

PRELIMINARY REPORT
ON
THE EIGHTH CENSUS.

CENSUS OFFICE, DEPARTMENT OF THE INTERIOR,
Washington, May 20, 1862.

SIR: It seems proper, in view of the general desire expressed for information relating to the Eighth Census, that a synopsis of the results should be made public at as early a moment and to such an extent as the condition of the work will justify. The unusual interest manifested on this subject induces me to present a preliminary report which, while it may want completeness, and in some of its details fail of that minute accuracy wherein the work when completed, it is hoped, will not be deficient, may be relied on as being substantially correct and entitled to confidence.

It is a subject of congratulation that the unhappy state of affairs which has interposed to impede the ordinary course of events has not interfered with the rendition of complete returns from all sections of the country, and that we are enabled to represent the condition of all the great elements of a nation's prosperity as they existed in the year 1860—a circumstance, probably, of no trifling significance in facilitating the early and happy settlement of our domestic troubles.

In the collection of the details to be embodied in the Eighth Census there have been employed sixty-four marshals, comprising those of all the United States judicial districts, under whose direction, and that of those special agents appointed for unorganized territory, there have been employed 4,417 assistants, upon whom devolved the duty of enumerating the people and collecting the other statistics required by law. To these officers there has been paid the sum of \$1,045,206 75; the sum of \$247,000 remaining suspended on account of the presumed or known disloyalty of officers, or the existence of some good reason for suspending payments. There are employed in this office at the present time 168 clerks and 16 messengers, laborers, and watchmen. The wants of the War Department have made it seem proper to allow that branch of the government the services of several clerks, who were for a considerable time engaged in the office of the Quartermaster General, while the demands of other government departments, committees in Congress, and State legislatures, for information only to be had from the census records, and which could not be disregarded, have seriously impeded the progress of this work, and thrown charges upon our fund which it has appeared impossible to avoid. Nevertheless, we have not transgressed, and it is my hope that our expenditures will not exceed the appropriations heretofore made for this service.

While in the prosecution of their duties the marshals were generally faithful to their trusts, and manifested an anxious desire for the proper completion of their duties, it is stated, with regret, that there were one or two exceptions,

wherein the cupidity of the officer not only involved a violation of law, but wrought injustice to his assistants and retarded the progress of the work.

In my review of the condition and progress of the various interests which comprise the census, my statements are not limited to the exhibition of facts as they are presented in the returns of the Eighth Census. It seemed a duty to make the report one of the past as well as the present, and the more so while in doing this the opportunity is afforded of presenting statistical facts in a more popular form and agreeable dress.

By a liberality unprecedented in the history of the world, our federal and State governments having munificently provided for the care of the children of affliction by the endowment of hospitals for the insane and idiotic, and institutions for the education of the deaf and dumb, and the blind; and as a record of these unfortunates is now made in every census, and there exists no official history of their numbers at different periods, or of the care which has been devoted to them, it has been my endeavor to give a correct narrative on these subjects, and one which it is believed will prove acceptable to Congress and contribute to the diffusion of useful information throughout the country. Having indulged in no theories, with no prejudices to sustain, it will be my aim to present facts impartially, in the hope of enjoying your approval, and administering to the gratification and information of the country.

Having had the exclusive superintendence of the taking of two censuses under the law of May 23, 1850, and compiled the principal details, my opinions are confirmed in the general excellence of the plan, and in the belief that with each enumeration the statistics are collected with increased accuracy and greater ease.

POPULATION.

(APPENDIX—TABLE No. 1.)

The subjoined table exhibits the population returns of the Eighth Census, and presents a complete view of the number of inhabitants of the United States and Territories in 1860, according to the enumeration then taken in pursuance of the Constitution:

Alabama	964,201	New Jersey	672,035
Arkansas	435,450	New York	3,880,735
California	379,994	North Carolina	992,622
Connecticut	460,147	Ohio	2,339,502
Delaware	112,216	Oregon	52,465
Florida	140,425	Pennsylvania	2,906,115
Georgia	1,057,286	Rhode Island	174,620
Illinois	1,711,951	South Carolina	703,708
Indiana	1,350,428	Tennessee	1,109,801
Iowa	674,948	Texas	604,215
Kansas	107,206	Vermont	315,098
Kentucky	1,155,684	Virginia	1,596,318
Louisiana	708,002	Wisconsin	775,881
Maine	628,279	Colorado Territory	34,277
Maryland	687,049	Dakota Territory	4,837
Massachusetts	1,231,066	Nebraska Territory	28,841
Michigan	749,113	Nevada Territory	6,857
Minnesota	173,855	New Mexico Territory	93,516
Mississippi	791,305	Utah Territory	40,273
Missouri	1,182,012	Washington Territory	11,594
New Hampshire	326,073	District of Columbia	75,080

Though the number of States has increased during the last decennial period from thirty-one to thirty-four, and five new Territories have been organized, the United States has received no accessions of territory within that term, except a narrow strip to the southward of the Colorado river, along the Mexican line, not yet inhabited. As general good health prevailed, and peace reigned throughout the country, there was no apparent cause of disturbance or interruption to the natural progress of population. It is true that the very large immigration from Europe, together with an influx of considerable magnitude from Asia to California, has added largely to the augmentation which the returns show to have taken place during the decade.

In comparing the gain of any class of the population, or of the whole of it, one decade with another, the rate per cent. is not a full test of advancement. The *rate* of gain necessarily diminishes with the density of population, while the absolute increase continues unabated. The actual increase of the entire free and slave population from 1850 to 1860, omitting the Indian tribes, was 8,225,464, and the rate per cent. is set down at 35.46; while from 1840 to 1850 the positive increment of all classes was 6,122,423, yet the ratio of gain was 35.87 per cent. The two decades from 1800 to 1810, and from 1840 to 1850, were marked by the great historical facts of the annexation of Louisiana, and the acquisition of Texas, New Mexico, and California. Each of these regions contributed considerably to the population of the country, and we accordingly find that during those terms there was a ratio of increase in the whole body of the people greater by a small fraction than shown by the table annexed for the decade preceding the Eighth Census. The preponderance of gain, however, for that decennial term above all the others since 1790, is signally large. No more striking evidence can be given of the rapid advancement of our country in the first element of national progress than that the increase of its inhabitants during the last ten years is greater by more than 1,000,000 of souls than the whole population in 1810, and nearly as great as the entire number of people in 1820. That the whole of this gain is not from natural increase, but is, in part, derived from the influx of foreigners seeking here homes for themselves and their children, is a fact which may justly enhance rather than detract from the satisfaction wherewith we should regard this augmentation of our numbers.

Thus far in our history no State has declined in population. Vermont has remained nearly stationary, and is saved from a positive loss of inhabitants by only one-third of one per cent. New Hampshire, likewise, has gained but slowly, her increment being only 8.097, or two and one-half per cent. on that of 1850. Maine has made the satisfactory increase of 45,110, or 7.74 per cent. The old agricultural States may be said to be filled up, so far as regards the resources adapted to a rural population in the present condition of agricultural science. The conditions of their increase undergo a change upon the general occupation and allotment of their areas. Manufactures and commerce, then, come in to supply the means of subsistence to an excess of inhabitants beyond what the ordinary cultivation of the soil can sustain. This point in the progress of population has been reached, and, perhaps, passed in most, if not all, of the New England States. But while statistical science may demonstrate within narrow limits the number of persons who may extract a subsistence from each square mile of arable land, it cannot compute with any reasonable approach to certainty the additional population, resident on the same soil, which may obtain its living by the thousand branches of artificial industry which the demands of society and civilization have created. This is forcibly illustrated by the returns relative to the three other New England States—Massachusetts, Rhode Island,

and Connecticut—which contain 13,780 square miles. The following table shows their population in 1850 and 1860, and its density at each period.

States.	1850.		1860.	
	Population.	Number of inhabitants to the square mile.	Population.	Number of inhabitants to the square mile.
Massachusetts	994,514	127.49	1,231,066	157.83
Connecticut	370,792	79.33	460,147	98.42
Rhode Island	147,545	112.97	174,620	133.63
	1,412,851	.....	1,865,833	.....

The aggregate territorial extent of Maine, New Hampshire, and Vermont, is 48,336 square miles; the number of their inhabitants 1,269,450, or 26.26 to the square mile. The stated point of density was passed by the three States named in the table more than fifty years ago, and yet they go on increasing in population with a rapidity as great as at any former period of their history.

South Carolina has gained during the decade 35,201 inhabitants of all conditions, equal to 5.27 per cent. Of this increase 16,825 are whites, and the remainder free colored and slaves. It is perhaps a little remarkable that the relative increase of the free colored class in this State was more considerable than that of any other. As their number, 9,914, is so small as to excite neither apprehension or jealousy among the white race, the increase is probably due both to manumission and natural causes. This State has made slower progress during the last term than any other in the south, having advanced only from 27.28 to 28.72 inhabitants to the square mile.

Tennessee, it will be observed, has made but the moderate gain of 10.68 per cent. for all classes. Of this aggregate increase the whites have gained at the rate of 9.24 per cent. upon 1850, the free colored 13.67, and slaves 15.14.

The next lowest in the rate of increase in the list of southern States is Virginia, whose gain upon her aggregate population, in 1850, was 174,657, equal to 12.29 per cent. The white class gained 152,611, or 17.06 per cent., the slaves 18,337, or 3.88 per cent.

These are examples of the States wherein the population has advanced with slowest progress the past ten years. Turning now to the States which have made the most rapid advance, we find that New York has increased from 3,097,394 to 3,880,735, exhibiting an augmentation of 783,341 inhabitants, being at the rate of 25.29 per cent. The free colored population has fallen off 64 since 1850, a diminution to be accounted for probably by the operation of the fugitive slave law, which induced many colored persons to migrate further north.

The gain of Pennsylvania has been in round numbers 595,000. In that State the free colored have increased about 3,000. The greater mildness of the climate and a milder type of the prejudices connected with this class of population, the result of benevolent influences and its proximity to the slaveholding States, may account for the fact that this race holds its own in Pennsylvania, while undergoing a diminution in the State next adjoining on the north.

Minnesota was chiefly unsettled territory at the date of the Seventh Census; its large present population, as shown by the returns, is therefore nearly clear gain.

The vast region of Texas ten years since was comparatively a wilderness. It has now a population of over 600,000, and the rate of its increase is given as 184 per cent.

Illinois presents the most wonderful example of great, continuous, and healthful increase. In 1830 Illinois contained 157,445 inhabitants; in 1840, 476,183; in 1850, 851,470; in 1860, 1,711,951. The gain during the last decade was, therefore, 860,481, or 101.06 per cent. So large a population, more than doubling itself in ten years, by the regular course of settlement and natural increase, is without a parallel. The condition to which Illinois has attained under the progress of the last thirty years is a monument of the blessings of industry, enterprise, peace, and free institutions.

The growth of Indiana in population, though less extraordinary than that of her neighboring State, has been most satisfactory, her gain during the decade having been 362,000, or more than thirty-six per cent. upon her number in 1850.

Michigan, Wisconsin, and Iowa have participated to the full extent in the surprising development of the northwest. The remarkable healthfulness of the climate of that region seems to more than compensate for its rigors, and the fertility of the new soil leads men eagerly to contend with and overcome the harshness of the elements. The energies thus called into action have, in a few years, made the States of the northwest the granary of Europe, and that section of our Union which, within the recollection of living men, was a wilderness, is now the chief source of supply in seasons of scarcity for the suffering millions of another continent.

Looking cursorily over the returns, it appears that the fifteen slaveholding States contain 12,240,000 inhabitants, of whom 8,039,000 are whites, 251,000 free colored persons, and 3,950,000 are slaves. The actual gain of the whole population in those States from 1850 to 1860, was 2,627,000, equal to 27.33 per cent. The slaves advanced in numbers 749,931, or 23.44 per cent. This does not include the slaves of the District of Columbia, who decreased 502 in the course of the ten years. The nineteen free States and seven Territories, together with the federal District, contained, according to the Eighth Census, 19,201,546 persons, including 27,749 Indians; of whom 18,936,579 were white, and 237,218 free colored. The increase of both classes was 5,598,603, or 41.24 per cent. No more satisfactory indication of the advancing prosperity of the country could be desired than this general and remarkable progress in population. North and south we find instances of unprecedented gains, as in the case of Illinois, just adverted to. In the southwest the great State of Missouri has increased by the number of 500,000 inhabitants, which is within a fraction of 74 per cent. It is due to candor to state that the marked disproportion between the rate of gain in the north and south respectively, is manifestly to some extent caused by the larger number of immigrants who settle in the former section, on account of congeniality of climate, the variety of occupation, the dignity where-with respectable employment is invested, and the freedom of labor.

Having thus briefly and imperfectly noticed the manner in which the general gain of population during the last ten years has been distributed among the States, we may with advantage examine the progress of the country as a whole, in this respect, from 1790 to 1860. In order to show the progress of the entire population, and of each class for this period, table No. 1 has been prepared, which is hereunto appended.

The figures in that table show considerable uniformity in the rate of progression of the whole population. It has varied in the different decades from $32\frac{4}{9}$ per cent. increase to $36\frac{1}{2}$. The whites, constituting the great bulk of the inhabitants, have governed the ratio of augmentation for the mass. The lowest rate of increase shown for that class was by the census of 1830, namely, a fraction less than 34 per cent. In 1850 it has risen above 38 per cent., and continued to be about the same from 1850 to 1860. The number of free colored

persons was small in 1790, and as a condition or class in society it holds about the same position as then. We possess very insufficient means for estimating the natural increase of this division of our population. Their aggregate number has been so continually affected by manumissions, by legislation changing their condition, and to a small extent by emigration, that from these causes, rather than by the ordinary progress of increase, they have reached a total of nearly half a million, and the rate per cent. of their advancement in seventy years, has been equal to that of the whole population, and not very far below that of the whites; and that at the same time they have gained in a ratio nearly one-half greater than the slaves.

In the interval from 1850 to 1860, the total free colored population of the United States increased from 434,449 to 488,005, or at the rate of 12.33 per cent. in ten years, showing an annual increase of one per cent. This result includes the number of slaves liberated and those who have escaped from their owners, together with the natural increase. In the same decade the slave population, omitting those of the Indian tribes west of Arkansas, increased 23.39 per cent., and the white population 37.97 per cent., which rates exceed that of the free colored by twofold, and three or fourfold, respectively. Inversely, these comparisons imply an excessive mortality among the free colored, which is particularly evident in the large cities. Thus, in Boston during the five years ending with 1859, the city registrar observes: "The number of colored births was one less than the number of marriages, and the deaths exceeded the births in the proportion of nearly two to one." In Providence, where a very correct registry has been in operation under the superintendence of Dr. Snow, the deaths are one in twenty-four of the colored; and in Philadelphia during the last six months of the census year, the new city registration gives 148 births against 306 deaths among the free colored. Taking town and country together, however, the results are more favorable. In the State registries of Rhode Island and Connecticut, where the distinction of color has been specified, the yearly deaths of the blacks and mulattoes have generally, though not uniformly, exceeded the yearly births—a high rate of mortality chiefly ascribed to consumption and other diseases of the respiratory system.

Owing, among other causes, to the extremes of climate in the more northern States, and in other States to expulsive enactments of the legislatures, the free colored show a decrease of numbers during the past ten years according to the census, in the following ten States: Arkansas, Florida, Indiana, Maine, Mississippi, New Hampshire, New York, Oregon, Texas, and Vermont.

The free colored have gained eleven thousand in Ohio, three thousand in North Carolina, and nine thousand in Maryland. In the latter State the prejudice against this class appears to exist only to a limited extent, and constituting as it does 12½ per cent. of the whole population, it forms an important element in the free labor of Maryland.

With regard to the mean duration or expectation of life among colored persons in different localities of the country, reference may be made to some comparative tables published in the census report to Congress in 1852, page 13. The returns of 1860, when cast into the same form, would, doubtless, exhibit similar results. In a simple statement, when viewed apart from the liberations or manumission in the southern States, the aggregate free colored in this country must represent nearly what is termed "a stationary population," characterized by an equality of the current of births and deaths.

There are now in the United States about 4,000,000 slaves. They have advanced to that vast number from about 700,000 in 1790. The rate of progress of this class of population has been somewhat more fluctuating than can be easily accounted for. Why, for example, they should have increased over 30 per cent. from 1820 to 1830, and only 23½ per cent. during the next decade, does not appear from any facts bearing upon their condition during this period. It may,

perhaps, be attributed to the large emigration to Texas, prior to 1840, which, doubtless, exerted no small influence upon the ordinary progress of the slave population in the United States during that decade. There is no importation nor emigration of slaves into or from the country, and it would seem that they should be subject to no cause of increase or decadence except what nature decrees. This law is that of gradual and steady increase, and under it the total number of slaves in 1860 should have been 4,130,000, had they gained at the same ratio as during the preceding ten years.

It is important to observe the growing disparity between the pace at which the white and colored races are advancing in this country. While the whites, from 1850 to 1860, gained 38 per cent., the slaves and free colored increased somewhat less than 22 per cent., and the total increase of the free colored and slaves for 70 years was but 485 per cent. against 757 per cent. for the whites.

With regard to the future increase of the African race in this country, various extravagant speculations have been recently promulgated. An attentive survey of the statistics of the census will guide to a more satisfactory approximation. The following summary exhibits the numbers of the colored race and their rates of increase during the last seventy years:

Census of slaves and free colored.

Census of—	Free colored.	Increase, per cent.	Slaves.	Increase, per cent.	Free colored and slaves.	Increase, per cent.
1790.....	59,466	.....	697,897	.....	757,363	.....
1800.....	108,305	82.23	893,041	27.97	1,001,346	32.23
1810.....	186,440	72.00	1,191,364	23.40	1,377,804	37.58
1820.....	233,534	25.23	1,538,038	28.79	1,771,562	28.58
1830.....	319,590	36.87	2,009,043	30.61	2,328,633	31.44
1840.....	386,303	21.27	2,487,455	23.81	2,873,758	23.41
1850.....	434,449	12.46	3,204,313	28.83	3,638,762	26.62
1860.....	482,122	10.97	3,933,587	23.38	4,415,709	21.90

Here the rate of increase will be seen at a glance to have been gradually diminishing, especially during the last thirty years. The greater apparent increase among slaves from 1840 to 1850 is connected with the admission of Texas in 1845. For the future, the rate will probably continue to diminish; and to apply unchanged the rate of the last ten years, must give results exceeding, rather than falling short of the truth. The following estimates, therefore, have been computed on the assumption that the rate of the last ten years, 21.9, shall continue twenty years longer, or until 1880, after which the rate is diminished to 20.0 until the close of the present century, for the colored population. And, to facilitate comparison, the next column exhibits the aggregate of whites, free colored, and slaves; based on the well-known and very correct assumption of a mean annual increase of three per cent.:

Probable future population of the United States.

Year.	Free colored and slaves.	Aggregate of whites and colored.	Percentage of colored.
1870.....	5,407,130	42,328,433	12.77
1880.....	6,591,393	56,450,241	11.68
1890.....	7,909,550	77,366,089	10.24
1900.....	9,461,450	100,365,803	9.46

Thus, according to the best estimates, the total population of the United States at the close of the present century will be about a hundred millions. All observing persons will perceive that the relative increase of the whites exceeds that of the colored, and that the disparity is gradually becoming more and more favorable to this part of our population. Leaving the issue of the present civil war for time to determine, it should be observed, if large numbers of slaves shall be hereafter emancipated, so many will be transferred from a faster to a slower rate of increase. In this case, nine millions of the colored, in the year 1900, appears a large estimate. Of these a great portion will be of mixed descent, since in 1850 one-ninth part of the whole colored class were returned as mulattoes. In regard to emigration, the number colonized by the American Colonization Society and its auxiliaries during the past ten years, has averaged about 400 per annum, besides the Africans captured on several slave-ships. The total number of colored emigrants sent to Liberia from 1820 to 1856 inclusive, is stated at 9,502, of whom 3,676 were free born.

In the report on the Seventh Census, for 1851, a table was published in which the States were arranged into sections or groups according to geographical situation, productions, climate, the pursuits of their inhabitants, and other prominent characteristics. The progress of these groups combined is that of the entire republic, and the opportunity of observing the growth of each of them separately, enables us the more satisfactorily to ascertain the advancement of the whole country. The table is therefore here repeated, being extended so as to embrace the results of the census of 1860.

States.	Area in square miles.	1850.		1860.	
		Population.	No. of inhabitants to square mile.	Population.	No. of inhabitants to square mile.
New England States, (6)	63,272	2,728,106	43.11	3,135,283	49.55
Middle States, including Maryland, Delaware, and Ohio, (6).....	151,760	8,553,713	56.36	10,597,661	69.83
Coast planting States, including South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana, (6) ...	286,077	3,557,872	12.43	4,364,927	15.25
Central slave States, Virginia, North Carolina, Tennessee, Kentucky, Missouri, and Arkansas, (6).....	309,210	5,167,276	16.71	6,471,887	20.93
Northwestern States, Indiana, Illinois, Michigan, Wisconsin, Iowa, Minnesota, and Kansas, (7)....	250,295	2,734,945	10.92	5,543,382	22.14
Texas.	237,321	212,592	0.89	604,215	2.55
California.	188,982	165,000	0.87	370,991	2.01

Without going into the minutiae of decimal computations, an inspection of the above table will show that the great middle States have gained in density 25 per cent., and the northwestern group 100. The growth of those States, as of California and Texas, represents the settlement of new lands and the development of agricultural, mining, and pastoral pursuits. The production of grain, cotton, and wool, the rearing of sheep, horned stock, and swine, and the abundance of gold and other valuable minerals, give employment to the population, add to its numbers, and augment the wealth of the State. But it cannot be overlooked that there are other portions of the earth of equal extent which possess similar natural advantages, but exhibit no such proofs of prosperity as the divisions of our country referred to. The causes of the noble and beneficent

result in our case are attributable to the attraction of our institutions, the freedom of industry, the cheapness and fertility of our lands, and, above all, the long enjoyment of, and, as we believed, perfect guarantees of peace. Let us hope that the experience of the now passing decade will not cause us to look back with regret upon that which we are reviewing as the culmination of our national progress.

SEXES.

(APPENDIX—TABLE No. 2.)

The excess of male population in the United States, compared with that of the other sex, presents a marked difference with respect to other countries. While in the United States and Territories there is an excess of about 730,000 males in more than 31,000,000 of people, the females of the United Kingdom of Great Britain and Ireland outnumber the males some 877,000 in a population of little more than 29,000,000. This disparity is the result of many causes. The emigration from the mother country of men in the prime of life, and the large demands of their military, naval, and marine service, seem to account for some proportion of the excess of females; while immigration from all parts of Europe, our small military and naval service, and the few losses we have sustained from the contingencies incident to a state of war, have served to exhibit a larger male population, in proportion, than can be shown in any country on the globe.

The great excess of males in newly-settled territories illustrates the influence of emigration in affecting a disparity in the sexes. The males of California outnumber the females near 67,000, or about one-fifth of the population. In Illinois the excess of males amounts to about 92,000, or one-twelfth of the entire population. In Massachusetts the females outnumber the males some 37,600. Michigan shows near 40,000 excess of males; Texas, 36,000; Wisconsin, 43,000. In Colorado the males are as twenty to one female. In Utah the numbers are nearly equal; and while in New York there is a small preponderance of females, the males are more numerous in Pennsylvania.

SLAVERY.

For more than three and a half centuries slavery has existed in the West Indies. Indians from the American coast were conveyed to St. Domingo and Cuba in large numbers. The plea for the capture and employment of the aborigines was their conversion to Christianity, which but few lived long to enjoy, as, under the effects of labor and the climate, they died with a rapidity too shocking to contemplate.

This circumstance directed the attention of the Spaniards to Africa, from which country slaves were imported about the year 1503, the licenses for that object greatly enriching the Spanish exchequer for a long period after. The introduction of Africans into Brazil and Peru dates almost simultaneously with the conquest of the countries by Cortez and Pizarro, early in the sixteenth century. By the middle of that century the aborigines of the West Indies had disappeared, and their places were occupied by Africans, who were introduced about this period in very large numbers throughout the Spanish and Portuguese possessions in South America. It was but shortly subsequent that English adventurers embarked successfully in the slave trade, which they pursued under charters from Elizabeth and James I.

The first negro slaves were imported into Virginia in 1619, where they numbered about 2,000 in 1670. It is believed that the first slave ship fitted out in the English colonies sailed from Boston in 1646. In 1624 the French introduced slaves into their island of St. Christopher, and soon after into Martinique

and Guadeloupe, and shortly established slavery in all their American colonies. The Dutch embarked in the traffic with other civilized nations; so the conclusion is inevitable that all the enlightened nations of the world enjoyed any extended commerce simultaneously participated in a traffic deemed contraband, and towards which the world is now as equally hostile. Had slavery continued to expand in numbers in other parts of America as it has grown in the United States, there would at the present time be more than 21,000,000 of this class of persons in the United States, British, French, Spanish, and Brazilian possessions. It is believed, that in all American countries and islands of our seas, except in the United States, the number of slaves was only maintained from time to time by the prosecution of the slave trade. While slavery in North America extended from 1775, from and including the Canadian provinces to Florida, its northward progress has been gradually contracting, while indications clearly point to its termination, which have doubtless been already attained. The importation of slaves to the United States was interdicted by law in 1808. In 1774 the Legislature of Rhode Island interdicted the importation of slaves into that colony, and the next year enacted a law of emancipation by declaring the children of slave mothers to be born free. Massachusetts abolished slavery by her bill in 1780. In 1784 Connecticut barred the introduction of slaves, and declared all born after the 1st of March of that year free at the age of 26. Pennsylvania in 1780, by law prohibited the introduction of slaves, and declared the children of slave mothers born thereafter free. Virginia prohibited the importation of slaves from abroad in 1778; Maryland in 1783. New Hampshire abolished slavery in 1792; New York in 1799; New Jersey in 1820. Such is the progress and decline of African slavery in our country, where its effects have been humanity compared with other countries, and where, although the last to cling to the institution, the traffic in this class of persons has been seriously, as it has been persistently, opposed. It may not be out of place to state that the American States, which in the past century abolished slavery, permitted the free colored population to enjoy every right consistent with their condition as a class, and allowed bond and free to remain during their lives in the State or colony where they lived. This fact, although sometimes questioned, can be demonstrated beyond cavil; and the contrary can be proved by such as are unfamiliar with the subject or have an object in view in their representation. The plan of gradual emancipation probably tended to the result, as those who were living in bondage continued to be slaves, while their descendants were generally to become free at such period as they were able to maintain their own existence by labor.

An examination of the relative number at different successive periods of the population of slaves, and the number of slaves become extinct, must lead to conclusions that no material deposit of slaves occurred shortly before or after the passage of an emancipation act, which cannot be controverted; and while it must be conceded that the people prosecuted the slave trade at an early period with energy and that they are entitled to the award of sincerity and honesty in giving the earliest steps of the abolition of the institution of slavery within their own borders.

INDIAN SLAVERY.

(APPENDIX—TABLE No. 3.)

A new element has been developed by the present census, viz: the statistics of negro slavery among the Indian tribes west of Arkansas, of the Choctaw, Cherokee, Creek, and Chickasaw nations; also the number of free colored population scattered throughout these tribes; all of which will be found appended to the population tables. By reference to the

will appear that the Choctaws held 2,297 negro slaves, distributed among 385 owners; the Cherokees, 2,504, held by 384 owners; the Creeks, 1,651, owned by 267 Indians; and the Chickasaws, 917 to 118 owners. As, under all the circumstances of slavery everywhere, the servile race is very unequally distributed, so will appear to be the case with the Indian tribes. While one Choctaw is the owner of 227 slaves, and ten of the largest proprietors own 638, averaging nearly 64, the slaves average about six to each owner of slaves in that tribe, while the Indians number about as eight to one slave.

Among the Cherokees the largest proprietor holds 57 slaves; the ten largest own 353, averaging a little over 35, and the number to each holder averages a little more than a half per cent. more than with the Choctaws, while the population of Indians in the tribe to slaves as about nine to one. Among the Creeks two hold 75 slaves each; ten own 433, while the ratio of slaves to the whole number of Indians varies but little from that with the Cherokees. The largest proprietor among the Chickasaws holds 61 slaves; ten own 275, or an average of 27½, while the average is nearly eight to each owner in the tribe, and one to each five and a half Indians in the tribe. It thus appears that in those tribes there are nearly eight Indians to each negro slave, and that the slaves form about 12½ per cent. of the population, omitting the whites and free colored. The small tribe of Seminoles, although like the tribes above mentioned, transplanted from slaveholding States, holds no slaves, but intermarry with the colored population. These tribes, while they present an advanced state of civilization, and some of them have attained to a condition of comfort, wealth, and refinement, form but a small portion of the Indian tribes within the territory of the United States, and are alluded to on account of their relation to a civil condition recognized by a portion of the States, and which exercises a significant influence with the country at large.

MANUMISSION OF SLAVES.

(APPENDIX—TABLE No. 4.)

With regard to manumission it appears from the returns that during the census year they numbered a little more than 3,000, being more than double the number who were liberated in 1850, or at the rate of one each to 1,309; whereas, during 1850, the manumissions were as one to every 2,181 slaves. Great irregularity, as might naturally be expected, appears to exist for the two periods whereof we have returns on this subject. By the Eighth Census it appears that manumissions have greatly increased in number in Alabama, Georgia, Louisiana, Maryland, Mississippi, North Carolina, and Tennessee, while they have decreased in Delaware and Florida, and varied but little in Kentucky, Missouri, South Carolina, and Virginia, and other slaveholding States not mentioned.

FUGITIVE SLAVES.

(APPENDIX—TABLE No. 5.)

The number of slaves who escaped from their masters in 1860 is not only much less in proportion than in 1850, but greatly reduced numerically. The greatest increase of escapes appears to have occurred in Mississippi, Missouri, and Virginia, while the decrease is most marked in Delaware, Georgia, Louisiana, Maryland, and Tennessee.

That the complaint of insecurity to slave property by the escape of this class of persons into the free States, and their recovery impeded, whereby its value has been lessened, is the result of misapprehension is evident, not only from the small number who have been lost to their owners, but from the fact that up to the present time the number of escapes has been gradually diminishing to such

an extent that the whole annual loss to the southern States from this cause bears less proportion to the amount of capital involved than the daily variations which in ordinary times occur in the fluctuations of State or government securities in the city of New York alone.

From the tables annexed, it appears that while there escaped from their masters 1,011 slaves in 1850, or one in each 3,165 held in bondage, (being about $\frac{1}{3165}$ of one per cent.) during the census year ending June 1, 1860, out of 3,949,557 slaves, there escaped only 803, being one to about 5,000, or at the rate of $\frac{1}{5000}$ of one per cent. Small and inconsiderable as this number appears, it is not pretended that all missing in the border states, much less any considerable number escaping from their owners in the more southern regions, escaped into the free States; and when we consider that in the border States not 500 escaped out of more than 1,000,000 slaves in 1860, while near 600 escaped in 1850 out of 910,000, and that at the two periods near 800 are reported to have escaped from the more southern slaveholding States, the fact becomes evident that the escape of this class of persons, while rapidly decreasing in ratio in the border slave States, occurs independent of proximity to a free population, being in the nature of things incident to the relation of master and slave.

It will scarcely be alledged that these returns are not reliable, being, as they are, made by the persons directly interested, who would be no more likely to err in the number lost than in those retained. Fortunately, however, other means exist of proving the correctness of the results ascertained, by noting the increase of the free colored population, which, with all its artificial accretions, is proven by the census to be less than 13 per cent., in the last ten years, in the free States, whereas the slaves have increased 23½ per cent., presenting a natural augmentation altogether conclusive against much loss by escapes; the natural increase being equal to that of the most favored nations, irrespective of immigration, and greater than that of any country in Europe for the same period, and this in spite of the 20,000 manumissions which are believed to have occurred in the past ten years. An additional evidence of the slave population having been attended from year to year, up to the present time, with fewer vicissitudes, is further furnished by the fact that the free colored population, which from 1820 to 1830 increased at the rate of 36½ per cent., in 1840 exhibited but 20½ per cent. increase, gradually declining to 1860, when the increase throughout the United States was but one per cent. per annum.

IMMIGRATION.

One of the commissioners sent by the Continental Congress to Europe, Silas Deane, expressed the expectation that if the colonies established their independence, the immigration from the Old World would be prodigiously increased; and as a consequence, the cultivated lands would rise in value, and new lands would be brought into market. This anticipation has been strikingly and abundantly realized. And in connexion with the census of nativities, the records of immigration have a special importance as indicating the progressive augmentation of the immigrants who have sought to improve their fortunes in the New World.

From a survey of the irregular data previous to 1819, by Dr. Seybert, Prof. Tucker, and other statistes, it appears that from 1790 to 1800, about 50,000 Europeans, or "aliens," arrived in this country; in the next ten years the foreign arrivals were about 70,000, and in the ten years following, 114,000, ending with 1820. To determine the actual settlers, a deduction of 14.5 per cent. from these numbers should probably be made for transient passengers, as hereafter described.

Louisiana was purchased from France in 1803. The portion of this territory south of the thirty-third parallel, according to the historian Hildreth, comprised a population of about 50,000, more than half of whom were slaves. With these

should be counted about 10,000 in the settlements north of that parallel, augmented by a recent immigration, with a predominance of whites. The foreign population acquired with the whole Louisiana territory may thus be reckoned at 60,000; about one-half or 30,000 being whites of French, Spanish, and British extraction; and the other 30,000 being slaves and free colored. This number of whites should evidently be added to the current immigration by sea already mentioned, in order to obtain the foreign accession to the white population of the United States during that period.

Instead of scattered notices from shipping lists, the arrival of passengers has been officially recorded at the custom-houses, since 1819, by act of Congress. There are some deficiencies perhaps in the returns of the first ten or twelve years, but the subsequent reports are considered reliable. While the classified lists exhibit the whole number of foreign passengers, the great majority of whom are emigrants, they also furnish valuable information not otherwise obtainable respecting the statistical history of immigration.

The following numbers, registered under the act of 1819, are copied from the authentic summary of Bromwell, to which the numbers for the last five years have been added from the annual reports of the State Department, thus bringing the continuation down to the year of the present census.

Statement of the number of Alien passengers arriving in the United States by sea from foreign countries from September 30, 1819, to December 31, 1860.

Year.	Males.	Females.	Sex not stated.	Total.
Year ending September 30, 1820.....	4,871	2,393	1,121	8,385
1821.....	4,051	1,636	2,840	9,127
1822.....	3,816	1,013	2,082	6,911
1823.....	3,598	848	1,908	6,354
1824.....	4,706	1,393	1,813	7,912
1825.....	6,917	2,959	323	10,199
1826.....	7,702	3,078	57	10,837
1827.....	11,803	5,939	1,133	18,875
1828.....	17,261	10,060	61	27,382
1829.....	11,303	5,112	6,105	22,520
1830.....	6,439	3,135	13,748	23,322
1831.....	14,909	7,724	.....	22,633
1832.....	34,596	18,583	.....	53,179
Quarter ending December 31, 1832.....	4,691	2,512	100	7,303
Year ending December 31, 1833.....	41,546	17,094	.....	58,640
1834.....	38,796	22,540	4,020	65,365
1835.....	28,196	17,027	151	45,374
1836.....	47,865	27,553	824	76,242
1837.....	48,837	27,653	2,850	79,340
1838.....	23,474	13,685	1,765	38,914
1839.....	42,932	25,125	12	68,069
1840.....	52,883	31,132	51	84,066
1841.....	48,082	32,031	176	80,289
1842.....	62,277	41,907	351	104,535
First three quarters of 1843.....	30,069	22,424	3	52,496
Year ending September 30, 1844.....	44,431	34,184	.....	78,615
1845.....	65,015	48,115	1,241	114,371
1846.....	87,777	65,742	897	154,416
1847.....	136,086	97,917	965	234,968
1848.....	133,906	92,149	472	226,527
1849.....	177,232	119,280	512	297,024

Statement of the number of Alien passengers, &c—Continued.

Year.	Males.	Females.	Sex not stated.	Total.
Year ending September 30, 1850.....	186,331	112,635	1,038	310,004
Quarter ending December 31, 1850.....	32,990	26,805	181	59,976
Year ending December 31, 1851.....	217,181	102,219	66	379,466
1852.....	212,469	157,696	1,438	371,603
1853.....	207,958	163,615	72	368,645
1854.....	256,177	171,656	.....	427,833
1855.....	115,307	85,567	3	200,877
1856.....	115,846	84,590	.....	200,433
1857.....	146,215	105,091	.....	251,306
1858.....	72,824	50,002	300	123,126
1859.....	69,161	51,640	481	121,282
1860.....	88,477	65,077	86	153,640
Total.....	2,977,603	2,035,536	49,275	5,062,414

The following aggregates also exhibit the number of arrivals of passengers from foreign countries during periods of nearly ten years each, and thus indicate the accelerated progress of immigration:

Periods.	Passengers of Foreign birth.	American and Foreign.
In the 10 years ending September 30, 1839.....	128,502	151,636
In the 10½ years ending December 31, 1839.....	538,381	572,716
In the 9½ years ending September 30, 1849.....	1,427,337	1,479,478
In the 11½ years ending December 31, 1860.....	2,968,194	3,235,391
In the 41½ years ending December 31, 1860.....	5,062,414	5,459,421

Adjusting the returns to the periods of the decennial census, by the aid of the quarterly reports, we find very nearly the following numbers:

Three census periods.	Passengers of Foreign birth.
In the 10 years previous to June 1, 1840.....	552,000
Do.....do.....1850.....	1,558,300
Do.....do.....1860.....	2,707,624

To arrive at the true immigration, these numbers should be largely increased for those who have come by way of Canada. On the other hand, they should be diminished for return emigrants, and for the merchants, factors, and visitors who go and come repeatedly, and are thus enumerated twice or more in the returns.

For an example of the former class, according to British registry, 17,798 emigrants returned from the United States to Great Britain in the year 1860. How numerous has been the latter class who have been counted twice or more, is not definitely known; to make note of these would constitute a desirable improvement in the future official reports.

The preceding summaries embrace passengers of foreign birth, together with 397,007 native born Americans, who were also registered as arriving from foreign ports. In the record of ages following, both classes are united; but since the foreigners are far more numerous, the result will exhibit very nearly the relative number at each age of the foreign passengers. A careful reduction of the whole number whose ages were specified, has just been completed in connexion with the census, as follows :

Distribution of Ages on arrival.

Ages.	Number of ages stated from 1830 to 1860.			Proportions.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5.....	218,417	200,676	419,093	4.143	3.806	7.949
5 and under 10.....	199,704	180,606	380,310	3.788	3.425	7.213
10 and under 15.....	194,580	166,833	361,413	3.691	3.164	6.855
15 and under 20.....	404,338	349,753	754,093	7.669	6.633	14.302
20 and under 25.....	669,853	428,974	1,098,827	12.706	8.136	20.842
25 and under 30.....	576,822	269,554	846,376	10.940	5.112	16.052
30 and under 35.....	352,619	163,778	516,397	6.688	3.103	9.794
35 and under 40.....	239,468	114,165	353,633	4.542	2.165	6.707
40 and upwards.....	342,022	200,322	542,344	6.467	3.799	10.266
Total.....	3,197,823	2,074,663	5,272,486	60.654	39.346	100.000

From the foregoing table it will be seen that the distribution is materially different from that of a settled population; the females are less than the males in the ratio of two to three; almost precisely one-half of the total passengers are between fifteen and thirty years of age. It will further be noted that the sexes approach nearest to equality in children and the youthful ages, as would naturally be expected in the migration of families; while from twenty-five years of age to forty the male passengers are double the number of females. The total distribution of ages has never varied very materially from the average, as appears from the following table:

Total Proportions for different periods.

Ages.	1830 to 1839.	1830 to 1840.	1840 to 1850.	1850 to 1860.	1830 to 1860.
Under 5	6.904	8.511	8.284	7.674	7.949
5 and under 10.....	5.763	7.552	7.434	7.077	7.213
10 and under 15.....	4.568	7.817	7.564	6.323	6.855
15 and under 20.....	11.052	11.830	13.059	15.762	14.302
20 and under 25.....	22.070	19.705	21.518	20.617	20.842
25 and under 30.....	19.574	16.661	15.722	15.944	16.052
30 and under 35.....	10.194	10.215	9.914	9.609	9.794
35 and under 40.....	8.171	7.875	6.563	6.466	6.707
40 and upwards.....	11.704	9.834	9.942	10.523	10.266
Total.....	100.000	100.000	100.000	100.000	100.000

The passengers from foreign ports arrive at all seasons of the year; the greatest number, however, make the passage in the second and third quarters, or in the summer months, and a smaller number in the winter months.

The deaths on the voyage during the last five years have been only about one-sixth of one per cent.; the time of passage being generally some thirty days. With regard to the question, how many of the passengers are emigrants, the reports of the State Department during the past five years—1855 to 1860—have specified the places of residence as follows:

Country where the passengers from foreign ports mean to reside; also the country where born.

Country.	Mean to reside in—			Born in—
	Males.	Females.	Total.	Males & females
United States.....	551,095	357,395	908,490	126,704
British America.....	7,682	4,044	11,726	25,443
Great Britain and Ireland.....	2,207	1,037	3,244	407,429
Azores.....	544	133	677	1,954
Spain.....	389	65	454	4,007
West Indies.....	271	72	343	5,170
France.....	130	47	177	19,338
Germany.....	140	36	176	279,957
Other countries specified.....	329	67	396	82,185
Not stated.....			50,901	23,317
Total of 5 years, 1855 to 1860.....			976,584	976,584

Deducting the number at the head of the last column who were born in the United States, it will be seen that in these five years 781,696 out of a total of 849,790 alien passengers, designed to make their permanent home in the United States. Further statistics of 24,848 second passages, and about 30,000 emigrants, to Canada, *via* New York, indicate that the alien passengers should be diminished 14.5 per cent. to determine the number of actual settlers.

From the first of the two following tables it will be seen that the most numerous class among the passengers is that of *laborers*; the next in order are *farmers*, mechanics, and merchants. The "seamstresses and milliners," and nearly all of the "servants," are females; the other female passengers, with few exceptions, have been entered under the category of "not stated," and comprise about five-sevenths of that division.

It will be proper to mention that the ten trades and professions marked with a star in the table were always enumerated during the whole period. The other occupations were not reported during the four years 1856-'59, except that their aggregate only was embraced under the single title of "other occupations." But the omission could be roughly supplied by assuming the number in each trade during the four years to be the same fraction of the yearly passengers as it was in the other six years.

In 1856-'59, the deaths on the passage also were omitted in the official total of passengers, though retained in all previous years and in 1860; for the sake of uniformity this temporary omission of deaths is restored in the present collection of tables, which have been verified throughout with the greatest care.

The next following table, stating the birthplace or "country where born," will form a valuable supplement to the decennial census of nativities. Except-

ing the first numeric column, which commenced with small numbers October 1, 1819, the remaining columns correspond as nearly with the census periods as the official yearly reports allow without interpolation.

The total number arriving from the United Kingdom of Great Britain and Ireland on our shores is thus stated to be 2,750,874. But a recent statement from British official sources† gives the number emigrating to the United States in the forty-six years, 1815-'60, as 3,048,206. The difference of the two returns will be explained partly by those who emigrated in the interval, 1815-19, before our registry commenced, being about 55,000; and chiefly by the more numerous class who entered the United States by way of Canada, and so were not included in our custom-house returns.

In the same period of forty-six years it is also stated that 1,196,521 persons emigrated from the United Kingdom to the British colonies in North America. A large portion of these are known to have eventually settled in the United States. Thus it appears safe to assume that since the close of the last war with that country, in 1814, about three and a quarter millions of the natives of Great Britain and Ireland, "a population for a kingdom," have emigrated to this country.

Next in magnitude is the migration from Germany, amounting to 1,486,044 by our custom-house returns; the next is that from France, 208,063; and from the other countries, as shown in the table. A large share of the German emigrants have embarked from the port of Havre; others from Bremen, Hamburg, Antwerp; many have also crossed over and taken passage from British ports.

As our own people, following "the star of empire," have migrated to the west in vast numbers, their places have been supplied by Europeans, which has modified the character of the population, yet the great mass of the immigrants are found to cherish true patriotism for the land of their adoption.

Occupation of passengers arriving in the United States from foreign countries during the forty-one years ending with 1860.

Occupation.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1820 to 1860.
*Merchants.....	19,434	41,881	46,388	124,149	231,852
*Farmers.....	15,005	88,240	256,880	404,712	764,837
*Mechanics.....	6,805	56,582	164,411	179,726	407,524
*Mariners.....	4,995	8,004	6,398	10,087	29,484
*Miners.....	341	368	1,735	37,523	39,067
*Laborers.....	10,280	53,169	281,229	527,639	872,317
Shoemakers.....	1,109	1,966	63	336	3,474
Tailors.....	983	2,252	65	334	3,634
Seamstresses and milliners.....	413	1,672	2,096	1,065	5,246
Actors.....	183	87	233	85	588
Weavers and spinners.....	2,937	6,600	1,303	717	11,557
*Clergymen.....	415	932	1,559	1,420	4,326
Clerks.....	882	1,143	1,065	792	3,882
*Lawyers.....	244	461	831	1,140	2,676
*Physicians.....	805	1,259	2,116	2,229	7,109
Engineers.....	226	311	654	825	2,016
Artists.....	139	513	1,223	615	2,490
Teachers.....	275	267	832	154	1,528
Musicians.....	140	165	236	188	729
Printers.....	179	472	14	40	705

† British Almanac, 1862.

* See page 16.

Occupation of passengers arriving in the United States, &c.—Continued.

Occupation.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1820 to 1860.
Painters	232	369	8	38	647
Masons.....	793	1,435	24	58	2,310
Hatters.....	137	114	1	4	256
Manufacturers.....	175	107	1,833	1,005	3,120
Millers.....	199	189	33	210	631
Butchers.....	329	432	76	108	945
Bakers.....	583	569	28	92	1,272
*Servants.....	1,327	2,571	24,538	21,058	49,494
Other occupations.....	5,466	4,004	2,892	13,844	26,206
Not stated.....	101,442	363,252	969,411	1,544,494	2,978,599
Total.....	176,473	640,086	1,768,175	2,874,687	5,459,421

Country where born.

Countries.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1820 to 1860.
England.....	15,837	7,611	32,092	247,125	302,665
Ireland.....	27,106	29,188	162,332	748,740	967,366
Scotland.....	3,180	2,667	3,712	38,331	47,890
Wales.....	170	185	1,261	6,319	7,935
Great Britain and Ireland.....	35,534	243,540	848,366	297,578	1,425,018
Total United Kingdom.....	81,827	283,191	1,047,763	1,338,093	2,750,874
France.....	8,868	45,575	77,262	76,358	208,063
Spain.....	2,616	2,125	2,209	9,298	16,248
Portugal.....	180	829	550	1,055	2,614
Belgium.....	28	22	5,074	4,738	9,862
Prussia.....	146	4,250	12,149	43,887	60,432
Germany.....	7,583	148,304	422,477	907,780	1,486,044
Holland.....	1,127	1,412	8,251	10,769	21,559
Denmark.....	189	1,063	539	3,749	5,540
Norway and Sweden.....	94	1,201	13,903	20,931	36,129
Poland.....	21	369	105	1,164	1,659
Russia.....	89	277	551	457	1,374
Turkey.....	21	7	59	83	170
Switzerland.....	3,257	4,821	4,644	25,011	37,733
Italy.....	389	2,211	1,590	7,012	11,202
Greece.....	20	49	16	31	116
Sicily.....	17	35	79	429	560
Sardinia.....	32	7	201	1,790	2,030
Corsica.....	2	5	2	.....	9
Malta.....	1	35	78	5	119
Iceland.....	.....	.....	.....	10	10
Europe.....	2	.....	51	473	526
British America.....	2,486	13,624	41,723	59,309	117,142
South America.....	542	856	3,579	1,224	6,201
Central America.....	107	44	368	449	968
Mexico.....	4,818	6,599	3,271	3,078	17,766
West Indies.....	3,998	12,301	13,528	10,660	40,487

Country where born—Continued.

Countries.	1820 to 1830.	1831 to 1840.	1841 to 1850.	1851 to 1860.	1820 to 1860.
.....	3	8	35	41,397	41,443
es.....	9	39	36	43	127
.....	.....	.....	7	15	22
.....	3	1	4	19	27
.....	1	8	5	5	19
.....	.....	4	.....	.....	4
.....	.....	4	1	.....	5
.....	.....	.....	2	.....	2
States.....	4	.....	.....	.....	4
ood Hope.....	2	.....	.....	.....	2
.....	10	36	47	186	279
.....	13	29	327	2,873	3,242
lands.....	271	6	1	8	286
lands.....	70	52	3	189	314
l Islands.....	4	15	3	7	29
Islands.....	1	6	28	44	79
lands.....	.....	.....	1	6	7
.....	2	3	.....	104	109
.....	.....	1	3	13	17
nce.....	.....	2	1	.....	3
Islands.....	79	.....	.....	.....	79
and.....	.....	.....	.....	4	4
.....	32,892	69,799	52,725	25,438	180,854
Al Aliens.....	151,824	599,125	1,713,251	2,598,214	5,062,414
ites.....	24,649	40,961	54,924	276,473	397,007
l.....	176,473	640,086	1,768,175	2,874,687	5,459,421

EDUCATION.

returns of the marshals present the statistics of education and educational institutions under the same general heads as in 1850, viz: the number of who attended school any time in the year preceding the 1st day of 1860, the number of schools, with their pupils and teachers, together with the amounts received for their support from taxes, permanent funds, tuition, and other sources, for the year previous. Although these returns have not been reduced to a tabulated form, enough is ascertained to authorize the conclusion that not far from 5,000,000 persons received instruction in the various educational institutions of the different States in the year ending June, 1860, or one-fifth of the entire free population of the country. And it is gratifying to know, from the official reports of State and municipal authorities, that in many of the States these institutions, in number, material outfit of buildings, furniture, and apparatus, and in the professional knowledge and zeal of the teachers, have kept pace with the growth of their respective communities and the increase of their wealth, and industrial prosperity generally.

The plan heretofore adopted of presenting the returns under the general heads of colleges, academies, and private schools does not exhibit the peculiarities of the system and means of instruction in each State, nor the prodigious and comprehensive character of the educational interests of the country, an attempt will be made, in addition to the tables heretofore

given, to arrange the institutions in a manner which will throw much light upon the nature of our institutions, and exhibit the action of the general government in relation to schools and education, as in its appropriation of over 50,000,000 acres of public lands to educational purposes in the several States, and of the policy of the different States in the disposition of the same, and of the history of the military and naval academies of the government.

POPULAR REPRESENTATION.

By the law of May, 1850, the principle was first established of permanently limiting the number of representatives, and relieving the country and Congress from the necessity of fixing every ten years the number of members whereof the House should be composed. The law establishes the number of representatives under each census at two hundred and thirty-three, who are apportioned among the several States respectively, by dividing the number of the free population of the States, to which, in slaveholding States, three-fifths of the slaves is added, by the number two hundred and thirty-three, and the product of such division (rejecting all fractions of a unit) being the ratio of representation of the several States. But as the number and amount of the fractions among so many dividends would, of course, in the aggregate be sufficient to reduce the number of representatives below the number specified, it was provided that the whole number should be supplied by assigning to so many States having the largest fractions an additional member each for its fraction, until the total number of two hundred and thirty-three members should be assigned to the several States. It is also provided that new States being admitted subsequently to any one of the decennial enumerations shall have representatives on the same basis, while it is at the same time provided that such excess in the number of members of the House of Representatives shall only continue until the apportionment of representatives under the next succeeding census.

In pursuance with law, the apportionment was made and proclaimed on the 5th day of July, 1861, distributing the representation in the thirty-eighth Congress among the several States, according to their federal population, as follows:

Alabama	6	Minnesota	1
Arkansas	3	Mississippi	5
California	3	Missouri	9
Connecticut	4	New Hampshire	3
Delaware	1	New Jersey	5
Florida	1	New York	31
Georgia	7	North Carolina	7
Illinois	13	Ohio	18
Indiana	11	Oregon	1
Iowa	5	Pennsylvania	23
Kansas	1	Rhode Island	1
Kentucky	8	South Carolina	4
Louisiana	5	Tennessee	8
Maine	5	Texas	4
Maryland	5	Vermont	2
Massachusetts	10	Virginia	11
Michigan	6	Wisconsin	6

According to the apportionment, the States which have their representation increased are: Arkansas *one*, California *one*, Illinois *four*, Iowa *three*, Louisiana *one*, Michigan *two*, Missouri *two*, Texas *two*, Wisconsin *three*.

The States where representation is diminished by the new apportionment are: Alabama *one*, Georgia *one*, Kentucky *two*, Maine, Maryland, Massachusetts, Minnesota, each *one*, New York *two*, North Carolina *one*, Ohio *three*, Pennsyl-

vania *two*, Rhode Island *one*, South Carolina *two*, Tennessee *two*, Vermont *one*, Virginia *two*. The arrangement of representatives for the 38th Congress under the law of May 23, 1850, was changed subsequent to the apportionment by the law of March 4, 1862, which increased the number of representatives to 241, by giving one additional to the States of Illinois, Iowa, Kentucky, Minnesota, Ohio, Pennsylvania, Rhode Island, and Vermont. This act makes the number of representatives 241 from and after the 3d of March, 1863. It is understood that the bill as originally passed by the House added 6 to the 233 representatives theretofore provided, and added these to States having unrepresented fractions on the apportionment of July 5, 1861, whenever the addition of a representative to any State would bring the representative constituencies of that State nearer to the ratio of representation, ascertained according to the act of May 23, 1850, than they would be on the apportionment; and the effect was to make the constituencies in every State approximate *nearest to the ratio*. As the ratio is the law of absolute equality, it was claimed that this rule of apportionment approaches in the nearest practicable degree to equality among the States according to their respective representative populations. It appeared subsequently that, by assuming 239 as the number from which to deduce the ratio of representation, two States only would be entitled to an additional representative on the above rule, and the bill was amended accordingly by the Senate and concurred in by the House; so, in fact, the ratio for the next decade is on the basis of 239 representatives, with two (2) added to equalize representation among the several States.

It will be perceived that the preponderance of representation is rapidly but steadily advancing westward, and that regions unorganized and with scarcely a civilized inhabitant in 1790 now form populous States, with a larger representation than was enjoyed by all the States at that time. The increase of population and, as a consequence, of representation in the new States of the west is prominently illustrated by a comparison of the representation of Illinois, Indiana, Iowa, Michigan, Ohio, and Wisconsin, under the census of 1860, with that of Virginia, Massachusetts, Pennsylvania, New York, North Carolina, Maryland, and Connecticut, the six States having the largest representation, respectively. Under the census of 1790 Virginia had nineteen representatives, the largest number of any of the original States under the first census. Her representation is reduced under the census of 1860 to eleven, while Ohio, which was admitted into the Union in 1802, has nineteen representatives. Indiana, admitted into the Union in 1816, has the same number of representatives as Virginia; and Illinois, admitted into the Union in 1818, has fourteen representatives under the new apportionment. Massachusetts, with a representation of fourteen under the census of 1790, is reduced to ten under the new census. Pennsylvania and New York, the one with thirteen representatives and the other with ten under the first census, notwithstanding the immense resources of those two great States, have, under the census of 1860, the one thirty-one and the other twenty-three representatives. The ratio of increase in population in those two States since the census of 1850 was 25.51 per cent. in New York, and 25.71 per cent. in Pennsylvania, while in Illinois the ratio of increase during the same period was 101.04, and in Indiana 86.83 per cent. The probability is, therefore, should the ratio of increase of population continue in the States of the west as indicated by the census of 1860, that in the course of three or four decades New York and Pennsylvania, now the two most powerful States, may yield to some of their younger sisters, as Virginia, sometimes, not inappropriately, termed the mother of States, first yielded to them, and has now yielded to two new States carved out of territory originally her own.

North Carolina, under the census of 1790, had ten representatives; Maryland eight, and Connecticut seven. These three States have, under the census of 1860, (the first, seven; the second, five; and the third, four representatives,) an average representation of sixteen instead of twenty-five, as under the first ap-

portionment. Thus the power of the old States declines, while that of the new States west of the Alleghanies increases more rapidly than they lose. Iowa, admitted into the Union in 1846, Michigan in 1837, and Wisconsin in 1848, have six representatives each under the last apportionment—two more than Connecticut or Maryland, and only one less than North Carolina. And here it must be borne in mind that the ratio of representation under the census of 1790 was one representative to every thirty-three thousand of representative population, while it is fixed by the last census at one representative for every 127,000.

STATISTICS OF MORTALITY.

(APPENDIX—TABLE No. 6.)

The present returns constitute the second general enumeration of annual deaths in the United States. The accumulated materials are the more valuable since they furnish instructive comparisons with the former returns of 1850, as well as with those of the nations of Europe which are favored with a permanent registration.

The rate of mortality has ever been a leading object of statistical inquiry, and in connexion with the number of births and migrations indicates the annual loss and gain of population. Besides the numerical proportion, expressively termed "the death figure" by a German statist, the records of mortality have a physical significance in our own land for elucidating the relative prevalence of diseases, and the comparative salubrity of the climate on the Atlantic coast contrasted with the elevated interior and the valley of the Mississippi. It is an interesting inquiry, whether the record of deaths over so large an extent of the New World shall disprove or confirm, and enlarge the conclusions drawn from vital statistics in other lands, and shall point to similar means of promoting health and longevity.

Adopting, in a first view, the civil divisions of the United States, the *number of deaths returned* to the Census office, and their *ratio to the living population*, are as follows. In making the present comparison, the population was changed according to the mean rate of increase from the end to the middle of the year in which the deaths occurred.

Deaths in the United States for the year ending June 1, 1860.

States and Territories.	Annual deaths.	Population to one death.	Deaths per cent.	Per cent. in 1850.	States and Territories.	Annual deaths.	Population to one death.	Deaths per cent.	Per cent. in 1850.
Alabama	12,759	74	1.34	1.20	Maryland.	7,370	92	1.09	1.63
Arkansas	8,855	48	2.06	1.46	Massachusetts	21,303	57	1.70	1.93
California	3,704	101	0.99	1.00	Michigan	7,390	100	1.00	1.16
Connecticut	6,138	74	1.35	1.59	Minnesota	1,108	153	0.65	0.50
Delaware	1,246	89	1.13	1.34	Mississippi	12,213	64	1.57	1.46
Florida	1,764	78	1.28	1.08	Missouri	17,652	66	1.52	1.83
Georgia	12,816	81	1.23	1.11	New Hampshire	4,469	72	1.39	1.35
Illinois	19,209	87	1.14	1.38	New Jersey	7,525	88	1.14	1.34
Indiana	15,325	87	1.15	1.32	New York	46,881	82	1.22	1.49
Iowa	7,250	92	1.09	1.08	North Carolina	11,602	84	1.19	1.31
Kansas	1,443	73	1.37	.....	Ohio	24,724	93	1.07	1.48
Kentucky	16,466	69	1.45	1.56	Oregon	237	218	0.46	0.36
Louisiana	12,324	57	1.76	2.35	Pennsylvania	30,214	95	1.06	1.26
Maine	7,614	81	1.23	1.32	Rhode Island	2,479	69	1.44	1.55

Deaths in the United States—Continued.

States and Territories.	Annual deaths.	Population to one death.	Deaths per cent.	Per cent. in 1850.	States and Territories.	Annual deaths.	Population to one death.	Deaths per cent.	Per cent. in 1850.
South Carolina.....	9,745	71	1.41	1.23	Nebraska.....	381	75	1.34	.....
Tennessee.....	15,153	72	1.39	1.20	Nevada.....	.....	.....	.....	.....
Texas.....	9,377	63	1.58	1.48	New Mexico.....	1,305	71	1.42	1.91
Vermont.....	3,355	93	1.08	1.03	Utah.....	374	106	0.94	2.13
Virginia.....	22,472	70	1.43	1.36	Washington.....	50	228	0.44	.....
Wisconsin.....	7,141	107	0.93	0.97	District of Columbia..	1,285	68	1.74	1.66
Colorado.....	.....	.....	.....	.....	Total, United States.	392,821	79	1.27	1.41
Dakota.....	4	.....	.....	.....		

It will be seen that the total return of deaths of all classes and ages, white and colored, for 1860, amounts to 392,821. In 1850 the returns gave 323,272; whence it appears that the number of annual deaths, after an interval of ten years, has been augmented by 69,549, that is, an increase of 21.51 per cent. In the same interval the total increase of the whole population, according to the census, has been 35.58 per cent. Thus the mortality has not increased in proportion to the increase of population.

Under equal conditions this fact would favor a progressive salubrity in our climate, and undoubtedly there has been a sanitary improvement in many places. But the principal part of the difference in the rate of mortality is to be ascribed to the prevalence of cholera in 1849, swelling the deaths to an unusual amount. A previous visitation of Asiatic cholera in 1832 with alarming reports of its ravages in Europe, and the consequent excitement of the public here, will long be remembered. Near the beginning of the year 1849 the pestilential scourge reappeared almost simultaneously in New York and New Orleans, and thence gradually spread over the whole country. Along the chain of the lakes, and in the Mississippi valley, it raged with peculiar violence, and chiefly in the summer months, which are embraced in the census year, commencing on the first of June. Therefore, to render the circumstances of the two enumerations more equal, let the deaths by cholera, 31,506 in number, be first taken out of the total mortality of 1850, the remaining deaths are 291,766. Comparing this number with the whole enumeration in 1860, which was a healthy year, we find an increase of 34.64 per cent., which differs but slightly, as will be seen, from the current increase of the living population. Thus, with proper and obvious corrections, the one class of returns has advanced in nearly equal proportion with the other.

Among persons of foreign birth the outbreak of this disease in 1849 appears to have been more violent than among the native residents. In the foreign portion of the population 11,056 deaths by cholera were reported in the census of 1850, besides an increase from the other zymotic diseases. It was in the midst of the vast emigration which has continued to arrive on our shores, and being attracted to the commercial centres where the disease chiefly prevailed, the mortality of emigrants then rose to nearly as large an amount as it has now reached ten years after. Including persons of unknown birth-place, the returns have been as follows:

Deaths of foreigners in 1850.....	32,970
Deaths of foreigners in 1860.....	34,705

Another feature worthy of mention is the small mortality in the new States of Minnesota and Oregon, and in Washington Territory. On examining the returns we find here the least mortality; but early explorations in this territory had determined "the skiey influences" to be favorable, and the climate healthy. Besides, it appears a general characteristic of the pioncer States that the more hardy and enterprising class predominate among the first settlers; with a comparative absence of young and aged persons the deaths are less frequent. As immigration progresses, entire families with members of all ages become residents. The soil is broken by the plough, exposing vegetable matter to decomposition, and the deaths gradually occur in a greater ratio, as exhibited in the returns of the census.

A State registry of the annual deaths, births, and marriages has been for several years in operation in Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, Vermont, South Carolina, and Kentucky. The deaths in nearly all of the principal cities are annually registered and reported chiefly in connexion with the boards of health. Whenever the deaths could be more correctly ascertained from these local records the census marshals were authorized to copy them. But on examination they appear to have rarely availed themselves of the privilege, with one large exception, mentioned below. The records were generally obtained by inquiry from house to house, in the same manner as the facts embraced in the other schedules. It is evident that the population in all varieties of young and old, male and female, was a present and visible fact to the enumerator, with scarce a chance of omission. But the deaths of the past twelve months were matters of recollection of which a portion would naturally be forgotten, and in the occasional removal and breaking up of families another portion would be lost. A precise enumeration was therefore impracticable, and the census of deaths is admitted to be deficient in numbers; nevertheless, being taken in the same manner over extensive sections of country, the returns stand on the same footing, and though not the whole, will be regarded as very large examples or representative numbers of the whole, and relatively reliable.

A full registration of the social statistics is a work of time and experience, proceeding yearly from deficient to more and more complete returns. In Massachusetts such an organization is in successful operation, and our marshals appear in this instance to have resorted to the State registry. The resulting proportion of deaths exhibited in the foregoing summary is noticed to be relatively greater in Massachusetts, but the disparity will be rightly ascribed to the better conditions under which the permanent registry operates, rather than to any marked difference of climate compared with that of the adjoining States.

Having thus far considered the civil divisions, let us now combine the returns under a new form, having reference to the physical aspects of the country.

The relative mortality in the great natural divisions is found to be as follows:

Natural Divisions.	Rate of Mortality.		
	Annual deaths, 1860.	Per cent. of population.	Per cent. in 1850.
I. LOWLANDS OF THE ATLANTIC COAST, Comprising a general breadth of two counties along the Atlantic from Delaware to Florida, inclusive.....	15,392	1.31	1.45
II. THE LOWER MISSISSIPPI VALLEY, Comprising Louisiana and a breadth of two counties along each bank of the river northward to Cape Girardeau, in Missouri.....	30,154	1.81	2.33
III. THE ALLEGHANY REGION, From Pennsylvania, through Virginia, Eastern Tennessee, &c., to Northern Alabama.....	26,346	1.08	0.96
IV. THE INTERMEDIATE REGION Surrounding the Alleghanies, and extending to the lowlands of the Atlantic and to the Mississippi valley.....	79,615	1.32	1.19
V. THE PACIFIC COAST, California, Oregon, and Washington.....	3,991	0.95	0.92
VI. THE NORTHEASTERN STATES, Maine, New Hampshire, and Vermont.....	15,438	1.24	1.25
VII. THE NORTHWESTERN STATES, Wisconsin, Iowa, and Minnesota.....	15,508	0.98	1.01
The whole United States.....		1.27	1.41

For reasons before stated, the percentages in the last two columns will be understood as expressing not the absolute, but the *relative*, mortality of one section compared with another section, or with the whole United States. The third, fifth, and seventh divisions will be seen to exhibit the smallest proportions of mortality, nearly equal or differing but little from 0.98, the mean value. The second division shows by far the greatest mortality; the relative mean of two different years being 2.09 per cent. of the population, while the first, fourth, and sixth divisions, together with the remaining States not included above, conform nearly to the general average of the whole United States.

The conclusions from the census, thus briefly stated, appear entirely accordant with the topography of the country, and illustrate how far the human system has power to withstand the influence of diverse temperatures and climates. Leaving out the Alleghany region, and its extension through the Catskill and White mountains to Maine, the surface of the populated States nowhere rises more than a few hundred feet above the sea level. The extent from north to south, through twenty degrees of latitude, presents an agreeable "interchange of hill and valley, rivers, woods, and plains," most happily situated between the rigors of the polar and the flaming heat of the tropic regions. Hence, with the exceptions indicated, a considerable uniformity might be expected in the prevailing rate of mortality; and such is, in fact, the result of the census. There appear no marked deviations on a large scale from the common standard, or mean of the two enumerations in 1850 and 1860, except in the divisions already specified, where climatic causes of a diverse nature are plainly in operation.

The first division, comprising *the great Atlantic plain*, was remarked by the early explorers in America on account of its uniform level over a length of a thousand miles along the coast, and extending from fifty to one hundred miles inland. The sea and shore meet, for the most part, in a mingled series of bays, estuaries, and small islands rising just above the tide. The low grounds in summer abound in miasm, and a single night's exposure in the rice-fields of Carolina is said to be very dangerous, and carefully avoided. But, away from the cypress swamps and marshes, there is generally a sandy soil; and the aggregate mortality is found by the census to rise above, though not much above, the general average of the whole country. In every few years, however, it is well known that the low portions from Norfolk, southward and extending around the Gulf of Mexico, are visited by epidemic disease, when the mortality rises much higher than the ordinary amount.

In respect to the second division it may be observed that while the low valley or trough of the Missouri river, for example, is five miles in width, *the alluvial tract of the Mississippi* is often from forty to fifty miles in breadth. On each side of this river plain are the line of bluffs, which are very steep, and in some places rise two or three hundred feet in height. The river is described as coursing its way between these bluffs, so called, here veering to one side; there, to the other, and occasionally leaving the whole alluvial tract on one side. The annual flood commences in March, continuing two or three months. During this time the river plain is submerged to the not unusual depth of fifty feet below the junction of the Ohio river, the additional depth decreasing to ten or twelve feet at New Orleans. The lateral overflow is principally on the western side, and covers an area from ten to fifty miles wide. A periodic inundation of such vast dimensions will rank among the grandest features of the western continent. Towards the last of May the water subsides, leaving the broad alluvial plain interspersed with lakes, stagnant pools, and swamps, abounding in cottonwood, cypress, and coarse grass. The flood leaves also a new layer of vegetable and animal matter exposed to fermentation and decay under the augmenting heat of the summer sun. When, in addition to this, the air becomes unusually damp during the hot season, the conditions of epidemic disease, according to medical authority, are fully present. What the Roman poet expressively termed the "cohort of fevers" then advances upon the human race as it were in destructive conflict; the abundant alluvial matter decomposing under a high temperature, with occasionally a more humid and stagnant atmosphere. These are stated to be the conditions by which the mortality of the lower Mississippi valley has reached the high rate indicated by the census. The portion embraced in the foregoing classification was terminated on the north with the county of Cape Girardeau, for the reason that the hilly country in that vicinity is connected with a rocky stratum traversing the beds of both the Mississippi and Ohio rivers. From this great chain southward to the Gulf of Mexico is an extent of between six and seven hundred miles. The entire valley, according to geologists, may have been once an arm or estuary of the ocean extending inland from the Gulf of Mexico. The present influence of so large an area of alluvial matter must pervade the adjacent borders to a certain undefined extent.

The third division, or *Alleghany country*, is exhibited by the statistics as a region of great salubrity. It consists of high ridges running nearly parallel with the sea-coast through an extent of nine hundred miles, with a breadth varying from fifty to two hundred miles. The ridges are generally well watered and wooded to the summit, and between are extensive and fertile valleys; they are known as the Blue ridge, Alleghany ridge, North mountain, Cumberland ridge, and others. The region has been termed an elevated plateau or water-shed, whence the rivers flow eastward to the Atlantic and westward to the Mississippi and Ohio valleys. The ridges being for the most part about

all a mile high, appear to exercise no other influence on the climate than what is due to mere elevation, thus securing a pure atmosphere and other conditions favorable to the growth of a healthy and vigorous population.

On the *Pacific coast* the seasons of the year have an entirely different type from that of the eastern United States. A cold sea current apparently cools down the temperature of summer, so that July is only 8° or 9° Fahrenheit warmer than January, and September is the hottest month. From this cause, Indian corn fails to come to maturity, although wheat and other cereals, as well as orchard fruits flourish in fine perfection. The elastic atmosphere and bracing fleet of the climate have been remarked by settlers from all quarters of the globe.

In the northwestern States a continental, as distinguished from a sea, climate prevails with wide extremes of temperature. In the northeastern States, also, the thermometer ranges through more than a hundred degrees from winter to summer, yet the year appears generally healthy. Without entering into further details on this or the other divisions, enough evidence has been offered to show a certain correspondence between the physical features of the country and the mortality returns of the census.

Let us next examine the record of mortality with reference to changes in the different months and *seasons* of the year. The annual course of the sun through equinox and solstice brings on the vicissitudes of the seasons, with the attendant train of periodic phenomena, among which is the varying distribution of mortality. During the twelve months ending June 1, 1860, the deaths are stated to have occurred as follows:

Deaths in the United States, by Months and by Sex, 1860.

Months.	Number recorded.			Proportions.			State registry.
	Males.	Females.	Total.	Males.	Females.	Total.	
January	17,537	15,156	32,693	4.42	3.82	8.24	7.60
February	17,791	16,208	33,999	4.79	4.37	9.16	7.75
March	20,569	18,473	39,042	5.18	4.65	9.83	8.11
April	19,336	17,593	36,929	5.03	4.58	9.61	7.88
May	21,365	19,376	40,741	5.38	4.68	10.06	7.25
June	14,333	13,223	27,556	3.73	3.44	7.17	6.81
July	16,161	14,351	30,512	4.08	3.63	7.70	8.01
August	18,387	16,558	34,945	4.61	4.17	8.78	10.09
September	17,243	15,852	33,095	4.49	4.13	8.62	11.40
October	16,457	13,693	30,150	3.89	3.45	7.34	8.81
November	13,194	11,365	24,559	3.44	2.96	6.40	7.45
December	14,814	12,753	27,567	3.68	3.21	6.89	7.94
Unknown	1,338	986	2,324	.....	.....	.....	.....
Total	207,235	185,580	392,815	52.72	47.28	100.00	100.00

To facilitate a perception of the relations, the numbers in the last four columns are represented by proportional parts of 100, that is, by percentages whereof the sum is 100. A correction in this part of the table has been made for unequal months, by first adding one-thirtieth part to the deaths in April, June, September, November, and two twenty-ninths to the deaths in February; thus changing all to the majority standard of 31 days before casting the proportions. The mean monthly proportion is 8.33, and those which are below this value of course indicate months having less than the average mortality.

The year of the census ends with the last of May, and the deaths in that month are the most numerous in the returns. This circumstance, however, is very unusual, and after extensive scrutiny the most natural interpretation appears to be, not that May is the most fatal month, but that such deaths being the more recent, were better recollected and more fully reported to the marshals. Many facts concur to indorse this explanation, especially the results of the permanent State registry of Massachusetts during the nine years ending with 1859; these having been corrected to equality of months are subjoined in the last column for comparison; and the less numerous returns in Rhode Island furnish like results. It is at once evident, from the nature of the case, that the few State registries in which the deaths are noted at the time of occurrence are adapted to show the monthly proportions of mortality more correctly than this part of the census, where the deaths are set down only at the end of the year. In the latter case an unknown portion of the earlier deaths must be indistinctly remembered or often totally forgotten.

Without disguising this unexpected peculiarity, or concealing any defects of the census, it is better to exhibit it in its true light as shown by comparison in the preceding table. The inquiry will naturally arise, must the distinction of months therefore be omitted and the mortality statistics be considered only from other points of view? Without fully answering this question at present, it will be proper to observe that even as the eye perceives the nearer objects of a landscape more fully and distinctly than the remote, so the recollection of past events has a similar recession which is subject to laws. On this ground, passing back from May, the monthly returns might be successively augmented, with some variations, in an ascending scale, to correct for forgetfulness. Approximate corrections of this nature can be obtained from the army statistics of mortality at more than eighty different posts scattered over the whole United States. During the twenty-one years ending with 1859 the official number of deaths returned to the Surgeon General's office in the four quarters of the year commencing with January were:

	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Year.
Deaths	904	956	1,227	1,096	4,183
Proportions	21.61	22.86	29.33	26.20	100.00

These proportions do not essentially differ from those of the two State registries before mentioned. Without presuming on entire accuracy, the *relative* deficiencies of the United States census of 1860 would be corrected to the same standard by taking the returns of the first quarter, or first three months, in the former table, unchanged, adding 6, 46, and 58 per cent. to the deaths in the second, third, and fourth quarters, respectively.

In the United States the greatest number of deaths occurs during the third quarter, comprising the months of August and September. In England the climate is less subject to extremes of winter and summer temperature than ours, and the deaths are much more evenly distributed through the year. With but a small average difference, the least number of deaths there occurs in the third quarter, and the greatest number in the first quarter, or winter season.

Generally speaking, the *normal* course of temperature and moisture through the year, in any place, is the most favorable to agricultural productions and the most conducive to public health; while great and sudden extremes of heat and cold are alike injurious to organic life and to the human constitution. In the promotion of public hygiene it has further been observed that the influence of

the weather upon mortality is exerted more immediately upon infants and the aged, whose vital force is less than that of persons in middle life.

Once more let us glance at the statistics of mortality with reference to the *Ages at death*. The whole number, including white and colored, are exhibited in the following table. The right hand columns on the scale of 100 are designed to serve, in some degree, the purpose of a diagram for illustrating the relative numbers deceased at different periods of life:

Deaths classified by Ages and by Sex, 1860.

Ages.	Number enumerated.			Proportions.			
	Males.	Females.	Total.	Males.	Females.	Total, '60.	Total, '50.
0-1	44,480	36,794	81,274	11.35	9.39	20.74	16.90
1-2	20,588	17,648	38,236	5.25	4.51	9.76	} 21.41
2-3	12,493	11,153	23,646	3.19	2.85	6.04	
3-4	7,587	7,083	14,650	1.93	1.81	3.74	
4-5	5,332	5,147	10,479	1.36	1.31	2.67	
5-10	13,822	13,637	27,459	3.53	3.48	7.01		6.68
10-15	6,359	6,768	13,127	1.63	1.73	3.36	4.12
15-20	8,111	9,265	17,376	2.07	2.36	4.43	4.79
20-25	10,398	10,551	20,949	2.65	2.69	5.34	} 11.74
25-30	9,452	9,560	19,012	2.41	2.44	4.85	
30-40	16,224	15,343	31,567	4.14	3.92	8.06		9.07
40-50	13,470	10,522	23,992	3.44	2.68	6.12	7.14
50-60	11,902	8,514	20,416	3.04	2.17	5.21	5.50
60-70	11,284	8,323	20,107	2.88	2.25	5.13	5.12
70-80	8,995	8,009	17,004	2.30	2.05	4.35	4.17
80-90	4,776	4,808	9,584	1.22	1.23	2.45	2.54
90-	1,284	1,500	2,784	0.33	0.41	0.74	0.76
Unknown	688	371	1,059	.....	.....	.....	.....
Total	207,235	185,586	392,821	52.72	47.28	100.00	100.00

In the last column but one the sum of the four percentages between one and five years of age is 22.21, which does not essentially differ from 21.41, the corresponding percentage in 1850. By comparison throughout the last two columns, it will further appear that the only marked difference in the distribution of ages at death, in 1850 and 1860, is in early infancy, or under one year of age. From some misapprehension, occasionally an assistant marshal, not regarding infants as a part of the active population, has been less careful of their enumeration; and the greater proportion of infants in 1860 should doubtless be ascribed to a more complete enumeration. Upon the middle ages of life, in 1850, the cholera has traced a perceptible effect, as was to be expected from the immigration. With proper allowance for this feature, the return of deaths in 1860, for all ages above the first, appears similar and conformable to that of 1850.

As before shown, the total deaths returned in 1860 were 1 in 79 of the population; and in the less healthy year of 1850 the stated deaths were 1 in 71 of the population, a few still-births being included. In Europe the corresponding ratios, exclusive of still-births, have been recently collected by Professor Wap-pius* from ten years official statistics, and are shown in the middle column following:

* Bevölkerungstatistik, I, p. 160.

Ratio of Deaths in Europe.

Countries.	Population to one death.	The same adjusted to the scale of population in the U. States in 1850.
Norway	56	.....
Sweden	49	.....
Denmark	49	.....
England	44	47
France	44	44
Belgium	42	46
Netherlands	39	.....
Prussia	36	.....

The wide deviation of the stated ratio in the United States from these values is partly due to the more youthful character of the American population, sustained by a constant immigration. However, by the aid of the rates of mortality at different ages in England and France,* with those of Belgium, applied to the United States census of 1850, the unequal distribution of ages is here corrected in the three values of the last column. A large deficiency in our return of deaths is still indicated.

With regard to the question frequently asked, How much ought to be added to the census return of deaths, in order to approximate to the true numbers? the way for an answer, as definite as the subject admits, has been opened by a recent investigation. From a combination of statistical data, it has been demonstrated by Mr. L. W. Meech that the rate of mortality in the United States during the last half century has continued between limits, whereof the higher is represented by the English life table, and the lower by those of continental Europe. From this proposition, compared with the last column above, the conclusion is derived, that *the annual deaths in the United States have been one in 45 or 46 of the population.* There are localities where the "length of days" among the people is considerably above this standard, and others where it is below it; the value just stated, in the long average, cannot be far from the truth.

The question of supplying the deficient number of deaths can now be answered by an approximate correction. To avoid irregularities in the registry of infants, the returns "under five" are at present omitted. Applying the foregoing method, and regarding the deaths of 1850 as excessive from cholera, it finally appears that the census of deaths above five years of age should be increased by about five-twelfths. The same rule may possibly apply to the deaths noted as "one and under five;" but "under one," the number should be increased in a greater ratio, not here determined. Thus in the aggregate of the whole country, so far as can now be ascertained, where seventeen deaths actually occurred, only twelve were reported in the census, exclusive of early infancy.

According to the preceding determination of one annual death in 45.5 living at the middle of the year, the 323,272 deaths returned in 1850, by supplying the omissions, become 501,000; and the 392,821 deaths enumerated in 1860 should similarly be increased to 680,000. At this rate, nearly six millions (5,905,000) of our population have deceased in the past ten years, and their places have been supplied by the advancing numbers of a new generation.

* Eighteenth Report of the Registrar General, (England), p. 32.

In concluding this discussion, it may be observed that the census of mortality compared with the topography of the United States will tend to illustrate the advantages of intercommunication. Our magnificent railroads and steamboat lines traversing immense distances, while promoting an exchange of products, and accommodating alike the tourist and the man of business, constitute an important agency for relieving the mind and improving the health of the people. To those persons who find the sea-coast air injurious, to the sedentary professions and city residents wearied with the dust and heat of summer and the cares of business, a change of air, and the shifting panorama of new scenes open renewed sources of enjoyment, in which all members of the family should participate. A few mineral springs and "watering places" at the sea-side or among the mountains are liberally patronized. Yet the adaptation of our country to a more general system of travel and periodic resort, for sanitary objects, presents a most useful field of inquiry.

The mortality of cities still exceeds that of the country, especially among children. And in both town and country a vast amount of needless sickness exists, which is proved to be preventible by ordinary means. The sanitary improvement of cities must be chiefly intrusted to health officers on the spot, who are conversant with the localities. Yet many of the topics have a popular interest; such as the introduction of the water-supply, of which the Fairmount, the Cochituate, and the Croton water-works are examples, the difficult art of complete sewerage and drainage, the opening of public parks and gardens, and the construction of improved tenement buildings. The vaccination of children before admission to the large public schools has been proposed, on account of the loss and annoyance from irruptions of the small-pox, a requisite which parental duty should have anticipated. The universal practice of this safeguard is strenuously urged, for, besides frequent cases of unavoidable exposure, of loathsome sickness and entailed suffering, many lives are annually lost by the culpable neglect of vaccination.

A great improvement in the registration of deaths, beyond the bare enumeration of the old "bills of mortality," consists in noting the principal circumstances of disease. This prepares the way, in skilful hands, for special and instructive researches. The classification of deaths with reference to intemperance, to different occupations and trades, will determine *among what classes the mortality is the most excessive*, and aid to disclose the causes. The value of this statistical method is illustrated by several remarkable sanitary investigations which have appeared within the last half century in Europe and America. After the facts comes the demand for new improvements and inventions. Some are required in the line of Davy's safety lamp for diminishing casualties, and others for adapting the operations and processes of the work-room to the health of the operatives. The subject is one of special interest, and worthy of sustained examination by our physicians and inventors. In numerous ways the information is so important that an official registration of deaths, notwithstanding the first deficiencies, is gaining adoption among all civilized nations.

On a general Life Table.—Were the enumeration of deaths entirely correct, and were the record combined with that of population, and cast into the systematic form of a life table, the value of this part of the census would be very greatly augmented. The plainest and most advantageous mode of expressing the relations of mortality to the population is conceded to be the life table, devised by Dr. Halley. In its elementary form it shows at a glance the proportion of persons surviving from one age to any other given age; in another form it exhibits the average duration or "expectation of life."

The Carlisle table, which has chiefly been used in England and America, was constructed by Milne from the returns during nine years, 1779-'87, of two healthy parishes in the city and suburbs of Carlisle, in the north of England. That this table should represent life insurance risks with accuracy during half

a century is singular and remarkable. The coincidence is ascribed to what is termed "the selection of lives," since all the offices have required a medical examination of the assured.

The standard of longevity in the Carlisle table may thus be well adapted to life insurance, while it is too high for the whole population. Mr. Baily, a distinguished authority in London, forcibly remarks: "It must appear extremely incorrect to take the mortality in one particular town as a criterion for that of the whole country. The observations ought to be made on the kingdom at large, in the same manner as in Sweden; more particularly as, in the real business of life, the calculations are general and uniform, and adapted to persons in every situation. But till the legislature thinks proper to admit some efficient plan for furnishing these data, we must rest contented with the laudable exertions of public spirited individuals, and avail ourselves of the best light which they afford on this subject." (See continuation of chapter on mortality, p. 114.)

DEAF AND DUMB.

(APPENDIX—TABLE No. 7.)

Though the deaf and dumb, from the peculiar mental and moral phenomena which they display, have been objects of the curious attention of philosophers from the earliest dawn of science, it is only within three centuries that any successful efforts have been made to alleviate their misfortune by education, and only within the last forty years that an enumeration has been made of the deaf and dumb of any country. That deaf-mutes were quite numerous in ancient times is evident from the mention of them in the writings of that period. From the frequent mention of the restoration of the deaf to hearing and of the dumb to speech, in the history of our Saviour, the afflictions in question must have been common in Judea. And then, as now, congenital deaf-mutes were found in the highest as well as in the lower classes of society. The story of the deaf and dumb son of King Croesus is well known; and Pliny speaks of a painter* at Rome, deaf-mute from birth, who was a relative of the Emperor Augustus.

We have, however, no means of estimating what might have been the numbers of deaf-mutes in ancient times. We only know that the infirmity appeared often to force itself on the attention of the philosopher and of the lawgiver. The wisest of the ancient philosophers could find no remedy for the closing of the customary channel of communication among men, and abandoned the unfortunate deaf and dumb as utterly incapable of instruction in letters. The celebrated code of Justinian, the foundation of modern European jurisprudence, classed the deaf and dumb with those persons who, by defect or alienation of mind, were rendered incapable of the legal management of their affairs. In the middle ages deaf-mutes were held to be incapable of feudal succession; otherwise there might possibly have been deaf-mute sovereigns on record, for we are told that an uncle of one of the kings of Sardinia was one of the earliest examples of a well-educated deaf-mute.

The first recorded attempts to instruct this class of unfortunates were made in Spain, about three centuries ago, by Pedro Ponce, a Benedictine monk, who conducted, and, as we are assured on the testimony of several cotemporary writers, with remarkable success, the education of several deaf-mutes of noble families, including the brothers and sister of the constable of Castile. Ponce died in 1504. Spain also presents the name of Bonet, who, half a century later, taught a brother of another constable of Castile, probably a nephew of the pupils of Ponce, and who published, in 1620, the earliest known treatise on the art of deaf-mute instruction. Both Ponce and Bonet instructed their pupils in

* Quintus Pedius.

articulation. A highly-colored account of the success of the latter was brought to England by Sir Kenelm Digby, one of the companions of Prince Charles in his romantic journey into Spain, and probably prompted the efforts of the earliest English teachers of deaf-mutes.

The Germans, jealous of the honor of their fatherland, claim that Rodolph Agricola records the case of a deaf-mute who had been taught to read and write a full century before the time of Ponce, without, however, giving any information as to the mode of instruction; and that about the same time that Ponce began his labors, Pasch, a clergyman of Brandenburg, instructed his deaf-mute daughter by the aid of pictures. In the next century (the seventeenth) we find a few instances recorded in England, in which more or less success was attained in teaching deaf-mutes to write, and even to speak. Dr. John Wallis, the most distinguished of the early English teachers, left on record in the philosophical transactions an account of his methods, which served as a guide to later teachers; and engaged, towards the end of the century, with a younger teacher of deaf-mutes on the continent, John Conrad Amman, of Amsterdam, who is noted for the wild extravagance of his views respecting articulation. Amman ascribed to speech a mysterious efficacy in the operations of the intellect, holding it to be not merely the most convenient, but the only instrument of thought and reasoning; a theory which, carried out to its logical results, would make the instruction of the deaf and dumb from birth utterly hopeless; since speech, properly so called, is to them incommunicable, all they can acquire of it being limited to the visible and felt movements of the organs of speech. Nevertheless these absurd views of Amman on the exclusive fitness of speech as an instrument of thought still influence the practice of the German teachers of our own times.

During the two centuries that succeeded the first labors of Ponce we only find here and there, at long intervals, a teacher who, moved in some cases by philosophical curiosity, in others by the hope of gain, and in others by parental affection, undertook, with more or less success, the education of one or two deaf-mutes. In many cases these early teachers were ignorant of the labors of their predecessors; the teacher had to grope his own way, and the processes were invented over and over again. Thus the art made little progress till the time of the Abbé de l'Épée.

This justly celebrated man, while living in Paris a life of literary ease, had his sympathies interested in the case of two sisters, twins, whose privation of speech and hearing seemed to cut them off from the hope of religious instruction. He gave himself to their instruction with the zeal of a missionary, who believes the eternal welfare of immortal souls at stake. Succeeding beyond his hopes in this new vocation, he devoted his fortune and his life to the cause of the deaf and dumb; and in the school which he founded was seen a spectacle which the world had never seen before—a large community of deaf-mutes restored to the full enjoyment of social intercourse through a language of their own. Having collected more than sixty into his own school, and finding that numbers more existed beyond his reach, De l'Épée labored with success to impart some of his own zeal to others, and (while other early teachers made a secret monopoly of their art) freely communicated his method to the world. Teachers formed by his lessons founded schools in Germany, Italy, Switzerland, Holland, and even Spain. Flattered by the frequent presence at his lessons of eminent visitors, up to the rank of emperor, De l'Épée labored with success to make the institution of the deaf and dumb popular. The impulse given by his zeal and labors opened a new era for the deaf and dumb. It is only from his time that the duty of educating them began to take hold of the public conscience. The school which he founded, and long supported from his own means, was taken under the patronage of the government after his death.

De l'Épée began his labors in behalf of the deaf and dumb between the years 1755 and 1760. Just about the same time began the labors of two other remarkable instructors—Thomas Braidwood in Scotland, and Samuel Heinicke in Saxony. Each of these distinguished men founded institutions which were the parents of many others. Nearly all the schools in the British isles sprang from that of Braidwood, and most of those in Germany originated, directly or indirectly, from that of Heinicke. On the other hand, the school of De l'Épée was the parent of nearly all the existing schools for deaf-mutes in the other countries of Europe and in America.

This is not the place to describe the different methods of those schools. We may, however, observe generally that the great object of the German schools is the teaching of an articulation which, in most cases, is both a very uncertain and an unpleasant means of communication with the deaf. Articulation was also a prominent part of the method of Braidwood, more because the idea of restoring the dumb to speak is so attractive to their friends and to the public, than from any real advantages which the pupils taught to articulate derive in the intercourse of society from any attainments in speaking possible to the deaf and dumb. For many years past the tendency of the more correct public opinion in England has been to the disuse of the efforts to teach articulation, as producing, in most cases, results of very trifling value at an unreasonable expense of time and labor.

The main peculiarity of the French system, or that of De l'Épée as improved by his able successors, Sicard and Bébian, was the cultivation and expansion of the language of gestures—the natural language of the deaf and dumb—as the means of mental and moral development, and the principal medium of instruction, by which the meaning of written language is imparted, enabling the pupil to communicate with all who can read and write, and opening to him that world of knowledge found in books.

This system prevails in all the schools for the deaf and dumb in the United States, having been brought to this country in 1816 by the late venerated founder of the American Asylum, Thomas H. Gallaudet, father of the present worthy principal of the institution in the federal capital. Mr. Gallaudet having become interested in the case of a deaf-mute, daughter of Dr. Cogswell, of Hartford, went to Europe to acquire the method of instruction, and being providentially repelled from the British schools, whose teachers then made a secret and a monopoly of their art, proceeded to Paris, studied the methods of Sicard, the celebrated pupil of De l'Épée, and returning, brought with him Laurent Clerc, himself a deaf-mute, already distinguished as the best teacher in the school of Paris, from which he brought a more thorough knowledge of the art of deaf-mute instruction, in the best state it had then reached, than probably any other man at that time possessed. The American teachers had thus, at the beginning, the advantage of a long cultivated and improved system. Nor has the art been suffered to remain stationary in this country. It has been diligently cultivated among us by many men of eminent ability during half a century; and the results attained in our schools for the deaf and dumb are certainly not inferior, in point of practical utility, to those attained in any of the European schools.

NUMBER OF SCHOOLS.

The number of schools for the deaf and dumb has been rapidly increasing during the current century. At the beginning of the century there were hardly a dozen such schools. Thirty years ago the number of European institutions for the deaf and dumb was about 118, containing, at most, 3,300 pupils. Ten years ago the number of institutions was estimated at 180, and the number of pupils at 6,000. Of the European institutions there are about 80, mostly small

ones, in Germany, 45 in France, and 22 in the British isles. There are also two or three schools in British America. The three largest European schools are those of London, with about 300 pupils, Paris with about 170, and Groningen in Holland, with about 150.

The number of American institutions has also steadily increased. The American Asylum at Hartford is the oldest, having been opened in 1817. The New York institution is next in age, dating from 1817, and the Pennsylvania institution was opened in 1820. The Kentucky institution was opened in 1823, that of Ohio in 1829, and that of Virginia in 1839. The progress of the cause may be seen by the annexed table:

Date.	No. of institutions.	No. of teachers.	No. of pupils.
1834.....	6	34	406
1851.....	13	75	1,162
1857.....	20	118	1,760
1860.....	22	130	2,000

The New York institution is the largest in the country, and probably in the world, having 310 pupils. The asylum at Hartford has about 225, the institution at Philadelphia 206, and the schools of Ohio, Indiana, and Illinois from 140 to 170. The southern institutions are comparatively small, but their present condition cannot be ascertained. Of the 130 teachers, including the principals, about half are men of liberal education, about 15 are females, and about 50 are educated deaf-mutes.

The support of these twenty-two institutions costs not far from \$350,000 annually, of which as much as \$300,000 is appropriated by the legislatures of twenty-nine States. Provision for the education of the deaf and dumb, in some cases restricted to the indigent, in others made free to all, is made by law in all the States, except the sparsely settled ones of Florida, Arkansas, Minnesota, Kansas, and Oregon. All the New England States send their beneficiaries to Hartford, New Jersey sends hers to New York and Philadelphia, and Maryland and Delaware send theirs to Philadelphia, or to the institution at Washington, under the patronage of the President and Congress.

In the buildings and grounds of these several institutions, up to the date of our last information, over a million and a half of dollars had been invested. Except the necessary buildings and appurtenances, the institutions generally possess no permanent funds, being dependent on annual appropriations from the States; but there are three or four exceptions. The only considerable permanent fund is that of the American Asylum, derived from a grant of a township of land, made by Congress, through the generous aid of Henry Clay, as early as 1819. This fund now amounts to \$200,000. The Texas institution has been munificently endowed by the legislature of that State with a grant of 100,000 acres of land.

Some prominent notice is due to the Columbia Institution for the instruction of the deaf and dumb, and the blind, at the national capital, which commenced its operations in June, 1857, under the provisions of an act of Congress, approved on the 16th of February in the same year.

The objects of the institution as contemplated in its organization were twofold: First, to provide suitable instruction for the deaf and dumb and the blind of the District of Columbia, and for children thus afflicted whose parents are in the military or naval service of the United States; secondly, to establish at the national capitol an institution for the instruction of the deaf and dumb, which

should carry their education to a higher point than has yet been attained in other institutions. In other words to afford deaf-mutes in America an opportunity of obtaining a collegiate education, to qualify them as instructors, to enable them to engage in pursuits and occupations which are now (for lack only of the necessary training) beyond their reach.

The success of the institution has fully equalled the expectations of its founders. The first object has been entirely realized. The last annual report of the institution showed an attendance of forty-one pupils. The deaf-mutes are being carried forward in their education according to the French system, improved and introduced into this country by Doctor Gallaudet.

The blind are pursuing their studies in the manner adopted at the Boston institution.

A collegiate department will be organized as soon as the pupils of the institution are sufficiently advanced to enter upon the prescribed course of study. This stage will probably be reached in the year 1864.

The appropriations granted by Congress to the institution have amounted to \$38,509 51; and there has been received from private sources the sum of \$18,025.

The buildings of the institution, which will accommodate sixty pupils with the necessary officers and teachers, are healthfully located on an eminence commanding a view of the city, about a mile and a quarter northeast of the Capitol.

Mr. Kendall is the president of the board of directors, and has contributed liberally to the endowment of the institution, the immediate management whereof has been from the beginning in the hands of the principal, Edward M. Gallaudet, M. A., formerly instructor in the institution at Hartford.

The corps of instruction consists of the principal, two assistant instructors of the deaf and dumb, one instructress of the blind, and a teacher of drawing and the arts of design. Instruction is also given in mechanical labor.

In estimating the cost of instructing the deaf and dumb of the United States, it must be remembered that seven of the twenty-two institutions, those of Virginia, North Carolina, South Carolina, Louisiana, Michigan, California, and the Columbian Institution in Washington are also institutions for the blind as well as for the deaf and dumb, and that the support of their 136 blind pupils is included in the sum already given as the total annual expense of the twenty-two institutions. Allowing for these, the actual expense of educating the 2,000 deaf-mutes now in school may be estimated at \$330,000. The number now under instruction ought to be considerably larger, especially in the southern States, to give all the deaf and dumb that education which alone can raise them to the rank of intelligent and useful citizens. It is restricted less from the difficulty of obtaining appropriations from the State legislatures than from the apathy of unenlightened parents, and their unwillingness to part with their children.

STATISTICS OF THE DEAF AND DUMB.

The earliest known attempt to estimate the number of deaf-mutes in a given country was made by the benevolent De l'Épée, who states that there were, about the year 1773, two hundred of these afflicted persons in the city of Paris, whence he calculated that there must have been 3,000 in the whole kingdom. If this last number is not an error of the press, the calculation seems very erroneous, for we know that the population of Paris at that day little exceeded half a million of souls, while that of France exceeded twenty millions. If there were then two hundred deaf-mutes in Paris, a like proportion for the whole kingdom would give 8,000 instead of 3,000. It was not till 1853 that an enumeration of the deaf-mutes of France was actually made, and the result gave a proportion for Paris and its vicinity just about that estimated by De l'Épée eighty

years before—one in about 2,500 inhabitants; while the ascertained proportion for all France was one deaf-mute in 1,212 souls, more than twice as great as that for Paris.

The two earliest censuses known to us made by governmental authority, in which the number of deaf-mutes was noted, were that of the State of New York for 1825, and that of Prussia for the same year. The deaf and dumb of the United States were first enumerated at the national census of 1830, and at each census since. Enumerations of this class of the population have been made at different times within the last thirty years in several countries of Europe. In Great Britain they were first noted in the returns for the census of 1851.

The general result of these enumerations is that, except in a few extreme cases, the number of deaf-mutes in a given country is seldom more than about eight hundred in a million, or less than about four hundred. The later enumerations show a somewhat larger proportion than the earlier; but this may be owing to greater care in making the enumeration. The Prussian census for 1828 gave one deaf-mute in 1,548 souls; that of 1849 one deaf-mute to 1,364 souls. Thirty years ago the general average of all the European enumerations then made was about one deaf-mute in 1,500 souls. Ten years ago, according to a table prepared by Dr. Peet, of the New York Institution, there had been found 70,700 deaf-mutes, in those countries of Europe in which enumerations had been made, in a population of 92,710,000 inhabitants; a proportion of one deaf-mute to 1,311 souls. This proportion would have been reduced to about one in 1,360, had the result in England, which returned only one deaf-mute to 1,754 souls, then been known.

In this, as in other departments of vital statistics, we find, in any large district, a remarkable degree of uniformity from one period to another, showing that the prevalence of deaf-dumbness, as of other afflictions of mortality, is regulated by general laws. The proportion in the population of Prussia, as we have seen, varied less than a sixth part in twenty-one years; and that in the United States, according to our census returns, has only varied about one-tenth part in thirty years. The amount of variation will be seen from the annexed table, calculated for the white population alone for 1830, 1840, and 1850, and for the whole free population for 1860:

Years.	No. of deaf and dumb.	Population, 1 to—
1830.....	5,363	1,964
1840.....	6,682	2,123
1850.....	9,085	2,152
1860.....	14,269	1,925

The increased proportion for 1860 is probably owing, in part, to the fact that a considerable number of persons returned as "deaf" were counted with the deaf and dumb in making the abstract of the last census. This class of persons was carefully excluded in making the abstract from the census schedules of 1850, as it will be in the revision of the tables of the Eighth Census, which for want of time has not yet been effected.

The deaf and dumb, properly so called, are those who were born deaf, and in consequence grew up dumb, together with those who lost hearing by disease or accident at so early an age as to lose also the faculty of speech more or less completely. Besides these, there are many persons who lost hearing in childhood or youth, after acquiring the permanent power of speech, but who, incapable of being taught in ordinary schools, are entitled to the privileges of a special

institution for deaf-mutes. These are sometimes returned as deaf and dumb, especially if they are or have been pupils of an institution for deaf-mutes; sometimes they are returned as "deaf," and often, especially when their misfortune is recent, they are not distinguished at all. If none but this second class of persons (technically known as semi-mutes) were returned as deaf, there could be no hesitation in including them all with the deaf and dumb. But there are many people who become deaf in mature life, or with advancing age, and these are gratuitously marked as "deaf" on the census schedules, in so many cases as to materially affect, in some districts, the general accuracy of our calculations. None who become deaf after the age of ten or twelve should be included in tables of the deaf and dumb; but this distinction was not generally understood by the census-takers.

Another source of error of a different kind is the frequent return as "dumb" of persons who are dumb, not as a consequence of deafness, but from defect of intellect. If all who are thus returned were known to be idiots, all should be excluded from our tables of the deaf and dumb; but the same word appears to be used in many cases to designate the proper deaf and dumb, and we have no means of discriminating between those who are *dumb* because *deaf*, and those who are *dumb* from deficient intellect. To insure more perfect accuracy for the general report, the list of the deaf and dumb in the United States, made out in this office from the original schedules, will, as far as practicable, be submitted to the inspection of the conductors of the several institutions that their extensive knowledge of individual cases may be availed of to correct the returns in a sufficient number of cases to give a general average of corrections, and thus enable us to approximate much more nearly to accuracy in this branch of our statistics. A small expenditure for the printing of this list may be necessary to this end.

Though by including many returned as "deaf" only, and others returned as "dumb" only, the returned number of the deaf and dumb may be considerably increased; there is reason to believe this increase is not more than equal to the number of omissions. Dr. Peet has made it appear probable, for instance, that owing to the reluctance of parents to describe their children as dumb a large number of deaf-mute children under the age of ten or twelve were omitted;* that the returns of deaf-mutes from most of our larger towns are also deficient; and that, from the greater difficulty of obtaining information in the case of our foreign population, their deaf and dumb are not as fully returned as in the case of the native population. To these we should add many omitted by accident or through the hurry or carelessness of the marshals. Allowing for all these causes of omission, it is not improbable that the proportion of deaf-mutes in the white population of the United States is as great as that found in England and Germany.

Taking the returns as they are, we find the sources of error so uniform in their influence that the results will serve for the purpose of comparison between different classes of the population and between different sections of the Union. We may thus, in time, be aided in forming accurate conclusions as to the causes of deafness; a prospect that gives a higher interest to the returns, since a knowledge of the causes may lead to the knowledge of preventions, whereby the prevalence of this distressing infirmity may be diminished.

The particulars, however, to be gathered from our census, relating to the deaf and dumb, are not nearly as full as would be desirable in this point of view. They do not show, for instance, how many are deaf and dumb from birth, and

* In 1850 the proportion of deaf-mutes returned under 10 years was to the population of the same age (whites) only as 1 : 3,570 for males, and 1 : 4,200 for the females; while between the ages of 10 and 30 the proportion was 1 : 1,550 males, and 1 : 1,930 females.— (*Statistics of Deaf and Dumb*, by H. P. Peet, LL.D.)

how many from disease or accident, (the latter supposed to be nearly half the whole in this country, though only one-fifth of the whole in Europe;)* nor in how many cases there are two or more deaf and dumb children in the same family; nor in how many cases the parents were blood relatives; nor in how many cases the infirmity is transmitted from parents to children. The general laws to be gathered from our census returns are of another kind, and relate to the influence of race, of emigration, of climate, or of geological formation on the prevalence of deaf-dumbness, although they present facilities for the prosecution of inquiries which, if followed up, will enable us to throw much light on the subject generally.

We note *first*, that the white race appears from our census returns to be much more liable to deaf-dumbness than the black, and of course the free colored, which has a larger admixture of white blood, is more liable to that infirmity than the slave population; on the other hand, it is supposed that the colored population is more liable to blindness than the whites. This greater prevalence of deaf-mutes, (after allowing for errors in the two enumerations of 1830 and 1840, which appear to have risen from accidentally placing figures in the wrong columns,) is manifested in every one of the four enumerations from 1830 to 1860, and in the returns from every State. The general average of the census of 1860 gives only one slave deaf-mute to every 4,900 slaves, whereas there is one to every 1,925 among the free population. In 1850, excluding, as already observed, the "deaf," there was returned one deaf-mute to 2,152 whites, one to 3,151 free colored persons, and one to 6,034 slaves. The small proportion returned among the slaves may indeed be due, in part, to less care and particularity in making the enumeration; but it is difficult to believe in a carelessness so general as to account for so great a discrepancy as is here shown. It seems, therefore, safe to assume that the colored race is less liable to deaf-dumbness than the white race; and such, according to the testimony of missionaries, seems also the case with the Mongolian population of China as compared with Europeans.

The next fact to be noted is that there is a larger proportion of deaf-mutes among a population from which emigration has been large than among a population which is gaining largely by emigration. This fact is patent from the returns of every census, as will appear from the annexed table, calculated as before for the white population in 1830, 1840, and 1850, and for the whole free population in 1860:

	The Atlantic States, from Maine to Georgia, inclusive.	All the remaining States and Territor ^{ies} .
Number of deaf mutes in 1830	4,031	1,332
Proportion to population	1 to 1,864	1 to 2,235
Number of deaf mutes in 1840	4,475	2,297
Proportion to population	1 to 1,993	1 to 2,388
Number of deaf mutes in 1850	5,737	3,732
Proportion to population	1 to 1,961	1 to 2,245
Number of deaf mutes in 1860	7,619	6,450
Proportion to population	1 to 1,796	1 to 2,080

* Dr. Peet estimates that in Europe there are in a population of a million 615 deaf-mutes who are so from birth, and only 154 by disease or accident; while in the United States the former class number 278 in a million, and the latter 222.—(See the *Thirty-fifth New York Report*.)

This law is more strikingly exemplified by the returns from the extreme west. California and Oregon, for instance, returned in 1850 only 7 deaf-mutes in a population of 105,000, and in 1860 only 84 in a population of 432,000. Though it may be that the returns from sparsely settled districts are apt to be less accurate than the average, still there can be no doubt that a comparatively small proportion of deaf-mutes go along with the stream of emigration. Families with deaf-mute children have an inducement to remain in the older States, at least till their children can be educated; and it may be that such families, as a general rule, do not belong to the more energetic and restless part of the population. It may be owing in part to a similar cause that the proportion of deaf-mutes is smaller in America than in Europe.

The proportion of deaf-mutes among the slaves of the border States and that found in the extreme southern States offers a contrast even more marked, which is no doubt due, at least in part, to a like cause, the deportation of so many slaves southward, since we may assume that a deaf and dumb slave would be less desirable for a trader than one who can hear. In 1860 there were returned from the slave States north of the parallel of 35°, including North Carolina, but excluding Arkansas, 458 deaf and dumb slaves, one to 3,340 slaves; and from the more southern slave States only 350, but one deaf-mute to 6,920 slaves. This difference can hardly be due to climate, for the proportion of deaf-mutes among the white population of South Carolina was greater in 1830 than in any other State, except Connecticut and New Jersey; and at the last census the greatest proportion in the whole Union, allowing for the large number from other States collected into the school in Connecticut, was returned from the comparatively southern States of Virginia and Kentucky. We cannot, therefore, assume from the census returns that coldness of climate has any marked influence on the prevalence of deaf-mutes.

It has been supposed that mountainous and sterile countries have a larger proportion of deaf-mutes than those that are level and well cultivated. In Europe the greatest known proportion is found among the mountains of Switzerland, the smallest on the fertile plains of Belgium. But we have no such deep, dark humid valleys as those of some parts of Switzerland, where the population seems to deteriorate from generation to generation, and where cretinism, often allied to deaf-dumbness, prevails to a painful extent. Whether in our mountainous districts deaf-mutism is more prevalent than in more level regions can hardly be determined till our population becomes more stationary. We observe that, by the British census of 1851, the proportion of deaf-mutes was, indeed, smaller in level and fertile England than in the more mountainous and sterile countries of Wales and Scotland; but on the other hand, Ireland, a comparatively level country, presents a larger proportion than Wales, and about as large as Scotland. In our own country the proportion in Vermont and New Hampshire, though greater than in most of the other northern States, is less than in the fertile regions of Kentucky.

If we assume as a probable theory that congenital deafness is, in most cases, an arrest of development, owing in some cases to deficient vital power in one or both parents, and in other cases to a physiological unfitness of the parents for each other, and that the loss of hearing by disease or accident is more prevalent among children whose constitutional vigor is impaired, it is difficult to see why mountainous regions, that are found favorable to general health and to longevity, as many mountainous regions are known to be, should present more cases of deaf-mutes than other regions.

The inquiry as to the influence of the geological formation of a country on the prevalence of deaf-mutism is an interesting one, but partly from the difficulty of determining the geological character of a given district, partly from the labor requisite for the investigation, very little has yet been done to elucidate this point. Kentucky has returned at each census a large proportion of deaf-mutes,

and Kentucky is a limestone country. This statement embraces about all that may at present be hazarded on this point.

BLIND.

The first regularly organized establishment for the charitable relief of the blind is known as "*The Hospital Imperiale des Quinze Vingts.*" It was founded in Paris by St. Louis in 1260, and still exists. It contains, as its name implies, fifteen score, or 300 blind. It is an asylum only for adults, and does not attempt to instruct its inmates.

Although much had been done by celebrated blind persons and others in overcoming the privations of sight by ingenious contrivances for the touch, the first successful effort in systematic instruction was made by *Valentin Haüy*. Inspired by the success of the Abbé de l'Épée in the education of the deaf and dumb, M. Haüy conceived that equal results could be effected for the blind, who were deemed more helpless. He reflected upon the fact that the touch of the blind is so exceedingly sensitive as rarely to be deceived in distinguishing the different coins. Why might they not distinguish letters if made tangible? Letters were printed in relief; maps with raised lines were made; a class of blind children was collected and instructed, and the experiment was successful. Such was the simple basis of the system which has been followed over the civilized world.

A house was procured in 1784, in Paris, under the patronage of the Philanthropic Society, which may be regarded as the cradle of the present Imperial Institution for the young blind.

In 1791 "the Liverpool school for the blind" was founded, which was the first in Great Britain.

The following table exhibits the institutions and asylums for the blind in Great Britain and Ireland, the dates of their foundation, and the number of inmates in each:

No.	Location.	Founded.	Inmates.
1	Liverpool.....	1791	60
2	Edinburg.....	1792	115
3	Bristol.....	1793	66
4	London.....	1799	154
5	Norwich.....	1805	26
6	Dublin, ("Richmond," for males).....	1809	20
7	Dublin, ("Molyneaux," for females).....	1815	35
8	Glasgow.....	1828	106
9	Belfast.....	1831	13
10	Yorkshire.....	1835	60
11	Limerick, (for females).....	1835	12
12	Manchester.....	1837	75
13	Newcastle.....	1838	41
14	London, ("Society for teaching the blind to read").....	1838	56
15	Liverpool, (Catholic, for females).....		17
16	Exeter.....	1838	26
17	Aberdeen.....		30
18	Bath.....	1840	24
19	Brighton.....	1841	21
20	Nottingham.....	1842	30
21	Birmingham.....	1846	59
22	*Plymouth.....		

TABLE—Continued.

No.	Location.	Founded.	Inmates.
23	*Bath, (blind school-house) .....	.....	.....
24	*Edinburg, (Abbey Hill).....	.....	.....
25	*Dublin, (Catholic) .....	.....	.....
26	*Cork .....	.....	.....
27	*London, (Milton Institution) .....	.....	.....
28	*Midland Institution .....	.....	.....
Total in twenty-one institutions.			1,076

* Schools and asylums more recently established, and of smaller size; the dates and numbers not ascertained.

Associations and societies for the relief of the blind in Great Britain.

1. London.—“Association for Promoting the General Welfare of the Blind.” The object is to supply the adult blind with employment. It has six branches in other parts of the kingdom, viz: in Bradford, Davenport, Leicester, Liverpool, Sheffield, and Surry.
 2. London.—Society for Printing and Distributing Books for the Blind, 1854.
 3. London.—Indigent Blind Visiting Society, 1837.
 4. London.—Christian Blind Relief Society, 1843.
 5. London.—Society for Supplying Home Teachers.
 6. London.—“The Blind Man’s Friend, or Day’s Charity.” (Founded by the late Mr. Day, who left £100,000 for the benefit of persons suffering under loss of sight.)
 7. London.—Rev. Wm. Hetherington’s charity (1774) appropriates £10, yearly, each to 50 blind persons over 60 years of age.
 8. London.—The Painters and Stainers’ Company (1780) for the relief of blind persons above 61 years of age.
 9. London.—The Cordwainers’ Company (1782) distributes £5, annually, to 105 blind persons.
 10. London.—Society for Improving the Social Position of the Blind.
 11. London.—The Cloth-workers’ Company.
 12. London.—The Drapers’ Company.
 13. London.—The Goldsmiths’ Company.
 14. London.—The Society for Granting Annuities to the Blind.
- The last six grant small annuities for the relief of blind persons.

Institutions for the blind on the Continent of Europe.

No.	Location.	Founded.
1	Paris, Hospital Imperiale des Quinze Vingts.....	1260
2	Paris, Imperial Institution for the young blind.....	1784
3	Vienna, Austria.....	.....
4	Prague, Bohemia.....	1804
5	Amsterdam, Holland	1804
6	St. Petersburg, Russia.....	1806
7	Berlin, Prussia.....	1806
8	Milan, Sardinia.....	.....
9	Dresden, Saxony.....	1809
10	Zurich, Switzerland.....	1809
11	Copenhagen, Denmark	1811
12	Brussels, Belgium.....	.....
13	Lausanne, Switzerland.....	.....

Institutions for the blind on the Continent of Europe—Continued.

No.	Location.	Founded.
14	Breslau, Prussia	1816
15	Konigsburg, Prussia.....	1816
16	Stockholm, Sweden.....	1817
17	Barcelona, Spain.....	1820
18	Naples, Italy.....	1822
19	Germund, Wurtemberg.....	1823
20	Lintz, Austria.....	1824
21	Pesth, Hungary.....	1825
22	Friesingen.....	1828
23	Bruchsal, Baden.....	1828
24	Hamburg, Holland.....	1830
25	Antwerp, Belgium.....	
26	Bruges, Belgium.....	
27	Brunswick, Brunswick.....	
28	Frankfort-on-the-Mayn.....	
29	Friedberg, Hesse.....	
30	Lille, France.....	
31	Berne, Switzerland.....	
32	Stuttgardt, Wurtemberg.....	
33	Friedberg, Switzerland.....	
34	Liege, Belgium.....	
35	Christiann, Norway.....	

Institutions for the blind in the United States, with the number of pupils and blind persons employed by them.

No.	Location.	State.	Founded.	No. of pupils and blind employed.
1	Boston	Massachusetts	1833	111
2	New York.....	New York.....	1833	167
3	Philadelphia.....	Pennsylvania.....	1833	177
4	Columbus.....	Ohio.....	1837	120
5	Staunton.....	Virginia.....	1838	44
6	Louisville.....	Kentucky.....	1842	54
7	Nashville.....	Tennessee.....	1844	36
8	Raleigh.....	North Carolina.....	1845	18
9	Indianapolis.....	Indiana.....	1846	72
10	Jacksonville.....	Illinois.....	1847	50
11	Cedar Springs.....	South Carolina.....	1848	17
12	Janesville.....	Wisconsin.....	1850	40
13	St. Louis.....	Missouri.....	1851	29
14	Macon.....	Georgia.....	1851	31
15	Baton Rouge.....	Louisiana.....	1852	14
16	Jackson.....	Mississippi.....	1852	10
17	Iowa City.....	Iowa.....	1853	40
18	Baltimore.....	Maryland.....	1853	25
19	Flint.....	Michigan.....	1853	35
20	Austin.....	Texas.....	1855	12
21	Washington.....	District of Columbia.....	1857	6
22	Little Rock.....	Arkansas.....	1859	10
23	San Francisco.....	California.....	1860	8
	Total pupils and inmates.....			1,126

Proportion of blind persons in the several States, and to the whole population in the United States.

States.	Free, blind.	Slaves, blind.	Free, one in—	Slaves, one in—
Alabama	204	114	2,594	3,816
Arkansas	118	26	2,749	4,273
California	63	.....	6,032	.....
Connecticut	192	.....	3,027	.....
Delaware	42	.....	2,629	.....
Florida	15	21	5,245	2,940
Georgia	297	188	2,003	2,458
Illinois	476	.....	3,617	.....
Indiana	530	.....	2,548	.....
Iowa	192	.....	3,515	.....
Kansas	10	.....	10,711	.....
Kentucky	530	144	1,755	1,565
Louisiana	112	118	3,365	2,811
Maine	233	.....	2,696	.....
Maryland	264	34	2,272	2,564
Massachusetts	498	.....	2,472	.....
Michigan	254	.....	2,585	.....
Minnesota	23	.....	7,044	.....
Mississippi	147	116	2,413	3,764
Missouri	388	60	2,727	1,915
New Hampshire	142	.....	2,296	.....
New Jersey	203	.....	3,230	.....
New York	1,768	.....	2,199	.....
North Carolina	302	189	1,687	1,751
Ohio	890	.....	2,602	.....
Oregon	9	.....	5,829	.....
Pennsylvania	1,187	.....	2,448	.....
Rhode Island	85	.....	2,054	.....
South Carolina	171	120	1,761	3,353
Tennessee	437	117	1,908	2,356
Texas	119	31	3,535	5,889
Vermont	165	.....	1,903	.....
Virginia	557	232	1,924	2,115
Wisconsin	220	.....	3,520	.....
Dakota Territory .....	.....	.....	.....	.....
District of Columbia	47	.....	.....	.....
Nebraska Territory	3	.....	.....	.....
New Mexico Territory	149	.....	.....	.....
Utah Territory	17	.....	.....	.....
Washington Territory	2	.....	.....	.....
Total	11,125	1,510	.....	.....

Proportion of blind slaves to all slaves, one in 2,616

Proportion of blind to the whole population, one in 2,470

For the advantage of comparisons the following statistics of the blind in Europe are given :

According to the census of 1851 the whole number of blind persons in Great Britain and Ireland was 29,074, viz :

In England and Wales	18,306; 1 in 979
In Scotland.....	3,010; 1 in 960
In islands in the British sea	171
Total in Great Britain.....	21,487; 1 in 975
In Ireland	7,587; 1 in 878
Total in Great Britain and Ireland	29,074; 1 in 950

A larger proportion of blind persons is found to exist in the agricultural districts of Great Britain than in the manufacturing and mining districts and large cities. There is—

In London	1 blind to every 1,025 persons
In Birmingham	1 blind to every 1,181 persons
In Leeds	1 blind to every 1,203 persons
In Sheffield	1 blind to every 1,141 persons.
In the whole kingdom	1 blind to every 950 persons.

The British census of 1851 gives some remarkable facts in regard to the ages of blind persons, widely different from estimates hitherto received. Of the 21,487 blind persons in England, Scotland, and Wales, there were—

Under 20 years of age, only	2,929, or 14 per cent.
Between 20 and 60.....	8,456, or 39 per cent.
Above 60.....	10,102, or 47 per cent.

While less than one-seventh were under 20, nearly *one-half* were at the advanced age of 60 and upwards; showing the small proportion blind in infancy, the large number blinded by old age, and also the longevity of the blind.

In Prussia (1831) it was estimated that, out of 9,212 blind persons, 846, or nearly $\frac{1}{11}$, were between the ages of 1 and 15. In Brunswick, out of 286 blind, $\frac{2}{5}$ were under 7.

We have no authentic information of the blind in France. But if the proportion is the same as that of adjoining countries, there were in 1836 24,675 blind, or 1 to every 1,360 inhabitants.

Comparative portion of blind persons to the whole number of inhabitants in Europe and in the United States.

Great Britain and Ireland, (1851)	1 in 950
France, (census of 1836,)	1 in 1,360
Belgium, (1831,).....	1 in 1,316
Level portions of the German States.....	1 in 950
More elevated portions of Germany.....	1 in 1,340
Prussia, (average of census in 1831, 1834, and 1837,).....	1 in 1,401
Alpine regions, (1831,).....	1 in 1,500
Sweden	1 in 1,091
Norway	1 in 482
United States, (1850,)	1 in 2,470

The remarkable fact is given by this table that the blind in the United States but little exceeds *two-fifths* of the number in Great Britain and Ireland, and are less than *three-fifths* of the number in France, in proportion to the populations of those countries.

The proportion of the blind in each of the United States to the population, considered in relation to geographical position, shows that whatever causes may have modified these proportions, *climate* has had little or no influence; and that

the tables of Dr. Zenne, of Berlin, so much referred to as showing the proportions of the blind according to *latitude*, are entirely inapplicable to the United States.

According to those tables the proportion is—

In latitude 20 to 30	1 in 100	In latitude 50 to 60	1 in 1,400
In latitude 30 to 40	1 in 300	In latitude 60 to 70	1 in 1,000
In latitude 40 to 50	1 in 800		

The following contrary results appear in certain geographical districts of the United States:

Southern States.

Louisiana, latitude 29 to 33	1 to 3,365
Mississippi, latitude 30 to 35	1 to 2,413
Alabama, latitude 30 to 35	1 to 2,594

Northern States.

Maine, latitude 43 to 47	1 to 2,696
Massachusetts, latitude 42 to 43	1 to 2,472
Michigan, latitude 42 to 46	1 to 2,595

In other respects, and from other causes, large differences occur in the proportions of blind persons in some of the States. In Texas (latitude between 26 and 30) there is 1 blind to 3,535; Oregon, 1 to 5,829; California, 1 to 6,032; Minnesota, 1 to 7,044; Kansas, 1 to 10,711. These are distant and thinly-populated States, to which blind persons would rarely emigrate, and contain comparatively few aged persons, among whom a larger portion of the blind are found.

The extraordinary exemption from blindness in the United States compared with Great Britain, according to the census returns, which give the latter about two and a half times more blind than the former country, is a fact of great importance, and suggests inquiries into the causes. We have too little data to warrant any certain conclusions. Sufficient exists, however, to show that *small-pox* has been a prolific cause of blindness in Great Britain, but not in the United States.

Of 1,456 blind persons received into the Liverpool School for the Blind, from 1791 to 1860, 250, or more than *one-sixth*, were blinded by *small-pox*.

Of the pupils in the Glasgow Asylum nearly *one-fifth* were blinded by *small-pox*.

In the Pennsylvania Institution, of 476 pupils received, only 21, or about $\frac{1}{22}$ part of the whole were blinded by *small-pox*. Of 118 pupils in the Ohio Institution, to a certain date, only *one* was blinded by *small-pox*. Dr. Crampton, of Manchester, England, estimated that between 4,000 and 5,000 were blinded by *small-pox* in Great Britain.

SYSTEM OF PRINTING FOR THE BLIND.

The blind of necessity read by the touch. The method of printing in raised letters originated, as stated, with *Valentin Haüy*, in Paris, in 1784. Since then various kinds of embossed letters and characters have been adopted. The alphabetical systems are known as the *Roman capitals*, as in the books printed at the Glasgow and Pennsylvania institutions; the combined *capital and lower case*, as in books from the Bristol, Paris, and some of the German institutions; and the *angular lower case*, of the Massachusetts institution.

The arbitrary systems are known as Braille's in France; Carton's in Belgium; *Lucas's*, *Frere's*, and *Moore's* in England. Both systems have their peculiar advantages. While some institutions adopt the principle that the alphabets and all tangible apparatus should conform as nearly as possible to those universally

in use by the seeing, it must be conceded that the simple arbitrary characters of Braille, Lucas, and others, are more readily learned by the adult blind and those whose touch has become less sensitive by work.

Books for the blind are quite limited in number and dear. Of the principal works of this character may be named: the whole Bible, printed at the Glasgow Asylum, in 19 volumes, quarto, price \$48; the whole Bible, in 8 large volumes, price \$20; A cyclopaedia, 8 large volumes, (unfinished;) Milton's Poetical Works, 2 volumes; Paley's Evidences, 1 volume; Combe on the Constitution of Man, 1 volume; Philosophy of Natural History, 1 volume; Rudiments of Natural Philosophy, 1 volume; Lardner's Universal History, 3 volumes; Common Prayer, 1 volume; Pope's and Diderot's Essays, 1 volume, and other works from the Boston Institution. A dictionary of the English language, 3 large volumes; Select Library, 5 volumes; Church Music, 3 volumes; Student's Magazine, 6 volumes, and other works from the Philadelphia Institution. History of the United States, 3 volumes, and several other works from the Virginia Institution. These and some volumes of moderate extent from the Bristol and London presses are all in the alphabetical type. The New Testament, and portions of it and part of the Old, have been printed and duplicated several times in the three arbitrary characters of Lucas, Frere, and Moore, used in England.

While these various arbitrary systems do credit to the ingenuity of the inventors, two of whom are blind, it is unfortunate, considering the paucity of embossed books, that the efforts of the friends of the blind have not been concentrated upon some one or two kinds of print.

GENERAL VIEW AND OBJECTS OF THE INSTITUTIONS FOR THE BLIND.

The great object of all institutions for the education of the blind is to remove the disabilities under which they labor, as far as possible, by substituting the sense of touch for the lost sight; by a correct system of moral, and mental, and physical training, and by giving them a knowledge of music or some useful mechanic art to prepare them for the active duties and enjoyments of life. Without deciding how their mental and physical condition will compare with the general standard, it is demonstrated that they have capacities for receiving a good education in the various departments of useful knowledge, and of becoming church organists and piano instructors. The largest number become practical workmen in several branches of plain handicraft. While the cultivation of music is to them a source of the greatest delight, and is almost universally taught to the younger blind as affording a benevolent compensation for the loss of all that is beautiful in nature, the exercise of the industrial powers supplies to the mass of the blind the great necessity of their condition. Occupation of mind and body in all these respects gives to the blind in the public institutions that tone of cheerfulness which is considered so remarkable in their condition.

But the great result is the preparation of the blind for *self-support* when they return to become members of the community. It is for this end that private bounty and legislative aid have been so generously granted in the United States. While the young blind are admitted for a term of years to receive an education in the school and music departments, in connexion with handicraft, adults at all ages under 50 are received in some of the institutions for a period of one or two years to acquire a simple trade, when they go on their way rejoicing in their ability to support themselves, or at least to remove the necessity of an entire and hopeless dependence on their friends or the public.

In Europe thousands of blind persons are paupers in the poor-houses or burdens upon friends who would be able, if instructed in simple trades, to earn a large part of their support. Many adult blind in the United States are in the same dependent condition. This number is being partially provided for by those institutions which receive adults.

The employment of the graduate blind by existing institutions is a subject of interest in the United States as in Europe. It is certain that many worthy and industrious blind persons fail to support themselves fully. How far and in what way they may be aided by existing institutions or by others organized for their welfare is an important question claiming and receiving serious attention by those prepared to judge practically upon the subject.

INSANE.

Among the many evidences of progressive science and enlightened philanthropy furnished by the history of the last three-quarters of a century, none are more characteristic, and perhaps no one appears in bolder relief, than the system of treatment of the insane which, adopted within that period, now widely prevails among civilized nations. In a civil, social, and moral point of view, the space is broad which separates the gloomiest cell of a prison, with its bolts, bars, and chains, from spacious apartments furnished with the conveniences and comforts as well as many of the luxuries of life. Yet this space has been traversed by the insane within the seventy years next preceding the present time. It is proposed to give in this place a brief sketch of the history, more especially in respect to the United States, of this important amelioration of the condition of a large class of our fellow-men.

About the middle of the eighteenth century some philanthropists of Philadelphia took preliminary measures for the foundation of a general curative institution in that city; and in 1751 the provincial assembly of Pennsylvania passed an act of incorporation under the title: "The Contributors of the Pennsylvania Hospital." This charter provided not only for the relief of persons suffering from general diseases, but also for the "reception and cure of lunatics."

It is believed that this was the first legislative provision in the American colonies for the restorative treatment, in a public hospital, of persons afflicted with mental alienation. The hospital was opened on February 11, 1752, and henceforward one of its departments was specially appropriated to that class of patients.

The next practical movement in a similar direction was in Virginia; and to her belongs the honor of being the pioneer of all the colonies in the establishment of an institution exclusively devoted to the insane. An act providing for the lunatics and idiots of the colony passed her legislature on November 10, 1769. A hospital was erected at Williamsburg at the expense of £1,070, and opened on or about September 14, 1773. In the course of the war of independence the building was evacuated and used as barracks for the colonial troops. Subsequently, but at what precise period we are not informed, it was re-opened, and has since been conducted in accordance with its original purpose.

In 1771 the Earl of Dunmore, then governor of the colony of New York, granted a charter for the institution now known as the "New York Hospital," in the city of New York. The intervention of the war with England prevented the opening of this hospital until January 3, 1791. Insane patients, so far as appears by the records, were not admitted until 1797.

Such, and such alone, according to present knowledge, were the completed provisions for the care and treatment of the insane in the hospitals of the United States prior to the close of the eighteenth century. But the character of the treatment was more custodial than curative; and the means employed, including as they did, the severest forms of bodily restraint, were better adapted to felons than to persons laboring under disease.

We have now arrived at the period of initiation in another country of an enterprise which, whether we regard the boldness of its beginning, the rapidity of its progress, the extent of territory over which it has spread, the success

which it has achieved, or the amount of good to mankind of which it has been the minister, challenges the admiration of every advocate of human improvement and every lover of his race.

In the midst of all the horrors of the French revolution, Dr. Pinel walked the reddened streets of Paris a minister of benevolence, a physician with a heart. He was connected with the Bicêtre Hospital, in which many of the insane were confined in cells and loaded with manacles and chains. After repeated solicitations he at length, in the latter part of the year 1791, obtained permission from the public authorities to remove these torturing implements of bodily restraint. The first person upon whom the experiment was tried was an English captain, who, being subject to paroxysms of extreme violence, had been chained there forty years. A promise of good behavior having been obtained from him the chains were loosed, and the man, returning as it were to the joys of life, kept his promise, rendered himself useful, and had no recurrence of maniacal fury during the two additional years of his residence in the hospital. Twelve inmates of the hospital were thus relieved from their irons on the first day of the experiment, and in the course of a few days forty-one more were similarly released. History furnishes few sketches of more touching interest than the account of these proceedings given by M. Scipion Pinel, son of the chief actor in them.

Nearly simultaneously with the early measures of Pinel, and, as is believed, without any knowledge of them, William Tuke, of York, England, conceived the plan of founding a hospital for the treatment of the insane upon principles more enlightened and humane than had theretofore prevailed in Great Britain. His plan was carried into execution by the construction of the Friend's Retreat for the Insane at York, which was opened in the year 1796.

Such was the twofold source of the movement which, though compelled to contend with the precedents and the prejudices of ages, and though for this and other reasons its progress was slow for many years, was destined fully to triumph over established usage in the countries of its origin.

Before the close of the eighteenth century German students in the medical school of Paris had carried home the new theory and practice of Pinel, and had begun that work of reformatory regeneration of the institutions for the insane in their native land, which, though small at its beginning and repressed by hindrances similar to those already alluded to, has since been prosecuted with perhaps no less vigor or success than in France or England.

The spirit of the enterprise crossed the Atlantic more slowly than it traversed the boundaries of the German States. The first decennium of the current century furnishes no new movement on behalf of the insane in the United States, except the erection for their accommodation of a separate though nearly adjacent building at the New York hospital. This occurred in 1808.

As early as 1797 Mr. Jeremiah Yellot, of Baltimore, gave seven acres of land to the State of Maryland, on condition that the government should found a hospital for the treatment of insanity and general diseases. In 1798 an appropriation for the purpose was made, and increased by private contributions as well as by an appropriation by the municipal government of Baltimore, applied to the construction of a suitable building. But the hospital was not opened until 1816.

The success of the retreat at York having become known upon this side of the Atlantic, some members of the Society of Friends, in Pennsylvania, desiring to provide hospital accommodations for the insane, formed an association in 1812, obtained a charter, erected a building near the village of Frankford, but now within the limits of the city of Philadelphia, and under the title "Asylum for

the Relief of Persons deprived of the use of their Reason;" the institution was opened in May, 1817.

In the course of these proceedings in Pennsylvania measures for the attainment of a similar end were taken by the trustees of the Massachusetts general hospital, in Boston. A distinct establishment, though a branch of that institution, was constructed near Charlestown, now in Somerville, and designated as the "McLean Asylum for the Insane," was opened on the 6th of October, 1818.

Five institutions for the care and curative treatment of the insane in the United States went into operation in the course of the decennium, terminating with the close of 1830. In 1815 preliminary measures were prosecuted by the board of governors of the New York hospital for the foundation, at Bloomingdale, of a branch of that institution. A grant from the State legislature of an annuity of ten thousand dollars for forty years was obtained, an edifice erected and opened for patients in 1821, under the title of "Bloomingdale Asylum for the Insane." The retreat for the insane at Hartford, Connecticut, and the Kentucky Eastern Lunatic Asylum, at Lexington, first received patients in 1824; and the Western Lunatic Asylum of Virginia, at Staunton, as well as the State Lunatic Asylum of South Carolina, at Columbia, in 1828.

Earliest in the next succeeding period of ten years was the State Lunatic Hospital, at Worcester, Massachusetts, which was opened in 1833. The Vermont Asylum for the Insane, at Brattleboro', followed in 1836; the Central Ohio Lunatic Asylum, at Columbus, in 1838; the City Lunatic Asylum, at South Boston, Massachusetts, and the New York City Lunatic Asylum, on Blackwell's Island, both pauper institutions, in 1839; and the Maine Insane Hospital, at Augusta, and the Tennessee Hospital for the Insane, at Nashville, in 1840.

It was during this decennium that the greatest impulse was given to the scheme for ameliorating the condition of the insane in the United States. In the production of this impulse no man exerted greater influence than the late Doctor Samuel B. Woodward, who was at that time superintendent of the State Lunatic Hospital, at Worcester, Massachusetts. The zeal and hopefulness with which he illuminated a sphere hitherto almost universally regarded in the popular mind as shrouded with clouds and involved in darkness, and the elaborate and interesting reports which, emanating from his pen, were scattered broadly through the country, all contributed to the awaking of an interest in the subject which had never previously been manifested.

In the course of this period, also, that eminent philanthropist, Miss Dorothea L. Dix, began a series of benevolent and beneficent labors to which female biography, throughout the history of the world, probably exhibits no equal. Beginning in Massachusetts, and subsequently proceeding to other States, she traversed the counties and townships within their several jurisdictions, visited all the public receptacles for the insane, together with all the private hovels, dens, garrets, and cellars for solitary maniacs to which access could be gained. She stimulated individuals to exertions and contributions in the cause, and in memorials to legislatures and by appeals to Congress called upon the governments to extend the assistance of the commonwealth to this class of its suffering people.

In 1839 a pamphlet entitled "A visit to Thirteen Asylums for the Insane in Europe," by Dr. Pliny Earle, was published in Philadelphia and extensively circulated among physicians and others interested, or likely to become interested, in the subject. As the first somewhat comprehensive account of the European establishments which appeared in this country, it had no small influence in the promotion of the cause.

The Pennsylvania Hospital for the Insane, situated about two miles west of the old State House in Philadelphia, and a branch of the Pennsylvania Hospital, was opened in 1841. The New Hampshire Asylum for the Insane, at Concord; the Mount Hope Institution, at Baltimore, Maryland; and the Lunatic Asylum

of the State of Georgia, at Milledgeville, commenced operations in 1842; the New York State Lunatic Asylum, at Utica, in 1843; the first hospital disconnected from the almshouse for the insane poor of Kings county, New York, at Flatbush, in 1845; the Butler Hospital for the Insane, a corporate institution, at Providence, Rhode Island, in 1847; and the New Jersey State Lunatic Asylum, at Trenton; the Indiana Hospital for the Insane, at Indianapolis, and the Insane Asylum of the State of Louisiana, at Jackson, in 1848. About the middle of the decennium the patients with general diseases were removed from the Maryland Hospital, at Baltimore, and that institution was thenceforth devoted to the treatment of insanity alone.

Such were the completed results of the increased activity of the enterprise in the fourth decade of the century. Among the most important agencies in the promotion of the cause, in the course of this period, was the "Association of Medical Superintendents of American Institutions for the Insane," which held its first meeting in Philadelphia, in 1845.

The propositions relative to the construction, arrangements, and organization of hospitals for the insane, drawn up by Dr. Thomas S. Kirkbride, of the Pennsylvania Hospital for the Insane, and adopted by this association, have generally been received as the highest authority upon the subjects. Although the idea may have occurred to others, yet Dr. Francis T. Stribling, superintendent of the Western Lunatic Asylum of Virginia, was the first to take the active measures which led to the promotion of this useful association, which has greatly contributed to a uniformity of views and practice among the superintendents of American institutions for the insane.

The first number of the American Journal of Insanity was issued in July, 1844. It was edited by its originator, the late Dr. Amariah Brigham, at that time superintendent of the New York State Lunatic Asylum at Utica. Intended not for the benefit of professional readers alone, but also for the dissemination of more accurate views of insanity among the people, its editor endeavored to adapt its contents to the attainment of this twofold object. The Journal is still continued under the editorship of Dr. John P. Gray and the officers of the asylum at Utica. It has assumed a more purely scientific and professional character, and has done great service in the cause to which it is devoted.

In the course of this decade Dr. Luther V. Bell, of the McLean Asylum, Dr. Isaac Ray, of the Butler Hospital, Dr. H. A. Buttolph, of the New Jersey State Lunatic Asylum, and Dr. Pliny Earle, for several years connected with the Bloomingdale Asylum, visited the rapidly improving institutions of Europe. Among the fruits of their observations we have the design of the Butler Hospital, by Dr. Bell; an elaborate résumé entitled "Observations on the Principal Hospitals for the Insane in Great Britain and Germany," by Dr. Ray; some articles in the Journal of Insanity, by Dr. Buttolph; and a descriptive work entitled "Institutions for the Insane in Prussia, Austria, and Germany," by Dr. Earle.

No less than eighteen new institutions were put in operation during the decennium from 1851 to 1860, inclusive. The State Lunatic Hospital of Pennsylvania, at Harrisburg; the State Lunatic Asylum of Missouri, at Fulton, and the Illinois State Hospital for the Insane, at Jacksonville, were organized and first received patients in 1851. The new building of the Tennessee Hospital, a few miles from Nashville, was so far completed as to be occupied in 1852. The State Insane Asylum of California, at Stockton, and the Hamilton County Lunatic Asylum, a pauper institution, now at Mill Creek, near Cincinnati, Ohio, and called the Longview Asylum, were opened in 1853; the Massachusetts State Lunatic Hospital, at Taunton, and the Western Lunatic Asylum of the State of Kentucky, (since destroyed by fire,) at Hopkinsville, in 1854; the United States Government Hospital for the Insane, near Washington, District of Columbia; the new building of the Kings County Lunatic Asylum, at Flatbush,

New York; the Mississippi State Lunatic Asylum, at Jackson; the Northern Ohio Lunatic Asylum, at Newburg; the Southern Ohio Lunatic Asylum, at Dayton, and Brigham Hall, a corporate institute at Canandaigua, New York, in 1855; the Insane Asylum of North Carolina, at Raleigh, and a department of the Western Pennsylvania Hospital, at Pittsburg, (soon to be transferred to an extensive establishment, and called the Dixmont Hospital for the Insane,) in 1856; the Massachusetts State Lunatic Hospital, at Northampton, and the New York State Asylum for Insane Convicts, at Auburn, in 1858; the Michigan Asylum for the Insane, at Kalamazoo, and a department of the Marshall Infirmary, at Troy, New York, in 1859; the Alabama Hospital for the Insane, at Tuscaloosa, and the Wisconsin State Lunatic Asylum, at Madison, in 1860.

In January, 1860, the Pennsylvania Hospital for the Insane separated the sexes, by placing them in two distinct establishments, about one quarter of a mile apart, but on the same grounds and under the same general medical superintendence. The buildings of the department for males are as large as the original buildings which now constitute the department for females, and were erected and furnished wholly by the contributions of private citizens, most of Philadelphia. This is the first example, in America, of a system for the treatment of the sexes in separate, independent, but united establishments.

A valuable work entitled "A Manual for Attendants in Hospitals for the Insane," by Dr. John Curwen, of the State Lunatic Hospital of Pennsylvania, appeared in 1851; and in 1854 Dr. Thomas S. Kirkbride published a treatise "On the Construction, Organization, and General Arrangements of Hospitals for the Insane," which has become a standard authority.

So far as our knowledge extends, the only hospital which has gone into operation since the commencement of the current decennium is the Iowa State Hospital for the Insane, at Mount Pleasant, which was opened in 1861. A State hospital at Austin, Texas, was begun several years since, and a superintendent appointed, but no intelligence of its opening has reached us.

Inasmuch as the people of all the States have a community of interest in one of the public hospitals above mentioned, it is proper that we should give a more particular account of that institution than of those of a more local character.

The Government Hospital for the Insane was specially intended for the insane of the army, the navy, the revenue cutter service, and the indigent of the District of Columbia. It is situated on the eastern shore of the Potomac river, within the limits of the District of Columbia, and about two miles south of the Capitol, in Washington. The principal building, constructed of brick, is seven hundred and twenty feet in length. Its architectural plan and internal arrangements are among the best which have resulted from the experience and the studies of many able men employed in the specialty. A farm of one hundred and ninety-five acres belongs to the establishment.

The first appropriation by Congress for this institution was made in August, 1852. Dr. Charles H. Nichols was soon afterwards appointed as superintendent, and under his direction and supervision the building was begun in May, 1853. A section of it was completed and opened for the reception of patients in January, 1855. It is now (1862) complete, with the exception of the internal finish of a small section. The aggregate amount of appropriations for the purchase of the farm and the construction of the buildings is \$473,040.

The number of patients on the first of July, in each year since the hospital was opened, was as follows: in 1855, 63; in 1856, 92; in 1857, 110; in 1858, 117; in 1859, 138; in 1860, 167; and in 1861, 180. The number of *persons* treated, prior to the 1st of July, 1861, was 439. Of these 261 were natives of the United States; 169 of foreign countries, and the place of birth of 9 is unknown.

The hospital is under the general supervision of the Department of the Interior. Since it was commenced four different men, representing as many shades

of political opinions, have held the office of secretary, and all of them have manifested an intelligent, liberal, and benevolent interest in the success of the enterprise. In no instance has the department sought to control the patronage of the institution, or in any degree to cripple its usefulness by making it contribute to the especial advantage of the political party in power. Congress has been liberal in its appropriations; and among its members the hospital, in every stage of its progress, has found warm and earnest supporters, whose aid was honorable to themselves and a cause of gratitude in the heart of every American philanthropist. The hospital remains in the charge of Dr. Nichols, under whose supervision it has been wholly created.

Aside from the public institutions, a few private establishments for the treatment of the insane have been opened in the United States in the course of the last forty years. Although some of them which have been discontinued were directed by able and humane men, and several others still in operation are considerably patronized and well conducted by men of high character, yet a consciousness of the undeniable tendency to abuse involved in a purely private pecuniary enterprise of this kind as shown in the history of similar establishments in Europe, has operated to discourage their multiplication and prosperity in this country.

Since the opening of the public institutions nearly all of them have been enlarged, some to the extent of doubling or trebling their original capacity. With few exceptions, chiefly among those most recently founded, the buildings have been undergoing changes of internal architecture and arrangement in conformity with progressive knowledge. They differ very materially in plan, extent, structure, and means and facilities for the prosecution of curative treatment. A large proportion of them will not suffer in comparison with the better class of similar institutions in Great Britain, France, and Germany. It is believed that in executive administration they are governed with prudence, benevolence, and kindness; that their officers are generally earnest laborers, emulous of improvement; and that the unfortunate insane may be committed to them in full confidence of immunity from cruelty or abuse.

Inasmuch as mind can be perceived and studied in its manifestations alone, its essential nature cannot be understood. It is consequently impossible to reduce to a positive demonstration any answer to the proposition whether insanity is really a disease of the mind itself, or merely the effect of corporeal disorder. Much has been written upon the subject, especially by the psychologists of Germany. Among the physicians making insanity a speciality in the United States we know of no one who believes it to be a disease of the spiritual part of our nature. They are unanimous in the opinion that it is the result of corporeal impediments to the free evolutions of the operations of the mind, as irregularity in the movements of a watch may be the effect of some small substance placed among the internal works, and thus preventing the gradual but continual development of the elasticity of the main spring. The watch indicates false time, but the spring is unimpaired. The insane man talks incoherently and fantastically, but his spiritual being is in its normal condition. The fact that a single portion of appropriate medicine has more than once entirely cured a paroxysm of violent mania is, perhaps, of itself a sufficient proof of the truth of this theory; for is it not absurd to suppose that the essential structure of nature of the spirit can be reached and modified by a cathartic?

The causes of mental alienation are various. They have been divided into classes, as the predisposing and the exciting, the remote and the immediate. Some causes are difficult of classification, and the subject in this brief sketch is of but trifling importance.

Among the manifestly remote causes are hereditary predisposition, constitutional organization, and descent from parents nearly allied by consanguinity. Like many other maladies, insanity is disposed to propagate and perpetuate

itself in the line of family descent, and instances are not unfrequent in which several children of an insane parent have become insane. The peculiar organization, whatsoever it may be, which favors an attack of mental alienation, often arises, *de novo*, in one person or more of a family theretofore exempt from the disorder.

The disposition to degeneracy, in some form, in the offspring of marriages of cousins, or others near of kin, has long been known, but comparatively recent investigations in both Europe and the United States, and particularly those of M. Devay, in France, and Dr. Bemiss, of Kentucky, have more fully illustrated the subject and more satisfactorily demonstrated the fact. It is very clearly proven that sterility attends, and that bodily malformation, tubercular consumption, spasmodic diseases, epilepsy, blindness, deafness, idiocy, and insanity follow in the offspring of such marriages much more frequently than in matrimonial alliances between the parties to which there is no traceable affinity by blood. Researches have not hitherto been sufficiently extensive to demonstrate the comparative proportion, but it is sufficient for the purpose of the philosopher, the philanthropist, or the statesman that the predominance of those unfortunate results in the marriages of cousins and other near relatives is placed beyond a reasonable doubt.

The subject has already commanded the attention of the legislatures of some of the States, but no law, so far as we are informed, has as yet been enacted in regard to it.

The prevailing system of education acts, perhaps, as both a remote and an immediate cause of insanity. The early age at which children are placed in school, their confinement often to ill-constructed seats, in imperfectly ventilated rooms, and the burdens which, in the multiplicity of lessons, are thrown upon them, tend to an undue development of the brain, enfeeblement of all the other vital organs, and exhaustion of the nervous power, which is the essence or basis of vitality.

Immunity from these results can be secured only by making general physical development and energy keep pace with mental education. As a general rule, whatever exhausts the power of the brain and nerves, depresses vitality, or debilitates the body, may, through these effects, become the causative agent of insanity. Hence ill health, the intemperate use of spiritous liquors, debauchery, self-abuse, excessive and prolonged labor, either manual or mental, night-watching, or great loss of sleep from any cause, excitement upon religious subjects, domestic and pecuniary difficulties, disappointment and grief, are among the most prolific causes of the disorder. It is a disease of debility, and not of a superabundance of strength, as was in former times generally, and is still, to a wide extent, believed. It is almost unknown among aboriginal races, whose habits and customs promote corporeal development, strength, and vigor, and make no detrimental strain upon the nervous system. It increases with advancing civilization, and abounds to the greatest extent wherever man is most enlightened, because there the artificial habits and customs which call the brain most powerfully into action are the most prevalent.

The treatment of insanity, as pursued at the present day, is properly divided into two parts or systems. One of these might be termed the *direct*, the other the *indirect*, but they are generally called the *medical* and the *moral* treatment. The medical treatment consists in the use of such medicines as in each particular case will be likely to restore the body to a healthy condition. This treatment, as a system, has undergone a radical change within the last fifty—mostly within the last thirty—years. Formerly, based upon the theory that insanity is a disease of strength, or of active inflammation, it chiefly consisted in the liberal employment of blisters, purgatives, cupping, and blood-letting. Now, founded upon the well-supported theory that the disorder originates in debility, its principal

remedies are stimulants and tonics. The success of the present method demonstrates not only the excellence of the practice but the truth of the theory.

The moral treatment includes the exercise of a mild but firm directive and disciplinary power over the actions of the patient, by which he is gradually restored to healthful habits and wholesome self-restraint, and the attempt to win him from the vagaries of his delusions to those mental and manual pursuits which give solidity, strength, and activity to the normal mind. The means adopted for the attainment of these ends, the regular hours of hospital life, appropriate manual labor, walking, riding, athletic and other games, attendance upon religious services, reading and other literary pursuits, lectures upon scientific and miscellaneous subjects, dramas, concerts, balls, and other recreations, entertainments, and amusements. In the method of moral treatment the change has been no less than in that of medical treatment. This change may be comprehended in two brief, generic statements: first, the almost absolute disuse of mechanical appliances for bodily restraint; and, secondly, the introduction of the conveniences, comforts, and to some extent the luxuries that appertain to civilized life, into the apartments of the patients, and to all parts of the hospital establishments where such means will benefit them. This change has been gradual, and the detailed history of its progress would occupy more space than is compatible with our present purpose.

In 1838 Mr. Hill, house surgeon of the Lincoln Lunatic Asylum, England, published a work in which he advanced the following proposition as a principle: "In a properly constructed building, with a sufficient number of suitable attendants, restraint is *never necessary, never justifiable*, and always injurious, in *all cases* of lunacy whatever." This proposition appears to have been founded upon Mr. Hill's experience at the asylum mentioned. At that institution, in 1830, of 92 patients, 54 were placed under mechanical restraint a total of 2,364 times, during an aggregate time of 27,113 hours. The sum of this restraint was diminished in succeeding years until, in 1836, with 115 patients, 12 were thus restrained a total of 39 times, and during an aggregate time of 334 hours; and in March, 1837, all mechanical restraint was abandoned.

The doctrine of Mr. Hill found many advocates and followers in England, but in France, Germany, and the United States it has been almost universally rejected. All men of experience in the specialty are well aware that there are occasional instances in which the true interest and welfare of the patient are best promoted by restraint, *of some kind*, upon the limbs. Even Mr. Hill admits this as a truth; and the great defect, as appeared to us, in the practical working of his principle is that, in order to secure this restraint, the hands of an attendant are substituted for some mechanical appliance. What man, sane or insane, would not be more restive and violent if held by another man than if confined by a leathern muff upon his hands?

While, therefore, the superintendents of American hospitals reject the arbitrary rule of Mr. Hill, they adopt the safer one of employing mechanical restraints only when they are required by the best interests or true welfare of the patient.

If subjected to proper treatment in its early stages, insanity, in a very large proportion of cases, may be cured. Many statistics upon the subject have been published, but in some instances they were collected under conditions so restrictive that they conveyed an erroneous impression.

It may perhaps be safely asserted that, in cases placed under proper treatment within even one year from their origin, from sixty to seventy per cent. are cured. But the earlier the treatment is adopted the greater is the probability of restoration, and a delay of three months is a misfortune, as it is a detriment to the patient.

Of all the cases, both recent and chronic, received at our public institutions, the average of cures is not far from forty per cent. At thirty hospitals in the

United States, in 1859, the number of cases admitted was 4,140, and the number discharged as cured 1,728, equal to 41.7 per cent. Of 57,978 cases received, in a series of years anterior to 1860, at twenty-nine of our hospitals, 24,573 had been discharged cured; this is equal to 42.38 per cent. It must be remembered, however, that in mental alienation, as in other diseases, many patients suffer from relapse, or recurrence of the disorder, and hence, in the reported number of cures last given, there are many instances of two or more cures of the same person. The statistics of our hospitals are still crude, the only thorough analysis hitherto published being that of the cases at the Bloomingdale asylum prior to 1845. By those it appears that, although the *admissions* or *cases* had been 2,308, the number of *persons* was but 1,841. The number admitted twice, each, was 280; thrice, each, 81; four times, each, 33; five times, each, 18; and thus the number diminished until it ends with one patient who was admitted twenty-two times, and discharged cured every time. Of the 1,841 persons, 742, or 40.3 per cent., were cured.

In cases where the disease has existed more than one year, the average of cures varies at different hospitals and in different periods. Some reports state it as below *fifteen*, others as somewhat above *twenty*, per cent. At many institutions no distinction between old and recent cases is made in the reports.

The foregoing facts appeal strongly to the friends of the insane to permit no delay in placing them under curative treatment. They address themselves also, in connexion with the subject of pauper insanity, to the political economist and the legislature. The indigent man becoming insane may, if soon restored, preserve his pecuniary independence; if not restored he becomes a charge for life, to his friends or to the public, generally to the latter.

Of twenty *recent* cases treated and cured at the Western Lunatic Asylum of Virginia, the average period during which they were at the asylum at public cost was 17 weeks and 3 days; the total, \$1,265, and the average cost, \$63 25. Of twenty *chronic* cases at the same institution the average time during which they had been supported from the public treasury was 13 years, 4 months, and 24 days; their total cost, \$41,653, and their average cost, \$2,082 65.

The disparity in expense is great; but the actual sum of pecuniary difference does not wholly appear in the figures. The twenty persons cured had again become producers instead of mere consumers, the twenty persons with chronic insanity still lived at the public expense, and so would continue through life. Similar comparative statements showing like results have been made in the reports of several of our hospitals.

Intemperance has been mentioned as one of the most prolific causes of insanity. It is probably the most productive of all. Hence, whatsoever diminishes intemperance reduces, indirectly, the number of the insane. In connexion with this subject it may be stated that delirium tremens, often a somewhat immediate effect of excessive potations, is not generally included under the term "insanity;" yet persons laboring under that disease are treated in many of our institutions for the insane. But they are out of place, and almost invariably are a detriment to the other patients, and notorious infringers of the rules of the hospital.

For these reasons, among many others, special institutions for inebriates are among the greatest of public needs. The subject has been discussed to some extent for thirty years, and yet but one institution of the kind has been founded. This is near Binghamton, New York.

Insane convicts constitute another class of patients who, for many and mostly obvious reasons, ought not to be received at the ordinary public institutions. The superintendents of many of the hospitals have earnestly protested against the practice, but hitherto with comparatively little effect. New York is the only State which has a hospital specially intended for the class in question.

The laws, both civil and criminal, relating to insanity and the insane are still

imperfect in all the States, perhaps less so in Maine than in any other part of the Union.

So far as relates to the treatment of patients in the public institutions, those of Ohio are well adapted to the attainment of the great ends of the restoration of curable cases and the reduction of the amount of insanity. Still, a general code embracing all the rights, privileges, immunities, necessities, and responsibilities of both the insane and sane, in relation to the disease, is a thing of the future and not of the present.

Table showing the number of insane in the United States and Territories according to the Eighth Census, 1860.

States and Territories.	Insane.		States and Territories.	Insane.	
	Free.	Slave.		Free.	Slave.
Alabama	225	32	North Carolina.....	597	63
Arkansas	82	5	Ohio	2,293	.....
California	456	.....	Oregon	23	.....
Connecticut	281	.....	Pennsylvania	2,766	.....
Delaware.....	60	.....	Rhode Island	288	.....
Florida	20	5	South Carolina	209	18
Georgia.....	447	44	Tennessee.....	612	28
Illinois	683	.....	Texas	112	13
Indiana	1,035	.....	Vermont	693	.....
Iowa	201	.....	Virginia	1,121	58
Kansas.....	10	.....	Wisconsin	283	.....
Kentucky	590	33	District of Columbia	204	.....
Louisiana	132	37	Dakota .....	.....	.....
Maine.....	704	.....	Nebraska	5	.....
Maryland	546	14	New Mexico.....	28	.....
Massachusetts	2,105	.....	Utah	15	.....
Michigan	251	.....	Washington	3	.....
Minnesota	25	.....		
Mississippi	236	36		23,593	406
Missouri.....	750	20			23,593
New Hampshire	506	.....		
New Jersey.....	589	.....		
New York	4,317	.....	Total.....		23,999

IDIOTIC.

The number of those unfortunate beings who constitute this class, while numerically greater, has decreased slightly in ratio to the population. As but little has been effected for the elevation of these imbeciles, and as it is conceded that their condition has rendered them, for the most part, incapable of mental improvement, the efforts of humanity have been mainly directed to their personal comfort and physical requirements.

Among the numerous attributed causes of idiocy, none is more generally conceded by those who have investigated the subject, than the intermarriage of near relatives.

The following table represents their number, and their proportion to the free and slave population:

Table showing the number of idiotic in the United States and Territories.

States and Territories.	Idiotic.		Free, one in—	Slave, one in—
	Free.	Slave.		
Alabama	403	134	1,312	3,246
Arkansas	152	24	2,133	4,629
California	42		9,047	
Connecticut	226		2,036	
Delaware	67		1,648	
Florida	52	16	1,513	3,859
Georgia	541	183	1,099	2,525
Illinois	588		2,911	
Indiana	907		1,488	
Iowa	289		2,335	
Kansas	17		6,306	
Kentucky	903	155	1,030	1,454
Louisiana	143	104	2,631	3,189
Maine	658		954	
Maryland	243	62	2,468	1,406
Massachusetts	712		1,729	
Michigan	333		2,249	
Minnesota	31		5,608	
Mississippi	193	76	1,837	5,745
Missouri	447	63	2,387	1,824
New Hampshire	336		970	
New Jersey	365		1,841	
New York	2,314		1,677	
North Carolina	739	241	895	1,373
Ohio	1,788		1,308	
Oregon	15		3,497	
Pennsylvania	1,842		1,577	
Rhode Island	101		1,728	
South Carolina	282	191	1,068	3,325
Tennessee	732	149	1,139	1,850
Texas	164	37	2,571	4,933
Vermont	263		1,198	
Virginia	1,065	214	1,037	2,293
Wisconsin	257		3,018	
District of Columbia	27		2,662	
Dakota	1		4,837	
Nebraska	3		9,608	
New Mexico	40		2,337	
Utah	5		8,048	
Washington				
Totals	17,226	1,579	1,590	2,503
		17,226		
Total		18,865		

In 1850 there were of the free population 14,666 idiotic, or one in 1,366.

In 1850 there were of the slave population 1,040 idiotic, or one in 3,081.

Total free and slave

15,706 idiotic, or one in 1,476.

In 1860 there were total free and slave....

18,865 idiotic, or one in 1,666.

PRODUCTS OF INDUSTRY.

The returns of MANUFACTURES exhibit a most gratifying increase, and present at the same time an imposing view of the magnitude to which this branch of the national industry has attained within the last decennium.

The total value of domestic manufactures, (including fisheries and the products of the mines,) according to the Census of 1850, was \$1,019,106,616. The product of the same branches for the year ending June 1, 1860, as already ascertained in part and carefully estimated for the remainder, will reach an aggregate value of *nineteen hundred millions of dollars* (1,900,000,000.) This result exhibits *an increase of more than eighty-six (86) per centum in ten years!* The growth of this branch of American labor appears, therefore, to have been in much greater ratio than that of the population. Its increase has been 123 per cent. greater than that even of the white population by which it was principally produced. Assuming the total value of manufactures in 1860 to have been as already stated, the product *per capita* was in the proportion of sixty dollars and sixty-one hundredths (\$60 61) for every man, woman, and child in the Union. If to this amount were added the very large aggregate of mechanical productions below the annual value of five hundred dollars—of which no official cognizance is taken—the result would be one of startling magnitude.

The production of the immense aggregate above stated gave employment to about 1,100,000 men and 285,000 women, or one million and three hundred and eighty-five thousand persons. Each of these, on an average, maintained two and a half other individuals, making the whole number of persons supported by manufactures four millions eight hundred and forty-seven thousand and five hundred, (4,847,500,) or nearly one-sixth of the whole population. This was exclusive of the number engaged in the production of many of the raw materials, and of food for the manufacturers; in the distribution of their products, such as merchants, clerks, draymen, mariners, the employes of railroads, expresses, and steamboats; of capitalists, various artistic and professional classes, as well as carpenters, bricklayers, painters, and the members of other mechanical trades not classed as manufacturers. It is safe to assume, then, that one-third of the whole population is supported, directly and indirectly, by manufacturing industry.

These general facts, therefore, plainly indicate that, in point of productive value, and far-reaching industrial influences alone, our manufactures are entitled to a front rank among the great interests of the country. Indeed, the collection and classification of facts relating to the material progress of the people periodically intrusted to the Census Office, furnish in general, valuable milestones in the pathway of the nation's greatness. But among the facts so collected, none are more instructive—none have more numerous or intimate relations to every department of the public economy, to the general welfare of the people, domestic, social, industrial, or moral—than these records of their productive capacities in the automatic and handicraft arts. However uninteresting to many, the details are full of instruction to the statist. As the mountain rill, minute and inappreciable in its source, is constantly swelled by other streams, and goes on widening and deepening in its course until it is swallowed up and loses its identity in the ocean, so these streams of knowledge, pouring in towards a common reservoir from every factory, hamlet, town, and State, appear at length to be merged in one vast and useless aggregate, devoid of either individual, local, or general interest. But the great collection of truths which they serve to swell may bear up the ark of a nation's hopes and confidence. The result may form a subject of national pride and gratulation, and may, like the ocean itself, become impressive to all nations from its grandeur. The mental eye may also follow back each separate stream to its source, and dwell with pleasure and instruction upon

the scenes fertilized, refreshed, and gladdened in its progress. Such emotions of pride and pleasure cannot fail to be generally awakened by the evidences which a just appreciation of the wisdom of Congress has enabled the proper department to accumulate and classify, with greater accuracy and completeness than heretofore, of the progressive development and present stature of this important interest. The subject is grand in its outlines; but contemplated in its pervasive influence upon the welfare of the whole people, the dry and repulsive skeleton of mere facts and figures, presented in the official tables, gradually takes on the form, substance, and habiliments, and becomes animated with something of the life, activity, and beauty of a living economy. The statistics of looms, spindles, and factories, of furnaces and forges, of steam-engines and sewing-machines, and of a thousand other instruments of creative industry, become the representatives of almost every form of national and individual happiness, exertion, aspiration, and power.

The mechanic arts—particularly in our country, where they are most diffused, and all but universal—appear to contribute more directly than any others to the general comfort and improvement of the people. All others are dependent upon them for the principal agents and instruments of their success. They are scarcely more subservient to the primary wants of mankind than to the higher ministrations of taste and refinement. The acquisition and diffusion of knowledge, the means of intercommunication and transportation, the comforts, enjoyments, and security of the fireside, and even the honor and integrity of the nation itself, are dependent upon the skill and enterprise of the manufacturer and the mechanic; but the results of their labors are, from their nature, less obtrusive or obvious to the general apprehension than some others. The annual movements of our immense crops of grain, cotton, and other bulky staples, are easily appreciated. The pulsations of commerce may be counted by a superficial observer, in the arrival and departure of ships, and upon the records of the custom-house and the Exchange; but in the hands of the manufacturer a modicum of crude material undergoes a process of division, transformation, and elaboration, and then silently and unobtrusively disappears—diminished in bulk, but augmented, it may be, many hundredfold in value—in the ordinary channels of distribution, where it is often undistinguished from its foreign rival. It is only when the nation decennially takes its account of stock that any approximate idea is obtained of the value of this item in the general account.

And who can justly estimate the influence upon the general happiness and prosperity—upon the progress in civilization of the sum total of effective labor, capital, and skill represented by such an aggregate as we have stated? What an amount of fixed capital—of labor, enterprise, ingenuity—of resources, material and immaterial—involved in the creation of nearly two thousand millions worth of manufactures in a single year! The addition of nearly one thousand millions to the annual product of domestic manufactures—an amount almost equal to the total home consumption thereof in 1850—implies also vast additions to the permanent wealth of the Union and to the elements of a progressive civilization. The increased support given to agriculture, commerce, and the mining interests by the consumption of hundreds of millions of dollars worth of raw material, and to hundreds of thousands of men, women, and children, who would have been otherwise unemployed, or forced into competition with the farmer and planter, instead of being consumers of their produce, form but a part of the benefits conferred upon the community at large. The independence and security contributed by the large body of intelligent manufacturers and mechanics capable of ministering to every want, whether of supply or defence, cannot be overestimated. As might have been expected from the revelations of the Census, the country has been able to lean with confidence upon this arm of its strength in the trying emergency which has put the nation in armor for the defence of its dearest interests.