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MARYLAND

A DESCRIPTION OF ITS
LANDS, PRODUCTS AND
INDUSTRIES



1908

Compiled by
T. J. C. WILLIAMS
For the Board of Public Works

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AUSTIN L. CROTHERS,
GOVERNOR.

THE STATE OF
MARYLAND

A DESCRIPTION OF ITS
LANDS, PRODUCTS AND
INDUSTRIES



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T. J. C. WILLIAMS
FOR THE BOARD OF PUBLIC WORKS

1908

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PREFACE.

The first edition of this little volume compiled by the undersigned was authorized by the General Assembly in 1906, and ordered by the Board of Public Works for distribution at the Jamestown Exposition in 1907. It served a good purpose there and copies of it were eagerly received by those to whom it was offered and sought after by others. In this way it was widely circulated throughout the United States. The State Bureau of Immigration was pleased to consider it of value and the General Assembly, in 1908, made provision for this present edition for the use of the Immigration Bureau as a compact and handy guide-book to the State, giving the kind of information which a stranger, coming into the State or thinking of coming into the State, would desire. In the compilation of this volume free use has been made of the Reports of the Maryland Bureau of Statistics and of the Reports of the State Geological Survey, Dr. W. Bullock Clark, Geologist. Most of the illustrations were supplied also by the Geological Survey. The compilation in no wise pretends to be a history of the State.

T. J. C. WILLIAMS.

Baltimore, 1908.

TABLE OF CONTENTS.

CHAPTER	PAGE
I—What Maryland Has to Offer to the Immigrant.	7
II—A General Description of Maryland.....	12
III—Mines and Quarries.....	32
IV—Soils	44
V—The Chesapeake Bay.....	53
VI—Road Improvement and Laws.....	63
VII—Geological Survey and Other State Agencies....	77
VIII—Educational System.....	88
IX—The Capital of Maryland.....	93
X—Baltimore City.....	106
XI—The Counties.....	118
XII—Members of the Board of Public Works.....	170
XIII—Statistics of Population.....	181

THE STATE OF MARYLAND.

CHAPTER I.

WHAT MARYLAND HAS TO OFFER TO THE IMMIGRANT.

It is the object of this book to inform the people of other States of conditions in Maryland, with a view to attracting desirable citizens to the State. To that end the General Assembly of the State authorized the work and the Board of Public Works ordered it to be printed. It will be distributed free of charge by the State Board of Immigration among people who are interested in the subject. There are many farmers in the northern or northwestern States, remote from markets and suffering from the severities of an inclement climate, who would be glad to sell their property and make their homes in Maryland where all the conditions are favorable, the climate mild and equable, lands cheap and markets close at hand. It seems almost incredible to the farmer upon lands selling at \$100 an acre that there should be good and fertile, well improved farms within ten or twenty miles of the capital of the United States to be had at from one-fifth to one-half the price of prairie lands in Iowa. Maryland's invitation to agricultural immigrants with some capital, is sincere and alluring. She offers good lands easily improved at very low prices. The products of these lands are within easy reach of railroads or steamboats, or both. There is a choice of the best markets in the land.

Baltimore is the natural and principal market town for the whole State and lines of transportation from every quarter of the State lead to it. But there is a choice of markets. The western counties send much of their fruit to Pittsburg; the Eastern Shore can reach Philadelphia in a few hours and New York in a few hours more, while two of the counties bind upon the city of Washington and largely supply its markets with poultry, fruit, vegetables, hay and corn.

All classes of farmers can find locations in the State suitable for the class of agriculture to which they may be accustomed. The farmer who has made it his business to cultivate the staple crops cannot go amiss in Maryland. In nearly all of the counties corn is abundantly produced as well as wheat. Some of the finest and most productive wheat lands in the country are found in the central and western counties and on the Eastern Shore. In the southern counties on the Western Shore tobacco is the chief crop, but the land is admirably adapted to the cultivation of fruit, such as apples, peaches, strawberries, raspberries, blackberries and all manner of vegetables and melons. The lower counties of the Eastern Shore also grow vast quantities of small fruit and in the valleys between the mountains in Garrett and Allegany counties the finest Irish potatoes grow. In most of the counties grass can be produced and cattle and sheep successfully grazed. In Southern Maryland the farms are large and the landowners without sufficient capital, and they are therefore willing to sell their surplus acres at a very small price. This section of the State offers the strongest inducements to farmers with small capital. Often

farms can be bought for less than the cost of the improvements.

What adds vastly to the attraction of these farms in Maryland is the fact that they are in a State distinguished for the maintenance of good order, for the excellence of its common, free schools, for the abundance of its churches, for its colleges and libraries. No farm in the State is remote from a railroad station or a steamboat wharf; the express company, the telegraph and the telephone are everywhere. To buy a farm and settle down in Maryland is not like going into a new country. Every farm has its farm buildings and fences and the new settler will find well disposed, hospitable and kind neighbors close to him. He will find himself among law-abiding, religious people, and in most of the counties of the State the sale of intoxicating drink is prohibited. There is in almost every section, and especially in the southern counties, an abundance of woodland and if wood is to be used for fuel, the only cost to the farmer is the cost of cutting it.

The climate of southern and eastern Maryland is mild and equable and healthful. The winters are not severe and the summers not excessively hot, the cold of winter and heat of summer being moderated by the proximity of the Atlantic ocean and the Chesapeake bay. In the tidewater country the salt waters of the Chesapeake, and of the rivers and creeks which flow into it afford to the enterprising citizen an abundance of the most delicious food—fish, oysters and crabs—and if he is inclined to be a sportsman he can add wild ducks and other birds to his bill of fare. Nature has blessed the State of Maryland with a kindly and

diversified soil for the benefit of the agriculturist, with mines and quarries and with productive fisheries. The General Assembly has passed a law for the encouragement of oyster planting and a vast and profitable industry is surely expected to grow up within a few years. In 1904 the Legislature appropriated \$200,000 annually, to be apportioned among the counties for the improvement of the public roads under the direction of the State Geological Survey. In order to get the benefit of this appropriation each county must appropriate a sum equal to the amount it receives. In 1906 a large sum was appropriated to construct a fine road between Baltimore and Washington, and the work on this road is progressing finely. At the session of 1908 a great step was made in the physical improvement of the State by the creation of the Highway Commission and the appropriation of \$5,000,000 for the construction of public roads in all parts of the State. This will be a splendid improvement and the fine roads, when completed, will increase the value of all the farming lands through which they pass or adjacent to them.

The government of Maryland, while maintaining admirable free schools, common and high schools, and manual training schools, aids in the support of colleges and professional schools, encourages religion and maintains libraries, has in recent years entered upon a broad and liberal scheme for the physical improvement of the State and the increase of wealth. To this end the State government maintains the following departments :

A Geological Survey to describe the physiography of the State, to explore and describe its varied mineral

resources, to describe the various soils, to make maps and to make exhibits of the mineral resources.

The Highways Division of the Geological Survey for the discovery and testing of road material and the execution of the Shoemaker road law and building roads under its provisions of which the State pays half and the county in which the road is made the other half of the cost. This department is also constructing the boulevard from Baltimore to Washington.

The State Road Commission which is charged with the improvement of the roads under the Act of 1908 and with the expenditure of the \$5,000,000 appropriation for road making.

A Forestry Commission charged with the care and preservation of the forests and of a State forest reserve, which has begun, and which at this time contains 3,000 acres of woodland.

The Shell Fish Commission charged with surveying the oyster lands of the State, the leasing of bottoms to oyster planters and the upbuilding of an oyster planting industry.

A Fish Commission charged with the protection and increase in the supply of food fishes.

A Bureau of Labor Statistics for the improvement of the conditions of labor, the enforcement of the child-labor and the sweat shop laws and the encouragement of factories.

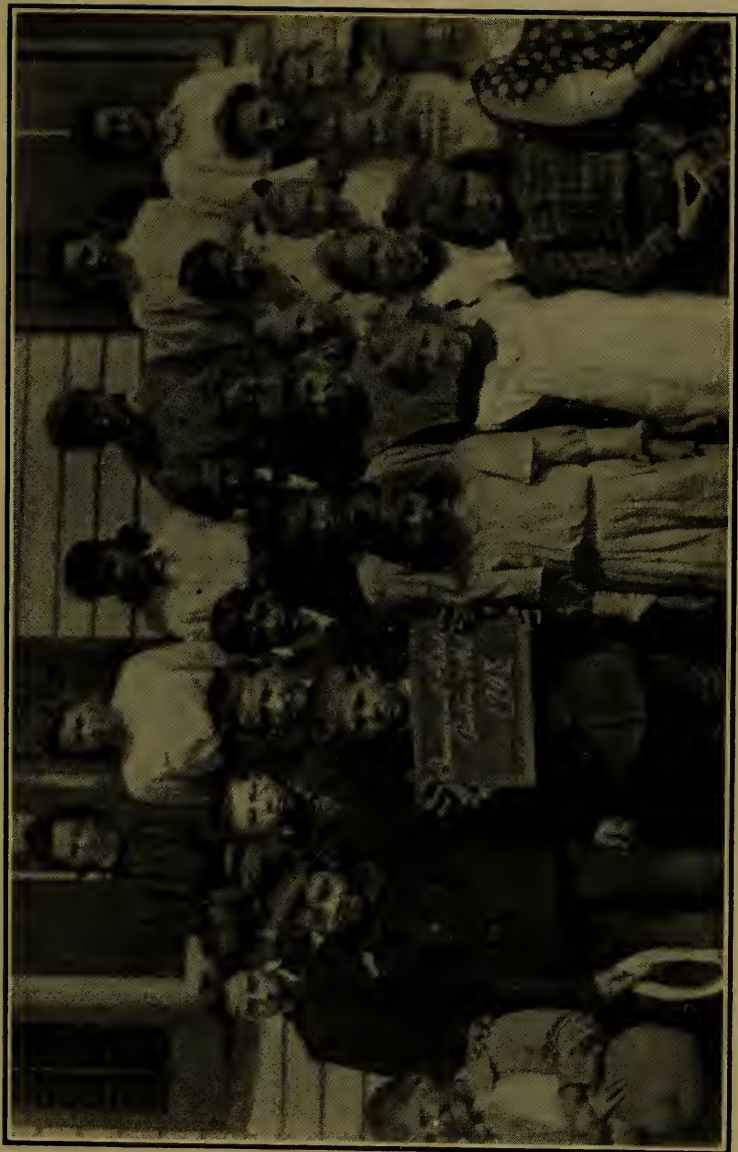
These various subjects will be treated at length in succeeding pages in this book.

CHAPTER II.

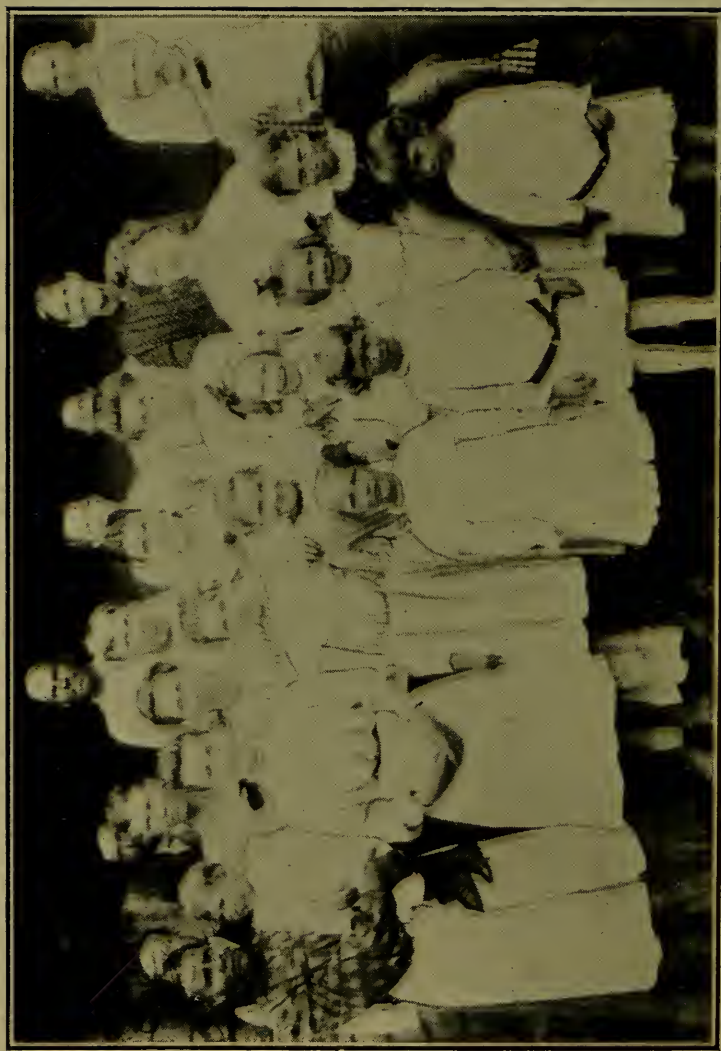
THE STATE OF MARYLAND.

Maryland is one of the thirteen original States. It lies on the Atlantic seaboard, and is included between the parallels of $37^{\circ} 53'$ and $39^{\circ} 43' 26''$ of north latitude and $75^{\circ} 4'$ and $79^{\circ} 33'$ west longitude. Its northern boundary is Mason and Dixon's line, which separates it from Pennsylvania on the north. Delaware joins it on the east, and is also separated from Maryland by the same historic boundary. The Atlantic ocean forms a portion of the eastern boundary. The Potomac river separates it from Virginia and West Virginia, the whole of the river to low water mark on the southern side being within the jurisdiction of Maryland.

The area of the State of Maryland is not large, and it is the smallest State of the Union except six. And yet it extends from the Atlantic ocean across the Coastal Plain, and the broad Chesapeake, the Piedmont region, the Blue Ridge mountains, the Great Valley and westward of the ridge of the Alleghany mountain range, its northwestern corner draining into the water courses of the Mississippi valley. In that territory there is every variety of soil, and most of the crops and fruits and flora of the temperate zone. Its geology illustrates the geological history of the continent, and its climate varies from the balmy temperature of the seaboard, where the winters are mild, and such fruit as figs, apricots and almonds grow in



GERMAN SCHOOL, PRESTON, MD.



TWO GERMAN SETTLER FAMILIES—THAT'S ALL.

the open air, to the rigorous climate of the Alleghany mountain heights, where the mercury sometimes sinks to nearly 30 degrees below zero, and where the summers are cool and delightful. Between these two extremes there is the wholesome, bracing air and equable temperature of the uplands, which extend from near Baltimore westward to the Alleghany mountains.

The extreme length of the State from east to west is 315 miles; the extreme breadth from north to south is 128 miles. The total area is 12,210 square miles, of which 2,350 are water. This water area is made up principally of the Chesapeake bay and its numerous tidal tributaries. The entire land surface of the State drains into the Chesapeake, except a part of Worcester county, whose streams find their way through Assateague and Sinepuxent bays to the ocean; the northeast portion of Cecil county, which drains into Christian creek and the Delaware, and the larger part of Garrett, which is drained by the Youghiogheny and Castleman rivers into the Ohio.

The northern boundary, known as the Mason and Dixon line, which became famous later as the boundary between the free and slave-holding States of the North and South, was, according to an agreement made in 1732, to run due west from Cape Henlopen (fifteen miles south of the point now known by that name) to the middle of the peninsula of the Eastern Shore, thence northward tangent to a circle of twelve miles radius—whose center was at Newcastle, Delaware—and then due north from the tangent point until it reached a parallel of latitude fifteen miles south of the southernmost part of Philadelphia. From this point the line was to run due west. Surveyors had

already determined the position of the "center of the peninsula," the north and south line, and the "tangent point," when Charles Mason and Jeremiah Dixon, noted English astronomers and mathematicians, arrived in Philadelphia in 1763. From their arrival until December, 1767, Mason and Dixon were busy locating the "southernmost part of Philadelphia" and the northern boundary of the State, which they surveyed and marked as far as Dunkard creek, West Virginia, where they were stopped by the Indians. Along the greater portion of this line each mile was marked by a stone monument, which had the letter "P" engraved on the northern side, and the letter "M" on the southern side, while at each fifth mile was a stone, known as the "crown-stone," with the coat of arms of the Penns cut on the northern face and with that of Lord Baltimore on the southern. These stones were brought from England. Some of the original monuments remain in good condition, but many have become dilapidated or been removed. The line has been recently relocated by a Commission composed of representatives of the States of Maryland and Pennsylvania and of the United States Government.

The southern boundary, long in dispute, was permanently settled in 1877, as far as the Maryland-Virginia portion is concerned, by a board of commissioners appointed by the States of Maryland and Virginia. According to their agreement, the boundary line follows the low-water line on the right bank of the Potomac river to Smith's Point at its mouth, thence northeasterly across Chesapeake bay to the southern end of Smith's Island, and thence to the middle of Tangier sound. Here the boundary runs south

10° 30' west, until it intersects a straight line connecting Smith's Point and Watkins' Point. From this intersection the line runs to Watkins' Point, and thence eastward through the center of Pocomoke sound and Pocomoke river until it reaches the westward prolongation of the old Scarborough and Calvert line surveyed in 1688, which it follows to the Atlantic ocean. There is still some controversy as to the exact location of some of the boundary marks. The States of Maryland and West Virginia have not yet agreed upon the western boundary.

THE CLIMATE.

The climate of Maryland is as varied as its surface configuration, and is to a considerable extent dependent upon the latter. These climatic differences are also due to the nearness of large bodies of water, such as the Atlantic ocean and the Chesapeake bay. The climate of most of the State has the healthfulness common to the eastern part of the United States, and in character is midway between that of Maine and that of Florida. In the eastern and southern parts of the State the winters are mild. While in the western and more elevated portions the winters are quite cold and the summers delightfully cool. The so-called "climatic changes" depend upon differences in temperature, precipitation, winds, humidity and barometric pressure.

The average temperature for the year varies materially in the several sections of the State, the temperature of the northern and western divisions, which ranges from an average of 27° in winter to 70° in summer, is several degrees lower than that of the southern and eastern divisions, where the temperature

for winter is, on the average, about 40° and for summer 77° . In general, the average temperature of Southern Maryland is 2° higher than that of Baltimore, while the temperature of the country to the north and west of the city decreases as the elevation of the land becomes greater. In the western part of the State the valleys are slightly warmer than the mountains, but are more liable to early frosts.

The precipitation of moisture in Maryland occurs in the form of rain, snow and hail, usually the first, especially in the southern and eastern parts of the State. There are no distinctly wet and dry seasons, as in tropical countries, but careful observations show that there is more rain in the spring and late summer than in the autumn and winter. There are also special areas where there is considerable rainfall, and others in which the precipitation is slight. The records show that the areas of greatest rainfall are on the eastern slope of the Catoctin mountain, in the Frederick valley, and along the shores of the Chesapeake bay between Cambridge and Annapolis, while the areas of least precipitation are between Denton and Westminster and in the mountainous counties. The annual precipitation in the State varies, according to localities, from 25 to 48 inches.

The winds in Maryland generally blow from the west, but during the summer they come more from the south, and in the winter more from the northwest and west, especially in the eastern and central portions of the State. In the mountainous regions of Western Maryland the winds are more commonly from the northwest and west throughout the year.

The State is divided into three areas, known as the Coastal Plain, the Piedmont Plateau and the Appalachian Region.

The Coastal Plain embraces the eastern portion and includes the area between the Atlantic ocean to a line passing from Wilmington, Delaware, to Washington, D. C., through Baltimore. It embraces the nine counties of the Eastern Shore, five southern counties and portions of Harford and Baltimore. This is also known as the tidewater section of the State. It includes the Chesapeake bay, and nearly every portion of it is reached by navigable streams or washed by the waters of the bay. The soil of this section is mostly light and in many places sandy. Much of it is fine wheat and corn lands. All of it will produce tobacco, although its cultivation is nearly confined to the five southern counties on the Western Shore. There is no finer soil and climate for the production of fruit and vegetables than this Coastal Plain. In every part of it pure water is easily procured by driven wells. The fruit most commonly produced in this region for market are peaches, apples, plums, pears, strawberries and other small fruit and melons. It is an ideal region for truck farming, producing early vegetables and fruit, and having cheap and quick access to the markets of three great cities—Philadelphia, Washington and Baltimore. The land of the Eastern Shore counties is low and level, most of it having no greater elevation than 25 feet above sea level.

The Piedmont Plateau is a low-lying plateau of complex origin whose rolling surface is traversed by highlands and cut by valleys which now and then

trench the upland as deep gorges. It is divided into an eastern division and a western division by the inter-stream elevation known as Parr's Ridge, which, passing from western Montgomery county across Howard and Carroll counties, rises to an elevation of over 1,100 feet near the Pennsylvania line. A close study of this central portion of Maryland shows that the level-topped hills and broad stretches between the streams are remnants of old plains cut out of the high plateau that formerly stretched across the district from the Appalachians on the west to the sea on the east. Four such plains may be recognized by patching together their present remnants. The history of this district has also left its impression on the inhabitants. The best farming lands lie either on the flat-topped ridges or on the richer but wetter flood-plains of the valleys, and here may be found the most prosperous agriculturists. The trenching of the old plains has exposed the underlying rocks and stimulated the quarrying of building stones. It has also determined the location of the highways, while the waters descending from the highlands to the valley bottoms have developed water-powers which have been utilized by the numerous small mills throughout the district.

The Appalachian Region, extending from the Piedmont Plateau on the east to beyond the western limits of the State, consists of a series of parallel mountain ranges with deep valleys between. This region may be divided into four divisions—the Blue Ridge on the east, the Great Valley, the Alleghany Ridges from North Mountain to Big Savage Mountain, and the Alleghany Plateau from this point to the western limits

of the State. These are but small segments of the similar divisions which extend northward into Pennsylvania and southward across the Virginias into the Southern States.

Maryland is divided into 23 counties and Baltimore City, of which Garrett, Allegany, Washington and the western part of Frederick comprise the mountainous region known as Western Maryland; the eastern part of Frederick, Carroll, Montgomery, Howard, Baltimore, Harford and the western part of Cecil the Piedmont area, which is also referred to under the name of Northern-Central Maryland; Anne Arundel, Prince George's, Calvert, Charles and St. Mary's, commonly called Southern Maryland; and the eastern part of Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Somerset and Worcester, known as Eastern Maryland. Of these 23 counties all but seven lie upon navigable waters.

There seems to have been no consistent method adopted in erecting the several counties of the State. Some, like St. Mary's and Kent, grew with the development of the province and were subsequently bounded by the erection of new counties; others, like Charles and Dorchester, were erected by the ruling of Lord Baltimore. Cecil county was erected by proclamation of the Governor, while Washington, Montgomery, Howard and Wicomico were established in constitutional conventions. The great majority of counties were, however, erected by Acts of Assembly. The records now extant do not show the original extent or the exact date of erection of several of the counties, but it is of interest to note that 18 out of the 23 counties were established before the close of

the Revolutionary War and 11 of these before 1700. Baltimore City since 1851 has not been in any county, but, unlike any other American city except New York, is a distinct division of the State.

THE POPULATION OF THE STATE BY COUNTIES.

Counties	Date of Erection	Census 1900	Area in sq. miles	County Towns
Allegany	1789	53,694	440.5	Cumberland
Anne Arundel... .	1650	39,620	430.4	Annapolis
Baltimore	1659	90,755	646.8	Towson
Balto. City.....	{ 1729 1851	508,957	30.0	.....
Calvert	1654	10,223	216.8	Pr. Frederick
Caroline	1726	16,248	317.4	Denton
Carroll	1838	33,860	445.3	Westminster
Cecil	1674	24,662	374.6	Elkton
Charles	1660	17,662	462.0	La Plata
Dorchester	1666	27,962	573.2	Cambridge
Frederick	1748	51,920	660.0	Frederick
Garrett	1872	17,701	681.0	Oakland
Harford	1773	28,269	439.8	Belair
Howard	1850	16,715	249.1	Ellicott City
Kent	1637	18,786	281.0	Chestertown
Montgomery	1776	30,451	517.6	Rockville
Pr. George's.....	1695	29,898	479.6	Upper Marlboro
Queen Anne's....	1706	18,364	363.4	Centerville
St. Mary's.....	1637	17,182	369.1	Leonardtown
Somerset	1668	25,923	328.6	Princess Anne
Talbot	1661	20,342	267.1	Easton
Washington	1776	45,133	457.3	Hagerstown
Wicomico	1867	22,852	368.9	Salisbury
Worcester	1742	20,865	491.5	Snow Hill
The State.....	....	1,188,044	9,891.0	Annapolis

TOTAL POPULATION AT VARIOUS PERIODS.

Year.	Population.	Year.	Population.
1634.....	200	1800.....	341,546
1660.....	12,000	1810.....	380,546
1671.....	20,000	1820.....	407,350
1701.....	25,000	1830.....	447,040
1715.....	30,000	1840.....	470,019
1748.....	*130,000	1850.....	538,034
1756.....	154,188	1860.....	687,049
1760.....	166,523	1870.....	780,894
1770.....	199,827	1880.....	934,943
1775.....	225,000	1890.....	1,042,390
1782.....	254,050	1900.....	1,188,044
1790.....	319,728		

The counties of Maryland, unlike those of many other States, are the ultimate units of territory and not the combination of townships. This fact, together with the paucity of large towns and the agricultural character of the communities, have made the counties as such of unusual importance in all political and social relations. Election districts are established in all the counties.

SOME FACTS OF HISTORY.

Maryland was settled by a party of Englishmen under Leonard Calvert, who left the mother country in the "Ark and Dove" in 1633, and finally landed near the mouth of the Potomac, on the shores of St. Mary's river, in 1634. The proprietor, Cecil Calvert, second Baron of Baltimore, received the territory from Charles I., under a charter which allowed many liberties, including freedom from taxation by the King. In 1649 the colonists established these privileges by the "Toleration Act," which forbade discrimination on account of religious opinions. The Puritans from

Virginia sought refuge in Maryland, and in 1652 even captured the State government for a period.

About this time the Duke of York (afterwards James II.), through ignorance of the country, deeded to William Penn some of the land which had already been given to Lord Baltimore. This mistake led to a long border dispute, which only ended with the location of the Mason and Dixon Line (1763-1767.) In 1694 the capital of the State was moved from St. Mary's City to Annapolis.

During the Revolutionary War no important military operations took place in Maryland, although the "Maryland Line" fought with valor in many engagements, especially those of Long Island, Camden, Cowpens, Guilford and Eutaw Springs. On December 22, 1783, Washington resigned his commission as commander-in-chief of the army in the Senate chamber at Annapolis, where the Continental Congress was then in session.

During the War of 1812 several Maryland towns were pillaged by the British, but Baltimore was saved from capture by the repulse of the enemy at North Point and Fort McHenry. It was during the bombardment of the latter place that Francis Scott Key wrote "The Star-Spangled Banner."

Among the battles of the Civil War three were fought on Maryland soil—South Mountain (September 14, 1862), Sharpsburg, or Antietam (September 16-17, 1862), and Monocacy (July 9, 1864). There were also small conflicts at many points, especially along the Potomac.

In the history of the State are many incidents which have since become of national or international impor-

tance. The first wheat was shipped to Europe from Baltimore in 1771; the first regular steam packet that crossed the Atlantic direct from the United States sailed from Baltimore in May, 1838; while the Morse telegraph line transmitted its first message ("What hath God wrought") from Baltimore to Washington, April 9, 1844. Baltimore was the first city in America to have a water company (1792), street gaslights, a railroad (1828), and an electric street railroad (1881). The city contains the first American monument to Columbus, the first official State monument to George Washington, the oldest American lodge of the Independent Order of Odd Fellows, and the oldest College of Dental Surgery.

The earliest settlers in Maryland were Englishmen. Many of the early settlers in the country adjacent to Pennsylvania were of German extraction, and their descendants are today numerous and influential. The negroes comprise one-fifth of the population, and are relatively more prominent in Charles, Calvert and St. Mary's counties, where they comprise fully one-half of the population; and least important in the western counties along the Mason and Dixon Line, where there is only one negro, on the average, to fourteen whites. In Baltimore, Cecil and Harford counties the negroes comprise one-sixth of the population, while in the counties of the Eastern and Western Shore, not previously enumerated, they form about two-fifths of the entire population. During the last twenty-five years there has been a great increase in the Polish, Hungarian and Bohemian inhabitants, who have settled chiefly in Baltimore City.

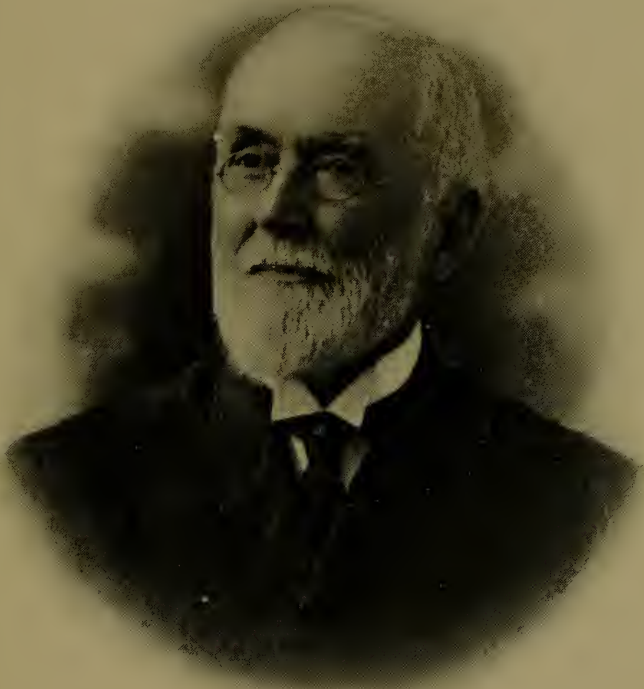
Maryland has always been a religious center. As early as 1629 services were regularly conducted on

Kent Island by an ordained minister of the Church of England. The first Presbyterian Church in America was established at Snow Hill about 1700, and in 1766 Robert Strawbridge established the first Methodist congregation in America in Carroll, then Frederick county. Many of the most prominent of the early settlers were Roman Catholics, and the See of Baltimore has held the first position in America since the decree of 1858. There are 59 denominations or sects represented in Maryland, and although many of them are scattered throughout the State they show local variations in strength, which are often closely related to the history, beliefs and nationalities of the early settlers.

STATE GOVERNMENT.

The government of Maryland is based on a Constitution formulated and ratified in 1867. Earlier constitutions were adopted in 1776, 1851, 1864, and the Constitution of 1776 was very much changed in 1837. According to the present Constitution the State is divided into 23 counties and Baltimore City, which in turn are subdivided into districts for school and election purposes. There are no units such as townships, but the local affairs of the cities, towns and villages are carried on by officers in accordance with charters and special acts.

Among the State officials under the Constitution of 1867 are the Governor, elected for four years, and the Secretary of State, who is appointed by the Governor. The Senate and House of Delegates, which together form the General Assembly or Legislature, consist of 27 Senators, elected for four years, one from each of the 23 counties and the four districts of Baltimore



HON. JOSHUA W. HERING,
COMPTROLLER OF TREASURY.



HON. MURRAY VANDIVER,
TREASURER.

City, and 101 Delegates, elected for two years. Each of the legislative districts of Baltimore is entitled to six Delegates, the number allowed the largest county. The Assembly meets every even year, on the first Wednesday in January, and may remain in session only 90 days. At the call of the Governor a special session may be held, which is limited by law to 30 days.

The judicial powers of the State are vested in a Court of Appeals, composed of eight judges; Circuit Courts with seven chief judges, who with one from Baltimore City are the judges of the Court of Appeals, and twenty-two associate judges, nine of the latter with one chief judge, who is not a member of the Court of Appeals, constituting the Supreme Bench of Baltimore City; an Orphans' Court with three judges in each county and the city. The Appeal and Circuit Court judges are elected for fifteen years, the judges of the Orphans' Court for four, the registrars of wills for six, and the sheriffs for two. The Attorney-General of the State and the State's Attorneys are elected for four years. Justices of the Peace, coroners and notaries are appointed by the Governor.

Among other prominent State officials are the Comptroller, who is the financier for the State, and who is elected by the people for two years, and the Treasurer, who is the banker, and who is elected by the General Assembly for a two-year term.

The more important State organizations are the Board of Public Works, Militia, Fishery Force, Land Office, State Agricultural Experiment Station, State Geological Survey with its Highway Division, State Weather Service, State Horticultural Bureau, Bureau

of Industrial Statistics, Immigration Bureau, Board of Education, Board of Health, Boards of Medical Examiners, Examiners of Dental Surgery, State Lunacy Commission, Live Stock Sanitary Board, the Fish Commission, the Shell Fish Commission, the State Roads Commission and the Forestry Commission.

THE BOARD OF PUBLIC WORKS.

The Board of Public Works of Maryland is one of the most important agencies for the government of the State. It is composed of the Governor, the Comptroller of the Treasury and the Treasurer. The constitutional duty of this board is to exercise a diligent and faithful supervision of all public works in which the State may be interested and perform such other duties as may be required by law. Among the duties which have from time to time been imposed upon the Board of Public Works is the appointment of the officials of the fisheries force; the appointment of the Shell Fish Commission and of the State Tax Commissioner.

COUNTY OFFICERS.

Clerks of Courts are elected by the people, and hold office for six years from the date of their election.

Sheriffs are elected by the people and hold office for two years from the date of their election.

Registrars of Wills are elected by the people and hold office for six years from the date of their election.

State's Attorneys are elected by the people and hold office for four years from the date of their election.

Surveyors are elected by the people and hold office for two years from the first Monday in January next ensuing from their election.

County Commissioners are elected by the people and hold office for two, four or six years from the date of their election. The exact terms being regulated by different local laws.

Judges of Orphans' Courts are elected by the people and hold office for four years from the time of their election.

Justices of the Peace are appointed by the Governor, with the consent of the Senate, for a term of two years from the first Monday in May. Unlike other State officers, Justices of the Peace do not hold over until the appointment of their successors, but their jurisdiction ceases upon the expiration of their term.

Police Justices for Baltimore City, one for each station house and one at large, are selected by the Governor from the list of civil Justices appointed for the city and by him assigned to the several stations.

One Justice of the Peace in Baltimore City is appointed by the Governor to preside over the Juvenile Court, which is charged with the trial of all children who are arrested for minor offenses and who are under 16 years of age.

The Boards of Supervisors of Elections in the several counties and Baltimore City are appointed by the Governor, with the consent of the Senate, for a term of two years. Two members of each board shall always be selected, one from each of the two leading political parties of the State. In making these appointments the Governor is required to call upon the State Central Committees of the two leading political parties from each county and from Baltimore City for at least four names from among which to make a selection. Supervisors in Baltimore City receive a salary

of fifteen hundred dollars and in the counties of one hundred and fifty dollars.

Notaries Public are appointed for the several counties and Baltimore City by the Governor, with the consent of the Senate.

School Commissioners are appointed by the Governor, with the consent of the Senate, as follows: In the counties of Baltimore, Carroll, Frederick, Dorchester and Washington the Board consists of six members, and in the other counties of three.

AGRICULTURE.

Maryland has 460,000 farms, with an acreage of 2,032,000, and an annual total value of farm crops of \$32,217,000. A statement of the value of each product to the State is as follows:

Small fruits.....	\$1,224,000
Potatoes	1,337,000
Orchard fruits.....	1,416,000
Tobacco	1,438,000
Miscellaneous products.....	1,792,000
Vegetables	4,354,000
Hay and forage.....	4,709,000
Wheat	8,494,000
Corn	7,463,000
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Total value.....	\$32,217,000

The animal products are as follows:

Honey and wax.....	\$39,000
Wool	143,000
Poultry and eggs.....	3,650,000
Pork, beef and mutton.....	4,546,000
Dairy products.....	5,229,000
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Total value.....	\$13,607,000

FLORA AND FAUNA.

The native plants of Maryland are not unlike those of Virginia and Pennsylvania, and the range within the State is wider than that between adjacent areas in neighboring States. The most prominent trees are oak (12 species), hickory (4), pine (4), poplar, maple (3), locust, chestnut, cypress, red cedar, beech and wild cherry. Among the wild fruit trees are the persimmon, the service berry and Chickasaw plum. The various sorts of grapevine, the Virginia creeper, greenbrier and morning glory are common climbers in the State, while the wild strawberry, blackberry, raspberry, blueberry, huckleberry, dewberry and cranberry, all very abundant, represent the native small fruits. Besides these larger or fruit-bearing plants there are countless others which carpet the ground in rapid succession from early spring until late autumn.

The animal life in Maryland is abundant, but does not show a great variety of the larger forms. Deer, black bears and wildcats are sometimes taken in the wilder portions of the State. Usually, however, the mammals are represented only by such animals as the ground-hogs, rabbits, skunks, weasels, minks, otters, opossums and squirrels. Snakes are abundant, but most of the species are harmless.

The waters of the Chesapeake bay abound in shad, herring, menhaden, mackerel, crabs and oysters. Among the ducks which frequent Chesapeake bay, are the canvas-backs, red-heads, bald-pates, mallards, black-heads and teal; while the land birds include the reed-bird, partridge, ruffed grouse (or "pheasant"), woodcock, snipe, plover and Carolina rail.

The smaller song and ornamental birds are very numerous and include many thrushes, wrens, swallows, sparrows, nighthawks, wild doves and the "Baltimore oriole." Woodpeckers, owls, hawks, turkey-buzzards and crows are also numerous.

FINANCIAL CONDITION.

The financial condition of Maryland is sound and the State tax rate is only 16 cents on each hundred dollars of property. The entire sum collected from this tax levy is devoted to the support of the public schools. The State contributes to the public free schools of Baltimore City and the counties over \$1,200,000 a year and the counties appropriate \$2,500,000 to the same good purpose. And this appropriation of nearly \$4,000,000 to education is in addition to the large sums which the State appropriates for colleges and high schools, exacting free scholarships in return for benefactions. At the close of the last fiscal year, namely on September 30, 1907, the market value of the sinking funds and the securities owned by the State and dedicated to the payment of the public debt, was far in excess of the amount of bonds outstanding. Therefore, no taxes were levied for the public debt. At the session of 1908 the General Assembly authorized the gradual issue of bonds to provide funds for the improvement of the public roads of the State, to the amount of \$5,000,000. But the State tax has not yet been increased because of that debt.

The following statement shows the public school tax in each county and Baltimore City for the year 1907, based upon the assessment of 1907:

Property Values.

Counties and Baltimore City.	Assessed Value of Property for State Levy in 1907.	Amount of Levy for 1907 at 16 cents on each \$100.
Alleghany	\$19,257,878	\$30,812 60
Anne Arundel.....	12,476,303	19,962 08
Baltimore City.....	450,428,339	720,685 34
Baltimore	92,504,841	148,007 75
Calvert	2,366,953	3,787 12
Caroline	5,393,571	8,629 71
Carroll	17,021,949	27,235 12
Cecil	11,487,499	18,380 00
Charles	3,677,424	5,883 88
Dorchester	7,093,800	11,350 08
Frederick	21,063,766	33,702 03
Garrett	7,540,039	12,064 06
Harford	13,037,598	20,860 16
Howard	9,594,235	15,350 78
Kent	8,372,949	13,396 72
Montgomery	13,869,690	22,191 50
Prince George's.....	11,689,984	18,703 97
Queen Anne's	8,652,907	13,844 65
St. Mary's	3,338,883	5,342 21
Somerset	5,155,551	8,248 88
Talbot	8,747,475	13,995 96
Washington	20,774,420	33,239 07
Wicomico	6,258,159	10,013 06
Worcester	5,305,015	8,488 03
Total		\$1,224,174 76

CHAPTER III.

MINERAL WEALTH.*

The mineral resources of Maryland are of much value and have yielded a great variety of products, some of which afford the basis for important commercial enterprises. The old crystalline rocks, confined for the most part to the Piedmont region between the Monocacy and the Chesapeake, have afforded the most varied mineral products. Here occur the most important building stones; the slates of Delta and Ijamsville; the granite of Port Deposit, Woodstock, Ellicott City and Guilford; the gneiss of Baltimore; the marble of Cockeysville and Texas; the crystalline limestone of Westminster; the sandstone of Deer Creek; and the serpentine of Broad Creek and Bare Hills. In these oldest rocks occur also the ores of gold, copper, chrome, lead and zinc. Iron ore is also found here, while all the flint, feldspar, kaolin and mica in the State must be sought for in these rocks. These older rocks also appear in the Blue Ridge district, where they form the Middletown valley and have yielded traces of copper, antimony and iron.

The rocks of later age, forming what geologists call the Paleozoic system, make up the western section of the State. They furnish much sandstone and limestone suitable for building purposes, the latter

*This chapter and that on soils was prepared by the Maryland Geological Survey for the Maryland Commissioners to Pan-American Exposition in 1901.

also being burned extensively for agricultural purposes. There are also important deposits of cement rock that have afforded the basis for an extensive industry. At the top of this Paleozoic system of rock formations are situated the coal beds of the famous Cumberland-George's Creek coal basin, including the wonderful Big Vein that is universally thought to furnish the highest quality of steam and smithing coal. These same rocks also contain important deposits of fire-clay and iron ore, the former affording the basis for a very important fire brick industry.

The post-Paleozoic formations of the State, although not as rich in mineral products, are not devoid of deposits of economic value. The interesting variegated limestone breccia, known as Potomac marble, and the brown sandstone of Frederick and Montgomery counties belong to the oldest of these post-Paleozoic strata. The series of still unconsolidated beds, representing much of the remainder of post-Paleozoic time and comprising all of Eastern and Southern Maryland, and known as the Coastal Plain, furnishes the chief supply of brick, potter's and tile clay; of sand, marl and diatomaceous earth (silica), and much of the iron ore. The clay industry, particularly, is one of the most important in the State.

COALS.

The coal deposits of Maryland are confined to western Allegany and Garrett counties, and are of the great Appalachian coal field, which extends from Pennsylvania southward into West Virginia. The Maryland coal is mainly semi-bituminous or steam coal, and in the George's Creek basin, near Cumber-

land, contains the famous "Big Vein," or Fourteen-foot vein, that for steam-producing and smithing purposes has no superior and few equals in any portion of the world. Below the "Big Vein" are a number of smaller workable seams that contain coal of fine quality, which is already securing an extensive market. The Maryland coal was discovered early in the century, and has been continuously worked since 1836, when the first company was organized. The aggregate output of Maryland steam and smithing coal at the present day amounts to several million tons annually.

The Maryland Big Vein coal occurs in the upper coal measures, while the most important of the small veins are in the lower coal measures. The latter have received less consideration in the past on account of the reputation of the Big Vein, but are destined to play a very important part in future coal development in Western Maryland.

The Maryland coal is high in fixed carbon, and, especially in the case of the Big Vein, low in sulphur and ash, thus possessing in highest measure those qualities which give to coal its steam-producing power.

CLAYS.

The clays of Maryland are widely extended, occurring in a great number of the geological formations. They are the most extensively developed through a belt running from northeast to southwest along the western margin of the Coastal Plain, and including both the Baltimore and Washington regions. Other important clays are found in the central and western sections of the State, and even the southern and east-

ern counties are not without this material in large quantities. The Maryland clays are suitable for all grades of building brick, tile, terra cotta, fire-brick and some grades of pottery. Brick-making began in Maryland in colonial days, and has since been one of the most important industries in the State—the great brick works of Baltimore being among the largest of their kind. The manufacture of fire-brick has been one of the most characteristic industries of Maryland for 50 years, and the brick made from the Carboniferous clays of Allegany and Garrett counties are regarded as the best in the country.

The State of Maryland is well provided with porcelain materials, including flint, feldspar and kaolin. The flint is widely distributed throughout the eastern portion of the Piedmont Plateau, and is especially abundant in Cecil, Harford, Baltimore, Carroll and Montgomery counties. It occurs as vein fillings in the form of pure granulated or vitreous quartz. In Harford county, where the veins are most abundant, the quartz has been quarried in large amounts. It is crushed, and then shipped in sacks to the potters.

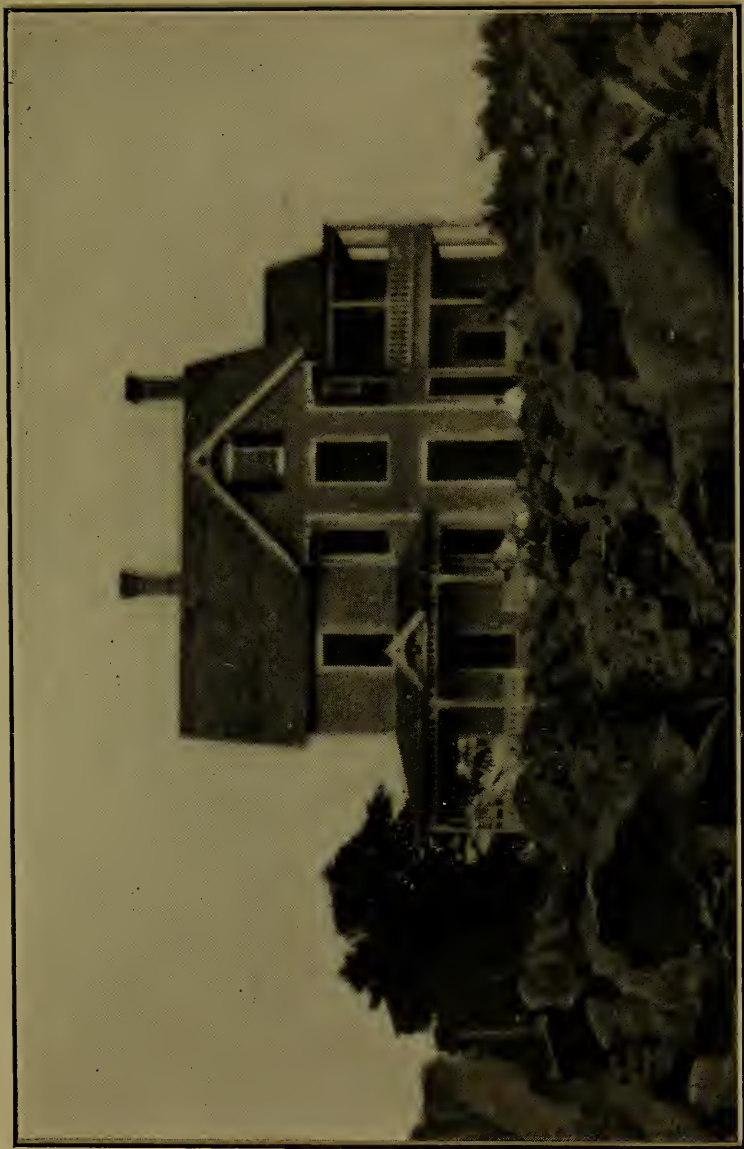
Kaolin is produced mainly in Cecil county, which is part of the most important kaolin region in the United States, other deposits being found in the adjoining portions of Delaware and Pennsylvania.

Sand deposits of economic value have been exploited both in the western and southern sections of the State, and the sandy sediment from the bed of the Potomac river and from other streams has also been dredged in large amounts. The Paleozoic formations of Western Maryland contain at two horizons important glass-sand deposits that have been mined

extensively in nearby regions. The most extensively developed sand deposits in the State, however, are found in Anne Arundel county, where large excavations have been made in the Cretaceous deposits near the head of the Severn river, and a good grade of glass-sand obtained. The location of these sand deposits at tide renders it possible to ship the materials cheaply by water, and it is probable that they will be much more fully utilized in the future than they have been in the past.

Molding-sand, suitable for brass castings, is found in the vicinity of Catonsville, Baltimore county, and this deposit is worked to some extent at the present time. A sand is secured from the south shore of the Patapsco river below Baltimore for pig-iron casting.

The Tertiary formations of Eastern and Southern Maryland contain important marl deposits that have never been developed except for local uses. Their agricultural importance has not been generally recognized, although they have been worked to some extent since the early decades of the century. The older Tertiary marls are glauconitic, and are not unlike the famous greensand marls of New Jersey, which have been so largely and successfully employed there as a natural fertilizer. Greensand marl contains a small percentage of phosphoric acid, some potash and a greater or less amount of carbonate of lime. When spread upon the surface of the land the effect is slow, but is often more lasting than the commercial fertilizers. The younger Tertiary marls are mainly shell deposits, and are commonly known under the name of shell-marls. They frequently contain a large percentage of lime, and thus afford a valuable addition to certain soils.



WM. MALEHOW'S HOME IN SOMERSET COUNTY—A TOBACCO FARM.



**HON. ISAAC LOBE STRAUS,
ATTORNEY-GENERAL.**

Diatomaceous earth, known to the trade as silica or tripoli, has been produced in larger quantities in Maryland than anywhere else in the United States. It is chiefly found in Calvert and Charles counties, where it has been more or less extensively worked at the mouth of Lyon's creek, on the Patuxent, and at Pope's creek, on the Potomac river.

IRON ORES.

The iron ore industry in Maryland was developed early in colonial days, and continued until a recent period to be one of the most important factors in the prosperity of the State. The only ores now being produced in Maryland to any extent are the carbonate ores derived from the clays along the western margin of the Coastal Plain, chiefly in Anne Arundel and Prince George's counties. The great bulk of these ores is today smelted in the Muirkirk furnace in Prince George's county. It is interesting to note that this carbonate ore was probably the first iron ore worked in Maryland, and is, even today, highly prized for its tensile strength.

Mineral paint has been produced at several points in Maryland. Large quantities were obtained in former years from the brown iron ore deposits of Frederick county. Ochre mines have also been operated in Carroll and Howard counties. The deposits of chief importance at the present time, however, are found associated with the clays in Anne Arundel and Prince George's counties. In the latter locality the material is a fine and highly ferruginous clay that can be easily worked, and large quantities have been annually mined. It occurs in many grades and colors.

BUILDING STONE.

The building and decorative stones of Maryland are widely distributed throughout the western and central portions of the State, and consist of many different varieties, which, from their diversity in color, hardness and structural peculiarities, are well adapted for nearly all architectural and decorative purposes. Among the most important may be mentioned the granite, gneiss, marble, limestone, slate, sandstone and serpentine. Among the localities in Maryland where granite has been most extensively worked are Port Deposit, in Cecil county; Woodstock, in Baltimore county; and Ellicott City and Guilford, in Howard county. Other areas in Cecil, Howard and Montgomery counties contain some good stone, but it is quarried only for local use. At the localities first mentioned the granite is extensively quarried at the present time, and has afforded material for the construction of some of the most important buildings in the country, including the Capitol and Congressional Library in Washington, Fortress Monroe, Forts Carroll and McHenry, the United States Naval Academy, and other public and private buildings, as well as bridges in Baltimore, Washington and Philadelphia. The excellent quality of the stone renders it available in many cases as a decorative stone, and monumental work has already been undertaken.

The more solid varieties of the gneiss occurring in and near the city of Baltimore are extensively quarried for use as foundation stone. This rock is of a gray color, and occurs in parallel layers of light and dark stone.

MARBLE.

The marble of Maryland is mainly confined to the eastern division of the Piedmont Plateau. The white varieties occur for the most part in Baltimore county, and the highly variegated marbles in Carroll and Frederick counties. The white marbles of Baltimore county are found in a series of narrow belts a few miles north of Baltimore City. The most important of the areas is that which extends northward from Lake Roland to Cockeysville, and which is traversed by the Northern Central Railway. The marble has been extensively quarried both at Cockeysville and Texas, the well-known Beaver Dam Marble Quarries of the former locality having been in successful operation for more than 75 years. The rock is a fine saccharoidal dolomite of great compactness and durability. Monoliths of large size can be obtained at the quarries. Many important structures in Baltimore, Washington and Philadelphia have been made of this marble. Stone for the construction of the Washington Monument, in Baltimore, was taken from this locality as early as 1814.

The fine-grained, compact and variegated marbles, or crystalline limestones, of the western portion of the Piedmont Plateau in Carroll and Frederick counties compare favorably in their quality, texture and beautiful veining with the well-known marbles from Vermont and Tennessee, and are deserving of much more attention than they have heretofore received. In the Wakefield valley, west of Westminster, a beautifully mottled red and white marble occurs; others of black and white, gray and white, and blue and white veining occur near New Windsor and Union

Bridge, and still others of a variegated yellow, with lighter veinings, have been derived from the same area. This marble, on account of the limited extent of the deposits, has not been regarded as of much economic importance, but the stone, when secured, is well adapted for purposes of interior decoration.

Another stone which may be classed with the decorative marbles is the Triassic conglomerate, or breccia, of southern Frederick county. It is known as "Potomac Marble," or "Calico Rock," and has received noteworthy application as a decorative stone in the old Hall of Representatives at Washington, where it forms a series of beautiful columns. It occurs, well exposed, at Washington Junction, Frederick county, and extends northward along the base of the Catoctin mountain. The limestone fragments of which the rock is composed are imbedded in a red ferruginous cement, and the stone, when polished, presents a very beautiful appearance.

The blue limestones of the Appalachian district have been used to some extent for building purposes, more especially in Hagerstown, where many structures have been made of this material. The blue limestone changes its color rapidly on weathering, and with a rather pleasing effect. A very compact, even-grained and pure cream white stone occurs at one or two points in the Hagerstown valley, but has not been exploited to any great extent as yet. The limestones are extensively used for foundation and other purposes.

The slate of northern Harford county is a part of the Peach Bottom Slate Belt that extends northward into Pennsylvania and southwestward into Baltimore

and Carroll counties. The best slate in this Belt is found not far from the Pennsylvania line in Harford county, the shipments, however, being largely made from Delta, Pa., and on this account the slate is often credited to Pennsylvania. The Peach Bottom slate has always enjoyed a very high reputation and is second to none in its durable qualities. It has been worked since Revolutionary times.

The sandstones of different color which have been found at many localities in Central and Western Maryland are, many of them, well suited to furnish valuable building stones but only one or two localities have been commercially developed to any extent, although the stone is used locally at many points. The red sandstone of Triassic age in Frederick and Montgomery counties has long possessed much reputation in the building-stone trade. The most extensive quarries are situated on the Potomac river, near the mouth of Seneca creek. The Seneca sandstone has been quarried in a more or less systematic way since 1774, and has always been highly regarded for its strength and durability and its deep red color. It has been used in the construction of many important buildings, including the Smithsonian Institution in Washington. The white Cambrian sandstone of the Catoctin and Blue Ridge mountains has been extensively utilized locally, and at times has found somewhat wider employment, especially by the railroad companies. In Allegany and Garrett counties the Silurian, Devonian and Carboniferous sandstones have been quarried at several points, particularly in the vicinity of Cumberland, where two of these sandstone beds have furnished materials for steps, curbs and architectural trimmings.

One of the most interesting and beautiful decorative stones in Maryland is the serpentine, which has been worked more or less extensively in Harford, Baltimore and Cecil counties. The rock is very hard, and possesses a rich emerald green color, clouded with darker streaks of included magnetite. Maryland serpentine has been used for interior decorations in several large buildings in New York, Philadelphia, Baltimore and Washington, and has great possibilities as a decorative stone.

A number of the other Maryland stones have been used for building and decorative purposes. Among these may be mentioned the black gabbro, locally known as "Niggerhead Rock," which occurs widely throughout the eastern portion of the Piedmont Plateau. It is very hard and tough, and cannot be economically quarried and dressed, and on that account has not found very wide use. The various other stones employed for building purposes can be regarded to have little more than local value.

Lime and Cement Products.—The limestone and marble deposits of Maryland have been extensively burned for building and agricultural uses. This industry is not as important as it was at an earlier period; but there are still many kilns used for supplying lime for local purposes scattered throughout the district in which the calcareous rocks appear.

The limestone and marble are also used as a flux for blast furnaces, the main supply being derived from the coarse-grained marble of Texas, Baltimore county, and the limestone of Cavetown, Washington county.

Hydraulic cement has been extensively manufactured from the magnesian limestone of western Wash-

ington and Allegany counties, especially at Hancock and Cumberland (and more recently at Pinto), where extensive plants have long been in operation. The products of these industries have a high reputation, and have been extensively employed both within and without the State. Recently a large plant for the manufacture of Portland Cement, with a capacity of 1,000 barrels of cement per day and employing \$1,000,000 of capital, has been established near Hagerstown.

Chrome ore was discovered in 1872 in the serpentine of the Bare Hills, in Baltimore county, and subsequently other deposits were found in Harford and Cecil counties. For many years Maryland supplied most of the chrome ore of the world, but the discovery in 1848 of the great deposits of chromite in Asia Minor caused the practical abandonment of the chrome mines of Maryland, although Baltimore is still one of the most important centres for the manufacture of chromium salts.

Soapstone has been worked to some extent in Carroll, Harford and Montgomery counties, the most important occurrence being in Carroll county, where there is a small production of this material at the present time.

Among other mineral substances known to occur in Maryland, although not commercially profitable at the present time, may be mentioned lead, zinc, manganese, antimony, molybdenum, graphite, mica and asbestos.

AGRICULTURAL SOILS.

CHAPTER IV.

Maryland, with its great variety of soil and climatic conditions, offers exceptional advantages to the agriculturist. Within the borders of the State are lands admirably adapted to general farming, while the fine market and transportation facilities offer every inducement to those who wish to enter the field of specialized farming. Generally it is customary, in speaking of the different portions of the State, to refer to the Eastern Shore, Southern Maryland, Northern-Central Maryland, and Western Maryland. Each of these subdivisions is a distinct agricultural region and possesses certain peculiarities of soil, surface features and climatic conditions, as well as different market and transportation facilities.

The Eastern Shore includes the counties that lie on the eastern side of the Chesapeake bay. The extremes of climate are tempered by proximity to the ocean and bay, and the lands have proved their special adaptability to early fruits and vegetables, in addition to the staple crops of wheat, corn, oats and hay.

In the northern part of the Eastern Shore are fine wheat and corn lands, the wheat lands being rich loams which overlie clay loam subsoils. They are easy to cultivate, and can be made exceedingly productive. Soils of this character occupy large tracts of level upland in southern Cecil, Kent, Queen Anne's and Talbot counties. These soils are of a rather yellowish red color, but there are other wheat lands with soils of a different character. In the lower counties, especially

in portions of Dorchester, Caroline, Wicomico and Worcester, are large areas of stiff white clayey soils that produce wheat, corn, oats and hay, or any crop adapted to a stiff clayey soil. Frequently these clays need underdrainage to make them produce well, as the subsoil is close and retentive.

There are also large areas of rich sandy loams that are suited to growing vegetables and all kinds of small fruits, and consequently in many sections the canning industry has been enormously developed. The excellent transportation facilities allow perishable fruit to be shipped to all of the larger Northern cities, where it finds a ready sale. In some sections farming in recent years has undergone a complete revolution, the old staple crops have been given up and the more lucrative truck and fruit crops introduced. The peach crop from the Eastern Shore is very large in good seasons. This industry is rapidly spreading into the lower counties. Pears have recently proved a great success in Kent county.

In connection with the soils of the Eastern Shore some mention must be made of the large areas of tidal marsh lands. Thousands of acres of fertile land could be reclaimed at comparatively little expense, but as yet little or no attempt has been made in this direction. Lands that have been reclaimed are exceedingly fertile and will produce for an almost indefinite period.

SOUTHERN MARYLAND.

Southern Maryland includes the lower counties of the State that lie on the western side of the Chesapeake bay. The land in general is higher and more broken than on the Eastern Shore.

The soils of Southern Maryland range in texture from gravelly loams to light clays. Generally speaking, they consist of loams and sands which are admirably adapted to growing all kinds of fruit and vegetables. The wheat lands are the heaviest types of soil found in Southern Maryland. They occur on the rolling uplands to a considerable extent, and as wide terraces along the Potomac and Patuxent rivers. These soils are heavy loams and clay loams, generally of a yellowish color. Some of these soils are still in excellent condition, in spite of having been cultivated for upwards of 200 years. On the uplands tobacco is grown as well as wheat. Wheat is grown on nearly all classes of soil in this portion of the State, but with very poor results on the lighter sandy loams. Lighter loams are found in some portions of the uplands and are better adapted to raising tobacco. The yield is less per acre, but the quality is good. Maryland tobacco is exported chiefly to Holland, France and Germany. It is a light, mild smoking tobacco, and formerly brought a much better price than at present. Competition with new tobacco-producing States and changing market demands have lowered the price and have correspondingly decreased the profits. The tobacco lands have been allowed to run down, and those farmers who have turned their attention to other crops are gratified with the results obtained. The sandy loams cover large areas of Southern Maryland. There are loose sandy soils which are too light in texture for producing wheat or grass, but since the extensive truck industry has been developed the lands that are near markets have greatly advanced in value. The sandy river necks south of Baltimore are famous truck-growing areas, and produce enormous quantities of melons, pears,

beans, strawberries and small fruits. Shipments are made principally by boat when the distance is too far for hauling by wagon. There is also a very large peach industry in this section of the State.

While certain portions of Southern Maryland have made great advancement along the lines of successful agriculture, there are still large areas of productive soil that are lying idle or growing up in pine forests.

NORTHERN CENTRAL SECTION.

The agricultural soils of the Northern Central Section of Maryland are mainly residual; that is, they are the products of the slow decomposition of the underlying rocks. They are, with few exceptions, strong and fertile. They can be made very productive and are generally in a high state of cultivation. The soils may be discussed under the following classes: The limestone-valley lands, the red lands, the gray lands, the phyllite soils and the barren lands of the serpentine areas.

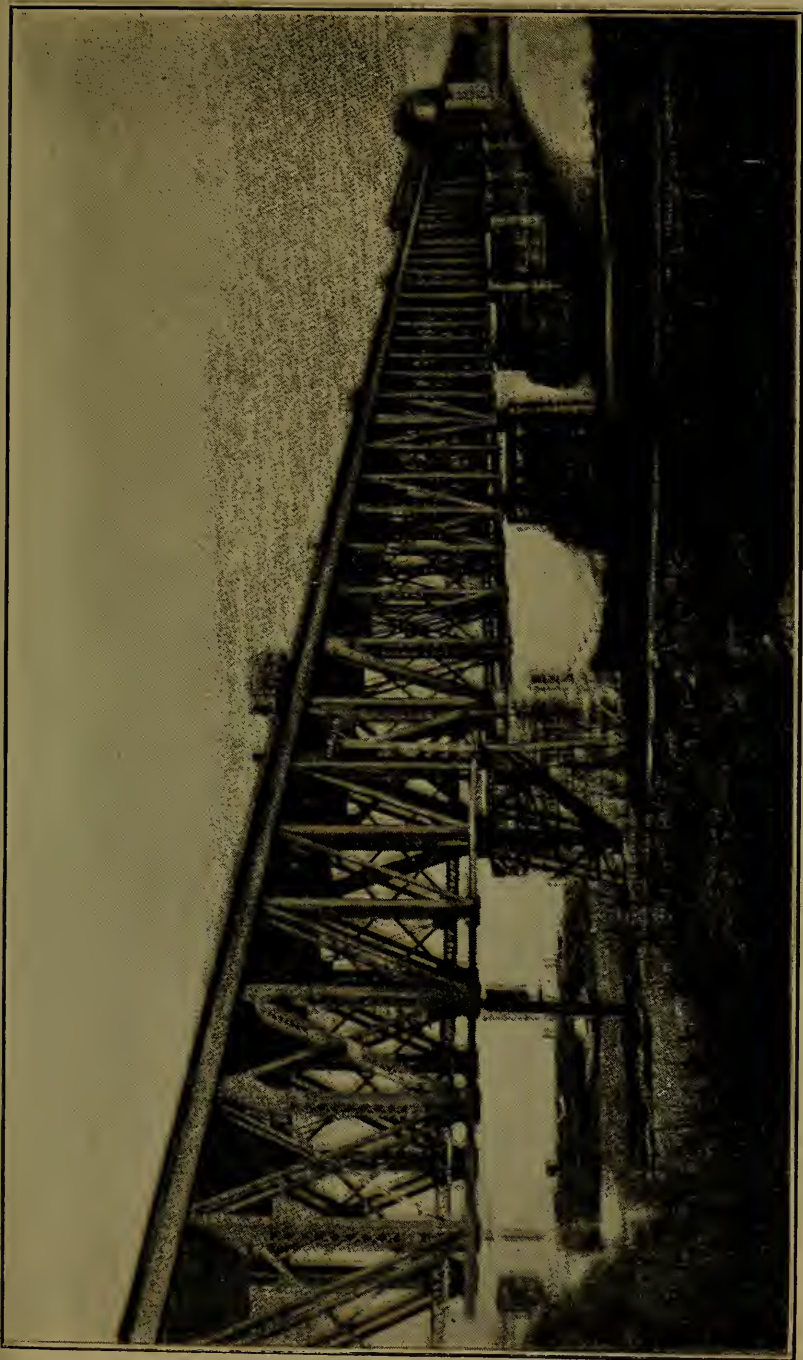
The limestone-valley lands are perhaps the strongest soils found in the region. They are identical in many respects with the soils of the Hagerstown valley. These soils are heavy red and yellow loams and clays. The largest valleys of these rich soils are found in Frederick, Baltimore, Carroll and Howard counties. These soils, by careful cultivation, annually yield fine crops of grass, wheat, corn and other cereals. Many of these valleys have long been noted for their prosperous, well-managed farms. On account of their heavy clayey nature they are famous grass lands and large numbers of cattle are fattened in these valleys. The proximity to Baltimore and the excellent trans-

portation facilities have also greatly stimulated the dairy interests.

The red lands may be divided into two subclasses. First may be described the red lands of Carroll and Frederick counties, which consist of red loams and clay loams. These soils occupy areas near the fertile Monocacy limestone-valley, and the differences between the soils of the two regions can be easily compared. In good seasons the red lands are almost as productive as the fertile limestone soils, but during years when the conditions for growth are unfavorable the yields are not so high as from the heavy clayey soils of the limestone valleys. However, the red lands rank as good, strong soils, and generally produce excellent crops of grass, wheat, and corn, oats and potatoes, the principal crops grown in this section of the State.

The second class of red land soils occupies areas in Cecil, Harford and Baltimore counties. The soils are heavy red loams, grading into stiff clay loams of a reddish or yellowish color. These are likewise strong clay soils, naturally productive and capable of standing considerable hard usage. They produce good yields of the staple crops such as wheat, grass and corn. In addition they produce large yields of tomatoes and corn for canning purposes. The canning of corn, tomatoes and other vegetables has been extensively carried on in Harford and Cecil counties for many years, and is one of the leading industries of these counties. The dairy interests are considerable on these strong soils, which produce excellent crops of hay and afford fine pasturage.

The gray lands and the corn and wheat lands, derived from deposits of phyllite, are so nearly alike in



THE NEW P., B. & W. BRIDGE, HAVRE DE GRACE, MD.



DUCK SHOOTING FROM SINK BOX, HAVRE DE GRACE.

many respects that they may be discussed together. These soils occupy large areas in Frederick, Carroll, Montgomery, Howard, Baltimore, Harford and Cecil counties. The surface of the country away from the larger streams is gently rolling, but becomes hilly and broken along the principal streams. The surface drainage is good in the entire region. The soils are grayish yellow loams, which grade into yellowish clay loams. These are naturally productive, but on account of their rather light texture they must be farmed carefully or they become exhausted. They are excellent corn and wheat soils, and are classed as good general farming lands. In Cecil and Harford counties they produce fine crops of late tomatoes for canning purposes. In Montgomery county they were formerly used to a considerable extent for growing tobacco. They are good grazing lands, and near Washington and Baltimore the dairy business is extensively carried on. In the neighborhood of these cities market gardening is also an important industry. The lighter loams, especially, yield fine crops of all kinds of vegetables, and the nearness to market allows the farmer to haul his produce directly to the consumer. Transportation facilities are also good.

WESTERN MARYLAND.

Western Maryland is divided into three well-marked districts from an agricultural point of view.

The eastern district includes the broad Hagerstown valley and the Middletown and other smaller valleys, together with the mountain slopes adjoining. The Hagerstown valley has a width of about 20 miles and contains a large number of excellent farms. The soils are red or yellow clay loams or clays derived from the

weathering of the thick beds of limestone that occur there. These soils, by careful cultivation, produce large crops of wheat, corn and grass. Thirty-five bushels of wheat per acre is not an uncommon yield, and from 50 to 100 bushels of corn can be raised. The railroad facilities are good in the valley, and Hagerstown, a prosperous manufacturing city, is situated in the center of the region. In addition to the large production of wheat and corn many cattle are annually fattened.

Along the eastern margin of this valley is the center of the famous mountain peach industry. So excellent are the shipping facilities that peaches picked in the late afternoon are on sale in the New York markets the next morning.

The smaller valleys, of which the Middletown valley is the most important, contain good soils, mostly heavy loams and clays well adapted to raising corn, wheat and grass, which are the principal crops grown.

The central district is rough and mountainous, and the greater portion is thickly wooded and not well adapted to farming purposes. The soils of the mountain ridges are thin and stony and difficult to cultivate. There are, however, some valleys in this region that possess limestone soils that are fertile and can be made quite productive. The largest of these valleys lies 12 miles east of Cumberland, and the strong clay soils produce good crops of wheat and timothy hay. Other valleys of this region possess shale soils, which can be made productive, and there are also large areas of hill pasture land which contain shale soils. Along the Potomac river and some of the larger creeks, especially near Cumberland, there are large tracts of alluvial bottom-lands which annually make good yields

of the staple crops. Fruit growing has lately been introduced in the hilly region east of Cumberland, and there are already many large and profitable peach orchards. Oats, buckwheat, wheat, rye and potatoes are the main crops grown in this part of the State.

The western district comprises the Allegany Plateau. The soils may be classed as the red sandstone and shale soils, the yellow sandstone soils, the rough stony soils of the mountain ridges and the "glades" or mountain swamp lands.

The red sandstone soils occupy large areas in the central portion of Garrett county, and the yield of crops produced on these soils compares favorably with the best class of soils found in the entire State. The soil is a heavy red loam that grades into red clay loams. These soils occupy rolling valley lands, and produce good crops of wheat, corn, oats and buckwheat. The Cove country, as it is called in northwest Garrett county, has long been noted as a fine farming section, and there are still large areas of these fine soils which can be made fully as productive and prosperous as the section just mentioned.

The yellow sandstone soils comprise the greater portion of Garrett county and the George's Creek valley, in Allegany county, and may be classed as heavy sandy loams. They produce good yields of buckwheat, wheat, oats, hay and corn. In the native forest the sugar-maple abounds, and a large income is derived from the sale of maple sugar each spring. These lands are also good pasture lands in addition to being well adapted to apple orchards.

The stony mountain soils include the shallow soils found along the crests and sides of the principal mountain ridges of this region. The soils are thin and

stony, difficult to till and not adapted to general farming purposes. They are not extensively cleared, and are covered in many places with valuable tracts of merchantable timber, especially chestnut.

The "glades" are large swampy tracts of land which occur principally in the central portion of the county. Formerly the glades were famous cattle pastures during the dry seasons, but now large tracts of glade lands have been thoroughly drained and the soils, rich in decayed organic matter, produce good crops of oats, timothy and even corn and wheat.

In conclusion it may be stated that Maryland has a great variety of soils which are adapted to almost any crops that will grow in this section of the United States. The greater portion of the arable land of the State is under cultivation and farmed at a fair profit, but there are extensive areas, especially in Western and Southern Maryland, where there is room for great agricultural development.

The following table shows the annual crop production of Maryland at the present time. The figures have been furnished in part by the United States Department of Agriculture from statistics secured in 1899, and in part by the Maryland Agricultural College from data obtained in the progress of their investigations in the State:

Corn	580,076	18,562,432	\$6,682,476	32.0
Wheat	759,643	10,710,966	7,283,457	14.1
Oats	72,852	1,675,596	502,679	23.0
Rye	25,234	353,276	201,367	14.0
Buckwheat	7,510	97,630	54,673	13.0
Potatoes	22,193	1,420,352	724,380	64.0
Hay	282,992	319,781 tons.	3,885,339	1.13 tons.
Tobacco	35,000	21,000,000 lbs.	1,470,000	600 lbs.

CHAPTER V.

THE CHESAPEAKE BAY.

The most valuable of the possessions of Maryland, more valuable than its farms and fields and its forests, more valuable than its mines and quarries, is the Chesapeake bay. This magnificent sheet of water penetrates the State from its southern border almost to the border of Pennsylvania. Its estuaries stretch from either side far into the interior, making a natural highway for the commerce of the world to penetrate farther inland than it can do elsewhere in the United States, for this is the largest arm of the ocean within the boundaries of the Union. Baltimore, situated 200 miles inland from the ocean, is the seaport of the United States which is nearest the great wheat and corn fields of the Central Mississippi valley. Not only does this bay, of an average width of twenty miles and of great depth, furnish a highway for the world's commerce to reach the metropolis of Maryland, but upon its broad bosom and upon its magnificent tributaries float a fleet of vessels, steamboats and sailing vessels, bearing to market in Baltimore the rich products of the whole tidewater region of Maryland and Virginia and portions of Delaware and North Carolina. This bay traffic, most of which lands at Light Street wharf in Baltimore, is of enormous proportions. Upon four blocks of that busy street is concentrated perhaps the largest oyster trade and the largest peach

trade that is to be found in any one center in the world. In the same vicinity there is discharged from lines of steamers plying to South and Central America and the West Indies a vast quantity of tropical fruits, which are distributed from that wharf to the various States of the Union. The bay and the rivers flowing into it afford an avenue to market for the products of all the counties of Maryland but seven. Talbot county is so penetrated by navigable rivers and creeks that almost every farm has a landing where it can load its crops on a vessel to be carried to Baltimore. Many of the other counties, notably Kent, Queen Anne's, Dorchester, Somerset and St. Mary's, are also penetrated at many places by navigable streams.

The Chesapeake bay is 200 miles long, with a maximum width of 40 miles and an average of less than 20. About three-fourths of it lie within the boundaries of Maryland, the lower part and the mouth being in Virginia. The principal rivers which flow into it from the eastern side in Maryland are the Elk, Sassafras, Chester, Choptank, Miles, Nanticoke, Wicomico and Pocomoke. From the western side are the Patapsco, Gunpowder, Severn, West, South, Patuxent and Potomac. Into nearly every one of these rivers other navigable rivers, creeks or inlets flow. Large vessels, for instance, are admitted into the center of St. Mary's county by Breton's bay, St. George's bay, St. Clement's bay, St. Mary's river, the Wicomico river, all of them tributaries of the Potomac. Into the head of the bay flows the majestic Susquehanna, a mile wide, dividing Cecil from Harford counties, and navigable up to Port Deposit, in Cecil county, the seat of the great Tome Institute. All along the shore of the Chesapeake

and its rivers are the market gardens which supply the markets of Baltimore, Washington, Norfolk and, to a certain extent, Philadelphia and New York, with vegetables and small fruit and berries.

But it is not only as a highway for commerce that the Chesapeake waters are valuable to Maryland. Upon the bosom of the bay and rivers swarm innumerable water fowl, and among them are the famous canvasback ducks and others almost as highly prized, which resort to the shores and marshes for wild celery, their favorite food, which imparts to their flesh the delicate flavor that makes them so highly esteemed. There are also wild geese, and in the marshes there are myriads of railbirds, reedbirds and ortolans. The waters teem with the most delicious food fishes, the taking of which gives employment to great numbers of men and boats. On the shores of the Potomac are hauled in seines quantities of Potomac herring, which, when salted, are highly valued and are marketed all over the country. In the Susquehanna and the bay in the spring countless shad are taken. Other bay fish are the white perch, rock, mackerel, croakers, taylor's or green fish, hog fish, flounders and innumerable other varieties.

The area of the portion of the Chesapeake and its tributaries which lies in Maryland is over two thousand square miles. Of this great area fully one-half, or 640,000 acres, is capable of producing oysters, and 123,000 acres are natural oyster beds. In the last half century, it is estimated that fully four hundred million bushels of oysters have been taken from the waters of Maryland. Prof. W. K. Brooks, of the Hopkins, in his work on the oyster, which is the standard au-

thority on the subject, estimates that by cultivation this amount can be taken each year. At the moderate estimate of 50 cents a bushel, this product would be worth \$200,000,000, or twenty times as much as the wheat fields of the State produce, and ten times as much as all the staple crops of the State fetch in the markets. It is conceded that the Chesapeake bay is the finest water in the world for the production of oysters. The waters are teeming with the spat, and it is only necessary to supply "clutch" for it to attach itself to and grow. This is provided by spreading oyster shells upon the bottoms. "The Chesapeake bay," says Professor Brooks, "is one of the richest agricultural regions of the earth, and its fertility can be compared only with that of the valleys of the Nile and the Ganges and other great rivers. It owes its fertility to the very same causes as those which have enabled the Nile valley to support a dense human population for untold ages without any loss of fertility; but it is adopted for producing only one crop—the oyster."

OYSTER PLANTING.

At the session of the General Assembly of Maryland in 1906 a law was enacted under which the bottoms of the bay and rivers are divided into lots and to be leased by the State to citizens for the cultivation of oysters. By this law a most profitable occupation will be opened to thousands of people, who will be engaged in raising oysters, planting, taking them from the bottoms, carrying them to market, shucking, packing, transporting them and selling them. Lots in county waters as small as one acre can be leased, and as small as five acres in waters outside county boundaries. No

one person can acquire more than ten acres in county waters, nor more than 100 acres in the open waters of the bay. The term of the leases is twenty years, and the rentals payable to the State are \$1 per acre per year for the first two years, \$2 per acre for the third, \$3 for the fourth, \$4 for the fifth, and after that \$5 per acre per year. The rentals, after payment of the cost of administering the law, are to be applied to making roads throughout the State. If the reasonable expectations of those who proposed and enacted this law are fulfilled, then Maryland will become one of the wealthiest and most prosperous States of the Union, with an enormous increase in population. The natural oyster beds are not now producing more than five or ten million bushels a year. And yet that output gives employment to an army of men, women and children and to a great fleet of vessels and canoes, and constitutes the largest single industry in the State except farming. To increase the yield of oysters ten or twenty-fold will make all other occupations seem small in proportion. The profits of oyster planting are enormous. The new law, it is expected, will open the way for men of small means to take up from one to ten acres of bottom near the shore, upon which they can spread shells in the summer season at small expense, and after the second year make an annual profit of \$400 and upwards to the acre.

Under the Oyster Culture Law the Board of Public Works, May 5, 1906, created the Maryland Shell Fish Commission as follows: Walter J. Mitchell, chairman; Benjamin K. Green and Dr. Caswell Grave. Under an act of Congress of 1906 the Secretary of Commerce and Labor designated Capt. C. C. Yates, of the Coast

and Geodetic Survey, and Dr. H. F. Moore, of the Bureau of Fisheries, to co-operate with the commission. The survey of oyster bottoms began in Anne Arundel, July 19, 1906. The first hydrographic work was in the Severn river. When field work ended, December 10, the work of duplicating records, plotting outlines of natural oyster bars and making leasing charts was begun at Annapolis. The Commission went to Crisfield, May 2, to survey the oyster and crabbing bottoms of Somerset and buoys were placed. Wicomico occupied the surveyors from October 2 to 30, and buoys were placed at corners of natural bars. Worcester came next. The following shows the hydrographic work to October 31, 1907, the end of the last fiscal year:

Number miles of sounding lines.....	662.4
Number positions on sounding lines taken.....	7,348.
Number soundings taken.....	54,953.
Number oyster bars surveyed and examined.....	128.
Number acres of oyster ground surveyed.....	68,333.

While it is true that the oyster industry in Maryland has greatly diminished in volume, it is still one of the chief industries in the State. In the season of 1901-2 the oyster product of the State was 3,725,000 bushels, worth in the market \$2,400,000. In 1880 the product was 10,500,000 bushels.

According to the figures collected by the United States Fish Commission in 1902, the number of persons engaged in the Maryland oyster industry were 31,543, of whom about 20,000 were fishermen, and the remaining 11,000 were employed in the packing houses. The larger vessels used in dredging or transportation numbered 1,326, the smaller vessels used by

tongers numbered 6,548. Total, 7,874 vessels of all kinds.

In the products of the bay the crabs, hard and soft, occupy an important place. The chief center of this industry is at Crisfield, in Somerset county, and it has been estimated that \$1,000,000 worth of crabs are shipped each year from that town. All along the bay shore in the rivers great numbers of crabs are caught, and the aggregate is very large. The taking of fish and their shipment to market also gives employment to many persons and brings in a great sum of money.

FISHERIES.

The Fish Commission empty into the Chesapeake bay and its tributaries each year from 65,000,000 to 75,000,000 young fish to support the shad fisheries of the State, which depend upon the return of the adult shad in the spring of the year. It is estimated that 2,250,000 or more shad are secured from Maryland waters each year. About 750,000 of these are obtained from the Potomac, 330,000 from the Pocomoke and Tangier sound tributaries, 50,000 from the Patuxent, 350,000 from the Choptank and its tributaries, 50,000 from the Chester, while 650,000 are taken on the shores of the Chesapeake and its smaller tributaries, leaving 70,000 or more to be secured from the Susquehanna.

The principal shad region of the bay shore lies north of Swan Point, between it and the lower stretches of the Susquehanna. This area yields fully a quarter of the entire season's catch. The principal landing points for the bay shore fisheries are Havre de Grace, North East, Charlestown, Betterton and Rock Hall. The Choptank, as above indicated, furnishes about one-

sixth of the entire catch, while the other rivers with the exception of the Potomac, are of less importance. The latter stream yields a catch equalling or surpassing that of the head of the bay.

The season begins about the first of April, and extends to the last of May or the first of June. The largest catches are usually in April.

The figures for the Potomac are somewhat difficult to determine, since by the compact of 1785 the fishery rights in the river exist in common between the citizens of Virginia and Maryland, who land their catch in their respective States. In 1896 fully two-thirds of the Potomac catch was landed on the Virginia shore. The total annual catch within the State is estimated to have a value of about \$200,000.

The menhaden is by far the most abundant fish along the Atlantic coast of the United States, and in many ways one of the most important, but since it is not usually regarded as edible it is little known outside of the fishery and fertilizing industries. The menhaden is a small fish, seldom weighing a pound, and closely related to the herring and the shad. It usually makes its appearance in Chesapeake bay early in the spring, and rapidly becomes more and more abundant, crowding into the sounds and inlets until the water is fairly alive with them. They remain as long as the weather is warm, but as the winter approaches they pass out into the ocean, so that few are found in the Chesapeake bay after November.

They are of great commercial importance from the fact that a valuable oil can be extracted from their bodies by pressure, while the solid residue is an important constituent of manufactured fertilizers. In a



STEAMER IN LOCK, CHESAPEAKE CITY, MD.



MARYLAND LOCK, CHESAPEAKE AND DELAWARE CANAL,
CHESAPEAKE CITY, MD.

single year the catch in Chesapeake bay has been as high as 92,000,000 pounds, which has yielded 214,000 gallons of oil, worth \$85,000; 10,500 tons of guano, worth \$210,000; 212,000 tons of compost, worth \$19,000, or an annual product worth more than \$300,000.

The number of hard-shell crabs caught in Maryland each year has been estimated at 750,000 bushels.

At the principal crab-canning centers of Oxford, Cambridge and Crisfield, about 350,000 bushels of the catch are picked and canned, yielding over 200,000 gallons of crab meat annually. The crabs, during the few hours when their shells are soft, take no food and hide themselves in the sand or grass so that soft-shell crabs are much less abundant and bring a higher price than the hard-shell. Moreover, when the crab is soft it is very delicate and easily killed, and is thus transported alive with difficulty. The irregularities in the daily catch which might arise under these adverse circumstances are avoided by the use of "shedding pens," which hold the "shedders" until they are soft. An experienced fisherman can tell at a glance the yellowish female and browner males that are about to shed their shells. The price of crabs grows rapidly from ten cents a dozen when they are put in the pens to thirty, forty or fifty cents when they are put on the market as soft-shell crabs.

The estimated catch each year is 700,000 dozen, valued at from \$300,000 to \$350,000.

Terrapin.—The oyster and the crab suggest the terrapin as a third characteristic product of the shores of the Chesapeake. This expensive little tortoise ranges from New England to Texas, but is most abundant in

the marshy lands from the Chesapeake southward. The terrapin is most easily caught in the summer, when the demand is slight, so the catch is "farmed" in pens and fed with crabs and fish until the winter, when as a delicacy the terrapin brings from \$2.50 to \$75.00 per dozen. The value of the annual output for the State is estimated at \$50,000.

No account is given in the preceding pages of the water products of the ocean front along the shores of Worcester county, although the output of oysters and fish from this part of the State reaches considerable proportions. It was found impossible to secure any satisfactory information.

The subjoined table presents in condensed form what is regarded as a fair estimate of the annual catch in the Chesapeake, and its value for each of the species mentioned:

Oysters	bush.	5,000,000	\$3,500,000
Shad	fish	2,250,000	200,000
Menhaden	lbs.	92,000,000	300,000
Mackerel	lbs.	1,200,000	120,000
Bay Trout.....	lbs.	11,100,000	450,000
Blue Fish.....	lbs.	4,400,000	260,000
White Perch.....	lbs.	14,000,000	1,120,000
Yellow Perch.....	lbs.	11,000,000	440,000
Fresh Herring.....	lbs.	100,000,000	1,000,000
Rock Fish.....	lbs.	14,000,000	1,400,000
Mixed Fish (Flounders, Pike, Pickerel, etc.).....	lbs.	10,000,000	500,000
Hard-Shell Crabs.....	bush.	750,000	340,000
Soft-Shell Crabs.....	doz.	700,000	325,000
Terrapin			50,000
Clams		5,000,000	15,000
Total			\$10,020,000

CHAPTER VI.

ROAD IMPROVEMENT BY THE STATE.

On the 19th of September, 1907, the Hon. Austin L. Crothers made a speech in Baltimore accepting the nomination of his party for the office of Governor of the State. In the course of that speech Mr. Crothers said:

“I believe it is entirely practicable by wise economy and forethought and without increasing the burdens of the people to carry out a scheme of public improvements consisting chiefly of the establishment of good roads through every section of the whole State, so that every class and community of our people may have an equal share of them. Such a system of improvement would not merely add to the convenience, prosperity and wealth of all the people, but would be a constant and growing source of increase of the taxable basis of the State. It would furnish, without any advance in the rate of taxes, the financial resources for the continued development of the material interests of the people and for the strengthening of all the foundations of their progress.

“This is an important subject, which I shall take occasion to speak of more fully hereafter in this canvass. I shall only add now that I think the time is at hand for the public men and leading citizens of Maryland to unite and take the lead in a deliberate movement to make the most of the rich and magnificent resources of our Commonwealth, to develop them to the greatest possible degree and to carry the State forward along commercial, industrial and agricultural lines until it is in the very van of the progress of the whole country.”

For many years the several counties of the State had been making large expenditures upon the roads,

amounting in the aggregate to nearly a half million dollars each year. The road repairs and construction has been so unskilfully done that but little permanent improvement has been achieved by these large expenditures, and a reform and improved methods were urgently demanded. Therefore the General Assembly of Maryland, in response to the repeated recommendations of the Governor, at the session of 1908 enacted a state road law providing for a general scheme of improvement and appropriating \$5,000,000 to do the work. A loan was authorized to provide this sum and the matter was so financed that provision was made for this great sum without any immediate increase in State taxes. The Commission to carry out the scheme of road improvement was named by the Governor, he being ex-officio a member, and the work of selecting the roads to be improved was speedily begun. The Commission contains in its personnel two members of the State Geological Survey. Mr. W. W. Crosby, the chief engineer of the Highway Division of the Geological Survey, was elected chief engineer of the Road Commission and this selection was regarded throughout the State as a guarantee that the roads would be properly made.

The Road Commission consists of John M. Tucker, president; Governor Crothers; Dr. Ira Remsen, President of the Johns Hopkins University and a member of the Geological Survey; Dr. Wm. Bullock Clark, of the Geological Survey; Samuel M. Shoemaker and Francis C. Hutton.

The terms of the main body of the new road law exclusive of the formal portions are as follows:

32A. The Governor is hereby authorized and directed to appoint promptly upon the passage of this Act, three competent persons, citizens and residents of this State, and to designate two men from the Maryland Geological and Economic Survey, or its officers or employees, who, with the Governor, ex-officio, shall constitute a special commission to be known as the "State Road Commission" and who shall continue in office until the work of said commission shall have been completed as herein provided. The Governor shall have the power, in his discretion, to remove any member of said commission at any time and to appoint another person in his stead and to fill any vacancy in said commission occasioned by the resignation, removal, death, incapacity, permanent absence from this State of any member of said commission, or by reason of any other cause creating a vacancy. The majority of the members of said commission shall be a lawful quorum for the transaction of business. The chairman of said commission shall be designated by the Governor from the members thereof, and the Governor shall also have power to remove such chairman and to appoint another in his stead in his discretion. The chairman of said commission shall preside over its meetings and perform such other duties as are imposed on him by this Act or as may be assigned to him by said commission. The members of said commission, other than the Governor, the chairman and the two men designated by the Governor from the Maryland Geological and Economic Survey, its officers or members, shall each receive as compensation for their services a salary of two thousand dollars (\$2,000) per annum, payable in equal monthly installments, and the chairman shall receive a compensation at the rate of twenty-five hundred dollars (\$2,500) per annum, payable in equal monthly installments. The commissioners, other than the Governor, shall take the oath prescribed by Article I, section 6, of the Constitution of the State. As soon as the members of said commission shall have met and qualified they shall organize by the election of a secretary, not a member of said commission, who shall be removable at the pleasure of said commission, and who shall receive such compensation as the commission shall determine, not exceeding the sum of eighteen hundred dollars

(\$1,800) per annum. He shall enter in the journal of said commission and shall carefully preserve neat, legible, full and accurate minutes of all meetings and records of all proceedings of said commission, and make true copies of all notices directed by said commission to be published and of the certificates of publication thereof, and shall perform such other duties as shall appertain to the office of secretary of a private corporation or as are imposed on him by this Act, or as may be assigned to him by said commission. All records of said commission shall be public records, and the commission shall, annually, make to the Governor a detailed report of its official transactions, and of all its expenditures and of all liabilities incurred by it. The said commission may employ such chief engineer, assistant engineer, professional or technical experts, surveyors, agents, assistants, clerks, employees and laborers, skilled and unskilled, and also such advisers and consultants as it may deem requisite for the performance and execution of the powers and duties imposed and conferred by this Act, and shall fix their respective compensations, and shall have the power to remove or discharge them at its pleasure; and to exact from them or any of them such indemnity bonds for the faithful performance of their respective duties as the commission may deem proper. And said commission may also rent or lease all proper and necessary offices and other places which it may deem proper and necessary for the performance of its duties and the purposes of this Act. The said commission shall keep a journal in which shall be entered all its proceedings in detail, the correctness of the same to be attested at each succeeding meeting by the president and secretary of the commission. Said commission shall also keep books showing in detail all expenditures of money in every county of the State in connection with the establishment, improvement or maintenance of roads, and in connection with all work whatsoever of the commission, which books and records shall be open to the inspection of any taxpayer of the State at any time. No member of said commission shall become pecuniarily interested in any contract for work done or materials provided in connection with any of the work of said commission. The commission shall at the time of its organization, as aforesaid,

and thereafter from time to time, adopt such by-laws and rules of procedure for the conduct of its business as it may deem necessary. It shall annually compile and publish maps and statistics relating to the public roads of the State and showing the progress and status of the work done or entered upon by it and separately for the several counties. All maps, plans and statistics made, collected and compiled under its discretion shall be preserved in its office and shall be open to the inspection of any taxpayer of the State. All bills or claims on account of any of the work of the said commission or in any way relating to its duties or transactions shall be passed upon by the commission at a meeting of its members, and no claim involving the expenditure of more than fifty dollars, and no contract involving a larger expenditure than fifty dollars, shall be allowed or made except by a majority vote of all members of the commission at a meeting thereof; all contracts, agreements, grants, licenses made or entered into by the commission shall be recorded in books kept for that purpose, which shall always be open to the inspection of the public. It shall be the duty of the members of the commission to travel over and personally inspect the public highways in the several parts of the State and the work being done on the same, in order that they may have, as far as possible, personal knowledge of the requirements of the several sections of the State in reference to the matter of roads as well as of the progress from time to time of the work of said commission.

32B. The commission created under this Act is hereby authorized and directed to include in its work of improving the system of main roads of the State, the improvement of such portions of the main roads selected by said commission as a part of such system as lie inside the limits of the city of Baltimore, up to the old city limits, provided that on completion of such improvements, the portions of the roads so improved within the city limits shall be city streets under the provisions of the city charter. The said commission, in addition to the powers hereinbefore mentioned, shall have full powers and be charged with the full duties to select, construct, improve and maintain such a general system of improved State roads and highways, as can reasonably be expected to be completed with the funds herein provided

in and through all the counties of this State. The said commission shall reach its conclusions as to the selection of the roads to be improved on or before May 1st, 1909, and shall on or before that date file with County Commissioners of each county for public inspection a certified copy of a map of the State showing plainly thereon the adopted system of main roads to be improved under this Act, which map shall bear the written approval of the said commission. It may make all preliminary investigations; and do all such preliminary work as shall, in the judgment of such commission, precede the actual establishment, construction and improvement of said system of roads and highways, adopt and employ such means, methods or system of road construction, improvement and development as may, in its judgment, be best calculated to promote the objects of this Act; condemn, lay out, open, establish, construct, extend, widen, straighten, grade and improve, in any manner, any main road, of the system, in any county of this State and establish or fix the width thereof; cause to be prepared such surveys, plans, drawings or maps as it may deem proper in the course of its work; acquire for the State of Maryland, by agreement, gift, grant, purchase or condemnation proceedings as prescribed by section 251 to 256 inclusive, or by section 360 to 366 inclusive of Article 23 of the Code of 1904, of the Public General Laws, any private road or roads whatsoever, or private property or rights of drainage for public use, whether belonging to private individuals or to turnpike companies or other corporations, and including any avenues, roads, lanes, or thoroughfares, rights or interests, franchises, privileges or easements, that may be, in its judgment, desirable or necessary to complete said system of roads or to carry out the purposes of this Act; contract with any person or persons, company or corporation, either private or quasi-public, or municipal, in furtherance of the duties and objects of this Act or any of the same; employ all necessary attorneys, consultants, agents, laborers, help and assistants, skilled and unskilled, technical or professional, for the promotion of any of the work with which it is charged hereunder, make and enter into any and all contracts, agreements or stipulations germane to the scope of its duties and powers under this Act; and purchase all machines, machinery,

tools, implements, appliances, supplies, materials and working agencies whatsoever which it may deem necessary for the full performance and completion of any of the powers conferred and duties imposed upon said commission, or which may be germane to the same or to the purposes and objects of this Act. And where rights, easements and franchises of the United Railways and Electric Company of Baltimore, its successors and assigns exist upon any turnpike or private right of way in the Annex, which may be improved hereunder, then said rights, easements, and franchises may (if the Mayor and City Council of Baltimore and said Railways Company, its successors and assigns fail to agree upon terms of purchase or surrender), be condemned by the Mayor and City Council of Baltimore under the provisions of Chapter 274 of the Acts of 1904 and Chapter 566 of the Acts of 1906, or in the exercise of its general powers of condemnation, the cost thereof to be defrayed out of the loan provided for in said first mentioned Act, or out of the ordinary proceeds of municipal taxation; provided, however, that the provisions of said Act of 1906 shall be obligatory upon, and not discretionary with, the Mayor and City Council of Baltimore and the Board of Estimates and the price to be charged for new rights, franchises and easements similar to those condemned, shall be the same as the amount of the condemnation award.

32C. If the State Roads Commission shall determine that the public necessity or convenience, or that the purposes of this Act require that any turnpike, or part thereof, whether maintained as such by any turnpike company or otherwise, or whether formerly maintained as such and now abandoned by any turnpike company, or that any public road in whole or in part in any county or counties, and forming a section of a through route or continuous thoroughfare between two or more important points in the State, should be taken charge of by said commission for the State for the purpose of this Act, then, as to such public road or abandoned or acquired turnpike, whether acquired by purchase or condemnation, the said commission shall file a certified copy of the plan thereof in the office of the County Commissioners for the county or the several counties in which said section or sections of road or turnpike may be situated, and setting forth its purpose to acquire

and to take over the same, and said commission thereupon, without any further proceedings, shall acquire and take over any such and all county roads, turnpikes or sections thereof or interests or rights therein, as in its judgment may be necessary or proper for the purpose of this Act, and with full power to widen, relocate, change or alter the grade or location thereof; and said commission shall have full power so to take over and take possession of any county road or abandoned turnpike, and to accept by gift or surrender, and to acquire by purchase or condemnation any and all existing turnpikes or any sections thereof, or any rights or interests therein, subject to any outstanding occupation, use or franchise of any electric railway company or other public service corporations; and thereafter all highways, however acquired hereinunder, shall be State highways and shall be constructed, improved and maintained by said commission for the State and at its expense, except as provided in section 32B.

32D. The said commission, when about to construct or improve in any manner any highway, shall give the County Commissioners of each county in which it lies a certified copy of plans and specifications therefor, and a notice that said commission is about to enter upon and proceed with the work in question. Said commission shall thereupon advertise for at least two weeks in one or more newspapers published in each county in which the highway lies and for three consecutive issues in at least one daily newspaper published in Baltimore city, for sealed proposals for the construction or other improvement of said highway, accurately describing the same and stating the time and place for opening said proposals, and reserving the right to reject any and all proposals; said proposals shall be publicly opened at the time specified in said advertisement, and the contract for such work or for the supplies and materials required for such construction or improvement shall be awarded by the commission to the lowest responsible bidder, unless, in the opinion of said commission, the interests of the State will be better served by awarding the contract to some other bidder, when this may be done; but said commission shall not be required so to advertise for proposals or to award any contract for any work or for any materials or supplies for any amount less than five hundred dol-

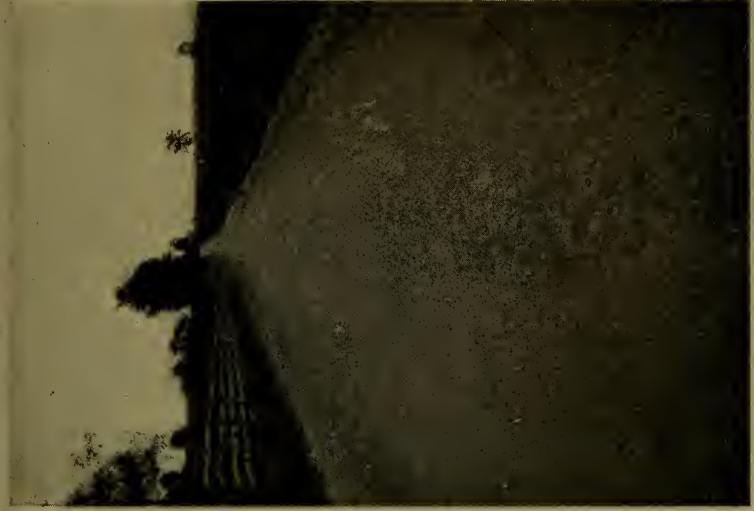
lars (\$500) in the aggregate. The construction and improvement of all State highways or parts thereof shall be under the supervision and subject to the approval of the said commission, in accordance with plans and specifications prepared by the chief engineer and approved by said commission. In all cases where the contract for work and materials shall be given out after competitive bidding the successful bidder shall promptly execute a formal contract to be approved as to its form, terms and conditions by said commission, and shall also execute and deliver to said commission a good and sufficient bond to be approved by said commission to the State of Maryland in not less than the amount of the contract price. To all such bids there shall be attached the certified check of the bidder, and the bidder who has the contract awarded to him and who fails to promptly and properly execute the contract and bond shall forfeit the said contract. The said check shall be taken and considered as liquidated damages, and not a penalty for failure of said bidder to execute said contract and bond. Upon the execution of said contract and bond by a successful bidder his check shall be returned to him. The amount of said check shall be five hundred dollars. The checks of the unsuccessful bidders shall be returned to them after opening the bids and awarding the contract to the successful bidder; provided, however, that said commission, with the consent of a majority of all its members, may itself do any part or parts of any such work under such conditions in every respect as it may prescribe, by day labor, whenever the chief engineer, in writing, shall recommend that course.

32E. That said commission shall keep all State highways reasonably clear of brush and maintain same in good condition; shall cause suitable shade trees to be planted thereon, if practicable, and may establish and maintain watering troughs upon said highways. No opening shall be made in any such highway, nor shall any structure be placed thereon, nor shall any structure which has been placed thereon be changed or renewed, except in accordance with a permit from the commission, which shall exercise complete control over such highways, except as herein otherwise provided. No State highway shall be dug up for laying or placing pipes, sewers, poles, wires, or railways, or for other purposes, and no trees shall

be planted or removed or obstruction placed thereon without the written permit of the State Roads Commission, or its duly authorized agent, and then only in accordance with the regulations of said commission; and the work shall be done under the supervision and to the satisfaction of said commission; and the entire expense of replacing the highway in as good condition as before shall be paid by the person to whom the permit was given or by whom the work was done; provided, however, that no electric railway company in operation upon any public or private road or existing or abandoned turnpike when acquired hereunder shall be disturbed in its operation or in the maintenance of its roadbed and overhead construction and all necessary repairs together with the maintenance of the space between its tracks and two feet on each side thereof shall be performed by such railroad company under the supervision and to the satisfaction of said commission. Said commission may give suitable names to the State highways and may change the name of any highway which becomes a part of a State highway. They shall erect suitable guideposts at convenient points along State highways.

32F. Each county in which a State highway, or any section thereof, lies, shall at its own expense keep such highway sufficiently clear of snow and of other obstructions except ice, to be reasonably safe for travel. The county shall have police jurisdiction of and for all State highways within its limits, and shall forthwith give notice in writing to the State Roads Commission of any defect or want of repair in such highway or highways.

32G. The commission herein provided for is authorized in its discretion to call upon the State Geological and Economic Survey Commission for such plats, surveys and information as it may desire, and may also, with the consent of the Maryland Geological and Economic Survey, turn over to said Survey the work of awarding any contracts for work under this Act together with the supervision of such work under such contracts so awarded by said Maryland Geological and Economic Survey, or the State Road Commission may authorize said State Geological and Economic Survey with the consent of said Survey, in accordance with the powers already in it vested, to itself perform any work determined upon by said commission, without an award of a contract for the same to



CHURCHVILLE—WORTHINGTON CORNER ROAD, HARFORD COUNTY.
BEFORE AND AFTER IMPROVEMENT.



EARLTON, HAVRE DE GRACE ROAD, HARFORD COUNTY.

REPAIR AND BETTER IMPROVEMENT

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a contractor, if in the judgment of the commission such work will be so done better or more advantageously to the State; and the commission herein provided for is authorized to reimburse the State Geological and Economic Survey Commission for any and all expense it may be put to and for any and all work done upon such terms as said two commissions may agree to be right and proper in the premises.

The other sections of the law make provision for the issue of the bonds of the State for the sum of \$5,000,000 to carry out the provisions of the law.

THE SHOEMAKER ROAD LAW.

The purpose of the Maryland State Aid Road Law, Act of Assembly, 1904, Chapter 225, is to encourage in a practical way the gradual building up of a system of good roads in all parts of the State. By its provisions the State offers to pay one-half the cost of such roads by the annual appropriation of \$200,000, to be allotted among the several counties in the direct proportion which the public road mileage of the county bears to the total public road mileage of the State.

Wherever a county does not take up its full allotment of State aid, the balance is to be reapportioned among such remaining counties as are ready to take up a further allotment in proportion to their public road mileage. By this means some counties may secure a larger sum than given in the first general allotment.

A county may secure State aid in the following manner: The County Commissioners petition the State Commission for aid to build a certain piece of road. If it is found, upon examination by the State Commission, that the road in question is one of gen-

eral public convenience and a proper one to construct, an estimate of the cost of the improvement is made, together with plans, specifications, etc., for doing the work. This is undertaken by the County Commissioners either by contract, or, if the prices for doing it in this manner are considered too high, then in other ways that they may deem best.

After the work is done according to the specifications, and the State Commission has so certified to the Comptroller, then one-half of the cost of constructing the road will be paid by the State to the county building the road; but in no case is the amount paid by the State to exceed one-half of the cost, as shown by the estimate of the cost of the work as first made by the State Commission. It is also provided that the owners of two-thirds of the lands binding upon any public road or section of road, not less than a mile long, can compel the County Commissioners to petition for the construction of the piece of road, provided that the owners petitioning have paid or have pledged 10 per cent. of the cost. The work then proceeds as already described, except that the County Commissioners cannot be compelled by this payment of 10 per cent. by property holders to contract for work to an amount greater than one-fourth of the road levy of the county. This 10 per cent. subscription is optional with each holder of property binding upon the road which it is desired to improve, and in no instance can any property holder be compelled to bear any part of the amount pledged.

The following table shows the allotment of the State road appropriation to the counties, according to their public road mileage as determined by the Maryland Geological Survey, as required by the law:

STATE FUND FOR ROADS.

Allotment to Counties of Maryland made by Geological Survey, according to their Public Road Mileage.

Counties.	Mileage.	Allotment.	Counties.	Mileage.	Allotment.
Allegany ...	693	\$8,967.39	Kent	427	\$5,525.36
Anne Arun..	521	6,741.72	Mntgom'y	798	10,326.09
Baltimore ..	1,119	14,479.81	P. George's	892	11,542.44
Calvert	335	4,334.89	Q. Anne's .	563	7,285.20
Caroline ...	547	7,078.16	St. Mary's	602	7,789.85
Carroll	770	9,963.77	Somerset .	464	6,004.14
Cecil	638	8,255.69	Talbot	397	5,137.16
Charles	465	6,017.08	Washington	695	8,993.27
Dorchester .	600	7,763.98	Wicomico .	772	9,089.65
Frederick ..	1,151	14,893.89	Worcester .	832	10,766.05
Garrett	940	12,163.56			
Harford ...	822	10,636.65	Total	15,456	\$200,000.00
Howard	413	5,344.20			

Under this law down to January 1, 1908, work had been nearly completed on 83 miles of road in various parts of the State, at a cost of \$558,000. The surfacing on these roads was as follows:

Broken stone...	357,877 sq. yds.	Shell	27,956 sq. yds.
Marl	5,946 " "	Sand and clay..	5,400 " "
Gravel	41,290 " "		

Referring to this work Mr. W. W. Crosby, the State Road Engineer, in his report for 1907, said:

“The precedent for the State’s assuming directly the expense and responsibility of a through road between important points was established in the so-called ‘Hill Law,’ which provided for the improvement of the old Baltimore-Washington Turnpike, sometime ago abandoned as a tollroad. The condition of the road had been steadily growing worse, and the Act appropriated the sum of \$30,000 annually for the years 1906, 1907, and 1908 toward its improvement, with the pro-

visions that as the State took hold of a section, it thereupon passed from the county or town into the direct control of the State authorities.

“Realizing that the total appropriation carried by the Act would be insufficient to complete the improvement of the whole of the 30 miles of the road, especially in view of the desirability of abolishing, if possible, all seven of the present dangerous steam-railway grade-crossings, this Commission felt that the public interest would be best served by the expenditure of the appropriations on those sections then in the worst condition, and on which no questions of change in permanent location had arisen or seemed likely to come up.

It was clear from the language of the Act that substantial work was called for and an attempt has been made to secure modern and thorough work at the least possible cost compatible with its importance. It is understood that the results on the road are satisfactory to those familiar with them. If the work of improving this road is to be completed between the limits of Baltimore City and the District of Columbia, the further appropriation of not less than \$150,000 will be necessary.”

In 1906 the Legislature appropriated \$90,000 to construct a fine road from Baltimore to Washington and authorized the employment of prisoners in the House of Correction. The work to be done under the supervision of the State Highways Bureau.

The Legislature in 1908 made provision for continuing this great work and it has progressed rapidly and will shortly connect Baltimore with the capital of the country by a magnificent highway. Labor being very scarce during the first year of this work an experiment was made by employing prisoners from the House of Correction, which lies near the line of the road, about midway its length. This experiment was entirely successful.

CHAPTER VII.

GEOLOGICAL SURVEY.

The State Geological and Economic Survey is established for the purpose of examining the geological formations and mineral resources of the State of Maryland with special reference to their economic products and for the preparation of reports and maps illustrating the character and distribution of the mineral resources. The survey maintains a highway division under special Acts of the General Assembly. It likewise carries on work in hydrography, forestry, terrestrial magnetism and the mapping of the agricultural soils in co-operation with the national government. The most important feature of this joint work is the preparation and publication by counties of a topographic map of the State on the scale of one mile to one inch. It is also empowered by the State road law of 1908 to do the work of constructing roads under the \$5,000,000 loan should the Road Commission commit the work to it.

A bureau known as the State Highway Division is connected with the Geological Survey, and it has charge of the construction of roads under the Shoemaker Road Law and of the highway between Baltimore and Washington.

In 1906 the Legislature established a State Forestry Commission, which is to promote the cultivation and care of trees and the preservation of game.

The effect of the Geological Survey upon the material welfare of the State is indicated by the increase of

the mineral output since the survey was established in 1896.

The following table shows the value of the various Maryland mineral products each year from 1896 to 1907:

VALUE OF THE ANNUAL OUTPUT OF MINERAL PRODUCTS, 1896-1907.

Year.	Coal.	Stone.	Flint and Feldspar.	Sand and Gravel.	Lime and Cement.
1896	\$3,299,928	\$457,764	.....	.....	\$365,477
1897	3,363,996	458,811	.....	.....	286,441
1898	3,532,257	703,873	.....	.....	399,938
1899	3,667,056	636,547	.....	.....	372,322
1900	3,927,381	727,640	\$33,420	.....	421,745
1901	5,046,491	866,524	45,929	.....	488,322
1902	5,579,869	1,113,854	83,236	.....	487,597
1903	7,189,784	1,126,992	86,898	.....	469,113
1904	5,729,085	1,160,676	98,867	\$219,268	345,329
1905	5,831,760	1,409,053	75,552	436,828	393,741
1906	6,474,793	1,370,924	126,832	285,797	383,135
1907	6,623,697	1,541,330	90,860	277,106	404,794

VALUE OF THE ANNUAL OUTPUT OF MINERAL PRODUCTS, 1896-1907.

Year.	Clay and Clay Products.	Ores (gold copper, iron, mineral paint).	Mineral Waters.	Miscellaneous (soap-stone, talc, marl, silica, etc.)	Total.
1896	\$1,595,055	\$53,304	\$58,339	\$4,631	\$5,834,498
1897	1,312,889	27,660	21,185	4,747	5,475,729
1898	1,254,860	18,862	29,779	4,531	5,944,150
1899	1,683,596	26,557	13,045	10,344	6,409,467
1900	1,714,234	67,429	36,849	10,845	6,939,543
1901	1,613,663	45,135	57,680	11,500	8,175,244
1902	1,915,417	61,826	45,100	5,500	9,282,339
1903	1,921,821	33,612	45,918	9,360	10,883,498
1904	1,886,277	25,421	44,320	5,850	9,515,093
1905	2,282,856	35,152	44,627	6,782	10,516,351
1906	2,178,617	15,624	58,334	21,416	10,915,472
1907	1,863,316	37,767	86,606	35,350	10,960,826

The average number of men employed in coal mining in Maryland increased from 4039 in 1896 to 6438 in 1906. The number was somewhat less in 1907, amounting to only 5880, according to the reports received.

The total tonnage of coal mined in Maryland to the close of 1907 is estimated at about 132,000,000 long tons which, at an average price of \$1 per ton, represents a total value of \$132,000,000.

The work of the State Geological and Economic Survey covers a wide field including geological investigations, highway engineering, topographic surveying, the mapping of the distribution of the various types of agricultural soils and forest growths, and a study of the hydrography and terrestrial magnetism of the State. These several lines of work have been provided for by successive acts of the General Assembly.

The geological investigations comprise an examination of the geological formations and mineral deposits of the State with special reference to their economic products, and reports and maps are published from time to time showing their character and distribution. Detailed reports on the coals, clays and building stones have been issued.

The highway work is conducted under special acts of the General Assembly, the most important being a State Aid Highway Law passed in 1904 by which the State contributes one-half towards the cost of county roads built under its supervision. The survey is also engaged in the construction of a State highway between Baltimore and Washington. A laboratory is connected with the bureau in which tests are made for the various counties and municipalities of the State.

The topographic surveying, which has been carried on in co-operation with the national government for several years, is now nearly completed, maps on the scale of one mile to one inch having already been issued for Allegany, Garrett, Baltimore, Cecil, Harford, Prince George's, Worcester, St. Mary's Calvert, Kent, Wicomico, Talbot, Queen Anne's, Caroline, Somerset, Anne Arundel, and Dorchester counties, as well as of Baltimore and vicinity. A large State road map has also been prepared on the scale of three miles to one inch on which all cities, towns and villages are shown together with the chief highways, railroads and steam-boat lines.

The work on the agricultural soils, forestry, hydrography, and terrestrial magnetism is conducted in co-operation with the national government and with other State organizations, and already a number of reports and maps have been issued on these subjects.

MARYLAND WEATHER SERVICE.

The Maryland State Weather Service is conducted in co-operation with the United States Weather Bureau, Dr. Fassig, the meteorologist in charge, being the chief United States Weather Bureau official in Baltimore. The State service is occupied with a study of special problems connected with the climatology of the State and is now engaged in the conduct of a botanical survey in which the relations of plant growth to climate are being investigated.

STATE TUBERCULOSIS SANATORIUM.

An important piece of constructive legislation accomplished in Maryland in late years was the law establishing the Tuberculosis Sanatorium, enacted at the

session of 1906. This law began the care of consumptives by the State, and as the disease has been proved curable in its early stages, the good which can and probably will be accomplished is enormous. Under the law a commission established an institution known as the Maryland Tuberculosis Sanatorium in the mountains of Maryland, in Frederick county near Sabillasville. The sum of \$115,000 was appropriated by the Legislature for the establishment of the sanatorium and for its maintenance in 1906 and \$265,000 in 1908. Of the total appropriation of \$380,000, \$265,000 was for buildings and land. And it is the design that consumptive patients shall be cared for free of charge. In the Blue Ridge Mountains of Maryland the climate is especially favorable to the cure of consumption, and not only will cures be effected, but by removing patients from their families the spread of the disease will be diminished.

The movement on the part of the State of Maryland to check the ravages of tuberculosis first found official expression in an extended discussion of the subject in the message of Gov. John Walter Smith to the General Assembly of 1902. The Governor placed himself on record as advocating legislative action, and the General Assembly at the same session authorized the appointment of a commission by the Governor to investigate "the prevalence, distribution and causes of human tuberculosis in the State of Maryland, to determine its relation to the public welfare, and to devise ways and means for restricting and controlling said disease." This commission served without pay, and an appropriation of \$4,000 was made for expenses. Governor Smith appointed Dr. Lillian Welsh, Dr. W. Frank

Hines, Mr. George Stewart Brown, Mr. John M. Glenn and Dr. William A. Thayer members of the commission. Governor Smith renewed his recommendation to the General Assembly of 1904, and Governor Warfield also manifested interest in the subject, and the Legislature of 1904 continued the life of the commission and made an additional appropriation of \$2,000 to pay its expenses.

Governor Warfield appointed Dr. Lillian Welsh, Mr. John M. Glenn, Dr. William A. Thayer, Dr. H. Warren Buckler and Mr. Daniel W. Hopper members of the second commission. In 1906 the Legislature provided \$100,000 for the construction of a tuberculosis sanatorium, and the further sum of \$15,000 for its support. The sanatorium was placed in charge of a Board of Managers, consisting of the Board of Public Works, and six members appointed by the Governor, who selected a site for the sanatorium on the top of Loop Mountain, near Sabillasville, Frederick County, on the line of the Western Maryland Railroad. The cottage system was adopted for the patients' quarters, and already a large administration building and infirmary and four cottages for patients' sleeping quarters have been completed, giving the hospital a present capacity of about one hundred patients, with room for doctors, nurses and other attendants. Four additional cottages will be completed by the early fall, giving an increased capacity of about eighty more patients. The buildings will be heated by steam, lighted by electricity and furnished with improved plumbing apparatus. The site of the hospital is on a farm of 198 acres, which the commission purchased for \$10,250. Upon the farm there are

three large springs. Water will flow to the building from a reservoir on the mountain. Arrangements are being made for the construction of a farmer's cottage and a barn, and the power plant, laundry and steam heating plant are rapidly nearing completion. The Legislature of 1908, Chapter 255, appropriated the sum of \$130,000 for further additions to the buildings for the fiscal year of 1909 and \$40,000 for maintenance, and \$35,000 for buildings for the fiscal year of 1910, and \$60,000 for maintenance for the fiscal year of 1910. The Board of Managers was also increased by one member to be appointed by the Governor, and Samuel K. Dennis was appointed to that position. The present members of the board and their official positions are as follows: John Walter Smith, President; Dr. H. Warren Buckler, Vice-President; Samuel K. Dennis, Secretary-Treasurer; His Excellency Austin L. Crothers, Comptroller Joshua W. Hering, Treasurer Murray Vandiver, Dr. Charles M. Ellis, Dr. Henry Barton Jacobs, Dr. Guy Steele, Dr. Charles H. Conley, Dr. Bayard T. Crane, Superintendent; Miss Carolyn C. VanBlarcom, Superintendent of Nurses.

In addition to this provision for a State hospital an appropriation of \$15,000 for the year 1907 was given by the Legislature to the "Hospital for Consumptives of Maryland," an institution already established and doing a good work. Of this sum \$10,000 is to be used in the erection of buildings in the mountain regions of the State and \$5,000 for maintenance.

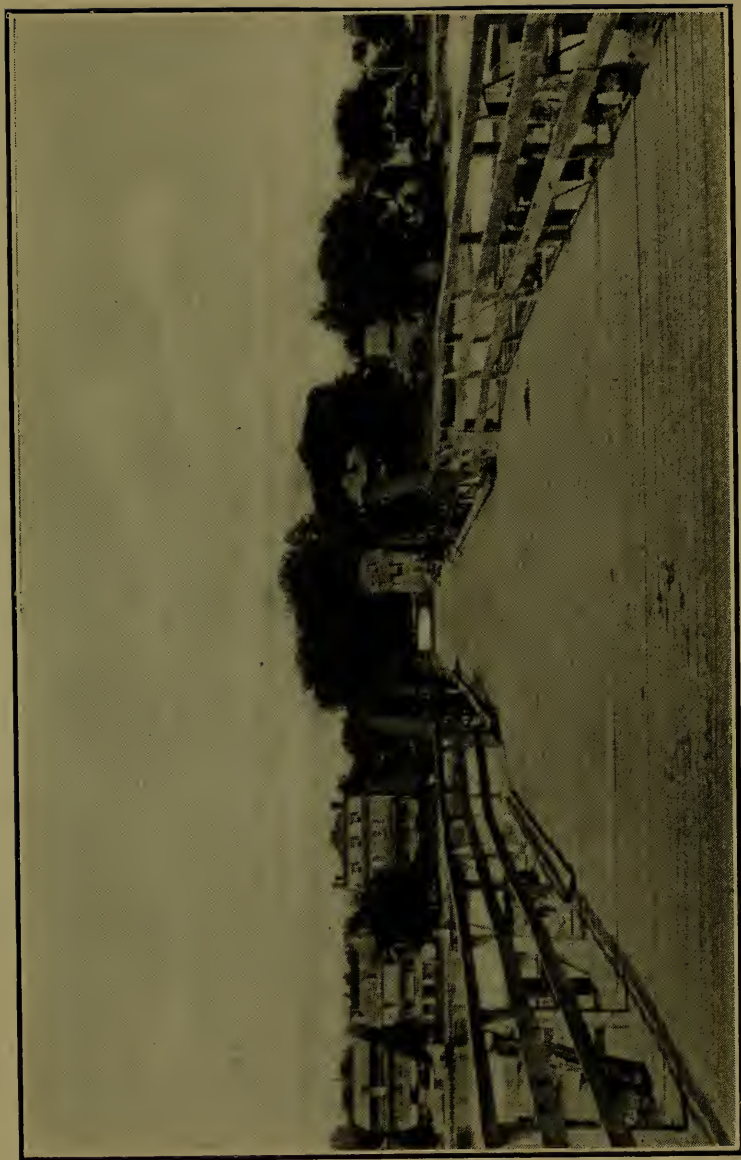
For the year 1908 the appropriation was \$20,000, \$15,000 of which is for buildings and \$5,000 for maintenance. Thus the Legislature appropriated in 1906 no less than \$150,000 to begin the work of fighting and

eradicating the most deadly malady with which the people of Maryland are afflicted, and in 1908 a still larger sum. The interest in this subject and the favorable action of the Legislature were largely due to the disinterested and patriotic work of Senator John Walter Smith.

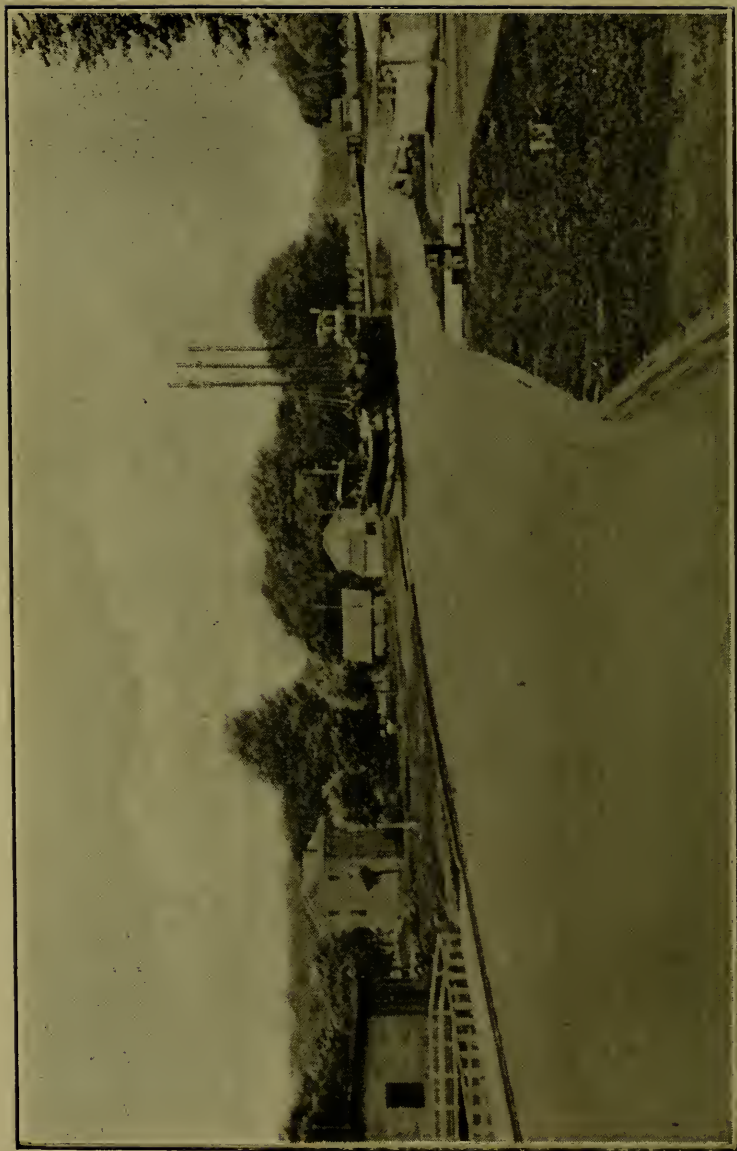
MARYLAND STATE BUREAU OF IMMIGRATION.

The State of Maryland maintains a Bureau of Immigration, whose duty it is to give all possible assistance to the farming interests of the State. It was organized in 1896 and has done excellent work. The bureau advertises the advantages of the farming section and brings a good class of agriculturists from the United States and abroad to our farm lands. It assists the settlers and all the farmers by providing farm labor. The bureau is conducted by a commission, the secretary of which must be able to converse in several languages and be well informed about the State. The duties of the superintendent and secretary are prescribed by law. The office, which is located in Baltimore City, was visited last year by nearly 4,000 people seeking information. All prospective buyers of Maryland farms consider the Bureau of Immigration as their objective point, when they arrive from the West or from Europe, and they find always some one in charge to direct and advise them.

A number of distinct settlements of people from the West and from Europe have sprung up in several counties during the last few years and all are very successful. There are farmers from Illinois along the Patuxent river in Prince George's County, who raise better corn than in their former homes.



CHESTER BRIDGE, CHESTERTOWN, MD.



VIEW FROM HIGH BRIDGE, CHESAPEAKE CITY, MD.

In Charles County is a colony of Danes, whose work in that section of the State can be designated as model-farming.

A progressive section of Southern Maryland is in Anne Arundel County. The Bureau of Immigration settled here a number of Europeans, among them a gentleman from Germany, who purchased over 1000 acres near Woodwardville, about half way between Baltimore and Washington and improved the land to such an extent that the value increased from \$20 to \$40 per acre. A settlement of Austrians, all good farmers, can be found on that fine stretch of land west of South river in Anne Arundel county, not far from Annapolis.

The German speaking element is increasing in this part of the State and a German church will be erected near Bowie; the congregation already being organized by an ordained minister.

There are several settlements of German farmers in Caroline county and one of them in the neighborhood of Preston has a church and school. These new settlers have prospered and have helped to build a bank, a town hall, several packing establishments, a creamery and other enterprises near Preston. Land, which was sold several years ago for \$20 per acre, has been so advanced by improving it that now several farmers can get \$60 per acre and more.

Talbot county has also several settlements of experienced western farmers, who have met with great success, especially near Cordova and Longwoods, where two German churches have been erected.

A colony of Hollanders has been started along the Choptank river, and not far from here some gentlemen from Long Island started three duck-farms with such

success that one of them shipped 10,000 young ducks to New York hotels in the spring of 1903 and received \$1 apiece in the beginning of the season.

A number of wealthy gentlemen from New York, Illinois and Wisconsin have located on the many beautiful inlets from the Chesapeake Bay in Kent, Queen Anne's, Talbot and Dorchester counties, where they enjoy fishing and duck shooting.

In later years the Bureau of Immigration has settled many western farmers in Wicomico, Somerset and Worcester counties, where there is good soil, excellent transportation facilities and a pleasant climate.

The Bureau of Immigration has received many offers from western farmers to exchange land for farms in Maryland; but there is no record that a Marylander has been willing to accept such an offer.

Many big farms need breaking up into smaller holdings. There are splendid opportunities for investment, splendid chances for men of energy and intelligence.

The emancipation of the slaves left the owners of large tracts of land without means of properly cultivating their fields, these people became what is locally called "land poor." This accounts for the low prices placed upon the land which is of excellent quality and needs only proper tilling and manuring to bring it back to its former high state of cultivation. Most of the soil is a rich loam which can be tilled with a one horse plow. Crops can be raised for less labor and expense than in other sections. Corn, wheat, oats and other grains, together with fruits, vegetables, berries and garden trucks grow luxuriantly and mature so early as to give the producer the advantages of the high prices which prevail before the main crop reaches the markets. The climate, soil and shipping facilities are

so excellent that the growth of small fruits and vegetables has grown to large proportions. Of the fruits, the strawberry is the most important crop; in a favorable year the average net profit of the crop is about \$150 per acre. Peas, beans, onions, Irish potatoes, sweet potatoes, kale, cabbage, etc., are grown with profit.

The following extract from a letter by H. T. Williams, of the New York "*Independent*," gives the impression made upon a disinterested stranger:

"We went to the peninsula of Maryland expecting to see a country distinguished by poor land. We found some poor land, but we found some good land also, which far exceeded in richness many of the alluvial valley regions which we have been proud to boast of; we found people whose kindness and generosity and hospitality put to shame the selfish conservatism of some northern farmers. We found good schools, good churches and a strong religious spirit pervading all classes of the community. The country is, in general, pre-eminently healthy; the climate is mild and regular, free from all extremes of heat or cold, and far more agreeable than either the latitude of New York or Philadelphia. But by far the distinguishing features are the early seasons—possessing an advantage of from ten days to two weeks over New Jersey. To a gardener or fruit grower, an advantage of this character, is worth thousands of dollars."

Sooner or later Maryland must become the great fruit and vegetable garden for Philadelphia, New York and Boston, and those who can secure some of the excellent farms, now obtainable, will never have occasion to regret their choice.

Persons desirous of obtaining specific and reliable information about farms and where those for sale are located, about prices and transportation can address the Maryland Bureau of Immigration, Baltimore.

CHAPTER VIII.

EDUCATIONAL SYSTEM.

Maryland has abundant schools of all kinds, and every provision is made that each child in the State, male and female, white and colored, shall have every needed facility for obtaining an education. No farmhouse in all the State is too remote from a free school for the children to reach it conveniently by walking. In the public free school system of the State there are 2,377 schoolhouses in the counties, of which 612 are for colored children, and 108 in the city of Baltimore, of which 15 are for colored children. The annual expenditure for public free schools in the State is about \$3,250,000; 200,000 children attend the public schools, and they are taught by 5,150 teachers. There are normal schools for the training of teachers, and polytechnic and manual training schools in most of the counties. At most of the county seats there are high schools, where pupils can prepare for college, and those who do not intend to go to college can get a fair education. There are, in addition to these high schools, 19 academies in the various counties.

Not only does the State give a liberal support to its public school system, but it extends aid to a number of colleges not connected with the public schools, for which free scholarships are awarded.

Maryland was one of the first among the States to provide for the education of her citizens. As far back as 1696 Gov. Francis Nicholson established a public

school at Annapolis. It was known as King William's School and is now St. John's College.

Under the present law the schools in the counties are managed by County School Commissioners appointed by the Governor. Each board elects an executive officer known as the County School Superintendent. The State levies a tax of 16 cents on the \$100 for school purposes. This tax yields about \$1,200,000 a year, which is distributed to the counties, the city and each county levying a local tax in addition.

The School Commissioners of Baltimore City are appointed by the Mayor. The Mayor designates the president of the School Board. The term of the Commissioners is six years, and three of the nine retire at the end of every two years.

The Board of School Commissioners appoints the City Superintendent of Public Instruction and assistant superintendents; also, one or more visitors to each school, the visitors to serve without pay.

The school teachers are selected by the Superintendent and his assistants, in accordance with the merit system and subject to confirmation by the School Board. The Commissioners appoint the faculty of the City College and the teachers of the Polytechnic Institute and the high schools, as well as various subordinate officers in the department.

Church and party ties shall not be regarded by the Mayor in making his selections, the intention being to keep the public schools entirely out of the field of political and religious differences. Ward lines are also abolished in making selections.

A Compulsory Education Act was passed by the General Assembly of 1902, which was limited in its

operations to Baltimore city and Allegany county. The act requires children between 8 and 12 years of age to attend school. Attendance officers were authorized and appointed to enforce the law, and penalties are provided for violations.

The following is a summary of the provisions of the Maryland State School Law, as revised by the General Assembly of 1904. This law applies to the counties and not to Baltimore City.

The State Board of Education is composed of eight members, consisting of six appointed by the Governor, and the Governor and the State Superintendent of Education. The terms of the members of the State board correspond to those of the County School Commissioners, and minority representation is provided.

The State Superintendent of Public Education is secretary of the State Board of Education.

The official title of the secretary of the County School Board is "secretary, treasurer and county superintendent."

Principal teacher is appointed by the board of trustees and becomes the secretary of the board of district trustees.

All assistant teachers are appointed by the County School Boards.

County School Boards are given authority to consolidate schools when desirable and practicable, and to pay charges of transportation.

The normal school at Frostburg, the normal department of Washington College, the Maryland State Normal School and the Baltimore Colored Normal School are under the supervision of the State Board of Education.

The minimum county school tax rate is 15 cents.

Where the school board fails to provide a school year of nine months, and the minimum salary of \$300, to white teachers whose schools average 15, the comptroller will withhold the March installment of the school tax.

There is no separate fund for colored schools. All matters pertaining to colored schools are left with the County School Board.

The State school tax is apportioned on the basis of (colored and white) between the ages of 5 and 20 as disclosed by the census.

The pension fund for teachers is \$25,000 annually.

Among the important free schools in Maryland is the McDonogh Institute, near Baltimore. The free school for boys was founded by John McDonogh, born in Baltimore, December 29, 1779, and died in New Orleans, October 26, 1850. The requirements for entry are as follows:

1. They must be poor boys, of good character, of respectable associations in life, residents of the city of Baltimore.
2. They must be sound and healthy in mind and body.
3. They must be between 10 and 14 years of age.
4. They must pass a competitive examination.

Students get military training, instruction in farm and shop work, surveying, shorthand and typewriting, in machinery, woodwork, typesetting and other industries.

The property of the foundation consists of 835 acres of land in a beautiful and healthy region, 12 miles northwest of Baltimore city, with commodious build-

ings; an endowment fund of \$725,600 from John McDonogh invested in Baltimore city bonds; bequest of Dr. Zenus Barnum of \$80,000 to promote mechanical instruction and manual training; bequest of Samuel H. Taggart of \$175,000.

LIBRARIES.

One of the most important of all the various educational appliances are public libraries, and with these Maryland is singularly well supplied. Baltimore, which, as has been said, is one of the chief educational centers of the country in the number and importance of its libraries, is far ahead of nearly all other American cities, the aggregate number of books in them exceeding one million. The Pratt and other great libraries are free. There is a State library at Annapolis which has a most complete collection of law books and histories. There are two State Library Commissions—one to encourage the formation of free libraries in the counties and the other to circulate traveling libraries throughout the State. The latter one with the cooperation of Dr. Bernard Steiner, librarian of the Pratt Library, is doing an excellent work.

Recently Mr. Andrew Carnegie agreed to give \$500,000 for twenty buildings for branches of the Enoch Pratt Library, the condition being that the City of Baltimore shall maintain the libraries at a cost of not less than 10 per cent. of the buildings and also that the city provide the sites. These conditions were accepted by the city and the Legislature passed an enabling act to grant the necessary authority.

CHAPTER IX.

THE CAPITAL OF MARYLAND.

It has been said that if General Washington should return to life and make one of his customary journeys through Virginia, Maryland and the States to the north, Annapolis is the only town he would recognize—the only one which has remained unchanged in the century that has elapsed since the death of the first President. This ironical remark was more true some years ago when it was made, than it is now. It is true that Washington, were he to revisit the capital of Maryland, would recognize many of its buildings. He would recognize the old State House and the dome, under which one of the most interesting acts of his noble life took place; he would see the old Senate Chamber in which Congress sat when he resigned his commission almost precisely as he left it; he would see still standing the hotel in which he was entertained; Carrollton, the old home of his friend Charles Carroll, with its appearance unchanged; he would find many of the fine old residences where he visited before and after the Revolution; the Tydings house; the Treasury; the Randall house, built 1730 by Thomas Bordley; the Brice house, corner East and Prince George streets, 1740 probably; the Iglehart house, Prince George street; its opposite neighbor, the Paca house; the Claude house, Shipwright street, and the Ridout mansion, Duke of Gloucester street; the Mason house,

built by Governor Ogle 1742, and St. John's College (McDowell Hall); the Randall house, Market space, and the house of Anthony Stewart, of "Peggy Stewart" fame, Hanover street. The City Hotel, Washington's hostelry, belongs to an early period; the Chase mansion was built by Governor Lloyd and the Lockerman house opposite was built 1770.

No city in America has so many fine colonial buildings, and the rich flavor of the historic past remains, although in the last few years a highly improved, modern town has grown up around the ancient landmarks. Among the modern improvements are well-paved, smooth streets; an excellent drainage system; gas, electric lights; an abundant supply of pure water. There is good police protection and fire protection and admirable schools. The general Government has appropriated ten or twelve million dollars for improving the Naval Academy and has erected magnificent buildings. One of these buildings—the chapel—cost nearly a half million dollars. It is to be the Westminster Abbey of the American Navy, and the first body to be consigned to its crypt was that of John Paul Jones, the father of the American Navy.

The State of Maryland has spent in the last few years nearly one and a half million dollars in public buildings in the capital. A Court of Appeals building of superb architecture and appointments was erected at a cost of \$290,000. Besides a beautiful courtroom and the offices of the court it accommodates the State Library, the offices of Treasurer, Comptroller and other State officials. An addition has been made to the State House for the accommodation of the Legislature at a cost of \$850,000. The old State House stands un-

molested except that it has been thoroughly repaired and strengthened, and the Senate Chamber restored to its original form.

Annapolis has been the capital of Maryland since 1694. In 1648, 14 years after the settlement of St. Mary's, Governor Stone invited a colony of Puritans in the lower counties of Virginia to come to Maryland to enjoy religious freedom and equal laws. They came and settled around the Severn. Later on they formed Anne Arundel town, the forerunner of Annapolis. The present city was surveyed and laid out in 1694 by Richard Beard, and in 1696 this map and survey were legalized by Act of Assembly. The original plat having been destroyed with the State House in the fire of 1704, a resurvey on the original lines was ordered by the Acts of 1718, ch. 19, James Stoddart being employed for this purpose. The Stoddart plat is now in the Land Office.

The State House circle dominates the entire plan. That it was not laid out by Puritans is shown by the fact that, next to the State House reservation, the most important was Church circle for a Church of England church. Anne Arundel town, when it was made the capital, contained only about 40 houses, and probably less than 200 people. That number, of course, did not stand in the way of the laying out of a city. At the time of the removal Francis Nicholson was Governor, and he named the town in honor of Princess Anne, afterwards Queen of England. She acknowledged the compliment by presenting a silver communion service to St. Anne's Church, pieces of which are still preserved.

In 1708 Annapolis became a chartered city, with a regular municipal government. King William School,

which had been founded in 1696, became the chief seat of domestic education. From the opening of the century the capital increased steadily in wealth and importance, and soon became the social center south of Philadelphia, and the inhabitants were distinguished for sociability, courtesy and refinement of manners. Races, balls and other festivities attracted strangers not only from adjacent counties, but adjacent colonies. The Tuesday Club became famous in the colonies for its wit and good cheer, and claimed among its members many of the leading Americans of the day. The quaint but voluminous records of the club gave a charming insight of the social life at Annapolis. The provincial State House became better known as a ballroom than a hall of legislation. A theatre was in full operation as early as 1745, and was the first, it is asserted, in the colonies. French hair-dressers, tailors and perfumers plied their trades in the little city, and excited the admiration and wonder of the French and English visitors. The golden age of Annapolis lies between 1750 and 1770, when its wealth, influence and attractiveness were at the highest point.

The stamp tax, imposed in 1765, met with violent opposition in Maryland, as it did everywhere, the stamp distributor, one Hood, being compelled to fly the province, and the stamps were shipped back to England, as no one would use them.

If the opposition to the stamp tax had been fierce, that to the tea tax, first laid in 1767, was still fiercer, and associations were formed throughout the province to prevent the introduction of tea. A firm of Annapolis merchants having, in defiance of the



GRANITE QUARRY ON SUSQUEHANNA RIVER.



NEAR OXFORD, TALBOT COUNTY.

public sentiment, imported a consignment of that commodity, popular indignation rose so high that a town meeting was held, and the owner of the brig that had brought it, Mr. Antony Stewart, to avert further mischief, publicly burned his vessel, the *Peggy Stewart*, with its obnoxious cargo, in the sight of a large concourse of spectators, on October 19, 1774. The vessel went ashore at Windmill Point, a spot now in the Naval Academy grounds.

Governor Eden, the last proprietary Governor, left Maryland June 24, 1776. Before that time the Government had gone into the hands of a convention chosen by the people. It appointed delegates to the Continental Congress, and governed the State for the first year of the war by a Council of Safety, which sat at Annapolis, and with committees of correspondence in the several counties. This provisional government raised levies and kept the Maryland Line in the Continental Army filled. One day, before the Continental Congress took that final step, the convention of Maryland issued a formal Declaration of Independence. It then formulated a constitution and form of government, embodying the Bill of Rights which had been written by George Mason, of Virginia, promulgated it and then abdicated its authority. This constitution is believed to be the first written constitution in the world, except that of Virginia, which preceded it by a very short time. Thomas Johnson, the first Governor of the State, was inaugurated in March, 1777, and the Council of Safety dissolved itself. Maryland thus became a sovereign and independent State, but she did not enter the Confederation until 1781, when she came in as the thirteenth and last State.

Towards the close of the Revolutionary war the Continental Congress sat in Annapolis in the Senate Chamber, and there, on December 23, 1783, Washington resigned his commission as Commander-in-Chief of the Army. The next year, in the same chamber, Congress ratified and signed the Treaty of Peace with Great Britain, and in it, in September, 1787, a Convention of Delegates from five States, which had been proposed by Maryland, met and proposed a closer union of the States. Out of this meeting grew the Constitutional Convention of 1787 and our form of government.

The first State House was completed in 1697. This building was burned in 1704. The second State House, begun in 1704, was built on the site of the first, and was used for 68 years, when it was torn down to make way for the present edifice.

In 1769 the General Assembly appropriated £7,500 sterling for a new State House and appointed the following building committee: Daniel Dulany, John Hall, Charles Carroll (barrister), Thomas Johnson, William Paca, Launcelot Jacques and Charles Wallace.

The architect of the building was Mr. Joseph Clark, and the foundation stone was laid on March 28, 1772, by Governor Eden. The building was completed in 1773, and covered with a copper roof. The *Maryland Gazette* of February 28, 1793, informs us that Thomas Dance, a plasterer, fell from the interior of the dome just as he had finished the centerpiece, and was killed on the floor below. This item created the impression that the dome was not erected until after the Revolution. But in a book written by the chaplain of a French regiment, which was quartered for awhile in

Annapolis during the Revolution, the writer spoke of the architectural beauty of the State House, and especially of the dome, proving that the dome was built before the Revolution. The priest said that the Maryland State House was the finest building of the kind in America.

Many changes have been made in the interior of the building in order to secure additional space. In 1858 the hall of the House of Delegates was much enlarged, and the octagonal room at the rear of the hallway was rebuilt and enlarged to furnish quarters for the State Library. At this time the imposing stairway, known as the "Golden Stairs," was erected.

In 1876 the interior of the old Senate Chamber was entirely changed, the chimney and fireplace removed and the gallery taken out. In 1886 an unsightly addition to the State House was built to enlarge the library and furnish committee rooms. It was badly constructed, badly planned and entirely unsuited for any purpose. It was torn away in 1902 to make way for the splendid addition began that year.

In 1858 the Comptroller's office was erected in the State circle, but, the State offices having been removed to the new Court of Appeals building, this ugly old building was torn down in 1906.

Because of the increased size of the Legislature and the enlarged business of the State, the old legislative chambers and committee rooms and offices were found insufficient. In 1902 Hon. Spencer C. Jones, Senator from Montgomery county, introduced a bill providing for an annex to the old State House which should contain legislative chambers and the necessary offices for the General Assembly. The act created a commission,

which employed Baldwin & Pennington as the architects, and erected an annex at the cost of about \$800,000, double the size of the old building, with which it is architecturally in entire harmony. Of this building Governor Warfield said in his message to the Legislature January 3, 1906:

“The Legislature of 1902 created a commission charged with the duty of ‘constructing and erecting an addition to the present State House, in which shall be located the State Senate Chamber and the House of Delegates,’ and appropriated \$250,000 with which to begin the work. At the session of 1904 a further appropriation of \$600,000 was made for the purpose of completing the work and for repairs to the old State House.

“The commission has completed its work, and will submit to this General Assembly a report showing in detail how the money has been expended.

“It gives me pleasure to inform you that the Annex has been constructed within the appropriations made for that purpose, and at a very moderate cost when compared with the cost of similar capitols erected in other States. The building is admirably suited to the purpose for which it is to be used. It is a substantial, splendid structure, with ample room to accommodate the Legislature and the various committees for many years to come.

“Not only were these appropriations sufficient to erect the new building, but they also provided funds to enable the commission to restore the old Senate Chamber to the form and appearance it bore at the time of that historic event—the resignation by General Washington of his commission as Commander-in-Chief

of the Continental Army, and, further, to restore the Executive Chamber to its former condition, and to improve and fit up a private office for the Governor, as well as a document and working room.

“The work of restoring the old Senate Chamber was done with the aid of an advisory committee of gentlemen connected with historic and patriotic societies, who were named for membership on the committee because of their intimate acquaintance with the history of the State and the traditions of the old Chamber.

“This committee was appointed by me under authority of a resolution adopted by the State Annex Building Commission, and has performed its work in a most satisfactory manner.

“In my opinion, the restoration of all the features of this beautiful old room is accurate. An interesting report of the work of the advisory committee is submitted herewith, which will give the reasons for every detail of the restoration.

“Thus has been accomplished a work that has been devoutly desired by the people of this State ever since the appearance and furnishings of the old Chamber were destroyed and the room modernized in 1878.

“This room, hallowed by so many sacred memories and historic associations, will, I am sure, become the Mecca of every patriotic person in the State of Maryland, and will, each year, become more priceless in historic association. It will, in connection with the two adjoining rooms, be kept as a place in which will be assembled mementoes associated with the War of the Revolution and the earlier days of our State.

“Through the work of the State Annex Building Commission, and under the guidance and direction

of Messrs. Baldwin & Pennington, the architects, Maryland has now one of the finest State capitols in the Union."

The State House contains many valuable historic paintings and portraits.

The Constitution requires that the Governor of Maryland, during his term of office, shall be a citizen of Annapolis, and the State has always provided a residence for him, which from the earliest time has been known as the "Government House." The Government House occupied by Governor Eden, the last of the colonial Governors, was contained in the land ceded by the State in 1866 to the United States for the enlargement of the Naval Academy grounds, the cession being made especially as an inducement to return the naval school from Newport, R. I., where it had been carried during the Civil war. This fine mansion, an excellent specimen of colonial architecture, erected by Edmund Jennings, was occupied by all the Governors of Maryland from Eden to Thomas Swann, the period of about a century. When it came in possession of the Naval Academy it was used for a library. Under the scheme of improvement and reconstruction the demolition of nearly all the old buildings on the grounds was contemplated. But this one was to have been retained and improved for use as the residence of the superintendent. When the various additions which had been made to it were removed, however, it was found that the walls were too weak, and the historic building was torn down. Through the co-operation of Admiral Brownson, then superintendent, Governor Warfield procured a beautifully carved marble mantelpiece from the old house, and had it placed over the

fireplace in the Governor's private office in the State House. The central building of St. John's College, McDowell Hall, was begun by Governor Bladen for a residence but never completed. It was given by the State to St. John's College in 1784. The present Government House was erected in 1867, and was first occupied by Gov. Oden Bowie. It is surrounded by beautiful grounds and is spacious and convenient.

More imposing even than the buildings of the State are those of the United States Naval Academy. Indeed, the Academy is the most conspicuous feature of the city and attracts more visitors from afar than all the others. The naval school was first established by George Bancroft in 1846, when he was Secretary of the Navy, upon recommendation of Prof. William Chauvenel, who was the first instructor in mathematics and navigation. The school was established for the education of officers for the navy without consulting Congress, the navy having control of the old Fort Severn property. But the Congress soon made recognition of it by making an appropriation, on the recommendation of the President, "for repairs and improvements." The first superintendent was Captain Franklin Buchanan of Maryland, afterwards an admiral in the Confederate Navy and commander of the first iron-clad, the Merrimac, in the famous encounter with the Monitor in Hampton Roads. Since the school was established over 3,000 cadets and midshipmen have been graduated. In 1898, interest in the navy being stimulated by the Spanish war, Congress made an appropriation of \$8,000,000—since raised to \$10,000,000—to reconstruct the Academy buildings. With this vast sum many imposing buildings have been erected and

more are in course of construction. Barracks for marines and marine officers' quarters have been established adjacent to the Academy, a naval hospital has been built and provision has been made for a proving ground on the Severn, opposite the Academy. The mild climate of Annapolis, rendering outdoor drills and exercises possible for the greater part of the year, the magnificent sheet of water spread out for seamanship and boat drills, proximity to the National Capital, and a healthful, beautiful location, make this an ideal spot for the national naval school. It was removed to Rhode Island during the Civil war, but these natural advantages speedily caused its restoration to Annapolis.

Annapolis is also a delightful place of residence. It is within an hour by rail of both Baltimore and Washington, and there is communication with these cities by electric roads. The resident civilian population, the families of naval officers who reside in and around the Academy and of many retired officers of both army and navy, form a delightful and highly cultivated society. There are also fine schools and colleges, and cheap and abundant markets. The banks of the Severn, near Annapolis, form beautiful sites for country homes. Among the historic features of Annapolis, and which is one of the attractions for residents, is St. John's College. It is one of the oldest schools in the New World. It was founded as King William's School, in 1696, and raised to collegiate rank in 1784. The design was that this college should be to the Western Shore what Washington College, Chestertown, is to the Eastern. This venerable school has graduated a large number of men who have become

distinguished as patriots, statesmen, lawyers and divines.

Upon the State House hill, to the right of the State House, stands a quaint old colonial building of very modest proportions. This is the old Treasury building. It is in the shape of a Greek cross, and is probably the oldest edifice in the State. The venerable college poplar is the single living witness of its building, over 200 years ago. The rooms are low, and the walls of unusual solidity and thickness.

Immediately in front of the entrance to the State House stands the bronze statue of Roger Brooke Taney, Chief Justice of the United States from 1836 to 1864. This is the work of William Henry Rinehart, a Maryland sculptor, and was unveiled on March 17, 1874, the anniversary of Taney's birth.

On the southeast side of the State House stands the statue of Baron de Kalb, also the work of a Maryland sculptor, Ephraim Keyser.

CHAPTER X.

THE GATE TO THE SOUTH.

The city of Baltimore, the metropolis of Maryland and the largest city in the Southern States, lies in $39^{\circ} 17''$ north latitude and $76^{\circ} 37''$ west longitude from Greenwich. It is at the head of navigation on the Patapsco river, 14 miles from the Chesapeake bay, 204 miles by the bay from the Atlantic ocean and 31 miles from the capital of the United States. By the Federal census of 1900 the city had a population of 508,957. Notwithstanding the disaster of the great fire of February, 1904, by which \$70,000,000 of property was destroyed, the population by the beginning of 1906 had increased to nearly 550,000, indicating a population of 600,000 by the census of 1910. It is a great manufacturing city as well as a great commercial city. Including the industries in adjacent suburbs, which belong to the city but are just beyond its limits, the output of its factories is valued at \$200,000,000 a year. This output of one city is nearly as great as the output of the factories of the States of Georgia, Florida and Alabama combined. It is equal to the combined output of the two great States of Virginia and West Virginia; fifty million dollars more than the combined output of the factories of North and South Carolina, and almost double the output of the factories of Texas and twenty millions in excess of the products of Maine and Vermont. The city of Baltimore has \$150,000,000 invested in manu-

facturing, and ranks eighth among the manufacturing cities of the Union. The leading industries of the city are the making of cotton duck, refining copper, clothing, hats, smoking and chewing tobacco, foundry and machine products, tin smithing, sheet-iron working, canning and meat packing. In the manufacture of wearing apparel Baltimore stands third among the cities of the Union.

The commerce of Baltimore is large and is rapidly growing. A great fleet of over 50 steamers and hundreds of sailing vessels land at her wharves, mainly on Light street, the rich products of the tidewater portions of Maryland and Virginia. Lines of bay steamers ply regularly, and on most of them daily, to the Sassafras, the Chester, the Tread Avon, Eastern bay and Miles river, the Choptank, the Wicomico, the Nanticoke, the Pocomoke, the various creeks and rivers on the Eastern Shore of Virginia, to the head of navigation on the Patuxent, the Potomac, the York, the Rappahannock, the Piankatank, to Norfolk and to Newport News. The amount of traffic brought by these vessels is enormous, a single item being thirty or forty thousand hogsheads of Maryland tobacco. Engaged in the foreign trade are the following lines of steamships, with regular sailing days, namely:

Johnston Line, Baltimore to Liverpool.

North German Lloyd, Baltimore to Bremen.

Puritan Line, Baltimore to Antwerp.

Blue Cross Line, Baltimore to Havre.

Neptune Line, Baltimore to Rotterdam.

Lord Line, Baltimore to Belfast and Cardiff.

Empire Line, Baltimore to Leith.

Atlantic Transport Line, Baltimore to London.

Hamburg-American Line, Baltimore to Hamburg.

Donaldson Line, Baltimore to Glasgow.

United Fruit Company Line, Baltimore to Jamaica.

Red Star Line, Baltimore to Antwerp.

Scandinavian-American Line, Baltimore to Copenhagen and Christiana.

United Fruit Company, Baltimore to San Domingo.

Atlantic Fruit Company, Baltimore to Jamaica.

Atlantic Fruit Company, Baltimore to Sama, Cuba.

S. Vicari Company, Baltimore to Sama, Cuba.

Joseph R. Foard Company Line, Baltimore to Colon and Central America.

Lanassa & Goffe Importing and Steamship Company, Baltimore to Jamaica.

In addition to these, there is a constant arrival of tramp steamers, coming for cargoes of grain, steel rails, etc., or bringing ores and other cargoes.

In the coasting trade there is a constant procession of barges and colliers carrying coal, which comes from the Maryland, West Virginia and Pennsylvania mines, to New England and West Indian ports. Regular lines of steamers ply as follows:

Merchants and Miners' Line, to Boston, via Norfolk.

Merchants and Miners' Line, to Providence, via Norfolk.

Merchants and Miners' Line, to Savannah.

Baltimore and Carolina Line, to Georgetown, S. C., and Charleston, S. C.

Ericsson Line, to New York, outside route.

Philadelphia Steamboat Line, via canal, to Philadelphia.

Besides an enormous coastwise trade in cotton, coal, lumber and manufactured articles, the foreign trade of



FARMLAND IN CECIL COUNTY.



FARMLAND, ST. MARY'S COUNTY.

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Baltimore for the year ending June 30, 1907, was \$142,258,808. Of this sum, \$37,774,305 was the value of the imports and \$104,484,503 was the value of the exports. Among the chief exports were the following: Nearly 100,000,000 pounds of manufactured and leaf tobacco; over \$2,000,000 worth of lumber and manufactures of wood; 7,000,000 gallons of mineral oil; 110,000,000 pounds of oil coke; 57,241 barrels of rosin; nearly \$12,000,000 of meat products; 77,000 tons of steel rails; 85,000,000 pounds of cotton; 137,667,734 pounds of copper ingots; nearly 600,000 tons of coal; 5,026,578 bushels of wheat and 8,600,000 bushels of wheat as flour; 19,917,037 bushels of corn and 206,157 barrels of meal; \$4,000,000 of agricultural machinery, and animals worth \$4,000,000.

The principal articles imported were 1,076,000 pounds of tin; 6,168,133 pounds of clover seed; 37,497,715 pounds of rice flour and broken rice; 18,305,000 pounds of salt; 111,546 tons of manganese; 4,979,304 yards of matting; 576,747 tons of iron ore; 200,000 tons of pig iron; 24,008,000 pounds of bar iron; 1,418,000 pounds of lemons; 3,000,000 pounds of oranges; bananas worth \$1,817,573; 12,723,000 pounds of burlaps; 6,462,000 pounds of coffee; 47,000,000 pounds of potash; 4,000,000 chloride of potash.

The clearing house transactions in the year 1907 amounted to \$1,472,911,207. The balances in the banks at the close of the year were nearly \$200,000,000 and there were over 200,000 depositors in the savings banks with deposits of about \$80,000,000.

The banks of the Patapsco afford an unsurpassed location for shipyards and iron-working plants. Already at Sparrows Point, in the suburbs of Baltimore,

is located a splendid plant for building steel vessels, bridge structural steel and steel rails. Vessels land Cuban iron ore at the door of the furnace, and load for their return voyage with rails for South America, Cuba, Japan, India, Australia and other parts of the world. At this works the great dry dock Dewey, which was taken to the Philippine Islands, and the dry dock at Algiers, La., were built for the United States. The fluctuations of the water level in the Patapsco is only 18 inches, and there is bold water on both sides, affording many miles of water front suitable for ship-building or other manufacturing. There is a channel from the Baltimore harbor to the ocean which will admit vessels drawing 30 feet, and this depth will be increased to 35 feet. Money to begin this great work has been appropriated by Congress, and the work is far advanced. In addition to other advantages of location, the climate of Baltimore is peculiarly suitable for manufacturing, and there is abundant labor. The abundance and cheapness of food in the Baltimore markets and low rents for homes affect the price of labor.

At the entrance to Baltimore harbor the Patapsco river divides into the northwest, southwest and middle branches. The northwest branch pierces two and a half miles into the very heart of the business portion of the city, affording miles of water front, within easy reach of the main thoroughfares of the eastern and central sections. The southwest and middle branches envelop the southern and southwestern sections, giving a long expanse of water front, in close proximity to the lines of the Baltimore and Ohio railroad. The main harbor, or that on the northwest branch, is surrounded by the older portions of the city, and contains grain

elevators, steamship piers, railroad terminals, dry dock, floating docks and marine railways. This harbor has a water front measured on the pier head line of six and a half miles, an area of 630 acres, and, while leaving ample fairways for the movement of vessels, furnishes 96 acres of anchorage grounds. The whole of the lower portion of the harbor, covering the elevators and steamship piers, has a depth of over 30 feet at mean low water. The harbor along the southwest and middle branches has, within the city limits, and measured on the pier head line, a water front of five and a half miles, and nearly as much more on the opposite banks, in the county. It covers an area of 1,300 acres. The total water front within the city limits, if fully improved, would furnish at least 50 miles of wharf room, allowing docks of 150 feet in width. In addition to these commercial facilities within the city, there are nearly 10 miles of water front on the Patapsco, below the city, with railroads in operation near it, on both sides of the river.

After the fire of February, 1904, the city issued a loan of \$10,000,000 to acquire all the wharf property on the north side of the harbor south of Pratt street, and for other improvements, including the widening of Pratt and Light streets. The dock improvements will greatly increase the capacity of the inner harbor. Docks are being constructed which will be owned by the city and leased to the various steamboat and steamship companies, and it is estimated that the annual rentals will pay the interest on the dock loan and provide a sinking fund. Of these docks three have been completed and rented at satisfactory rentals and have been improved by the lessors.

The following gives the areas and measurements of the new piers and docks:

Total area of piers, 1,026,882 square feet, or 23½ acres of pier space.

Total length of new water front, 12,523 lineal feet.

Number of piers, six.

Width of waterway between piers, 150 feet.

Pier 1—Total area, 78,445 square feet; total width, 150 feet; total length, 550 feet.

Pier 2—Total area, 126,788 square feet; total width, 200 feet; total length, 635 feet.

Pier 3—Total area, 152,881 square feet; total width, 200 feet; total length, 770 feet.

Pier 4—Total area, 193,599 square feet; area of streets, 68,225 square feet; area of power houses of the United Railways and Electric Company, 69,088 square feet; width of pier, 210 feet; length of pier, 925 feet.

Pier 5—Total area, 271,329 square feet; total width, 205 feet; total length, 1,200 feet.

Pier 6—Total area, 202,840 square feet; average width, 150 feet; length, 1,450 feet.

The piers will be located as follows:

Pier 1, near the foot of South street.

Pier 2, foot of Commerce street.

Pier 3, foot of Gay street.

Pier 4, foot of Frederick street.

Pier 5, in the rear of Center Market space.

Pier 6, along Jones' Falls.

Pier 4 will be the public pier. The others are to be leased out by the Board of Estimates.

There are, strictly speaking, no port charges at Baltimore, except clearance, register and license fees,

paid to the Federal government through the Collector of the Port. These are the same at all ports of entry in the United States. What are ordinarily classed as port charges—that is, cost of wharfage, stevedoring, tonnage, etc.—fluctuate from time to time, but always within reasonable limits. There is, however, no charge for wharfage at elevators when grain is taken on, and it is generally conceded that all incidental expenses of this kind are lower in Baltimore than at any other Atlantic port.

The advantages of inland location have been emphasized and developed for Baltimore by the construction of direct lines of railroads, placing the city in proximity, nearer by many miles than Northern and Eastern rivals, to the great productive sections of the country. By the shortest rail line, Baltimore is thus 96 miles nearer points in the South than Philadelphia, 180 nearer than New York and 413 nearer than Boston. With respect to Cincinnati, its advantages over these cities are, respectively, 74,164 and 332 miles, and in regard to other Western points they are even more decided. The railroad facilities of Baltimore include six distinct standard-gauge railroads. The vantage ground upon which they place the commercial interests of the city have been vividly described, as follows:

“Baltimore stands with her face to the south, and with one hand prepared to gather the products of nearly half of the United States and to send them forward to other nations, and in return with the left hand to bestow the peculiar products of the soil of Maryland and her sister States upon those States whose climate will not allow the growth of such

luxuries. One iron finger runs almost due north, through the rich farming lands of central Pennsylvania and southwestern New York, until it touches the great lakes, with their ships loaded with grain. Another stretches out into manufacturing Pittsburg, 328 miles distant, the coal, coke, lumber, iron and other mineral lands of southwestern Pennsylvania, western Maryland, West Virginia and Ohio, and away to Chicago, 830 miles, the central point for the grain, hay, cattle and other farm products of the great Northwest, and the flour of St. Paul and Minneapolis, 1,296 miles from the seaboard. The third finger beckons to the stock-raisers of Kentucky and Tennessee, the active men of St. Louis, 931 miles to the west, and of Kansas City, 1,213 miles away, and bids them to turn towards Baltimore the rapidly increasing shipments of cattle and cereals from the empire of the Southwest. The index finger very appropriately follows the lines of the Appalachian system of mountains, which, ranging from the southwest to the northeast, give an outlet to Baltimore by the natural rift at Harper's Ferry, whose immense water power, gradually being utilized, must bear tribute to this city. Down through the beautiful, fertile and well-watered Shenandoah valley of Virginia the finger points, gathering in the profits from the farm lands of the valley proper, the wood and minerals of the mountain slopes, the coal and iron of the southwestern Virginia and southern West Virginia hills with the cattle of their plains, piercing the pine and hardwood regions of western North Carolina and South Carolina, east Kentucky and Tennessee, and finally touching the flourishing manufacturing and industrial centers of the

new South—Birmingham, Anniston, Ensley and other towns and cities of Alabama, which have grown with the development of its natural resources. The broad thumb covers a fertile section embracing Richmond, Norfolk, Atlanta, Savannah and Charleston, and some of the finest trucking country on the Atlantic slope, extending from Norfolk to Florida.”

THE BALTIMORE FIRE, FEBRUARY, 1904.

The Baltimore fire of February, 1904, may very properly be ranked among the great conflagrations of modern times. The fire originated in the dry goods warehouse of the John E. Hurst Company, at the corner of German and Sharp streets, between 10 and 11 o'clock on Sunday morning, February 7.

Occurring on Sunday, there were few or no employes of the various industrial establishments on duty, and the fire is remarkable therefore for the absence of any casualties. Not a life was lost. But few homes were broken up. A few families residing in the burnt district were rendered homeless, but no destitution followed the fire. Generous offers of pecuniary assistance were made from various cities, but they were not accepted. The Legislature of Maryland granted a relief fund of \$250,000, but less than \$24,000.00 of it was used. About 30,000 wage-earners were temporarily thrown out of employment, but in most cases for a few days only, and the work of clearing away the ruins and rebuilding speedily furnished employment for many thousands of men.

In the banking and financial centers of the fire-swept area the greatest anxiety prevailed for several days in regard to the safety of the securities and books in the

vaults of these institutions. Time-locks prevented the opening of the vault doors on Sunday night, and the next morning when the bank buildings were in ruins it was known that in 10 of the national banks and in one other there were values of \$53,000,000, including loans and discounts, securities, clearing house exchanges and cash. These banks represented about \$50,000,000 of deposits. In addition to this, the Savings Bank of Baltimore, at the corner of Gay and Second streets, had in its vaults in jeopardy about \$25,000,000; the Hopkins Savings Bank, \$6,000,000, and others equally large sums. But the vaults stood the fire test for which, in part, they were designed.

The following are some statistics of the fire:

Area of Burnt District—Extreme length east and west, 3,800 feet.

Extreme length north and south, 2,900 feet.

Acres burned over, 139.90.

Blocks or squares destroyed, 73, with 25 isolated sections around the water front not classed as squares. Total, 98.

Number of buildings, 1,343.

The best general estimates place the total value of property of all kinds destroyed at \$125,000,000. The amount of insurance was \$50,000,000, of which \$32,000,000 was paid.

Twenty banks and trusts companies were burned out in addition to private banking houses.

Stores, warehouses, business firms, companies, manufacturers and individuals burned out aggregated more than 2,500.

The Johns Hopkins Hospital was one of the greatest losers of buildings, including valuable warehouses,

stores and other structures. About 68 buildings belonging to the hospital were burned.

The value of this property aggregated about \$1,300,000 and the net loss to the great institution about \$500,000, which was made good by Mr. John D. Rockefeller, of New York.

The work of restoration after the fire went on with marvelous vigor. The city appropriated near \$10,000,000 for improving the docks and widening various streets. The first work, after the adjustment of insurance, was to remove the debris of the fire. This was an enormous work and it was speedily accomplished by the means of the splendid system which was adopted. Railroad tracks were laid down in the streets and freight cars brought up to platforms erected at convenient places onto which the carts loaded with broken bricks, mortar and other debris, were driven and the loads dumped into the cars and hauled beyond the city. Many improvements were made. Telegraph poles were removed from the streets, the best kind of sidewalks required, stricter building regulations enforced and many streets were widened. The new buildings erected in the burnt district are uniformly far superior to those which were destroyed, and after the fire a new city seemed to grow up rapidly until now there are few vacant lots. Within ten months after the fire the debris had been taken away and 377 buildings, occupying lots upon which 505 buildings had stood before the fire, were completed or nearly completed. One of the finest improvements which followed the fire, next to the new docks, was the widening of Light and Pratt streets along the water front, giving ample space for handling the great bay trade which is landed upon those wharves.

CHAPTER XI.

THE COUNTIES.

ALLEGANY COUNTY.

Allegheny county, lying between Garrett and Washington counties, with the Potomac river separating it from West Virginia on the south, and Pennsylvania bounding it on the north, was first settled about 1760. Skipton, now called Oldtown, probably was the first settlement. It is next to the westernmost county of the State. It was formed from Washington county by Act of Assembly in 1789. The county has an area of 520 square miles, with numerous mountain streams running through it. The population of Allegheny in 1900 was 53,694, and the tax rate in 1908 was \$1.03 on the hundred. Cumberland is the county seat. Frostburg, Lonaconing, Westernport and Midland are incorporated towns.

The county is mountainous, with a stretch of broad bottom land from Cumberland to Keyser, W. Va., along the Potomac river, about twenty-five miles in length. There are also fertile bottom lands along Evitts, Flintstone, Town and Fifteen Mile creeks, in the northeastern sections of the country. There are many small farms in the short valleys and on the plateaus, and three mountain streams and many rivulets furnish water in abundance. The Potomac river is the southern boundary for seventy-five miles, and from Cumberland eastward runs the Chesapeake and Ohio canal.

Allegheny contains largely the mineral wealth of Maryland. There is the great deposit of bituminous

coal, fire clay, cement rock, iron ore, sandstone, limestone, etc., while the land which is devoted to agriculture readily yields corn, wheat, rye, buckwheat, oats and grasses. There are 881 farms in the county, with an acreage of 160,348.

Coal mining is the greatest industry in Allegany county, but on Dan's mountain are fossil ore and hematite, and also traces of silver are found in the eastern part of the county. The sandstone in this region is suitable for the manufacture of glass, which article was manufactured here as early as 1816. In addition to these minerals, there are also excellent qualities of fire clay, iron ore and shale for building bricks to be found.

Six railroads cross the county, namely: the Baltimore & Ohio main line, the Pennsylvania Railroad in Maryland, Cumberland & Pennsylvania, the George's Creek & Cumberland, West Virginia Central & Pittsburg, the latter now a portion of the Western Maryland system which is controlled by the Wabash; the Western Maryland which extends from Cumberland to the Baltimore harbor.

An electric railway overhead trolley extends from Cumberland to Westernport, traversing George's Creek Valley. The C. & O. canal traverses the county 50 miles from Cumberland eastward.

In 1905 the United States Government took a census of manufactures of all establishments producing upwards of \$500 worth of products each year, with the following results for this county:

Number of establishments, 125.

Total capital invested, \$9,611,532.

Cost of materials used, \$4,394,921.

Value of product, \$7,442,192.

In the county there are 112 white public schools.

Cumberland is the second largest city in the State, being a most thriving industrial center, with a constantly increasing jobbing trade. Its population in 1900 was 17,128.

Glass, fire clay brick, steel rails and tin plate, building brick, silk, furniture and leather are the principal products and manufactures in the county. Incidentally in the clay measures of the region there are eight veins of pure fire clay, and works for developing this clay are in operation at Frostburg, Mt. Savage and Ellerslie. The lower, or smaller veins of coal are also being extensively developed.

An extensive silk mill has been erected at Mt. Savage, the repair shops of the Cumberland & Pennsylvania are located here, also the Union Mining Company's Fire Clay Brick Works and the Mt. Savage Enameled Brick Works.

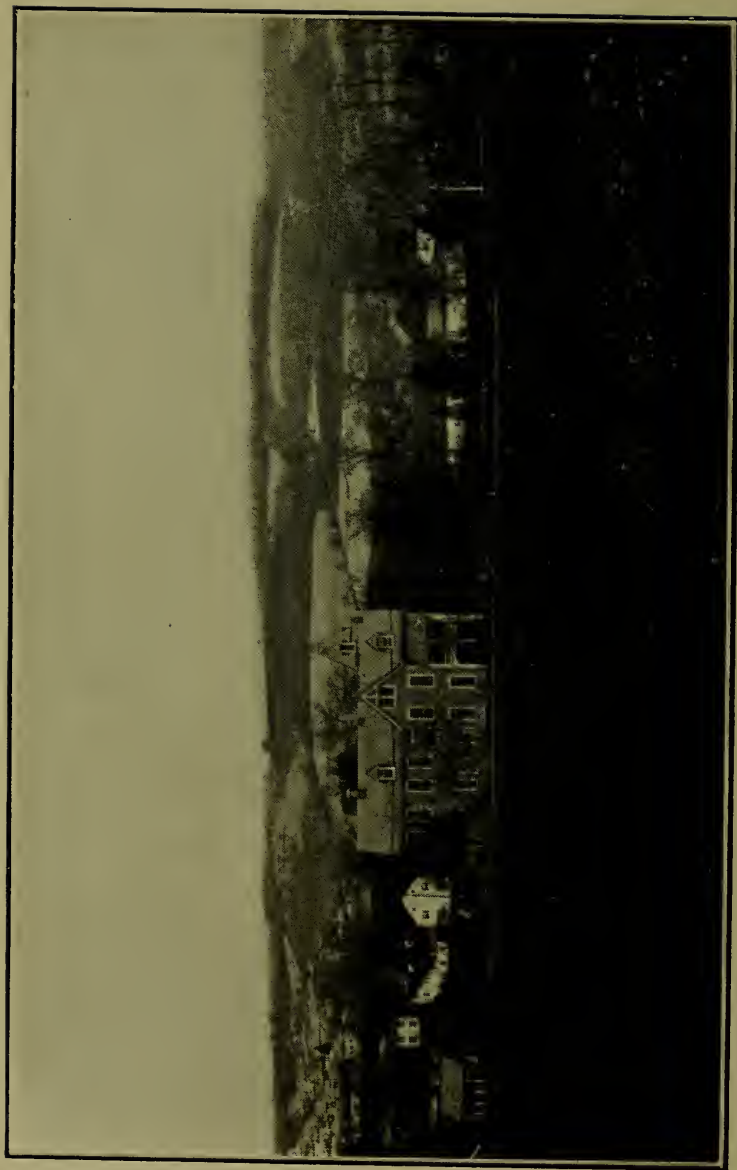
The principal industries of the county are flour mills, steel cars and machinery, stone, brick and building material, lumber and wood working, railroad repair shops, breweries, distilleries and ice factories, tin plate and steel mills, steel rails, cement, tanneries, furniture, carpet weaving, carriages and wagons, canal boats building, foundries and machine shops, lamps and reflectors, mattresses and beds, paper and wood pulp, pottery, terra cotta and fire clay products, dyeing and tobacco manufactures.

ANNE ARUNDEL COUNTY.

Anne Arundel County, named for Lady Anne Arundel, whom Cecil Calvert married, was erected in 1650, and has an area of about 360 square miles, one-sixth of which is water surface. The county was first



CARROLL COUNTY FARM.



B. F. SHRIVER'S RESIDENCE, UNION MILLS, CARROLL COUNTY, MD.

settled in 1649, two miles from the present site of Annapolis, by a band of Puritans from Virginia.

The county contains the State Capital, Annapolis, in which is located St. John's College, and the United States Naval Academy.

The county fronts eastward on the Chesapeake bay, and within its territory are five rivers, the Severn, one of the most beautiful sheets of water of its size in the country, the Magothy, South, Rhode and West rivers. On the north and northeast is the Patapsco, and Howard county lies on the northwest; the Patuxent river separates the county from Prince George's on the west. Calvert county is on the south. The surface of the county is rolling, and in parts of it level. It is well watered and wooded.

There are 113 white and 39 colored schools in the county.

Annapolis, the State Capital, is the only incorporated town in the county, but there are others growing in size and importance, such as Brooklyn, South Baltimore, Galloways, Friendship, Eastport, German-town and Camp Parole.

Annapolis was made the capital in 1694. In 1696, King William's school was founded in the town, one of the first in the State. In the State House at Annapolis some of the most important events of Revolutionary days took place.

The United States Naval Academy, occupying the Government Reservation adjoining the city, is a place of great interest to visitors all over the country.

The population of Annapolis is 8,525. It was named for Queen Anne.

The new Court of Appeals building, the new annex to the State House, Postoffice and Naval Academy

buildings, recently erected, have greatly added to the beauty and progressive spirit of the town.

It is estimated that there are 4,500 farms in Anne Arundel county, and the population of the county is a little over 40,000.

Tobacco, corn, wheat, fruit and vegetables are the natural products of the farm in this county. The production of strawberries being no less than 8,000,000 quarts, more than in almost any other county in the United States. The soil is sandy loam, easy to cultivate, easy to enrich and admirably adapted to the growth of peaches and all kinds of fruit and vegetables. Some of the earliest and finest berries and fruits find their way to the markets from here. The canning and packing of fruits and vegetables in connection with this industry is large and growing.

Considerable numbers of oysters and fish are taken from the waters of Anne Arundel, and for the year ending May, 1904, it is reported that 43,500 bushels of oysters were packed or shipped. It is estimated that 150,000 bushels more were caught in Anne Arundel waters and sold in Baltimore city.

About 2,000 persons are employed in taking and canning or packing of oysters and fish, and find a good living in this industry. There is a large area of bay and river bottoms which may be leased from the State for oyster culture.

In addition to the Tolchester Steamboat Company, the Annapolis, West and South River lines of boats, the county is reached by the Annapolis, Washington & Baltimore Electric Railroad, from Annapolis to Washington and Baltimore; and the Annapolis & Baltimore Short Line, electric road from Annapolis to Balti-

more, thus offering ample facilities for reaching the market with the products and manufactures of the county.

While the manufactures of Anne Arundel are not numerous, and are comprised in the following list, yet some of the largest manufacturing concerns of the State are located in South Baltimore, Anne Arundel county, which is a manufacturing center.

The census of manufactures for 1905, made by the United States Census Bureau, shows:

Number of establishments, 44.

Total capital invested, \$2,085,367.

Cost of materials used, \$1,607,607.

Value of product \$2,391,875.

BALTIMORE COUNTY.

Baltimore county is the wealthiest and most populous in Maryland. Its area is 622 square miles, and its population in 1900 was 90,755. Its industries are as diversified as are its scenery and soil. As an agricultural county it ranks among the first in the State, and in its territory there are many large and flourishing factories. It surrounds the city of Baltimore, and on all sides the city has extended beyond its boundaries into the county. To the east of the city there is a large gardening and trucking region in the low lying lands along the tidewater. To the south and southeast there are the great industries of Canton and Sparrows Point, north and west is a beautiful residential country, improved by flourishing villages and beautiful suburban homes. The product of the farms, gardens and dairies of Baltimore county is over \$6,000-

000 a year. Farm land sells all the way from \$10 to \$150 per acre and upward. Back from the water front the county is elevated, well wooded and watered, and the landscape superb. The farms are improved with good buildings and fencing. The soils are largely heavy red and yellow loams and clay, and very fertile and well adapted to all the cereals and grass. The proximity to Baltimore and its markets, and the easy access by rail or water makes property in Baltimore county exceedingly valuable. The tax rate is always low, being 75 cents in 1908.

Towson is the seat of government and is the terminus of the electric car line running from Baltimore city, from which it is only seven miles. It has a population of about 2,700.

Among the principal places of interest in the county are the suburban residential sections of Catonsville, Lutherville, Glyndon, Reisterstown, Mt. Washington, and Roland Park, while the principal manufacturing points are Highlandtown, Sparrows Point, Cockeysville, Warren, etc

There are many varieties of soils in Baltimore county, from the hard granite soil to the rich loam of the valleys, adaptable to the production of all kinds of grain, fruits and vegetables. The surface of the county is elevated and rolling, watered by a large number of rivers and streams, principal among which are the Patapsco, Gunpowder and Gwynn's Falls, in many places offering fine water power for manufacturing purposes. Those sections adjacent to the water contain many productive truck farms. In recent years, a number of stock farms, raising fine cattle and horses, have been established.

Much attention has been paid to dairy farming, and according to the census of 1900, upwards of \$1,200,000 worth of dairy foods were produced by 3,641 farms. About 25,000 gallons of milk are shipped daily from the county into the city, over the Northern Central, Western Maryland, Baltimore & Ohio, and Maryland & Pennsylvania railroad.

The total number of farms in Baltimore county, according to the latest reports, is 4,496, of which 4,422 have buildings on them. The total acreage of the farms is 340,206, of which 244,806 are improved. The value of the land improvements, except buildings, is \$23,190,670. The value of the buildings is \$9,295,710; implements, \$1,235,380; live stock, \$2,259,295.

Baltimore county is rich in minerals. A fine deposit of green marble is being developed at White Hall, and limestone is found in large quantities in many sections of the county, as well as excellent clay. The famous Woodstock granite, Beaver Dam marble and crystalline marbles found elsewhere in the county have brought both reputation and wealth for many years.

The Congressional Library, the Washington Post-office, the Washington Monuments in Baltimore and Washington, and many other notable buildings throughout the country have been built with this granite and marble, the companies working these quarries being capitalized at upwards of \$200,000, employing 250 hands and paying out an annual wage of about \$125,000.

The transportation facilities of the county are excellent, it being traversed by the Baltimore & Ohio, Philadelphia, Baltimore & Washington, Northern Central, Western Maryland, and Maryland & Pennsylvania

railroads, while all of the suburban towns are in close connection with Baltimore city by a net work of electric railways, which have given a tremendous impetus to suburban development.

There are many educational institutions in the county, such as the Hannah More Academy for Girls at Reisterstown, McDonogh School for orphan boys, Notre Dame of Maryland, Mt. St. Agnes at Mt. Washington, and a number of private schools scattered throughout the county. There are 149 school houses owned by the county and 41 are rented for 190 white and 34 colored schools. The disbursements for school purposes are about \$325,000 a year.

There are many fishing shores and pleasure resorts along the shores of the Chesapeake bay and the numerous rivers traversing the county, where fish, ducks and birds are found in great quantities. The Gunpowder river and Patapsco river and Gwynn's and Jones' Falls furnish excellent water power sites for cotton and woolen factories, paper and flour mills, furnaces and foundries.

The recent census of manufactures gives the county credit for the following manufacturing establishments, producing upwards of \$500 per annum.

Number of establishments, 139.

Total capital invested, \$19,680,120.

Cost of materials used, \$44,504,463.

Value of products, \$52,705,032.

CARROLL COUNTY.

Carroll has a population of 33,860, mostly of German, Scotch-Irish and English descent.

The area of Carroll is 426 square miles, and the number of farms is 3,352. It is located in Middle Northern Maryland, adjoining Pennsylvania on the north, with Baltimore county on the east, Frederick on the west and Howard on the south. It is a fine agricultural and grazing county, the principal farm crops being wheat, corn, rye, potatoes and hay. Fruits of all kinds do well, and dairy farming and cattle fattening are important industries. Much pork is also raised. Carroll is adapted to all sorts of crops, and the numerous towns furnish ready markets for butter, eggs, vegetables and fruits.

The county lies high and is healthy. The land is rolling and is well watered by numerous streams, which also furnish excellent water power for mills and manufactories. Good land ranges in value from \$25 to \$100 per acre and ordinary from \$10 to \$20. Farm labor is from \$10 to \$15 per month, with board.

There is a variety of soils. In some districts the red lands are found; in others, limestone, slate and flint. The upper part of the county is more hilly than the lower and is more highly improved. The lower part has much highly improved land also, and all of it susceptible of high cultivation.

Iron ore, marble, soapstone, brown stone, blue and gray limestone are found in the county and there is much fine timber of all varieties, principally oak, hickory, chestnut and locust.

Westminster, the county seat, had in 1900 a population of 3,496. The other incorporated towns are

Taneytown, population, 665; Union Bridge, 663; New Windsor, 430; Manchester, 609; Hampstead, 480; Mt. Airy, 532. The unincorporated villages, ranging in population from 75 to 300, are Sykesville, Uniontown, Union Mills, Silver Run, Frizzellburg, Patapsco, Gamber, Finksburg, Harney, Melrose, Warfieldsburg and Greenmount.

The railroad facilities of Carroll are good. The Western Maryland Railroad crosses the center of the county from east to west; the Baltimore & Ohio crosses the extreme lower part of the county; the Baltimore & Hanover branch of the Western Maryland runs along the eastern border, and the Frederick branch of the Pennsylvania Railroad runs along the western border, while the Bachman Valley Railroad extends into Carroll about five miles to the Chestnut Hill iron ore mines, which furnishes the most of its traffic. Surveys have been made for the Washington, Westminster & Gettysburg Railroad, from Washington, via Westminster, to Gettysburg, and it will cross the center of the county, from north to south.

Churches are numerous. All the leading denominations are represented—Episcopal, Roman Catholic, Lutheran, Reformed, Methodist Protestant, Methodist Episcopal, Presbyterian, German Baptists, United Brethren and Church of God.

Carroll county has fine educational facilities, ranging from the primary school of the strictly rural district to Western Maryland College, where the county has 26 pupils in addition to the two State pupils. The Westminster High School is at the head of the public school system. In addition, there is a manual training school in Westminster, and there

are graded schools at Manchester, Hampstead and Union Bridge; at New Windsor is New Windsor College, the successor of Calvert College; Maryland Collegiate Institute, at Union Bridge; the Westminster Theological Seminary at Westminster, and 180 public schools.

There are three national banks, a savings bank and a trust company bank in Westminster, a national bank in New Windsor, and two State banks in Taneytown, one each in Uniontown, Union Bridge, Manchester, Hampstead, Union Mills, and Sykesville, besides a private bank in Westminster and one in Mount Airy. The combined capital of the banks is \$583,000; surplus and undivided profits, about \$400,000; deposits, about \$3,000,000.

There are many manufactures in Carroll, and those producing upward of \$500 worth of product per annum are reported as follows in the census of 1905:

Number of establishments, 123.

Capital invested, \$1,539,653.

Cost of materials used, \$1,613,707.

Value of product, \$2,322,869.

The capital invested in canning plants is probably \$225,000, and the output is about \$257,000. The canning season is short, and about 1,000 persons are employed in the busy season. About \$145,000 are paid in salaries and wages.

The leading industries are a woolen mill, flouring mills, tanneries, railroad shops, butter and ice cream factories, fertilizer factories, harness and shirt factories, lime kilns, quarries and a great variety of small industries.

CECIL COUNTY.

The boundaries of Cecil county are Pennsylvania (Mason & Dixon Line) on the north, Delaware on the east, the Susquehanna on the west and the Sassafras river, separating it from Kent on the south. The area is 375 square miles. The population in 1900 was 24,662. Its tax rate in 1908 was \$1.05.

Cecil is among the smaller counties in the point of area, and has a large water surface, the Elk, North East, Bohemia and their tributaries, with other smaller streams, traversing the county. The surface is rolling, becoming quite hilly toward the north and east. There is abundant water power on the numerous streams, much of which is utilized for mills.

The schools are exceptionally abundant and fine, and every facility for education is freely offered. In addition to the 99 white and 16 colored common schools in Cecil there is West Nottingham Academy, near Colora, which was opened in 1741. The Jacob Tome Institute, at Port Deposit, is one of the best and most richly endowed secondary schools in the country. The county has established high schools at Elkton, North East, Chesapeake City and Cecilton. The Cecil County High School at Elkton is an elegant brick structure standing on spacious grounds, and there is a new high school building on a fine and roomy site at North East. The Elkton High School has a department of manual training. Elkton is the county seat.

Cecil has in general a good soil, fitted for farming, trucking and fruit growing. There is a fair supply of timber, fine water power, navigable rivers and extensive shad and herring fisheries.

The Philadelphia, Washington & Baltimore, the Baltimore & Philadelphia, the Baltimore & Ohio, the Philadelphia & Baltimore Central, and the Columbia & Port Deposit railroads traverse the county, giving it ample railroad facilities; while the Susquehanna, Elk, Bohemia, Sassafras and North East rivers and the Chesapeake & Delaware Canal afford water transportation.

In 1900 the county contained 1,633 farms, with a reported acreage of 200,629 acres. The soil varies from yellow clay to disintegrated rock, and is generally fertile. Much phosphate, lime and manure is used. The main products are corn, wheat, hay, tomatoes, potatoes and buckwheat. Cecil county timothy is famed throughout the country, is graded highest and is largely grown in the upper districts. The shipments of dairy and creamery products to nearby cities reach upwards of \$275,000 per annum. Farm lands sell from \$10 to \$60 per acre.

The Port Deposit quarries yield granite, unsurpassed for building purposes. Among the leading industries of the county are those quarries, pulp and paper mills, strawboard, iron works, stoves, ship yards, flour mills, saw mills, creameries and canneries.

The census of manufactures gives the following figures for 1905:

Number of establishments, 71.

Capital invested, \$2,626,331.

Cost of materials used, \$1,953,700.

Value of products, \$2,753,578.

There are two banks at Elkton, two at Port Deposit, the National Bank of Rising Sun, the National Bank of North East, and the National Bank of Chesapeake City.

CALVERT COUNTY.

Calvert county is one of the oldest in the State. There has been little immigration into it, and many of the names of the families are the same as those who settled here over 200 years ago. The county was first settled in 1654 and contains an area of 222 square miles. It is the smallest county in the State. Its eastern line is washed by the Chesapeake bay, and its southern and western sides by the Patuxent river.

The county seat is Prince Frederick. Chesapeake Beach and Solomon's are incorporated towns. Other towns are Barstow, Broome's Island, Dunkirk and Lower Marlboro.

There are 47 white and 18 colored schools in the county. The county tax rate for 1908 was \$1.00.

The soil is productive and divided between sandy and clay loam, and, with a mild climate, is responsive to cultivation.

Tobacco and cereals are the chief crops. Fruits and vegetables, which are grown quite plentifully, mature early. Timber is plentiful, and silica is found in extensive deposits.

Tobacco has for two hundred years been the principal product of Calvert county. Corn, wheat and fruits are also raised in liberal quantities. In late years, live stock and poultry raising have become a part of the farmer's occupation. The number of farms in the county reaches about 800. Land sells for \$5 to \$35 per acre.

The Chesapeake Beach Railroad, which runs to Washington, crosses the northern part of the county. Lines of steamboats touch along the shores of the Patuxent river and on the bayside. No farm is distant

from a steamboat landing. Drum Point, at the mouth of the Patuxent, is one of the finest harbors in the United States.

In the Patuxent river and along the bay shore Calvert has splendid oyster grounds which, it is expected, will be made productive by the oyster planting law of 1906. It is believed that the oyster industry to be established under this law will make Calvert a rich county, and all of its real estate far more valuable than at present. What is mostly needed is an influx of white laborers and settlers, who will utilize the natural advantages of the county and develop its industries.

The census of manufactures for 1905 shows an annual product of only \$37,000. The chief industry is ship building at Solomon's Island. The soil of Calvert is peculiarly adapted to the production of melons, vegetables and fruit. It is believed that a thriving industry in the cultivation of these things could be started.

CHARLES COUNTY.

Charles county forms the southwestern portion of the western shore of the State, and is bounded on the west and partly on the south by the Potomac river, on the east, in part, by the Wicomico and the Patuxent rivers. Its area is 460 square miles, and it has most important resources in oysters, fish and water fowl.

It is traversed by the Wicomico river, Nanjemoy, Port Tobacco and Mattawoman creeks.

The population of Charles county is 18,316, according to the last census, and the total value of lands is estimated at \$2,775,240, and the improvements at \$1,216,610. Land sells at from \$3 to \$25 per acre.

The only incorporated town in Charles county is La Plata, the county seat.

The Government Naval Proving Ground and Powder Factory, at Indian Head, furnish employment for about 350 laborers and mechanics and twenty clerks, and necessitates an annual expenditure by the Government in this county of upwards of \$140,000.

There are 77 white and 30 colored schools in the county.

The soil is loam, highly productive under cultivation, the land being mostly favorable to farming, and generally level in the center of the county, while on either side there are small hills and valleys. In some sections of the county marl is found.

There are 1,900 farms, with an acreage of 263,255 acres in the county, and the important agricultural productions are tobacco, corn, wheat, oats, rye and fruits.

The scarcity of farm labor, the sparse settlement, and the susceptibility of the land to intensive cultivation make Charles a desirable county for immigrants to settle in.

In addition to water transportation facilities the middle section of the county is traversed by the Pope's Creek branch of the Philadelphia, Baltimore & Washington Railroad, while the eastern section is traversed by a short line railroad under the management of the Washington and Point Lookout Company.

The oyster and fish industries of Charles county furnish occupation for about one-tenth of the laboring people. Large quantities of fish and oysters are annually shipped from the waters of the Potomac,

Wicomico and Patuxent rivers, there being nearly 200 vessels and boats engaged in this industry, with upwards of 450 people employed therein.

CAROLINE COUNTY.

Caroline county is bounded on the east by Delaware, the north and west by Talbot and Queen Anne's counties, and by Dorchester on the south. Its area is 320 square miles, and it has a population of about 17,000. Several navigable streams flow through it, including the Choptank, the Nanticoke and the Tuckahoe. The surface of the land is level, the climate mild, healthful and equable. The soil is sandy or light clay loam, easy to improve and easy to cultivate. The price of farming lands ranges from \$7 to \$80 per acre. There are 1,863 farms, and the property of the county is assessed for taxation at a little more than five million dollars. The principal crops are wheat, corn, tomatoes, peaches, berries and various fruits. Over 7,000 acres were in tomatoes in 1905. The largest manufacturing industry is the basket and fruit package factory at Ridgely.

The census of manufactures for 1905, excluding the smaller establishments producing less than \$500 worth per annum, shows:

Number of establishments, 129.

Capital invested, \$851,733.

Cost of materials used, \$1,038,485.

Value of product, \$1,545,307.

There are in the county about 50 canneries, the annual output of which is valued at nearly \$900,000.

Schools and churches are of easy access to every farm. There are 74 schools for white and 20 for col-

ored children, including a high school, manual training school and several private schools.

There are six banks in the county.

The county seat is Denton, on the Choptank river. It has a population of about 1,000.

Steamboats ply between Denton and Baltimore, and it lies upon the Maryland, Delaware & Virginia Railroad, which gives access to Baltimore in about three hours, via steamer from Love Point.

Transportation facilities are ample and the markets of Baltimore, Washington, Wilmington and Philadelphia are of cheap and easy access. No less than three railroads cross the county, namely, the Delaware & Chesapeake, a branch of the Pennsylvania system running from Seaford, Delaware, to Oxford, the Maryland, Virginia and Delaware road running from Love Point on the Chesapeake to Rehoboth on the Atlantic, and the Baltimore, Chesapeake & Atlantic.

The principal towns in Caroline are Denton, Greensborough, Marydel, Goldsborough, Ridgely, Hillsborough, Burrsville, Preston, Federalsburg, Choptank, Bethlehem.

DORCHESTER COUNTY.

Dorchester county, on the Eastern Shore, is the fourth county in size in the State, having an area of 618 square miles. Its population is 30,800. There are 133 white public schools and 41 colored schools.

The surface of the county is slightly undulating, with but little elevation, the highest point in the county being but thirty feet above the sea level. That part bordering on the Chesapeake bay and the inland rivers and creeks is very low and much of it is marshy.

Small rivers and creeks penetrate far into the interior of the county. Agriculture and oystering are the principal business of the people. There are many square miles of river and bay bottoms covered with oysters or suitable for oyster culture.

The soil is heavy in some portions and light in others, the county being well adapted to the raising of small fruits, berries, tomatoes, etc.

The number of farms in the county is 2,074, the principal products of which are cereals, hay, vegetables, fruits and melons. The estimated value of these products amounted during the year of 1905 to about \$1,950,000. The number of hands employed on the farms is 5,250, classing the tenants as employes. Farm lands sell from \$5 to \$30 per acre.

The incorporated towns in this county are Cambridge, East New Market, Hurlock and Secretary.

The transportation facilities through Dorchester county for reaching the markets of the East, as well as Baltimore, are excellent and include the Cambridge & Seaford branch of the P., B. & W. Railroad, B., C. & A. Railway, Eastern Shore Transportation Company, and other packet vessels, with ample freight and passenger facilities.

The United States Census gives the manufactures of Dorchester in 1905 as follows, not including the smaller establishments and repair shops:

Number of establishments, 89.

Capital invested, \$905,370.

Cost of materials used, \$879,252.

Value of products, \$1,372,371.

Oyster taking, marketing and shipping enters largely into the daily life of the people in this county,

and makes one of its most important industries. The number of persons engaged in catching, marketing, shucking and planting of oysters is 4,910, including 805 men engaged in shucking.

The total oyster pack for the season of 1906 was about 415,000 bushels, the value of which was about 60 cents per bushel, or \$250,000.

A conservative estimate of the number of barrels of different kinds of fish shipped annually from this county puts it at 1,500 barrels, at a value of \$12 per barrel, which makes a total of \$18,000.

The business of catching, shipping and packing of crabs has been revived in Dorchester, and at least 1,500 men and children find employment during the season. Each individual crabber ships his own "catch," as a rule, although there are scores of buyers who cater to local markets.

The number of cases of tomatoes, each containing two dozen cans, packed in this county during the season of 1905 was 125,000.

FREDERICK COUNTY.

Frederick is next to the largest of the counties of Maryland. In population and wealth it ranks next to Baltimore county. In the fertility and productiveness of its lands it ranks among the first in the Union, and especially in the production of wheat. The area of this great county is 633 square miles and its population in 1900 was 51,920. The great body of the people are of German, English and Scotch-Irish descent, the progeny mostly of the early settlers. The land is mostly of fine limestone quality, and the greater part of the county is a valley of rolling lands lying between the Linganore hills and the Catoctin moun-

tain. This splendid valley is drained by the Monocacy river, and is one of the best farmed and most highly improved and productive areas of the Union. The great crops are wheat and corn. Between the Catoctin and South mountain lies the valley of Middletown, famous for its beauty of landscape, as well as for its fertility and splendid improvements.

Churches of all denominations are abundant and every facility for education is provided. There are 185 white and 28 colored public schools. In Frederick city there is the County High School, the Woman's College, several Catholic schools, the State School for the Deaf and Dumb, a magnificent institution; County Asylum and two hospitals. The population of Frederick City is about 10,000. It is a wealthy city, containing five national banks, having on deposit about \$4,000,000. The county is well provided with transportation facilities. Across the entire county, in the northern part, runs the Western Maryland Railroad, leading eastward to Baltimore and westward to Cumberland and into Pennsylvania. From the main line of the Western Maryland extends a branch giving access to the thriving town of Emmitsburg, the seat of Mount St. Mary's College and of a Catholic school for girls. Extending across the county, in the southern portion, is the main line of the Baltimore and Ohio, from which a branch three miles long leads into Frederick city. The Metropolitan branch of the Baltimore and Ohio, leading direct from Washington, enters the southwestern corner of the county and brings Frederick city within easy access of that town. The Pennsylvania road has a branch leading from York to Frederick city, giving

the latter place access to its great system. For about 15 miles the Chesapeake and Ohio canal lies in Frederick county. Westward from Frederick city an electric road crosses Middletown valley and two mountains, and connects with Hagerstown and its system of trolley lines. A branch of this road leads from Braddocks Heights, a fine summer resort, to Jefferson. Centering at Frederick city there is a splendid system of macadamized roads. An electric road from Washington to Gettysburg will pass through Frederick county.

The county is dotted over with thriving and picturesque villages. The farms are admirably improved and splendidly cultivated. Lands range in price from \$25 to \$120 per acre. The soil of the main valley—that of the Monocacy—is of limestone. Middletown valley is a freestone soil, but as fertile as the valley of the Monocacy.

The county tax rate in Frederick for 1908 is 95 cents.

Frederick county is bounded on the north by Pennsylvania, on the east by Carroll county, on the south by Montgomery county and Virginia, and on the west by Washington county, the crest of South mountain being the dividing line.

Frederick county, according to the United States census for 1905, which did not include all the smaller establishments and custom or repair shops, shows the following figures for the county as to larger manufactures:

Number of establishments, 127.

Capital invested, \$2,292,542.

Cost of materials used, \$2,055,250.

Value of products, \$3,332,842.

A report of the United States Census Department recently shows that in 1899 the acreage, bushels and percentage of yield of corn in Frederick county was greater than any county in the State. From 57,484 acres was grown 2,279,040 bushels of corn.

The census report on wheat the same year shows that Frederick was the banner county in the State in the acreage, amount and percentage of yield of wheat. From 92,620 acres were grown 1,314,280 bushels, or 11.4 per cent. of total yield of the State.

In 1905 the wheat crop was about the average, but the corn crop was the largest in the history of the county.

GARRETT COUNTY.

Garrett county comprises the western end of the State. It is bounded on the north by the Mason and Dixon Line, which separates it from Pennsylvania; on the west by West Virginia; on the south and southwest by West Virginia, and on the east by Allegany county. The geographical survey divides the county into the Potomac Valley District, the Savage Valley District, the Glades Valley District, the Castleman Valley District and the Youghiogheny Valley District. Along the western boundary of the county there is an elevation of over 3,000 feet above the sea level. This includes the crest-line of the Great Backbone and Big Savage mountains. Between these mountains lie a range of broad, flat-topped or gently arching hills.

The entire county is mountainous, but everywhere over the surface, covering hill and valley alike, is found a coating of soil varying in depth and grading imperceptibly into the underlying or resting directly upon

the surface of the rocks. In the valleys the soil is usually deep and productive, and on the mountain slope it is shallow and stony. In some places the soil is stained a deep red, not altogether unlike the underlying beds of shale and sandstone. In other places the productive clays seem to bear no relation whatever to the deeply buried limestone, while on the mountain tops the soils seem but a mass of broken gray sandstone, mixed with small amounts of sand and clay. It is this soil covering with which the farmer has to deal.

Mr. Clarence W. Dorsey, in an article on Garrett county, says:

“Its surface is that of a broad, rolling plateau. * * The greater part of the country is well drained, but there are several areas of considerable size in the central portion which are considered swampy; these are known as glades. * * * A large portion of the county is included within farm boundaries, and more than half of the farm area is not improved. The average sized farm is about 150 acres, but there are many which are over 1,000 acres. * * * The soils consist mostly of sandy loams.”

The soils of Garrett county, in the valleys, yield easily to cultivation, and the principal products are buckwheat, oats, hay and potatoes, and a fair yield, in some sections, of wheat, rye and corn.

The principal manufactures of the county emanate from the forests which are plentiful, and consist of lumber, shingles, staves and the mining of coal and shale.

One of Garrett's chief sources of wealth is her minerals, coal, fireclay and limestone. The Georges Creek coal fields lie along the boundary line between Garrett

and Allegany counties, the major portion being in the latter county, but considerable of the coal being in Garrett. The Georges Creek coal is known all over the United States as being of a superior quality. Along the Potomac river, the southeastern boundary of Garrett, lies another field of coal, which is being developed.

While practically throughout the entire county coal may be found, as yet it is undeveloped, except as above stated, it being the smaller veins, and only worked where it lies near to railroads. It can be said Garrett's resources are inexhaustible. It is only within the past few years that the small seams of coal are being worked, and as the years pass and the large veins become exhausted, it naturally follows that the small veins will be opened up more extensively.

Fire-clay is found in abundance in some portions of the county, notably the northern section. Limestone is plentiful.

According to the census of 1900 there were 1,788 farms in the county, the estimated value of which, in 1903, was about \$4,671,500, and the total assessed value of property in the county amounted to \$7,612,488.

Garrett has good facilities for reaching the markets of the East and West, being traversed by the main line of the Baltimore and Ohio Railroad from east to west. The Western Maryland Railroad follows the Potomac river along the southeastern boundary of the county. The Confluence and Oakland Railroad runs from Confluence, Pa., to Krug, and Jennings Brothers railroad from the Baltimore and Ohio, at West Salisbury, up to Castleman Valley to a point near Bittinger. The old National Turnpike traverses the northern part of the county from east to west.

On account of the vast amount of humus in the soil in the "Glades" the land is of great value for producing such crops as require a moist and cool climate. There is great opportunity for truck farming in Garrett county, as well as the raising of stock. Dairying could be profitably engaged in. Land is plentiful and can be bought cheap, say from \$5 to \$40 per acre, and as the county offers considerable advantages for the raising of fruits, berries and vegetables, these industries could be profitably engaged in. Oakland being but 11 hours from New York, and less to Baltimore and Washington, the mountain fruits and vegetables could be easily transported at profitable prices to these markets.

The government census of manufactures for 1905 contains the following statistics of Garrett:

Number of establishments, 40.

Capital invested, \$1,057,146.

Cost of materials used, \$619,140.

Value of products, \$1,645,225.

The manufacturing and mining industries comprise the principal industries of the county.

The population of Garrett by the census of 1900 was 17,701. It is rapidly growing, and the county is increasing in wealth as its great resources are developed. The population is almost exclusively white, there being not more than a few dozen negroes among them. There are 132 white and one colored public school in the county. Oakland, the county seat, is a pretty town on the glades, with a delightful summer climate. The nights in midsummer are cool and delightful all over this mountainous country. Deer Park and Mountain Lake Park, also on the glades, are noted summer resorts.



VIEW IN VALLEY OF MONROE RUN, GARRETT COUNTY.



SWALLOW FALLS, GARRETT COUNTY.

HARFORD COUNTY.

Harford is one of the most beautiful and fertile counties in the whole land. Except that portion which borders on the Chesapeake, it lies high and is well drained and exceedingly healthy. The landscape is superb, the farm improvements excellent and the people are prosperous. Land can be bought from \$5 to \$75 per acre. It has an area of 388 miles, occupying that part of Maryland lying between Baltimore county and the Susquehanna river. It extends from the Pennsylvania line to the Chesapeake bay, which forms its southeastern boundary. The population in 1900 was 28,269. There are 106 white and 18 colored schools.

The number of farms in the county in 1900 was 2,431, with an acreage of 248,925. The principal products are corn, wheat, hay, oats, rye and tomatoes, the total value of the tomato crop, canned and sold in the raw state, for the year 1903, approximated \$3,500,000. In the past thirty years canning has been engaged in more and more, until now it forms one of the chief industries of the county. The value of the finished product in this industry alone approximates from \$1,500,000 to \$2,000,000.

A large number of beef cattle are raised for the market. This is of a high grade in quality, and finds a ready sale for export purposes.

Considerable slate and serpentine rock are found near the Pennsylvania line, and the demand for the slate is always greater than the supply.

Deposits of chrome have also been found in the upper parts of the county. Throughout different parts of the county there is an excellent grade of building stone.

On the Susquehanna flats congregate annually great flocks of canvas-back and other ducks. The hunting of this wild fowl gives subsistence to a number of people, and is supposed in one way and another, together with the fishing industries in the spring at Havre de Grace and Lapidum, to yield \$150,000 annually. The shad fisheries of the Susquehanna in Harford and Cecil counties form an important industry, and the supply of fish is maintained by the hatcheries.

The incorporated towns of the county are Belair, the county seat, and Aberdeen. Havre de Grace is a city situated at the mouth of the Susquehanna river. Other towns in the county not incorporated are Abingdon, Churchville, Harford Furnace, Perryman, Forest Hill, Fallston, Darlington, Jarrettsville.

The Philadelphia, Baltimore and Washington Railroad, the Baltimore and Ohio, and the Maryland and Pennsylvania railroads traverse the county and make excellent facilities in reaching the market with the products of the farm and the factory.

The manufactures of Harford county by the census of manufactures for 1905, excluding all smaller manufacturing establishments, gives the following figures:

Number of establishments, 183.

Capital invested, \$2,584,159.

Cost of materials used, \$2,131,674.

Value of products, \$3,042,692.

HOWARD COUNTY.

Howard county lies between Baltimore, Carroll, Frederick, Montgomery, Prince George's and Anne Arundel counties. The Patapsco river forms its

northern border, and it is partly traversed by two small branches of the Patuxent river. Another branch of the same river separates the county from Montgomery. The area of Howard county is about 250 square miles, and its topography is hilly and broken, with forests and fertile hillsides. The land of the county is especially adapted to raising wheat, corn and hay. The price of farming lands ranges from \$15 to \$100 per acre.

The population of the county was 16,715 in 1900. There are 1,214 farms in the county, embracing 147,000 acres in round numbers. Very little tobacco is now raised in Howard, the principal products are wheat, corn, hay and dairy products.

The county tax rate for 1908 was \$1.00, and there are 57 white and 13 colored schools in the county.

In granite, marble and building stones and feldspar Howard is rich. The granite deposits are of importance. Immense quantities of this stone are being quarried annually from Ellicott City, Guilford and other localities. The stone varies in texture; that quarried at Ellicott City and Guilford being suited for building purposes, while the quarries of Atholton produce a fine, white stone suited for monumental uses.

The United States census for 1905, enumerating the manufacturing concerns only that produce upward of \$500 worth of product per year, give the following figures:

Number of establishments, 17.

Capital invested, \$825,680.

Cost of materials used, \$740,329.

Value of products, \$1,436,613.

An estimate made by a citizen of Howard county gives the following figures for industries in the county:

Cotton Goods—Capitalization, \$350,000; employes, 700; amount paid annually in wages, \$160,000.

Granite Quarries—Capitalization, \$100,000; employes, 500; annual wages, \$200,000.

Feldspar Quarries—Capitalization, \$100,000; employes, 500; annual wages, \$50,000.

The main line of the Baltimore and Ohio Railroad skirts along the entire northeastern border of Howard and the Washington branch is on its southern border. There is an electric road from Ellicott City, the county seat, to Baltimore, with cars running at short intervals. From Laurel, which is partly in Howard, there is an electric line to Washington and also from Annapolis Junction on the border of Howard; there is an electric line to Annapolis, Baltimore and Washington. The soil of Howard county is good and productive. The county is well wooded and watered, the landscape fine, the country healthy. A more pleasant, healthy and accessible country to live in it would be hard to find.

St. Charles' and Woodstock colleges, both fine Catholic institutions, are in Howard county, the former near Ellicott City and the latter at Woodstock.

Redemptorist College, at Ilchester, Howard county, is a Catholic theological school.

KENT COUNTY.

Kent county has an area of 315 square miles, of which about 65 miles are water. It is located in the northern portion of the Eastern Shore. The first set-

tlement within the present limits of Maryland was made on Kent Island, now in Queen Anne's county, in 1628 by Virginians, under the leadership of William Clayborne. Calvert claimed the island as part of his grant, and the contention was not ended until 1647, when Clayborne was dispossessed. The county now has a population of 19,000. The county town, Chestertown, was laid out in 1706.

There are 68 white and 20 colored schools in the county.

The incorporated towns of Kent are Chestertown, with 3,000 inhabitants; Galena, with 500; Still Pond and Millington, with 700. Other towns are Rock Hall, Kennedyville, Chesterville, Betterton, Lankford, Pomona, Worton Station, Lynch, Massey, Fairlee, Mel-tota, Edesville and Golts.

Kent county is separated from Delaware on the east by a line run by Mason and Dixon. The western boundary of the county is formed by the upper portion of the Chesapeake bay while the Sassafras river separates it from Cecil county and the Chester river from Queen Anne's county. The county is located between the parallels of 39° and $39^{\circ} 22''$ north latitude, and between the meridians of $75^{\circ} 45''$ and $76^{\circ} 16''$ west longitude.

While wheat and corn are the staple crops, the county is well set in peach and pear trees, and nearly every farmer has five or more acres in tomatoes. Asparagus beds are found on many farms, while dairying, stock raising and sheep raising enter largely into the industries of the county. The waters teem with fish, oysters, crabs and turtle. The number of farms is estimated to be 956, of an average acreage of 179

acres. The value of these farms is from \$25 to \$60 per acre.

The crab, fish and oyster industry supply a means of livelihood for 1,000 persons.

Kent county is bounded by over 80 miles of coast line. The head of navigation on both the Sassafras and Chester rivers is not reached until near the Delaware line, and the entire western limit of the county is formed by the Chesapeake bay.

Five or six steamboat lines carry freight and passengers to Baltimore and Philadelphia, and during the grain and fruit seasons extra freight steamers are provided. Two railroads cross the county, one having its terminals at Chestertown and at Townsend, while the other connects Centreville, Queen Anne's county, with the trunk lines farther north, entering Kent county at Millington, and crossing the Delaware line at Golts. The railroads cross each other at Massey, and together furnish communication with the Pennsylvania system.

The canning of fruits and vegetables is the main manufacturing industry of the county. There are also several large establishments manufacturing crates and baskets, straw boards, etc., the latter being one of the largest establishments of its kind in the State.

The manufactures of the county producing upwards of \$500 worth of product each year, and excluding certain repairing and custom shops, is thus stated by the census of 1905:

Number of establishments, 38.

Capital invested, \$846,990.

Cost of material used, \$424,436.

Value of products, \$627,737.

Chestertown, the county seat of Kent, is beautifully situated on Chester river, within a few hours by steamboat from Baltimore. It is a most attractive town, and the seat of Washington College, one of the most venerable of American schools, dating back to 1780. Since 1890 young women, as well as young men, have been admitted to its courses.

MONTGOMERY COUNTY.

Montgomery is one of the two counties of Maryland which border on the District of Columbia. It has profited enormously by that vicinage, receiving a large overflow population from Washington. This population is most desirable, and consists of persons employed by the United States in the departments and by lawyers and Washington business people who prefer homes in the country. For a place for homes Montgomery is most attractive. The climate is pleasant and healthy, the land lies high, and there are no swamps, no malaria and no mosquitoes. The county is dotted over with well-kept farmhouses on well-tilled farms, and with scores of towns and villages. The construction of the Metropolitan branch of the Baltimore and Ohio a number of years ago opened up the county to these new residents, and brought lime down from Frederick county, which has greatly increased the yield of wheat. Upon land which was in former years regarded as almost valueless the yield of wheat is now 30 to 40 bushels to the acre. Wheat, corn, hay, milk, orchard and garden products are the chief sources of wealth to the people. The close proximity of the Washington market makes the production of milk, poultry, vegetables and fruit most profitable.

Farm land sells, according to quality, location and improvements, at from \$10 to \$100 per acre.

Montgomery has an area of 508 square miles. It is bounded on the southwest by the State of Virginia, from which it is separated by the Potomac; on the northwest by Frederick county; on the northeast by Howard county, from which it is separated by the Patuxent, and on the southeast and south by Prince George's county and the District of Columbia.

The population of the county, according to the Federal census of 1900, was 30,451.

Rockville, the county seat, is a beautiful little town, with pretty homes and shaded streets and a cultivated society. It is on the Baltimore and Ohio, about 15 miles from Washington, with which it is also connected by an electric road.

Every facility for education is offered. The public free school system has 112 schools for whites and 29 colored schools. In addition, there are the following schools: Rockville High School, Rockville Academy, Brookville Academy, Rockville Institution for Young Ladies, Rockville Kindergarten, Briarly Hall for Young Ladies, Poolesville; Andrew Small Academy, Darnestown; Fair View Seminary, Oakmont.

Montgomery county has 2,085 farms, containing 283,469 acres, valued at \$9,491,390, exclusive of buildings, worth \$3,525,170.

Sandstone, marble and slate are quarried in upper Montgomery; chrome is found in several localities.

The Great Falls of the Potomac is one of the largest available water-powers in the country. The development and utilization of this mighty agency for manufacturing purposes, already undertaken by an organi-

zation of business men with large capital, must promote the material prosperity of the county.

There are five banks and savings institutions in the county, with a combined capital of \$225,000, and the savings institution at Sandy Spring has deposits of \$690,000, the combined deposits of all of them being \$1,709,000.

The Mutual Fire Insurance Company of Montgomery County, with office at Sandy Spring, Md., was chartered and commenced operations in the year 1848.

The manufactures of Montgomery of larger size are enumerated by the census in 1905 as follows:

Number of establishments, 31.

Capital invested, \$260,979.

Cost of materials used, \$275,316.

Value of products, \$381,095.

PRINCE GEORGE'S COUNTY.

Prince George's, like Montgomery county, adjoins the District of Columbia and also receives vast advantage from that proximity. Washington furnishes a market for its food products, and a large number of people doing business in the city or holding government positions build houses and make their homes in the county. Its area is 480 square miles and its population in 1900 was 29,898. Along the Washington branch of the B. & O. road there is a succession of suburban towns.

The county is bounded on the west by the Potomac river, on the east by the Patuxent. Montgomery, Howard, Anne Arundel, Charles and Calvert counties and the District of Columbia surround it.

There are 110 white and 37 colored schools in the county. At Upper Marlboro, the county seat, there is an academy.

There are 2,374 farms in the county, producing tobacco, corn, wheat and vegetables, the estimated value of the crops for 1905 being \$1,500,000, and giving employment to (including owners and tenants) at least 5,000 persons. Farm lands sell from \$4 to \$30.

The total number of manufacturing establishments in the county is estimated at 60, the greater number of them being small, employing only one or two men. According to the census of 1905, of factories producing more than \$500 a year, the following statistics are given:

Number of establishments, 42.

Capital invested, \$783,022.

Cost of materials used, \$173,138.

Value of products, \$359,747.

The two principal industries are the Laurel Cotton Mill and the Muirkirk Iron Furnace.

Underlying the region near Marlboro there are vast marl beds which may become valuable. The Patuxent marshes are famous for wild fowl.

There are a number of railroads in Prince George's. The Washington branch of the Baltimore and Ohio crosses the upper section. Across the center of the county is the Pennsylvania, with a branch from Bowie to the southern boundary. The Washington, Potomac and Chesapeake leads from Brandywine down through Charles and St. Mary's. The Chesapeake Beach road runs across the county from Washington, through Marlboro, to the Patuxent and on to the bay. From Laurel to Washington there is an electric road.

QUEEN ANNE'S COUNTY.

A more beautiful and desirable land to live in than Queen Anne's county it would be hard to find. It is healthy, accessible to market, the soil is fertile and easy to cultivate, the farms are well improved, the roads are good, schools and churches convenient to all the people and taxes are low. The county extends from the Chesapeake to Delaware, with Kent county, from which it is separated by Chester river, to the north, and Talbot and Caroline to the south. There is a line of steamers from Centreville, the county seat, on Corsica river, to Baltimore, and a branch of the Pennsylvania road connects the town with the N. Y., P. & N. road at Townsend, Del. Steamers also ply from Queenstown, Love Point and other places in the county to Baltimore, and the Maryland, Virginia and Delaware (formerly the Queen Anne's Railroad) crosses the county from Love Point to the ocean. From Love Point the railroad is connected by steamboats with Baltimore.

The county has a population of nearly 19,000, and an area of 422 square miles, of which 46 are water surface. The tax rate in the county for 1908 was 95 cents.

There are 77 white and 21 colored schools in the county.

Centreville, Sudlersville, Church Hill, Crumpton, Queenstown, Stevensville and Queen Anne are among the incorporated towns, while Templeville, Winchester, Chester and Ruthsburg are among those not incorporated.

Wheat, corn, hay, fruit and vegetables constitute the principal products of agriculture.

There are 1,475 farms in the county, employing 4,725 hands, and the value of the crops in 1905 was estimated at \$1,900,000.

Oysters and fish are plentiful, and 1,500 to 2,000 persons find employment in the industry.

The packing industry of Queen Anne's is also a growing one, at least 65,000 cases of tomatoes, fruits and vegetables having been packed in the county in 1905. Fruits and vegetables may be shipped daily to the great markets of the East and North in time to be received fresh and ready for use at those points the next morning.

The manufacturing industries of the county, according to the United States report for 1905, of all those of larger size are as follows:

Number of establishments, 29.

Capital invested, \$259,280.

Cost of materials used, \$272,282.

Value of products, \$376,638.

SOMERSET COUNTY.

Somerset is the most southern county of Maryland. Its soil is mainly sandy, being well adapted to the production of fruit and vegetables. It is easily worked and can be readily improved. Large quantities of strawberries and other small fruit, as well as vegetables, are produced. Land is cheap, ranging in value from \$4 to \$20 per acre. The cheap land, mild climate and other favorable conditions are attracting many settlers from the Western States as well as from foreign countries.

Somerset has a population of about 28,000, one-half of which is engaged in the oyster, crab and fish business.

Princess Anne, the county seat, and Crisfield are the only incorporated towns in the county.

There are 86 white and 28 colored schools in the county.

Somerset county is one of the largest markets and shipping points in the country for oysters, crabs and fish.

Crisfield, the largest town in the county, has a population of over 5,000 and a suburban population within two miles of the town limits of 4,000, and consequently there is plenty of labor. It also has one of the deepest and finest harbors on the Chesapeake bay. It is a large oyster shipping point in winter, and in summer is the largest crab shipping point in the world. The oyster pack for the winter of 1904-1905 was 350,000 bushels, worth about \$275,000. The soft crab business has been largely developed in recent years. Conservative estimates place the quantity shipped in 1905 at 1,400,000 dozen, worth \$500,000.

During the past two years the shipping of crab meat has been added to that of shipping soft crabs and oysters. About 70,000 gallons were shipped from Crisfield in 1905 and sold for between \$60,000 and \$70,000.

From early March until October 1st, shad, blue fish, trout and a few other varieties are caught and about 100 barrels shipped a week.

The production of tomatoes has increased during the past two years to supply the two dozen canning houses which have sprung up during that time. Corn, wheat and potatoes are largely produced, though strawberry and tomato crops have become the principal ones, and are worth from \$150,000 to \$250,000 each.

The transportation facilities of the county are good. The N. Y., P. & N. Railroad Company, a branch of the Pennsylvania running through the county, giving all points from Crisfield north a number of fine through trains daily to Baltimore, Philadelphia and New York. Crisfield and Deal's Island have daily boats to and from Baltimore. The Crisfield Steam Packet Company, with a good steamer, is also covering all points on the water in the county, and also all the nearby islands. A large number of gasoline boats, with a tonnage of from 5 to 50 tons each, are also engaged in running freight from points on the Western Shore of Maryland and Virginia to Crisfield for shipment north over the railroad every day.

The census of manufactures for 1905 of the Government shows the following figures for establishments of a larger size, and excluding all repair and custom shops:

Number of establishments, 60.

Capital invested, \$569,090.

Cost of materials used, \$507,206.

Value of products, \$873,735.

ST. MARY'S COUNTY.

St. Mary's county is the scene of the first settlement of Maryland by Lord Baltimore, and the place of the settlement at St. Mary's city is marked by a monument.

The county is almost an island, being bounded on the south by the Potomac, on the east by the Chesapeake, on the north by the Patuxent, and on the west by the Wicomico river.

The waters that almost surround St. Mary's, and many of their numerous branches, called creeks or

bays, that indent the county, are navigable and important water courses, and no resident is more than six miles from navigable water.

Along the rivers the land is generally flat and rises gently towards the interior, but the elevation attained is slight.

The county is long and narrow and has an area of 360 square miles.

According to the census there were 1,292 farms in St. Mary's county in 1900, with a total of 192,503 acres therein, and the population at the same time was 18,136.

Near the water courses the soil is generally dark, heavy loam, becoming lighter and sandier towards the interior, and if judiciously farmed is kind and productive.

Temperate summers, long autumns and mild winters specially adapt the county to the raising of stock. The rapid growth of clover and grasses makes grazing possible for 10 months of the year, and nearness to markets and cheap water transportation gives peculiar advantages to this industry.

Corn, wheat and tobacco are the staple crops of the section. Fine vegetables of all kinds are easily produced, and clover and hay grasses thrive. Small fruits produce plentifully, with little care, and apples, pears and peaches are remunerative crops.

Farms may be purchased at reasonable figures and on good terms. The inland farms can usually be bought cheap, while the lands on the rivers are held at higher prices. The ordinary price ranging from \$5 to \$30 per acre.

Nearly a fourth of the county is in timber, including pine, oak, poplar, ash, chestnut, hickory, walnut,

beech, gum and birch, which supply all demands for firewood, fencing and materials for building.

The waters of the county abound in fish and oysters, and the catching and shipping of them gives employment to a large number of persons.

Numerous steamers and sailing vessels furnish transportation to the nearby cities of Baltimore and Washington, but the railroad facilities are limited to a short line connecting with the Pennsylvania system, which does not reach the larger portion of the county.

There is a national bank at Leonardtown, the county seat of St. Mary's. The public schools are 105 in number, 76 white and 29 colored. St. Mary's Academy, at Leonardtown; St. Mary's Seminary, at St. Mary's city, and Charlotte Hall Academy, are among the institutions of the county.

The report of the Census Bureau on manufactures for 1905 shows the following figures for the county:

Number of establishments, 7.

Capital invested, \$14,800.

TALBOT COUNTY.

Talbot county lies on the Eastern Shore, with a considerable portion of it facing the Chesapeake bay, and is bounded on the north by Queen Anne's, on the east and southeast by Caroline, on the south by the Choptank river, and on the west by the Eastern bay and Chesapeake bay. It has a population of about 26,000 and an area of 286 square miles, with a large water surface. It is cut up into peninsulas by the Chesapeake bay and its tributaries, and is famous for its beautiful landscapes and water fronts.

Easton, the county seat of Talbot, is a thriving place of 3,450 inhabitants. Other villages are St. Michaels, Claiborne, Trappe, Tunis Mills, Matthews, Lewistown, Royal Oak, Oxford, Skipton, Wye Mills, Cordova, Tilghman, Bellevue and others.

The county has ample facilities for transportation. In addition to the B., C. & A. Railroad, the Philadelphia, Baltimore and Washington Railroad and the Maryland, Delaware and Virginia Railroad and connections, its rivers and bay front are daily touched by the numerous steamboat lines plying from Baltimore, thus placing the markets of Baltimore, Washington and New York within a day's reach of the farmers and fishermen.

There are well-graded high schools in Easton, Trappe, St. Michaels and Oxford, 66 white and 18 colored schools in the county.

Agriculture, canning and oyster culture are its principal industries. The land is a rich loam, light in parts and quickly responding to cultivation. Small fruits abound throughout the county in great variety, and vegetables, wheat, corn, tomatoes and potatoes are among its most prominent products. The canning establishments, which have become quite numerous, are putting up large quantities of tomatoes, peas and fruits, and this is a growing industry. Improved land on the river side is worth from \$40 to \$150 per acre. The yield of wheat to the acre in Talbot is as large, perhaps, as in any county in Maryland.

There are 768 boats of all kinds engaged in the oyster industry, and about 2,400 persons find a livelihood in taking and shipping the oysters.

Fish in the county's waters are plentiful, the Choptank and Tuckahoe abounding in shad, perch, rock and other food fish.

The manufacturing industries of Talbot consist largely in packing houses, canneries, grist mills, wood-working factories, etc. The capital invested is \$649,209.

Cost of materials used, \$607,157.

Value of products, \$932,666.

WASHINGTON COUNTY.

Washington is one of the wealthiest, most progressive and populous counties of Maryland. It lies between Frederick and Allegany, and extends from Pennsylvania on the north to West Virginia and Virginia on the south. For 77 miles the Potomac river and the Chesapeake and Ohio canal flow along its southern border. The area of the county is 458 square miles, most of which is contained in the great valley of the Conococheague, 20 miles wide, lying between the Blue Ridge and the Alleghany mountains. This valley is the northern extension of the Valley of Virginia, which was known in Civil war times as the granary of the Confederacy. The soil is limestone and of great fertility, splendidly adapted to the cultivation of wheat, which is the principal crop; of corn, hay, fruit and vegetables, dairy products and poultry. It is splendidly farmed and well improved. The best lands, well located, fetch over \$100 an acre and will produce 30 or 40 bushels of wheat. But there is much land in the western end of the county which is excellent for grazing and for the growth of apples and peaches, which can be bought for a far smaller price. The number of

farms is 2,400 and the acreage 280,000. The population is about 46,000. There are 140 white and 11 colored common schools, high schools, and at Hagerstown a Woman's College and other schools.

In size and importance Hagerstown ranks third among Maryland towns. Its present population is estimated at nearly 20,000, and it is the seat of a large manufacturing industry, including an automobile factory, one of the largest table works in the county, a Portland cement plant with an annual capacity of 360,000 barrels, knitting mills, spoke and bending works, furniture factories, paper mills, silk mills, organ works, a brewery and a long list of smaller industries. The total number of factories in Washington county, exclusive of the small ones, is 115, having an annual output of products worth \$4,650,000. There are many flouring mills in the county, which convert the wheat crop into flour before it is shipped to market. At Williamsport there is a large and prosperous tannery. Hagerstown is the seat of the celebrated Hagerstown Fair, one of the largest poultry shows and agricultural fairs in the United States. It is at the meeting point of a system of fine turnpike roads which radiate from it as a center, penetrating every district of Washington county and extending into adjoining counties. It is also a railroad center. The Washington County road connects it at Weverton, 24 miles distant on the Potomac, with the main line of the Baltimore and Ohio, east and west, and with the Valley branch, extending to Lexington. The Cumberland Valley road connects at Harrisburg with the Pennsylvania system, of which it is a part, and southward connects Hagerstown with Winchester, Va., and Martinsburg, W. Va. The West-

ern Maryland is the shortest line to Baltimore, and passing westward it runs to Cumberland, where it connects with the West Virginia Central and Pittsburg, which it has absorbed. From Hagerstown a branch of this road runs northward through the Cumberland valley, Pennsylvania, connecting at Shippensburg with the Reading system. Hagerstown is the northern terminus of the Norfolk and Western. The Shenandoah Valley division of that road runs from Hagerstown to the main line at Roanoke, 230 miles distant. In addition to the steam roads, Hagerstown has an electric railway through its streets and extending across the mountains to Frederick city, Williamsport on the southwest, and northward into Pennsylvania. The tax rate in 1908 was 84 cents.

WICOMICO COUNTY.

Wicomico county is bounded on the north by Delaware, on the south by Somerset county and Worcester county, on the east by Worcester county, and on the west by Dorchester county. It contains 367 square miles, with a large water surface. It lies 130 miles south of Philadelphia and 85 miles southeast of Baltimore. Its eastern limit is about 15 miles from the Atlantic ocean and its population is 23,000.

The towns are Salisbury, Delmar, Sharptown, Quantico, Mardela Springs, Hebron, Fruitland, Pittsville, Parsonsburg, Willard, Bivalve, Nanticoke, White Haven, Jesterville, Allen and Riverton.

Salisbury, the county seat, is advantageously situated at the head of navigation on the Wicomico river, at the junction of the New York, Philadelphia and Norfolk and the Baltimore, Chesapeake and Atlantic

railroads, 30 miles from Ocean City, on the Atlantic ocean. The city is substantially built and has a population of about 5,000. It has 10 miles of well-graded and paved streets and a sewerage system.

The soil of Wicomico varies in character from a light loam to a red clay loam. Generally the land is well adapted to the growth of cereals, grass, apples, peaches, pears and small fruits, especially strawberries and blackberries, of which immense crops are grown. Strawberries commence to ripen from the 5th to the 20th of May, and last until the first to the middle of July, according to the variety and season.

The climate is mild and healthy. The proximity of the Gulf stream and the presence of the bodies of salt water render it pleasant, uniform and healthful throughout the year. Cattle need scarcely be fed or housed during the winter, farm work, and even plowing, can generally be done during some part of every month in the year.

The purest drinking water can be obtained by driven wells at a very small expense.

Land can be bought for from \$5 to \$50 per acre.

The Nanticoke and Wicomico rivers and their tributaries supply the people of the county with shad, rock, perch and other kinds of fish, as well as an abundance of oysters.

The oyster packing industry is not as large as formerly, and planting is now being entered into by several of the largest packers. It is expected that within a few years most of the oyster bottoms along the rivers will be under artificial propagation.

At present there are but four oyster packing houses in Wicomico, and it is estimated that at least \$100,000

is invested in this property, oyster catching machinery and shore property. There are about 600 men employed on boats in the taking of oysters, and an additional number engaged in the packing and shipping. Much money is also invested and a number of people employed in the fish industry in the western section of the county.

The packing of soft crabs and the shipping of hard crab meat, in various ways, is one of the new and growing industries of the county.

Wicomico county is well adapted to the growing of small fruits and truck, prominent among which are strawberries, blackberries, huckleberries, cantaloupes and watermelons, in addition to which there is a considerable amount of corn, wheat and tomatoes raised.

Within the past few years great strides have been made in the growing of grasses and grains, and the land has been improved for cattle feeding. There are upwards of 3,000 acres of land set in strawberries, yielding about 3,000 quarts to the acre. It is estimated that in a good year 9,000,000 quarts, salable at an average price of five cents net to the grower, will yield, in round numbers, \$450,000. It is estimated that there are 1,000 acres set in blackberries, which yield about 2,000 quarts to the acre, making a total crop of 2,000,000 quarts, which it would take at least 1,000 pickers to gather, and means a net income to the growers of \$150,000.

The huckleberry grows wild in Wicomico, and the fruit belongs to whoever will pick it. It is mostly found in the swampy and low lands of the county in large quantities, and as it costs nothing to cultivate, it is a net revenue to the pickers. The fruit is pur-

chased by the country stores and shipped to Northern markets, where it brings good prices.

There is also a large acreage in raspberries, and the wild asparagus crop brings considerable money to the county.

The New York, Philadelphia and Norfolk Railroad runs through it from north to south, and is a trunk line from New York to Richmond and Norfolk. The B., C. & A. Railway crosses the county from east to west, running from the Atlantic ocean to the Chesapeake bay. A large fleet of sailing and packet vessels offers cheap transportation to Baltimore, and steamboats run on the Nanticoke and Wicomico rivers every day.

There are 91 white and 17 colored schools in the county.

The United States census of manufactures for 1905 is as follows:

Number of establishments, 124.

Capital invested, \$1,370,878.

Cost of materials used, \$1,321,628.

Value of products \$2,029,292.

WORCESTER COUNTY.

Worcester county's area is 487 square miles, of which Synepuxent, Chincoteague, Isle of Wight, Assowoman and Newport bays form about one-quarter. The whole eastern boundary of the county is the Atlantic ocean. A narrow strip of beach, ranging from one-quarter of a mile to one mile in width, forms the coast and is separated from the mainland by the bays above mentioned. The narrowest part of the water is

at Ocean City, a prosperous seaside resort, where it is spanned by a bridge about one-quarter of a mile in length. The widest part of the bay is just below Snow Hill, where it is about eight miles from shore to shore. Delaware is the northern and Virginia the southern boundary.

The population of the county is over 21,000, and the assessed valuation of property is over \$6,000,000.

Snow Hill is the county seat. Pocomoke City is 14 miles south of Snow Hill, and is connected therewith by the local packet line, also by the boats of the B., C. & A. R. R. Co. Berlin, 16 miles north of Snow Hill and eight miles west of Ocean City, is at the junction of the Delaware, Maryland and Virginia branch of the P., B. & W. R. R. and the B., C. & A. Railway.

The thriving villages are Stockton and Girdletree, from each of which are shipped annually about 40,000 barrels of oysters and each of which contains a thriving bank, canning factory and barrel factory, and also good schools and churches. Other growing villages are Newark, Bishopville, Whaleyville and Showells.

The steady growth of Ocean City as a summer resort has made an excellent local market for truck.

The soil of Worcester county varies from a light sand to a heavy clay, the majority being a splendid loam with some clay. The proximity of the Atlantic ocean and the Gulf stream makes the climate temperate. There are 1,987 farms in the county. The county abounds in the production of small fruits. The principal products of the farms are grain, wheat and truck. There are two large and prosperous nurseries in the county.

From the bays of the county are taken quantities of the finest oysters, and the revenue from these add materially to the prosperity of the county. Fish are plentiful in the bays. At Ocean City deep sea fishing is an extensive industry.

There are 86 white and 20 colored schools in Worcester. Banking facilities are ample, the banks containing on deposit about \$1,500,000.

There are scattered through the county a number of canning factories and also 15 or 20 small sawmills, which supply lumber to the larger mills.

The census of 1905 makes the following report for the larger industries of Worcester county:

Number of establishments, 87.

Capital invested, \$795,117.

Cost of materials used, \$916,969.

Value of products, \$1,450,259.

CHAPTER XII.

Members of the Board of Public Works.

GOVERNOR CROTHERS.

Austin L. Crothers, Governor of Maryland, was born at Conowingo, Cecil County, in 1860. He was educated in the public schools and at West Nottingham Academy. For a time after his graduation at the academy he taught in the public schools and then studied law. He graduated at the law school of the University of Maryland in 1890 and began the practice of his profession at Elkton. He had a natural inclination toward politics and soon took an active part in public affairs. The next year after he graduated at the law school, namely in 1891, he was elected State's attorney for Cecil County by a large majority. In 1897 he succeeded his brother, Charles C. Crothers, who had been candidate for attorney-general of Maryland in 1895, in the Senate of Maryland. In his first session, that of 1898, the Senate was republican, but there was a strong democratic minority which was led by John Walter Smith, Joshua W. Hering and Mr. Crothers. At the next session the democrats regained the Senate, Mr. Smith was Governor, Dr. Hering comptroller of the treasury, and Senator Crothers chairman of the finance committee and leader of the Senate. His leadership was wise, able and unchallenged. As chairman of the finance committee he did admirable service for the State by keeping down appropriations to the utmost limit in his power. In 1902 and again in 1904 Mr. Crothers was nominated for the Senate but was defeated by reason of factional differences within the party. All this time he was the leader of his party in Cecil and exerted a wide influence in the politics of the

State. In 1906, when Judge Edwin Brown died, Governor Warfield appointed Mr. Crothers to succeed him as associate judge of the Second Circuit. Early in the following year he announced his intention to retire from the bench and not to be a candidate at the election of 1908. On the 8th of August, 1907, Judge Crothers was nominated for Governor by the Democratic State Convention in Baltimore. He began his campaign by going quietly around through the State, meeting the people at county fairs and other non-political gatherings. On the 19th of September the formal notification of the candidates took place at the Lyric Hall in Baltimore and this was made the occasion of a great democratic meeting, over which Ex-Governor John Lee Carroll presided, and Senator Rayner made the notification speech. The convention which nominated Mr. Crothers had adopted resolutions which contained the following:

“Maryland offers many and great attractions to worthy and industrious foreigners who desire to become American citizens, and we favor energetic measures to encourage and promote the introduction into our State of bodies of immigrants of good character who will actively contribute by their diligence and industry to the improvement and development of our agricultural resources.

“The work of construction and improvement of our public roads already so well begun should be steadily kept up until, as the result of regular and judicious expenditure, there shall exist in Maryland a system of public roads as good as that to be found in any of our sister States.”

This plank at once attracted the attention of Mr. Crothers and he made up his mind to distinguish his administration by the improvement of the material condition of the State. In his speech at the Lyric he said:

"I believe it is entirely practicable by wise economy and forethought and without increasing the burdens of the people to carry out a scheme of public improvements consisting chiefly of the establishment of good roads through every section of the whole State, so that every class and community of our people may have an equal share of them. Such a system of improvement would not merely add to the convenience, prosperity and wealth of all the people, but would be a constant and growing source of increase of the taxable basis of the State. It would furnish, without any advance in the rate of taxes, the financial resources for the continued development of the material interests of the people and for the strengthening of all the foundations of their progress."

Mr. Crothers was taken ill at the Lyric Hall meeting and took no further part in the campaign. Nevertheless he was elected by 8,000 majority and was inaugurated on the 8th of January, 1908. In his inaugural address he again adverted to the subject of the improvement of the material condition of the State. He said:

"I am earnestly in accord with the opinion expressed by the Democracy in its recent platform, that the fullest opportunity should be given for putting the Oyster Culture law of 1906 into complete, practical operation, and that there should be no attempt of any sort to destroy or weaken its efficiency. Whatever legislation may be appropriate to strengthen the efficiency or to more fully effectuate the objects of the measure in question ought to be supplied by the General Assembly.

"No thoughtful citizen can fail to realize that the barren bottoms of the Chesapeake bay may, by assiduous cultivation, be converted into a vast treasury for the people of the State, which shall serve to supply them with food, employment and wealth, and which may in time furnish such revenues to the State as will enable it, without laying taxes on the people, to provide public improvements in every part of it, as well as other advantages to its inhabitants.

"I desire next to approach a subject with which I shall seek to closely and unremittingly identify the administration which I am about to begin. In the speech in which I accepted the nomination of the Democratic party for Governor I declared:

"I believe that it is entirely practicable by wise economy and forethought, and without increasing the burdens of the people, to carry out a scheme of public improvements, consisting chiefly of the establishment of good roads through every section of the whole State, so that every class and community of our people may have an equal share of them. Such a system of improvements would not merely add to the convenience, prosperity and wealth of all the people, but would be a constant and growing source of increase in the taxable basis of the State. It would furnish, without any advance in the rate of taxes, the financial resources for the continued development of the material interests of the people and for the strengthening of all the foundations of their progress. I think that the time is at hand for public men and leading citizens of Maryland to take the lead in a deliberate movement to make the most of the rich and magnificent resources of our Commonwealth. To develop them to the greatest possible degree and to carry the State forward along commercial, industrial and agricultural lines until it is in the very van of the progress of the whole country.'

"I reassert here and now those purposes, and as the first and most important step in their accomplishment a system of good roads, ramifying uniformly through every section of the State, should be established. We should take this up as a prime object of our policy, and we should consummate it as thoroughly and expeditiously as possible.

"The Court of Appeals of the State has decided that such a work is constitutionally feasible and that the State may pledge its credit to effect it. The first step will be the provision of finances for the undertaking. There is no reason why the State, which is now out of debt, should not issue bonds to defray the immediate expenses of such a scheme of public improvements. This has been done in other States with the most beneficial and satisfactory results. As suggested in the above quotation from my speech of acceptance,

the issuance of such bonds would not really impose any substantial burdens of taxation upon the people, because the improvements themselves traversing every part of the State, would so enhance the value of property that there would practically be no additional burden by way of taxes upon anybody."

In carrying out the policy here outlined the Governor gave his hearty cooperation with the General Assembly in formulating the admirable road law of the State under which the work of highway improvement was begun and which appropriates \$5,000,000 for the purpose.

His experience in public office as State's attorney, as State senator and as judge admirably equipped Mr. Crothers for the duties of the executive office. He knew how to gain the confidence of the Legislature and he exerted a strong influence over it which was always directed to the enactment of good laws and in opposition to bad ones.

In 1908 he was sent by the democratic party as a delegate to the National Convention at Denver and there he succeeded in incorporating in the national platform of his party his views upon the improvement of highways or post roads by federal aid.

Governor Crothers is unmarried and resides in Elkton.

JOSHUA W. HERING.

The Hon. Joshua W. Hering, A. M., M. D., LL. D., was born in that part of Frederick County which is now included in Carroll County, on March 8, 1833. He was educated in the public schools; studied medicine in the University of Maryland by which he was graduated in 1855. He engaged in the practice of his profession in Westminster and was shortly recognized as the leading physician in the town. In 1867 he was elected cashier of the Union National Bank of Westminster and has ever since been a banker and financier. Dr. Hering steadily refused to engage in politics until 1895. There was that year a political landslide. Nearly every county in the State gave republican majorities. For the first time a republican Governor was elected. The Senate, by reason of a number of hold-over senators was democratic by a majority of one vote. The House was strongly republican. Just after the election the democratic senator from Carroll died, leaving the Senate a tie between the two parties. Whichever party elected the senator from Carroll would control the Senate. Carroll county had just given a heavy republican majority and the democrats appealed to Dr. Hering to take the nomination. It was represented to him that if he did not do so there would be no check upon the republican party. He reluctantly consented and some of the strong independents who had supported the republican ticket at the November election, went to Carroll and made speeches for Dr. Hering and he was elected. That was the beginning of his political career. In the Senate he exercised a strong influence and always for good legislation and good methods. He

served in the sessions of 1896 and 1898. In 1899 he was nominated for comptroller of the treasury and was re-elected two years later. To the comptroller's office he brought a ripe experience in financial affairs and conducted the finances of the State with admirable judgment and complete success. In 1903 he declined the nomination. In 1907 his party again needing his services, he was nominated for Comptroller and elected by a large majority. Dr. Hering, in the four campaigns he has made, has distinguished himself as a vote-getter and greatly commended himself to the people of the State.

In 1885, Western Maryland College gave him the degree of Master of Arts and in 1900, St. John's College that of Doctor of Laws. In 1899 he was elected president of the Maryland Bankers' Association.

Dr. Hering's activities have not been confined to political and business affairs. He has been equally active and eminent in educational, charitable and religious work. In 1892 he was elected president of the General Conference of the Methodist Protestant Church and was re-elected to that high office in 1896. He is the only layman upon whom this honor has ever been conferred. He justified his election by presiding over the General Conference with dignity and distinguished ability. Dr. Hering is a member of the Board of Governors of Westminster Theological Seminary and of the Methodist Protestant Church Home.

On June 17, 1908, a portrait of Dr. Hering was unveiled at Western Maryland College and a banquet was given to him by the Trustees. He is the only living charter member of the Board of Trustees of the college, and the banquet was given to him in recog-

dition of his long and valuable service as a trustee. He is now and has been for many years president of the board.

Gathered at this banquet to do honor to Dr. Hering were the Governor of Maryland, State and county officials and many warm friends from various parts of the State. In response to the warm tributes which he received on that occasion, Dr. Hering said he had always tried to lead a plain and simple life. Possibly as a result of this manner of living the years seem to pass him by. He is respected and beloved by a great circle of personal friends and by the great body of his fellow-citizens.

Dr. Hering is married and has two sons, namely, Dr. Joseph T. Hering, a practitioner of medicine in Baltimore, and Charles E. Hering, Deputy Fire Marshal of the State. His daughters are Mrs. Thomas A. Murray, of Baltimore, and Mrs. Frank Z. Miller, of Westminster.

HON. MURRAY VANDIVER.

Gen. Murray Vandiver was born in 1845 at Havre de Grace, Md. He is the son of the late Robert R. Vandiver, a descendant of some of the first settlers of Delaware. He was educated in the public schools of Harford County, and Havre de Grace Academy, and graduated from a business college in Poughkeepsie, N. Y., in 1864. He early engaged in the lumber business in Havre de Grace. He was elected a member of the House of Delegates of Maryland in 1876, 1878, 1880 and 1892, and was Speaker of the House in 1892. He was a member of the National Democratic Convention of 1892, which nominated Cleveland; of 1896, which nominated Bryan the first time; a Delegate-at-Large to the National Democratic Convention of 1900, and a Delegate-at-Large and Chairman of the Delegation to the National Democratic Convention in 1904, which nominated Parker, and again Delegate-at-Large to the Denver Convention of 1908 and Chairman of the Delegation. At all these conventions, as Chairman of the Democratic State Committee, he had full charge of all the arrangements for the delegation. He performed this difficult work with infinite credit. From 1888 to 1897 Mr. Vandiver was Secretary and Treasurer of the Democratic State Central Committee, and in 1897 became Chairman of the committee. He was re-appointed Chairman of the committee by Colonel L. Victor Baughman in August, 1899, with the full concurrence of the State Convention, which position he now holds. As Chairman of the Democratic State Central Committee Mr. Vandiver conducted the re-organization primary campaign in Baltimore City in

the fall of 1898, which resulted in the precinct organization of Baltimore City. Mr. Vandiver managed the State campaign in 1899, which restored the Democratic party to power in the State, as well as exercised an influence in his advisory capacity in the municipal campaign in Baltimore City in the spring of 1899, which restored the Democratic party to power in the city. From July, 1893, to October 1, 1897, Mr. Vandiver was Collector of Internal Revenue for the District of Maryland, District of Columbia and Delaware and two counties of Virginia, being appointed by President Cleveland and serving at the time of the preparation for the collection of the income tax. Mr. Vandiver resigned as Collector of Internal Revenue to take effect October 1, 1897, and upon his retirement was highly complimented by the Commissioner of Internal Revenue upon the very efficient and satisfactory condition of his office, the national administration at that time being Republican. On January 11, 1900, Mr. Vandiver was elected Treasurer of the State of Maryland, receiving the entire vote of his party in both the Senate and House in open session and without a party caucus, which office he now fills, having been elected at the sessions of the General Assembly of 1902, 1904, 1906 and 1908, without opposition in his own party. Mr. Vandiver was appointed on the staff of Governor Robert M. McLane with the rank of Colonel, and on the staff of Governor John Walter Smith with the rank of Brigadier-General. He is a director in the First National Bank of Havre de Grace, Third National Bank of Baltimore, the Commonwealth Bank of Baltimore and the American Bonding Company of Baltimore, the National Bank

at Port Deposit, a director in the Delaware Railroad and was one of the World's Fair Commissioners for the State of Maryland appointed by Governor Brown in 1892. He is a director in nearly all the incorporated companies located at Havre de Grace, and was Mayor of the city in 1885 and 1886. He wrote the charter which incorporated Havre de Grace as a city in 1878.

General Vandiver was a member of the commission which built the beautiful Court of Appeals Building, at Annapolis, and also of that which built the annex to the State House. During his long term in the office of State Treasurer his office has been a model, and he has conducted the financial affairs of the State, which pertained to his office, with sound judgment and complete success. He has all the qualities of head and heart which make men popular. His disposition is generous and obliging and his friends abound in every part of Maryland and beyond its borders. His management of the Democratic organization in the various campaigns has nearly always been crowned with success. In the multiplicity of his public and political duties he finds time to conduct a beautiful and fertile farm on Spesutia Island. He spends his leisure hours with his family in Havre de Grace, to whom he is tenderly devoted.

CHAPTER XIII.

Statistics of Population.

POPULATION BY COUNTIES.

Counties.	Federal Census, 1900.	Counties.	Federal Census, 1900.
Allegany	53,694	Kent	18,786
Anne Arundel.....	40,018	Montgomery	30,451
Balto. county.....	90,755	Prince George's.....	29,898
Calvert	10,223	Queen Anne's.....	18,364
Caroline	16,248	Somerset	25,923
Carroll	33,860	St. Mary's.....	18,136
Cecil	24,662	Talbot	20,342
Charles	18,316	Washington	45,133
Dorchester	27,962	Wicomico	22,852
Frederick	51,920	Worcester	20,865
Garrett	17,701	County totals.....	681,093
Harford	28,269	Baltimore city....	508,957
Howard	16,715	State total.....	1,190,050

POPULATION OF BALTIMORE CITY, 1790 TO 1900.

Census Years.	Popu- lation.	—Increase—		Census Years.	Popu- lation.	—Increase—	
		Number.	Per Ct.			Number.	Per Ct.
1900	508,957	74,518	17.2	1840	102,313	21,693	26.9
1890	434,439	102,126	30.7	1830	80,620	17,882	28.5
1880	332,313	64,959	24.3	1820	62,738	16,183	34.8
1870	267,354	54,936	25.9	1810	46,555	20,041	75.6
1860	212,418	43,364	25.7	1800	26,514	13,011	96.4
1850	169,054	66,741	65.2	1790	13,503	.....	....

The males of voting age in Baltimore in 1900 numbered 141,271. Of these 7.2 per cent. were illiterate. Native-born males of voting age numbered 111,181 and 6.3 per cent. illiterate. Foreign-born males of voting age numbered 30,090 and 10.4 per cent. of them

illiterate. The negro males of voting age were 22,257 and 26.8 per cent. illiterate.

The population of the State in 1900 was more than three times as large as that given for 1790, the year in which the first United States census was taken.

Census Years.	Popu- lation.	Increase		Census Years.	Popu- lation.	Increase	
		Number.	Per Ct.			Number.	Per Ct.
1900	1,188,044	147,660	14.2	1840	470,019	22,979	5.1
1890	1,042,390	107,447	11.5	1830	447,040	39,690	9.7
1880	934,943	154,049	19.7	1820	407,350	26,804	7.0
1870	780,894	93,845	13.7	1810	380,546	38,998	11.4
1860	687,049	104,015	17.8	1800	341,548	21,820	6.8
1850	583,034	113,015	24.0	1790	319,728	.....	....

In the year 1900 the total foreign-born population of Maryland was 93,934. The persons of foreign parentage numbered 272,321 white and 1,406 colored inhabitants.

NEGROES IN MARYLAND.

The negro population of Maryland, by counties, in 1900 was as follows:

	Total.	Males.	Females.
Allegany	1,669	837	832
Anne Arundel.....	15,367	8,054	7,313
Baltimore	11,618	5,966	5,652
Baltimore city.....	79,258	35,063	44,195
Calvert	5,143	2,725	2,418
Caroline	4,237	2,162	2,075
Carroll	2,143	1,027	1,116
Cecil	3,805	2,026	1,779
Charles	9,648	5,054	4,594
Dorchester	9,484	4,847	4,637
Frederick	6,012	2,921	3,091
Garrett	126	63	63
Harford	5,854	3,054	2,800
Howard	4,405	2,277	2,128

	Total.	Males.	Females.
Kent	7,442	3,962	3,480
Montgomery	10,054	5,088	4,966
Prince George's.....	11,985	6,405	5,580
Queen Anne's.....	6,372	3,381	2,991
St. Mary's.....	8,256	4,325	3,931
Somerset	9,533	4,934	4,599
Talbot	7,466	3,880	3,586
Washington	2,488	1,173	1,315
Wicomico	5,828	2,960	2,868
Worcester	6,871	3,433	3,438
Totals	235,064	115,617	119,447

In Maryland 35.1 per cent. of the negroes were illiterate in 1900.

The negro population of cities and towns in Maryland having 2,500 to 25,000 inhabitants in 1890 and 1900 was as follows:

	1900.	1890.		1900.	1890.
Annapolis	3,002	2,914	Frederick	1,535	1,576
Cambridge	1,958	1,440	Frostburg	236	214
Chestertown	1,220	1,121	Hagerstown	1,277	1,012
Crisfield	799	.....	Havre de Grace..	563	709
Cumberland	1,100	962	Salisbury	1,006	822
Easton	1,024	1,143	Westminster	355	375
Elkton	516	.....		

Figures compiled from the Federal census of 1900 give the following totals of the population of the State:

Total population.....	1,188,044	Native white.....	859,280
Males	589,275	Negroes	235,064
Females	589,769	Chinese	544
Native born.....	1,094,110	Japanese	9
Foreign born.....	93,934	Indians, taxed.....	3
Total white.....	952,424		

URBAN POPULATION OF MARYLAND.

From the United States census of 1900 there are 98 incorporated cities, towns and villages in Maryland. Of these there are 18 which had a population in 1900 of more than 2,000, and of these 11 had less than 5,000; 4 more than 5,000 and less than 10,000. There were 3 which had more than 10,000, namely, Baltimore, with 508,957; Cumberland, with 17,128; Hagerstown, with 13,591 inhabitants.

Cities, Towns and Villages.	—Population—		Cities, Towns and Villages.	—Population—	
	1900.	1890.		1900.	1890.
Aberdeen	600	448	Hillsboro	196	174
Annapolis . . .	8,402	7,604	Hurlock	280	.....
Baltimore	508,957	434,439	Hyattstown ..	81	.....
Barnesville ..	125	.....	Hyattsville ...	1,222	1,509
Belair	961	1,416	Keedysville ..	426	420
Berlin	1,246	974	Kensington ..	477	.....
Bishopville ..	243	275	Laurel	2,079	1,984
Bladensburg .	463	503	Laytonsville ..	148	.....
Bloomington .	395	295	Leonardtwn..	454	521
Boonsboro ...	700	766	LochLynn Hts.	215	.....
Bowie	443	.....	Lonaconing ..	2,181	.....
Bridgetown ..	50	.....	Manchester ..	609	273
Brookeville ..	158	.....	Middletown ..	665	667
Brunswick ...	2,471	.....	Millington ...	406	485
Burkittsville .	229	273	Mt. Lake Pk.	260	.....
Cambridge ...	5,747	4,192	Mt. Airy.....	432	.....
Cecilton	447	485	New Windsor.	430	414
Centreville ...	1,231	1,309	Northeast ...	969	1,249
Charlestown .	244	228	Oakland	1,170	1,046
Chesapeake ..	1,172	1,155	Ocean City...	365	85
Chestertown .	3,008	2,632	Oxford	1,243	1,135
Church Hill..	368	596	Perryville ...	770	344
Clear Spring .	474	.....	Piscataway ...	95	.....
Crisfield	3,165	1,565	Pocomoke ...	2,124	1,866
Crumpton	207	317	Poolesville ...	236	.....
Cumberland .	17,128	12,729	Port Deposit..	1,575	1,908

Cities, Towns and Villages.	--Population--		Cities, Towns and Villages.	--Population--	
	1900.	1890.		1906.	1890.
Damascus ...	148	.....	Preston	192	.....
Darlington ...	260	239	Princess Anne	854	865
Deer Park...	293	179	Queenstown ..	374	.....
Delmar	659	.....	Ridgely	713	215
Denton	900	641	Rising Sun...	382	384
E. N. Market.	1,267	.....	Rockville	1,110	1,568
Easton	3,074	2,939	St. Michaels..	1,043	1,329
Elkton	2,542	2,318	Salisbury	4,277	2,905
Ellicott City..	1,331	1,488	Sharpsburg ..	1,030	1,163
Emmitsburg .	849	844	Sharptown ...	529	427
Federalsburg	539	543	Smithsburg ..	462	487
Frederick	9,296	8,193	Snow Hill....	1,596	1,483
Frostburg ...	5,274	3,804	Sudlersville ..	221	125
Funkstown ..	559	.....	Takoma	756	164
Gaithersburg	547	.....	Taneytown ...	665	566
Garrett Park.	175	.....	Thurmont ...	868	.....
Girdletree ...	336	.....	Trappe	279	251
Grantsville ..	175	.....	Union Bridge.	663	743
Greensboro ..	641	902	Up. Marlboro.	449	439
Hagerstown ..	13,591	10,118	Walkersville..	359	255
Hampstead ..	480	521	Westernport..	1,998	1,526
Hancock	824	815	Westminster .	3,199	2,903
HavredeGrace	3,423	3,244	Williamsport	1,472	1,277

The towns of Maryland are as a rule situated in healthy localities. Many of them are on tributaries of the Chesapeake. Manufacturing industries exist in most of them and the labor to be had is intelligent and contented. All the towns and cities are well supplied with schools, churches and other institutions, and they offer great inducements to settlers who have trades or to capital desirous of embarking in manufacturing enterprises.

ALTITUDES IN MARYLAND.

Elevations of Points in Maryland, Grouped by Counties.

Compiled by the Maryland Geological Survey from Best Available Data.

ALLEGANY COUNTY.

Localities.	Elevation in Feet.	Localities.	Elevation in Feet.
Cumberland	688	Westernport	1,000
Dan's Rock.....	2,898	Piney Grove.....	937
Frostburg	1,929	Flintstone	828
Mt. Savage.....	1,198	Oldtown	564

ANNE ARUNDEL COUNTY.

Annapolis	40	Odenton	160
Marriott Hill.....	240	Jewell	160
Davidsonville	185	Friendship	150
Owensville	182	Glenburnie	55

BALTIMORE CITY.

City Hall.....	20	Pat. Pk. Observatory..	125
High Serv. Reservoir...	350	J. H. Hospital.....	105
Druid Hill Pk. (M. H.)	320	Wash. Monument, base	100
J. H. U. site, Car. Man.	245	Carroll Pk. (M. H.)..	95
Mt. Royal Reservoir..	155	Fort McHenry.....	30
Hotel Altamont(street)	170		

BALTIMORE COUNTY.

Towson (C. H.).....	465	Parkton	420
Reisterstown	735	Cockeysville	280
St. Thomas Church...	650	Lake Roland.....	225
Pikesville	516	Lochraven	170
Catonsville	510	Relay Viaduct.....	71
Chattolanee Hotel....	510	Bradshaw	40
Long Green.....	500	North Point.....	20
Fork	420		

CALVERT COUNTY.

Localities.	Elevation in Feet.	Localities.	Elevation in Feet.
Prince Frederick.....	150	Parran	136
Mt. Harmony.....	181	Chesapeake Beach.....	20
Port Republic.....	160	Lower Marlboro.....	20
Bowens	160		

CAROLINE COUNTY.

Denton	42	Federalsburg	42
Marydell	63	Greensboro	41

CARROLL COUNTY.

Westminster	774	Sykesville	600
Manchester	1,107	Finksburg	545
Hampstead	913	Taneytown	490
Bachman's Valley.....	860		

CECIL COUNTY.

Elkton	29	Gray's Hill.....	268
Rock Spring.....	540	Cecilton	80
Woodlawn	465	Queenstown	18
Calvert	441	Port Deposit.....	16
Rising Sun.....	387		

CHARLES COUNTY.

La Plata.....	190	Chapel Point.....	150
Hughesville	193	Indian Head.....	100
Patuxent	184	Port Tobacco.....	50

DORCHESTER COUNTY.

Cambridge	20	Church Creek.....	5
Vienna	14	Drawbridge	4

FREDERICK COUNTY.

Frederick	300	Monocacy Bridge.....	329
Sugar Loaf Mountain..	1,250	Point of Rocks.....	229
Thurmont	515		

GARRETT COUNTY.

Localities.	Elevation in Feet.	Localities.	Elevation in Feet.
Oakland	2,461	Deer Park Hotel.....	2,480
Backbone Mt.....	3,700	Mountain Lake Park...	2,450
Table Rock.....	3,700	Grantsville	2,351
Altamont	2,632	Friendsville	1,501
Accident	2,395	Bloomington	1,000

HARFORD COUNTY.

Belair	396	Aberdeen	79
Madonna	748	Perryman	60
Darlington	333	Havre de Grace.....	35

HOWARD COUNTY.

Ellicott City.....	233	Marriottsville	300
Clarksville	488	Woodstock	258
West Friendship.....	476	Savage	220

KENT COUNTY.

Chestertown	22	Sassafras	34
Blacks	80	Millington	27
Stillpond	70	Edesville	24
Massey	64	Georgetown	5

MONTGOMERY COUNTY.

Rockville	450	Gaithersburg	500
Poplar Springs.....	800	Dickerson	350
Clarksburg	800	Cabin John Bridge....	100

PRINCE GEORGE'S COUNTY.

Upper Marlboro.....	39	Fort Washington.....	120
Brandywine	293	Beltsville	110
Accokeek	200	Hyattsville	40
Aquasco	158	Queen Anne.....	28
Laurel	150	Pope's Creek.....	20
Bowie	149		

QUEEN ANNE'S COUNTY.

Centreville	59	Kent Island.....	20
Sudlersville	65	Crumpton	20
Church Hill.....	60	Chesapeake	17
Queen Anne.....	35		

SOMERSET COUNTY.

Localities.	Elevation in Feet.	Localities.	Elevation in Feet.
Princess Anne.....	18	Costen	21
Eden	30	Peninsula Junction.....	14
Wellington	27	Kingston	8

ST. MARY'S COUNTY.

Leonardtwn	100	Morganza	71
Newmarket	172	Ridge	42
Mechanicsville	165	Valley Lee.....	40
Jarboesville	110	Chaptico	20
Park Hall.....	100		

TALBOT COUNTY.

Easton	30	Oxford	11
Wye Mills.....	60	St. Michaels.....	10
Trappe	55		

WICOMICO COUNTY.

Salisbury	23	Mardela Springs.....	27
Parsonsburg	80	Sharptown	20
Pittsville	60	Quantico	20
Delmar	57	Allen	11

WASHINGTON COUNTY.

Hagerstown	552	Fort Frederick.....	470
Mt. Quirauk.....	2,400	Hancock	488
High Rock.....	2,000	Sharpsburg	400
Blue Ridge Summit....	1,411	Maryland Heights.....	1,300
Blue Mountain House..	1,200	Sideling Hill.....	1,593

WORCESTER COUNTY.

Whitehaven	5	Whiteburg	30
Snow Hill.....	212	Bishopville	23
Longridge	51	Greenbackville	10
Berlin	45	Pocomoke	8
Stockton	33		

This table shows at a glance the general character of the country in the different sections of the State. H

	PAGE
country in the different sections of the State.....	163
lands of the western counties; the elevated portions.....	145

Central Maryland, with its beautiful rolling country and wooded ridges and fertile valleys; the level lands of the Eastern Shore, together with the somewhat higher elevations of Southern Maryland on the western side of the bay.

The highest elevation—3,700 feet—is on the Backbone mountain of Garrett county. Next in order are the altitudes of Allegany and Washington counties; then Frederick and Montgomery. Carroll, Harford, Howard and Baltimore are in a section of rolling country, well elevated, with some localities ranging from 400 to 1,000 feet in altitude. In Southern Maryland there are fairly good elevations in Anne Arundel, Prince George's, Calvert, Charles and St. Mary's. In the nine counties of the Eastern Shore there is a gradual falling off in the elevations from Cecil to Worcester.

Index

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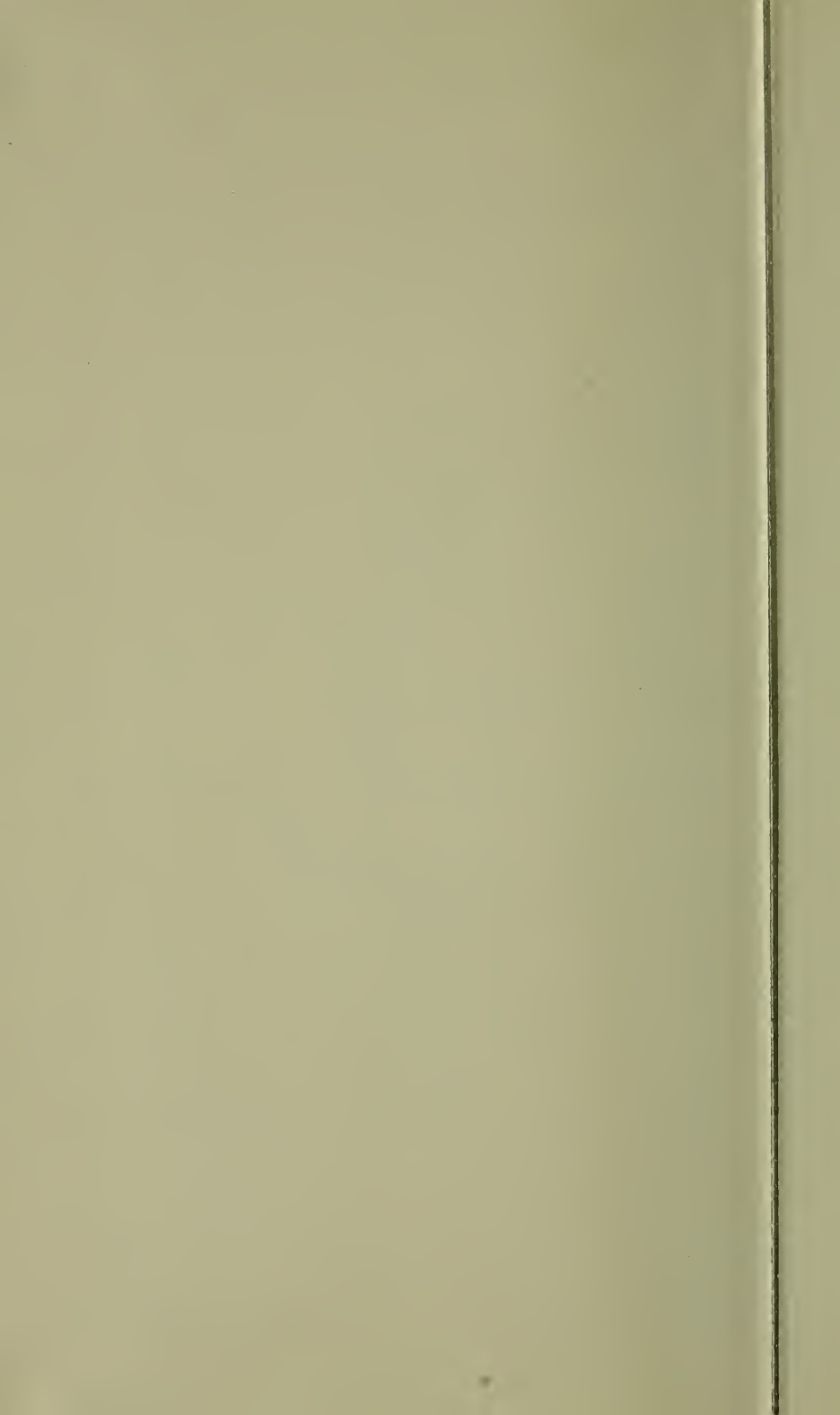
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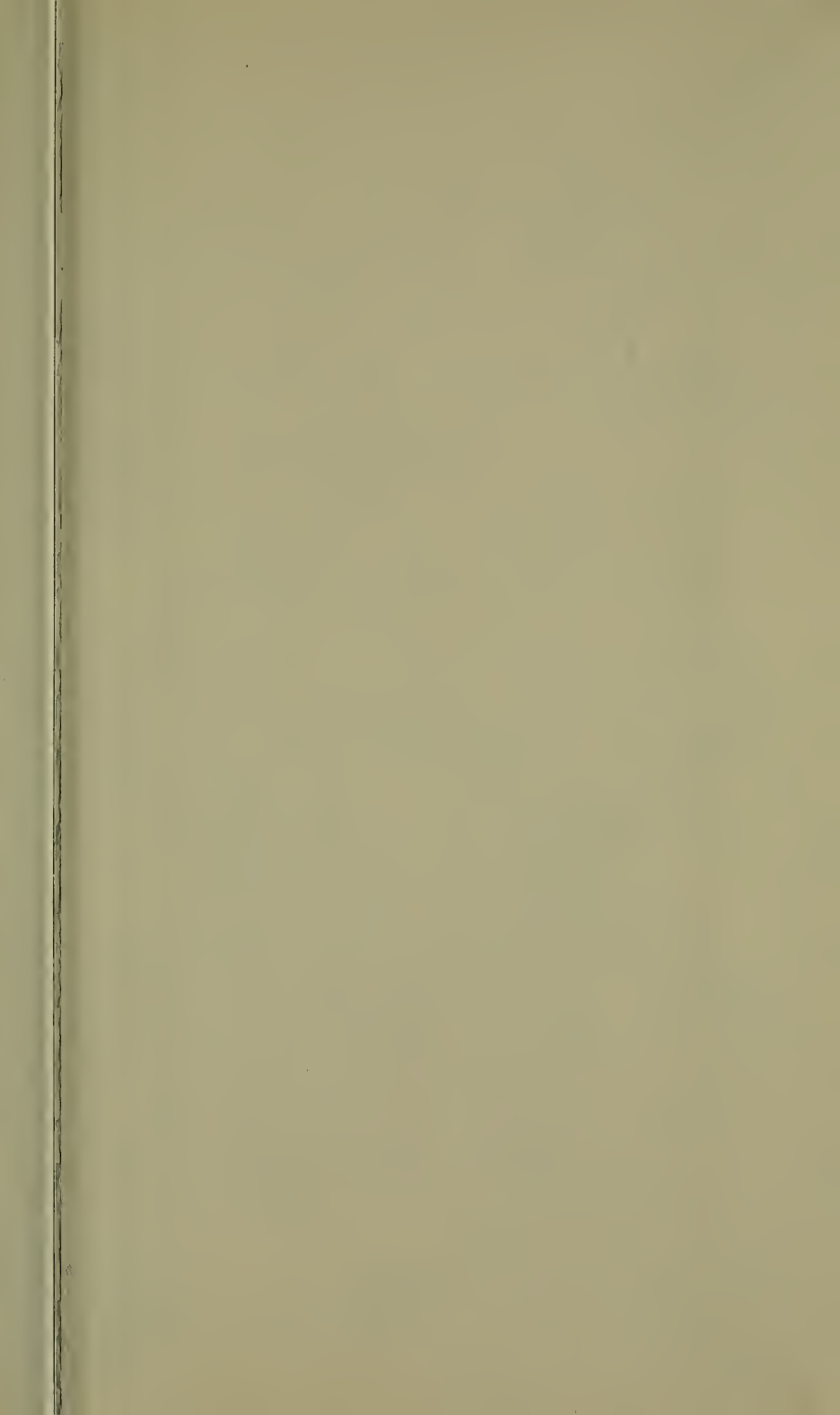
INDEX.

A	PAGE	C	PAGE
Agriculture	28	Calico Rock.....	40
Products	28	Calvert County.....	132
Alleghany County.....	118	Oyster Grounds.....	133
Coal Mining.....	119	Capital of Md.....	93
Manufactures	119	Carnegie, Andrew.....	92
Railroads	119	Caroline County.....	85, 135
Altitudes	186	Carroll County.....	127
Animal Life.....	29	Banks	129
Annapolis	93	Churches	128
Anne Arundel.....	85	Factories	129
Anne Arundel County.....	120	Railroads	128
Farms and Crops.....	122	Schools	128
Manufactures	123	Soils and Stone.....	127
Oysters and Fish.....	122	Cecil County.....	130
Transportation	122	Factories	131
Antietam, Battle of.....	22	Farms and Railroads.....	131
Appalachian Region.....	18	Schools	130
Area of Counties.....	20	Cement	42, 163
Ark and Dove.....	21	Charles County.....	85, 133
Austrians in Anne Arundel.....	85	Chesapeake Bay.....	53
		Chesapeake Bay, Fish, &c.....	29
		Chestertown	151
		Chrome	43, 145
B		Civil War.....	22
Baltimore County.....	123	Clays	34
Agriculture	124	Climate	15
Dairies	125	Coal, Men Employed.....	79
Factories	126	Coal Tonnage.....	79
Schools	126	Coals	33, 119
Stone and Minerals.....	125	Coastal Plain.....	17
Transportation	125	Compulsory Education.....	89
Baltimore, Situation.....	106	Constitutions	24
Commerce	107	Consumptives of Md., Hospital...	83
Docks	111	Counties, How Formed.....	19
Exports and Imports.....	109	Areas	20
Fire of 1904.....	115	Units of Territory.....	21
Manufactures	106	County Assessment.....	31
Steamship Lines.....	107	County Commissioners.....	27
Vantage Ground.....	113	County Officials.....	26
Baltimore-Washington Road.....	76	Crabs	59, 61, 138
Boundary of Maryland.....	13	Crisfield	157
Boundary Stones.....	14		
Brooks, Prof. W. K.....	55		

C		H	
	PAGE		PAGE
Crop Production.....	52	Hagerstown	163
Crosby, W. W.....	75	Harford County.....	145
Crothers, Governor, Roads.....	63	Farms and Industries.....	145
Crothers, Governor, Sketch.....	170	Wild Fowl.....	146
Cumberland	120	Hering, Joshua W.....	175
D		Highways Division.....	11
Danes in Charles County.....	85	Highway Improvement.....	63
Docks of Baltimore.....	111	Hollanders	85
Dorchester County.....	136	Howard County.....	146
Crabbers	138	Railroads	148
Farms	137	Stone	147
Oysters	137	I	
Tomatoes	138	Immigration, Bureau of.....	3, 84
E		Inmigration to Maryland.....	84
Education, Compulsory.....	89	Indian Head.....	133
Educational System.....	88	Industrial Statistics, Bureau of....	4
Election Supervisors.....	27	Iron Ores.....	37
F		J	
Farms and Products.....	28	Judicial System.....	25
Finances of Maryland.....	39	Justices of the Peace.....	27
Fish, Annual Catch.....	62	K	
Fish Commission.....	11	Kaolin	35
Fisheries	59	Kent County.....	148
Fire, Baltimore.....	115	Crops	149
Flora and Fauna.....	29	Towns	149
Forestry Commission.....	11	Key, F. S.....	22
Frederick City.....	139	King William's School.....	89
Frederick County.....	138	L	
Churches and Schools.....	139	Land, Poor.....	86
Farms and Factories.....	140	Lands, Low Price.....	86
Railroads	140	Legislature	24
Fruit and Flora.....	12	Libraries	92
G		Lime	42
Garrett County.....	141	M	
Minerals	142	Marble	39
Surface and Soil.....	142	Marl	36
General Assembly.....	24	Maryland—Departments	3
Geology	32	Altitudes	186
Geological Survey, Personnel. 4, 10,	77	Appalachian Region.....	18
Highway Work.....	79	Assessment for Taxes.....	31
Highways	11	Attractions	7
Government House.....	102		

M		M	
	PAGE		PAGE
Bureau of Immigration.....	84	Molding Sand.....	36
Climate	9	Monocacy, Battle of.....	22
Climate	15	Montgomery County.....	151
Coastal Plain.....	17	N	
Crab Production.....	52	Naval Academy.....	94, 103
Drainage	13	Negro Population.....	182
Early Settlers.....	23	O	
Financial Condition.....	30	Officials, County.....	26
Government	24	State	26
Government House.....	102	Orphans' Court.....	27
History	21	Oyster Planting.....	56
Judicial System....	25	Culture Law.....	57
Location and Area.....	12	Industry	58
Mineral Wealth.....	32	Survey	58
Negroes in.....	182	P	
Officials	24	Paint, Mineral.....	37
Peninsula of.....	87	Parr's Ridge.....	18
Physical Improvement.....	11	Patapsco River.....	110
Piedmont Plateau.....	17	Peggy Stewart.....	97
Population, by Counties....	20	Pension, Teachers.....	91
Population, by Periods....	21	Piedmont Plateau.....	17
Public Buildings.....	94	Population by Counties.....	20
Rain and Winds.....	16	by Periods.....	21
Religious Center.....	23	Tables.....	181, 182, 183
Road Improvement.....	63	Porcelain Material.....	35
Settlement	21	Preface	5
Soils	45	Presbyterian First Church.....	24
Statistics, Population.....	181	Prince George's County.....	153
Towns	185	Farms, &c.....	154
Tuberculosis Hospital.....	80	Property Values.....	31
Urban Population.....	184	Public Works, Board of.....	3, 26
Virginia Boundary.....	14	Q	
Weather Service.....	80	Queen Anne's County.....	155
23 Counties.....	19	Packing	156
Maryland Line.....	22	Towns	155
Maryland Steel Co.....	110	R	
Mason and Dixon's Line.....	13	Rain	16
McDonogh School.....	91	Red Lands.....	48
Menhaden Fish.....	60	Religious Center.....	23
Methodists, First.....	24	Revolution	22
Mineral Paint.....	37	Rivers	54
Minerals	32	Road Commission.....	3, 64
Minerals, Annual Output.....	78		





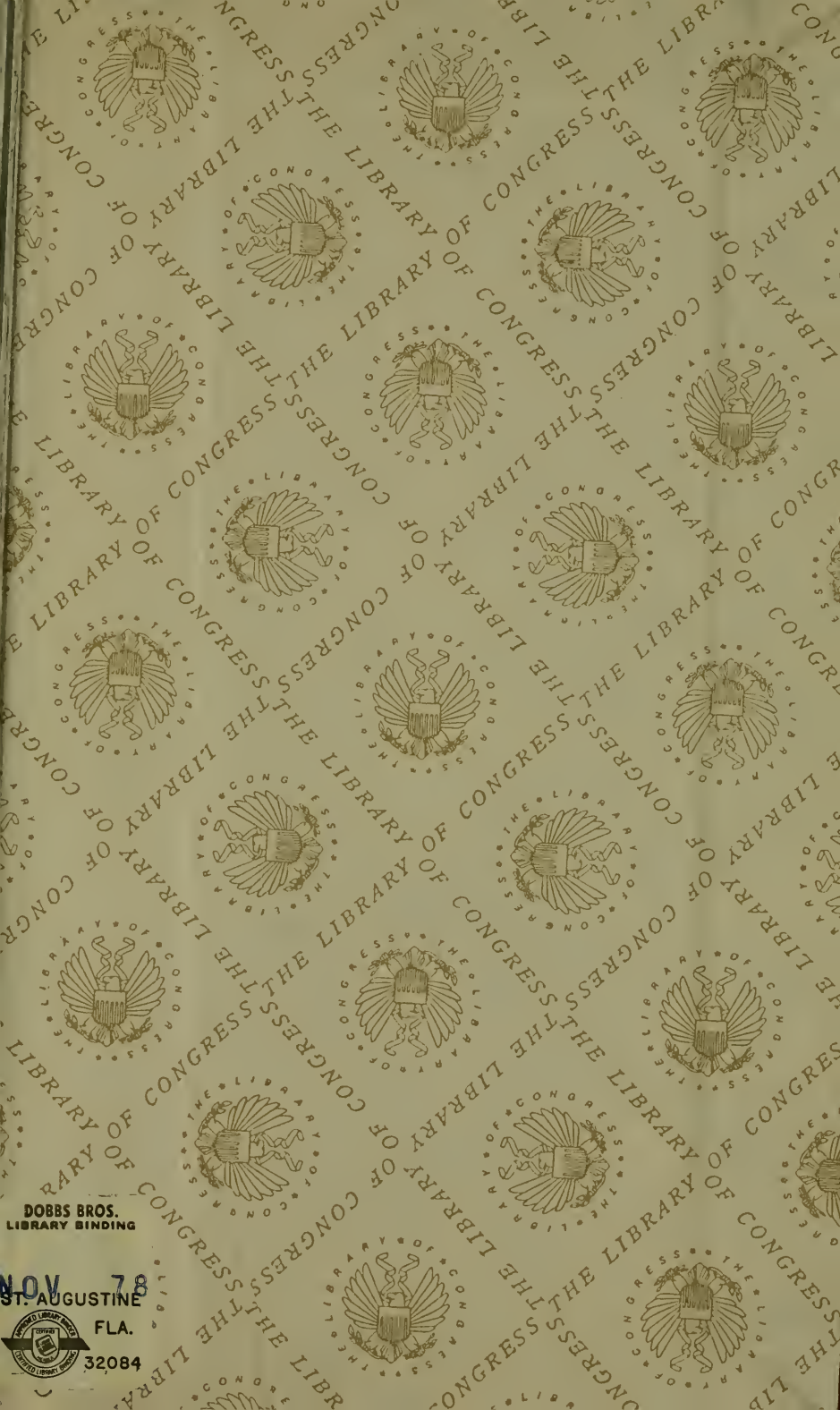


Deacidified using the Bookkeeper process.
Neutralizing Agent: Magnesium Oxide
Treatment Date:



PRESERVATION TECHNOLOGIES, L.P.
111 Thomson Park Drive
Cranberry Township, PA 16066
(724) 779-2111

S.V.



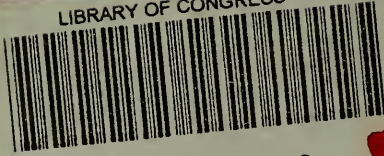
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