census is personal and nominative. The data required, which are obtained by direct application of the census taken, comprise surnames and Christian names, sex, age, civil state, birthplace, occupation, religion, degree of instruction, and infirmities of every description. At times other subjects of inquiry, such as the proportion of the rural to the town population, local diseases, the number of households, inhabited and uninhabited houses, buildings in course of construction, and live stock, have been connected with the census.

Statistics relating to population are derived in France from other different sources. Among these are the civil registers, which are kept with the greatest accuracy, and furnish all particulars of births, marriages, and deaths. The yearly recruitment also affords a periodical supply of valuable physical and mental statistics. Since 1843 the number and nature of cases of mental aberration is made the subject of an annual inquiry. Special enumerations of the inmates of public charitable institutions and penal establishments are also made once a year. Charitable associations of every description, life annuity insurance companies, savings banks, and public pawn-houses, are called on yearly for statistical details of their operations. The judicial authorities are required to furnish criminal statistics yearly.

The general service of public statistics is divided among several departments of the government. The ministry of the interior has charge of the population census and the civil registers. A statistical bureau is attached to the ministry of finance, whose functions are, however, confined to foreign commerce. Since 1834 a general statistical bureau has been in existence. It is subordinated to the ministry of commerce, and charged with the collection and preservation of all official statistical publications at home and abroad. It has no power to initiate statistical inquiries. The initiative in such belongs, according to their nature, to the several ministries.

In 1852 statistical commissions were created for each canton in each department. The members of these commissions are nominated by the prefects. The commissions themselves are divided into sub-commissions for each commune in the canton, charged with the prosecution of periodical inquiries bearing upon agriculture and industry, by means of schedules furnished by the government. The returns of the sub-commissions are subjected to revision, first by the cantonal commissions, and afterward by the sub-prefects and prefects, before they are transmitted to the central authorities.

Partly through the agency of the cantonal commission, and partly through the separate action of the several ministries, thorough statistical investigations, in addition to those connected with the population censuses, are made at regular and irregular intervals, relative to industry in general, and mining and metallurgic industry in special; operatives' and mechanics' wages, agriculture, disasters affecting agricultural interests, land and water communications, foreign and domestic commerce, and general, departmental, and municipal finances.

The records of the entire statistical service are regularly published. The catalogue of the publications issued up to this time has already attained such proportions that it would lead too far to enumerate them.

As stated in the preceding chapter, census-taking was inaugurated in Great Britain by the passage, on December 31, 1800, of the act of Parliament ordaining a general enumeration of the population of England, Wales, and Scotland in the spring of the following year, and every ten years thereafter. Accordingly the first census was taken on the 10th of March in England and Wales. For Scotland, a later day

was assigned, owing to the inclemency of the season. This first census included the sex, but not the age, of all the subjects; the number of families, and a classification of the population according to occupation, in three divisions: 1st. Persons chiefly employed in agriculture. 2d. Persons chiefly employed in trade and manufactures, or handicraft. 3d. All other persons not comprised in these two classes. In the two subsequent enumerations, in 1811 and 1821, the same plan was followed, except that the occupations of the heads of families only were entered. In that of 1821, a quinquennial and decennial classification of ages was also adopted. In 1836, a uniform system of registration of births, marriages, and deaths was established by act of Parliament for England and Wales, under the supervision of the register general's office. Under the act, the territory to which it applied was divided into over two thousand registration districts. The same act provided that the subsequent enumerations in England and Wales should be taken by the local registrars, under the direction of the registrar general. The creation of a regular statistical service greatly facilitated the census of 1841 in England and Wales. In Scotland the less efficient method of employing the parish schoolmasters as local censors continued.

In Ireland the first attempt at a general census was made in 1811, with very unsatisfactory results. It was repeated in 1821, but produced nothing but a mere enumeration of doubtful accuracy. The next census, taken in 1831, was subjected to a correction in 1834. In 1841, constabulary force was employed as census takers with better results. An attempt was made, in connection with the census of the year last named, to obtain statistics of the rural economy of the Irish kingdom, which proved very successful.

Great efforts were made to render the sixth census of England, Wales, and Scotland, in 1851, superior in results to the preceding enumerations. The special law enacted for the purpose provided that the census should be taken on one and the same day—the 31st of March—in the three parts of the kingdom named. For that purpose 30,610 competent enumerators were appointed, with the authority of the registrar general, by the 2,190 district registrars then in function in England and Wales. Only as much territory was assigned to each enumerator in the registration districts as could be conveniently canvassed by one person. There being no uniform system of registration in Scotland, the 32 sheriffs of that kingdom were authorized to appoint 1,010 temporary registrars—generally parochial schoolmasters—and 8,130 enumerators. 257 enumerators were appointed by the government for the smaller islands. Some days before the census day, the enumerators delivered to every occupier of a house or tenement a "householder's schedule," containing inquiries as to the name, relation to head of family, condition, sex, age, occupation, and birthplace of every person in Great Britain, and also as to the number of blind, deaf, and dumb. For the use of the lower classes of Wales, schedules were printed in Welsh. The schedule was to be filled up in the night of March 30–31. No one present on that night was to be omitted except working men, and others performing night labor away from their habitations. Travellers were enumerated at the hotels and houses at which they arrived on the following morning. Simultaneously with the household schedules, the enumerators distributed in the proper quarters forms for collecting information respecting places of worship, scholastic establishments and miscellaneous institutions.

The schedules were taken up by the enumerators at an early hour on the 31st of March. The collectors filled up those parts which persons

had either neglected or were unable to fill. They were also required to note all the unoccupied houses and buildings in course of construction. The floating population—that is, such persons who spent the night named in barges or boats, on canals or small streams, in barns, sheds, tents, and the like—the enumerators were required to estimate according to the best information they could obtain. Special notice was to be taken of all extraordinary assemblages of people anywhere at the time of the census.

The enumerators were allowed one week for the transcription of their schedules and the completion of summaries and estimates called for in their very full instructions. The revision of the returns by the district registrars, in which the latter were to pay particular attention to nine specially defined points, had to be completed in a fortnight. The revised returns were subjected to another revision by the "superintendent registrars" before they were finally transmitted to the census office.

The custom-house officers took the census of sea-going vessels in port. Persons belonging to the navy and commercial marine were also separately enumerated by the proper authorities. The government furnished the statistics of the army, half-pay officers, and pensioners; the civil service; the civilians and Europeans in the East India Company service, and of all British subjects living in foreign parts, as far as they could be ascertained through consular and diplomatic organs.

The British census of 1851 was the most successful statistical operation, both as regards quickness and accuracy of execution, performed up to that time in any country where public statistics were cultivated. The plan of the census of 1861 did not vary in any essential respects from that of the preceding one. Its execution was equally rapid and fruitful of satisfactory results, in spite of the greater difficulty of the task from the growth of population, &c.

In Ireland the censuses of 1851 and 1861 were again taken by the constabulary force. The mode of enumeration was essentially the same as in England, except that the schedules represented a wider field of inquiry. The additional interrogatories related to insanity, idiocy, degree of education, attendance at school, buildings other than habitations, and language. Since 1804 a general registration of births and deaths in Ireland is made by civil officers; up to that time registers were kept only for the protestant population.

While both in Ireland and in Scotland an agricultural census, which serves to determine the area devoted to the culture of different products of the soil, and the number of live stock, has obtained for many years, a first cattle census was taken in England and Wales only in May, 1866; it was followed soon after by a comprehensive agricultural census.

The digestion of the English and Irish census reports by the central statistical authorities is conducted in a thoroughly scientific manner. The general reports and the special compilations therefrom on a variety of subjects are unsurpassed by the corresponding records of any other country. Their very great value to statisticians and economists is universally acknowledged.

The movement of the population of the United Kingdom is annually determined by the registrar general office through the agency of the district registrars.

Besides the registrar general office, there exists in almost every department of the British government a special statistical service. Of the different departments the board of trade furnishes more contributions to public statistics than any other. As mentioned in the preceding

chapter, its statistical labors date centuries back. A special statistical bureau is attached to it, from which emanates annually very comprehensive and accurate reports upon the export and import trade, not only of Great Britain and her colonies, but of all foreign commercial countries. Current monthly reports upon the same subject are issued by the same bureau. It also publishes the "Statistical Abstract of the United Kingdom," which appears annually and contains the principal statistical data of the preceding fifteen years, showing the actual condition and comparative progress of the country. Another publication of the same authority is the "Miscellaneous Statistics of the United Kingdom," which also appears annually, and comprises a statistical abstract for the preceding three years. The board of trade has conducted an inquiry regarding the wages and salaries of government employés and mechanics, and operatives generally, and the cost of the prime necessaries of life, the interesting results of which have been given to the public.

The British Foreign Office regularly requires detailed statistical reports upon the commerce and industries of foreign countries from its subordinates, which are printed in the Parliamentary blue-books. An idea of the range of British public statistics may be formed from the following list of official publications other than those already named:

Annual reports of the registrar general of the births, deaths, and marriages in England and Wales.

Trimestrial tables of births, deaths and marriages; weekly reports of the births and deaths in London, and fourteen other large cities. (Similar reports are printed for Ireland and Scotland.)

Annual reports of the health officer of the privy councilor.

Annual report of the modifications of custom duties in foreign countries.

Annual reports on railway statistics, including tables of receipts and expenditures of all railways, number of accidents, &c.

Statistics of mines of mineral productions and metallurgic industry.

Reports of the government inspectors of texile industry.

Annual reports of the civil service commissions upon the public examinations of candidates.

Yearly statistical exhibits of the sanitary condition of the army and navy.

Financial statistics, comprising the annual exhibits of every branch of the public exchequer.

Banking statistics.

Statistics of savings banks and mutual aid societies.

Annual reports of the poor-law board, including monthly statistics of the pauper population.

Statistics of asylums for the insane.

Annual reports on the primary schools of the United Kingdom by the council on education for England, Wales, and Scotland, and by the national board of education for Ireland.

Annual reports of the department of science and art.

Statistics of civil and criminal justice, of prison administration, reformatory schools, and municipal police.

A vast amount of statistical material is embodied in the Parliamentary Blue Books, which already form a respectable library in themselves. The results of the investigations of the frequent parliamentary commissions are contained in these and possess particular value. Although administrative and population statistics had been more or less systematically for many years in Portugal, that kingdom had no regular statistical service until 1859, when a special bureau was created charged with col-

lecting statistical documents relating to the country, and to devise a method for regular statistical investigations under the direction of the government. The bureau, in 1860, published a "Report upon the General Statistics of Portugal," containing all existing data relative to the territory, population, industry, and public administration of the kingdom. In 1864 a general council of statistics was created, with power to direct the labors of the statistical bureau. On January 1, 1864, the first direct and simultaneous enumeration of the people throughout the kingdom was made in accordance with the law of the Cortes, passed in the preceding month of May, which established a decennial census system.

The census operation was commenced and completed on the day named. The actual population was its basis. Household schedules were employed, with inquiries as to sex, age, civil state, condition, occupation, nationality, habitual or accidental sojourners, and the present and absent. Special commissions for the successive revision of the census returns, which were collected by enumerators specially appointed, were created for each parish, each commune, and each department and district. The final revision was made by the statistical bureau and general council. The latter authority, which is composed of representatives of the principal departments of the government, and of eminent scientists, has done much since 1864 towards the organization of an efficient statistical service.

The birth of public statistics in Greece dates from her last struggle for independence. President Capo d'Istria early instituted inquiries regarding the Hellenic population. In 1834, within a year after the establishment of a monarchy, a "Bureau of Public Economy" was created under the ministry of the interior, and charged with the supervision of public statistics. The first general enumeration of the people of the kingdom was made in 1836. The operation was repeated annually until 1845, since when censuses have been taken at irregular intervals, viz: in 1848, 1853, 1856, 1861, and 1868. Up to 1861 the census remained a mere counting of the number of inhabitants in each commune, but in the year last named a more scientific character was given to the enumeration. Census commissions, consisting of municipal and police officers, and the local clergy, were organized in each commune, and special enumerators appointed for sparsely inhabited districts. The commissions and enumerators were furnished with schedules which they were required to fill up in the course of a fixed day, by means of direct application to all residents of their respective districts. Every actual resident was inscribed with surname and christian name, sex, age, civil state, profession, religion, and nationality. The number of families was specially entered. The returns were subjected to successive revision by three different authorities before they reached the bureau of statistics in consolidated form. The census of 1868 was taken upon the same plan.

The early census reports were not printed. It was only in 1846 that a tabular statement of the population by communes, provinces, and departments was published for the first time in the press organ of the government. Similar exhibits were published as late as 1860. Since then more comprehensive official publications have appeared.

The movement of the population is determined from civil registers, kept until 1856 by the clergy, and since then by the municipal authorities. Tables of births, deaths, and marriages are published at irregular intervals. In 1860 an inquiry into the rural economy of the kingdom was had, the results of which were published in 1864.

In the several departments of the government the statistics of agri-

culture, industry, commerce, and navigation are collected with more or less success.

The fact that even in such countries as Roumania and Servia, which are usually looked upon as the "rear guard of civilization" in Christian Europe, public statistics are cultivated, may be taken as striking evidence of the progress of statistical science in the Old World.

In Roumania, a statistical service was organized about 1860 by the establishment of a central direction of statistics with bureaus in every district of the united principalities. In 1866 the central direction was made a regular section of the ministry of the interior and the district bureaus discontinued. That part of their functions relating to agricultural statistics has since been exercised by the so-called agricultural commissions and sub-commissions. A central commission of statistics, consisting of public functionaries and other persons, was created in the same year and charged with the general direction of public statistics. Since 1860, more or less successful attempts have been made to collect the statistics of territory, population, public instruction, commerce and industry, agriculture, distribution of real property, public justice and finances, prisons, habitations, and live stock. The results obtained have been printed under the title of "Statistical and Economic Annals."

Though administrative and population statistics have been collected by the government of Servia in a more or less perfect form for perhaps a generation, a regular service of public statistics in that country was not known until 1862, when a bureau of statistics was made a section of the ministry of finance. A census, probably the first, was taken in 1846, and another in 1866, the results of the latter being far superior to those of the former.

At the instance of the statistical bureau, the statistics of agriculture, live stock, wages, internal and external commerce, public finances, public instruction, civil and criminal justice, and of the post office, have been collected since 1862, as far as practicable.

Strange as it may sound to most ears, even Turkey possesses a sort of statistical service. It is of ancient origin, but owes its present form to the Sultan, Mahmoud II. What may be termed a statistical bureau exists since his reign, under the ministry of finance. This organism consists of two sections: one charged with purely cadastral functions, the other with statistics proper. The latter is under the direction of a chief, entitled controller of statistics. He has under him six chiefs of bureau and thirty clerks. There is a functionary entitled controller of the census in each of fifty-one provinces, who is subject to the order of the chief controller of statistics. The provincial controllers of the census canvass their provinces continually, and prepare at the end of each year an exhibit of the—1st, births; 2d, deaths; 3d, number of absentees and travelers; 4th, public health; 5th, movement of real property; 6th, taxable values; 7th, losses from fire, disease, &c.

The head of each village prepares annually a statement of the age, occupation, religion, military service, liability to taxation, &c., &c., of every inhabitant under his jurisdiction. This statement is transmitted to the controller of the census of the province, and by him forwarded, after proper verification, to the chief controller of statistics in Constantinople. The latter communicates with the other departments of the government through the minister of finance. He provides the basis for taxation and military conscription.

HISTORICAL VIEW OF THE AMERICAN CENSUS.

The American census originated in the colonial period of American history. As is well known to all who have studied the history of that period, the British board of trade then played a leading part in colonial affairs; at times it was almost the supreme directing power. Under the direction of this board several enumerations of the population of the colonies were made; but, for reasons that will be stated hereafter, they were little more than approximations to the truth. Mr. Bancroft, in attempting to determine the population at different epochs, is impelled to say, "the positive data in those days are half the time notoriously false." Probably no part of the historic materials relating to the period is less valuable. And yet "notoriously false" as the tables prepared under the direction of the board of trade are, they are nevertheless the principal data for determining the population of the colonies at the periods for which they were given. The colonial censuses were taken under the immediate direction of the colonial governors, through the agency of the sheriffs and their deputies. Some of the results it is thought proper to incorporate into this report.

In 1688, the period of the great English revolution, the population of the British colonies in America was about 200,000. According to Mr. Bancroft, it was thus distributed:

Massachusetts, (including Plymouth and Maine)	44, 000
New Hampshire	6, 000
Rhode Island, (including Providence Plantations)	6, 000
Connecticut from 17,000 to	20, 000
New York	20, 000
New Jersey	10, 000
Pennsylvania, (including Delaware)	12, 000
Maryland	25, 000
Virginia	50, 000
The two Carolinas	8, 000

On the accession of George I, in 1714, the following table was compiled by the board of trade:

	White.	Black.	Total.
New Hampshire	9, 500	150	9, 650
Massachusetts	94, 000	2, 000	96, 000
Rhode Island	8, 500	500	9, 000
Connecticut	46, 000	1, 500	47, 500
New York	27, 000	4, 000	31, 000
New Jersey	21, 000	1, 500	22, 500
Pennsylvania, (including Delaware)	43, 300	2, 500	45, 800
Maryland	40, 700	9, 500	50, 200
Virginia	72, 000	23, 000	95, 000
North Carolina	7, 500	3, 700	11, 200
South Carolina	6, 250	10, 500	16, 750
	375, 550	58, 850	434, 600

On the accession of George II, in 1727, the board caused another table to be prepared, the totals of which are herewith given:

White	502, 000
Black	78, 000
Aggregate	580, 00

The results of one other of the many population tables prepared for the board of trade will be given. This table, "founded in part on muster-rolls and returns of taxables," included Nova Scotia also:

White	1,192,896
Black	292,738
Aggregate	1,485,634

At this time, it may be worth remarking, the French colonies that made up what was then called New France, had a population of scarce one hundred thousand inhabitants, and these were scattered through the immense region extending from the mouth of the St. Lawrence to the mouth of the Mississippi, though the greater part was massed in the valley of the former river.

Mr. Bancroft has probably studied this department of American history more thoroughly than any other writer. He has constructed the following table, showing the population of the colonies at six different periods:

Years.	White.	Black.	Aggregate.
1750	1,040,000	220,000	1,260,000
1754	1,165,000	260,000	1,425,000
1760	1,385,000	310,000	1,695,000
1770	1,850,000	462,000	2,312,000
1780	2,383,000	562,000	2,945,000
1790	3,177,257	752,000	3,924,326

This table bears upon its face evidence that, with the exception of the last item, it is not based on careful enumerations. Mr. Bancroft pretends to give nothing more than estimates, but says they "rest on the consideration of many details and opinions of that day, private journals and letters, reports to the board of trade, and official papers of the provincial governments. Nearly all," he continues, "are imperfect;" accordingly he says he has "deduced" his table "as some approximation to exactness." Mr. Bancroft further implies that tables more valuable than those of the Board of Trade can be constructed retrospectively from the rule of increase in the population since 1790.

The foregoing tables of population have been given, partly because they have a considerable value themselves, since no better ones can now be constructed, but chiefly because they show conclusively that in the colonial period the American census was in a very rudimentary form.

That no reliable enumerations of population were made during the period of English supremacy in our country should excite no surprise. The so-called enumerations were made by the direction of the British Board of Trade, three thousand miles distant, when scarce an Englishman well informed concerning American affairs could be found. It is true, they were made under the immediate direction of the royal governors; but the sparseness of the population, scattered over immense areas, taken in connection with the free and independent modes of life prevailing in many localities precluded thoroughness and accuracy. "For the southern provinces," says Mr. Bancroft, "where the mild climates invited emigrants to the inland glades—where the Crown lands were often occupied on warrants of surveys without patents, or even without warrants—where the people were never assembled but at muster, there was room for glaring mistakes in the enumerations." Besides, superstition played

a part in several of these colonial returns, as appears from the letters of governors to the home government.

In 1712, Governor Hunter undertook to make an enumeration of the inhabitants of New York, through the agency of justices of the peace in the several counties. The returns were imperfect, "the people being deterred by a simple superstition and observation *that the sickness followed upon the last numbering of the people.*"*

Governor Burnet, of New Jersey, in a communication to the lords of trade, under date of June 2, 1726, says, in alluding to a return of population made from New York three years before:

> I would have then ordered the like accounts to be taken in New Jersey; but I was advised that it might make the people uneasy, they being generally of a New England extraction, and thereby enthusiasts; and that they would take it for a repetition of the same sin that David committed in numbering the people, and might bring on the like judgments. This notion put me off from it at that time; but since your lordships require it, I will give the orders to the sheriffs, that it may be done as soon as may be.†

To these special reasons another and general one may be added: These colonial enumerations were all made before the modern census had assumed scientific form and definiteness. European history records a few scattering censuses in the sixteenth, seventeenth, and eighteenth centuries; but they were, in the very nature of the case, very imperfectly taken, being, in fact, according to our standards of completeness, little more than rough guesses. "Enumeration is a slow and laborious process," says Sir George Cornewall Lewis; "and until experience has taught us its necessity where correctness is required, there is a disposition, particularly among uncultivated people, to rely upon computation." "To count," says Dr. Johnson, "is a modern practice; the ancient method was to guess; and where numbers are guessed they are always magnified." Tried by this principle, no census taken previous to the close of the colonial period of American history could have had any great scientific value. The census, as we know it, was a later development. England took her first census in 1801, and even then it was so imperfectly taken that it was of little value. A thorough census of the English people was not taken until twenty years later. Were there no special reasons for reaching the same conclusions, it would be absurd to suppose the colonial governors, under the direction of the Board of Trade, made accurate enumerations of the British colonists in America a half century or a century before England had enumerated her own population.

The revolutionary struggle had not far progressed before it became evident that it would assume the form of a war for independence; at quite as early a day it became apparent that all the resources of the States would of necessity be laid under contribution. In the continental Congress the question soon arose, How shall the burdens of war be distributed? During the whole course of the war the Congress found no more perplexing question. It was first grappled with in 1775. In the journal, under date of Tuesday, December 26, of that year, we find the following entry:

> The Congress took into consideration the report of the Committee on the State of the Treasury, and thereupon came to the following resolutions:

Several of which here follow:

> Whereas an estimate hath lately been formed of the public expense already arisen, and which may accrue, in the defenses of America to the tenth day of June next, in pursuance whereof this Congress, on the 29th of November, resolved that a further sum of three millions of dollars be remitted in bills of credit—
>
> *Resolved*, That the thirteen United Colonies be pledged for the redemption of the bills of credit so directed to be emitted;

* New York Colonial History, V. 339. † Ibid., 777.

That each colony provide ways and means to sink its proportion of said bills, in such manner as may be most effectual and best adapted to the condition, circumstances, and equal mode of levying taxes in each colony;

That the proportion or quota of each respective colony be determined according to the number of inhabitants of all ages, including negroes and mulattoes in each colony;

That it be recommended to the several assemblies, conventions, or councils, or committees of safety of the respective colonies, to ascertain, by the most impartial and effectual means in their power, the number of inhabitants in each respective colony, taking care that the lists be authenticated by the oaths of the several persons who shall be intrusted with this service; and that the said assemblies, conventions, councils, or committees of safety, do respectively lay before this Congress a return of the number of inhabitants of their respective colonies, as soon as the same shall be procured.

The last resolution was responded to in some of the States; in how many I have been unable to determine. New Hampshire had already anticipated the resolution. The details of these censuses are mostly lost, but enough remain to show that there was no uniformity of procedure. In the cases where responses were obtained the immediate object had in view may have been accomplished; but for the purposes of statistical science the enumeration could not have been of great value. The attempts certainly demonstrated that no censuses, complete and uniform, could be taken without a central directing authority. This want the articles of confederation sought to supply.

On the 11th June, 1776, the day after the committee to prepare a Declaration of Independence was appointed, the Congress passed this resolution:

Resolved, That a committee be appointed to prepare and digest the form of a confederation to be entered into by these colonies.

And on the next day the following:

Resolved, That the committee to prepare and digest the form of confederation to be entered into between these colonies, consist of a member from each colony.

Just one month later the committee provided for by the foregoing resolutions, through John Dickinson, submitted its report. The Journal under that date contains this entry:

Ordered, That eighty copies, and no more, of the confederation, as brought in by the committee, be immediately printed and deposited with the secretary, who shall deliver one copy to each member;

That the printer be under oath to deliver all the copies which he shall print, together with the copy sheet, to the secretary, and not to disclose, either directly or indirectly, the contents of the said confederation;

That no member furnish any person with his copy, or take any steps by which the said confederation may be reprinted, and that the secretary be under the like injunction.

The eleventh article of this draught, so carefully guarded, was in these words:

All charges of war and all other expenses that shall be incurred for the common defense or general welfare, and allowed by the United States in Congress assembled, shall be defrayed out of a common treasury, which shall be supplied by the several colonies in proportion to the number of inhabitants, of every age, sex, and quality, except Indians not paying taxes, in each colony, a true account of which, distinguishing the white inhabitants, shall be triennially taken and transmitted to the assembly of the United States.

This article was a fruitful source of discussion. The slave interest objected to the enumeration of the negroes. Mr. Chase moved that the quotas should be apportioned according to the number of "white inhabitants." Mr. Harrison proposed as a compromise that two slaves should be counted as one freeman. The articles as finally agreed to by Congress, and ratified by the States, contained two provisions bearing upon the subject. The eighth article was in these words:

All charges of war and all other expenses that shall be incurred for the common defense or general welfare, and allowed by the United States in Congress assembled, shall

be defrayed out of a common treasury, which shall be supplied by the several States in proportion to the value of all land within each State, granted to or surveyed for any person, as such land and the buildings and improvements thereon shall be estimated, according to such mode as the United States in Congress assembled shall from time to time direct and appoint.

The taxes for paying that proportion shall be laid and levied by the authority and direction of the legislatures of the several States, within the time agreed upon by the United States in Congress assembled.

The ninth article contained only a single clause relating to the census:

The United States in Congress assembled shall have authority * * * to agree upon the number of land forces, and to make requisitions from each State for its quota, in proportion to the number of white inhabitants in such State.

When these two provisions are compared with the eleventh article of John Dickinson's draught, it will be seen that, for census purposes, the Congress had taken a step backwards. The former provided in express terms for a triennial enumeration of the whole population, excluding Indians not taxed. The latter contemplated nothing more than an enumeration of the white inhabitants, together with a valuation of land, with the improvements thereon. The former required a triennial enumeration; the latter left the whole matter to subsequent legislation. Considering the weakness of the confederacy, it is questionable whether even Dickinson's article would have given us a national enumeration; certain it is that the articles themselves did not. But it is idle to compare the relative merits of the two documents. The one never became law; the other never produced, either a valuation of land, or such partial enumeration of the population as it contemplated.

I. *Valuation of land.*—The articles of confederation did not become binding until March 1, 1781, at which time Maryland, the last of the States to give in its adhesion to the new form of government, ratified them. Anticipating an earlier ratification, Congress took the following action on the 19th of October, 1778:

Whereas, by the eighth article of the articles of confederation and perpetual union, agreed upon for the United States of North America, it is provided that all expense for the common defense or general welfare, and allowed by the United States in Congress assembled, shall be defrayed out of a common treasury to be supplied by the several States, in proportion to the value of all lands within each State granted to or surveyed for any person, as such land, and the buildings and improvements thereon, shall be estimated, according to such mode as the United States in Congress assembled shall, from time to time, direct and appoint; and whereas the value aforesaid must, from the nature of things, frequently change, and frequent valuations thereby become necessary: Therefore,

Resolved, That it be recommended to the several States to instruct their delegates to fix the period of such valuation.

Resolved, That, in the opinion of Congress, five years will be a proper term for that purpose.

It does not appear that this action produced any results.

By the time peace was concluded with Great Britain, the finances of the confederacy had fallen into inextricable confusion. Demand far exceeded supply, obligations already incurred were to be met, interest already accrued was to be provided for; the army was to be paid; and the treasury was bankrupt. Congress vainly sought to bring order out of chaos; vainly tried to meet its obligations. The entire inefficiency of the confederation, that "firm league of friendship," as it styled itself, was even more apparent than it had been during the progress of the war. The severest strain came upon the weakest part of the league. The pressure of war being removed, the States had little inclination, or were unable, as the case may be, to respond to the necessities of the nation. Congress made a heroic attempt to provide for the interest on the public debt. It determined that at least $2,500,000 would be needed

annually for that purpose. It recommended to the several States, "as indispensably necessary to the public credit, and to the punctual and honorable discharge of the public debt, to invest the United States in Congress assembled with a power to levy, for the use of the United States, duties upon certain kinds of goods imported into the said States," from any foreign port, island, or plantation. It was hoped that this recommendation, if complied with, would yield an annual revenue of $1,000,000. To provide for the remainder of the necessary sum, it was resolved, "That it be further recommended to the several States to establish for a term limited to twenty-five years, and to appropriate to the discharge of the interest and principal of the debts contracted on the faith of the United States, for supporting the war, substantial and effectual revenues of such nature as they may judge most convenient, for supplying their respective proportions of $1,500,000 annually, exclusive of the afore-mentioned duties, which proportion shall be fixed and equalized, from time to time, according to the rule which is, or may be, prescribed by the articles of confederation: * * * * *Provided*, that until the rule of confederation can be carried into practice, the proportions of the said $1,500,000 shall be as follows, viz:"

The figures here inserted in the resolution are omitted, as they do not bear immediately on the historical development of the subject in hand. Suffice it to say, the proportions of the States were grounded on the number of inhabitants in each State; the committee who reported them observing that New Hampshire, Rhode Island, Connecticut, and Maryland had produced authentic documents of their numbers; and that, in fixing the numbers of other States, they had been governed by such information as they could obtain. The following is the table:

New Hampshire	82,200
Massachusetts	350,000
Rhode Island	50,400
Connecticut	206,000
New York	200,000
New Jersey	130,000
Pennsylvania	320,000
Delaware	35,000
Maryland	220,700
Virginia	400,000
North Carolina	170,000
South Carolina	150,000
Georgia	25,000
Total	2,339,300

The vagueness and unreliability of the information accessible to Congress, is shown by Mr. Madison's summary of the debate on the committee's report:

The sense of Congress having been taken on the truth of the numbers reported by the grand committee, the number allotted to South Carolina was reduced to one hundred and fifty thousand, on the representation of the delegates of that State. The delegates of New Jersey also contended for a reduction, but were unsuccessful. Those of Virginia, also, on the principle that Congress ought not to depart from the relative numbers given in 1775, without being required by actual returns, which had not been obtained, either from that State or others whose relations would be varied. To this reasoning was opposed the verbal and credible information received from different persons, and particularly Mr. Mercur, which made the number of inhabitants in Virginia, after deducting two-fifths of the slaves, exceed the number allotted to the State. Congress were almost unanimous against the reduction. A motion was made by Mr. Gervais, seconded by Mr. Madison, to reduce the number of Georgia to fifteen thousand,

on the probability that their real number did not exceed it, and the cruelty of overloading a State which had been so much torn and exhausted by the war. The motion met with little support, and was almost unanimously negatived.

Comparing the total population of the congressional table of 1783 with Mr. Bancroft's total for the year 1780, it would at first appear either that the population had decreased, or that one or the other of the two estimates must be erroneous. Neither of these conclusions, however, follows. For the first time in the history of the United States we meet, in 1783, with a rule of apportionment that afterwards played a conspicuous part in the legislation and politics of the nation. In determining the quotas of the several States, only three-fifths of the slaves were counted.

Convinced that some more efficient financial scheme was essential to the life of the confederation, Congress sought to procure an amendment to the articles. Hence it sent to the States, with an urgent request that it might be ratified, the following:

So much of the 8th of the articles of confederation and perpetual union between the thirteen States of America as is contained in the words following, to wit:

"All charges of war and all other expense that shall be incurred for the common defence or general welfare, and allowed by the United States in Congress assembled, shall be defrayed out of a common treasury, which shall be supplied by the several States, in proportion to the value of all land within each State, granted to or surveyed for any person, as such land and the buildings and improvements thereon shall be estimated, according to such modes as the United States in Congress assembled shall, from time to time, direct and appoint," is hereby revoked and made void; and in place thereof, it is declared and concluded, that the same having been agreed to in a Congress of the United States, that all charges of war and all other expenses that have been or shall be incurred for the common defence or general welfare, and allowed by the United States in Congress assembled, except so far as shall be otherwise provided for, shall be defrayed out of a common treasury, which shall be supplied by the several States, in proportion to the whole number of white and other free citizens and inhabitants, of every age, sex and condition, including those bound to servitude for a term of years, and three-fifths of all other persons not comprehended in the foregoing description, except Indians, not paying taxes, in each State; which number shall be triennially taken and transmitted to the United States in Congress assembled, in such mode as they shall direct and appoint.

It is not the purpose of this paper to deal with the financial history of the government, except in so far as it has a bearing on the historical development of the census. Hence, no general inquiry into the results of the foregoing legislation is instituted. Suffice it to say, the proposition to abrogate the eighth article and to substitute another in its place did not prevail. The articles of confederation remained unamended, until they were swept away by the Constitution of 1787. It is proper to observe, however, that the recommendation of 1783 furnished the framers of the Constitution with the rule for apportioning representatives and direct taxes among the several States of the Union.

II. *Enumeration of white inhabitants.*—This topic can be dismissed in few words. On the 21st of November, 1781, a motion was made by Mr. Randolph, seconded by Mr. Carroll—

That it be recommended to the legislatures of the several States to cause to be taken and transmitted to Congress, as soon as possible, the number of the white inhabitants thereof, pursuant to the ninth article of the confederation.

This motion received the votes of but six States, and was consequently lost. It does not appear from the journal that the subject was again brought to the attention of the Congress.

Surveying the whole field of history to the close of the continental period, we see that so far from a census having been achieved, there had not even been a thorough enumeration of the population taken. It was left to the Constitution to give us first an enumeration, and afterwards a census.

The framers of the Constitution had few, if any, more difficult questions to deal with than the determining of a rule for the apportionment of representatives and of direct taxes. The articles of the confederation had proposed to distribute the quotas of the land forces among the States, according to the number of white inhabitants. Hence the question arose in the Constitution, why not apportion representation and taxation according to population? The earlier session of the convention revealed wide differences of opinion; but ultimately the majority settled down in the conviction that the principle proposed in 1783 was the best practical solution of the difficulty. But other troublesome questions arose. What shall be the ratio of representation? And shall it be fixed for all time to come, or shall it be left to Congress to adjust it to the growth of population? In determining the basis of representation, shall the whole population be counted? How shall the number of inhabitants be determined, and at what periods? The answers to these questions were almost as numerous as the respondents. The first was a prolific source of debate, but it is dismissed as not germane to the present inquiry. In answer to the second, some proposed that the whole number of the inhabitants of every description should be counted; others, that Indians not taxed should be excluded; others still to subtract the class last named, together with two-fifths of the slaves. In answer to the third, it was agreed on all hands that a careful enumeration would be necessary. How soon shall the first one be taken? Two years, three years, and six years, from the first meeting of Congress was suggested. How often shall the enumeration be repeated? Here, again, there was contrariety of opinion. Every ten years, every fifteen years, every twenty years, was insisted on by three different classes, respectively. These perplexing questions could be settled only by a compromise of views. The matured deliberations of the majority took this well-known form:

> Representatives and direct taxes shall be apportioned among the several States which may be included within this Union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct.

This constitutional provision has given us at each decennial period, commencing with 1790, an enumeration of population, and in two instances (1850 and 1860) a national census. Moreau de Jonnès, a distinguished French writer on statistics, pronounces this eulogium on the American founders:

> The United States presents in its history a phenomena which has no parallel. It is that of a people who instituted the statistics of their country on the very day when they founded their government, and who regulated in the same instrument the census of the citizens, their civil and political rights and the destinies of the country.
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> * * * * * * * * *
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> It appears that statistics was seriously undertaken seventy years ago, by a people who, though very jealous of their liberties, did not hesitate to punish as a criminal offence what would otherwise be regarded as an unimportant act. To obtain the statistics of population is, in the United States, a civil duty that appeared so important to the assembly over which Washington presided, and of which Madison, Livingston, and Franklin were members, that it pronounced penalties against the inhabitant or the magistrate who neglected it.

De Jonnès's eulogium is perhaps over-warm. The American census is a growth; the Constitution contains simply the germ. There is no evidence to show that the American founders, or any one of them, considered the constitutional provision cited above in its scientific aspects; they had no thought of creating a census, the results of which should

answer the thousand questions of social and political science; they contemplated a simple enumeration of population, as furnishing a basis for apportioning representatives and direct taxes. But if the founders did not look to the ends of science, they provided an instrument with which the ends of science can be attained.

The first Congress, at its second session, passed a law to carry the constitutional provision into effect. It was approved March 1, 1790. As this law is the model after which subsequent laws are fashioned, some of its leading provisions are here stated. It was made the duty of the marshals of the several districts of the United States to take the enumeration, they having power to appoint as many assistants within their respective districts as to them should appear necessary; the enumeration was to commence on the first Monday in August, 1790, and to close within nine calendar months thereafter; the marshals were required to file the returns with the clerks of their respective district courts for careful preservation, and to forward the aggregate amount of each description of persons within their respective districts to the President of the United States; each assistant marshal was required, previous to making his return to the marshal, to cause a correct copy of the schedule, signed by himself, to be set up at two of the most public places within his division, there to remain for public inspection.

Previous to the enactment of the census law of 1800, some public-spirited citizens, engaged in scientific and philosophical pursuits, sought to prevail on Congress to make the census of that year something more than a bare enumeration of population. Two learned societies memorialized Congress on the subject. Copies of their memorials are incorporated into this paper, as being important contributions to the history of the American census:

MEMORIAL.

[Communicated to the Senate January 10, 1800.]

To the honorable the Senate and House of Representatives of the United States:

The memorial of the American Philosophical Society respectfully showeth: That this society, instituted for the promotion of useful knowledge, understanding that the legislature of the Union have under their consideration a bill for taking a new census of the inhabitants of the United States, considers it as offering an occasion of great value, and not otherwise to be obtained, of ascertaining sundry facts highly important to society. Under this impression, they beg leave respectfully to submit to the wisdom of the legislature the expediency of requiring from their officers, in addition to the table in the former act for the same purpose, others presenting a more detailed view of the inhabitants of the United States, under several different aspects.

They consider it as important to determine the effect of the soil and climate of the United States on the inhabitants thereof; and for this purpose, dividing life into certain epochs, to ascertain the existing numbers within each epoch, from whence may be calculated the ordinary duration of life in these States, the chances of life for every epoch thereof, and the ratio of the increase of their population; firmly believing that the result will be sensibly different from what is presented by the tables of other countries, by which we are, from necessity, in the habit of estimating the probabilities of life here. And they humbly suggest, as proper for these purposes, the intervals between the following epochs, to wit: Births; two, five, ten, sixteen, twenty-one, and twenty-five years of age, and every term of five years from thence to one hundred.

For the purpose, also, of more exactly distinguishing the increase of population by birth and emigration, they propose that another table shall present, in separate columns, the respective numbers of native citizens, citizens of foreign birth, and of aliens.

In order to ascertain more completely the causes which influence life and health, and to furnish a curious and useful document of the distribution of society in these States, and of the conditions and vocations of our fellow-citizens, they propose that still another table shall be formed specifying, in different columns, the number of free male inhabitants, of all ages, engaged in business, under the following or such other descriptions as the greater wisdom of the legislature shall approve, to wit: 1st, men of the

learned professions, including clergymen, lawyers, physicians, those employed in the fine arts, teachers and scribes in general; 2d, merchants, and trades, including bankers, insurers, brokers, and dealers of every kind; 3d, marines; 4th, handicraftsmen; 5th, laborers in agriculture; 6th, laborers of other descriptions; 7th, domestic servants; 8th, paupers; 9th, persons of no particular calling, living on their income; care being taken that every person be noted but once in the table, and that under the description to which he principally belongs.

They flatter themselves that, from their data, truth will result very satisfactorily to our citizens; that, under the joint influence of soil, climate, and occupation, the duration of human life in this portion of the earth will be found at least equal to what it is in any other; and that its population increases with a rapidity unequaled in all others.

What other views may be advantageously taken they submit, with those above suggested, to the superior wisdom of Congress, in whose decision they will acquiesce with unqualified respect.

By order of the society:

THOMAS JEFFERSON,
President.

MEMORIAL.

[Communicated to the Senate January 10, 1800.]

To the honorable the Senate and House of Representatives of the United States in Congress assembled:

The memorial of the Connecticut Academy of Arts and Sciences respectfully showeth: That this academy, being instituted for the purpose of promoting the various branches of useful knowledge, deem it an object very interesting to a young and flourishing republic to become acquainted with its own natural history, and especially with whatever regards the origin and prosperity of its population. America, enjoying a sequestered situation on the globe, seems to be peculiarly fitted, by her leisure and means, to cultivate the arts of peace without interruption. The United States, comprehending a great variety of climates, have the power by legislative measures to collect and combine under one view many important facts relative to the effects of climate, modes of living, face of the country, and occupations upon the character of diseases and the duration of human life. And your memorialists cannot but believe that the legislature of this extensive country will consider these objects very interesting in a scientific view, and well calculated to answer valuable purposes in civil economy. Your memorialists conceive that to present and future generations it will be highly gratifying to observe the progress of population in this country, and to be able to trace the proportion of its increase from native Americans and from foreigners emigrating at successive periods; to observe the progress or decline of various occupations; the effects of populations, luxury, mechanic arts, the cultivation of lands, and the draining of marshes on the health and longevity of the citizens of the United States.

For the accomplishment of these and other scientific objects, to which on this extensive scale no individual industry is competent, your memorialists beg leave to request your honors to direct by law that the next census of the inhabitants of the United States may comprehend the following particulars, namely:

The number of children under the age of two years, and between the ages of two and five; the number of persons between the ages of sixteen and thirty, thirty and fifty, fifty and seventy, seventy and eighty, ninety and one hundred, and above one hundred, distinguishing in each class the males from the females; the number of persons not born in the United States; the number of persons in each of the handicraft occupations; the number of merchants, cultivators of land, and professional men, distinguishing the professions; the number of married persons, of unmarried persons above thirty years of age, of widows, and widowers.

And your memorialists request that the returns from the several cities, towns, counties, or other districts may be kept distinct.

As your memorialists have in contemplation solely to collect the materials for a complete view of the natural history of man and society in the country, they have full confidence that your honors will cheerfully lend the aid of legislative provisions in such manner and to such extent as shall be demanded effectually to attain so desirable an object.

By order of the academy:

TIMOTHY DWIGHT,
President.

The Senate referred these memorials to a committee already charged with the duty of preparing a census law. It does not appear from the

journal of the Senate that this committee, although instructed to do so, ever made a report. No mention is made of the memorials in the recorded debates. These two facts show how little the legislature of 1800 were interested in the scientific bearings of a national census. The law finally enacted, approved February 28, 1800, was modeled after that of 1790, but contained some new features of minor importance. The general direction of the census was placed in the hands of the Secretary of State, where it remained until the passage of the law of May 23, 1850 when the Census Office was made a part of the newly-erected Department of the Interior. The schedule was considerably extended.

In 1810 the population schedule of 1800 was used without modification. But now, for the first time, the scope of the census was enlarged.

An act approved May 1, 1810, amendatory of the act of March 1, 1810, required the several marshals, secretaries, and their assistants, "at the time for taking the census or enumeration aforesaid, to take, under the direction of the Secretary of the Treasury, and according to such instructions as he should give, an account of the several manufacturing establishments and manufactories within their several districts, territories, and divisions."

Still no schedule was incorporated into the law—it was left to the discretion of the Secretary to construct. The results obtained in answer to such inquiries as were made were of no great value; still the experiment was repeated ten years later.

The law of March 14, 1820, made it the duty of the "several marshals and their assistants, at the time for taking the said census, to take, under the direction of the Secretary of State, and according to such instructions as he shall give, and such forms as he shall prescribe, an account of the several manufacturing establishments and their manufactures, within their several districts, territories, and divisions."

These two attempts to gather statistics of manufactures were so little successful, that in taking the census of 1830 the attempt was wholly abandoned. In 1840 a manufacturers' schedule was used; but it was not until the passage of the law of 1850 that results of substantial value were arrived at. Even that was so imperfect in operation, that in framing a new law no part of it needs to be more closely studied than the industrial schedule. It has been stated above that the census of the United States is a growth, only the germ of which is found in the federal Constitution. The fact is susceptible of more striking illustration. To comprehend the vigor and the extent of this growth, the schedule of inquiries used in the several censuses should be studied in their chronological order. To facilitate such study, they are here presented as thus arranged. The study will show six schedules, with more than one hundred inquiries, in 1850 and 1860, in place of the one schedule with six inquiries in 1790.

[1790.]

Schedule of the whole number of persons within the division allotted to A. B.

Names of heads of families.	Free white males of sixteen years and upward, including heads of families.	Free white males under sixteen years.	Free white females, including h'ds of families.	All other free persons.	Slaves.

[1800.]

Schedule of the whole number of persons within the division allotted to A. B.

	Name of the county, parish, township, town or city, where the family resides.
	Name of head of family.
	Free white males under 10 years of age.
	Free white males of 10 and under 16.
	Free white males of 16 and under 26, including heads of families.
	Free white males of 26 and under 45, including heads of families.
	Free white males of 45 and upward, including heads of families.
	Free white females under 10 years of age,
	Free white females of 10 years and under 16.
	Free white females of 16 and under 26, including heads of families.
	Free white females of 26 and under 45, including heads of families.
	Free white females of 45 and upward, including heads of families.
	All other free persons, except Indians, not taxed.
	Slaves.

[The population schedule of 1810 was identical with that of 1800.]

Census of 1810.—*Manufactures.*

Cotton manufacturing establishments.
Cotton duck.
Hempen manufacturing establishments.
Blended and unnamed cloths and stuffs.
Tow cloth.
Woolen manufacturing establishments.
Cotton and wool spun in mills.
Web lace and fringe.
Stockings.
Looms for cloths of cotton, wool, &c.
Carding machines.
Fulling mills.
Sewing silk and raw silk.
Jennies.
Spindles.
Wire card manufactories.
Spinning wheels.
Batteries.
Furnaces.
Bar iron, &c.
Trip hammers.
Rolling and slitting mills.
Nailories.
Wire drawing.
Gunsmiths.
Blacksmiths' work.
Steel furnaces.
Hydraulic engine makers.
Tacks.
Clocks and watches.
Gold and silver work.
Tin plate work.
Manufactures of mixed metals.
Copper and brass manufactures.
Bells.
Buttons.
Lead.
Tallow candles.
Soap.
Spermaceti candles.
Spermaceti oil.
Whale oil.
Spermaceti and whale oil.
Tanneries.
Boots, shoes, and slippers.
Saddlery.
Morocco skins.
Leather gloves.
Catgut.
Flax-seed oil.
Spirits distilled from grain.
Spirits distilled from molasses.
All kinds of spirits distilled.
Beer.
Shipping.
Cabinet work.
Chairs.
Carriage makers.
Wagons.
Woolen ware unnamed.
Kakes.
Essence of spruce.
Oil or essence of turpentine.
Sugar refined.
Paper.
Playing cards.
Marble saw-mills.

Many other similar heads were added, and the statistics taken of the number of establishments, amount produced, value, &c.

[1820.]

Schedule of the whole number of persons within the division allotted to A. B.

Name of the county, parish, town, or city, where the family resides.	Names of heads of families.	Free white males under 10 years.	Free white males of 10 and under 16.	Free white males between 16 and 18.	Free white males of 16 and under 26, including heads of families.	Free white males of 26 and under 45, including heads of families.	Free white males of 45 and upward, including heads of families.	Free white females under 10 years of age.	Free white females of 10 and under 16.	Free white females of 16 and under 26, including heads of families.	Free white females of 26 and under 45, including heads of families.	Free white females of 45 and upward, including heads of families.	Foreigners not naturalized.	SLAVES.											FREE COLORED PERSONS.											All other persons except Indians not taxed.
														Males under 14.	Males of 14 and under 26.	Males of 26 and under 45.	Males of 45 and upward.	Females of 14.	Females of 14 and under 26.	Females of 26 and under 45.	Females of 45 and upward.	Males under 14 years.	Males of 14 and under 26.	Males of 26 and under 45.	Males of 45 and upward.	Females under 14 years.	Females of 14 and under 26.	Females of 26 and under 45.	Females of 45 and upward.						

Census of 1820.—Manufactures.

Place.	Raw materials employed.				Number of persons employed.			Machinery.		Expenditures.			Production.	Value of production.	General remarks.
Name of the county, parish, township, town, or city.	The kind.	Quantity annually consumed.	Cost of annual consumption.		Men.	Women.	Boys and girls.	Quantity and kind of machinery.	Quantity of machinery in operation.	Capital invested.	Paid annually for wages.	The contingent expenses.	Nature and names of articles manufactured.	Market value of articles annually manufactured.	Past and present condition of the establishment, the demand for, and sale of its manufactures.