INTRODUCTORY CHAPTER.

PROGRESS OF VITAL STATISTICS—HISTORY OF IN THE UNITED STATES.—PLAN AND RESULTS OF THE VOLUME.

It is more easy to satisfy mankind of the value of any other branch of statistics than that which relates to the numbers that die in any given period, their ages, their sex, occupation, condition and nativity, and the causes which produce such deaths. The consequence is that the facts remain uncollected or unrecorded, while everybody seems busy enough, more especially in our practical, money-making country, in running after those which relate to the fluctuations of stocks, the valuation of exports and imports, the rates of taxation and the results in agriculture and manufactures, internal improvements and general commerce. The life of man is of less importance than his larder and his cloth. It was the remark of a physician, now no more, founded on severe experience, that the lawyer who saved the property of his client was always quicker, better and more cheerfully paid than the doctor who saved his life. Steamboat and railroad companies understand this well enough, for whilst they must pay heavily for destroying a bundle of merchandise, in human life they can and do wanton at pleasure.

Such being the case, it is not singular that investigations having for their object sanitary improvement are pursued slower and later in all countries than those which relate to property. They meet with greater impediments and their results are least consulted or credited. Man is the same in all ages, and this fact meets us in all.

The Romans had, indeed, their registries, in which were carefully preserved the particulars of population, as births, sex, deaths, etc., but there is no evidence, we believe, of a *regular system of registration of births, marriages and deaths* prior to that of Geneva in the middle of the sixteenth century. Subsequently, most of the European nations have followed the example of Geneva, and their results for several periods may be found elaborately given in the sixth annual report of the registrar general of England, 1847. A condensed table from this report is here presented:

Countries.	Year.	Population.	Annual deaths.		Annual mortality.	
			Years.	Numbers.	Per cent.	Living to 1 death.
England	1841	15,927,867	1838-42	346,905	2.207	45
France	1841	34,213,929*	1838-42	816,840	2.397	42
Prussia	1840	14,928,501	1838-41	392,349	2.65S	38
Austria	1840	21,571,594	1838-42	651,239	2.995	33
Russia	1842	49,525,420	1842	1,856,183	3.500†	28

* The population of France, according to the corrected returns, is 34,230,178.
† Corrected for the stillborn included in the 1,856,183 deaths; the stillborn have been subtracted from the deaths in Austria and Prussia; they are not included in the deaths of France, and are not registered in England.

On comparing the rate of mortality in England with the mortality of France, Prussia, Austria, and Russia, it appears to be lower in this country than in either of the four States; but it must be remembered that Scotland and Ireland are not included, no steps having hitherto been taken for registering and abstracting the births and deaths in those parts of the United Kingdom, the only countries now in Europe where it has not been deemed advisable to record and analyze such facts, with the exception, perhaps, of Hungary, Spain, Turkey, and Greece.

Parochial registration, which had been in use in England for more than two hundred years, was found so inadequate and defective that the subject was brought into Parliament in 1833 and referred to a committee, who, after thorough investigation, reported as follows:

1. That the subject is urgently important.
2. That it involves matters of great public and national interest, as well as individual satisfaction, and rights and claims to property, and deserves the attention of the humblest artizan as well as of the most philosophical and statesmanlike inquirer.
3. That the existing law is imperfect and unjust, and requires not only partial amendment but real fundamental reform.
4. That great trouble, vast expense, utter uncertainty, capricious changes, and local and general evils exist, while no means are supplied to obtain the information other countries possess and justly value, as to the state of disease, the operation of moral and physical causes on the health of the people, the progress of the population, and other matters on which accurate knowledge can scarcely be too highly appreciated or too intensely pursued.

The result of this investigation and report was an act for the registration of births, marriages and deaths in England, which, introduced by Lord John Russell, and supported by Peel, Morpeth and Bowring, passed on the 6th June, 1836. Under the operation of the act regular annual reports have been made, of which a complete series have been furnished for the use of the Census Office, the present year, through the courtesy of Mr. Graham, the registrar general. These volumes vary from 5 to 700 pages, and are issued in the most admirable style. The following table is extracted from the report for 1850, p. 14:

Annual rate of mortality per cent. of males and females at different ages in England.

Years...	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	Average of the 13 years 1838--50.
All ages.	2.343	2.281	2.377	2.242	2.244	2.206	2.245	2.173	2.398	2.549	2.394	2.584	2.147	2.322
0....	7.041	7.167	7.542	6.843	7.048	6.898	6.984	6.665	7.760	7.588	7.401	7.513	6.695	7.165
5....	.901	.904	1.083	.956	.901	.844	.897	.823	.825	.970	1.043	1.124	.814	.930
10....	.519	.512	.542	.510	.501	.478	.473	.466	.507	.550	.530	.646	.467	.515
15....	.851	.819	.892	.811	.783	.772	.703	.781	.859	.929	.858	.951	.717	.825
25....	1.004	.986	.995	.978	.928	.924	.940	.926	1.025	1.100	1.026	1.243	.879	1.001
35....	1.342	1.255	1.266	1.217	1.197	1.218	1.225	1.202	1.272	1.486	1.368	1.581	1.165	1.288
45....	1.949	1.798	1.796	1.785	1.733	1.722	1.750	1.715	1.800	2.065	1.864	2.262	1.716	1.843
55....	3.410	3.192	3.142	3.137	3.041	3.008	3.051	2.975	3.129	3.649	3.266	3.655	2.980	3.263
65....	6.916	6.421	6.678	6.482	6.595	6.578	6.736	6 491	6.758	7.696	6.703	7.244	6.306	6.746
75....	14.752	13.874	14.488	14.266	14.578	14.090	14.651	14.490	15.070	17.926	14.986	16.187	14.019	14.745
85....	29.745	27.923	30.242	29.650	29.498	28.758	31.716	30.191	32.214	35.558	30.622	29.976	28.555	30.353
95& up	49.699	43.119	48.498	46.633	46.427	45.681	43.228	49.035	51.651	50.607	42.435	42.859	38.560	46.494

Deaths to 100 *females living.*

All ages.	2.136	2.094	2.265	2.085	2.100	2.048	2.085	2.013	2.222	2.381	2.225	2.447	2.014	2.158
0....	6.047	6.138	6.492	5.861	6.023	5.897	5.885	5.657	6.675	6.558	6.396	6.488	5.738	6.198
5....	.895	.935	1.113	.963	.925	.848	.902	.800	.813	.951	.997	1.102	.810	.927
10....	.543	.535	.569	.520	.512	.485	.503	.476	.533	.577	.566	.653	.491	.536
15....	.854	.848	.868	.842	.830	.784	.810	.815	.870	.919	.878	1.000	.777	.858
25....	1.046	1.007	1.023	1.007	1.005	.976	1.006	.980	1.048	1.173	1.090	1.347	.988	1.054
35....	1.313	1.248	1.269	1.227	1.220	1.227	1.200	1.188	1.242	1.422	1.301	1.617	1.169	1.280
45....	1.669	1.549	1.567	1.542	1.526	1.484	1.525	1.467	1.559	1.789	1.589	1.998	1.473	1.594
55....	2.977	2.730	2.829	2.740	2.744	2.692	2.773	2.668	2.783	3.226	2.860	3.355	2.625	2.846
65....	5.919	5.554	5.899	5.841	6.013	5.877	6.052	5.856	6.156	6.964	6.072	6.506	5.717	6.040
75....	13.281	12.519	13.541	13.375	13.084	13.037	13.494	13.036	13.794	15.945	13.604	14.028	12.684	13.494
85....	26.463	25.242	28.394	28.255	28.438	27.655	28.434	27.569	30.850	32.104	27.628	28.028	25.922	28.037
95& up	41.699	39.915	46.199	45.967	42.882	46.679	44.616	42.086	52.200	53.230	46.816	43.328	42.927	45.21 4

The table may be read thus:—Of 100 males living of the age of 35 and under 45, 1.342 died in 1838, 1.255 in 1839, 1.217 in 1841, and so on for other years; a correction for increase of population having been made for each age at each year.

In the year 1789 Dr. Wigglesworth formed certain tables from returns embracing 4,893 deaths, which were in use in Massachusetts up to the commencement of her registration system in 1842.

"If the diminutive number," says the report of 1851, "of less than *five thousand* deaths, collected without official responsibility, from a small region of country, was deemed of so much importance, of how much more value will be the results obtained from the returns from every section of our territory through a period of eleven years, of about *one hundred and thirty-five thousand* deaths, observed and recorded with more minuteness, and probably more accuracy, and certified to be correct by town officers whose official duties require them to perform the service with as much truthful precision as possible."

The first registration report of Massachusetts was made to the general court in February, 1843, according to the act of March, 1842, and there have been published since regular reports, each more elaborate and minute in its details, until the system in that State has come to be considered very nearly perfect.

The following table from these digest the results of deaths:

Causes of Death.	Whole no. of deaths.		Per centage of deaths.	
	One year, 1853.	Eleven years & eight mo's ending Dec. 31, 1852.	One year, 1853.	Eleven years & eight mo's ending Dec. 31, 1852.
All causes	20,301	148,024	.....	.....
Specified causes	19,561	138,451	100.	100.
I. Zymotic diseases	5,446	40,681	27.84	29.37
Sporadic diseases of,				
II. Uncertain seat	2,409	16,862	12.22	12.17
III. Nervous organs	2,008	13,427	10.27	9.69
IV. Respirative organs	5,788	38,713	29.56	27.94
V. Circulative organs	475	2,883	2.43	2.08
VI. Digestive organs	1,191	8,981	6.09	6.55
VII. Urinative organs	88	608	.45	.44
VIII. Generative organs	222	1,575	1.13	1.14
IX. Locomotive organs	118	752	.58	.55
X. Integumentive organs	18	132	.07	.09
XI. Old age	997	8,481	5.10	6.12
XII. Violent causes	816	5,356	4.17	3.86

By this it will be noticed that the class of diseases designated as zymotics, and the diseases connected with the respiratory organs, have been most fatal during the year under consideration, 57.40 per cent. of all the deaths whose causes have been reported having been caused by them. This has been the case, also, in the twelve years and eight months in which registration has been carried on in Massachusetts.

From the tenth annual report of Massachusetts we take the following:

"As observed above, the law in this State was passed in 1842. This law was modified and improved by the act of March 16, 1844, and still further by the act of May 2, 1849. The State of New York followed with a registration law, passed April 28, 1847, and made their first report in April, 1848. New Jersey passed a law on the subject March, 1848, and remodelled it with improvements by the act of March 19, 1851. Their report, before us, bears date of February, 1852. The registration law of Connecticut passed June 24, 1848. We have their three reports; the last is dated May, 1852. New Hampshire passed a less efficient law July 7, 1849, and altered it without much improvement July 4, 1851.

"The act in Pennsylvania on this subject passed the legislature of that State April 14, 1851, and became a law without the signature of the governor, as certified by the proper authorities, January 12, 1852. During the last session of the legislature that body manifested their approbation of it by appropriating $4,500 to put the law into operation.

"On the 9th of January, 1852, the legislature of Kentucky passed a registration law, and the subject will come from influential sources before the next legislature of South Carolina. All of these enactments, and especially the reports that have been made in different States in compliance with them, bear an analogy to the same from our own State which had preceded them.

"This indicates not only the estimated importance of the subject as its results develop themselves, but also the confidence reposed in the system adopted by this State. The former feature, however, has the most notable point."

The federal census of 1850 furnishes the first instance of an attempt to obtain the mortality during one year in all of the States of the Union, and had there been as much care observed in the execution of the law as was taken in framing it, and in the preparation of necessary blanks, a mass of information must have resulted relating to the sanitary condition of the country, attained as yet in no other part of the world. This, however, would have been expecting too much. It was to take for granted, first, that the person interrogated in each family, whoever he might be, with regard to its affairs, would be able to recollect whatever death had occurred in it within the period of twelve months; and, second, to give the true designation of the cause of such death. 1. One would think it not unreasonable that the facts of actual deaths would be striking and impressive enough in every household to be remembered for a much longer period than a single year, yet the returns of the marshals have only to be examined with care and deductions made from them, to satisfy the most careless observer that in the Union at large at least one-fourth of the whole number of deaths have not been reported at all. Making allowance for even this error, the United States would appear to be one of the healthiest countries of which there is any record. The varying ratios between the States, as drawn from the returns, show not so much in favor of or against the health of either, as they do, in all probability, a more or less perfect report of the marshals. Thus it is impossible to believe Mississippi a healthier State than Rhode Island, etc. For *rural* population the returns are no doubt nearer correct than they are for *urban*, and the old States are in general better reported than the new. 2. So far as the educated are in question, the assigned causes of death on the returns, may be considered sufficiently near the truth for popular purposes, though falling far short of the precision necessary in skillful scientific calculations; but among the large mass of the community vagueness and inaccuracy may naturally be expected, even where the parties are disposed to speak the truth and make the best effort to do so. The physician's certificate of the *cause* of death is the only positively reliable evidence of the fact.

The other points and particulars of inquiry, such as the age, sex, color, condition, occupation and nativities of parties, the season of de-

cease and duration of sickness, stand upon somewhat different ground and are, from their character, no doubt as correctly answered as the inquiries of the census relating to the ages, pursuits, etc., of the living.

Upon the whole, then, and we cannot be too emphatic on the point, whilst this publication of the mortality statistics of the census is disclaimed as of authority in showing the respective pretentions to healthfulness or the degree of unhealthfulness of the several States, or of very great scientific worth in showing the *specific* causes of death, it may be considered of much value, notwithstanding, in giving with even ordinary claims to precision very minute phenomena relating to the deaths of about one-third of a million of people scattered over three millions of square miles of territory. The value of such a multitude of facts cannot but be very great, even although they do not constitute the whole of them. We are every day accustomed to draw deductions for the whole from a part, and to argue out the true and complete from the approximate and uncertain.

It may also be said in favor of the returns as published, that they constitute but a beginning, and are not, perhaps, further from the truth than were the first attempts in States having registration systems. The same improvement as in these States may be expected hereafter. The publication of this volume will stimulate investigation and lead to a better understanding of the importance of the subject.

Upon page 49 will be found the instructions to marshals under which the mortality statistics were collected. The instructions cover a wide field and are necessary to an understanding of the schedules. But a small part of the material collected can be condensed into this publication. To have issued the work in detail by towns, counties, etc., upon the formula proposed on page 110 of Compendium,* and which should have been the one, must have swelled it to 2 or 3,000 pages. The act of Congress confines it to three hundred. It became necessary then to change the formula, and condense by States and divisions of States, as will be seen particularly hereafter. The very best, it is believed, has been done that was possible under the circumstances. Those who may desire, however, to consult the material in detail, for counties, &c., necessarily prepared in the progress of

* *The formula was as follows:*

Disease or cause of death.	Whites.		Free colored.		Slaves.		Married.		Place of birth.	Occupation.	Period of sickness.	Seasons
Total number of deaths.	Native divided as males and females.	Foreign.	Black.	Mulatto.	Black.	Mulatto.	White.	Free col'd.				
Birth.												
Under 1 year.												
1 and under 5.												
5 and under 20.												
20 and under 50.												
50 and under 100.												
100 and upwards.												
Total.	Same subdivisions of age and sex as native.		Same subdivisions as whites.		Same subdivisions as whites.		Subdivided by ages of under 20, 20 to 30, 30 to 40, 40 to 50, 50 to 70, and 70 and upwards.		Subdivided by columns for State, for New England, Middle, Southern, S. W. and N. W. States, and for England, Ireland, Scotland, Germany and other foreign countries.	Subdivided by columns for mechanical, agricultural, commercial, laborious, educational pursuits, &c.; each divided into ages, as 15 to 20, 20 to 30, &c.	Subdivided by columns for under 1 week, 1 week to 1 month, 1 month to 3 months and over 3 months.	Subdivided by columns for spring, summer, autumn and winter,
									Same subdivisions as whites.			

the work, will find the manuscripts in the Census Office under the charge of the Secretary of the Interior, compiled in some cases with all of the elaboration proposed in the Compendium.

To the same cause must be attributed the very small number of cities and towns that are given in the volume, notwithstanding the figures were separated and aggregated for nearly every considerable town in the Union.

The whole of the statistics now presented are arranged with reference to—

I. *The leading Cities and Towns.* These will be found on pages 302–303 of the volume. The statistics could not be given in the same detail as those for the States, except in the instances where they are published as sections of such States, to wit, Boston, New Orleans, &c. Other tables are given, compiled from the Compendium, showing, for purposes of comparison, the ages, sex, nativities, &c., of the living population of these cities. A few facts digested from the city reports are also embraced on page 16.

II. *Sections of several States.* The sheets were prepared for all of the States, but it became necessary to select for publication from among them, so as to include States in the several great divisions of the Union. The sections are made up with reference to physical peculiarities as far as possible, such as rivers, sea-coast, lakes, mountains, &c. A table of the living population of the sections embraced will be found on page 32. The limits of the work precluded the insertion of ages, sex, &c., in the same connection, which is much to be regretted.

III. *All of the States and Territories.* Comparative tables of the living population, their ages, sex, nativity, occupation, &c., accompany these statistics.

IV. *The United States.* The United States tables are arranged somewhat differently from those of the States, as will be explained hereafter. In these the classification is adopted which is usual among vital statisticians. The formula proposed by Dr. Edward Jarvis, of Massachusetts, a distinguished authority in these matters, and to whom the Census Office is under many and great obligations, was adopted in every particular. His letter, which is given on page 45, enters minutely into the consideration of the subject.

All of the tables show, with reference to the mortality of the several States—

First. *The cause of death.* This was taken, in the first instance, literally from the returns of the marshals. The list was then reduced by combining such as were evidently merely verbal differences, and about which there could be no mistake, as, for example, scarlet, scarletina, &c., fever and ague, chills, &c. A further reduction was made in some cases not so obvious by reference to the best medical authorities. The list was then ready for publication. The office did not deem it advisable to condense for the State tables to the extent recommended by Dr. Jarvis, believing it would be better to enter into greater detail. Indeed, had space admitted, the cause of death assigned in each case on the returns would have been given, although leading often to inconsistencies. It is true that causes are assigned for death which are not in their nature fatal, but these will be found in

most of the publications made by States and Cities. The condensations would be proper in aggregating for the United States tables. On page 304 will be found a list of most of the causes assigned on the returns. The labors of a medical man skilled in such matters was only necessary in these final condensations. Dr. Jarvis was, therefore, consulted, and his letter was predicated upon a list of diseases furnished him, very nearly the same as that adopted for the State tables. Had the appropriation been adequate, the States would have been shown by classes as well as by individual diseases. To have given an aggregate table showing for each State, for each disease, all of the peculiarities, as age, color, condition, must have required an extent of space, in addition, nearly equal to that of the present volume. Dr. Jarvis says that he has added some diseases omitted in the list sent to him; the omission was accidental, as the terms he specified were adopted in the office work.

Classified and aggregate deaths in the several States.

STATES.	All causes.	I. Zymotic diseases.	SPORADIC. II. Diseases of uncertain or variable seat.	III. Diseases of brain and nervous system.	IV. Diseases of respiratory organs.	V. Dis. of organs of circulation.	VI. Diseases of digestive organs.	VII. Diseases of urinary organs.	VIII. Diseases of generative org'ns and childbirth.	IX. Dis. of locomotive organs.	X. Diseases of the skin.	XI. Old age.	XII. External causes.	XIII. Stillborn.	XIV. Unknown.
Alabama	9,091	3,029	688	676	1,174	34	709	36	151	41	13	176	616	7	1,791
Arkansas	3,021	1,358	122	144	396	6	254	5	62	13	2	39	132	7	481
California	905	659	9	13	15	....	6	....	.....	1	1	2	38	....	161
Columbia, Dist. of.	846	289	84	89	197	12	37	2	11	8	1	29	38	....	104
Connecticut	5,781	1,987	457	517	1,293	106	195	26	41	39	4	356	240	7	513
Delaware	1,209	461	82	113	190	5	63	1	10	8	....	28	40	....	208
Florida	931	307	97	51	108	8	114	8	21	8	2	25	76	2	114
Georgia	9,925	3,136	912	474	1,334	33	872	31	199	53	16	248	663	29	1,925
Illinois	11,759	5,858	433	712	1,799	32	411	41	167	60	11	107	332	4	1,792
Indiana	12,708	6,531	512	905	1,824	37	414	42	137	64	31	182	861	38	1,835
Iowa	2,044	954	83	147	376	3	67	4	26	6	5	13	100	1	259
Kentucky	15,033	6,895	852	878	2,101	68	588	50	141	75	20	306	560	17	2,473
Louisiana	11,056	5,999	521	861	1,175	50	781	18	135	36	13	170	599	15	1,578
Maine	7,584	2,654	498	492	2,077	76	202	35	58	36	46	310	302	....	708
Maryland	9,621	3,845	496	855	1,792	120	405	22	109	70	11	278	382	17	1,700
Massachusetts	19,404	7,189	1,627	1,296	4,418	335	1,065	59	209	85	66	792	657	24	1,682
Michigan	4,515	1,428	388	483	1,081	30	157	25	74	26	23	109	195	4	492
Mississippi	8,721	3,639	509	570	1,091	45	732	21	130	33	9	126	691	10	1,200
Missouri	12,292	6,332	447	649	1,344	37	555	15	149	56	8	101	371	7	1,721
New Hampshire	4,291	1,582	302	393	1,072	89	140	21	30	27	2	279	146	....	208
New Jersey	6,465	2,512	491	667	1,201	72	268	17	68	51	8	272	231	4	673
New York	45,000	17,976	3,638	4,492	8,913	549	1,906	182	358	262	68	1,393	1,633	51	4,184
North Carolina	10,165	2,495	1,010	527	1,728	28	620	63	188	67	14	409	596	20	2,398
Ohio	28,957	16,138	1,265	1,809	4,025	187	836	92	221	119	29	506	707	6	3,067
Pennsylvania	28,551	11,645	1,919	2,824	5,055	323	957	121	365	193	28	928	954	33	3,206
Rhode Island	2,241	780	164	222	572	31	60	2	15	10	7	97	101	17	163
South Carolina	8,047	2,645	678	467	1,343	30	755	15	150	47	15	263	403	11	1,225
Tennessee	11,875	4,524	783	628	1,498	34	542	42	131	85	26	316	570	29	2,720
Texas	3,057	1,285	150	159	377	11	180	3	73	13	2	34	204	6	560
Vermont	3,129	951	258	267	886	67	100	16	24	11	3	210	93	1	242
Virginia	19,059	5,190	1,427	1,249	3,567	103	925	83	312	133	17	867	942	15	4,229
Wisconsin	2,903	1,242	177	228	541	12	129	7	47	24	1	29	123	....	343
Territories: Minnesota	29	12	2	3	4	....	3	....	.....	....	....	.....	2	....	3
Territories: New Mexico	1,157	385	120	19	165	2	31	...	32	10	2	26	67	....	348
Territories: Oregon	47	23	1	2	6	1	4	....	1	1	1	....	3	....	4
Territories: Utah	239	149	10	12	35	....	5	1	1	....	....	1	9	....	16

SECOND. *Age and sex of deceased.* This table, combined with the cause of death, could not be made up more minutely. The ages were selected after consultation with leading medical writers in different parts of the Union. The results would have been more valuable had it been possible, within the space allotted, to separate the several colors, native and foreign. Tables of the living population at

the several ages are also given. The following will show the aggregate number who died at each age, male and female, in the United States, arranged according to classes, and also the ratios per cent. to the total living of those ages, and to the total deaths of all ages, exclusive of unknown.

	Under 1.				1 and under 5.				5 and under 10.				10 and under 20.			
	Males.	Ratio.	Fem'les.	Ratio.	Males.	Ratio.	Fem'les.	Ratio.	Males.	Ratio.	Fem'les.	Ratio.	Males.	Ratio.	Fem'les.	Ratio.
ALL CAUSES	29509	9.29	24696	7.94	36849	2.50	32804	2.28	11549	0.70	10172	0.63	13760	0.51	14485	0.53
I. Zymotic diseases	10828	3.49	9286	2.97	19716	1.36	17957	1.27	6422	0.39	5856	0.37	6258	0.23	6473	0.24
II. Diseases of uncertain or variable seat	1497	0.44	1229	0.40	1797	0.12	1451	0.10	697	0.04	562	0.04	937	0.03	879	0.03
III. Diseases of brain and nervous system	3444	1.08	2635	0.85	2989	0.21	2490	0.18	879	0.05	685	0.04	982	0.04	848	0.03
IV. Diseases of the respiratory organs	2778	0.87	2203	0.71	3815	0.28	3018	0.21	953	0.06	984	0.06	2142	0.08	3295	0.12
V. Dis. of the organs of circulation	129	0.04	95	0.03	* 67	....	55	....	69	....	59	....	118	....	133	....
VI. Diseases of the digestive organs	1523	0.48	1284	0.41	2886	0.20	2690	0.19	581	0.03	478	0.03	407	0.02	360	0.01
VII. Diseases of the urinary organs	28	0.01	12	....	93	....	14	....	21	....	14	....	47	....	17	....
VIII. Dis. of the generati'e org'ns and childb'th	....	....	....	....	....	....	5	....	....	....	....	....	....	....	393	0.02
IX. Diseases of the locomotive organs	66	0.02	51	0.02	104	0.01	67	0.01	94	0.01	60	....	193	0.01	132	....
X. Diseases of the skin	55	0.02	60	0.02	44	....	46	....	16	....	14	....	19	....	14	....
XI. Old age	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
XII. External causes	784	0.25	783	0.25	1298	0.09	1036	0.07	785	0.05	527	0.03	1290	0.05	400	0.02
XIII. Stillborn	217	0.07	160	0.05	....	....	....	....	....	....	....	....	....	....	....	....
XIV. Unknown	8308	2.61	6948	2.23	4100	0.28	3535	0.25	1082	0.07	933	0.06	1367	0.05	1482	0.06

	20 and under 50.				50 and under 80.				80 and under 100.				100 and over.				Total.			
	Males.	Ratio.	Females.	Ratio.	Males.	Ratio.	Females.	Ratio.	Males.	Ratio.	Females.	Ratio.	Males.	Ratio.	Females.	Ratio.	Males.	Ratio.	Females.	Ratio.
ALL.	48778	1.65	41734	0.97	26511	2.62	20840	2.16	5152	12.29	5020	10.64	178	16.06	190	12.85	172800	1.46	150045	1.32
I.	21488	0.46	18866	0.32	6034	0.68	5145	0.53	508	1.21	479	1.02	12	1.11	3	0.20	72476	0.61	59221	0.52
II.	2316	0.05	3096	0.07	2968	0.29	2829	0.30	472	1.13	347	0.74	8	0.74	11	0.74	10624	0.09	10420	0.09
III.	2471	0.05	1637	0.04	2234	0.22	1753	0.18	347	0.83	329	0.70	4	0.37	2	0.14	13892	0.11	10395	0.09
IV.	11871	0.26	12446	0.29	5952	0.60	4852	0.50	480	1.14	420	0.89	4	0.37	5	0.34	27540	0.23	27260	0.24
V.	437	0.01	399	0.01	512	0.05	377	0.04	50	0.12	30	0.06	...	.....	...	.....	1384	0.01	1151	0.01
VI.	1548	0.03	1305	0.03	1237	0.12	773	0.08	89	0.21	33	0.07	1	0.09	...	.....	8237	0.07	6935	0.06
VII.	165	....	57	....	509	0.05	63	0.01	118	0.28	4	.....	2	0.19	...	....	920	0.01	181	....
VIII.	....	....	3389	0.08	....	....	49	....	....	....	1	.....	..	.....	...	.....	.....	....	3842	0.04
IX.	286	0.01	221	0.01	268	0.03	183	0.02	21	0.05	15	0.03	...	.....	...	.....	1098	0.01	792	0.01
X.	76	....	56	....	60	....	43	....	9	0.02	2	....	..	.....	...	.....	280	....	236	....
XI.	9	....	12	....	1883	0.14	1703	0.18	2571	6.13	2034	6.22	133	12.35	156	10.55	4111	0.04	4016	0.04
XII.	3902	0.09	612	0.01	1126	0.11	270	0.03	86	0.21	55	0.12	2	0.19	1	0.07	9315	0.08	3691	0.03
XIII.	....	....	....	....	....	....	....	....	....	....	....	....	....	.....	....	.....	217	....	160	....
XIV.	4214	0.09	4038	0.11	3328	0.33	2716	0.29	401	0.96	371	0.79	7	0.65	12	0.81	23266	0.20	20065	0.19

Ratio per cent. at each age to the total of all ages by classes, exclusive of unknown.

	Under 1.		1 and under 5.		5 and under 10.		10 and under 20.		20 and under 50.		50 and under 80.		80 and under 100.		100 and over.	
	No.	Ratio.	No.	Ratio.	No.	Ratio.	No.	Ratio.	No.	Ratio.	No.	Ratio.	No.	Ratio.	No.	Ratio.
ALL CAUSES	54265	16.80	68718	21.27	21721	6.72	28195	8.73	90507	28.02	47351	14.66	10172	3.15	868	.11
I.	26064	15.21	37673	28.58	12278	9.32	12731	9.66	35349	26.84	12079	9.16	987	.74	15	.01
II.	2636	12.53	3248	15.43	1259	5.98	1816	8.63	5412	25.72	5797	27.55	819	3.89	19	.09
III.	6079	25.56	5479	23.03	1564	6.57	1830	7.70	4108	17.26	3987	16.76	676	2.84	6	.03
IV.	4981	9.09	6333	11.56	1937	3.54	5437	9.92	24317	44.36	10804	19.72	900	1.64	9	.02
V.	224	8.82	122	4.82	128	5.04	251	9.90	930	33.	889	35.07	80	3.16	....	....
VI.	2814	18.55	5576	36.75	1009	6.65	776	5.11	2848	18.77	2010	13.25	122	.81	1	.01
VII.	35	3.18	47	4.27	35	3.18	64	5.82	222	20.16	572	51.95	122	11.08	2	.18
VIII.	....	....	5	.13	....	....	393	10.23	3389	88.21	49	1.27	1	.03	....	....
IX.	117	6.61	171	9.66	154	8.70	325	18.36	507	28.65	451	25.48	36	2.03	....	....
X.	115	22.20	90	17.44	30	5.81	33	6.40	132	25.58	103	19.96	11	2.13	....	....
XI.	....	....	....	....	....	....	....	....	21	.23	3176	35.18	5505	60.98	289	3.21
XII	1567	12.05	2334	17.94	1312	10.09	1690	13.00	4514	34.71	1396	10.74	141	1.08	3	.02
XIII	377	100.	....	....	....	....	....	....	....	....	....	....	....	....	....	....
XIV	15256	34.49	7635	17.26	2015	4.55	2849	6.44	8852	20.01	6038	13.65	772	1.75	19	.05

THIRD. *Color and condition.* What is said in the last paragraph with reference to ages need not be repeated here; this table will be found of much value, and for comparison a table is extracted from the Compendium of the Census showing the whites, free colored, and slaves, in each State, and also the blacks and mulattoes. The following table is presented, showing the deaths and per cent. to the total living of each color and condition:

	WHITES.		COLORED.								Aggregate deaths.
			Slaves.				Free.				
			Blacks.		Mulattoes.		Blacks.		Mulattoes.		
	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	Total.	Ratio.	
All causes	264601	1.35	48675	1.04	3289	1.33	4719	1.71	1739	1.09	328023
I. Zymotic diseases	112515	0.57	16088	0.54	1166	0.48	1461	0.53	583	0.37	131813
II. Uncertain seat	16915	0.09	3458	0.12	203	0.08	344	0.13	129	0.08	21044
III. Nervous organs	20485	0.10	2671	0.09	228	0.09	331	0.12	127	0.08	23787
IV. Respirative organs	46131	0.23	6874	0.23	432	0.18	1053	0.38	810	0.20	54800
V. Circulative organs	2255	0.01	190	0.01	15	.....	55	0.02	20	0.01	2535
VI. Digestive organs	11199	0.06	3505	0.12	251	0.10	144	0.06	73	0.05	15172
VII. Urinary organs	990	.....	96	.....	8	.....	10	.....	2	.....	1101
VIII. Generative organs	3061	0.02	684	0.02	43	0.02	26	0.01	28	0.01	3842
IX. Locomotive organs	1462	0.01	235	0.01	21	0.01	35	0.01	17	0.01	1770
X. Integumentive organs	456	.....	52	.....	3	.....	4	.....	1	.....	516
XI. Old age	7148	0.04	1552	0.05	78	0.03	198	0.07	51	0.03	9027
XII. External causes	9144	0.05	3874	0.12	224	0.09	189	0.07	75	0.05	13006
XIII. Stillborn	314	.....	52	.....	4	.....	3	.....	4	.....	377
XIV. Unknown	32576	0.17	9849	0.33	618	0.25	866	0.31	324	0.20	44233

FOURTH. *Nativity.* The returns show the exact nativity in each instance, but it was necessary to condense for the native population according to the several great sections of the Union, to wit, New England, &c. The foreign nativities are condensed even more. By Germans are meant those from all Germanic sources, viz: Prussia, Austria, Holland, &c. In the aggregate tables of the United States those born in the State in which they died are separately given. Those born in New England in the same tables must be understood to mean those born in that section who died out of the State in which they were born; the same for the other sections. This must be known to fully comprehend the table. The proportion of foreign deaths to the whole foreign population of the Union shows more favorably, no doubt, than is the fact, since in all cases where the nativity was left blank and not marked, "unknown," by the marshal the party was construed to have been born in the State—this being always implied where the contrary was not expressed. Most valuable tables could have been given had we been able to show the ages of deceased foreigners, for it is by reference to these only that any comparative ratios of mortality, native and foreign, can be framed. There is sufficient, however, to indcate that the mortality among foreigners does not differ so widely from that of the natives as has been supposed. Several tables of nativities of the living population are included; the one below combines the mortality with nativities.

Deaths, Native and Foreign, with Ratios to Living Population.

	All classes.			Per cent. to total deaths.	Per cent. to total living popula't'n.	Total native deaths	Total foreign deaths.	Per cent. native, including slave.	Per ct. foreign.
	Males.	Females.	Total.						
ALL CAUSES	172800	150045	323023	.....	1.303	288336	32970	1.377	1.469
I. ZYMOTIC DISEASES	72476	59221	131813	40.811	.568	113537	17638	.542	.786
SPORADIC DISEASES.									
II. Diseases of uncertain or variable seat	10624	10420	21044	6.514	.091	19427	1502	.093	.067
III. Diseases of brain and nervous system	18392	10395	28787	7.803	.102	22184	1524	.106	.068
IV. Diseases of respiratory organs	27540	27260	54800	16.965	.235	49551	5021	.236	.224
V. Diseases of the organs of circulation	1384	1151	2535	.785	.011	2238	293	.011	.013
VI. Diseases of digestive organs	8287	6985	15172	4.696	.066	14203	931	.068	.042
VII. Disease of urinary organs	920	181	1101	.344	.005	996	97	.005	.004
VIII. Diseases of generative organs and childbirth	.....	3842	3842	1.189	.017	3292	532	.016	.024
IX. Diseases of locomotive organs	1038	732	1770	.544	.008	1606	154	.008	.007
X. Diseases of the skin	280	236	516	.160	.002	463	50	.002	.002
XI. Old age	4111	4916	9027	2.794	.039	7937	994	.038	.044
XII. External causes	9315	3691	13006	4.026	.056	11275	1648	.054	.073
XIII. Stillborn	217	160	377	.117	.002	377	.....	.002	.....
XIV. Unknown	23266	20905	44233	13.692	.191	41250	2586	.196	.115

FIFTH. *Occupations.* These also were necessarily classed, adopting very nearly the classification used in the Compendium of the Census. "Agriculture," and "Other Occupations," are the same in both tables; "Educational" of Mortality Report includes the "Army," "Law, Medicine, &c.," "Government Civil Service," and "Other Educational Pursuits." "Commercial" of Compendium embraces the similar head in this work, combined with "Mechanical" of that. "Sea and River Navigation," embraced with "Commercial." "Domestic Servants," included with "Labor," not "Agricultural." The table cannot show the tendency of certain pursuits to longevity, or the contrary, but only how far these pursuits are more or less exposed to the influence of certain diseases. The occupation of slaves, though given in many cases on the returns, were not taken off for publication, since no similar tables could be framed for the living slave population. The occupation of females is, for a similar reason, not given in the mortality tables.

SIXTH. *Duration of Sickness.* The periods selected are as many as could be embraced; the results are also aggregated.

SEVENTH. *Season of Decease.* It was impossible to give the months in detail; the seasons were selected after consultation with medical writers. It is obvious that these would include practically different months in different sections. In order to show the fall diseases by autumn is intended in the publication August, September, and October; winter will therefore embrace November, December, and January, &c. This is somewhat arbitrary, but no arrangement by seasons for all sections of the Union could be less so. The table annexed condenses the results and gives the appropriate ratios.

Season of decease and duration of illness.

	Season of decease.								Duration of sickness.			
	Spring.	Ratio.	Summer.	Ratio.	Autumn.	Ratio.	Winter.	Ratio.	Ratio under 1 week.	Ratio 1 week under 1 m'th.	Ratio 1 month under 3 m's.	Ratio 3 mo'ths and over.
ALL CAUSES	75588	23.39	89288	27.64	96790	29.96	56283	17.41	32.94	30.33	8.18	15.72
I. ZYMOTIC DISEASES	21293	16.15	40763	30.93	50567	38.36	17687	13.42	41.65	39.16	7.19	2.93
II. Uncertain or variable seat	5593	26.58	5775	27.44	5252	24.96	4200	19.96	12.98	22.38	13.66	39.84
III. Brain and nervous system	6610	27.79	6174	25.96	6123	25.74	4611	19.38	43.60	30.90	5.99	9.29
IV. Respiratory organs	18299	33.39	12791	23.34	11279	20.58	11858	21.64	12.01	25.54	10.44	42.18
V. Organs of circulation	711	28.05	671	26.47	569	22.44	567	22.37	29.51	22.17	11.40	28.55
VI. Digestive organs	8280	21.62	4300	28.34	4952	32.64	2487	16.39	30.89	35.80	11.52	13.99
VII. Urinary organs	304	27.61	277	25.16	253	22.98	258	23.43	11.17	32.61	12.16	34.97
VIII. Generative organs, and childbirth	1163	30.27	985	25.64	838	21.81	825	21.47	45.39	34.33	6.12	3.80
IX. Locomotive organs	540	30.51	451	25.48	410	23.16	356	20.11	9.72	24.86	12.26	44.41
X. Diseases of the skin	131	25.39	130	25.20	159	30.81	88	17.05	13.95	34.69	16.09	24.03
XI. Old age	2653	29.89	2217	24.56	2081	23.05	2000	22.16	14.87	16.92	7.12	19.03
XII. External causes	3446	26.50	3625	27.87	2875	22.10	2840	21.84	65.89	9.95	2.71	2.64
XIII. Stillborn	104	27.59	102	27.06	82	21.75	77	20.42	.....	.....	.....	.....
XIV. Unknown	11411	25.80	11022	24.92	11350	25.66	8379	18.94	32.64	20.74	7.30	15.89

The tables prepared for this work do not, as must have been expected, harmonize in all particulars with those previously published by the office in regard to the mortality returns. In such a multitude of figures differences were but natural. They do not, however, reach an amount to affect in an appreciable degree the ratios. The work was all prepared anew, and with severe revisions. The tables of the Compendium being, nevertheless, valuable and necessary for illustration, are incorporated. (See table IV., p. 37.)

Table VI., on pages 29–31, and also the table on page 11, will be found in several unimportant particulars to differ from the other tables. At the time of going to press they were not harmonized, but as the difference in no case affects the ratio the fortieth part of one per cent., it was conceived best not to reject the tables.

It ought to have been observed before, that, for condensation in the State tables, the unknown "season of decease" and "duration of sickness" are omitted, but can be always ascertained easily by deductions from the totals.

To Mr. Shattuck, of Boston, and Dr. Barton, of New Orleans, the office expresses its indebtedness for many important suggestions, and for the aid which has been derived from their invaluable Sanitary Reports.

The clerical and typographical errors discovered upon examination in the State sheets are corrected in the aggregate tables, including cases of manifest inconsistencies of disease, with age and sex, such as an adult dying of a disease of infancy, &c.

The total female slaves in Mississippi should read 2389 instead of 238, the 9 being dropped in the print. The total nativities of Massachusetts should read 1170 instead of 116.

NOTE.—Extracted from Compendium, pp. 106–107.

The following exhibits the proportion of annual deaths to the whole population of certain European countries: Norway, one in 54; Sweden, one in 41½; Russia, one in 25 92-100; Denmark, one in 40; Mecklenburg, one in 46½; Saxony, one in 34½; Wurtemburg, one in 31½; North Holland, one in 30 6-10; Belgium, one in 48; France, one in 39 6-10; Azores, one in 48; Genoa, one in 23 4-7.

Number and centesimal proportions of deaths of different ages that occurred in Ireland during 10 years, between June 6th, 1831, and June 6th, 1841.

Births to 1 year, 269,199, 23.38 per cent.; 2 to 5 years, 165,918, 14.41 per cent.; 6 to 10 years, 58,272, 5.06 per cent.; 11 to 20 years, 83,259, 7.28 per cent.; 21 to 30 years, 101,518, 8.82 per cent.; 31 to 40 years, 86,585, 7.52 per cent.; 41 to 50 years, 82,537, 7.17 per cent.; 51 to 60 years, 108,518, 9.43 per cent.; 61 to 70 years, 89,507, 7.77 per cent.; 71 to 80 years, 69,997, 6.08 per cent.; 81 to 90 years, 27,579, 2.40 per cent.; 91 to 100 years, 8,365, 0.73 per cent.; ages not specified, 36,120. Total, 1,187,374, 100.00 per cent.

In *Boston*, according to the report of the Sanitary Commission, the number of deaths of persons under five years of age during a period of nine years, was 11,705, being nine per cent. annually of the total population of that age; of persons aged from five to ten years, 1,312 or 1.28 per cent.; from ten to fifteen years, 633 or 0.72 per cent.; from fifteen to twenty, 738 or 0.74 per cent.; from twenty to thirty, 3,303 or 1.24 per cent.; from thirty to forty, 2,917 or 1.62 per cent.; from forty to fifty, 1,948 or 2.15 per cent.; from fifty to sixty, 1,273 or 2.97 per cent.; from sixty to seventy, 1,057 or 4.75 per cent.; from seventy to eighty, 787 or 9.78 per cent.; from eighty to ninety, 379 or 19.04 per cent.; over ninety, 75 or 29.64 per cent.; those of all ages, 26,127 or 2.53 per cent.

In *New York*, according to the annual report of the City Inspector, there were in 1853, 22,702 deaths, of which 12,230 were males and 10,472 females. Those of foreign birth were 7,104. Of the age of one year and under, there were 7,724 deaths; of one to two years, 2,942; of two to five, 2,297; of five to ten, 771; of ten to twenty, 854; of twenty to thirty, 2,441; of thirty to forty, 2,037; of forty to fifty, 1,413; of fifty to sixty, 866; of sixty to seventy, 671; of seventy to eighty, 289, of eighty to ninety, 140; of ninety to one hundred, 34; of one hundred and over, 2; ages unknown, 51. Here follows the ratio to total mortality in each decade in New York:

Age.	1847.	1848.	1849.	1850.	1851.	1852.	1853.
Birth to 10	1 to 1.60	1 to 1.45	1 to 1.57	1 to 1.55	1 to 1.67	1 to 1.86	1 to 1.65
10 " 20	" 24.43	" 24.54	" 22.04	" 27.00	" 25.50	" 26.93	" 26.58
20 " 30	" 8.10	" 8.16	" 8.16	" 9.59	" 8.70	" 9.89	" 9.30
30 " 40	" 8.61	" 8.00	" 7.79	" 10.61	" 10.50	" 10.78	" 11.14
40 " 50	" 12.34	" 12.60	" 10.96	" 15.43	" 16.54	" 15.76	" 16.07
50 " 60	" 21.16	" 19.82	" 19.15	" 22.64	" 23.70	" 24.54	" 25.62
60 " 70	" 26.72	" 28.20	" 25.89	" 31.41	" 35.00	" 34.34	" 33.83
70 " 80	" 45.23	" 37.12	" 48.02	" 56.59	" 60.00	" 55.38	" 51.71
80 " 90	" 103.18	" 74.65	" 105.19	" 94.30	" 123.25	" 120.05	" 102.16
90 " 100 and upwards	" 451.00	" 469.60	" 552.86	" 943.00	" 710.00	" 600.00	" 667.71
Unknown	" 74.16	" 111.25	" 74.00	" 99.25	" 203.75	" 175.61	" 445.13

In *Philadelphia*, according to the report of the Board of Health for 1850, the total number of deaths during the year was 8,509, of whom 2,557 were under one year of age; 1,055 between one and two years; 930 between two and five; 419 between 5 and ten; 145 between ten and fifteen; 212 between fifteen and twenty; 1,049 males and 1,542 females of twenty and upwards; 460 over seventy.

In *Baltimore*, by the report of the Board of Health, there were in 1850, 4,576 deaths, of which 411 were stillborn; 995 of persons under one year of age; 500 between one and two years; 414 between two and five; 174 between five and ten; 98 between ten and fifteen; 144 between fifteen and twenty; 435 between twenty and thirty; 433 between thirty and forty, 336 between forty and fifty; 195 between fifty and sixty; 207 between sixty and seventy; 152 between seventy and eighty; 59 between eighty and ninety; 21 between ninety and one hundred, and 7 above one hundred.

In *Charleston*, according to the report of the Board of Health in 1850, there were 216 deaths of white males; of white females, 158; total white, 374; black males, 225; black females, 257; total black, 482; total deaths, 856. (This was a sickly year.) Of these, 702 were native born; 125 foreign; 29 were born in other States of the Union.

Mobile.—The following table from Fenner's "Southern Medical Reports" gives the deaths in Mobile during the years 1844, 1845, 1846, 1847, and 1848.

Years—Whites.	Unknown.	Under 1 year.	1 under 10.	10 under 20.	20 under 30.	30 under 40.	40 under 50.	50 under 60.	60 under 70.	70 under 80.	80 under 90.	90 under 100.	Over 100.	Total males.	Unknown.	Under 1 year.	1 under 10.	10 under 20.	20 under 30.	30 under 40.	40 under 50.	50 under 60.	60 under 70.	70 under 80.	80 under 90.	90 under 100.	Over 100.	Total females.	Total of all cases.
1844....	43	15	17	8	44	27	25	8	7	..	..	..	..	194	..	....	....	3	13	10	2	2	..	..	..	..	..	30	....
1845....	43	26	17	7	32	37	19	11	3	..	..	2	..	197	2	21	32	5	30	16	4	7	1	2	1	1	..	122	.....
1846....	13	32	22	13	46	41	33	7	4	3	..	2	2	225	..	20	18	6	14	10	5	3	2	1	1	1	..	81	.....
1847....	29	46	22	10	49	64	37	19	5	2	..	1	..	284	19	31	25	9	24	19	10	6	4	..	..	1	..	148	.....
1848....	26	58	72	25	70	85	37	14	6	2	..	2	..	397	3	49	60	14	14	18	3	3	2	2	..	..	..	168	.....
Total.	154	194	150	63	241	254	151	59	25	7	..	7	2	1,297	24	121	195	37	95	73	24	21	9	5	2	3	..	549	.....
Blacks.																													
1844....	8	..	15	2	2	5	2	5	..	..	..	..	..	39	7	....	5	2	1	3	2	3	..	..	..	..	..	23	286
1845....	3	26	6	2	12	10	3	2	1	3	..	3	..	71	1	14	7	5	9	6	1	3	1	..	2	..	..	49	489
1846....	1	28	19	6	8	7	4	8	6	..	2	..	..	89	28	3	6	2	10	2	4	3	5	1	2	..	..	61	456
1847....	12	17	18	8	9	9	11	6	5	4	1	2	..	102	1	26	11	7	3	4	6	2	2	2	..	..	..	64	598
1848....	23	25	20	41	14	14	9	5	8	4	2	3	1	169	6	25	22	9	5	12	8	8	2	1	..	..	..	98	882
Total.	47	96	78	59	45	45	29	26	20	11	5	8	1	470	38	68	51	25	28	27	21	19	10	4	2	2	..	295	2,611

In New Orleans the Board of Health reported for the year preceding June, 1850, 7,265 deaths against 3,641 reported in the Census. The following table will show the ages and color of those dying in 1849 and 1850 at New Orleans. Lafayette has since been incorporated with the city. The deaths in 1850 were regularly returned only in part. About 1,000 were mentioned by the marshal without any particulars, and were not therefore included in the mortality table.