, and grasses, which are cast on shore by the aves; she lays four or five greenish-white eggs, of the size of hose of a goose, but of a longer shape. There are sporting writers nd naturalists who assert that, in some parts of the world, these irds build their nests on trees, like the rook and the heron; others, gain, stricken with the singular conformation of the feet and the errated claws, have ascribed properties to them which they do not ossess, and maintain that they hold their prey in one foot, while ith the other they push forward to the shore, or carry it thither n the same manner on the wing. But this is pure fancy, unsupported by any evidence of fact. The truth is, the feet of these birds re not fitted for any such purposes. They are, like those of all the xpert diving tribes, placed far behind, and while, by the position f these, and the powerful stroke from their broad webs, the birds re able to pursue and overtake their slippery prey, the hooked harp-edged beak is the only fit instrument both to catch and seure it, and there is no need to use the awkward expedient of emoving it afterwards to the foot.

At sea, or in the inland lakes, these birds make dreadful havoc. rom the greatest height they drop down upon the object of purit, dive after it with the rapidity of a dart, and, with an almost nerring certainty, seize the victim; then emerging with the fish cross the bill, with a kind of twirl, throw it up into the air, and, lexterously catching it head foremost, swallow it whole.

While at rest on the shore, commonly on the ledge of a proecting rock, these birds sit, more or less, in an erect posture, nd are propped up by the stiff feathers of the tail; and in places here they have not experienced the direful effects of fire-arms, hey have been known, however wary at other times, to sit and reeive repeated shots, without offering to move out of the danger. At other times and places, while they sit in a dosing and stupified tate, from the effects of one of their customary surfeits, they may asily be taken, by throwing nets over them, or by putting a noose

around their necks, which they avoid no further than by slipping the head from side to side as long as they can.

Notwithstanding the natural wildness of their disposition, it seems, according to some accounts, that certain species of these birds were formerly tamed, and rendered subservient to the purposes of man, both in this and other countries. Among the Chinese, it is said, they have frequently been trained to fish, and that some fishermen kept many of them for that purpose, by which they gained a good livelihood. A ring placed around the neck hinders the bird from swallowing; its natural appetite joins with the will of its master, and it instantly dives at the word of command; but unable to gorge down the fish it has taken, it returns to the keeper, who secures it to himself. Sometimes, if the fish be large and ill to manage, two will act in concert, one bird taking it by the head, and the other, by the tail. Willoughby tells us, that in England, when these birds are brought to the rivers, their hoods are taken off, and then a leather thong is tied round the lower part of their necks, that they may not swallow down the fish they take. The birds are then thrown into the water; they dive immediately, and, for a time, with remarkable swiftness, pursuing the fish with great ardour. When they have caught them, they rise to the surface, and pressing the fish lightly with their bills, they swallow them, till each bird has swallowed five or six; then the keepers call them to the fist, to which they readily fly, and little by little, one after the other, vomit up all their finny captures, which appear sometimes a little bruised, with the nip the bird has given them with its hooked bill. When the fishermen have done, they set the bird on some high place, and then loose the string from their necks, which leaves the passage free of air to the stomach, and by way of encouragement part of the prey is given back again to each bird. Whitlock tells us, likewise, that he had a cost of cormorants manned like hawks, which would come to hand. He took great pleasure in them, and relates, that the best he had was one presented him by Mr. Wood, Master of the Cormorants to Charles the First.

Dr. Heysham relates, that about the year 1759, one of these birds perched upon the castle at Carlisle, and soon afterwards removed to the Cathedral, where it was shot at upwards of twenty times, without effect; at length a person got upon the cathedral, fired at, and killed it. In another instance, a flock of fifteen or twenty perched, at the dusk of evening, on a tree, on the banks of the river Esk, near Netherby, the seat of Sir James Graham. A person who saw them settle, fired at random at them, in the dark, six or seven times, without either killing any or frightening them away. Surprised at this, he came again at daylight, and succeeded in killing one, when the rest took flight.*

Colonel Hawker tells us, that the cormorants may be seen in the

* Latham, Willoughby, Bewick, &c.

vening, pursuing a regular course towards the cliff, on the sea-
oast, where they roost, and that in their flight they are often mis-
aken for Brent geese, and shot at as such by inexperienced
hooters. They are likewise sought after by adventurous persons,
who are able to reach the middle of the rocky heights. In attempt-
ng to shoot them in such positions, much circumspection is requi-
ite in secreting the sportsman from observation, so keen-sighted
re these birds, and so jealous of any object that bears even the
emblance of a weapon, that they immediately take the alarm at
he slightest display of an enemy, and thus elude the devices of
he best sportsman. The shooting of these birds is considered an
xcellent exercise for young gunners.

*The Wild Duck* (*Anas Bochas*, Linn.)—This is the parent of our
lomestic duck, and is a little less in size than it. The wild mallard,
r drake bird, measures about twenty-three inches in length, and
hirty-five in breadth. It commonly weighs from thirty-six to forty
unces, the bill is of a yellowish hue, not very flat, about an inch
road, and two and a half long, from the corners of the mouth to
he tip of the nail; the head and upper half of the neck are of a
lossy, deep, changeable green, terminated in the middle of the
eck by a white collar, with which it is nearly encircled. The
ower portions of the neck, breast, and shoulders, are of a deep
inous chestnut, and the covering scapular feathers are of a kind of
ilvery white, while those underneath are rufous. Both are prettily
rossed with waved threads of brown. The wing coverts are ash;
he quills brown, and between these intervenes what is called the
*eauty-spot*, in the duck tribe, which crosses the closed wing in a
ransverse, oblique direction; it is of a rich glossy purple, with
iolet or green reflections, and fringed by a double streak of white
nd black. The belly is of a pale gray, delicately pencilled, and
rossed with numberless narrow-waved dusky lines, which, on the
ides and long feathers that reach over the thighs, are more strongly
nd distinctly marked. The upper and under tail coverts, the lower
art of the back, and the rump, are black; the latter are glossed
ith green. The four middle tail feathers are likewise black, with
urple reflections, and, like those of the domestic drake, are stiffly
urled upwards, the rest are sharp pointed, and fade off to the ex-
erior sides, from a brown to a dull white. Legs, toes, and webs,
ed.

The plumage of the female, which is called a *flapper*, is very
lifferent from that of the male, and possesses few or none of its
eauties, except the spot on his wings. All the other parts are
lain brown, marked with black. She makes her nest, lays from
en to sixteen greenish-white eggs, and rears her young generally
n the most sequestered mosses or bogs, far from the haunts of
nen, and hidden from his sight among the reeds and rushes. To
ier young, helpless, unfledged family (and they are nearly three
nonths old before they can fly), she acts the part of a fond and
lutiful parent, carrying or leading them from one pool to another,

as her fears and inclinations direct her; and she is known in this country to use the same wily stratagems to mislead the sportsman and his dog as those already noticed respecting the partridge.

Like most of the duck tribes, the mallards, in vast quantities, leave the north at the end of autumn, and, migrating southward, arrive in the beginning of winter in large flocks, and spread themselves over all the loughs and marshy wastes in Great Britain. They pair in the spring, when the greatest part of them again return to the north to breed, during the summer months of comparatively warm weather and long days. A few straggling birds remain every season with us, and breed, rearing their young in our boggy grounds, which remain with us throughout the year.

It is somewhat curious and out of the usual course of nature, that these wild ducks have been known to build their nests on trees, even to the height of twenty-five feet from the ground. There are several well-attested instances of this in the annals of British wild-duck sporting.

Wild-duck shooting is one of those sports which requires to be *well timed*. One cannot go out whenever fancy may prompt and pursue the amusement with any hope of success. These birds are very shy, and must be plied and dodged about to gain upon them, so as to bring the shot within range of them. They have fixed times of feeding and visiting certain localities; and the only way to effect any destruction among them, is to watch their movements, and conceal yourself from observation. You may thus often intercept their flight when congregated in considerable numbers, and bring down several at a shot. They are sometimes very easily killed, and sometimes almost impervious to the lead pellets. All depends upon the part of the body hit. Regular wild-duck shooters are often very successful in moonlight nights. The birds are then less shy and suspicious. We have ourselves often been very lucky under these lunar auspices.

With respect to wild-duck shooting in boats along the sea-shore, in rather stormy weather, we have little to say grounded on our own experience. The truth is, we have several times been rather valiant in this kind of sport, but we never got a quarter of a mile from the shore till our stomachs rebelled, and we were literally *dead* for the time being. All the wild-ducks in Christendom could not have raised us on our legs. To persons who are proof against this insidious sickness, we have no doubt such sport abounds with the exciting and pleasurable to a reasonable extent; but we say to all who are not possessed of such singularly constituted stomachs, to eschew the sport, and keep on *terra firma*.

There are few places near the shores of Great Britain where wild-duck shooting cannot be had. Some localities are certainly more famous than others; but there is an abundance for all sportsmen during the season: and it is an interesting sport on this account, that there are fewer restrictions upon its exercise than upon almost any other kind of game. Cambridgeshire, Lincolnshire, Martin

Mere, in Lancashire, in North and South Wales, in Scotland, in the Fern Islands, off Bambro Castle, in Northumberland, there are countless thousands of these birds to be met with in the winter season. It is necessary to observe that, by a recent Act of Parliament, no wild-fowl, either young or old, can be legally killed from the last day of March to the first of October.

The *Pochard, or Dunbird* (*Anas Ferina*, Linn.)—Mr. Daniel gives us the best account of this bird:—"It is about the size of a widgeon, weighs one pound twelve ounces; its length is nineteen inches; breadth two feet and a half; the bill is broader than the widgeon's, of a deep lead colour, with a black tip; irides orange; the head and neck orange chestnut, with a small triangular spot of white under the centre of the lower mandible; the lower parts of the neck and breast, and upper part of the back, dusky black; scapulars and wing-coverts nearest the body of a gray white, elegantly marked with narrow lines of black; the exterior wing-coverts and quills dusky brown; secondary quill-feathers regularly edged with a stripe of white; the belly ash-coloured and brown; vent-feathers and coverts of tail black; the tail consists of twelve short feathers of a deep gray; the legs lead-coloured. The female has the head of a pale reddish brown; the breast is rather of a deeper colour; wing-coverts and belly cinereous; and the back marked like that of the male. These birds are eagerly bought by the London poulterers under the name of dun birds, as they are deemed excellent eating; the greater part of what appear in the markets are caught in decoys; but the construction and mode of working are perfectly distinct from that wherein the other wild-fowl are taken. A decoy for dun birds is called a flight-pond, and has nets fastened to tall stout poles, twenty-eight or thirty feet long; at the bottom of each pole is fixed a box, filled with heavy stones, sufficient to elevate the poles and nets the instant an iron pin is withdrawn, which retains the nets and poles flat upon the reeds, small willow boughs, or furze. Within side the nets are small pens, made of reeds about three feet high, for the reception of the birds that strike against the nets and fall down; and such is the form and shortness of the wing of the pochard, that they cannot ascend again from these little inclosures if they would; besides, the numbers which are usually knocked into these pens, preclude all chance of escape from them by the wing. A decoy-man will sometimes allow the haunt of dun birds to be so great that the whole surface of the pond shall be covered with them previous to his attempting to take one. Upon such occasions he bespeaks all the assistance he can get, to complete the slaughter by breaking their necks. When all is ready, the dun birds are roused from the pond, and as all wild-fowl rise against the wind, the poles in that quarter are unpinned, and fly up with the nets at the instant the dun birds begin to leave the surface of the water, so as to meet them in their first ascent; and they are thus beat down by hundreds. At the pond of Mr. Baxton, at Goldanger in Essex, as

many pochards have been taken at one *drop* as filled a waggon, so as to require four stout horses to carry them away; and the lower birds in the pens have been known to be killed and pressed entirely flat, from the numbers of their companions heaped up above them by the fatal stoppage of the poles and nets. The few attempts made to domesticate the pochard have been hitherto unsuccessful. They do tolerably well where there is plenty of water, but cannot bear walking about on hard, pebbly grounds."*

These birds leave the northern regions on the commencement of winter, and direct their course southward. It is said that they frequent Egypt, and the entire section of the Holy Land, and are very numerous in some of the lakes and marshy districts in America, especially in Carolina and Louisiana. In France they make their appearance about the month of October, in numerous flocks, and about the same period they may be found in all the low and fenny districts of Great Britain.

We have seen capital sport with the gun in shooting these birds, especially in a severe snow storm, accompanied with a hard frost. They are not so difficult to knock down with tolerably sized shot as some other wild fowl; it is, however, always a matter of difficulty to get within range of them, for they are very shy, and remarkably quick in recognizing an enemy.

*The Widgeon.* (*Anas Penelope*, Linn.)—This well-known bird weighs about twenty-three ounces, and measures nearly twenty inches in length, and two feet three in breadth. The bill is an inch and a half long, narrow, and its outer edges are serrated. The upper mandible is of a dark leaden hue, tipped with black. The crown of the head is very high and narrow, and is of a cream colour, with a small spot of the same under each eye. The rest of the head, the neck, and the breast, are of a bright rufous chestnut, faintly freckled on the head with black spots, and darkest on the chin and throat, which are tinged with a vinous colour. A band composed of beautifully waved or indented narrow ash-brown and white lines separates the breast and neck. The scapulars and back are marked with similar feathers, as are also the sides of the body under the wings, even as low as the thighs. These, however, are paler. The belly to the vent is white, and the ridge of the wing and adjoining coverts are of a dusky ash-colour, approaching to brown. The great coverts are brown, fringed with white, and tipped with black, which forms a border to the changeable green *beauty-spots* of the wings, which are likewise bordered on the under side by the deep velvet black tips of the secondary quills. The exterior webs of the adjoining quills are white, and those next the back, which are very long, are of a deep brown, fringed with yellowish white. The greater quills are brown, the vent and upper tail-coverts are black.

Widgeons fly in small flocks during the night, and may be dis-

* Rural Sports, vol. iii. p. 281.

tinguished from other wild fowl by the peculiar whistling note they use while on the wing. They have been domesticated in many places, and are generally much admired for their liveliness and beauty.

These birds quit the lonely and desert regions of the north on the approach of frosty weather, and direct their course to the south, breaking into detached and diverging lines, and spreading themselves over the shores, morasses, and lakes of different countries. Great quantities of them are found in the east, particularly in Egypt, and in the islands of the Mediterranean. They remain in these parts during the winter, at the end of which the old birds pair, and the whole tribe, in full plumage, take their departure northward about the end of March. While the widgeon remains with us, it frequents the same places, and feeds in the same mode as the mallard, and is often taken in the decoys along with that and other species of the duck tribe.

There are a great number of birds called *divers*, and among the number are the scoter, scaup, golden-eye, and morillon, which are calculated to afford the fowler some share of sport. Colonel Hawker says there are *seven* kinds of these divers to be found in Great Britain, exclusive of other six which are separately classed as the genus *Mergus*. Mr. Daniel says that "they vary much both in plumage and size; some weighing two pounds and a half, and others a pound less, are caught in the decoys with the ducks. In hard weather, they frequent the shores and tide rivers in great plenty, and are almost always, at that season, fat and in good condition. They do not fly in such large flocks as many of the duck species, and usually close to the surface of the water, and bear very hard blows from the shot without dropping, unless struck upon the head or wing. The scoter is seen in prodigious numbers from November to March on the French coasts, especially if the wind be to the north or north-west. The day seems to be spent by these birds between diving and flying to small distances over the water, which they do so low as often to dip their legs in it: they swallow their food whole, and soon digest the shells, which are found crumbled to powder among their excrements. They have been kept tame for some time, and will feed on soaked bread. The flesh tastes fishy in the extreme, and, from this cause, is allowed by the Roman Catholics to be eaten on fast days and in Lent, and indeed, to say the truth, must be a sufficient mortification."

As far as our own personal experience goes in the shooting of these divers, we think it amusing enough, but not very profitable. We have never been able to hit one bird out of ten. They are uncommonly quick in their diving movements; the moment the gun is pointed, down they go. In stormy weather, that is, with a wind from the north-east, cold and frosty, a sportsman by the east coast of Britain may now and then way-lay these birds on their flights, and succeed in bagging a few brace, but this requires great

exertion, patience, and the concurrence of favourable circumstances, even to do this. These birds seem to have powerful instincts that man is their natural enemy.

*The Teal* (*Anas Crecca*, Linn.).—This is one of the most favourite of the duck tribe among sportsmen. It is a beautiful bird, and admirably proportioned. It is about twelve ounces in weight, and is fifteen inches in length, and twenty-four in breadth. The bill is dark, tipped with white. The irides are pale; and a glossy bottle-green patch, fringed on the upper side with pale brown, and beneath with cream-coloured white, covers each eye, and extends to the nape of the neck. The rest of the head, and the upper part of the neck, are of a deep reddish chestnut, darkest in the forehead, and freckled on the chin and about the eyes with cream-coloured spots. The hinder part of the neck, the shoulders, part of the scapulars, sides under the wings, and lower belly towards the vent, are elegantly pencilled with black, ash-brown, and white traversed waved lines. The breast, gradually resembling the beautifully spotted appearance of an Indian shell, is of a pale brown or reddish yellow, and each feather is tipped with a roundish heart-shaped black spot. The belly is a cream-coloured white. The quills, lesser and greater coverts, are brown, and the last are deeply tipped with white, which form a bar across the wings. The first six of the secondary quills are of a fine velvet black, while those next to them towards the scapulars are of the most resplendent glossy green, and both are tipped with white, forming the divided black and green bar, or *beauty-spot* of the wings.

The tail consists of fourteen feathers of a hoary-brown colour, with pale edges. The legs and feet are of a dirty lead colour. The female, which is less than the male, is prettily freckled about the head and neck with brown and white. She has not the green patch between the eyes, but a brown streak supplies its place, which extends itself to the nape of the neck. The crown of the head is dark brown. The upper mandible yellow on the edges, olive green on the sides, and olive brown on the ridge. The nail is black, and the under bill yellow. The breast and belly are of a glossy yellowish white, spotted irregularly with brown. The upper plumage is dark brown, each feather is bordered with rusty brown, and fringed with gray. The wings and legs are nearly the same as those of the male bird.

Teals are common in most parts of Great Britain in the winter months, but it is not very well ascertained whether they remain throughout the year to breed, as is the case in France. We have seen ourselves about a dozen nests of these birds during the last forty years, but not more. The female makes a large nest composed of soft dried grasses, lined with feathers, cunningly concealed in a hole among the roots of weeds and bulrushes near the edge of the water; and some naturalists have asserted, that the nest, in some cases, actually rests on the surface of the water, so as to rise and fall with it. The eggs are of the size of those of a pigeon, and

amount to six or seven in number. They are of a dull white colour, freckled with small brownish spots. Some have been known to lay twelve eggs. Buffon says, that numbers of young teal are seen in pools, feeding on cresses, wild chervil, &c., and, unquestionably, as they grow up, they feed, like other ducks, on the various seeds, grasses, and water plants, as well as upon the smaller animated beings with which all stagnant waters are so abundantly stored. The bird is highly extolled for the excellency of its flavour.

We have already remarked, that teal shooting is considered a crack amusement. Colonel Hawker says, "Of all the prizes that a wild-fowl shooter could wish to meet with, a flock of teal is the very first. Independently of their being by far the best birds of the whole *anas* tribe, they are so much easier of access, and require such a slight blow, that no matter whether you are prepared for wild-fowl, or partridge, or snipe, you may at most times, with very little trouble, continue to get near them; and this being once done, you have only to shoot straight to be pretty sure of killing. * * * If you spring a teal, he will not soar up, and leave the country like a wild duck, but most probably will keep along the brook like a sharp flying woodcock, and then drop suddenly down; but you must keep your eye on the place, as he is very apt to get up again, and fly to another before he will quietly settle. He will frequently, too, swim down stream the moment after he drops; so that, if you do not cast your eye quickly that way, instead of continuing to look for him in one spot, he will probably catch sight of you, and fly up, while your attention is directed to the wrong place."

Teal are seldom seen in any quantities; scarcely ever more than ten or twenty are assembled together, and this only in stormy weather, and in certain favourite localities near the coast, or the edges of a sheet of water, whose edges are fringed with long grass, or brushwood. They are comparatively a solitary bird; they confine themselves chiefly to families; and it is only in this way that they are interesting to the sportsman. A man may range a considerable section of marshy country, and not see more than a pair or two of teals. In all the moor and boggy districts in the north of England they are to be met with; but as we have just said, never in any quantities.

There is a large portion of wild-fowl shooting carried on as a matter of business and traffic, and not properly of sport. This is chiefly confined to the low districts of the coast, where birds of the duck kind especially congregate in immense quantities, at certain seasons of the year. Many persons gain a good livelihood by this kind of shooting. The following is substantially the account of the matter, relative to the Hampshire coast, and the Isle of Wight, which Mr. Gilpin gives. The coast between Hampshire and the Isle of Wight is peculiar, consisting at ebb-tide of vast muddy flats, covered with green seaweed; it affords the fowler an opportunity of practising arts perhaps not elsewhere resorted to. Fowling and fishing are,

indeed, on this coast commonly the employments of the same person. He who in summer with his line or net plies the shores when they are overflowed by the tide, in winter with his gun, as evening draws on, runs up in his boat among the little creeks, which the tide leaves in the midlands, and lies in patient expectation of his prey. Sea-fowl usually feed by night, when, in all their multitudes, they come down to graze on the savannahs of the shore. As the sonorous cloud advances (for their noise resembles a pack of hounds in the air in full cry), the attentive fowler listens which way they bend their course; perhaps he has the mortification to hear them alight at too great a distance for his gun (though of the longest barrel) to reach them; and if he cannot edge his boat round some creek, which it is not always in his power to do, he despairs of success that night; perhaps, however, he is more fortunate, and has the satisfaction to hear the airy noise approach nearer, till at length the host settle on some plain upon the edge of which his boat is moored. He now, as silently as possible, primes both his pieces anew (for he is generally double armed), and listens with all his attention. It is so dark, he can take no aim; for if he could discern the birds, they would also see him, and being extremely timorous, would seek some other pasture. Though they march with noise, they feed in silence; some indistinct noises, however, if the night be still, issue from so vast a concourse; he directs his piece, therefore, towards the sound, fires at a venture, and instantly catching up his other gun, discharges it where he supposes the flock to rise on the wing. His gains for the night are now decided, and he has only to gather his harvest. He immediately puts on his mud-pattens (flat square pieces of board, which the fowler ties to his feet that he may not sink in the ooze), ignorant yet of his success, and goes groping about in the dark in quest of his booty, picking up sometimes many, and perhaps not one; so hardly does the poor fowler earn five shillings, exposed in an open boat, during a solitary winter night, to the weather as it comes, rain, hail, or snow, on a bleak coast, a league probably from the beach, and often liable, without great care, to be fixed in the mud, where he would become an inevitable prey to the returning tide. I have heard a poor fellow say, he never takes a dog with him in these expeditions, because no dog could bear the cold which he is obliged to suffer; for the tide often throws next day, on many different parts of the shore, many of the birds which he had killed, but could not find in the night.

The danger, Mr. Daniel tells us, of fowlers attacking the wild fowl in small boats, arises from the circumstance that when there happens to be ice in the river, they get encircled by it, and can only hope to extricate themselves by following the current, wherever it may take them. It not unfrequently happens that the men are detained two or three tides before they can work their way out of the icy entanglement. They suffer much, in such cases, from cold and privation. He says further, "The punt is but ill calculated to

sustain pressure against its sides, which are not twenty inches high from the surface of the water; in this the punter by night drops down with the tide, or uses his paddles after the fowl; he knows their haunts, and takes every advantage of wind, tide, moon, &c. His gun, which carries as much as a little cannon, is laid with the muzzle over the stern of the punt in a hitch, which regulates the line of aim. At the bottom of the punt he lies upon his belly, and gets as near the route of the fowls that are upon the water as possible; when within range of his gun, he rattles with his feet against the bottom of his punt, and when the fowls begin to spring at this unexpected sound, at that moment he pulls the trigger, and cuts a lane through their ranks. He instantly follows the direction of his shot, and gathers up those that are killed or just expiring, for very seldom he makes it answer to row after fowl that are only wounded. He then charges his gun, and drifts further down the river, in hopes of a second, third, and successive shots. By this mode a man has brought home from fourscore to a hundred of wild fowls of various kinds in one night's excursion; and this will not seem an exaggerated account when the multitudes which, in hard, frosty weather, with the wind at east or north-east, haunt the Blackwater river are known. * * * The gun proper for this shooting, when followed as an amusement, has no occasion to be more than three feet four inches in the barrel. The regular shooter for profit uses one of three feet eight, which would not weigh less than twelve pounds (upon this scale the whole gun will be about eighteen pounds weight); this quantity of iron, of the above length, will be as capable, or more so, of throwing shot as sharp and distinct as a barrel two feet longer. Should this heavy mass be objected to as cumbersome to carry, let it be remembered that these guns are not meant to lie upon the arm, or to be carried about in the fields; the shooter is either seated in a boat or upon a marsh; in either situation the gun does not fatigue him, since he has nothing to do but elevate it as the wild-fowl fly over his head, and after firing and charging, let it again lie by him until fresh objects require its use. Without this ponderous substance, no man can stand the recoil of a gun that will carry a sufficient charge for doing execution at great lengths, and to kill many birds at a shot. A common fowling-piece may do its business well, so far as its capacity extends, but it will carry very few pellets of either single or double Bristol shot; the latter is generally used by the punters for day, and the former for night-shooting; the largest BB patent shot is too light for either, but even with that a gun with a common-sized bore would not carry enough to do any great execution, if a rout of fowls were ever so numerous."

On and in the vicinity of the Fern Islands, near to Berwick-upon-Tweed, there are an immense quantity of wild-fowl congregated, and here they breed in surprising numbers. It is impossible, in walking on the ground, to step upon a single square foot of space without crushing eggs beneath your feet. In the winter season,

when there is a storm from the east or north-east, with a heavy sea breaking on the shore, the wild-fowl may be shot, even on the main land, in considerable quantities, by artfully concealing oneself along the beach. We have seen the storms have so bewildering an effect, even on these hardy birds, that they seemed quite stupid, and would have come within twenty yards of our guns, even in daylight. Heavy guns for boat-fishing are not used in this district, solely from the cause that the sea runs so wild and stormy, even in tolerable weather, through the various channels which divide this singular group of barren rocks from each other.

*Lake and Pond Shooting* has likewise a peculiar character, and can only be followed in particular sections of the kingdom. These are chiefly the fenny districts of Lincolnshire and Cambridgeshire, where the various kind of wild ducks breed among the reeds and long grass in the boggy grounds; here the young are hatched, and obtain, in the month of August, the name of *flappers*, and the shooting of them then commences, and is found to be excellent sport. This kind of shooting is altogether different from that which is practised on the coast, where the birds only come to feed at particular seasons, and where they never breed. These fens, or snares, or broads, are sometimes amazingly stocked with birds of all kinds; and great numbers are shot, or taken in traps and nets, and sent to the London market.

A gun of *fifty pounds weight* is found to be the most eligible. The old heavy pieces of seventy and eighty pounds rendered the punt immovable when fouled on grass and winkles, which are shells strewed over the oozes in countless myriads. The sportsman in such a punt rows with his back to the gun, until he sees the fowl, when he turns on his face, and works himself along with a kind of prong, weighted to catch the ground. When there is so much water that the shoving-pole cannot readily reach the ground, two paddles are made use of to push the fowler forward. Having given these general directions, we must refer the reader to Colonel Hawker's work for further information, as to mud pattens, mud boards, and to several modifications of the launching punt, the launching sledge, the Sussex mud-boat, and the Poole canoe; all devices and instruments to facilitate the capture of the wild fowl in the creeks and oozes of this part of the British coast.

Before parting from this branch of our subject, we must quote a few sentences respecting a scheme the Colonel calls *an island*: "The plan I adopted a few seasons ago was to make an island in the middle of the ooze, where I was sure of the first shot, unless any one was there whose punt drew less water than mine, which happened not to be the case. The way to make an island that will stand the overwhelming south-westers is this: Go at low water, and drive strong poles, from nine to twelve feet long, into the mud, at about the interval usual for hedge stakes, till they stand no more than two or three feet in height, then make a hedge to inclose as much space as you may wish your gun to sweep; fill in your

fence with faggots, well lashed on, and then cover them with mud, sea-weed, and light gravel, taking care to leave a smooth up-hill surface, which your gun will play well upon, and without leaving any protuberance that would protect the birds from the shot. After your island has stood a few heavy gales, you will then see whether you have to replenish it or not; and when all appears to stand well, go and cut off your stakes level with the island, as they might otherwise wholly alarm the birds, and partly protect them from your shot. Let your island be completed a few weeks before the autumnal passage of the birds, and I'll warrant that the first heavy gale and spring tide will drive to it some home-bred ox birds, if not curlews. These, provided they are not driven away by some premature tyro of a gunner, will bring down the birds of passage which migrate to the coast; so that, with the first *good tide* and very *high wind*, you may expect to see—not one particle of your island—but only the rug or carpet, as it were, which is formed by the innumerable birds that cover it."

There are a number of miscellaneous matters connected with wild-fowl shooting which we shall hastily run over.

The dress of the wild-fowl sportsman should suit his amusement. Mr. Daniel says:—"To be properly equipped for this sport in *severe* weather, it is essentially requisite to be well clothed. Flannel shirt, drawers, and additional exterior and warm garments, will not be found unpleasant to those who face the cold winds upon the marshes, or sit fixed in a punt alongside the oozes; thick yarn stockings, and over them what are termed wads by the fishermen (knit woollen stockings that come up to the middle; and however inelegant in their appearance, prove very solid comforts to the wearer); and over these double defenders of the legs, a pair of waterproof boots will also be found indispensable. A cap must be worn, made of skin, instead of a hat; the wild fowl will not approach near the latter, and nothing so much or so soon shies them."

There is no kind of sporting with the gun that requires more attention to health than wild-fowl shooting. It is a severe and much exposed amusement, and should be very guardedly engaged in by young men of a consumptive tendency. Indeed, we have known many a man possessed of what is called an *iron constitution*, sink under long continued exposure to night air, want of sleep, with perhaps a too great indulgence in tippling, to *keep the cold out*. The best means for this is to go out to the sea-shore in a frosty night pretty well soaked with *warm tea;* it will enable the sportsman to stand longer uninjured by cold and damp than anything he can take. We have found this to be true from personal experience, as well as from the testimony of others.

Wild-fowl shooting can be obtained in almost every section of the coast of Great Britain and Ireland, and in most of the mountainous and moorish districts of both islands. North and South Wales presents some fine lakes for this kind of shooting, and so likewise

do all the Highland localities of Scotland. The whole coast of this part of Britain opens out a grand field for the sport; and to one who wishes to enter zealously into it, we would recommend him to take a tour round the western isles, by the north cape, returning by the eastern side of the island. He will find sport of this description to his heart's content.

We find that wild-fowl shooting is zealously pursued in India, both by British residents as well as natives. "The English," says Mr. Pennant, "send out their servants as well as Indians to shoot these wild-fowl on their passage. It is in vain to follow them; they therefore form a row of huts made of boughs, at musket-shot distance from each other, and place them in a line across the parts of the west marshes of the country where the fowl are expected to pass. Each stand is occupied by a single person; these, on the approach of the birds, mimic their *cackle* so well that they will answer, wheel, and come near the hovel. The sportsman keeps motionless, and on his knees, with his gun cocked, and never fires till he has seen the eyes of the wild-fowl. He fires as they are going from him; then picks up another gun that lies nigh him, and discharges that. The fowl killed he sets up on sticks, as if alive, to decoy others; he also makes artificial birds for the same purpose. In a good day (for they fly in very uncertain and unequal numbers) a single Indian will kill two hundred. Notwithstanding every kind of wild-fowl has a different call, yet the Indians are admirable in their imitation of every one."

## CHAPTER XIV.

### ROOK SHOOTING.

This is very excellent sport, and comes to the sportsman's relief at a seasonable time—the month of May. The rook is about the size of the carrion crow, and is very like it, except in its glossy plumage. The base of the bill of the rook, and nostrils, as far as the eyes, is covered with a white skin, which constitutes one of the points of difference between it and the common carrion crow. Rooks are gregarious, and collect in vast multitudes at morning and evening to repair and return to their feeding and resting places. During the breeding time they live together in large societies, and build their nests on trees close to each other, and not unfrequently even in the heart of a populous city. "Some years ago there were several large elm-trees in the college garden, behind the Ecclesiastical Court, Doctors' Commons, in which a number of rooks had taken up their abode, forming in appearance a sort of *convocation* of aërial ecclesiastics. A young gentleman who lodged in an attic, and was their close neighbour, frequently entertained himself with

hinning this covey of black game by means of a crossbow. On the pposite side lived a curious old civilian, who observing from his tudy that the rooks often dropped senseless from their perch, or, s it may be said, without using a figure, *hopped the twig*, 'making o sign,' nor any sign being made to his vision to account for the henomenon, set his wits to work to consider the cause. It was robable during a *profitless* time of peace, and the Doctor having lenty of leisure, weighed the matter over and over, till he was t length fully satisfied that he had made a great ornithological iscovery, that its promulgation would give wings to his fame, nd that he was fated by means of these rooks to

'Volito vivus per ora virum.'

His goosequill and foolscap were quickly in requisition, and he ctually wrote a treatise stating circumstantially what he himself had seen, and, in conclusion, giving it as the settled conviction of his mind that rooks were subject to the *falling sickness!*"*

Rookeries are famous for their strifes and contentions. The birds are singularly *sharp*, and very clever at taking what does not belong to them; and these invasions on the rights of property cause immediate reprisals, and restitution of the stolen goods. We have often seen nests torn to pieces by what may be termed *general acclamation*, and their occupants *drummed* out of the society. They display great economy in the building of their nests, almost invariably using the old one, when it happens to be preserved. They trim it up afresh, and place the softer articles in it, for the eggs and the young. They begin to build in March; one bringing materials, while the other watches the nest, lest it should be plundered by its brethren. They lay five or six eggs, of a pale green colour, marked with small brownish spots. After the breeding season rooks forsake their nest-trees, going to roost elsewhere; but return to them in August, and again in October, when they repair their nests.

There is one trait in the character of the rook which is peculiar to that bird, and which does him no little credit; it is the distress which he exhibits when one of his own kind has been killed or wounded by a gun, while feeding in a field or flying over it. Instead of being scared away by the report of the piece, leaving the wounded or dead bird to its fate, he shows the greatest anxiety and sympathy for him, uttering cries of distress, and plainly proving that he wishes, if he can, to render his brother some assistance. He hovers over him, and sometimes makes a dart from the air close up to him, apparently to try and divine the reason why he lingers behind.

"While circling round and round
He calls his lifeless comrade from the ground."

* Hone's Every-Day Book.

If the bird be wounded, and can flutter along the ground, the sympathizer appears to animate him to make fresh exertions by incessant cries, flying a little distance before him, and beckoning him to try and follow. It is said that even when a dead bird has been hung *in terrorem*, to a stake in a field, he has been visited by some of his former friends, but as soon as they found that the case was hopeless, they have generally abandoned that field altogether.

As soon as the young rooks leave the nest, they are fit for the sportsman's gun. There is a much better chance, however, of killing and getting them when they leave the nest and sit upon the branches of some neighbouring tree. These are called *branchers*. When the young rooks are sitting on the edge of the nest, if shot, they almost invariably tumble into the nest, or if only wounded, hang to it with singular tenacity. When they sit on the branches apart from the nest, and are killed or wounded, they generally fall to the ground.

We have often been highly amused with the apparently instinctive care and abhorrence which rooks manifest for a gun. In many parts of England, the country people generally firmly believe that these birds can smell powder, from the singular adroitness they display in detecting the presence of the deadly instrument. We have often tried them with a stick, or pole, like a gun; but they always seemed to be aware of the difference between the sham and the real instrument. Their instinctive manœuvres as to this matter are known to all sportsmen who ever carried a gun.

# CHAPTER XV.

## PIGEON SHOOTING.

THE shooting of these well-known birds is both a *sporting* and *gambling* amusement; it is interesting, however, under both aspects.

The bird has been noticed from the earliest of times for its domestic habits and instincts. It knows its way home, though it be hundreds of miles off; and this has been, and still is, justly considered one of the most surprising and unaccountable facts in the entire history of animated beings. Anacreon, in his Odes, has immortalized the pigeon as the bearer of epistles. Taurosthenes sent his father a message by this bird of his success in the Olympic games on the day it occurred. Pliny states that a communication was kept up during the siege of Modena, by pigeon carriers. Ariosto (Canto XV.) makes the Castellan de Damiata, spread the news of Orillo's death all over Egypt. Sir John Maundeville, who flourished in the reigns of the second and third Edward, notices the value of the *colverees* in China, for the transmission of letters on important business.

The varieties of the pigeon family are very numerous, and naturalists and ornithological writers have differed considerably on the subject of their classification. Linnæus places them among *sparrows*, upon the grounds that both pair in the season of love, both work jointly in making the nest, and take their turns in sitting on the eggs. La Vaillant's classification seems now, however, to be the one generally acquiesced in, at the present time. He arranges these birds under three definite sections; the first contains *colombes, ramiers*, and *tourterelles;* the second, *columbars*, and the third, *colombi-gallines*.

We shall first notice *pigeon-match shooting*. When this commenced in England, it is difficult to say. We find it noticed at length, and as an established sport, above sixty years ago, in the *Sporting Magazine* (1793.) The account given of it there is substantially the same as the amusement displays at present; and on this account, we shall lay it before the reader, as being the best we have of the matter.

"The great celebrity of this sport, in which some of the first shots in England are so frequently engaged, encourages us to communicate an account of its fashionable influence and increasing prevalence, as a subject entitled to a place in our sporting detail. Matches coming under this denomination are of two kinds:—the first are supported by private subscription, among such gentlemen only as are members of their distinct and separate clubs. Others of an inferior complexion come on, or take place, by public contribution from candidates of every description, and are generally excited and brought about by the landlords of inns, who offer prizes

of plate, purses of gold, &c., &c., to be shot for. This practice of pigeon shooting is also common in almost every part of the kingdom, but in none is it so frequently repeated or so fashionably followed as in and around London. In the counties of Buckinghamshire, Berkshire, Hampshire, and Surrey, it is patronized, where, at this season of the year, it is in perpetual succession at one spot or another. Having proceeded thus far in our general account, it becomes us now to enter on such description of the sport as may render it perfectly easy of comprehension to those who have never had an opportunity of being present at so eager a struggle for superiority. In direct conformity with propriety, we advert first to the match, as it is generally made and decided between a given number of gentlemen from different clubs opposed to each other, or members of the same club, when, by tossing up for the first choice, they continue to choose in rotation till the party is completely formed, which may be contracted or extended to any number required for the convenience of the company intending to shoot. The match thus made, and the names of the opponents arranged upon paper by the arbiter, the sport begins in the following order:

"*Several dozens of pigeons* having been provided for the purpose, are disposed in baskets behind the company, there to wait the destructive crisis, the 'deadly level' that dooms them to instant death, or gives them liberty. A shallow box of about a foot long, and eight or ten inches wide, is sunk in the ground parallel with the surface, and just twenty-one yards from the footmark at which each gunner is bound to take aim. The box has a sliding lid, to which is affixed a string held by one appointed to the office, who is placed next the person going to shoot, from whom he takes the word of command for drawing the string whenever he is ready to take his aim, another pigeon being so expeditiously placed in the box for the succeeding shots stands ready (by the runners that furnish the pigeons), that ten, twelve, or fifteen dozen of pigeons are deposited in the box, flown, and shot, in much less time than it is possible to conceive. The gunner is not permitted to put his gun to his shoulder till the bird is on the wing; and the bird must fall within one hundred yards of the box, or is deemed a lost shot. During this rapid succession (one of each side shooting alternately), the arbiter is employed in pencilling opposite to each name the success of every individual, by A 1, or A 0; this, at the end of the match, denotes the superiority, by demonstrating which party has killed most pigeons at the least number of shots. Exclusive of the general betting upon the match, there is a variety among individuals—the shots of some against others, and the field betting of the bird against the gun, as fancy may prompt, or the reputation of the gunner dictate. He that kills most pigeons in the match, at an equal number of shots with the rest, is by such pre-eminence the *captain* of the day, stands elected as chairman for the meeting, and does the offices of the table accordingly.

"Matches of an inferior description are still more numerous, and

generally come under the denomination of a help-all or make-feast, at the instigation of those industrious, liberal landlords who advertise three pieces of plate to be given to three best shots! but at the moment of entering the list, it becomes a collateral part of the contract, that each adventurer is to contribute his proportion towards the gifts of the plate, to pay for his pigeons, and to dine at the ordinary. These matters properly adjusted, the shooting is carried on in precisely the same manner as before described, with this exception only, that every individual shoots for himself alone, without any connection with party. The candidate killing most pigeons at the least number of lots, becomes entitled to the piece of plate highest in value, and so in proportion; but in so great a number of candidates there is frequently an equality of success; in such cases they are called *ties*, and are shot off at the remaining pigeons till the superiority is ascertained and the victor proclaimed. This done, the day concludes with the same degree of festivity and superabundance as before described, but in a style of inferiority, necessarily regulated by the pecuniary resources of the parties concerned. Looking, however, to its attraction as a matter of sport, little or nothing can be said in its favour when put in competition with the more noble and manly enjoyment of the sports of the field. The liberal mind feels a temporary repugnance at the idea of first confining, and then liberating from that confinement, hundreds of domestic animals doomed to instant death, with a very slender probability in their favour, when a moderate shot will bring down fourteen or fifteen, and some nineteen out of twenty. This picture affords but an indifferent idea of the sportsman's humanity who indulges largely in this species of gratification; and further, we presume to observe, for the information of the inexperienced, that it is the most infatuating and expensive amusement the juvenile sportsman can possibly engage in; for one day very seldom terminates without the appointment of a second; one extravagance as constantly engenders another, to the utter exclusion of economy, which is upon all similar occasions generally laughed out of countenance. Experience has also convinced us, that eight, nine, and ten pounds for pigeons, in addition to the bill of fashionable exorbitances for the day, amounting to the inconsiderable reckoning of two or three guineas each, has sent many a pigeon-shooter to his bed, and awakened him to the pillow of reflection."

That these statements may not appear altogether one-sided, we shall give a quotation of a somewhat modifying character as to the uses and nature of this practice of pigeon-match shooting. We agree with Mr. Daniel, that "shooting of pigeons and of game is so widely different, that a person may almost always strike his bird from the box, that scarcely ever makes shift to hit it when rising from the bush, unless a pointer ascertains to an inch from what spot he may expect the bird to spring. No method is so advantageous in learning to shoot well as acquiring it by practising it at game; the pigeon from the

trap glides off in silence, and not a nerve is discomposed by the smallest alarm; but in the field, where the partridge or pheasant rises with all the vigour of an animal exerting his powers to preserve life and liberty, the consequent sound of their pinions in their ascent to the air, which is always attended with considerable noise, will perhaps create more of that trepidation, which, when possessed even in a trifling degree, effectually deters from steadiness in shooting, than if the shooter had never accustomed himself to fire at objects whose flight is so dissimilar. Many young shooters exercise their skill at swallows, swifts, and martins; but the flight of these is so irregular and unlike that of every other bird which the sportsman pursues, that even a certainty of killing them (which, by the way, a despicable bad shot may acquire a knack of doing by seizing a particular moment when they are just upon the turn, and are for an instant stationary), does not at all forward their dexterity in bringing down any other species of game." Mr. Daniel says again, that "as a mode of shooting to bet large sums of money upon, pigeon-match shooting is perhaps the least objectionable, since every shooter has an equal chance as to the distance from whence the bird is sprung; but certainly it is not exactly the kind of shooting that a sportsman will ever try or fancy as an amusement." A decided favourer of this sport observes, "that whatever degree of utility may otherwise attach to it, pigeon-shooting has the further merit of annually delivering some hundreds of miserable birds from the clutches of metropolitan blackguard fanciers, by whom they are too often kept in an unnatural and torturing state of confinement. Indeed, their carriage in sacks to the place of execution is no mitigation of their tortures, yet happy are those which there find their *quietus*. Further, it is an Englishman's sport, since it is a free one, in which a man may exercise his gun, although of the unprivileged class."

Pigeon-match shooting is still practised in many parts of England, and in the metropolis and suburban localities. The terms of these matches vary, according to the fancy of the concoctors of them. Sometimes they are arranged for single, sometimes for double guns; sometimes for this weight of shot, and sometimes for that. We think, however, within these few years these matches have been decidedly on the decline, and are not now considered so fashionable as they were wont to be some years ago.

*The Ringdove, or Cushat* (*Columba Palumbus*, Linn.)—We shall now make a few observations on wild pigeon shooting. This bird varies from twenty to twenty-two ounces, and its length is about eighteen inches. The bill is yellowish, and the irides are of a light yellow. The head, coverts of the wings, and scapulars, are of a deep bluish ash hue, and the neck and breast vinaceous, beautifully glossed with green and copper-colour, changeable when viewed under different shades of light. On each side of the neck there is a large patch of glossy white, which almost joins behind; the back and tail are ash-colour, and the latter black at the point. The

vent and thighs have an ash hue, and the bastard wing is almost black. Behind it a few of the coverts are white, forming a line down to the larger quills, which are dusky, fringed with white. The legs are feathered much below the knee, which, with the feet, are of a purplish red. There is little or no distinction in the plumage of the sexes, but the female is not quite so large.

It is a disputed point among naturalists whether the wild pigeon migrates farther than from the northern parts of this island to the southern. Its nest is rather rude, as most schoolboys know. Graham says :—

> "So rudely is it formed,
> That oft the simple boy who counts the hours
> By blowing off the dandelion flowers,
> Mistakes the witch-knots for the cushat's nest."

Some writers think the wood-pigeon (for it often goes by this name) has decreased within late years very much. We think this a mistake. Of course we do not know how matters stood when Mr. White of Selborne wrote his admirable *History*, but we know something of the bird for the last half century, and our belief is that it is as numerous now, if not more so, than at any previous period of history. It is impossible to travel in any direction in Great Britain and not see vast flocks of them, at least on those tracts of country which abound with a fair portion of wood, and are in a state of tolerable cultivation. Mr. White says on this point that "he had often killed near twenty in a day, and that on some occasions, with a long fowling-piece, he has even shot seven or eight at a time on the wing, as they came wheeling over his head, and that there were often among them little parties of small blue doves, which are called rockiers."

The wild pigeon requires rather a severe blow with the shot to knock it down. Its feathers are close, and resist shot like those of water-fowl. When these birds collect in considerable numbers about turnip fields in winter, they invariably set scouts out to watch over a surprise. These sit on some two or three of the highest trees in the neighbourhood, and when they give the alarm the entire body move off in quick time. We have been often struck, and sometimes a little mortified into the bargain, to see how adroitly and cleverly these sentinels perform their duty. Yet in spite of their instinctive and systematic vigilance, the sportsman may often succeed in getting within range of them, and do considerable execution, by having a pretty good gun, and using pretty good sized shot. In the months of July and August we have often noticed this bird visiting old pasture fields, and feeding rather keenly on the seeds of a species of grass which is then abundant. We have not failed to profit by this hint as to such localities, and have sometimes done execution in them when all other places were of little avail.

As pigeons are required to be bred for the purpose of shooting-matches, a few words on the best modes of doing this are requisite. The first thing is a commodious place to rear and protect them. This, of course, will necessarily be varied according to the circumstances and position of the pigeon-breeder. But whatever be the size or shape of the dove-cote, it must have two holes or rooms to nest in. Without this arrangement is made, there will be constant confusion, and the eggs will get broken continually. If a dove-cote can be entirely isolated, it will prove more secure than any other, as vermin will then find it difficult, and in some cases impossible, to shelter themselves in it. When pigeons are kept in a room, and they have to lay their eggs on the floor, they are liable to be destroyed by rats.

It is recommended that every dove-cote should, if possible, have a south-west aspect; and if a room be fixed upon for that purpose, a hole may be made in the roof of the building for the passage of the birds, and which can be closed at convenience. A platform should be constructed at the entrance for the pigeons to alight upon, and with some defence against strange cats, which will often destroy a whole dove-cote in a single night. If cats can be reared to be familiar with pigeons, then they may be of important use, in guarding the dove-cote from the intrusion of rats and mice. This platform should be painted white, this being a favourite colour with the birds, and it is likewise conspicuous as a mark to enable them to find their way home. The boxes should also be coloured, and renewed whenever necessary, for which purpose lime and water will be sufficient.

Cleanliness is of great importance in a dove-cote; the want of it will soon render the place a complete nuisance, and the birds will become covered with vermin. The place should be thoroughly cleaned once a week. Water to pigeons is of great moment. They have an instinctive anticipation of rain, and will remain on the house-tops, spreading their wings, and patiently waiting its arrival. When they are confined in a room, they should be allowed a wide pan of water; and this should be often renewed, as a bath, which cools, refreshes, and assists them to keep their bodies clear of vermin. In attendance on pigeons, caution is requisite with respect to their fighting, to which they are more prone than might be expected, often to the destruction of eggs and young.

The common barrel dove-cote is known to every one, and therefore needs no formal description. It is adapted to almost every situation and locality.

Pains must be taken to pair the pigeons properly; this is a matter of some nicety. This may be done according to the fancy of the keepers, for the purpose of varying the colours, or with any other view. Old pigeons are difficult to retain securely; they are apt to take flight on every opportunity of gaining their freedom. It is better to have what is called *squakers*, or such as have not yet flown: these, being confined, in a short time, well fed, and gradually

accustomed to the surrounding scenery before they have acquired sufficient strength of wing wherewith to lose themselves, will become perfectly domesticated.

In a room or loft appropriated to the rearing of pigeons, the shelves should be placed sufficiently high for security against vermin, a small ladder being a necessary appendage. The usual breadth of the shelves is about twenty inches, with the allowance of eighteen between shelf and shelf, which will be quite enough not to incommode the tallest birds. Partitions between the shelves may be fixed at the distance of about three feet, making a blind, by a board nailed against the front of each partition, where there will be two nests in the space of every three feet; so that the pigeons will sit in privacy, and not be liable to disturbance. Or, a partition may be fixed between each nest; a good plan, which prevents the young from running to the hen, sitting over fresh eggs, and perhaps occasioning her to cool and addle them; for, when the young are about a fortnight or three weeks old, a good hen will leave them to the care of the cock and lay again.

Food and water should be given to pigeons in such a manner as to keep them from being contaminated with dirt of any kind. Earthen pans may be used for this purpose; but there are neat meat-boxes and water-bottles made for the purpose, which are excellent things, and preserve great cleanliness in feeding. The meat-box is formed in the shape of a hopper, covered at the top to keep the grain clean, which descends into a square hollow box. Some fence this off with rails or holes on each side, to keep the grain from being scattered over; others again leave it quite open, that the young birds may the more readily find it for their food. The water-bottle is a large glass bottle with a long neck, holding from one to five gallons; it is belly-shaped like an egg, so that the pigeons may not alight upon, and soil it. It is placed upon a stand or three-footed stool, made hollow above to receive the belly of the bottle, and let the mouth into a small pan beneath; the water will gradually descend out of the mouth of the bottle as the pigeons drink, and be sweet and clean, and always stop when the surface reaches the mouth of the bottle.

The *Stock-Dove* (*Columba Œnas*, Linn.) There is considerable uncertainty about the identity of this bird. Bewick calls it the *wild-pigeon;* and Colonel Montague the *rock-dove*, or *rockier;* and he says that ornithologists seem to differ concerning the rock and the stock pigeon, though it appears almost impossible to conceive them a distinct species. In those described under such names, there seems to be so much similitude, except what may be expected from a species half reclaimed, and frequently returning to their natural wild habits again, that we cannot but consider them as one and the same species. Bewick rather coolly says, that the stock-dove, rock-pigeon, and wood-pigeon, with some small differences, may be included under the same denomination. The wood-pigeon ought to be taken entirely out of this class, because it

is well known never to produce any sexual intercourse with our domestic pigeon, though every effort has been tried which ingenuity could suggest. Besides, as it has been often remarked the determinate size of the wood-pigeon, from which he never seems to vary, is quite irreconcilable with the notion that he is of the same species as the common bird.

The stock-dove is very generally diffused throughout all the countries in Europe. It is said to be migratory; but this is not well ascertained. The nest of the female bird is very loosely and rudely put together; so much so, that the eggs can be distinctly seen from the under part of the nest. She lays two white eggs. These birds live on wild fruits, herbs, and on all kinds of grains. They are very partial to peas. They are delicate eating, except when they have been for some time feeding on turnips; they then acquire a strong and rancid flavour.

They are a shy bird to approach, but are somewhat more easily killed with shot than the common wood-pigeon. When they assemble in large flocks, they set scouts to watch; but by a little care, and keeping perfectly still, if possible, the sportsman may succeed in getting a fair shot at them. Some writers say they are more common in the southern counties of England than in the northern. They are likewise numerous in some districts of Wales. In some of the continental states, particularly in Hungary, Bohemia, and Servia, they appear in great flocks, at certain seasons of the year, and are shot in large numbers by the sportsmen and peasants of these countries.

*Turtle Dove* (*Columba Tutur*, Linn.)—The length of this bird is nearly twelve inches. The bill is brown; the eyes yellow, and surrounded with a crimson circle; and the top of the head is ash colour, mixed with olive. On each side of the neck there is a spot of black feathers, tipped with white. The back is an ash colour, with each feather fringed with a reddish brown, and the wing coverts and scapulars are likewise of a reddish hue, slightly spotted with black. The quill-feathers are dusky, with pale edges. The forepart of the neck and breast is of a light, purplish red; and the belly, thighs, and vent, are white. The two middle feathers of the tail are brown, the others dusky, and tipped with white. The two outermost are also edged with the same, and the legs are of a reddish hue.

The note of the turtle dove is singularly tender and plaintive, and has been famed for this from the earliest times by poets and sentimentalizers of all grades. In addressing his note, the male bird make use of a variety of winning attitudes, cooing at the same time in the most gentle and soothing strains. This has given rise to its emblematical representation of connubial attachment and happiness. These birds arrive late in the spring, and depart about the latter end of August. They frequent the thickest and best sheltered localities of woods and plantations, where they build their nests on the highest parts of the loftiest trees. The

female lays two eggs, and has only one brood in this country; but in warmer climates she is supposed to breed several times throughout the year. Turtle-doves are pretty common in Kent, where they are sometimes seen in flocks of twenty to thirty, frequenting the pea-fields, where, it is said, they do great damage. Their stay in this country seldom exceeds four or five months, during which time they pair, build their nests, and rear their young, until they are strong enough to follow them in their retreat.

A variety of the common turtle has been described by the name of the spotted necked turtle-dove. The difference consists in the whole side of the neck being black, and instead of those feathers being tipped with white, there is a round spot of white on each, very near the end. Dr. Latham says this bird was shot in Buckinghamshire, and that he observed one of these amongst some birds that came from the last expedition to the South Seas; but as it was in a parcel wherein were some which belonged to the Cape of Good Hope, it is possible that this single bird might come from that place. The bastard produce of the common turtle with the turtle of the aviary, has been proved by frequent experiments to be barren, although the two species from whence it originates appear to be closely allied, and a mixed breed is easily produced.*

---

## CHAPTER XVII.

### SHOOTING OF SMALL BIRDS.

We confess to feeling some compunctions of conscience in writing this chapter. If we could consult our own sentiments, and make them the standard of other sportsmen's amusements, we should say, Never fire a shot at any of the birds herein mentioned. As lovers of nature, and of all that animates the hedgerows and the fields with their presence and their song, we have a strong dislike to be the instrument of destruction to what have all our lives been objects of interest and pleasure. We know this is not in strict accordance with the sporting code, and if our principle were legitimately carried out, it might put, perhaps, an end to all shooting. We see the logical dilemma, and feel its force; but still we cannot altogether conquer our internal emotions, and so continue to do what men in almost all departments of life continue in some measure to do, from the antagonistic elements of human nature—to feel one thing, and do the contrary.

The *Redwing* (*Turdus Iliacus*, Linn.)—This bird is nearly about five ounces in weight, and is about eight inches in length.

* History of the Pigeons de Voliére. Paris.

The bill is dark brown, the eyes a deep hazel, and the plumage in general is similar to that of the thrush. A white streak runs over the eye which distinguishes it from that bird. The belly is not quite so much spotted, and the sides of the body, and the general mass of feathers under the wings, are tinged with a lively red, which constitutes its peculiar characteristic, and which confers upon it its name.

These birds arrive in this country a little earlier than the fieldfares, and when the latter come they mingle freely together. They frequent the same localities, live upon the same kind of food, and are very similar to each other in their leading features. The redwing leaves in the spring, for which reason their song is not known to us; but travellers tell us it is very harmonious and sweet. The female builds her nest in low bushes or hedges, and lays six eggs of a greenish blue colour, with small black spots dotted upon them.

We are told by historians that the Romans held the flesh of the redwing in the highest estimation, and they kept thousands of them together in aviaries, and fed them with a species of paste, chiefly composed of bruised figs and flour, and on various other kinds of food; all with a view to improve their delicacy. These receptacles were so contrived as to admit light barely sufficient to direct them to food. Every object which could possibly remind the birds of their former liberty was sedulously kept out of sight; such as the fields, the woods, the birds, or whatever might disturb or break in upon their memories, or impair their improvement. Under this treatment, the redwing fattened to a great extent, was sold for a high price, and was raised to the highest edible dignity amongst this luxurious people.

Bewick tells us that a redwing was taken up, November 7, 1785, at six o'clock in the morning, which, on its approach to land, had flown against the lighthouse at Tynemouth, and was so stunned that it fell to the ground and died soon after; the light, it is conjectured, had attracted its attention. The same writer observes, that when redwings appear on the eastern coast, they as commonly announce the approach of the woodcock as does the arrival of the wryneck that of the cuckoo in the south.

The best time for shooting the redwing is in hard frosty weather; they are then more bold in maintaining their feeding grounds, and collect besides in greater numbers. The sportsman should, however, shelter himself as much as possible. At all times these birds set scouts to watch; and on this account it requires considerable art to get within range of them.

The *Fieldfare* (*Turdus Pilarus*, Linn.) is an interesting and beautiful bird. It is about ten inches long. The bill is yellow, and each corner of the mouth is furnished with a few black and bristly hairs. The eye is light brown, and the head and back part of the neck are of a light ashen hue; the former spotted with black. The coverts of the wings are of a deep hoary brown, the rump ash-

coloured, and the throat and breast yellow, with regular spots of black. The belly and thighs are of a yellowish brown, and in the young birds more decidedly yellow.

There are some varieties of this bird which display a somewhat different plumage; but these differences are not of a very important cast. They are mostly confined to the comparative faintness of the black spots on the breast, or the greater predominance of white in various sections of the body.

The fieldfare is migratory, and arrives in this country commonly in the first week in October; but this depends considerably on the state of the weather. They are considered as prognosticators of the forthcoming winter. When they make their appearance early, it is said that we shall have a hard season; when late, a mild one. They generally come here in large flocks, and disappear about the latter end of February, or the beginning of March, and retire to Russia, Sweden, Norway, and as far as Siberia and Kamtschatka. Buffon tells us, they do not arrive in France till December, when they assemble in flocks of two and three thousand. Their food is haws and other berries, andlikewise worms, snails, and slugs.

The fieldfare is a shy bird to approach with a gun. When they are in any considerable numbers, they appoint regular scouts to give the alarm of danger. They can therefore seldom be shot, except by stratagem, or by accidentally getting within range of a flock of them. The shot easily kills them, their feathers being loose and their frames delicate.

Bewick says that fieldfares seem of a more social disposition than the throstle or the missels; they are sometimes seen singly, but in general form very numerous flocks, and fly in a body; and though they often spread themselves through the fields in search of food, they seldom lose sight of each other, but, when alarmed, fly off, and collect together upon the same tree.

The *Thrush or Throstle* (*Turdus Mucicus*, Linn.).—This bird is often, in country districts, an object of the sportsman's attention, more especially if he be a young one. It is larger than the redwing, but less than the missel-thrush, to which, in other respects, it bears a great resemblance, both in form and colour. A small notch is found at the bill of the throstle, which is characteristic of all the thrush species. The throat is white, and the spots on the breast are very regularly formed, and are of a conical shape. The inside of the wings and the mouth are yellow, so likewise are the legs. The claws are strong and black.

The throstle is distinguished by its clear and harmonious notes, and is one of the chief songsters of the groves, and takes the lead among the feathered tribe:—

> "The jay, the rook, the daw,
> And each harsh pipe (discordant heard alone),
> Aid the full concert, while the stock-dove breathes
> A melancholy murmur through the whole."

The throstle or thrush is not properly migratory in this country, it is nevertheless more numerous in particular places at some part of the year than at others; and this circumstance has given rise to the idea that they move, to a certain extent, from one place to another. The female builds her nest generally in bushes; the hazel, the thorn, and sometimes on the branches of trees. It is composed of dried grass, cemented together by clayey matter. Buffon maintains that these birds are migratory in France, and appear in the south section of the kingdom about the end of September, and before either the redwing or fieldfare are seen. The female bird has not such a brilliant plumage as the male; the colours and spots are more blended and faint in the former than in the latter.

*The Missel Thrush* (*Turdus Viscivorus*, Linn.).—This bird is about eleven inches long. The bill is of a dusky hue, and the base of it yellow. The eyes are hazel. The head, back, and lesser coverts of the wings are of a deep olive colour, and the latter tipped with white; though we have seen the white, in some instances, much more brilliant than in others. The lower portion of the back or rump is tinged with yellow; and the cheeks are of a yellowish white, spotted with brown; and so likewise are the belly and breast. The quills are brown, fringed with pale edges, and the tail feathers are the same, the three outermost being tipped with white. The legs are yellow, and the claws are black.

The female builds her nest in bushes or low trees, and lays four or five eggs, of a greenish colour, marked, sometimes irregularly, with red spots. Its nest is made of moss, leaves, and small fibres of twigs, and lined inside with dry grass. It commences early in the year to sing, and this too when the weather is stormy and ungenial; and this circumstance has induced the country people, in many districts in England, to call it the *storm cock*. It feeds on various kinds of berries, particularly those of the mistletoe, of which birdlime is made. Hence the notion which formerly prevailed that the plant of this name was only propagated by the seed which passed through the digestive organs of this bird, and the origin of the phrase, *Turdus malum sibi cacat*. It likewise feeds on caterpillars and various kinds of insects, on which it chiefly rears its young. It is a native of almost every country in Europe, and in some sections of it is said to be migratory. It remains in England the entire year, and has frequently two broods in the season.

*The Lark* (*Alauda Arvensis*, Linn.)– This interesting bird often falls a prey to the shooting tyro. We feel some degree of pleasure at the thought of never having fired a shot at one.

> "The daisied lea he loves, where turfs of grass
> Luxuriant crowns the ridge; there, with his mate,
> He founds his lowly house of withered herbs
> And coarsest spear-grass; next, the inner work
> With finer and still finer fibres lays,
> Rounding it curious with his speckled breast."

This bird is so well known, that any description of it is superfluous. It builds its nest upon the ground, where it is exposed to the depredations of many of the smaller animals of prey, as the weasel and the stoat. Mr. Mudie says: "The lark selects her ground with care, avoiding clayey places, unless she can find two clods so placed as that no part of a nest between them would be below the surface. In more friable soils she scrapes till she has not only formed a little cavity, but loosened the bottom of it to some depth. Over this the first layers are placed very loosely, so that if any rain should get in at the top, it may sink to the bottom, and there be absorbed by the soil. The edges of the nest are also raised a little above the surface, have a slope outwards, and are, as it were, thatched. The position in which the bird sits is a further security, and as the head is always turned to the weather, the feathers of the breast and throat completely prevent the rain from entering the nest at the side, while the wings and tail act as pent-houses in the other parts, and, if the weather be violent, and the rain fall at a small angle with the horizon, the forepart of the bird, upon which the plumage is thickest, receives the whole of it."

What is called the *twirling for larks*, is a mode of amusement followed in France, and is thus described:—

These birds are drawn to any given spot in considerable numbers, by a singular contrivance called a *mirror*. This is a small machine, made of a piece of mahogany, shaped like a chapeau bras, and highly polished, or else it is made up of common wood, inlaid with small bits of looking glass, so as to reflect the sun's rays upwards. It is fixed on the top of a thin iron-rod, on an upright spindle, dropped through an iron hoop or ring, attached to a piece of wood to drive into the ground. By pulling a string fastened to the spindle, the mirror twirls round, and the reflected light unaccountably attracts the larks, who hover over it, and become a mark for the shooting sportsman. There is often what the French call capital sport in this way. Sometimes six dozen of these birds are shot before breakfast: sometimes the sportsman sits on the ground, and pulls the twirler himself, and sometimes a boy or servant is employed to do it. Ladies often partake of the amusement on a cold dry morning, not by shooting, but by watching the sport. Occasionally there are ten or a dozen parties out together, firing at a distance of five or six hundred yards, and by this device the larks are kept constantly on the wing. The most favourable mornings are, when there is a gentle light frost, with little or no wind, and the sky clear. When cloudy the birds will not appear. To a bystander it would almost suggest the thought, that the larks themselves enjoyed their own destruction, for the fascination of the twirler is so strong as to rob them of the usual fruits of experience. After being fired at several times, they return to the twirler, and form again into groups above it; some of them even flying down, and sitting upon the ground, within a yard or two of the astonishing instrument, looking at it this

way and that way, and all ways together, as if nothing had happened.

In some parts of Germany, larks are taken in great quantities. Dr. Latham tells us that the duty paid at Leipsic for these birds amounts to twelve thousand crowns per annum, at a grosch, or twopence-halfpenny, for every sixty larks.

In this country, some lark shooters in winter, and when there is a certain portion of snow on the ground with hard frost, sweep a portion of the snow from the surface of the ground, and strew over it a little chaff or grain. This area need not be more than twenty yards square. The birds will greedily frequent it, and by means of a natural hedge, embankment, or an artificial screen, great slaughter can be effected.

We would, however, advise young sportsmen to refrain from any such practices. The bird gladdens the heart of man; as Pope says:—

"Joy tunes his voice, joy elevates his wings!"

and we really do think that there ought not to be any *sporting* with his safety.

## CHAPTER XVI.

### RABBIT SHOOTING.

"More difficult than hares to hit,
They frequently appear to flit
Like shadows past one;—good, indeed,
Is then the aim that bids them bleed.
If you would see them nicely stopped
In the thick wood, you must adopt
Snap shooting, for you'll seldom there
Have time to take them full and fair;
E'en lost to view, advance your gun
Quickly to where you *think* they run:
Regard not grass, nor brush, nor briar,
Through each and all that instant fire.
Bang! it's well—you saw him not
And yet you've killed him on the spot."—WATT.

RABBIT shooting is considered one of the minor legitimate sports of the gunner, and has a considerable portion of pleasurable excitement connected with it, chiefly from the uncertainty of success—though it may appear to a casual observer that it could never be a difficult matter to kill a rabbit; but actual experience tells another tale. It is one of those shooting exploits that requires a combination of qualifications, not always found in one and the same sportsman.

There are four kinds of these animals commonly known among dealers and fanciers of them, namely, *warreners*, *parkers*, *hedgehogs*,

and *sweethearts*. The warreners are widely distributed, and are to be found in almost every section of the British coast, where there are sand banks, or mounds of any kind. Though all of one species, they vary considerably in size; those in the English warrens being greatly superior to those found in Scotland, both in size and in flavour. The warren rabbits of the Irish coast are very much like those found in Scotland, though on the whole, a shade larger in bulk. The richest and finest warren rabbits are located in the warrens along the eastern coast; extending from Lincolnshire to Berwick-upon-Tweed. It is a curious fact, but nevertheless a well ascertained one, that all the rabbits on the warrens in the west side of the island, are of a comparatively diminutive size, and in many places have a strong fishy taste.

Those who rent warrens for the sale of rabbits, seldom or ever allow shooting upon them; and chiefly for this reason. If a rabbit be wounded, it will run for some hole or burrow; and it is known to regular shooters of them in such places, that so strong and powerful is this desire to get back to their holes, that animals, in the very struggles of death, succeed often in scrambling into a sand burrow. Now warreners tell us, and we are convinced of the fact from repeated experience, that if a wounded or dying rabbit get into a burrow, none of the living ones will ever pass it: they will die in their holes first; so that a single wounded or dead animal will cause the death of perhaps a score of their own kind in the same locality. This becomes a real loss to the proprietor of a warren. We have known a couple of guineas offered for two or three shots in a warren, and refused, solely upon this ground. The obstinacy of the rabbit is curious; and it is equally, if not more singular in reference to the ferret. This little animal is often used by shooters to make the rabbits spring out of their holes; they are also very extensively used by warreners to make them spring, and fall into small *pokenets*, as they are called, placed at the mouths of the holes. But we have often seen when these ferrets have been long in making their appearance, the warreners have dug for them, and found them commonly lying, though muzzled, beside a dead rabbit, whose very brains have been scratched out, or their back-bone laid bare, rather than budge an inch for the ferret. This is a circumstance of daily occurrence in all the great rabbit warrens in the north of England, that lie on the eastern side of the island. Nothing injures the productive remuneration of a regular warren so much as shooting over it, even though it be but a week or two in a season.

The *parker* and the *hedgehog* rabbit, are very much alike. They both frequent plantations, and high inland rocky ground. They are uniformly much smaller than the warren rabbits that are bred on the eastern coast of England; but are nearly of the same length and weight as the general run of Scotch and Irish rabbits. In many parts of England, and even in Scotland, it has of late years been a custom among gentlemen of landed estates, who were much

attached to fox-hunting, to introduce these parker and hedgehog rabbits into certain localities of their grounds, with a view of supporting the foxes. But we believe that it has, in numerous cases, turned out that the rabbits bred in such prodigious numbers, that they became a regular nuisance, and very difficult indeed to root out again. This practice has given rise to many serious disputes and bickerings among farmers and their landlords, about the destruction of the crops of grain by the rabbits in such places.

With respect to the shooting of these animals in such localities, every degree of caution is requisite. It is indispensable you should avoid advancing in a straight line towards them, or even to give a glance at them. They must be approached by stealth. If you have a dog, keep him close to your heels. Stoop down, and prevent the animal from seeing you, if you can. This, and such like stratagems, are the only means to get a shot at these kind of rabbits.

We may incidentally allude to *hare* shooting, though the animal is more an object of the chase, than of the gun. Still, throughout the shooting season, there are a vast number of hares shot. Few sportsmen allow her to make her escape, when a fair shot offers. Some fowlers are remarkably clever at finding and shooting hares; and we have known more than one instance, where it became quite a passion to the entire exclusion of any other kind of sporting. We have often seen an individual in a stubble field in a fine evening, crawling upon his knees, and sometimes on his side or his belly; and, without any dog, gaining upon poor puss so slowly but surely, that her death became certain. This shooter would never, however, fire at a hare in her seat in a hedge or cover of any kind. This he thought most unsportsmanlike, and cowardly.

Hares are not difficult to kill. Their mode of running is more favourable to the sportsman than the bouncing and stotting movements of the rabbit.

---

## CHAPTER XVIII.

### DEER-STALKING.

This is comparatively a modern shooting amusement, confined chiefly to the higher classes of English sportsmen. It is, however, full of interest and excitement; and we shall endeavour to impart as general an idea of it as our limits will permit.

The deer, it is well known, has been an interesting object of the chase from the earliest records of the human family. Stag hunting is treated of by Xenophon, at considerable length, and minuteness of detail. It forms a conspicuous item in Anglo-Saxon history; and,

all down the middle ages, we find many of the most important events connected with its prosecution in most of the countries of Europe.

With the hunting of the deer by dogs, we do not profess to meddle; but confine our remarks and statements to the shooting of them with the gun.

Deer-stalking is practised in those parts of the Highlands of Scotland, and in other countries, which are mountainous and inaccessible to anything but the pedestrian, his gun, and his dogs. It is a most laborious and excitable amusement; keeping the powers of both mind and body upon the full stretch. It takes the sportsman into the wildest and most sublime districts, and opens out to his contemplation some of the most magnificent landscapes that can captivate the senses and excite and ravish the imagination. The sport, considered merely in relation to the outward adventures and rambles necessarily connected with it, is one of the highest and most manly kind.

Deer-stalking was written about, two centuries and a half ago, by Taylor, called the *water poet*. He says, in his *Pennyless Pilgrim* (we give the modern spelling), "I thank my good Lord Erskine; he commanded that I should always be lodged in his lodging, the kitchen being always on the side of a bank, many kettles and pots boiling, and many spits turning and winding with great variety of cheer, as pigeons, hens, capons, chickens, partridge, moorcocks, heathcocks, capercallies, and ptarmigans; good ale, sack, white and claret, and most potent *aqua vitæ*. All these, and more than these, we had continually in superfluous abundance, caught by our falconers, fowlers, fishers, and brought by my Lord Marr's tenants and purveyors to victual our camp, which consisted of fourteen or fifteen hundred men and horses. The manner of hunting is this: five or six hundred men do rise early in the morning, and they do disperse themselves divers ways, and seven, eight, or ten miles compass, they do bring or chase in the deer in many herds (two, three, or four hundred in a herd), to such or such a place, as the noblemen shall appoint them; then when the day is come, the lords and gentlemen of their companies do ride and go to the said places, sometimes wading up to the middle through burns and rivers, and then they being come to the place, do lie down on the ground till their foresaid scouts, which are called the tinckell, do bring down the deer; but as the proverb says of a bad cook, so these tinckell men do lick their own fingers, for besides their bows and arrows, which they carry with them, we can hear now and then an arquebuss or musket-shot go off, which they do seldom discharge in vain; then after we had stayed three hours, or thereabouts, we might perceive the deer appear on the hills round about, which being followed close are chased down into the valley where we lay; then all the valley on each side being waylaid with a hundred couple of strong Irish greyhounds, they are let loose as occasion serve upon the herd of

deer, that with dogs, guns, arrows, darts, in the space of two hours fourscore fat deer were slain."

We find, also, that at the great hunting displays given in Scotland by the chief nobility during the sixteenth and seventeenth centuries, fire arms were occasionally used to kill the red deer. Historians tell us that these hunting exploits were conducted upon a most gigantic scale of magnificence, and were attended by many thousands of the clansmen, who surrounded great tracts of country, and drove the game to where their respective chiefs were located. In an entertainment of this kind given by the Earl of Athol to James V., the Queen, his mother, the Pope's ambassador, and many hundreds of the most distinguished ladies and gentlemen of the court, there was a kind of palace constructed, made of green timber, interclosed with boughs, moated all round, and provided with turrets, portcullis, and drawbridges. The hunting continued three days; and we are expressly told that many of the animals were shot with the gun through the apertures of the rough building, and that even some of the ladies were bold enough to fire off some of those field pieces, which were then of a rude construction and considerable size.

The stag or hart, whose female is called the hind, and the young a calf, differs in size and horns from a fallow deer. He is much larger, and his horns round, whereas, in the fallow species, they are broad and palmated. By these the animal's age is ascertained. During the first year the stag has no horns, but a horny excrescence, which is short and rough, and covered with a thin hairy skin, the next year the horns are single and straight, in the third they have two antlers, three the fourth, four the fifth, and five the sixth year; but this number is not always certain, for sometimes they are more, and often less. After the sixth year the antlers do not always increase, and although in number they may amount to six or seven on each side, yet the animal's age is then estimated rather from the size of the antlers and the thickness of the branch which sustains them, than from their variety. These horns, large as they seem, are, notwithstanding, shed every year, and new ones assume their place. The old horns are of a firm solid texture, and are extensively employed in making handles for knives and other instruments; but, while young, nothing can be more soft or tender, and the animal, as if conscious of his own imbecility at those times, instantly upon shedding his former horns, retires from the rest of his species, and hides himself in solitudes and thickets, never venturing out to pasture except by night. During this time, which most usually happens in the spring, the new horns are very tender, and have a quick sensibility of any external impression. When the old horn has fallen off, the new one does not begin to appear immediately, but the bones of the skull are seen covered only with a transparent periosteum or skin, which covers the bones of all animals. After a short time, however, the skin begins to swell, and to form a sort of tumour, which

contains a great deal of blood, and then it is covered with a downy substance, that to the touch resembles velvet, and which appears of nearly the same colour with the rest of the animal's hair. This tumour daily increases from the point, like the graft of a tree, and, rising by degrees from the head, shoots out the antlers from either side, so that in a short time, in proportion as the animal is in condition, the entire horns are completed; but it should be observed that the substance of which the horns are composed, begins to harden at the bottom, while the upper part remains soft and still continues growing, whence it appears that the horns of deer grow differently from those of sheep or cows, which latter always are seen to increase from the bottom. When, however, the horns have completed their full growth, the extremities then acquire solidity. The velvet-like covering, with its blood-vessels, dries up, and the former then begins to fall, and this the animal hastens by rubbing its antlers against the trees of the forest. In this manner the whole external surface being stripped off by degrees, the horns acquire their complete hardness, expansion, and beauty. It is also said that some hinds have horns.

It would be a vain task to inquire into the cause of the annual production of these horns; it is sufficient to observe, that if a stag be emasculated when the horns are fallen off, they will never grow again; and, on the contrary, if the same operation is performed when they are on, they will never fall off. If only one side is emasculated, he will want the horn on that side.

The old stags usually shed their horns first, which generally happens towards the latter end of February or the beginning of March.

Such as are between five and six years old shed their horns about the middle or latter end of March; those still younger in the month of April; and the youngest of all not till the middle or latter end of May.

They generally shed them in pools of water, whither they retire from the heat, and this has given rise to the opinion of their always hiding their horns. These rules, though true in general, are yet subject to many variations, and it is well known that a severe winter retards the shedding of the horns. A short time after they have gained their horns, they begin to feel the impression of the rut.

The old ones are the most forward, and about the end of August or beginning of September, they quit their thickets and return to the mountain or plain, in order to seek the hind, to whom they call with a loud tremulous note. At this time their neck is swollen—they appear bold and ferocious—fly from country to country—strike with their horns against the trees and other obstacles—and continue restless and fierce until they have found the female, who at first flies from them, but is at last overtaken.

When two stags contend for the same female, however timorous

they may appear at other times, they then seem agitated with an uncommon degree of ardour; they paw up the earth, and menace their opponent with their horns, bellowing with all their force, and striking in a desperate manner against each other, seeming determined upon death or victory. This combat continues till one of them is defeated or flies, and it oft-times happens that the victor is obliged to fight several of these battles before he becomes the undisturbed master of the field. The old ones are generally the conquerors upon these occasions, as they have more strength and greater courage, and they are preferred by the hind to the younger, the latter being more feeble and less ardent.

The stag or red deer is common in Europe, Barbary, the north of Asia, and North America; it abounds in the southern parts of Siberia, where it grows to an immense size, but is now extirpated in Russia. It lives in herds, and there is generally one male which is supreme in each herd.

The stag possesses a fine eye, an acute smell, and an excellent ear; like that of the cat and the owl, the eye of the stag contracts in the light, and dilates in the dark, but with this difference, that the contraction and dilatation are horizontal, while in the first-mentioned animals they are vertical.

When deer are thirsty, they plunge their noses, like some horses, very deep under water while in the act of drinking, and continue them in that situation for a considerable time.

The number of teeth of the various species of deer and the antelope tribe, is generally thirty-two, namely, eight cutting teeth in the lower jaw, six molar teeth on each side of these, and six molar teeth on each side in the upper jaw; but there are frequent exceptions to this rule.

The cry of the hind or female is not so loud as that of the male, and is never excited but by apprehension for herself or her young. It need scarcely be mentioned that she has no horns, or that she is more feeble or unfit for hunting than the male. When once she has conceived, she separates from the males, and then they both herd apart. The time of gestation continues eight months and a few days, and they seldom produce more than one at a birth. Their usual season for bringing forth is about the month of May, or the beginning of June. They take the greatest care to secrete their young in the most obscure thickets; nor is the caution without reason, as many creatures are their formidable enemies. The eagle, the falcon, the wolf, the dog, and all the rapacious family of the cat kind, are continually seeking to discover her retreat. But what is more unnatural still, the stag himself is a professed enemy, and she is obliged to use all her arts to conceal her young from him, as from the most dangerous of her pursuers. At this season, therefore, the courage of the male seems transferred to the female; she defends her young against her less formidable opponents by force, and, when pursued by the hunter, she offers herself to mislead him from the principal object of his concern. She flies before the hounds

for half the day, and then returns to her offspring, whose life she has thus preserved at the hazard of her own.

Those persons who are fond of the pastime of hunting, have their peculiar terms for the different objects of their pursuit. Thus the stag is called, the first year, a *calf* or *hind calf*, the second a *knobber*, the third a *brock*, the fourth a *staggard*, the fifth a *stag*, the sixth a *hart*. The female is called, the first year, a *calf*, the second a *hearse*, the third a *hind*.

The remarkable shyness or wariness of the deer, gives rise to thousands of devices to over-reach them. Almost every sportsman has some general method of his own to get fairly within reach of them. The sportsman must always approach them up-wind, to prevent the animals from scenting them, for they possess this faculty in high perfection. Sometimes a circuit of several miles has to be taken, before they can be so approached as to give a fair chance of sport. Weather has likewise a great deal to do with the matter. When this is of such a character as to oblige the deer to frequent the well-heads or pools of waters, and more especially if these be in a locality where there is any portion of brushwood or shelter for the gunner, then his chances of success are considerably increased.

There is a full and excellent description of the present mode of deer-stalking, given in Mr. Cooper's novel, "The Smugglers." It has for its truthfulness and vivacity been approved of, and quoted by Mr. Scrope and others, well known for their skill in this amusement. The novelist says, "There is no describing the irresistible fascination of this pursuit to the true-bred Highlander. Day after day will he traverse the haunts of those noble animals, or sit with inexpressible patience, wrapped in his plaid, behind a gray stone, upon some well-known commanding height, watching for a sight of them; or creep for miles together on his belly, like a worm, to approach them undiscovered. The lapse of time and the severity of the weather are alike unheeded; he only thinks of how to circumvent his wary prey. If successful, he is richly repaid; if he fails, it is but to renew the tedious and toilsome quest, until his perseverance is at length rewarded. * * * * Cautiously creeping up the little hillock, until their eyes could just peer above the topmost heather, Glenvallich and the forester, throwing themselves upon their faces, scrutinized with their glasses the brown expanse before them; nor was it until more than a quarter of an hour had elapsed in the inquiry, that they arose from their recumbent position. 'Nothing is stirring or in sight, as far as we can make out,' said Glenvallich; 'let us move forward. Remember, Tresham, we shoot at nothing but stags. The hinds with calves at their feet are not in condition; and the *yell* hinds, as they are called—those, that is, which have either had no calves, or have lost them—your eye is not practised enough to distinguish from the others. You may see plenty of roe-deer too, here, for the wood is full of them; but don't shoot at them, for you might disturb and lose a stag worth fifty roes, who might be lying within a few yards of

us.' Instead of abruptly ascending further, they now slanted along the face of the hill, till they reached the watercourse; a deep gash, worn by a rapid and perennial torrent quite through the soil into the living rock of the mountain's side. The rugged banks were covered with dense thickets of the trees common to such situations, which overhung the stream, or interrupted its course with their fallen and withered boughs; the torrent itself dark, foaming, and impetuous, leading from rock to rock, and ledge to ledge, in many a petty fall, and sometimes in cascades of considerable height and grandeur. The pass led by a pool between two of these falls; a deep furrowed ledge of rock afforded stepping stones, when the stream was low, by which an active man might spring across. Having overleaped this obstacle, they soon emerged from the wood upon the more open hill, where the heather, although still long and thick, was less tangled than in the forest, and the more solid and less broken ground afforded firmer footing. The change was very comfortable to Tresham, who now soon recovered his failing wind, and felt his sinews recover a firmer tone—and they cautiously approached the crest of the height, to which they had won their way with so much toil.

"Glenvallich, now stealing forwards, began with curious and jealous eye to scan through his glass the broad hollow, which rose gradually above them. After continuing this survey for some minutes in silence, he beckoned Tresham to his side,—'Antlers, by Jove!' said he, in a half whisper; 'I have them, and in no bad place neither; this will be our game, or I am mistaken. See—take the glass, look to the left of that white stump below the rock there, close to a small single white stone; there he lies, I can see him with the naked eye.'—'And I can't catch him even with the glass,' replied Tresham, after peering through the telescope; 'I see nothing, Charles.'—'What, don't you see that brown spot? you can't have found the place. By Heavens! there's more of them; give me the glass—yes, faith, there are one, two, three hinds feeding; and their calves too—see, look again.' But it was in vain that Tresham's unpractised eye wandered over the brown waste, until, as by chance, the field of the telescope traversed the place, a slight movement in what he had taken for a withered branch of some decayed tree caught his eye. 'Ah! I have him now, by Jove! God bless me! what a noble fellow! how beautiful he looks! and he's lying too—and there are the hinds—I see them also; but how shall we get at him?'—'Why, he'll cost us a scramble and a good blow, no doubt. Perhaps we may have to climb the shoulder of Scoorevialach, and round by his top, that high peak yonder.'—'The devil! that will be a job—but never mind; anything for a shot at that noble fellow.'—'Well, he and his ladies are quiet where they are for the day, and the men must by this time have got to their posts; let us go and attend the passes. You see that black stump on the brow below us; take your station there, it commands the whole face below, within rifle shot. I will go nearer the burn. If you see any

thing pass, that makes rather for me than for you, put your cap on the muzzle of your rifle thus; I will do the same. Good luck to you, and hold straight.'

"The loss of half an hour, and some trial of patience, was the sole result of this arrangement. One or two roes passed the sportsmen, and several blackcock, the sight of which tempted Tresham sorely to exercise his skill at a flying shot; but if there were any deer in the wood, they took other passes than those watched by the two gentlemen. The forester now came up, and Glenvallich informed him of the stag and hinds he had seen. The methods of best approaching them unobserved were eagerly discussed; and having decided that it was at all events advisable to reconnoitre them from a shoulder of the hill above them, the party set their faces boldly to the brae, and began to breast it straight up. And now once more was Tresham made sensible of his own deficiency, and of the superior vigour of his companions; pride and 'pluck,' however, bore on him, though his knees bent under him, and his head swam, with the sustained exertion. The signal to halt and reconnoitre was at the moment as gratifying an intimation as he could have received. Five hinds with their calves, and two stags, were now distinctly visible, full eight hundred feet beneath them, as they stood, or rather lay, perched upon the brink of a giddy precipice which rose above the hollow. 'Well, Maccombich, what's next to be done? must we climb the hill and go round the scour?'—'Ay, 'deed, that ye most,' responded the forester. 'See,' continued he, throwing some light particles of grass into the air, 'the wun's a' up the hill, and there's no a burn or corry that 'll hide us. It's doon yon burn, below Craigcaillichdhu, we must go, and tak' the hollow a' the way to thon bit hillock, and then we'll at them easy: they winna stir the day, any how—we're sure o' that.' As Duncan made these observations, he was cautiously retreating from the brink of the rock, from whence he had been observing the deer, when all at once his person became fixed in an attitude of eager attention, which might have supplied the sculptor with an admirable study; and straining his eyes towards the upper extent of the corry, he exclaimed, in an earnest whisper, 'O Glenvallich! we're in luck the day! there he is! there's the very staig your honour was after the last time he cam' up; him that ye touched on the side, an' we could na get sight o' again. I've seen him twice since yon, and a grand one he is. O Trochconuilorst! but we'll have you the day, or the mischief's in't; we must go clean round the scour noo, any how, for we'll hae to come down the Glaig-na-gawr on him.' This information set the party into instant motion. Off they started in high spirits, leaving Kenneth to watch the deer below them, lest any accident should startle them, or lest they should feed away from the spot.

"The ascent proved most arduous, for they had to pass round the peak of one of the loftiest mountains in Scotland, at a height scarcely two hundred feet below the summit. Tresham was once

more forced to abandon his rifle to his gillie, and still he found himself lagging behind; for Maccombich, stimulated by a sight of the animals he loved, forgot the inability of others, and glided up the hill with the swiftness and surefootedness of the goat. Even Glenvallich at length found it expedient to call upon him to slacken his speed; and Tresham, breathless and reeling, was absolutely forced to make frequent halts. Youth and spirits, and good English bottom themselves, failed at length, and the young man came to a standstill. 'You were right,' said he, 'about this cursed jacket; it is too heavy for such work—by the Lord, man! a fellow to climb this mountain should go in a cuerpo: the kilt's your only—to the devil with the velveteen!' and he threw it from him, remaining in his shirt sleeves and waistcoat.—'Stay, stay, Harry! those white arms will never do; they would give alarm at two miles' distance; here, here's the jacket you despised in the morning.'—'Thank you—this is a relief; and now have at it once more.' The highest point was reached at length, and a descent, little better than a precipice, lay before them. But though Tresham, in cooler moments, might have shuddered at the danger he ran, his mind was at this time too highly excited to scruple at following his daring companions, who bounded onwards at a rate which soon carried them to the bottom. 'Now for it, Harry; now for it in earnest,' said Glenvallich, after a moment's halt to recover breath. 'Double quick, while we may—we shall soon have to go slow enough;' and entering the body of a shallow watercourse, they descended its rough bed at a rapid pace. The waft of a hand from Duncan who led, stopped the party; and crouching low, they changed their quick step for a stealthy pace, with which they rounded a height, and under its shelter remained, until their exact position, with regard to the object of their quest, should be ascertained. 'Look here,' whispered Glenvallich, taking Tresham by the arm, after having made a short examination himself; 'what think you of Duncan for a pilot?' Raising his eyes to a level with the heather top, Tresham could see, at the distance of not more than three hundred yards, the horns of a noble stag just arising between two hags. No other part of the animal was visible; but the moving of the antlers, which slowly turned from side to side, proved sufficiently that he maintained a vigilant look-out after his own safety. 'We'll match him yet, I think,' said Glenvallich. Retreating a few yards, to get further under cover of the rising ground, Maccombich, followed by the rest of the party, crept on all-fours from the watercourse, across thirty or forty yards of long heath-covered muir, until they reached a maze of peat-bog cracks of little depth, but sufficient to cover a man creeping flat upon his belly. That, although the moss was moist and muddy, they were forced to submit to, as the only way of crossing unseen by their intended victim, and in this manner they gained about a hundred and fifty yards more upon the deer's position.

"The forester alone was now sent on to ascertain the means of

further progress; and after an absence of more than ten minutes, which to the sportsmen seemed a full hour, he returned creeping like a worm, and beckoning the party to follow in the same manner. This they did; and at length, keeping along the peat cracks, got a chasm deep enough to afford sufficient cover for the whole body. 'He's no a hunder' yards from you this moment, Glenvallich,' whispered the forester, in scarcely audible accents, 'and the wind is strong from him. Ye most climb this knoll; if you can get him within eighty yards, dinna seek to get nearer, for he's in a wide green hench, and he's very jealous. I dinna think ye'll mak' muckle better o' it, but achone! sir, tak' time and be canny—I wudna for ten pounds he got awa!'—'Never fear me, man; but here's Mr. Tresham must take the first chance—I'll fire only if he misses. Come along, Harry.' The forester cast a look of mingled disappointment and remonstrance at his master, but it was disregarded. Tresham, also, who still shook from head to foot with recent exertion and present excitement, would have excused himself from interfering with the anterior rights of his friend in this particular animal; but Glenvillach would not listen to him. 'Have done with this debating,' said he, 'we shall lose the deer—follow me, Tresham.' Cautiously, like a cat on its prey, foot by foot and inch by inch, did Glenvallich, grovelling in the heather, advance towards the crest of the knoll in front of him; when the deer's antlers moved he was still—when they took their natural position he moved forwards. Tresham followed in his track, stopping or advancing as he did, until they had reached some twenty paces onwards from the ravine. Glenvallich then signed to him to raise his head with caution. He did so, and saw, with a sensation of eager delight which increased his agitation to a painful pitch, the noble stag lying among some rushy grass, apparently in the most unsuspicious tranquillity, occasionally scratching a part of his hide with a fork of his antlers, and driving away the insects which appeared grievously to torment him. 'Take him as he lies, Harry; aim low, at the shoulder,' whispered Glenvallich. The heart of Tresham beat more audibly than ever it had done on going into action, as he carefully extended and levelled his rifle. Whether it was the slight click of cocking, or some movement made in the heather as he stretched out the piece to take aim, is uncertain; but the stag started, and made a movement as if about to rise, just at the moment when Tresham was pressing the trigger. The circumstance probably unsettled his aim, for the rifle exploded, but the ball flew over its intended object. But not thus was the unfortunate animal to escape; for scarce had the report of Tresham's shot made him start from his lair, when the rifle of Glenvallich gave forth its fatal contents, and the stag, making one high bound from the earth, tumbled headlong forwards, and lay struggling in the agonies of death. He had anticipated the possibility of his friend's failure, and prepared to remedy it—which he did effectually, for the ball had struck the animal just behind the shoulder, and went clean through

its heart. 'Hurrah! capital! grand! by Jove, he has got it!' shouted Tresham, starting up; but the arm of Glenvallich pulled him down again. 'Hush! be quiet!' whispered he; 'never do so —there may be twenty more deer near to us of which we know nothing—such a halloo would send them off. Load your piece—load quickly.'

"While they were performing this necessary operation, Maccombich, who had joined them, and was keeping watch around them, touched his arm, and pointing with one, showed him three fine stags moving off to the further hill, alarmed no doubt by the reports of the rifles, and probably by the exclamation of Tresham. 'God bless me!' said the mortified young man, 'this is a lesson I shall not forget; but who could have imagined it?' A little further scrutiny by the practised eye of Maccombich, was sufficient to convince the party that there was no more game in view; so the hunters advanced to break the deer, as it is called, by cutting the throat and disembowelling it; and while Maccombich was performing this sportsman-like duty, it was amusing to watch the rapture to which, when unrestrained by habitual caution, he now gave full way on the glad occasion of a successful shot. Apostrophising it in Gaelic, he addressed to it every reproachful epithet he could think of, as a villain which had so often baffled their murderous efforts; it was a scoundrel, and a rascal, and a devil, to whom he wished a bad end, and whose soul, heart, and liver, he gave to the devil; then changing his tone, he lavished upon it every expression of endearment in which his language is so fruitful; but which, when translated, often sounds strangely enough to English ears. It was his dear, his darling, his bonny beast, his cattle, his love. He seemed to abandon himself to the very intoxication of delight; and it was singular to see a man, habitually grave and reserved, acting as if for the time he had actually been deprived of reason."

As we have already noticed, it requires the utmost caution to get within range of the deer in these Highland grounds. Every movement should be studiously guarded, and the silence of death should reign among the party. To gain the wind of the deer is a great point; and it sometimes happens that a herd of the animals seem to be affected with a strange emotion of surprise, for they will stand and gaze, even within range of the gun, until several of them are killed. This is so strikingly the case in some instances, that one cannot help conceiving that it is the pure result of something like infatuation, and is certainly completely at variance with their habitual timidity and shyness.

The marksmen always, if possible, take their aim behind the shoulder of the animal; if effective in this direction, death follows instantly. When, however, the deer is only wounded, it is then left to itself by the herd, and the deer dogs are set to work to follow and capture it. These animals display singular sagacity and earnestness in hunting the fallen captive; they will confine their hunting solely to the wounded deer, and when they have overtaken him,

they either seize, or hold him at bay, till the sportsmen arrive, when another shot in some vital quarter puts an end to the scene. The dogs are rewarded by the drinking of his blood.

The shooting of the roebuck in the Highlands of Scotland is considered a most animating sport. This anilmal is considerably smaller than the red deer. Dogs are used of the harrier breed, and these chase the roebuck to certain favourable localities, where the rifle gun does great execution. The shooting of it, and all the sporting incidents and circumstances attending it, are much of the same complexion as these already mentioned in reference to the red dear.

# APPENDIX.

THERE are several matters of some degree of interest and importance to the shooting sportsman, which we have here placed under the head of an appendix, chiefly on account of not having suitable positions to insert them in the body of the work. We shall enumerate them under distinct heads.

## PHRASEOLOGY.

There is a peculiar kind of language used by sportsmen confined to the shooting of birds, which only fowlers are supposed to be acquainted with. The following are the chief phrases:—A *sege* of herons and bitterns; an *herd* of swans, of cranes, and of curlews; a *depping* of sheldrakes; a *spring* of teals; a *covert* of coots; a *gaggle* of geese: a *badelynge* of ducks; a *sord*, or *sute*, of mallards; a *muster* of peacocks; a *nye* of pheasants; a *bevy* of quails; a *covey* of partridges; a *congregation* of plovers; a *walk* of snipes; a *fall* of woodcocks; a *brood* of hens; a *building* of rooks; a *murmuration* of starlings; an *exaltation* of larks; a *flight* of swallows; a *host* of sparrows; a *watch* of nightingales; and a *charm* of goldfinches.

## GAME LAWS.

Hares may be killed at any time of the year. Pheasants from the 1st of October to the 1st of February. Partridges from the 1st of September to the 1st of February; penalty for killing them at other times, 5*l*.—Grouse from the 12th of August to the 10th of December. Black game (in Devonshire, Somersetshire, and the New Forest) from the 1st of September to the 10th of December. Black game (everywhere else) from the 20th of August to the 10th of December. Bustards from the 1st of September to the 1st of March; penalty for killing at other times, 20*l*., or not less than 10*l*.

for the first offence, and for every subsequent offence 30*l.*, or not less than 20*l.*

Any person taking or killing game on Sundays or Christmas-days to forfeit, for the first offence, not more than 20*l.*, nor less than 10*l.*; for the second offence from 30*l.* to 20*l.*; and for the third and every subsequent offence, 50*l.*

An unqualified person killing can only be convicted of one penalty in a day. That is, an unqualified person, or even a poacher, would have no more to pay for killing fifty head of game in the same day than he would for killing one. Though the poacher, or unqualified person, would be liable to the other penalties—viz., 5*l.* each for every head of game which he sold, offered for sale, or which had even been found in his possession; and if a dog or gun, or any other engine, was used in the destruction of game, he would also be liable to 20*l.* penalty, provided he had not taken out a sporting certificate.

If a person go in pursuit of game with a dog and gun, he can only be charged with one offence, and convicted in one penalty for both. (7 Term Reports, 152.)

Killing from seven o'clock at night to six in the morning, between the 12th of October and 12th of February, and from nine at night to four in the morning, from the 12th of February to the 12th of October (besides the other penalties before named), first offence, not more than 20*l.*, nor less than 10*l.*; second offence, from 30*l.* to 20*l.*; third and subsequent, 50*l.*

Servant of a lord of a manor may kill, and yet the lord of the manor may not, unless he is qualified.

Informations for penalties relative to the game laws, should be brought so far as the conviction to take place within three months. A penalty may be either recovered by information before a justice of peace, or sued for in any of the courts of record at Westminster. In the latter case, the action must be brought within six months after the offence committed.

Rabbits, woodcock, snipes, quails, and landrails, are made game only so far as relates to shooting them, for which, therefore, a certificate is required; but one without a certificate may catch, sell, or have them in his possession.

Wild fowl any one may shoot from the coast, from a public path, &c., &c.

A person with neither qualification nor license has a right to carry a gun, provided he does not use it for the destruction of game.

Gamekeepers are subject to the full penalties of unqualified and unlicensed persons, as well as to actions of trespass, if they outstep the bounds of the manor for which they are appointed.

Only one can be appointed to each manor.

*Deputation of a Gamekeeper.*—The deputation granted to a gamekeeper must be registered with the clerk of the peace within twenty days after it was granted, and a certificate taken of the same,

under penalty of 20*l.* The deputation for one gamekeeper holds good till another is appointed. If a new gamekeeper is appointed within the year, the game certificate of the former keeper may be transferred to him for the remainder of the year, and this must be done free of all expense, by the clerk to the commissioners of the district.

*Form of a Deputation.*—(To be written on a 1*l.* 15*s.* stamp).

Know all men, by these presents, that I of in the county of , Esquire, lord of the manor of , in the same county, have nominated, deputed, and appointed, and by these presents do nominate, depute, and appoint of , yeoman, to be gamekeeper of and within my said manor of , with full power, license, and authority, to pursue, take, and kill any hare, pheasant, partridge, or other game whatsoever, in and upon my said manor of , for my sole and immediate use and benefit, and also to take and seize all such guns, bows, greyhounds, setting-dogs, lurchers, ferrets, trammels, lowbells, trays, or other nets, harepipes, snares, or other engines, for the pursuing, taking, or killing of hares, rabbits, pheasants, partridges, or other game, as shall be used within the precincts of my said manor, by any person or persons, who by law are prohibited to keep or use the same. In witness whereof I have hereunto set my hand and seal this day of , 18 . (Signature and seal.) Sealed and delivered in the presence of

(The signature of one witness, specifying his place of abode, is sufficient.)

---

## ON THE PRESERVING OF BIRDS FOR STUFFING.

Many sportsmen make a point of preserving rare species of game with a view of making collections, of greater or less magnitude, both for private amusement, as well as to throw light upon the natural history of the feathered creation. The following are some remarks and recipes on the subject, worthy of attention:—

Various methods have been attempted for preserving birds from putrefaction, so as to retain their natural form and position, as well as the beauty of their colours and plumage. A good antiseptic for animal substances has been much inquired after, as, for want of it, many curious animals, and birds particularly, from foreign parts, entirely miscarry, and others of the finest plumage are devoured by insects. The following improved method by Dr. Lettsom, seems to be the least troublesome, and the most complete. After opening the bird by a longitudinal incision from the breast to the vent, dissecting the fleshy part from the bones, and removing the entrails, eyes, tongue, and brains (which in large birds may be extracted

through the eye-holes with a surgeon's director), the cavities and inside of the skin are to be sprinkled with the powders mentioned below. Glass eyes, which are preferable to wax, are then to be inserted, and the head stuffed with cotton or tow, and a wire is to be passed down the throat through one of the nostrils, and fixed on the breast bone. Wires also to be introduced through the feet, up the legs and thighs, and inserted into the same bone; next fill the body with cotton, to its natural size, and sew the skin over it: the attitude is lastly to be attended to, and whatever position the subject is placed in to dry, it will be retained afterwards. The dyeing compound is as follows:

| | |
|---|---|
| Corrosive Sublimate | ¼ lb. |
| Saltpetre, prepared or burnt | ½ lb. |
| Alum, burnt | ¼ lb. |
| Flowers of Sulphur | ½ lb. |
| Camphor | ¼ lb. |
| Black Pepper | 1 lb. |
| Tobacco, ground coarse | 1 lb. |

Mix the whole, and keep it in a glass vessel, stopped close. Small birds may be preserved in brandy, rum, arrack, or first runnings; though the colour of the plumage is liable to be extracted by the spirit. Large sea-fowl have thick strong skins, and such may be skinned; the tail, claws, head, and feet are carefully to be preserved, and the plumage stained as little as possible with blood. The inside of the skin may be stuffed as above. Kuckahu observes (in the Phil. Trans., vol. ix. p. 319), that "Baking is not only useful in the fresh preservations, but will also be of very great service to old ones, destroying the eggs of insects; and it should be a constant practice, once in two or three years, to bake them over again, and to have the cases fresh washed with camphorated spirit, or the sublimate solution, which would not only preserve collections from decay much longer, but also keep them sweet." But Dr. Lettsom remarked that, "Baking is apt to crimp and injure the plumage, unless great care be used, and, therefore, the proper degree of heat should be ascertained by means of a feather, before such subjects are baked." And he prescribes as the best preservative, boxes well glazed: and he adds, "When the subject is to be kept for some time in a hot climate, it should be secured in a box filled with tow, oakum, or tobacco, well sprinkled with the sublimate solution. In Guiana, the number and variety of beautiful birds is so great, that several persons in the colony advantageously employ themselves, with their slaves and attendants, in killing and preserving these animals for the cabinets of naturalists in different parts of Europe. The method of doing this, as related by Mr. Bancroft (in his Nat. Hist. of Guiana), is, to put the bird which is to be preserved in a proper vessel, and cover him with high wines, or the first running of the distillation of rum. In this spirit he is suffered to remain for twenty-four or forty-eight hours, or longer, till it has penetrated through every part of his body. When this

is done, he is taken out, and his feathers, which are no ways changed by this immersion, are placed smooth and regular. It is then put into a machine, made for the purpose, among a number of others, and its head, feet, wings, tail, &c., are placed exactly agreeable to life. In this position they are placed in an oven, very moderately heated, where they are slowly dried, and will ever after retain their natural position without danger of putrefaction.

## THE GUN.

As the gun is a very important instrument to the sportsman, and as there are so many different theories and rules respecting its nature, functions, and management, we have thrown together a few remarks from various sources, in addition to what is stated in the body of the work, with a view of affording the reader the most extended knowledge on the subject, which our limits will permit.

"*Agilis.* You seem very decided as to your opinion of the relative value between London-made guns, and those at a much less price manufactured in the country. In what qualities do you suppose the advantages to consist, and how do you prove these qualities may not exist as well in a country as a London made gun! Pray state your opinion at length. I have never heard the matter fully discussed, though I have certainly seen much confidence shown by the advocates of each.

"*Peritus.* The value is derived from four causes: goodness of raw material, temper, close fitting, and adaption of the several parts to each other, in shape, position, and substance, as fittest to fulfil the duties for which they are separately and collectively intended, in the production of convenience, permanence, and effect.

"Let us consider this in the same light in which we should view any other branch of merchandise; first it must be conceded, that wherever the best maker may be, there the highest quality of produce will be found; it is *likely*, therefore, that the material offered to the London maker will be superior to that brought for sale to the comparatively small consumer (in price if not in quantity) in the country; the well-known competition existing between all London makers, renders it probable that he will use his utmost exertions to secure this advantage in the highest degree. Secondly: with regard to temper, there are two things to be considered, namely, the degree of hardness required to prevent a movement from wearing itself away; and next with reference to its action upon other parts in contact with it, as in some machines we have wheels bushed with brass to diminish friction. Great tact is requisite in this matter; first to know the temper required; secondly, to give it. The workman who can effect this, is valuable

in proportion to his knowledge; is he likely to remain in the country at low wages, or to become the servant of the highest bidder? Close-fitting: an accurate eye and practised hand are absolutely necessary to effect this, which is a main cause of permanence in a gun-lock, as thereby all parts bear their even proportions of stress, and (the temper and position of all parts being correct) an even wear is the result. But the most practised workman requires an extension of time, in some degree proportionate to the goodness of his work, comparing it with that of others less skilful, and this he adds to the price; the London maker can best afford to pay that price.

"Lastly, the fitness of the parts for the duties they have to fulfil. It may be said here, that the greater the quantity of material manufactured, the greater degree of knowledge must be attained by the manufacturer. Assuming then that the superiority of material is shown, we have to prove that the cheap manufacturer either cannot, by quantity, obtain such a knowledge of the requisite shape of the parts of a gun, as, when put together, shall make it equal to that of a London maker; or, if in possession of that knowledge, cannot, in the same degree, avail himself of it. Supposing, then, that he does take the pattern of the most approved shape for his guide (a circumstance we find not to be commonly the case), or even in the absence of equal opportunities of comparison, that great spur to improvement, can invent a better shape than others, this can only refer to the handling of the gun; its working, putting together, that it possesses the form of goodness only, without as before shown, depending so much upon material, temper, and the reality; and as well might you expect to procure an article of dress equally convenient, lasting, and fitting, of a country tailor, as that which may be had of a first-rate workman in London, as procure an article of the nature of a gun of the same degree of excellence in the country as in town.

"*Agilis.* Have you not omitted the consideration, that all workmen can work cheaper in the country, from the diminished price of food and house-rent, than in larger towns; as also the enormous profits made by London gun-makers?

"*Peritus.* The advantage you here mention, does not come into play—it is a matter of consideration for the workman alone. I would admit it, did I consider that the workman himself was ill-paid, but the contrary is the fact. It has already been conceded, that, although a gun progresses in value as it progresses in price, yet not in an equal ratio, and part of the difference consists in the greater (I might most say undue) pay, in proportion to his labour, which a first-rate workman can procure; and secondly, in the great credit which any one maker may obtain over others from the known excellence of his work: these latter are two little monopolies, and must be paid for while they exist; but it is your business to fix a limit upon this by selecting from the best makers, and procuring the most for your money; and you may be certain, that

although large manufactories can be carried on with greater advantage in the country, in circumstances where moderate ability is required, and many hands used, and machinery can also be called into play upon the same terms, yet superior manual dexterity will always overcome the difference of dearness of living and present itself where there is and ever must be the greatest mart, and most continued as well as highest bidders for it; to wit, in that place where the manufacture to be produced is in the highest credit and perfection. And as these two will, therefore, continue to operate upon each other, the demand for guns, and the perfection of their manufacture, will draw the best workmen, and they will again produce the most perfect guns: and London will thus continue the best mart for the buyer as well as the seller, until some other city spring up, where the purchasers of the article become more numerous, and the talents of the workmen more appreciated."

---

## THE RIFLE.

The following statements are interesting to sportsmen at the present moment:—

I have made many experiments, and thought a good deal, by way of ascertaining the best calibre for answering the particular or general purposes to which the rifle may be applied. We all know that the resistance of the air is the chief obstacle which projected bodies have to encounter. It is so very great, that the range of projected spheres is more regulated by the degree of this resistance than by the velocity they receive from the powder,—the increased velocity of the ball being met by a geometrically increased ratio of atmospheric resistance. The larger bullets, therefore, having less surface in proportion to their mass, are, proportionately, much less resisted; so that the flights of the larger exceed those of the lesser, in more than the proportion of their respective diameters. For instance, a thirty-two pound shot, whose diameter is about six inches, ill, with even a less proportionate charge of powder, and at an equal elevation, range half as far again as a nine pound, whose diameter is four inches. The proportion which the surface of a sphere bears to its mass, increasing in a geometrical ratio to the decrease of its diameter—the smaller the sphere, the greater is the proportionate resistance it meets with in its flight. At length, we find that small particles of the heaviest metals, becoming, as it were, nearly all surface, will actually float in the atmosphere, or remain suspended for a considerable time in the lightest fluids. Hence it is, that from the same piece, and with a similar charge of powder, we shall find that the range of an ounce of bird-shot will regularly extend with the increased size of the shot employed, until, in pro-

gression, we get to the ounce bullet itself, which fits the piece; and which, by the by, at an elevation, would not be impelled further if projected from a twenty-four pound cannon.

The theory of the air's regular resistance to the onward progress of the bullet, must also be applied to the irregular action of the wind across the line of its flight; which action also increases in the ratio of the decrease of the weight of the bullet. At the distance of 315 yards I have found a strong cross wind to cause a rifle bullet of nineteen to the pound to diverge from three to four feet. On the other hand, I have used a rifle carrying a bullet of ten to the pound, which, with the same wind, did not, at the same distance, diverge more than about one foot. In constructing a butt for rifle practice, regard should, therefore, be had to the more usual direction of the wind; and, as far as the locality will allow, the butt should be placed so as to have the wind more frequently in the line of the range, either way, than across it.

For general, and especially for military purposes, such large rifles as the last mentioned would, coupled with the ammunition, be found too heavy. The rifles commonly used in the United States carry, I am told, a bullet of thirty-two to the pound. The adoption of so small a calibre, I take to have been occasioned by the use of the rifle being, in that country, originally and generally confined to the interior of thick forests, wherein it seldom happens that an object is to be fired at beyond the distance of one hundred yards; and where, moreover, the wind is much less felt than in an open country.

Under the above circumstances, the half-ounce rifles are adequate to their purpose; but in a more open, and especially in a mountainous country, the calibre of rifles should be considerably larger. In a hilly country, you are often in the actual presence of the enemy, and capable of greatly annoying him, at distances at which, on a plain, the view is uninterrupted and confined by the least considerable of surrounding objects. In a hilly country, occasions are perpetually offering, wherein long rifle ranges would cause considerable mischief to your opponents. Such long ranges can never be obtained, nor depended on, with the half-ounce rifles of the Americans and Tyrolese.

If the foregoing observations are founded on fact, it is easy to decide what sort of rifle should be applied to a particular purpose. With respect to general purposes, I am inclined to fix on the calibre of one ounce, or sixteen bullets to the pound. The English Government rifles are of nineteen or twenty to the pound; to which calibre there is little objection, especially as it is the same as that of the cavalry carbines and pistols. However, I could advance several reasons—I do not call them very important ones—for preferring the French regulation; according to which all the fire-arms of all the different corps, both of cavalry and infantry, are of one and the same calibre, of sixteen bullets to the pound.

With respect to the rifle, at least, I would most strenuously

recommend the substitution of percussion for flint locks; over which the advantages of the former are as great as the latter are superior to the huge wheel and pyrites locks of two centuries ago. In comparison to the percussion gun, the very best flint one absolutely hangs fire, and one out of twenty is absolutely a miss-fire. A cap is put on much quicker than a flint lock is primed; there is no time lost in changing flints; and if Mr. Joyce's percussion powder be used, there is no foulness or corrosion whatever; lastly, the rifles at present in use might be converted into copper caps at a trifling expense, and new copper cap locks will cost less than flint ones. The only objection to the change (and I own it is a very great one indeed), is the blind prejudice of custom.

To render the use of the copper cap piece still more eligible, especially for military purposes, there should be no lateral vent-hole in the breech, but in lieu of it, a broad convex-headed screw; which, upon being withdrawn, opens a passage into the chamber under the nipple, of an eighth of an inch in diameter.

By this simple contrivance,—which I have applied to all my own guns, rifles, and pistols,—should any obstruction occur, either from wet or dirt, which cannot be removed by merely probing the nipple, it will infallibly be cleared out by removing the screw, scooping out the passage into the chamber, putting a little powder therein, and firing it off, after having probed the nipple, and replaced the screw. The aperture formed by the removal of the screw, greatly adds to the facility of washing the barrel.

Instead of the brush and brass wire pricker, required for the present flint-lock service, the use of percussion pieces would make it necessary to substitute a little instrument of steel, resembling the letter T, one half of the horizontal part being a four, or what is perhaps better, a three-sided pricker or probe, of about one-twentieth of an inch diameter. The other half of the horizontal piece forms a kind of little scoop, corresponding to the diameter of the lateral screw above mentioned, upon the removal of which it is to be employed. The centre piece, or foot of the T, is a turnscrew, surmounted by a little ring to attach it to the jacket. As, however, the instrument will not be often wanted, perhaps it had better be kept in the trap of the rifle stock, in the inside of which I attach it, by a thong, to a little screw staple.

Some persons recommend that, instead of the lateral screw above described, the nipple itself should be taken out, in case of obstruction, or for the purpose of washing the barrel. This is not only ineffective, but highly improper, as it requires the use of a particular shaped key or pincer to screw the nipple; whereas such things as will turn a screw, or serve the purpose of a pricker, are to be found everywhere.

The percussion powder for the caps should by all means be composed of the nitrate of mercury, first brought into use by Mr. F. Joyce, of Old Compton Street. This, instead of having the slightest tendency to corrode the piece, would rather appear to possess an

anti-oxidating property, for I have repeatedly found that, having fired upwards of twenty rounds with this percussion powder, and laid the piece by for a month without the least cleansing, it has been, at the expiration of that time, as perfectly free from the least speck of rust as the day it came new from the maker's shop. This would certainly not be the case even with a common flint lock; but as for the common percussion powder, composed of superoxygenated muriate of potash, it actually corrodes the parts of a gun as much as a drop of nitric acid itself; in fact, upon combustion, it evolves and leaves a residuum of that active fluid upon the iron. The consequent rapid destruction of the parts is such as would, especially in military service, occasion great inconvenience.

I have often compared notes, and reflected upon the respective advantages belonging to the magazine or copper cap locks, either for military or sporting purposes. Of magazine locks hitherto invented, the best and simplest is that by Forsyth, with the magazine sliding upon a plane, in which is the touch-hole, being connected with the cock by a bridle, which causes it to follow or precede its motions. For military use, this lock has the advantage over the copper cap, inasmuch as it saves the time and attention required for priming—nothing else being required than to cock and pull the trigger. In rifle practice, the use of this lock will more than retrieve the small additional portion of time which it requires to push down even my rifle cartridge, above what it takes to drop a cartridge into a common musket, with all its windage. On horseback, the advantages of such magazine locks are still more evident and important, as every one knows what an awkward loss of time and powder the operation of priming a flint lock occasions to a horseman in motion: whereas, with the magazine, containing thirty or forty primings, and a swivel ramrod, a carbine or pistol may be loaded with the some speed or precision on horseback, at a trot or a gallop, as when sitting in a chair. It is certainly easier to put on a copper cap than to prime a flint lock, but with the magazine, there is no priming operation at all. With the common corrosive percussion powder above spoken of, the magazine lock certainly becomes very unfit for military purposes; for after having fired a shot or two without subsequent cleaning, the lock will be nearly immovable the day after. However, in the late Spanish campaign of 1823, I had several magazine rifles and pistols, and no other than the corrosive percussion powder, but the officers and men to whom I entrusted them were so proud and so careful of them, as to keep them always in the most perfect order. Anyhow, it is evident that, for cavalry officers at least, the percussion magazine locks are undoubtedly to be preferred; and, for both officers and men, I will observe, *en passant*, that it is far better to have one double pistol than two or half-a dozen single ones; and that whether one or two pistols be used, they should, upon going into action, be secured by a thong to the sword-belt, so as, in case of need, to be instantly disposed of by being dropped over the left shoulder. By having only

one pistol, one holster may be converted into a convenient pouch. It is essential that, in double pistols, carbines, or rifles, the axes of the barrels should be perfectly parallel from breech to muzzle. If this be strictly attended to, it is not of much consequence whether they be disposed of as in a fowling-piece, or, as it is called, "under and over." One "under and over" pistol, eight inch barrels (the upper one rifled), nineteen bore, swivel ramrod, with a moveable spring butt, to be kept in the other holster when not in use, is an excellent weapon for an officer. The moveable butt must also serve the purpose of a mallet in loading the rifled barrel. Three or four slight taps will send the ball home, for, particularly on horseback, a rifle-barrelled pistol cannot well be loaded by pushing with so small a ramrod. With the smooth barrel, the party may fire away, either with ball or buck-shot cartridges, as fast as he pleases.

The copper cap offers the advantage of somewhat greater simplicity, and consequently less liability to derangement; and above all, it is, with the application of wax as hereafter described, perfectly water-proof. For the rifle service, therefore, it might, perhaps, in one point of view, be preferable to the magazine; and certainly it is so in every respect for fowling-pieces; in the use of which, protection from the rain is of much more importance than the gain of a few seconds in loading, and where none of the inconveniences of priming on horseback are experienced. Duelling pistols should decidedly be copper caps. With such pistols there is no occasion whatever for a magazine; and I have found that a delicate trigger cannot be subjected to the slightest casual pull or strain of the magazine stirrup, without great liability to accident.

A remarkable defect in all the rifle-shooting that I have ever seen, is the improper construction of the ramrod, which is much too light. From this it results, that either the bullet is inserted with too little constriction to ensure its revolving on its axis to the end of an extensive flight; or, upon a tighter fit being attempted, much time and awkward exertion are expended in driving it properly "home."

The friction to be overcome in forcing a bullet into a rifle is, in some respects, analogous to that of a wedge or nail in entering a piece of wood. Nobody would think of driving a nail or a wedge by mere pressure or pushing, which would not effect the object with a thousand times the force that would suffice in the shape of percussion or impingement. To load a rifle with a mallet is out of the question, especially for military purposes; but I find that the very best effect is produced by having the ramrod of solid brass, considerably heavier than the iron ones of the Government rifles. I have also a bit of hard wood, turned into the shape of a pestle, acutely convex at the thick end; and to qualify it for hasty use, I fasten it by a string to the button of my jacket. With this I give the ball a smart tap, which drives it below the centre of its circumference into the grooves of the barrel. If the latter be perfectly clean, the bullet will go down all the way by mere pushing; but

this will not be the case after a few shots have been fired, unless the bullet be smaller than it should be. Any how the ramrod ought always to be flung down once or twice, in conclusion—as the particular ring or jar, so produced, furnishes the only true criterion of the bullet being really "home."

The ramrod being of the proper weight, and the end applied to the bullet being nearly equal to its calibre, and well countersunk, the bullet will be moved by it with a few easy percussions; and should the barrel be ever so foul towards the breech, one or two flings with such a ramrod, will send the bullet "home" with the assured ring. Neither a wooden nor a light metal ramrod will produce this effect after a few shots.

The ramrods I have had constructed for my own use are of solid brass, of about half an inch diameter, except the end applied to the bullet, which, for a couple of inches, is so large as just to fit easily into the barrel. This large end is bored conically out, so as to contain between two and three drachms of powder, which, in leisure shooting, serves to introduce the charge with the rifle reversed. The ball-drawer, when required, screws into the other end of the rod.

The Government rifle ramrods might, for economy's sake, be made of iron; but they should be much heavier than they are. It is absolutely necessary to good and quick rifle-shooting, that the bullet should be driven into the mouth of the piece by a stroke of some sort or other, previously to the use of the ramrod. Should the little wooden pestle mentioned above be deemed inconvenient in military practice—which I opine it is not—a similar effect might be produced by a tap with the round button-like end of the present rifle ramrods; though, for the sake of the barrel, I would recommend that this button should be of soft copper. Were it made more convex it would drive the bullet further in.

# BOOKS FOR THE COUNTRY,

In Foolscap 8vo, Fancy Cloth Covers, with numerous Illustrations,

## PRICE ONE SHILLING EACH

(UNLESS SPECIFIED).

CONTENTS OF THE SERIES:—

1. ANGLING, and WHERE to GO. By ROBERT BLAKEY.
2. PIGEONS and RABBITS. By E. S. DELAMER.
3. SHOOTING. By ROBERT BLAKEY.
4. SHEEP. By W. C. L. MARTIN.
5. FLAX and HEMP, its Culture and Manipulation. By E. S. DELAMER, with numerous Illustrations.
6. THE POULTRY YARD. By E. WATTS (of Monkbarns).
7. THE PIG; how to Choose, Breed, Feed, Cut-up, and Cure. By S. SIDNEY.
8. CATTLE; their History and Various Breeds; Management, Treatment, and Diseases. By W. C. L. MARTIN, and W. H. RAYNBIRD.
10. THE HORSE; its History, Management, and Treatment. By YOUATT and CECIL.
11. BEES; their Habits, Management, and Treatment. By the Rev. J. G. WOOD, Author of "Natural History."
12. CAGE and SINGING BIRDS. By H. G. ADAMS.
13. SMALL FARMS; a Practical Treatise on their Management. By MARTIN DOYLE.
14. THE KITCHEN GARDEN. By E. S. DELAMER.
15. THE FLOWER GARDEN. By E. S. DELAMER.
16. RURAL ECONOMY; a Treasury of Information on the Horse, Pony, Mule, Ass, Cowkeeping Sheep, Pigs, Goat, Honey-bee, Poultry, &c. By MARTIN DOYLE.
17. FARM and GARDEN PRODUCE; a Treasury of Information upon the Principal Farm and Garden Plants; to which is added, a Cottage Gardener's Calendar. By MARTIN DOYLE.
18. COMMON OBJECTS of the SEA-SHORE. By the Rev. J. G. WOOD. With many Illustrations by W. SOWERBY.
19. COMMON OBJECTS of the COUNTRY. By the Rev. J. G. WOOD. With many Illustrations by COLEMAN.
20. AGRICULTURAL CHEMISTRY (1*s.* 6*d.*). By ALFRED SIBSON, with a Preface by Dr. Voelcker, comprising—Chemistry of the Atmosphere—The Soils, Water, and the Plant—Grain Crops—Root Crops—Leguminous Crops—Fodder Crops—Soils and Manures best suited for them—Vegetable Produce of the Farm—Means of Restoring the impaired Fertility of Land exhausted by the Growth of Cultivated Crops—Improving Land naturally Infertile—Annual Produce of the Farm—Principles of Nutrition, &c., &c.

London: ROUTLEDGE, WARNE, AND ROUTLEDGE.

# ROUTLEDGE'S USEFUL LIBRARY.

In feap. 8vo, price 1*s.* each, cloth limp, or boards, unless expressed.

*The great dearth of Books of a thoroughly practical nature, suitable to the wants of that numerous class who really wish to become acquainted with common things, has induced the Publishers to commence the Useful Library.*

1. A NEW LETTER WRITER, for the Use of Ladies and Gentlemen; embodying letters on the simplest matters of life, and on various subjects, with applications for Situations, &c.

2. HOME BOOK OF HOUSEHOLD ECONOMY; or, Domestic Hints for Persons of Moderate Income. Containing useful directions for the proper Labours of the Kitchen, the House, the Laundry, and the Dairy.

3. LANDMARKS OF THE HISTORY OF ENGLAND. By the Rev. JAMES WHITE, Author of "The Eighteen Christian Centuries." 1*s.* 6*d.*

4. LANDMARKS OF THE HISTORY OF GREECE. By the Rev. JAMES WHITE, Author of "The Landmarks of England." 1*s.* 6*d.*

5. COMMON THINGS OF EVERY-DAY LIFE. A Home Book for Mothers and Daughters. By ANNE BOWMAN.

GENERAL CONTENTS:—Household Economy and the Duties of a Wife and Mother—the Laundry—the Nursery—Health, and the Means to Preserve it—Management of Simple Disorders—Clothes: how to Wear, Make, and Pack them—and last, not least, Home Education.

6. THINGS WORTH KNOWING. By MARTIN DOYLE, Author of "Rural Economy," "Small Farms," &c., &c.

GENERAL CONTENTS:—Information upon Home Employment—Food: Meat—Bread—Hunger and Thirst—Water—Fermented Liquors—Habitations—Bodily Exercise—Sports—Walking—Swimming—Tea—Coffee—Sugar—Soap—Indian Corn—The Weather—Minerals—Medals—Gold—Silver—Mining—Money—Glass, &c.—The Use and Abuse of, and the Culture of, Tobacco and Snuff.

7. LAW OF LANDLORD AND TENANT (The), with a copious Collection of Useful Forms. By W. A. HOLDSWORTH, Esq. (of Gray's Inn), Barrister-at-Law.

8. LIVES OF GOOD SERVANTS. By the Author of "MARY POWELL."

9. HISTORY OF FRANCE, FROM THE CONQUEST OF GAUL, BY THE ROMANS, TO THE PEACE OF PARIS, 1856. By AMELIA B. EDWARDS.

10. THE LAW OF WILLS, EXECUTORS, AND ADMINISTRATORS, with a Copious Collection of Forms. By W. A. HOLDSWORTH, Esq. (of Gray's Inn), Barrister-at-Law.

London: ROUTLEDGE, WARNES, AND ROUTLEDGE.

**Walsh's Manual of Domestic Economy.** *s.* *d.*

With 200 Illustrations, 1 Vol., 700 pp., half-bound ..... 10 6

---

**Walsh's Manual of Domestic Medicine and Surgery.**

With 200 Plain and Coloured Illustrations, 1 Vol. thick fcap. 8vo, 700 pp., half-bound ..... 10 6

---

**How we are Governed.**

A Hand-Book of the Constitution, Government, Laws, and Power of Great Britain. By ALBANY FONBLANQUE, Jun., Esq. Fcap. 8vo, cloth ..... 2 6

**Walsh's English Cookery Book.**

With Practical Illustrations. Fcap. 8vo, half-bound ..... 3 6

"A plain, common-sense Cookery Book."—*The Athenæum.*

**Pierce's Household Manager;**

A Practical Treatise upon the various Duties of Maître d'Hôtel in large Establishments. Fcap. 8vo, cloth extra..... 3 6

**Sleigh's Handy Book of Criminal Law,**

Applicable to Commercial Transactions. Post 8vo, cloth extra ..... 2 6

**Simmond's (P.L.) Dictionary of Trade Products,**

Commercial, Manufacturing, and Technical Terms, with Moneys, Weights and Measures of all Countries, reduced to the British Standard. Fcap. 8vo, half-bound ..... 6 0

**Dodd's Novelties, Inventions, and Curiosities in Arts and Manufactures.**

Fcap. 8vo, cloth ..... 2 0

**Walsh's Economical Housekeeper.**

With numerous Practical Illustrations. Fcap. 8vo, in large type .... 3 6

**Dodd's Curiosities of Industry;**

Or, the Applied Sciences. Demy 8vo, cloth limp..... 3 0

**Routledge's American Hand-Book;**

Or, Tourist's Guide through the United States, with a large Map. Fcap. 8vo, cloth ..... 2 0

**James's Treasury of Medicine;**

Or, Every One's Medical Guide. Fcap. 8vo, cloth ..... 5 0

# ROUTLEDGE'S
# CHEAP LITERATURE.

Any Volume free by post on the receipt of cost, and extra for postage.

*** A detailed Catalogue of 500 Volumes, gratis on application.

## THE RAILWAY LIBRARY.

In Boards, 1s. per volume, unless specified.
Ditto 1s. 6d. ,, marked (*).

11 Charms and Counter Charms.
17 *Longbeard. *Mackay.*
18 *Hope Leslie. *Sedgwick.*
19 *Lilly Dawson. *Crowe.*
21, 22 Romance of War (2s.) *Grant.*
26, 27 Aide-de-Camp (2s.) *Grant.*
28, 29 Whitefriars, 1 vol. (2s.) *Anon.*
32 *Knight of St. John. *Porter.*
33, 34 Jasper Lyle (2s.) *Ward.*
36, 37 Scottish Cavalier (2s.) *Grant.*
39 *Recluse of Norway. *Porter.*
43 *Self-Control. *Brunton.*
44, 45 Night Side of Nature (2s.) *Crowe.*
46 *Zingra the Gipsy. *Maillard.*
48 *Martin Beck. *Harris.*
49 Soldier of Fortune. *Curling.*
50 Susan Hopley (2s.) *Crowe.*
51 Viola. *Goldsmid.*
52 Helen Charteris. *Ward.*
53, 54 Whitehall (2s.) *Anon.*
55 *Polish Lancer. *Reelstab.*
57 Compulsory Marriage. *Maillard.*
60 Three Musketeers (2s.) *Dumas.*
61 *Albatross. *Kingston.*
65 Caleb Williams. *Godwin.*
67 Cæsar Borgia (2s.) *Anon.*
68 Scottish Chiefs (2s.) *Porter.*
69 *Rockingham. *Anon.*
70 *Thaddeus of Warsaw. *Porter.*
74 *Money Lender. *Gore.*
76 *Singleton Fontenoy. *Hannay.*
82 *Pin Money. *Gore.*
89 *Torlogh O'Brien. *Anon.*
94 *Electra. "Rockingham."
96 *Hour and Man. *Martineau.*
106 *The Duke. *Grey.*
109 Pastor's Fireside (2s.) *Porter.*
111 *Stories of Waterloo. *Maxwell.*
113 *Marchioness Brinvilliers. *A. Smith.*
115 Love and Ambition. *Anon.*
117 *Green Hand. *Cupples.*
118 Arthur O'Leary (2s.) *Lever.*
119 Ledbury's Adventures (2s.) *A. Smith.*
121 Luck is Everything (2s.) *Maxwell.*
123 *My Cousin Nicholas. *Barham.*
125 Bothwell (2s.) *Grant.*
126 Scattergood Family (2s.) *A. Smith.*
128 Tylney Hall (2s.) *Hood.*
130 *The Ward. *Trollope.*
132 Owen Tudor (2s.) *Anon.*
134 Jane Seton (2s.) *Grant.*
135 Philip Rollo (2s.) *Grant.*
137 *Mansfield Park. *Austen.*
138 *Emma. *Austen.*
139 *Northanger Abbey and Persuasion. *Austen.*
140 *Fardorougha. *Carleton.*
141 *The Emigrants. *Ditto.*
142 *Tithe Proctor. *Ditto.*
143 Perkin Warbeck (2s.) *Mrs. Shelley.*
145 *The Chelsea Veterans. *Gleig.*
146 *Schinderhannes. *Ritchie.*
147 *Collegians. *G. Griffin.*
148 *Munster Festivals. *Ditto.*
149 *The Rivals. *Ditto.*
151 *Peregrine Bunce. *Hook.*
152 Con Cregan (2s.) *Anon.*
154 *Violet, the Danseuse. *Anon.*
155 Prairie Bird (2s.) *Murray.*
156 Linny Lockwood (2s.) *Crowe.*
157 Petticoat Government (2s.) *Trollope.*
158 Captain Blake (2s.) *Maxwell.*
160 The Bivouac (2s.) *Maxwell.*
161 *Marriage in High Life. *Scott.*
162 Ladder of Gold (2s.) *R. Bell.*
163 Maid of Orleans (2s.) *Anon.*
164 Millionaire (2s.) *Costello.*
165 *Gold Worshippers. *Anon.*
166 The Divorced. *Lady Bury.*
167 Colin Clink (2s.) *Hooton.*
168 Hector O'Halloran (2s.) *Maxwell.*
170 Country Curate (2s.) *Gleig.*
172 One Fault (2s.) *Mrs. Trollope.*
173 *The Rifleman. *Capt. Rafter.*
174 Salathiel (2s.) *Dr. Croly.*
175 Clockmaker (2s.) *Sam Slick.*
176 Rory O'More (2s.) *Samd. Lover.*
177 *Capt. O'Sullivan. *Maxwell.*
179 Manœuvring Mother (2s.) *By the Author of* "The Flirt."
180 Half-Brothers (2s.) *Dumas.*
181 Monte Cristo (2s. 6d.) *Dumas.*
182 Two Frigates (The) (2s.) *Cupples.*
184 Top Sail Sheet Blocks. (2s.) *Old Sailor.*

London: ROUTLEDGE, WARNES, & ROUTLEDGE, Farringdon Street.

# BOOKS FOR THE COUNTRY,

In Foolscap 8vo, Fancy Cloth Covers, with numerous Illustrations,

PRICE ONE SHILLING EACH

(UNLESS SPECIFIED).

CONTENTS OF THE SERIES:—

1. ANGLING, and WHERE to GO. By ROBERT BLAKEY.

2. PIGEONS and RABBITS. By E. S. DELAMER.

3. SHOOTING. By ROBERT BLAKEY.

4. SHEEP. By W. C. L. MARTIN.

5. FLAX and HEMP, its Culture and Manipulation. By E. S. DELAMER, with numerous Illustrations.

6. THE POULTRY YARD. By E. WATTS (of Monkbarns).

7. THE PIG; how to Choose, Breed, Feed, Cut-up, and Cure. By S. SIDNEY.

8. CATTLE; their History and Various Breeds; Management, Treatment, and Diseases (*1s. 6d.*). By MARTIN and RAYNBIRD.

10. THE HORSE; its History, Management, and Treatment. By YOUATT and CECIL.

11. BEES; their Habits, Management, and Treatment. By the Rev. J. G. WOOD, Author of "Natural History."

12. CAGE and SINGING BIRDS. By H. G. ADAMS.

13. SMALL FARMS; a Practical Treatise on their Management. By MARTIN DOYLE.

14. THE KITCHEN GARDEN. By E. S. DELAMER.

15. THE FLOWER GARDEN. By E. S. DELAMER.

16. RURAL ECONOMY. By MARTIN DOYLE.

17. FARM and GARDEN PRODUCE. By MARTIN DOYLE.

18. COMMON OBJECTS of the SEA-SHORE. By the Rev. J. G. WOOD. With many Illustrations by W. SOWERBY.

19. COMMON OBJECTS of the COUNTRY. By the Rev. J. G. WOOD. With many Illustrations by COLEMAN.

20. AGRICULTURAL CHEMISTRY (*1s. 6d.*). By ALFRED SIBSON, with a Preface by Dr. Voelcker.

21. OUR WOODLANDS, HEATHS, and HEDGES, Illustrated. (A Companion to "Common Objects of the Country.")

22. BRITISH FERNS. By THOMAS MOORE, F.L.S. Illustrated by W. S. COLEMAN.

23. FAVOURITE FLOWERS: how to Grow them. By J. G. SUTTON, Editor of "The Midland Florist."

24. BRITISH BUTTERFLIES. By W. S. COLEMAN. Illustrated with sixteen pages of plates.

London: ROUTLEDGE, WARNE, AND ROUTLEDGE.

**Walsh's Manual of Domestic Economy (7th Thousand).** s. d.
With 200 Illustrations, 1 Vol., 700 pp., half-bound ..... 10 6

**Walsh's Manual of Domestic Medicine and Surgery.**
With 200 Plain and Coloured Illustrations, 1 Vol. thick fcap. 8vo, 700 pp., half-bound ..... 10 6

**How we are Governed (10th Thousand).**
A Hand-Book of the Constitution, Government, Laws, and Power of Great Britain. By ALBANY FONBLANQUE. Fcap. 8vo, cloth..... 2 6

**Walsh's English Cookery Book (7th Thousand).**
With Practical Illustrations. Fcap. 8vo, half-bound ..... 3 6
"A plain, common-sense Cookery Book."—*The Athenæum.*

**Pierce's Household Manager;**
A Practical Treatise upon the various Duties of Maître d'Hôtel in large Establishments. Fcap. 8vo, cloth extra..... 3 6

**Sleigh's Handy Book of Criminal Law (6th Thousand),**
Applicable to Commercial Transactions. Post 8vo, cloth extra ..... 2 6

**Simmond's (P. L.) Dictionary of Trade Products,**
Commercial, Manufacturing, and Technical Terms, with Moneys, Weights and Measures of all Countries, reduced to the British Standard. Fcap. 8vo, half-bound ..... 6 0

**Dodd's Novelties, Inventions, and Curiosities in Arts and Manufactures.**
Fcap. 8vo, cloth ..... 2 0

**Walsh's English Housekeeper's Book.**
With numerous Practical Illustrations. Fcap. 8vo, half-bound ..... 3 6

**James's Treasury of Medicine;**
Or, Every One's Medical Guide. Fcap. 8vo, cloth ..... 5 0

**Rights and Wrongs:**
A Manual of Household Law. By ALBANY FONBLANQUE, Author of "How We are Governed." 320 pp., cloth ..... 5 0
"Comprehensive, well-arranged, explicit, and well indexed, this book is useful to everybody."—*Examiner.*
"Every man of 21 years of age should completely study this perfect and incomparably the best digest of Household Law yet published."—*British Standard.*

**The Handy Book of Parish Law.**
By W. A. HOLDSWORTH, Author of "The Law of Landlord and Tenant," &c. Post 8vo, cloth ..... 2 6
Plain and practically written, this volume is essential to all Ratepayers, Overseers, Churchwardens, and Guardians of the Poor.

| | s. | d. |
|---|---|---|
| **Rundell's (Mrs.) Domestic Cookery.** For the Use of Private Families. With Ten Illustrations, fcap. 8vo, cloth | 2 | 0 |
| **Chevreul on the Laws of Contrast of Colour,** And their Applications to the Fine Arts of Painting, Decorating, Mosaic Work, Calico Printing, &c., &c. Illustrated with Woodcuts. Fcap. 8vo, cloth | 2 | 0 |
| *Also,* A REVISED EDITION OF THE ABOVE, with the addition of Sixteen Plates printed in Colours, fcap. 8vo, cloth | 5 | 0 |
| **Master's Ready Reckoner.** By JOHN HEATON. The 10th Edition, with additional Tables, royal 18mo, cloth | 1 | 0 |
| **Routledge's Hand-Books.** With Illustrations, boards, viz.:— GYMNASTICS. By GEORGE FORREST. SWIMMING and SKATING. By GEORGE FORREST. HERALDRY; or, Accidence of Armorie. CHESS—and the best mode of Playing. WHIST—with Rules for Playing the Game. | Price Sixpence each. | |
| **Tradesman's Ready Calculator,** For Masons, Plasterers, Glaziers, Painters, &c. Royal 32mo, cloth.. | 0 | 6 |
| **Ready Reckoner (Miniature Edition).** With additional Tables, royal 32mo, cloth | 0 | 6 |
| **Earth (The), Past, Present, and Future.** By the Rev. Geo. H. SUMNER, M.A., fcap. 8vo, sewed | 0 | 6 |
| **Hoare's Wine and Spirit Merchant's Guide.** Fcap. 8vo, sewed, wrapper | 0 | 6 |
| **Hoare's (Rev. G. T.) Village Museum;** Or, How we Gathered Profit with Pleasure. Fcap. 8vo, sewed | 0 | 6 |
| **The Rifle and How to Use It.** By HANS BUSK. Eighth Edition, enlarged and improved, with Practical Illustrations, half-bound | 2 | 6 |
| **Arago's Popular Astronomy.** Edited by Rev. L. TOMLINSON, fcap. 8vo, with Illustrations | 2 | 0 |

# POPULAR NATURAL HISTORY.

**Messrs. Routledge, Warne, & Routledge**

Announce that they have purchased from Mr. LOVELL REEVE his series of works on

## POPULAR NATURAL HISTORY,

And that they have now published them, bound in cloth, at per volume,

SEVEN SHILLINGS AND SIXPENCE, COLOURED.

CONTENTS OF THE SERIES:—

1. **British Birds' Eggs.** By R. Laishley. Twenty Plates.
2. **History of British Crustacea.** By Adam White, F.L.S. Twenty Plates.
3. **Popular Greenhouse Botany.** By Agnes Catlow. Twenty Plates.
4. **Popular Field Botany.** By Agnes Catlow. Twenty Plates.
5. **Popular Geography of Plants.** Edited by Dr. Daubeny. Twenty Plates.
6. **History of British Mosses.** By R. M. Stark. Twenty Plates.
7. **History of Palms.** By Dr. B. Seeman, F.L.S. Twenty Plates.
8. **History of British Seaweeds.** By Dr. Landsborough. Twenty Plates.
9. **Popular British Conchology.** By G. B. Sowerby, F.L.S. Twenty Plates.
10. **Popular British Ornithology.** By P. H. Gosse. Twenty Plates.
11. **History of the Mammalia.** By Adam White, F.L.S. Sixteen Plates.
12. **Popular Mineralogy.** By Henry Sowerby. Twenty Plates.
13. **History of the Aquarium.** By G. B. Sowerby, F.L.S. Twenty Plates.
14. **History of Mollusca.** By Mary Roberts. Eighteen Plates.
15. **Popular Garden Botany.** By Agnes Catlow. Twenty Plates.
16. **Popular Economic Botany.** By T. C. Archer. Twenty Plates.
17. **History of British Ferns.** By T. Moore, F.L.S. Twenty-two Plates.
18. **History of British Lichens.** By W. L. Lindsay, M.D. Twenty-two Plates.
19. **Popular Physical Geology.** By J. B. Jukes, F.R.S. Twenty Plates.
20. **History of Zoophytes.** By Dr. Landsborough. Twenty Plates.
21. **Popular British Entomology.** By Maria E. Catlow. Sixteen Plates.
22. **Popular History of Birds.** By Adam White, F.L.S. Twenty Plates.
23. **Popular Scripture Zoology.** By Maria E. Catlow. Sixteen Plates.
24. **The Woodlands.** By Mary Roberts. Twenty Plates.

"A popular series of scientific treatises, which, from the simplicity of their style, and the artistic excellence and correctness of their numerous illustrations, has acquired a celebrity beyond that of any other series of modern cheap works."—*Standard.*