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AGRICULTURE.—IRRIGATION IN NEVADA.

DEPARTMENT OF THE INTERIOR,
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This bulletin, the seventh of the series devoted to irrigation in the arid states and territories, has been prepared by Mr. F. H. NEWELL, special agent of the Census Office for the collection of statistics of irrigation, under the direction of Mr. JOHN HYDE, special agent in charge of the Division of Agriculture, and relates to the state of Nevada, in which there are 1,167 farms that are irrigated out of a total number of 1,341. The total area of land upon which crops were raised by irrigation in the census year ending May 31, 1890, was 224,403 acres, in addition to which there were approximately 280,000 acres irrigated for grazing purposes. The average size of the irrigated farms, or, more strictly, of irrigated portions of farms on which crops were raised, is 192 acres. The average first cost of water right is $7.58 per acre, and the average cost of preparing the soil for cultivation, including the purchase price of the land, is $11.82 per acre. The average present value of the irrigated land of the state, including buildings, etc., is reported as $41 per acre, showing an apparent profit, less cost of buildings, of $21.60 per acre. The average annual cost of water is $0.84 per acre, which, deducted from the average annual value of products per acre, leaves an average annual return of $12.08 per acre.

The tendency throughout the entire arid region to describe as irrigated all land to which water has been applied within any recent period by artificial means, land to which ditches, perhaps so far destitute of water, have been constructed, and even land for which water rights merely are claimed, has placed the Census Office under the necessity of absolutely restricting itself in its official bulletins on irrigation to land on which crops were actually raised by the artificial application of water during the year 1889. The farms or stock ranches in Nevada irrigated merely for grazing purposes have therefore not been taken into account in this bulletin beyond the foregoing statement as to their approximate total area.

Robert P. Porter.
Superintendent of Census.

C. O. P.—10m

IRRIGATION IN NEVADA.

BY F. H. NEWELL.

In Nevada crops were raised by irrigation in the census year ending May 31, 1890, on 224,403 acres, or 350.63 square miles, a trifle over three-tenths of 1 per cent of the entire area of the state. The enumerators' schedules indicate that nearly nine-tenths of this crop area was devoted to raising various kinds of forage. Besides this area, from which crops were cut or gathered, there were approximately 280,000 acres irrigated for pasturage in previous years or flooded annually by the overflow of streams, thus usually furnishing grazing for cattle. In 1889, however, the year of great drought, most of this land was dry, and even upon the irrigated lands the crops did not receive a supply of water sufficiently large to produce the best results. It should be noted that in the bulletins of this series only the irrigated acreage in crop is given, for the reason that accurate statistics can not be had concerning the acreage irrigated but from which crops were not obtained.

The aggregate number of farms in the census year was 1,341, and of these 1,167, or nearly nine-tenths, contained irrigated crop areas. The total area of the crops irrigated on these 1,167 farms or ranches, as they are more generally termed, was only 14.13 per cent of the total area of the land owned by these irrigators or ranchmen.

The average size of the irrigated crop areas on each farm or ranch was 192 acres. Classifying these according to size, the following results have been obtained: There were 52 irrigated crop areas of 640 acres and upward, 91 of 320 to 639 acres, inclusive, and 201 of 160 to 319 acres, inclusive. These 344 farms, or rather crop areas, contained an average of 513 acres each, and had a total of 176,591 acres, or nearly 79 per cent of the entire amount watered in the state. The remaining 823 crop areas, under 160 acres in size, comprised over 21 per cent of the total irrigated area, and averaged 58 acres each.

COUNTIES.	Number of irrigators in 1889.	Total irrigated acreage in crop in 1889.	Average size of irrigated crop areas, in acres, in 1889.	Average value of products per acre in 1889.
Total	1,167	224,403	192	$12.92
Churchill	44	9,913	225	10.33
Douglas	26	4,250	163	9.68
Elko	248	55,876	225	8.49
Esmeralda	29	4,527	156	12.34
Eureka	38	6,344	167	19.10
Humboldt	116	56,680	489	14.44
Lander	52	7,857	151	16.45
Lincoln	95	4,400	46	13.94
Lyon	88	17,981	204	13.03
Nye	82	8,366	102	13.81
Ormsby	26	1,497	58	31.55
Storey	1	120	120	.....
Washoe	221	28,631	130	18.85
White Pine	101	17,961	178	12.33

The results shown in the above table were obtained by compilation of the enumerators' returns of the area of crop and value of products for each irrigator in the state. The average value of products per acre shown in the column to the right was obtained by dividing the total of the value of products sold, consumed, or on hand in 1889 by the irrigated crop acreage. If there is a widespread tendency

among farmers to underestimate the value of their products or to overstate the area of crop irrigated, then in either case the average value of products per acre is proportionately reduced.

The average first cost of constructing irrigating canals and ditches and all requisites for bringing water to the land is estimated from the statements of the farmers throughout the state to have been $7.58 per acre, ranging by counties from $2 up to $15 per acre. The average of the estimated value placed by the irrigators upon this water right is $24.60 per acre. This is the price which the water right, if transferable without the land, might be expected to bring per acre.

The average annual expense of maintaining the ditches, of repairing breaks in the headworks or main ditch, and of cleaning out the sediment, wherever this is deposited, is, as estimated by the farmers, 84 cents per acre, the averages from the different counties ranging from 41 cents up to $2.15 per acre.

The cost of preparing the land for cultivation, excluding the cost of bringing the water to the land, but including such items as clearing the ground, breaking sagebrush, plowing, and fencing, as taken from the statements of the irrigators, was $10.57 per acre. Assuming the government rate, $1.25 per acre, as the original cost of the land, the cost of preparing the ground as $10.57 per acre, and the cost of bringing the water to the land as $7.58 per acre, the total cost of the tilled land to the irrigator was $19.40 per acre. In comparison with this the estimated present value of the land on which crops were raised by irrigation, including buildings, fences, and other improvements, is placed at $41 per acre, showing an apparent profit, less cost of buildings, of $21.60 per acre.

Deducting the average annual expense for water, 84 cents per acre, from the average annual value of productions, $12.92 per acre, it appears that the average annual return per acre is $12.08.

In the following table the more important of the foregoing statements are compared with similar results obtained for the adjoining state of Idaho and territories of Utah and Arizona, which, bordering upon the north and east, have a topography and climate similar to those of parts of Nevada. These three political divisions form a broad band across the United States from north to south, and exhibit a range not only in physical conditions, but also in customs and methods of agriculture.

ITEMS.	Nevada.	Idaho.	Utah.	Arizona.
Total irrigated acreage in crop, 1889	224,403	217,005	263,473	65,821
Total number of irrigators, 1889	1,167	4,323	9,724	1,075
Average size of irrigated crop areas, in acres, 1889	192	50	27	61
Average size of irrigated crop areas of 160 acres and upward, in acres	513	270	312	287
Per cent of acreage of irrigated crop areas of 160 acres and upward to total irrigated.	79	26	10	34
Average size of irrigated crop areas under 160 acres, in acres	58	39	25	43
Average first cost of water per acre cultivated by irrigation	$7.58	$4.74	$10.55	$7.07
Average annual cost of water per acre cultivated by irrigation	$0.84	$0.80	$0.91	$1.55
Average first cost per acre of preparation for cultivation	$10.57	$9.31	$14.85	$8.60
Average value of irrigated land, including buildings, etc., per acre, 1889.	$41.00	$46.50	$84.25	$48.68
Average annual value of products per acre irrigated, 1889	$12.92	$12.93	$18.03	$13.92

Nevada is characterized by the large size of its irrigated crop areas, exceeding those of any other state or territory. This is due to the peculiar topography as well as to the character of the crops, which are principally for forage purposes. The valley bottoms are in many places so nearly level that the streams tend to form marshes, on which large areas of hay can be raised with little attention on the part of the irrigator. The first cost of this irrigation is very small, being from $1 to $2 per acre and upward. The average cost for the whole state, viz, $7.58 per acre, applies rather to the cost where the irrigation is more carefully conducted, where well-defined ditches have been dug, and methods have been systematized.

The general condition of agriculture is somewhat peculiar, from the fact that, taking the state as a whole, tilling the soil is merely an adjunct to stock raising. Owing to the enormous area of the state and its small and scattered supply of water, derived largely from springs, the ranches or farms, excepting on the extreme western border, are at a considerable distance from each other and at still greater distances from any market. From many of the ranches transportation is therefore very expensive, and only sufficient produce is raised to supply home or local demands. In the broad barren

valleys of the state or among the rugged hills, wherever a spring occurs, there some ranchman has bought or taken up 40 acres or more, sufficient to cover the source of the water, and owning this he can practically control thousands or hundreds of thousands of acres of grazing lands.

The state of Nevada lies almost wholly within the Great Basin region, the only exception being in the northeastern and southeastern corners, where the state lines extend over into a small portion of the Snake River basin on the north and into the Colorado River basin on the south. The Great Basin extends on the east beyond Nevada, including nearly one-half of the territory of Utah, as well as small portions of Idaho and Wyoming; but since Nevada includes so large a part of this area, a general description of the basin is essential in order to give the principal topographic features of the state.

The Great Basin, as the name implies, comprises a vast area characterized by the fact that within its rim are no streams contributing water to the ocean. All of the precipitation falling within the irregular lines bounding it must at some time be evaporated and again return to the atmosphere. In its round of life, however, the rain drop which has fallen within the basin may join other drops, becoming a rill and later forming part of a creek or large river and then an infinitely small portion of some great lake; but from this lake it can escape to join the ocean only by taking the form of aqueous vapor and floating away with the wind.

The Great Basin is bounded on its eastern and western sides by two great mountain masses, the Wasatch in Utah on the east and the Sierra Nevada in California on the west. To the north and south of these ranges the boundaries of the basin are less distinctly marked, and the exact location becomes in places a little uncertain, from the fact that the line must be drawn along high plateaus or over broken lava-covered country whose drainage is not well defined. These two great mountain areas, rising to heights of over 10,000 feet, by their superior altitude and consequent effect upon precipitation give rise to many rivers, a few of which flow inward toward the Great Basin. Both, however, were formed by the rising of great blocks of the earth's crust, these blocks being tilted, the uplifted edge forming the mountain crests. In each case the blocks tilt away from the Great Basin at a gentle angle and present toward it the steep, almost vertical, faces, so that the streams, which have deeply carved these great blocks, flow away on the far side down the long slope, draining comparatively large areas, while those flowing from the steeper face turn toward the Great Basin, descend with great rapidity, and have a comparatively small, though very steep, catchment area.

In the case of the streams of the eastern side of the basin in Utah the water supply is enormously increased, from the fact that the rivers draining the far, gently sloping side of the Wasatch mountains do not flow away from the Great Basin, but, turning abruptly, pass through narrow and deep cañons and come out on the plains at the foot of the steep slopes. Thus it is, as stated in previous bulletins, that Utah enjoys such an unexampled water supply in spite of its otherwise unfavorable position.

On the western side of the basin in Nevada, although many of the characteristics are similar to those on the opposite edge in Utah, this favorable circumstance is not found except to a very slight extent. The streams which rise on the far side of the Sierra Nevadas westerly from the Great Basin continue to flow in that direction and finally enter the San Joaquin and Sacramento, so that Nevada receives only the drainage from the steeper slopes. A possible exception may be noted in the case of the Truckee river, which rises behind the Tahoe range and flows around the northern end of that range into the Great Basin. In many respects this is a counterpart of the Bear river of the northeastern side of the Great Basin, with its regulating lake and sinuous course, but in every way it is of far less size and less importance to agriculture; in short, the great streams of the eastern edge of the basin are but feebly represented on the western side.

The Great Basin, as a whole, rises gradually from south to north, the upper edge being at a general elevation of nearly 5,000 feet. It is higher in the center than on the eastern and western edges at the foot of the uplifted mountain blocks. Thus it is that the water collects in these depressions on each edge, forming on the west a number of small saline lakes, each fed by its own river, and on the east, with the greater water supply, a single great salt lake covering the place comparable to that of the smaller lakes on the other side. In consequence of the higher center of the basin, the greater portion of the drainage forming the Humboldt river flows from the center out westerly toward the edge, and there aids in the formation of the small lakes.

An almost innumerable array of smaller mountain ranges, trending north and south, fill the Great Basin and diversify its surface by their bare and rugged peaks. Streams issue from some of these, but after a short course down the mountain sides and along a narrow valley disappear into small saline lakes or sinks, in the broader valleys between the ranges.

Over hundreds or even thousands of square miles of lower mountains and desert plains there may not be a drop of water to be found during the greater part of the year, and the unwary traveler is in danger of perishing from thirst. For months, or even years, rain does not fall on some of these vast plains, and the heat of summer renders the higher animal life almost impossible.

The climate within the interior basin has not always been as arid as at present, for within comparatively late geological time there have been fluctuations sufficient on the one hand to produce great lakes of fresh water and on the other extreme to completely dry them, the ever-changing conditions again bringing about the abundant rainfall necessary to fill the ancient basins. The shores and beaches of these ancient lakes form conspicuous features of the landscape of the present country, and the fine materials deposited upon their bottoms are now the level plains whose soil when moistened yields abundant crops. The histories of these ancient lakes, Bonneville on the east and Lahontan on the west, their extent, and fluctuations have been described by Gilbert and Russell in their monographs, to which reference should be made for the details of what is now known.

Four rivers of notable size are formed by the drainage from the steep eastern face of the Sierra Nevadas. These are the Truckee on the north, the Carson, Walker, and finally the Owens on the south. The first three of these flow westerly into the Great Basin and ultimately lose their waters in the saline lakes, the Truckee into Pyramid and Winnemucca lakes, the Carson into Carson sink, and the Walker into Walker lake. The fourth river, Owens, clings closely to the foot of the mountains and flows in a general southerly direction along the base. The Sierra Nevadas have a general northwesterly and southeasterly trend, while the state lines which bound this side of Nevada have courses which form small angles with this direction, and for this reason have a peculiar influence upon the water supply within this state.

The western boundary of Nevada coming from the north runs toward the Sierra Nevadas and crosses the eastern slope diagonally, ascending gradually toward the higher summits. When it reaches Lake Tahoe it turns abruptly to a southeasterly course and descends again diagonally along the mountain slopes to the plains beyond. Within this broad angle, included by the state lines where they ascend and descend the Sierra Nevadas, is included the most important portion of the state agriculturally, and also as regards mining industries and population. The state lines on this side by their peculiar position, in both instances diagonal to the general course of the mountains, cut the drainage basins of the Truckee, Carson, and Walker, leaving the headwaters and upper valleys in California and the lower fertile plains in Nevada. The fourth stream of this series, Owens river, lying along the mountains, is by the southeasterly direction of the state line left wholly in California.

These three rivers, the Truckee, Carson and Walker, together with the Humboldt, which flows from the center of the basin toward the western edge, comprise practically the water supply of the state. There are other small streams and many springs, but none of these are of importance save to small localities or to individuals. The development of the agricultural resources of the state therefore depends upon the careful conservation of the waters of these rivers and their utilization to the greatest possible extent. This fact has long been recognized, and steps, though somewhat halting, have been taken toward the investigation of the water supply and the best means of increasing the utilization of it. In all projects, however, Nevada as a state is hampered by the fact that her principal streams derive the greater part of their water from catchment areas lying within the state of California.

The United States Geological Survey began in the spring of 1889 to make measurements of the amount of water flowing in the Truckee and Carson rivers. The results of these measurements are given in the following paragraphs in the most condensed form, the data for many of the smaller streams being omitted. The different localities at which gaugings have been made are considered in order from the headwaters downward, taking the Truckee first. This river may be considered as beginning at Lake Tahoe, whose drainage it receives. The outflow from the lake into the river was

on July 4, 1889, 136 cubic feet per second, or, as commonly termed, second-feet. The amount declined rapidly, until on August 8 the outflow was 75 second-feet, and on August 18 only 49 second-feet.

The first tributary of importance below the lake is the creek draining Donner Lake and Cold Creek valleys, entering the Truckee from the north or left-hand side. On June 28, 1889, the discharge of Cold creek alone was 11 second-feet, and on July 3 the united discharge of Cold creek and Donner creek was 18 second-feet, a nearly equal amount coming from each valley. On July 6 this total had declined to 10 second-feet, falling off rapidly, until in August it was less than 2 second-feet. The total drainage area of both creeks is about 30 square miles.

The next tributary of the Truckee is Prosser creek, which drains Twin valley, flowing into the Truckee a short distance above Boca, California, and having a total drainage area at this point of 56 square miles. The discharge during April, 1889, averaged 100 second-feet; in May, 259 second-feet; June, 110 second-feet; July, 17 second-feet; August, 3 second-feet, and September, 2 second-feet, the stream during these latter months being nearly dry. In 1890 the average discharge during April was 340 second-feet; during the latter part of May, 817 second-feet; in June, 580 second-feet; July, 382 second-feet, and August, 102 second-feet, the average from April to August being in the two years respectively 98 second-feet and 444 second-feet.

The Little Truckee, flowing into the Truckee at Boca, California, and draining an area of 186 square miles, discharged during April, 1890, an average of 958 second-feet; during May, 1,998 second-feet, fluctuating from 1,000 second-feet to a maximum of 2,867 second-feet; during June the average was 1,491 second-feet; during July, 749 second-feet; August, 200 second-feet; September, 97 second-feet, and October, 86 second-feet.

The Truckee river itself was measured near Essex, Nevada, during the summer of 1889, giving the following discharges: For May an average of 2,134 second-feet; June, 771 second-feet; July, 278 second-feet; August, 200 second-feet. The drainage area is 991 square miles. During the following year measurements were made higher up the stream at a point below Boca, California, where the drainage area is 887 square miles. Here the discharges were, during the last week in March, 637 second-feet, averaging in April 2,751 second-feet, and ranging during this month from 580 second-feet to 5,716 second-feet. In May the average was 5,275 second-feet, reaching the maximum of the year of 7,172 second-feet; in June the average was 4,291 second-feet; in July, 1,870 second-feet; August, 736 second-feet; September, 513 second-feet; October, 555 second-feet.

The discharge of the Truckee was also measured during 1890 at Vista, 8 miles below Reno, the drainage area being 1,519 square miles. This point is below the Truckee meadows and above the lower cañon of the river, thus giving the discharge available for use upon the plains in the vicinity of Wadsworth. In general, the discharge here is less than at Boca, or points above Reno, from the fact that a large part of the water is diverted for use upon the lands in the vicinity of Reno and south of it in Warm Spring valley.

In the Carson basin measurements have been made of the discharge of the main stream and of its principal tributaries, the east and west forks. The east fork was measured at the mouth of the cañon at Rodenbah ranch, about 14 miles from Genoa, the drainage area here being 414 square miles. The average discharge for April, 1890, excepting the first week, was 1,026 second-feet; for May, 2,654 second-feet; for June, 2,430 second-feet; July, 1,789, and August, 597 second-feet. The discharge continued to decline, remaining at an average of about 380 second-feet during the rest of that year, increasing slightly toward the following spring, the mean discharge for the year ending March, 1891, being 970 second-feet. During 1891 a less quantity of water was discharged than in the year preceding, the maximum being 1,884 second-feet. The average discharge for April, 1891, was 452 second-feet; for May, 1,445 second-feet; for June, 1,328 second-feet; for July, 618 second-feet, and for August, 408 second-feet, the average discharge for the year ending in September, 1891, being only 616 second-feet.

The west fork was measured on June 14, 1889, in Hope valley, the discharge being 72 second-feet. In 1890 a gauging station was established at the lower mouth of the cañon below Hope valley at Woodford, California, the drainage area at that point being 70 square miles. The average discharge for the greater part of April, 1890, was 284 second-feet; for May, 657 second-feet; for June, 614 second-

feet; for July, 380 second-feet, and for August, 135 second-feet. The discharge continued to decline during September and October, averaging about 70 second-feet, the mean discharge for the year ending in March, 1891, being 206 second-feet. As in the case of the east Carson, less water flowed in the river during 1891, the maximum being only 740 second-feet. The average discharge for April, 1891, was 127 second-feet; for May, 534 second-feet; for June, 338 second-feet; for July, 130 second-feet, and for August, 65 second-feet, the average for the year ending September, 1891, being only 133 second-feet.

The main Carson was measured on June 10, 1889, below the junction of the east and west forks. The discharge at that time was only 527 second-feet, a great part of the water being diverted by irrigation ditches at points above. In 1890 a station was established at the lower end of the Carson valley, near Empire, thus giving the discharge available for the valleys further down below Dayton, in Lyon county. The total drainage here is 894 square miles. The discharge for the latter half of April, 1890, averaged 1,565 second-feet; for May averaged 3,475 second-feet, ranging from 1,751 to a maximum of 6,278 second-feet; for June the average was 3,143 second-feet; for July, 2,159 second-feet; for August, 756 second-feet, and for September, 144 second-feet.

Besides the Carson and Truckee rivers a large amount of water is furnished to the state by the Walker river, lying south of these and similar to them in many respects, and by the Humboldt, which flows in a westerly course across the northern end of the state. Measurements of the amount of water in the Walker river have not been made. The catchment area is, however, in many respects similar to that of the Carson. The total area to the junction of the east and west branches is 2,087 square miles, or over three times that of the Carson above Empire and twice that of the Truckee above Reno. The annual run-off, however, is probably far less in proportion to the area of catchment than in the case of these streams.

The Humboldt is a river of entirely different character from the streams issuing from the Sierra Nevadas, so that direct comparisons can not be made. In many respects it is more like the Owyhee and Malheur of eastern Oregon, which rise directly north of the Humboldt and flow in a general northerly and easterly direction into the Snake. Series of gaugings have not been made on the Humboldt, but two measurements are given by Russell in his monograph on Lake Lahontan. These measurements were made below the mouth of the Little Humboldt, where the total drainage area is 10,600 square miles, that of the Little Humboldt alone being 1,650 square miles. The discharge on September 10, 1881, when the river was at the lowest stage of the year, was 48 second-feet, and on July 17, 1882, it was 750 second-feet. At this latter time the height of the river had fallen 3 feet from the maximum of the year, and was declining rapidly, the discharge two weeks later being nearly one-half the amount given. Humboldt lake, into which this river discharges, is reported to have been dry in 1879, but following this time of drought came high water, which raised the lake, until in 1882 it stood at a higher level than immediately before the drought. The amount of water in this lake, as in the case of all the other sinks of rivers, gives evidence as to the quantity which might be held by storage at points higher on the stream; and, without further discussion, it is evident that great areas can be brought under cultivation by thus storing the water and preventing the waste by evaporation as the water finds its way down the long sandy channel of the stream.

There are many excellent localities for the construction of storage reservoirs upon the headwaters of the Carson and Truckee, by which the excess waters of the early spring floods could be held for use later in the season. Surveys have been made of a number of the more important of these, and they have been reserved, or at least such portions of them as belong to the United States, for reservoir purposes. These reservoirs are described in the reports of the irrigation division of the United States Geological Survey.

The reservoir of chief prominence, and which has attracted the greatest amount of popular attention, is Lake Tahoe, and it has been urged that by holding its waters back by means of a suitable dam enormous quantities can be retained for the irrigation of thousands of acres. There is, however, a question of water supply of the lake involved in this project which is seldom taken into account. The drainage area of 506 square miles tributary to the lake is exceedingly small in proportion to the open water surface, which amounts to 192 square miles, and it is doubtful if in every year the lake can

be raised to a height sufficient to furnish water to the amount anticipated. In this respect Lake Tahoe is comparable to Bear lake and Utah lake on the eastern side of the Great Basin, namely, in being too large for economical water storage. The expense, however, of holding water within the lake would be very small, since the outlet can be readily controlled. One obstacle to the use of this lake as a storage reservoir for the dry lands of Nevada is in the fact that the lake is mainly in California, as are also the natural outlet and a large part of the course of the Truckee river, which flows from it. The outlet is now under the charge of lumber men, who use the water from the lake at certain seasons of the year to carry logs to the sawmills below.

The principal storage site examined by the United States Geological Survey along the Truckee river is that of Donner lake, whose storage capacity by a dam raising water 20 feet above the present lake surface could be made to be over 22,000 acre-feet, an acre-foot being the quantity of water covering an acre 1 foot in depth, or 43,560 cubic feet. By placing a dam lower down and closing the outlet of Donner valley and Cold creek valley the storage capacity could be increased to nearly 43,000 acre-feet.

By raising the waters of Independence lake to the height of 25 feet above the present lake surface nearly 24,000 acre-feet could be held. This lake is 9 miles northwest of Donner lake. Also by raising the level of Webber lake, which lies about 7 miles north of west from Independence lake, to a height of 20 feet, the storage capacity could be increased to over 11,000 acre-feet. Other examinations were made by the United States Geological Survey to obtain data as to the cost and feasibility of dams along the Truckee river above the town of Truckee, and also on the lower river below the Truckee meadows. From these reservoir sites trial lines for canals were run to ascertain the practicability of bringing the stored water to agricultural lands lying back from the stream.

In the Carson basin surveys were made in Hope valley on the west Carson river and in Long valley, lying in a depression between the east and west forks of the Carson. The surveys at this latter point showed that by constructing two dams, one to a height of 100 feet and the other 60 feet, nearly 35,000 acre-feet of water could be stored. Lines were run for the purpose of obtaining data regarding the cost and location of canals from the east and west forks of the Carson to fill these reservoirs, and also for canals to take the water from the reservoir or the forks of the river and carry it out upon the desert lands in the Carson valley.

Other reservoir sites on the lower Carson have been surveyed, and the contents and cost of construction estimated by various engineers. A review of the problem of water storage is given in "An address to the people of Nevada on water storage and irrigation", by Mr. Francis G. Newlands. It appears that the greater part of the reservoir sites, as well as the lands to be benefited, belong to various individuals, some of whom are unable or unwilling to do their share toward the construction of reservoirs and the development of the agricultural resources of the state. From a comparison of the amount of water discharged by the Carson and Truckee rivers as previously shown and the facilities for holding the water, there appears to be no insurmountable obstacle from the engineering side to the construction of reservoirs, the water from which should irrigate thousands of acres of the fertile lands of Nevada. It rests primarily with the owners of the lands and water rights, and next with the inhabitants of these drainage basins, to bring into being this great factor of agricultural growth.

In addition to the reservoir sites occupied in part by lakes, and to which public attention has been especially drawn, there are a number of localities scattered through the mountains at the headwaters of the streams, many of which are suitable for holding water. These are mainly valleys, in some cases formerly occupied by glaciers and later by small lakes, which in course of time have cut an outlet through the lower rims. A comparatively small expenditure of labor and capital will close the outlets, and by this means bodies of water of considerable size can be held. One obstacle, as previously mentioned, is that these localities are mostly in California, while the lands to be benefited are far down the stream, out upon the deserts of Nevada, and there is uncertainty as to the requisite co-operation on the part of California in forwarding such enterprises. Another drawback is the fact that these localities are in general owned and occupied as dairy farms, and a high price is put upon them whenever the matter of water storage is discussed.

That there is no lack of water for many storage projects is shown by the following abstract of results previously quoted. Considering the discharge of the streams for the months of April, May, and June only, the quantities in acre-feet are as follows: Prosser creek in these months in 1889 discharged approximately 28,400 acre-feet, and during the same period in 1890 105,000 acre-feet, while the Little Truckee in these three months of 1890 discharged nearly 270,000 acre-feet. The Truckee between Boca and Reno in May and June of 1889 discharged approximately 177,000 acre-feet; in April, May, and June of 1890, 740,000 acre-feet, and for the three months of 1891 about 400,000 acre-feet. The east Carson in April, May, and June of 1890 discharged over 368,000 acre-feet, and during the same months of 1891 nearly 195,000. The west Carson in April, May, and June of 1890 discharged nearly 94,000 acre-feet, and in these months of 1891 about 60,000 acre-feet, while the Carson at Empire in April, May, and June of 1890 discharged nearly 494,000 acre-feet.

As has already been indicated, the greater portion of the water in the streams flows during these spring months, declining rapidly as summer approaches, so that at the time the crops are about to mature the amount available is nearly at its minimum. This time is generally known as the critical period, for large acreages having been planted in the spring and brought forward rapidly by the abundant water supply, the farmer must look forward with anxiety to the last few weeks of the crop season, when rain and river are both at their lowest amount for the year. The distribution of water throughout the year is shown by the following percentages of discharge, computed from results obtained on the Carson river: In January 2.7 per cent of the total for the year was discharged; in February, 2.8 per cent; in March, 4.6; in April, 10.2; in May, 24.7; June, 22.8; July, 15.3; August, 5.3; September, 3.3; October, 3.0; November, 2.6; December, 2.7. Thus it will be seen that nearly one-half of the total amount of the year was discharged in May and June, the amount falling off rapidly in July, so that by the end of the month it was at or below the average for the year. From April to July, inclusive, nearly three-fourths of the entire amount for the year was discharged. It may be assumed that in general the Truckee and Walker rivers follow about this general order.

It is probable that the Humboldt, as regards the distribution of its water through the year, is more like the Owyhee of eastern Oregon and southwestern Idaho. In the case of this stream the distribution of available water by months was as follows: During January 1.8 per cent of the water flowed in the river; in February, 4.7 per cent; March, 16.7; April, 33.0; May, 29.7; June, 7.1; July, 1.7; August, 0.9; September, 0.9; October, 0.9; November, 1.1; December, 1.5. This exhibits the enormous quantity of water flowing in the early spring and the rapid decline during the summer, the river becoming almost dry.

As is evident from an inspection of the rainfall, there is no such thing as farming without irrigation in Nevada. The only exception to this rule is perhaps in the case of small areas on low grounds near perennial streams, the seepage from which is sufficient to moisten the subsoil, and thus crops, principally forage, are produced without the artificial application of water. The distribution of the rain throughout the year is not favorable to the needs of agriculture, since the greater part falls during the winter months. Taking the monthly averages of 13 stations in Nevada for a period of at least 18 years as published by the Signal Service, it appears that the average annual rainfall for these localities was a little over 6.1 inches. The distribution of this rain by months is best shown by the following percentages: Taking all of these 13 stations, during January 15.8 per cent of the total amount for the year fell; during February, 13.0 per cent; March, 10.2; April, 9.6; May, 9.0; June, 5.8; July, 2.5; August, 1.8; September, 2.5; October, 6.8; November, 9.0; December, 14.0.

Taking the months from November to March, inclusive, 62.0 per cent of the total rainfall for the year fell, that is, 3.78 inches. In the 7 months from April to October the average precipitation was for the 18 years at these stations only 2.32 inches. It should be noted, however, that these stations are mainly out in the Great Basin, away from the mountains, and at altitudes from 4,000 up to 6,000 feet, mainly, however, under 5,000.

The mean annual rainfall at these stations, viz, 6.1 inches, does not by any means represent the rainfall in the Sierra Nevadas. As examples of localities within the mountains may be given Boca, California, at an altitude of over 5,530 feet, with a mean annual rainfall for over 18 years of 15

inches; also Truckee, California, at an altitude of 5,820 feet, and rainfall of 27 inches. Still higher in the mountains, at Summit, California, where the altitude is over 7,000 feet, the mean annual rainfall for 20 years was over 43 inches. It is from this abundant precipitation, mainly in the form of snow on the high mountains, that the rivers receive their supply. At rare intervals heavy storms may occur out in the basin, but these are of comparatively little value to agriculture, and, in fact, may be injurious. The rains falling upon the perfectly level lands in the center of some of the valleys sometimes convert them into broad lakes, the water standing to a depth of a few inches for several hours or days until evaporated.

In the employment of water in irrigation it has been found here, as in other localities, that the irrigation of the higher land on the edge of a valley helps to water the lower ground, and that less water is required on the latter, and in some cases forage crops can be successfully raised by seepage alone from higher land. When water is first applied to the soil it often sinks in so rapidly that even with a large stream it seems impossible to saturate even an acre. Gradually, however, the water level is raised in the surrounding lands, and in the course of months or years the ground water of the vicinity has come so near the surface that a comparatively small amount of water suffices for a season's irrigation. The rise of the ground water is attested by the fact that wells previously sunk in dry earth to depths of 60 to 100 feet without reaching water are in some cases filled to within a few feet of the surface.

The waters from wells and springs have an exceptional value in Nevada on account of the general scarcity of surface waters. Taking the state as a whole, there are a large number of springs the waters of which in many cases are warm or hot and often too heavily charged with mineral matter to be useful for agriculture. There are a few shallow flowing wells in the state, notably in the vicinity of Carson. A number of deep holes have been drilled in different parts of the state, but without success so far as flowing wells are concerned. It is reported that a well was sunk by the railroad company at White Plains, Churchill county, west of the Humboldt and Carson sinks, to a depth of 2,345 feet, but without reaching water. Another well at Lovelocks, Humboldt county, north of Humboldt sink, was put down to a depth of 1,000 feet, but without success.

On the lower lands in Ormsby county are a number of small flowing wells, from 100 to 150 feet in depth, delivering a quantity of water ranging from 2 to 25 gallons per minute each. Other small flowing wells have been found in Carson valley in Douglas county, in Washoe valley in Washoe county, on the low lands of Churchill county, near Battle Mountain and Austin in Lander county, and also in Eureka and White Pine counties. In general, it may be said that these wells vary in depth from 50 to 300 feet, are from 2 to 6 inches in diameter, and cost from $1 to $6 per foot according to depth and the success of the driller. The amount of water delivered is very small, almost insignificant in comparison with that carried by a small irrigating ditch, but it is valuable for watering stock and for domestic purposes.

These wells are in many respects similar to those of Utah along the edge of Utah lake and Great Salt lake. It appears probable that in all these valleys in which irrigation has been carried on for a number of years the waters have permeated the unconsolidated deposits of sand and gravel. These, being interstratified with beds of clay and dipping slightly toward the center of the basin, give rise to conditions favorable for small flowing wells in the lower portions of each valley. When a pipe is driven down through these alternating beds and, penetrating the clay layers, enters the gravel or sand, the water tends to rise to the surface and overflow if the top of the pipe is below the general level of the valley.

The probabilities of obtaining large artesian wells in the valleys of Nevada do not seem from present knowledge to be at all favorable, both from the fact that the deep wells drilled within the past few years have been in general dry, and also from the fact that the large number and wide distribution of springs indicate a dislocation of strata unfavorable to the production of artesian wells. Exploration in this regard, however, is being carried on occasionally, and it is possible that flowing waters of considerable local value, especially for the supply of cattle, may be obtained.

The irrigating ditches of Nevada have for convenience been arranged in two groups, the first consisting of those having an average width of less than 5 feet, and the second those of a width of 5 feet

and over. The average cost of the smaller ditches has been found to be approximately $200 per running mile, and of the larger $1,150 per mile, including in this the cost of headworks, flumes, and other structures. The average width of these larger ditches is about 8 feet, and there are comparatively few averaging over 10 feet in width, so few in fact that a separate class of this dimension has not been made, as in the case of other states.

The average area irrigated by each ditch is 530 acres, excluding from this computation, however, a number of large ditches reported to irrigate tracts of unusually great size. For comparison with this, it should be noted that in Idaho the ditches irrigate an average area of 385 acres, and in Montana 225 acres, excluding in these cases a few of the large canals. This large acreage to each irrigating ditch is due not to better construction, but rather to the fact that throughout a great part of the state irrigation is still in the first steps of development, not having advanced beyond the simple and wasteful methods of flooding the ground. Owing to this fact, not only is a great portion of the water wasted, but the results obtained are often of less value than would have been the case in the employment of better methods of irrigation, for by the use of too great an amount of water some of the most valuable species of native grasses are drowned out, coarse swamp grasses taking their places. Thus the employment of too much water by one man not only diminishes the supply for other persons, but may injure the property of the user.

In the construction of these irrigating ditches little, if any, outside capital has been employed, but they have been dug by the irrigators, acting individually or in co-operation. Thus the ownership is almost wholly within the hands of the farmers, and the administration of the water, if the general lack of system can be called such, is wholly within the control of the men who are directly benefited. Owing to the multiplicity of ditches deriving water from the same stream and the many separate interests involved, there constantly arise, as in the case of many other states, conflicts between irrigators as to the distribution of water, especially during the seasons when the supply is scanty. Disputes of this character are settled sometimes by private arrangement, but more often by recourse to the courts. The expense of law suits for the maintenance of water rights is a heavy burden to the farmer, and there is widespread complaint of the insecurity of property. The necessity of better methods of settling disputes and of confirming titles to the use of water is strongly insisted upon by the farmer, for he is beginning to appreciate that the whole value of his land depends upon an absolutely unimpeachable claim to sufficient water to raise crops. If this claim is liable to be constantly called into question, the value of his property must fluctuate correspondingly, and as the practice of irrigation increases and there is greater and greater demand for water this is more and more likely to occur.

The question arises in the mind of every observer: why has this condition of insecurity been allowed to exist and why have the magnificent water resources of many of the rivers of Nevada been allowed to go to waste? As has been previously shown, there are reservoir sites in abundance, flood waters to fill them, and vast tracts of fertile land needing this water. Besides these there is a legion of irrigators who are quarreling with each other for the possession of the small amount of water available during the critical season of the year. Why do these men not devote their energies to saving the flood waters, thus improving their own lands and making possible the development of vast additional tracts? The answer to these questions seems to lie in the fact that irrigation has grown up without any order or system, each man or group of irrigators taking all the water to be had and caring little for the needs of others. The chief interest of the state has been in mining, and little attention has been given by public opinion or legislation to the needs and development of agriculture, so that wasteful systems of water distribution have grown up and fastened themselves upon the community, preventing free action, and even obscuring the clear view of greater benefits to be derived by radical improvements.

On nearly every stream more water is claimed than is available, and were a man or a corporation to store any of the flood waters and restore these to the stream in time of drought the question would at once arise: to whom do these waters legally belong and how are they to be distinguished from those which would flow naturally? and, if the legal questions were satisfactorily solved, then come the far more difficult problems as to the practicability or possibility of the owners of this stored water actually recovering it, especially if to bring it upon desert lands out in the valleys the stream flowed by the headworks or over the diverting dams of a number of ditches, the several owners of which were in

need of water. In short, before any such scheme can be successful it will be necessary to ascertain not only the amount of water naturally flowing in the stream day by day and year by year and all the legal claims to the water, but also the actual usage of the water by the different individuals and the amount which each should justly receive. There is a wide discrepancy between the amount of water to which a man is legally entitled and that which he actually receives, for his recorded claim may apparently give him more water than flows in the stream, while he actually receives only a small portion. If, therefore, the company storing water were compelled to supply all those having claims to the stream, there would be none left for the company's use.

Agricultural development, therefore, by the use of stored water, or even by the more economical use of present supplies, must rest upon a cordial co-operation of all parties at present enjoying the use of water from the same source. The difficulty of such co-operation is fully appreciated by the people of Nevada, and many plans have been discussed for bringing this about either by state control of all waters, by the formation of districts exercising certain powers, or by municipal corporations working toward the same end. The great stumbling block is the fact that so many individuals of different minds and opinions have property rights which must be extinguished amicably or by the exercise of the right of eminent domain.

That the various owners of the waters do not at once co-operate in some of these plans is not to be laid wholly to individual cupidity or to lack of public spirit, but rather to the fact that to each irrigator this matter is of almost vital importance. The value of each man's property appears to be at stake, and that which he has acquired by long years of toil and hardship is not to be given up at once on any plea of the good of the community, especially if to him the benefits seem doubtful and uncertain. The farmers have a natural fear of being in some way imposed upon in making any rapid changes, and are harassed by the dread of falling into the grasp of monopolies, and perhaps endure present evils rather than encounter those which are unknown.

Legislation has already been enacted toward the formation of irrigation districts in many ways similar to those of California, but as yet the results have not been satisfactory, and the irrigators are not apparently anxious under present laws to attempt this solution of the problem. The matter has been fully discussed by men interested in the development of the country, and to a less extent by the farmers themselves.

One immediate cause tending to prevent agricultural growth in this state is the lack of large local markets and the consequent great cost of transportation, so that it becomes unprofitable to ship grain from certain parts of the state. Areas which have in past time been planted to cereals are in many counties being converted into hay fields or grazing lands. The development of great irrigation enterprises is hampered by these facts, and also largely by the condition of the ownership of the unimproved land. Great areas are held by corporations or by individuals for speculative purposes, and no one owner is able to construct a large storage and distributing system unaided on account of lack of capital or of legislative support. In other cases poor men own areas larger than they can utilize, and lying in such position as to block the development of irrigation unless the land is taken by what amounts to confiscation.

CHURCHILL COUNTY is in western Nevada, east of the row of small counties along the foot of the Sierra Nevadas. It contains on the extreme west a portion of Winnemucca lake, into which the Truckee flows, and on the north a part of Humboldt lake, at the lower end of the Humboldt river. The most important bodies of water, however, are Carson lake, near the southwesterly side of the county, and Carson sink, to the north of this. These points are evidently the lowest portion of this part of the Great Basin, since the drainage of the Truckee, Humboldt, and Carson finds its last resting place, and ultimately disappears by evaporation.

Carson river, entering the county from the west, flows in a general easterly direction, meanders through the nearly level bottom lands, and, dividing into several channels, discharges into Carson lake to the south or into the sink toward the north. In the broad valley in the vicinity of these lakes there are probably over 100,000 acres of rich land, the greater portion of which is lying idle for lack of water. The general altitude of this low land is under 4,200 feet, and the climate is favorable for

the production of large crops. The land at present tilled forms an insignificant part of that which could be brought under cultivation if water could be secured. By the construction of reservoirs at the well known sites along the Carson, above this valley, ample water could be obtained for the irrigation of a portion at least of this desert area.

The present agricultural lands are along the Carson river and its various channels. Water is taken from the river and its sloughs by over 50 ditches, each leading to one or more ranches. The lower lands near the lakes have mainly an adobe soil, which, though fertile, is not so rich as that of the desert lands further back from the river. It is necessary to flood this adobe soil, as it does not take up the water rapidly and transmit it from point to point.

The ground in the vicinity of Carson sink is very nearly level, and large areas can be brought under ditch at small expense. A common method of preparing the ground for cultivation is to take two ordinary iron rails used by a railroad, bolt them together and hitch four horses at each end. The bars are then dragged sideways around the field, breaking the brush and leveling small inequalities. When the broken brush has been brought into a pile the ground is ready for the plow. The ditches are plowed out by a 4-horse team and finished by scraping. The water for irrigation is allowed to run on wild grass until the quantity is equal to that which would cover the surface to a depth of 3 to 4 inches, the stream flowing steadily for 8 or 10 days. The water is then turned off for a week or more, and then allowed to run upon the field again. Large areas of grass are thus brought under irrigation at small expense and with little labor, and great quantities of water are used at times when it is plentiful.

There are thousands of acres of good land in this county lying back from Carson river at an elevation slightly too great to admit of water being brought upon it except by the construction of long and expensive canals. In one case at least water is raised by means of a pump driven by an engine. This is said to deliver water at the rate of 100 miner's inches, irrigating 1 acre in 2 hours. The cost of the pump and engine is reported to have been $1,200. The fuel used is sagebrush.

As an example of the ditches of the county may be given the Rockdam ditch, heading 10 miles west of Ragtown. It takes water out on the south side of the Carson river by a permanent crib dam, then crosses to the north side by means of a flume. It is 6 miles long, about 5 feet wide, and is owned by private parties. There are a number of other small ditches taking water from both sides of the main stream and its sloughs or branches.

Douglas county is the most southerly of those on the west side of Nevada, and occupies the broad angle made by the change in direction of the line between this state and California. It extends easterly from Tahoe lake nearly to the Walker river, including in its southern extremity a portion of the west Walker. The east and west forks of the Carson flow from California northerly into this county and unite in the Carson valley, whose bottom lands have an altitude of from 4,700 to 5,000 feet. The agricultural land of the county is within this valley, mainly on the western side, water being taken from the east and west forks, and also from the small creeks which come down from the Tahoe mountains.

On the east side of Carson valley are broad deserts, whose fertile lands could be rendered highly productive by the use of waters obtained by storing the floods of Carson river. These lands are owned largely by a few individuals, some of whom have discussed the feasibility of attempting the construction of reservoirs. Examinations conducted by the United States Geological Survey and by private enterprise have furnished data by which the cost of these improvements can be computed, and a large amount of information is available as to water supply and storage capacity, sufficient to show the feasibility of such schemes. The Long valley reservoir, lying west of the cañons of the east fork of the Carson, has been mentioned in the preceding pages in connection with the general conditions prevailing in this part of the state, where developments under present methods seem to have reached a limit.

Besides this site are a number of others of less size, to which little attention has been given. The extension of agriculture in this county by use of stored waters rests upon the questions of water control and of securing sufficient capital to construct the systems. The information at hand carries

the matter beyond the preliminary stages and is sufficient to justify organization for definite ends. In the lower part of Carson valley is a locality suitable in many ways for the construction of a reservoir to hold waters for use upon the lands below Dayton, in Storey county, as shown by the report of Mr. Francis G. Newlands. In short, there is no lack of localities favorable for water conservation, the obstacles being of a financial or legal character rather than those of nature.

ELKO COUNTY is in the northeastern corner of Nevada, adjoining Idaho on the north and Utah on the east. The greater part of the county is on the headwaters of the Humboldt river, containing the catchment areas of the north, east, and south forks, which unite to form that stream. On the extreme north it also contains the headwaters of Salmon creek and Bruneau river, which flow north into the Snake, and the east and south forks of the Owyhee, flowing northwesterly into Idaho and Oregon.

The northern part of the county consists of a great plateau 7,000 feet and upward in elevation, little known except perhaps to prospectors and to a few cattle men. In the southern part of the county, however, the topography is similar to that of the rest of the state, viz, high mountain ranges trending in a north and south direction, with long, narrow valleys between them. From some of these mountains, as, for example, the Ruby and Humboldt ranges, a large amount of water flows into the various streams during the spring and early summer, thus rendering possible the cultivation of land along the base of the mountains. The agricultural land of the county is scattered, being in small patches where a stream comes out from the cañons upon nearly level lands. Cattle raising is the chief industry, and irrigation is carried on mainly for the purpose of obtaining hay for winter feed, and to a less extent for pasturage for the stock, which, as a rule, find the larger part of their feed in the higher valleys among the mountains. A comparatively small amount of grain is also raised, as well as some vegetables for home use. The acreage in small grains has diminished during the past few years owing to the lack of markets and to the high freight rates. As a rule, the lands formerly used for grain have been planted to alfalfa or other forage crops and in 1890 were being converted into hay lands.

The crop area as a whole has diminished in size owing to the droughts of 1888 and succeeding years and the unusually severe winter of 1889–1890, during which a great part of the cattle perished, in a few cases as high as 90 per cent. The expense of transportation is so great that with the decline of mining industries farming has hardly held its own ground, and considerable hardship has been experienced by the widely scattered agricultural population. The water supply, as a rule, is in ordinary seasons ample for present needs, except perhaps during the latter part of the year. The ranches being at some distance apart and in most cases each upon its own mountain stream or group of springs, there is little complaint of interference of water rights and consequent lawsuits.

In many localities the storage of spring waters is necessary to insure a constant water supply and an increase of cultivated area. There are a number of excellent reservoir sites in the county, especially on the south fork of the Humboldt, where there is abundance of water from the Ruby mountains; also on Bishop creek and on the headwaters of Mary river and the north fork of the Humboldt, as well as on Susie creek and Maggie creek. There is apparently ample water to fill these reservoirs each year, and if built they will be of value not only to this county but also to lands in Eureka, Lander, and Humboldt counties along the course of the river. In one instance at least storage reservoirs have been constructed and are reported to be a financial success to the owners.

There are a large number of valleys in this county, on the edge of each of which are ranches utilizing nearly all the available water. The principal groups of ranches are those in the vicinity of Tuscarora on the headwaters of the south fork of the Owyhee and of the streams flowing southerly into the Humboldt; also along the east fork of the Humboldt from Wells westerly, along the western side of Ruby and Clover valleys, and on the south fork of the Humboldt. The methods of irrigation practiced in all these localities are of the simplest and least expensive kind. The streams diminish greatly in size or become dry in July, and therefore as much water as possible must be used early in the season. The irrigating ditches are plowed out to a size sufficient to bring water out of the stream bed, in which it is prevented from flowing by rough dams. The higher "sagebrush" lands in general

are planted to alfalfa and the lower to grasses, timothy and red-top doing well on the bottom lands. By the irrigation of the alfalfa on the higher, more porous soil, the lower grounds usually become thoroughly wet and almost swampy in places. It is thus a matter of difficulty to make careful comparisons of cost and values of this kind of irrigation with those where the methods are more highly developed, for here, where thousands of acres are wet by simple diversion of a stream upon the higher edge of nearly level land, it becomes almost impossible to obtain with any exactness the crop area actually irrigated, since the distance the water penetrates and consequent area covered vary greatly with the season and character of the soil.

In 1889 and 1890 following the dry seasons there was great loss of crops in this county on account of the depredations of small burrowing animals called by the farmers "ground squirrels". These hibernate during the winter, but reappear in the spring, destroying large quantities of vegetables and grain, and even injuring the hay crop. The farmers in some localities complain of the wholesale cutting of timber in the mountains, especially on the north fork of the Humboldt, where the larger timber is used for the mines at Tuscarora and the smaller for fuel. They assert that the influence of the destruction of timber is liable to be injurious to the water supply, besides depriving the settlers of the material for fences and such purposes, the amount at present available being already small.

Along the Humboldt river the hay lands depend mainly upon the overflow of the river for the necessary supply of water, and the irrigating ditches, wherever these are built, are small and cheaply constructed, the size and cost being rarely borne in mind by the owners. As examples of the different irrigating ditches of the county may be given the following: Woodward's ditch takes water from Jack creek north of Tuscarora and carries it for a distance of about 5 miles. The bottom width is only 2 feet and the cost is unknown, as the ditch was built by the owner at times when other work was not pressing. Water is taken from the creek by means of a dam of wood and stone, and is conducted around the hillsides without the use of flumes, the ditch being made mainly by the plow. In Ruby valley east of the Ruby mountains, as a characteristic irrigation system may be given the ditches from Dry creek and North creek. The aggregate length of those for one ranch is 4 miles; average width, 2.5 feet, and total cost, $1,500. These ditches belong to an individual farmer, who uses the water freely, without knowledge of the quantity employed. The ditches in this valley are usually only a mile or two in length, and the owners seldom know what has been the actual cost, since many of them have been built for 20 years or more.

On the headwaters of the south fork of the Humboldt, east of Lee, is the Drown ditch, 2 miles in length and 3 feet in width, built in 1872, and not far from this is Schillerstrom ditch, taking water from Rattlesnake creek, built about the same year. It is 1 mile long, 3 feet wide, and cost $500. In this vicinity, as in fact throughout a portion of the state, a great part of the water runs to waste long before the crops need it, for, coming directly from the high mountains, the temperature is so low that it would be injurious to apply the water to the ground on account of chilling the young plants.

Esmeralda county is in western Nevada, lying along the lower state line adjacent to California, and thus having a general northwesterly and southeasterly direction. The northern half of the county is traversed by a narrow-gauge railroad connecting with the Central Pacific at Reno and running south to Owens lake, in Inyo county, California. The east Walker river rises in the Sierra Nevadas, north of Mono lake in California, and, flowing easterly and northerly, crosses the state line into Esmeralda county, and continues northerly into Lyon county, where it joins the west Walker. The main stream flows first north, then east, and finally turns southeast, returning into Esmeralda county, and finally emptying into Walker lake, whose waters escape only by evaporation. The portion of the east Walker which is included within the county lines and the streams immediately tributary to it furnish the greater part of the water supply available for agriculture. A number of small streams, however, issue from the mountains to the east of the east Walker river and furnish a small supply of water for the broad valley to the south of Walker lake.

The situation of this county out in the valleys below the main range of the Sierra Nevadas adds to the difficulties of developing agriculture. The best reservoir sites are on the headwaters of the east Walker, in Mono county, California, and there the waste water of the spring could be held to advantage for use upon the fertile valleys of Esmeralda and Lyon counties. Unfortunately, however,

these valleys in Mono county, California, are owned and occupied by stock raisers, whose interest it is to have the water leave the valleys as early as possible in the spring in order that the grazing may be improved. The claim is made that the inhabitants of Mono county assert their right to control the water until it passes the state line, and it is stated that the irrigators of Esmeralda county have attempted to construct a storage reservoir in Mono county, with the result that the inhabitants of that county have taken control of it to their own advantage.

While the best reservoir sites are in California, the most productive agricultural land is undoubtedly in Nevada, where the altitude of from 4,000 to 5,000 feet is accompanied by a climate favorable for the production of as good crops as any in the country. The water supply, however, is so uncertain that the development of the resources without water storage is impossible. In 1889 the Walker river was dry in Mason valley, owing partially, perhaps, to diversions of water in Mono county, California. Several of the smaller tributaries of the east Walker which rise within the borders of the county can be wholly controlled, and small reservoirs can be constructed upon them, thus obviating any interstate complications, and there are undoubtedly other sites suitable for water storage on the small streams entering the larger valleys, so that many thousand acres can be redeemed even if the better sites in California are not utilized.

As a rule, water is used a little more economically in this county, owing to its scarcity, than in localities further to the north. Irrigation is usually effected by means of small furrows about 30 inches apart or by the check system, small ridges of earth being thrown up to hold the water to a given depth over each part of the field. Along the streams there are a few small meadows where clover, wire grass, and the native red-top receive sufficient moisture to grow, but these are of little importance in comparison with the irrigated forage crop. A great part of the lower ground is impregnated with various mineral salts, often requiring one to three years irrigation before these are washed out. In some of the valleys the concentration of these salts is so great that they become a source of revenue, especially the salts of borax.

The ditches of the county are very small, there being few of notable size. As an example may be given the Elbow ditch, taking water from the east Walker river about 5 miles below Sweetwater. It is taken out on the north side of the river, and follows the base of the mountains for 2 miles. The average width is 3 feet, and the amount of water carried should irrigate 300 acres, but in 1889 it irrigated only about 40. On this part of the river there is usually plenty of water, and the different irrigators take what they wish and turn the rest back into the river.

Eureka county is a little east of the center of Nevada, and comprises a narrow strip extending in a north and south direction, its northern end being crossed by the Humboldt river, along which are a number of ranches. It lies south and west of Elko county, to which it is similar in many respects, a description of the irrigation in that county applying to the condition of affairs in this. It has, however, an advantage over some of the other counties of the state in being traversed by a north and south line of railway, which connects with the Central Pacific at Palisade and extends southerly to Eureka and to the mines at Ruby Hill. This railroad was built for the purpose of transporting mineral products and lumber, and is of less importance to agriculture on account of the high rates for freight. It carries, however, a comparatively large tonnage of hides and wool, and thus is of service to the stockmen. Away from the vicinity of the Humboldt and of Trout and Pine creeks the water supply of the county is very scanty, and the prospects are not encouraging as to future development of agriculture by irrigation.

Humboldt county is in northeastern Nevada, adjoining Oregon, and separated from California only by the comparatively narrow Washoe county. It contains the lower course of the Humboldt river and the greater part of the sink where the waters of this river disappear by evaporation. The surface of the county consists of alternations of short mountain ranges, rising to heights of 7,000 or 8,000 feet above sea level, some of the peaks reaching altitudes of over 9,000 feet. Lying between these ranges are nearly level valleys, the soil of which has been deposited from ancient lakes or has been made by the action of wind and rain in bringing particles from the mountain masses. Among the mountains are many springs, which sometimes unite to form small streams. These brooks and

creeks are swollen during the spring by the melting snow, and their waters flow out upon the desert valley land, but during many months of the year their channels become dry, except high among the cañons.

The principal streams of the county besides the Humboldt are King, Quinn, and Little Humboldt rivers. Quinn river rises in the valley between Disaster peak on the west and the Santa Rosa mountains on the east. It flows southerly through this valley, its channel turning westerly around the northern end of Jackson mountains to Blackrock desert, on the western side of the county. During the time of melting snow a considerable amount of water flows down the channel to the desert, the surface of which is so level that the water spreads out into a large lake many miles in extent, but having a depth of only a few inches. This lake dries again in a few weeks, leaving the desert perfectly arid during the rest of the year.

King river rises in the valley to the west of the headwaters of Quinn river and flows southerly, its channel joining that of Quinn river above Blackrock desert. In flood time, therefore, it contributes its share toward converting the desert into a lake. The Little Humboldt receives its water from the east side of the Santa Rosa mountains south of the headwaters of the Little Owyhee river, a portion of the Columbia drainage. The waters tributary to this stream seldom reach the main channel, although at times of unusual flood the Little Humboldt flows south to the Humboldt, joining it above Winnemucca. It may be said of all the streams of this county that for the brief flood time of spring there is an excess of water which spreads out and fills the low valleys, while for the rest of the year not a drop of water is to be had, except from an occasional spring in the mountains.

The Humboldt river itself is the only exception to this rule as to complete drought during the greater part of the year, for water has flowed continuously in its channel down to the Humboldt sink for 30 years at least, except in 1889. During this year of unusual scarcity the water was entirely used by the ranchmen along the upper courses of the river, little, if any, reaching the lower meadows. For this reason thousands of acres of hay land which had been cropped continuously for some years did not yield sufficient to repay the trouble of cutting. This condition of things may be regarded as unusual, but from the fact that it has occurred once the probabilities are that it will happen again, especially as the tendencies are toward a greater and greater diversion of the water of the tributaries of the Humboldt.

For the reason just given the irrigators along the lower course of the river are anxious to secure some system of storing the excess water of the spring, for they fear that they will be deprived of their supply more frequently in the future. These irrigators having ranches from Winnemucca down to the Big Meadows, where the soil is especially fertile, have as a general rule the first right to the water, but in spite of this fact they are not able to secure the amount to which they are probably entitled by prior appropriation. Lawsuits have been tried, in the hope of compelling irrigators higher up the stream to turn down the water, but this, as is generally the case, has been of little real benefit. It seems practically impossible, in spite of laws or regulations, to compel one man to deliberately destroy his own property by turning away water in order to benefit individuals a hundred miles away who have better legal claims upon the water.

The principal body of irrigated land is along the Humboldt river and down toward the sink. Much of this rich land is very low, and it is hardly necessary to dig ditches to bring water upon it, for the annual rise of the river produces a natural irrigation, and in many cases water is raised and diverted by a dam across the river, causing large areas to be overflowed. Later in the season much of this ground is wet from beneath by seepage through the subsoil. Thus it is exceedingly difficult, if not impossible, to distinguish between the crops raised by irrigation, as the term is commonly employed, from those raised by the perfectly natural methods of overflow and seepage.

The greater part of the land of the county is irrigated for hay, the acreage of cereals and vegetables being almost insignificant in comparison. The size of the ranches is very great, each containing several hundreds or even thousands of acres. On the irrigated land only the heaviest of the hay is cut, and after this is done the cattle are turned in to graze upon the rest. Owing to the extraordinary drought of 1889 probably only a third of the usual hay crop was obtained, the channel of the Humboldt being dry except for occasional springs in the bed. The largest crop area is probably

on the Big Meadows, whose soil is a peat or dried muck with a rich subsoil and having local springs. Only a small portion of this great meadow is under irrigation. In ordinary years there is more than sufficient water for this area, but, on the other hand, in dry years there is not enough.

In Paradise valley, on the Little Humboldt, are a number of large ranches, irrigating hay crops principally, and there are at least 20 ditches taking water from Martin creek, the main tributary of the Little Humboldt. This stream rises among peaks of the Santa Rosa mountains, whose heights are upward of 8,000 feet, and therefore it receives a comparatively large amount of water. Also on the headwaters of Quinn river there is some irrigation for the purpose of raising feed for cattle and for small patches of grain and gardens. It may be said that all the natural supply of this river has long since been appropriated. Besides these localities are several places, as in Pleasant valley, south of Winnemucca, where irrigation is carried on near the foot of the mountains.

As an example of the ditches of this county may be given Meacham's ditch, taking water out upon the east side of the Humboldt river about 10 miles below Mill city and running in a southerly direction for 4 miles. It is 8 feet wide, and cost, including a permanent dam, about $15,000. In 1889 there was no water in the river, and therefore no land was irrigated. Owing to the lack of regulation of the stream, the irrigators are either short of water, as in this case, or their fields are drowned by an excess. The Old Channel ditch receives water from the west side of the Humboldt river, about 5 miles above Lovelocks, and follows through an old slough, at one time the channel of the river. This ditch is 7 miles long, 8 feet wide, and cost about $10,000. The water is diverted from the river by a dam of timber cribwork filled with stone, these cribs being 52 feet in length, pointed at each end, and with floodgates between each crib, raising the water in all about 10 feet. Each farmer has constructed his own works, and owing to lack of capital and system the expense in the aggregate has been very great, since the works have been washed out in every year of high water.

The Last Chance ditch takes water from the Humboldt river about a mile below the Old Channel ditch and on the same side. The total length is a little over 7 miles, average width 8 feet, and cost about $12,000. The dam is made of rock and willows, and is intended to be permanent. There are a number of other ditches in this vicinity similar to the two above described, many of these crossing in an intricate network. The ditches are all owned by farmers, who have altogether spent an immense amount of labor upon them, principally in the shape of annual repairs.

Lander county is nearly in the center of Nevada, lying southeast of Humboldt county. Like Eureka county, it extends in a general north and south direction, and is traversed by a railroad running from Battle Mountain, on the Central Pacific, to Austin, the headquarters for the mining and stock raising trade of that part of the state. The Humboldt river crosses the northern end of the county, and Reese river flows from the south, in time of flood contributing to the Humboldt. During the latter part of the summer, however, and in the fall the river channel is dry at some distance above the junction of these two streams. There are thousands of acres of fertile land along Reese river, but for which there is no apparent supply of water. From the headwaters downward the stream in times of low water disappears in the sandy channel, water reappearing at various points where springs rise in the bed or sides.

Cattle ranches are scattered throughout the county wherever there is water to be found for the stock, and all the streams are utilized in most seasons to their full extent for flooding the hay crops. In Smith Creek valley, and also in Reese valley near Battle mountain, are flowing wells of a depth of 150 to 750 feet. The water from these wells is used for stock, and the excess is allowed to flow out upon the ground, watering 1 or 2 acres of grass, or occasionally small gardens. Along the Humboldt river are places, as in Eureka and Humboldt counties, where by the spring overflow of the river crops of hay are raised.

Lincoln county is in the southeastern corner of Nevada, adjoining Utah, Arizona, and California. It extends from the Colorado river northerly half the length of the state, thus embracing on the south a great portion of the lowest part of the state, areas of considerable size near the Colorado river being below an altitude of 2,000 feet. The annual rainfall is very small, being from 8 inches down to less than 1 inch. The average for over 5 years at Pioche, where the altitude is about 6,200 feet, has been

6.50 inches. The southern and lower portions of the county are thus exceptionally dry, and the climate is semitropical in character, so that wherever water can be obtained the more valuable fruits can be raised, as well as cotton and sugar cane.

The principal agricultural settlements are along the Pahranagat valley; also along Muddy river, which flows into the Virgin, and on the Virgin river. The water supply of the Pahranagat valley is derived from a number of large springs which rise at intervals along the mountains. The most northerly of these is known as the Hiko spring. About 5 miles south of this are the Crystal springs, and south of these Ash spring. The farming land lies in a narrow belt about 30 miles long and less than a mile in width. The springs deliver a nearly constant supply of warm water, which flows down the valley and forms a lake at the southern end. The lowest land was formerly a marsh, and required draining, followed by irrigation; in fact, the farmers on the lowest ground complain that for a large part of the year their land is under water, while the rest of the year they may suffer from drought. Above the low bottom land is a broad bench, the natural grass of which furnishes excellent grazing for cattle during certain seasons of the year. If the water of the springs could be conducted out upon a portion of this bench by means of well-built canals, doubtless a larger area of better land could be brought under cultivation. With the present lack of markets, however, and the impossibility of transporting the produce, it is doubtful if such projects would repay their cost. At present the principal occupation is stock raising, and only sufficient of the small grains, vegetables, and fruits is raised to supply local consumption. With the construction, however, of a through line of railroad from Salt Lake city to the coast, agricultural operations should be greatly stimulated.

Along the Muddy river, in the vicinity of Moapa and Overton, are a number of ranches, on each of which a small amount of grain is raised. There are also about 200 Indians belonging on the reservation, some of whom raise wheat, barley, and vegetables, having upward of 20 acres each in a few instances. These Indians, however, are very poor and roam from one settlement to another seeking work, the ordinary wages, it is stated, being 50 cents a day and board.

On the Virgin river the farms in the vicinity of Bunkerville are in many ways similar to those in Washington county, Utah. The bed of the river is constantly changing, rendering irrigation difficult and expensive, and the occasional heavy summer storms not only destroy crops, but even wash away portions of the agricultural land. The climate, however, is so favorable that the most valuable crops can be raised with success, and five cuttings of alfalfa can often be obtained.

In this hot climate water must be used with great care on account of the presence of alkaline salts in the soil. In many cases the water can not be applied directly to the surface, for on evaporating it leaves a thin crust, through which the young plant can not penetrate. The water is applied by means of small ditches or furrows, covering the field, at intervals of 30 or 40 feet, the water saturating horizontally the intervening space, but not wetting the surface.

As an example of the ditches of the county may be given Frenchey ditch, taking water from the Crystal springs and carrying it a distance of 1 mile. It is 3 feet wide, and is owned by one man, as is the case with the other ditches in the neighborhood, each belonging to the owner of the ranch to which it takes water. The Richard ditches take water from Ash spring. The total length is 2 miles; average width, 5 feet; cost, about $500. Another ditch from these springs is 3 miles long; the average width is 6 feet, and cost $1,200. Near Moapa the Harris ditch takes water from the Muddy river and carries it for a distance of about 2 miles. The average width is 3 feet, and cost about $2,000. The ditch should irrigate 300 acres, but in 1889 it irrigated only 27.

Lyon county is in western Nevada, a portion of it lying between Douglas and Esmeralda counties, the greater part, however, being to the east of the cities of Carson and Virginia. It is a curiously irregular county, being in general form somewhat the shape of a four-pointed star, one narrow projection running northward to the Central Pacific railroad, another westward up the Carson river to the quartz mills, the third eastward along a portion of the lower Walker river and out upon the desert south of Carson lake, and the fourth projecting southwesterly up the main Walker and the west Walker for a portion of its course, and then, leaving the river, continuing in a narrow strip to the state line of California. It thus includes Smith valley on the lower part of the west Walker river, Mason valley on the main Walker, and Churchill valley on the Carson.

The principal agricultural areas are in Mason valley, where the east and west Walker rivers unite. Here the altitude is a little under 4,500 feet, and the climate, as in many of the valleys of Nevada, is highly favorable for fruits, as well as for various field crops. In Mason and Smith valleys large areas are irrigated for alfalfa, two or three cuttings per year being obtained, and in many cases the cattle find pasturage on these same fields in early spring or late fall after the crop season. There being little or no market for this alfalfa, it is fed for dairy purposes or for raising beef cattle. The yield per acre is generally from 5 to 6 tons. Some of the finest wheat in the country has been raised in Smith valley, as shown by the awards at the world's fair at New Orleans.

The lack of transportation facilities retards the development of these valleys. The land at present under cultivation is in area almost insignificant beside that which might be cultivated by a better supply of water. The amount from the Walker river is nearly all utilized during the latter part of the crop season, and in years of drought there is scarcity for the land now cultivated, as, for instance, in 1889, when there was great loss, particularly in the second crop of alfalfa. As is the case along the Truckee and Carson rivers, water storage seems to be the main hope of the irrigators, although there appear to be no present prospects of any of the schemes being realized, from the fact that the best storage sites are across the state line in California. Water for use in Smith valley might possibly be held by a reservoir on or near the west Walker river, in the lower end of Antelope valley, and in the same way that for Mason valley in the lower end of Smith valley.

The ranches are mainly in the hands of a few persons owning large acreages, and the tendency seems to be to increase the average size of irrigated crop per farm rather than to diminish it. It is almost impossible for a settler to come in and take out a new ditch to supply his land, and the expense of buying rights in an old ditch is too great for a poor man. As in other valleys, a large amount of land is held for stock raising or for speculative purposes, so that the population increases very slowly.

Along the Carson river in Churchill valley are a few irrigated areas, the principal crop being alfalfa. For these low, level lands there is often an excess of water in the latter part of May or early in June, followed by a drought later in the season. Storage could undoubtedly be provided for this flood water by utilizing some of the reservoir sites higher up the stream, in particular that in the lower end of Carson valley in Douglas county. The quartz mills along the river from Empire to Dayton, up stream from these agricultural lands, have first claims to the water, and the efforts of these mill owners to secure an ample supply during periods of drought will be of benefit to the agricultural land below, since the water, after being used for power, is returned to the river. There is, however, a conflict of interest between the irrigators in the Carson valley above the mills and the irrigators further down, the development of agriculture in the upper valleys tending to decrease the supply for the lower.

As an example of the ditches of this county may be given the Weston and Campbell ditch, taking water from the main Walker river and carrying it northerly toward Wabuska. It is 8 miles long, averages 8 feet wide, and is owned by private parties, sharing the water among themselves. The Dayton Ditch Company takes water from the Carson 1.5 miles above Dayton, carrying it out on the south side for a distance of 5 miles, covering land in the vicinity of Dayton. The average width is 6 feet, and cost about $10,000. There are 3 reservoirs on this ditch, each holding an amount of water equivalent to that usually flowing during 12 hours in the ditch. By this means the water flowing during the night is held for use on the next day. The Hougham and Howard ditch takes water from the Carson river about 16 miles below Dayton and carries it out on the north side for a distance of about 5 miles. The average width is 8 feet, and cost probably $5,000. The water is taken from the river by a permanent dam 6 feet in height, raising the water so that it flows into the ditch. The water in the river at this point has never completely failed, although it has been reported as having done so both above and below.

Nye county is in south central Nevada, extending from the headwaters of streams tributary to the Humboldt southward to the California line. It embraces a great area of rough mountain ranges and nearly level barren valleys, whose only perennial water supply is from an occasional spring of cold or hot water, often charged with mineral matter. In April and May, when the snow melts upon the high ranges, streams are formed which rush down the sides and out upon the valleys, forming short-lived lakes or marshes. During these months vegetation springs up and affords excellent pasturage

for live stock. Wherever water can be had for cattle to drink, there the hardy ranchman has taken up his abode. If there is sufficient water for irrigation, various forage crops are raised for hay for winter feed; also small areas are planted to wheat, barley, oats, and vegetables. Among the mountain ranges are large deposits of mineral wealth, but the difficulty of transportation renders these almost valueless at present.

The principal crop areas are in the northern end of the county, where the altitude is higher and the water supply more abundant. On the headwaters of Reese river, which flows northerly through Lander county, there are 20 or more ranches from the source of the river down to Austin. The water in this stream usually begins to fail about the middle of June, and is short at the time when most needed, in July. The altitude of this valley is from 6,000 to 7,000 feet; the seasons vary from one year to another, and irrigation sometimes begins in early April, or in other years on the first of May. The water supply for this valley, as well as for that lower down in Lander county, could be improved materially by storage, but it is questionable whether with the present value of products this would be profitable.

In Big Smoky valley, to the east of Reese river, there is a small amount of irrigation from springs and from creeks which flow in the early part of the year. The seasons, however, are short, and the valley is cold and subject to frosts. In the eastern end of the county, on Duckwater creek and White river, are a few ranches, the altitude here being a little less than in Big Smoky valley. In the southern end of the county is the great Ralston desert, south of this the Amargosa desert, and southeast of this Pahrimp valley, where there are a number of ranches. The altitude of this valley is less than 4,000 feet, and it has a comparatively good water supply in a few localities by the drainage from Charleston peak, which rises to an altitude of over 8,000 feet.

The ditches of this county are all small, being taken mainly from springs or from the fluctuating mountain torrents. As an example may be given the Gooding ditches, taking water from the west side of the Reese river. The total length is 2.5 miles; width, 3 feet; cost, about $250, and area irrigated nearly 200 acres.

Ormsby county includes a small area on the western side of Nevada, extending easterly in a narrow belt from Lake Tahoe on the west across the Tahoe range and Eagle valley to the Pinenut mountains. It is the smallest county of the state, comprising only 144 square miles, the greater part of this being mountainous. It includes the state capital at Carson, and in population ranks third in the state. The agricultural land of the county is mainly on the west side of Eagle valley, at an altitude of from 4,600 to 5,000 feet. The water supply is derived from streams flowing easterly from the Tahoe range, the principal of which are those in Ash and King cañons, and also Clear creek. A number of small farms are cultivated by the use of several of the cold or warm springs which occur in the valley.

The Carson river flows through the eastern part of the county, mainly in cañons, and its waters are not used to any considerable extent in this county. A large increase of agricultural area can be rendered possible only by the construction of storage reservoirs mainly to the west of Eagle valley. By providing efficient storage the lands in Eagle valley, especially those on the eastern side, now unutilized and worth from $1.25 to $5 per acre, would be worth from $25 to $50 per acre. There are a number of sites suitable for water storage, but the expense of construction, doubts as to permanence of title to the stored water, and questions as to financial success, as well as the general lack of co-operation among the land owners, have retarded developments in this line. In general, it may be said that those irrigators having a supply of water sufficient for present needs do not fully appreciate the necessity of increasing the water supply, while the farmers who do not have ample water are often too poor to materially aid such projects.

Storey county comprises a small triangular-shaped area of mountainous country lying south of the Truckee river and east of the Washoe range. It is wholly a mining region, agriculture and stock raising having little or no importance in comparison with the mineral wealth. In its southern point are Virginia and the celebrated Comstock mines, from which it is estimated over $340,000,000 in gold and silver has been taken, half of which at least was profit. The population of the county

is concentrated at Virginia, the population of that place, viz, 8,511, being nearly one-fifth that of the entire state.

WASHOE COUNTY extends in a long, narrow strip along the western edge of Nevada from Oregon nearly to Carson, the capital of the state. The principal part of the tilled land, as well as the population, is in the extreme lower end of the county, in the vicinity of Reno, on the Truckee river. The greater portion of the county north of this point is composed of irregular mountain areas surrounded by nearly level plains made by the sediment deposited from the waters of the ancient Lake Lahontan. The soil is rich in many places, but the water supply is scanty and wholly insufficient for the needs of an agricultural population. The county also contains Pyramid lake, one of the two bodies of saline water into which the Truckee empties.

The land under cultivation is principally in the vicinity of Reno on the Truckee meadows, extending southerly up Steamboat valley. Water is derived from the Truckee river and from the small streams which flow easterly from the Tahoe range. The lower lands are wet partially by direct irrigation from ditches, but also in an indirect manner by seepage and by overflow during the spring floods.

In Lemmon and Spanish Springs valleys, lying north and northeast of Reno, are thousands of acres of fertile land unutilized for lack of water. It is possible to bring under cultivation a large portion of this rich land by a system of storage of the waters of the Truckee river and by high line canals leading from the river or from these storage works. In Spanish Springs valley high line canals are already constructed or projected, but in the case of Lemmon valley the expense will be very great, and it is not probable that enterprises will be inaugurated for many years, from the fact that much of the land belongs to individuals who can not co-operate in a project requiring such enormous capital, and also because many of the necessary storage sites are within the state of California and are owned by persons who hold them at high prices. The amount of land under irrigation, however, can be greatly increased, first, by a more careful utilization of the amount available from the Truckee, and second, by making use of smaller storage sites within the state of Nevada, particularly those near the base of the mountains.

The irrigators in this county look toward Lake Tahoe as the great reservoir site, and believe that future development will rest largely upon the utilization of this lake; but for the reasons previously given, viz, the relatively great area of the lake and small drainage to it, as well as the fact that the outlet lies in California and is controlled in the interests of lumber men, it seems highly improbable that the county will receive as much benefit from this lake as from smaller projects. Water storage has been begun in a small way by making use of Washoe lake. A stone dam has been built across the outlet and Galena creek diverted by a ditch about 6 miles in length, so that the surplus water of that creek can be turned into the lake. The cost of this enterprise has been a little over $11,000. The principal obstacle in this case was in the fact that the land around the lake is owned by private parties, each of whom was injured to a greater or less extent by raising the surface of the lake. Other storage schemes for holding water among the foothills have not as yet been attempted on any extended scale.

On the hills and lower mountains is a natural grass, excellent for grazing and furnishing pasturage for large numbers of sheep and cattle. In many of the valleys in which water is too scarce for irrigation the small amount available is sufficient for stock ranging upon the hills. In some places wells have been successfully put down, as, for example, in Lemmon valley, where windmills are used for raising the water for cattle. Large quantities of alfalfa are raised for winter feed for the stock, two and sometimes three cuttings being made in a season. It is irrigated three or four times for a crop, while wheat is usually irrigated four times, potatoes five times, and garden vegetables still more frequently.

There are a number of large irrigating ditches in the vicinity of Reno, each taking water from the Truckee and carrying it north or south of the river in nearly parallel courses. The waters of the higher ditches tend to pass by seepage toward the lower, and probably increase the amount in the lower ditches to a small extent. Taking the principal ditches in order, those on the north side are the

Highland, Orr, Sullivan, and North Truckee, and on the south side the Steamboat, Last Chance, Lake, South Side, and Cochran.

The Highland ditch, which heads about 9 miles above Reno, is 15 miles long, 9 feet wide on top and 6 feet wide on bottom, with an average depth of 3 feet. Its capacity is estimated to be 32 second-feet, irrigating 1,200 acres. The Orr ditch heads about 4.5 miles west of Reno and flows in a general northeasterly direction through a portion of the town, the total length being about 9 miles. The top width is 12 feet; bottom width, 8 feet; depth, 4 feet, and capacity estimated to be 77 second-feet, irrigating 2,600 acres. There are two extensions of this ditch, the Orr Eastern ditch and the Orr and Hayden ditch. It is estimated that the land under this ditch requires about 1 miner's inch of water to the acre, a greater amount being used upon new land. Water is delivered to the distributing ditches through measuring boxes, the amount being apportioned according to the estimated number of miner's inches. The pressure is usually taken as being 6 inches measured above the center of the opening, viz, in the case of a box 10 inches wide, if the gate is raised vertically 2 inches, the water should stand 6 inches above the center of this opening or 7 inches from the bottom of the box in order to deliver 20 miner's inches. The ownership is divided into 248 shares, at an estimated value of $200 per share, each share entitling the owner to 10 miner's inches. Many of the shareholders do not own land, but rent the water to other persons.

The Sullivan ditch begins in the town of Reno and carries water northeasterly about 4.5 miles. The width is about 7 feet, and the cost was approximately $6,500. The ditch is owned by private parties, who divide the water proportionally among themselves. The North Truckee ditch heads about 2.5 miles east of Reno and runs northeasterly for about 10 miles. The width is 9 feet, and the cost approximately $5,000. The ditch is owned by farmers, who have formed a corporation.

The Steamboat ditch takes water from the south side of the Truckee 15 miles above Reno and carries it along the river and southerly toward Steamboat valley, a distance in all of over 30 miles. Its capacity is reported to be 65 second-feet. The South Side irrigating canal heads about 3 miles west of Reno and carries the water in a general easterly and southerly direction for a distance of 9 miles. The width is 6 feet, and the cost about $15,000. The ditch is owned by irrigators, and the water is divided according to the number of shares owned by each individual, one share entitling the owner to approximately enough water to irrigate an acre. The Cochran ditch heads in Reno and carries the water southerly for about 8 miles. The width is 6 feet, and cost about $7,000. The first cost of water right is estimated to have been from $5 to $25 per acre, and the annual cost about 25 cents per acre.

These statements will serve to give a general idea of the size and cost of the ditches of this county. The laws of the state require that each ditch owner shall file a sworn statement giving a description of the ditch, its dimensions, capacity, grade, land irrigated, and other information from which data can be obtained as to the extent of appropriation of water. The statements regarding the capacity of the ditches are, however, open to question, being in general largely in excess of the amount of water actually carried.

White Pine county is on the eastern side of Nevada, adjoining Juab and Millard counties, Utah. The valleys are at an elevation of from 6,000 to 7,000 feet, and the climate in many of them is too cool and frosty for agricultural success every year. The water supply is very limited, and wherever a spring is to be found its waters are employed to their full extent for the irrigation of alfalfa and grass, and to a less extent for produce for home consumption. The population is scattered in the numerous valleys; in Steptoe valley, for example, the ranches are from 1 to 10 miles apart, each being near some small creek flowing from the mountains.

The tilled areas are mainly in the vicinity of Cold creek in the northwestern corner of the county, in Newark valley near Eureka, near Cherry creek or Schellbourne in the northern end of Steptoe valley, and all along down toward Taylor in the southern end of the valley. South of Cherry creek are the Campbell ditches, taking water from Warm springs. The total length is 6.5 miles; average width, 3 feet; cost, $2,000, and area irrigated about 1,200 acres, most of this being hay. This is a fair example of the small ditches owned by the various ranchmen, depending upon springs for water supply.

[7-010]

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TRANSPORTATION.—RAILWAY STATISTICS.

GROUP VIII: MISSOURI SOUTH OF MISSOURI RIVER, ARKANSAS, KANSAS, INDIAN TERRITORY, COLORADO SOUTH OF DENVER, AND NEW MEXICO NORTH OF SANTA FE.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., January 28, 1892.

The statistics in this bulletin furnish an exhibit of the operation of railways for the years 1880 to 1889, inclusive, for that portion of the territory designated as Group VIII. The territory embraced in this group is as follows: Missouri south of the Missouri river, Arkansas, Kansas, Indian territory, Colorado south of Denver, and the territory of New Mexico north of Santa Fe.

The statistics herewith presented were collected by Mr. W. W. MAYBERRY, special agent, under the direction of Mr. HENRY C. ADAMS, special agent in charge of the Division of Transportation.

The summary of several items of interest pertaining to the transportation business of that portion of the territory covered by this bulletin for the years 1880 and 1889 is herewith presented:

ITEMS.	1889.	1880.
Number of passengers carried	11,343,176	2,907,262
Number of passengers carried 1 mile	670,947,052	231,075,835
Tons of freight moved	21,348,182	6,499,165
Tons of freight moved 1 mile	3,737,366,191	1,083,244,484
Earnings from passenger service	$21,083,548.85	$9,867,376.29
Earnings from freight service	$52,719,583.52	$27,890,883.24
Total earnings and income	$77,567,301.09	$38,766,157.34
Total expenditures	$75,942,078.40	$36,161,556.10
Length in miles of all lines operated	16,859.49	6,923.40
Total number of employés	52,905	14,801
Number of cars in passenger service	1,741	548
Number of cars in freight service	63,755	19,106
Number of locomotives	2,428	753
Number of stations on all lines	2,095	762
Receipts per mile per passenger (cents)	2.574	3.432
Receipts per mile per ton of freight (cents)	1.392	2.483

Immediately following the text will be found 7 tables which give facts pertaining to mileage, equipment and stations, employés, business done, earnings and income, expenditures, and operating expenses.

Robert P. Porter
Superintendent of Census.

(7069—10,000)

TRANSPORTATION ON RAILWAYS IN GROUP VIII.

STATISTICS FOR THE 10 YEARS ENDING 1889.

BY HENRY C. ADAMS.

This bulletin is the eighth of a series of 10 bulletins to be issued by the Census Office giving in statistical form the operations of railways in the United States for the years 1880 to 1889, inclusive. The numbers of the bulletins already issued in this series are, for Group I, No. 46; for Group II, No. 115; for Group III, No. 120; for Group IV, No. 149; for Group V, No. 151; for Group VI, No. 155, and for Group VII, No. 160.

The territory covered by this bulletin embraces the states of Missouri south of the Missouri river, Arkansas, Kansas, Indian territory, Colorado south of Denver, and the territory of New Mexico north of Santa Fe. It includes also that portion of Texas north of a line drawn from Santa Fe to the southwest corner of Indian territory. Immediately following the text will be found 7 tables, from which the summaries are derived. The titles of these tables are as follows:

Table I. Mileage.
Table II. Equipment and stations.
Table III. Employés.
Table IV. Business done.
Table V. Earnings and income.
Table VI. Expenditures.
Table VII. Operating expenses.

The most important fact disclosed in the statistics of railways in Group VIII pertains to the increase in mileage during the years 1887 and 1888. Whether one considers the efficiency of equipment or of employés in transportation of freight and passengers, the receipts from freight and passenger traffic per mile of line, or any other fact which gives the character of the industry of transportation, the workings of the abnormal increase in mileage in 1887 may be seen clearly. It should also be remembered that several of the important lines running within the territory of Group VIII are practically extensions of lines which have Chicago connections, and the administration of these lines is influenced in large measure by the policies which control the great lines. There is, however, a very considerable traffic carried on over the roads which run north and south, securing an outlet for produce at Galveston and New Orleans.

TABLE I—MILEAGE.—This table shows, in addition to single-track mileage, the length of line operated, and classifies this mileage as line owned by the operating company or line leased by the operating company. It also shows the length of line operated under trackage rights.

The length of single-track mileage in 1880 was 6,922.40; in 1889 it was 16,443.21 miles, showing an increase in railway mileage during the 9 years of 137.54 per cent. As already stated, the greatest increase occurred in 1887, when 2,689.24 miles were added, being equal to an increase of 23.88 per cent over the mileage in 1886. By comparing the percentage of annual increase for each of the 9 years which make up the table, it will be observed that the business of railway construction shows marked fluctuations. Thus, in 1881, 1882, and 1883 the percentage of increase in railway mileage was 16.03, 13.79, and 14.38 per cent, respectively. In 1884, 1885, and 1886 the percentage of increase in railway mileage was 2.64, 1.48, and 3.42, respectively. Immediately following these 3 years of quiet in railway building, the years 1887 and 1888 show an increase

in railway mileage of 23.88 and 13.36 per cent, respectively. In 1889 the percentage of railway construction again falls to 3.97 per cent. A contemplation of such results suggests that the needs of those who live in the territory under consideration had very little to do in determining the amount of mileage that should be constructed. This may perhaps account somewhat for the complaints which have been urged against the administration of railway affairs in this territory.

TABLE II—EQUIPMENT AND STATIONS.—In this table will be found a statement of the equipment of railways, showing the number of engines and cars of the various classes used. The cars of companies other than railway companies for which railways pay mileage are not included in this statement.

TABLE III—EMPLOYÉS.—This table shows the total number of men employed on railways in the territory covered by the bulletin, and classifies these employés so as to show the number of men engaged in maintenance of way and structure, maintenance of equipment, conducting transportation, and in general administration. Following the plan of the previous bulletins of this series, there is inserted immediately below a table which assigns equipment to length of line operated and to the amount of traffic carried. In this manner the facts contained in Tables II and III are brought into shape so as to be easily appreciated.

ASSIGNMENT OF EQUIPMENT TO LENGTH OF LINE OPERATED AND AMOUNT OF TRAFFIC CARRIED FOR 10 YEARS, 1880 TO 1889, INCLUSIVE.

ASSIGNMENTS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	For all roads in the United States for 1889.
Engines per 100 miles of line	11	13	15	13	14	14	14	14	14	14	19
Freight engines per 100 miles of line	6	7	8	8	8	8	8	8	8	8	10
Passenger engines per 100 miles of line	4	5	5	4	5	5	5	5	5	5	5
Cars in freight service per 100 miles of line.	278	368	375	343	344	345	347	348	360	379	557
Cars in passenger service per 100 miles of line.	8	10	11	10	10	10	10	10	11	10	17
Tons freight carried per freight engine.	17,613	15,729	12,309	14,492	15,495	16,185	18,320	19,728	15,516	16,210	35,643
Ton miles per freight engine	2,951,620	2,987,929	2,322,004	2,676,228	2,771,917	2,887,705	3,175,305	3,389,410	2,797,877	2,842,104	4,538,786
Passengers carried per passenger engine.	10,848	10,391	10,424	12,230	13,529	14,921	14,923	15,638	13,620	13,749	58,444
Passenger miles per passenger engine	862,223	904,641	860,027	923,404	870,459	920,923	1,023,295	999,777	853,588	814,256	1,430,105
Freight cars per 1,000,000 tons freight carried.	2,810	3,433	3,713	3,080	2,845	2,655	2,368	2,300	2,971	2,946	1,583
Passenger cars per 1,000,000 passengers carried.	180	208	217	185	161	144	146	139	161	151	54

The influence of the abnormal extension of railway mileage in 1887 is observed in the figures presented in the above summary. Thus, the number of tons of freight carried per freight engine, which between the years 1882 and 1887 had risen from 12,309 to 19,728, is observed to have fallen in 1888 to 15,516, and the number of ton miles per freight engine, which in 1887 was 3,389,410, is in 1888 2,797,877. Passenger traffic also exhibits the same tendency. The number of passengers carried per passenger engine in 1887 was 15,638, being the highest number during the period covered by the report. In 1888 it fell to 13,620, and the number of passenger miles per passenger engine, which in 1886 was 1,023,295 and in 1887 999,777, fell in 1888 to 853,588. Doubtless other causes contributed to this result, but it can hardly be denied that the addition of 2,689.24 miles of line in 1887 is largely responsible for it.

The same conclusion is reached by examining the two summaries following, the first of which shows the number of employés per 100 miles of line operated, and the second the amount of traffic for which the employment of 1 man assigned to "conducting transportation" is necessary.

NUMBER OF EMPLOYÉS PER 100 MILES OF LINE OPERATED FOR 10 YEARS, 1880 TO 1889, INCLUSIVE.

CLASSIFICATION.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Total	319	383	364	374	327	325	389	347	322	316
Maintenance of way and structures	120	145	133	131	120	118	150	141	125	114
Maintenance of equipment	74	90	90	90	74	75	82	73	65	65
Conducting transportation	108	128	122	134	116	115	138	116	112	114
General administration	17	20	19	19	17	17	19	17	20	23

AMOUNT OF TRAFFIC FOR WHICH EMPLOYMENT OF 1 MAN ASSIGNED TO "CONDUCTING TRANSPORTATION" IS NECESSARY.

NATURE OF TRAFFIC.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Tons of freight carried	917	836	824	829	1,049	1,130	1,058	1,306	1,080	1,126
Tons of freight carried 1 mile	153,391	158,747	155,502	153,142	187,637	201,627	183,463	224,270	194,903	197,473
Passengers carried	410	372	405	403	533	601	509	652	600	599
Passengers carried 1 mile	32,587	32,298	33,392	30,449	34,294	37,112	34,899	41,674	37,596	35,451

In judging of the above summaries, it must be remembered that the number of employés, as shown in Table III, following the text of this report, which in 1886 was 35,718, increased in 1887 to 46,052; in 1888 it increased to 49,531, and in 1889 to 52,905. But notwithstanding this rapid increase in the number of employés there is observed to be a decrease in the number employed per mile of line. Thus, in 1886 the number of employés per 100 miles of line was 389; but during the 3 years following it fell to 347, 322, 316, respectively. It must be admitted, however, that any argument based upon the total number of employés should be scanned with care, since one can not be sure whether the men engaged in the construction of new lines are classed under the head of "maintenance of way and structure" or not. On this account the second of the above summaries may be accepted as the more satisfactory, since the class of employés used as a basis in this summary embraces employés engaged directly in "conducting transportation".

By referring to these summaries one may observe the influence of the abnormal increase in mileage. In this case the figures to be compared are those given for the years 1887 and 1889, since the actual tonnage in 1888 was less than in 1887, while the tonnage in 1889 was considerably larger than in 1887. Holding this in mind, it is significant to observe that the ton mileage for which the service of 1 man assigned to "conducting transportation" was necessary in 1887 was 224,270 and in 1889 197,473. This certainly indicates a decrease in the unit of economy, resulting from the unusual increase in railway property, and one is quite prepared to discover that gross earnings per mile of line, which in 1887 were $5,012.90, fell in 1889 to $4,395.84, and that receipts per mile per ton moved increased from 1.389 cents in 1887 to 1.392 cents in 1889.

These facts would seem to indicate that if the public is interested in the economy of traffic and cheap rates, it is also interested in controlling the amount of railways built.

TABLE IV—BUSINESS DONE.—This table shows the amount of business done by railways in Group VIII, and exhibits the number of tons of freight moved, the number of tons of freight moved 1 mile, the number of passengers carried, the number of passengers carried 1 mile, freight train mileage, passenger train mileage, and all other mileage.

By reference to the table it appears that the number of tons of freight moved has increased from 6,499,165 in 1880 to 21,348,182 in 1889, being an increase of 228.48 per cent. The increase in the number of tons moved 1 mile is even more marked, being 245.02 per cent greater in 1889 than 1880. This shows that at present through traffic is even more important to railways in Group

VIII than it was 10 years ago. This is significant, as it is doubtless due in large part to the situation of these railways in the territorial center of the United States.

On the other hand, the development of passenger traffic shows an opposite tendency. Thus, in 1880 passengers were carried to the number of 2,907,262, and in 1889 to the number of 11,343,176, being an increase of 290.17 per cent. The increase in the number of passengers carried 1 mile during the same period was 190.36 per cent. This indicates a relative increase in the amount of local passenger traffic during the 9 years covered by the report.

TABLE V—EARNINGS AND INCOME.—In this table will be found a statement of the earnings accruing to railways in Group VIII on a basis of business done and the income arising on account of corporate investments. The earnings are classified as earnings from freight service and earnings from passenger service.

The table shows that the total gross earnings have increased from $37,758,259.53 in 1880 to $73,803,132.37 in 1889, being an increase of 95.46 per cent. The earnings from freight service during the same period increased by 89.02 per cent; the earnings from passenger service increased by 113.67 per cent. Gross amounts, however, are of slight importance. Immediately following will be found a summary which assigns earnings from freight and passenger service to the length of line operated.

EARNINGS FROM FREIGHT AND PASSENGER SERVICE ASSIGNED TO MILEAGE OF OPERATED LINE.

EARNINGS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
From freight service per mile of line	$4,112.09	$4,386.91	$4,105.18	$3,955.95	$3,918.17	$3,867.00	$3,976.76	$3,609.09	$3,009.97	$3,140.07
From passenger service per mile of line	1,454.79	1,641.04	1,583.77	1,392.29	1,349.02	1,379.32	1,432.36	1,403.81	1,213.47	1,255.77
Gross earnings from operation per mile of line	5,566.88	6,027.95	5,688.95	5,348.24	5,267.19	5,246.32	5,409.12	5,012.90	4,223.44	4,395.84

From the above summary it appears that with the exception of the year 1881 there has been a constant decrease in the earnings of Group VIII per mile of line. Since this is not traceable to the amount of business done, it must be explained either by an abnormal increase in mileage or a decrease in charges for freight and passenger traffic. By a study of the data presented in this bulletin it is safe to say that the decrease in earnings per mile of line up to and including 1886 is traceable to both of the causes mentioned, but that the further decrease from 1887 to 1889, inclusive, is traceable to the abnormal increase in railway mileage. By referring to the following summary, which shows the receipts per mile of line for freight and passenger traffic, it is observed that the average receipts in 1889 exceed those in 1887:

RECEIPTS PER MILE FROM FREIGHT AND PASSENGERS.

YEARS.	Receipts per mile per ton moved.	Receipts per mile per passenger carried. (a)
	Cents.	*Cents.*
1880	2.483	3.432
1881	2.157	3.291
1882	2.156	3.216
1883	1.923	2.825
1884	1.808	2.828
1885	1.669	2.684
1886	1.566	2.461
1887	1.389	2.413
1888	1.378	2.390
1889	1.392	2.574

a Deduct 17 per cent from passenger earnings for mail and express.

The figures given above show a quite satisfactory reduction for the receipts from freight and passenger traffic. However, they are yet considerably in advance of the average receipts in the United States as a whole, which for passenger traffic were 2.165 cents per passenger per mile

and for freight traffic 0.922 cent per ton per mile. Whether the slight increase in 1889 is permanent or not can not be told. Figures in possession of the Census Office show, however, that the receipts per unit of traffic for both freight and passenger traffic are higher in 1890 than in 1889.

TABLE VI—EXPENDITURES.—This table presents an exhibit of the total expenditures incurred by operating companies. These expenditures are classified as operating expenses, interest on funded debt, rentals, taxes, dividends, and miscellaneous. It also shows the surpluses and deficits accruing on a basis of each year's operations.

It will be observed by turning to Table VI that the increase in operating expenses in 1889 over operating expenses in 1880 is equal to 138.05 per cent. The increase in earnings from operations during the same period, as shown by Table V, is equal to 95.46 per cent. From this it appears that the margin of net earnings has been narrowed during the period covered by the report. Interest on funded debt has not increased, however, at a rate commensurate with the increase in earnings. Thus, the increase in the interest payments of 1889 over the interest payments in 1880 is equal to 86.84 per cent. Rentals and taxes do not comprise any large percentage of railway payments, but the percentage increase during the 9 years ending 1889 is very marked. Thus, rentals paid by operating companies for leased lines have increased 149.56 per cent and taxes have increased 311.79 per cent during the 9 years ending 1889. The amount of taxes paid in 1880 was $689,508.59 and in 1889 $2,839,309.75. A statement of the increase in dividends paid in 1889 over those paid in 1880 is of no significance, since dividends, at least in the western part of the United States, are not a constant factor of expenditures. The largest amount of dividends paid by railways in Group VIII was paid in 1887, being $8,135,752.25. In 1889 the amount paid in dividends was but $2,284,166.65. This is a decrease of 33.28 per cent as compared with the dividends paid in 1880.

TABLE VII—OPERATING EXPENSES.—In this table is given an analysis of operating expenses, showing what proportion was paid for maintenance of way and structure, for the maintenance of equipment, conducting transportation, and for general expenses.

As in the case of the other bulletins making up this series, there is inserted below an income account of the railways in Group VIII, summarizing the operations of railways for the 10 years ending 1889:

INCOME ACCOUNT OF RAILROADS IN GROUP VIII FOR THE 10 YEARS 1880 TO 1889.

ITEMS.	Amount.	Total.	Per mile of line, reduced for comparison with annual earnings.
Gross earnings from operation	$571,964,942.84		$5,082.71
Less operating expenses	341,072,918.18		3,030.91
Income from operation		$230,892,024.66	2,051.80
Income from other sources		25,283,609.74	224.68
Total income		256,175,634.40	2,276.48
Deductions from income:			
Interest on funded debt	131,441,332.95		1,168.04
Rentals	17,305,550.66		153.78
Taxes	17,499,835.69		155.51
Miscellaneous	21,826,643.65		193.96
Total deductions from income		188,073,362.95	1,671.29
Final net income		68,102,271.45	605.19
Dividends		49,922,041.87	443.63
Surplus from operations for the 10 years ending 1889.		18,180,229.58	161.56

The value of railway property considered as an investment is properly represented by a capitalization of average earning at the current rate of interest. Since the above income account is taken from the books of operating companies, the earnings of railway property will be the amount of interest on funded debt, rentals paid subsidiary lines, and dividends paid to stockholders. The average interest payment per mile of line during the 10 years covered by the account is $1,168.04. Payments as rentals amount to $153.78 per mile of line, and payments as dividends amount to $443.63 per mile of line, showing that the average earnings on railway property in Group VIII for the 10 years covered by the account is equal to $1,765.45 per mile of line. This sum, capitalized at 5 per cent, shows that the railways in this group are worth $35,309 per mile of line.

The following summary is inserted for the purpose of showing the payment per mile of all items of expenditure for each of the 10 years ending 1889:

EXPENDITURES ASSIGNED TO MILE OF OPERATED LINE.

ITEMS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
Operating expenses	$3,002.36	$3,661.73	$3,251.02	$2,980.56	$3,071.19	$2,984.23	$3,042.59	$2,913.62	$2,890.20	$2,887.32
Interest	1,326.60	1,249.64	1,370.59	1,218.30	1,154.25	1,135.53	1,235.79	1,160.47	1,083.40	1,000.88
Rentals	167.99	153.88	152.98	165.42	151.19	135.03	132.59	119.16	182.93	169.37
Taxes	101.66	133.75	151.69	151.35	156.90	158.43	176.11	148.71	168.53	169.11
Dividends	504.73	728.97	709.65	596.82	476.80	410.53	444.17	596.05	281.59	136.05
Total expenditures, including miscellaneous.	5,331.47	6,024.81	5,748.48	5,327.62	5,203.52	5,025.69	5,320.61	5,144.19	4,760.42	4,523.24

As comment has already been passed upon the above items of expenditure, nothing further need be added in this connection.

TABLE I.—MILEAGE.

ANALYSIS OF MILEAGE.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
LENGTH OF LINE (SINGLE TRACK):											
Total mileage	6,922.40	8,032.33	9,140.00	10,454.55	10,730.75	10,889.65	11,262.48	13,951.72	15,815.76	16,443.21	
Increased mileage		1,109.93	1,107.67	1,314.55	276.20	158.90	372.83	2,689.24	1,864.04	627.45	9,520.81
Per cent of increase		16.03	13.79	14.38	2.64	1.48	3.42	23.88	13.36	3.97	137.54
Decreased mileage											
Per cent of decrease											
LINE OPERATED:											
Total mileage	6,923.40	8,033.33	9,141.00	10,466.69	10,742.89	10,901.79	11,274.62	14,035.94	16,128.63	16,859.49	
Increased mileage		1,109.93	1,107.67	1,325.69	276.20	158.90	372.83	2,761.32	2,092.69	730.86	9,936.09
Per cent of increase		16.03	13.79	14.50	2.64	1.48	3.42	24.49	14.91	4.53	143.51
Decreased mileage											
Per cent of decrease											
OPERATED LINE OWNED BY OPERATING COMPANIES:											
Total mileage	5,479.86	6,246.31	7,116.37	8,215.92	8,367.06	8,964.23	9,201.68	10,687.64	11,289.67	11,704.69	
Increased mileage		766.45	870.06	1,099.55	151.14	597.17	237.45	1,485.96	602.03	415.02	6,224.83
Per cent of increase		13.99	13.93	15.45	1.84	7.14	2.65	16.15	5.63	3.68	113.59
Decreased mileage											
Per cent of decrease											
OPERATED LINE LEASED OR OTHERWISE CONTROLLED BY OPERATING COMPANIES:											
Total mileage	1,442.54	1,786.02	2,023.63	2,238.63	2,363.69	1,925.42	2,060.80	3,264.08	4,526.09	4,738.52	
Increased mileage		343.48	237.61	215.00	125.06		135.38	1,203.28	1,262.01	212.43	3,295.98
Per cent of increase		23.81	13.30	10.62	5.59		7.03	58.39	38.66	4.69	228.48
Decreased mileage						438.27					
Per cent of decrease						18.54					
LINE OPERATED UNDER TRACKAGE RIGHTS:											
Total mileage	1.00	1.00	1.00	12.14	12.14	12.14	12.14	84.22	312.87	416.28	
Increased mileage				11.14				72.08	228.65	103.41	415.28
Per cent of increase				1,114.00				593.74	271.49	33.05	41,528.00
Decreased mileage											
Per cent of decrease											

TABLE II.—EQUIPMENT AND STATIONS.

ANALYSIS OF EQUIPMENT AND STATIONS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
LOCOMOTIVES	753	1,019	1,326	1,400	1,469	1,521	1,558	1,925	2,287	2,428	
Freight	386	537	748	797	835	870	881	1,057	1,250	1,335	
Passenger	280	361	433	460	486	502	520	666	791	836	
Switching	87	121	145	143	148	149	157	202	246	257	
Increase		266	307	74	69	52	37	367	362	141	1,675
Per cent of increase		35.33	30.13	5.58	4.93	3.54	2.43	23.56	18.81	6.17	222.44
Decrease											
Per cent of decrease											
CARS IN PASSENGER SERVICE	548	783	978	1,041	1,059	1,078	1,132	1,446	1,731	1,741	
Ordinary	353	453	565	587	585	586	610	782	979	1,021	
Sleeping	15	60	82	82	97	97	114	134	161	67	
Parlor	11	10	14	14	15	14	15	15	32	52	
Dining						1	2	2	6	8	
Baggage	108	169	193	213	219	230	235	334	358	366	
Postal	38	59	72	78	68	72	75	83	89	102	
Express	23	32	52	67	75	78	81	96	103	125	
Increase		235	195	63	18	19	54	314	285	10	1,193
Per cent of increase		42.88	24.90	6.44	1.73	1.79	5.01	27.74	19.71	0.58	217.70
Decrease											
Per cent of decrease											
CARS IN FREIGHT SERVICE	19,106	29,016	34,170	35,589	36,803	37,375	38,225	47,968	57,603	63,755	
Box	7,824	13,342	15,076	16,684	17,439	17,516	18,074	20,902	25,173	28,679	
Flat	3,888	3,737	6,439	6,032	6,141	4,978	4,669	6,426	6,806	6,828	
Stock	2,291	3,169	3,687	3,996	4,107	4,162	4,301	5,770	7,565	8,541	
Coal	3,970	7,237	6,651	7,217	7,403	8,892	9,127	12,470	15,255	16,464	
Tank	15	11	6	28	30	30	30	43	49	47	
Refrigerator	50	268	416	329	351	376	391	429	699	910	
Other	1,068	1,252	1,295	1,303	1,332	1,421	1,633	1,928	2,116	2,286	
Increase		9,910	5,154	1,419	1,214	572	850	9,743	9,635	6,152	44,619
Per cent of increase		51.87	17.76	4.15	3.41	1.55	2.27	25.49	20.09	10.68	233.69
Decrease											
Per cent of decrease											
CARS IN COMPANY'S SERVICE	144	204	218	308	283	298	307	512	480	723	
Increase		60	14	90		15	9	205		243	579
Per cent of increase		41.67	6.86	41.28		5.30	3.02	66.78		50.63	402.08
Decrease					25				32		
Per cent of decrease					8.12				6.25		
CARS CONTRIBUTED TO FAST-FREIGHT SERVICE					215	487	599	598	608	604	
Increase					215	272	112		10		604
Per cent of increase						126.51	23.00		1.67		
Decrease								1		4	
Per cent of decrease								0.17		0.66	
STATIONS ON LINE	762	911	1,061	1,241	1,301	1,370	1,386	1,725	1,961	2,095	
Increase		149	150	180	60	69	16	339	236	134	1,333
Per cent of increase		19.55	16.47	16.97	4.83	5.30	1.17	24.46	13.68	6.83	174.93
Decrease											
Per cent of decrease											

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EQUIPMENT AND STATIONS WAS OBTAINABLE

Mileage	50.74	144.93	21.00	92.04	59.40	58.83	255.14	251.60	113.54	39.54	

TABLE III.—EMPLOYÉS.

ANALYSIS OF EMPLOYÉS.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
EMPLOYÉS:											
Total	14,801	18,845	20,047	31,979	29,053	30,302	35,718	46,052	49,531	52,905	
Increase		4,044	1,202	11,932		1,249	5,416	10,334	3,479	3,374	38,104
Per cent of increase		27.32	6.38	59.52		4.30	17.87	28.93	7.55	6.81	257.44
Decrease					2,926						
Per cent of decrease					9.15						
MAINTENANCE OF WAY AND STRUCTURE:											
Total	5,577	7,133	7,303	11,156	10,688	11,000	13,735	18,740	19,280	19,177	
Increase		1,556	170	3,853		312	2,735	5,005	540		13,600
Per cent of increase		27.90	2.38	52.76		2.92	24.86	36.44	2.88		243.86
Decrease					468					103	
Per cent of decrease					4.20					0.53	
MAINTENANCE OF EQUIPMENT:											
Total	3,433	4,427	4,944	7,726	6,612	6,964	7,542	9,693	9,933	10,822	
Increase		994	517	2,782		352	578	2,151	240	889	7,389
Per cent of increase		28.95	11.68	56.27		5.32	8.30	28.52	2.48	8.95	215.23
Decrease					1,114						
Per cent of decrease					14.42						
CONDUCTING TRANSPORTATION:											
Total	5,015	6,302	6,744	11,485	10,263	10,712	12,698	15,370	17,249	19,111	
Increase		1,287	442	4,741		449	1,986	2,672	1,879	1,862	14,096
Per cent of increase		25.66	7.01	70.30		4.37	18.54	21.04	12.23	10.80	281.08
Decrease					1,222						
Per cent of decrease					10.64						
GENERAL ADMINISTRATION:											
Total	776	983	1,056	1,612	1,490	1,626	1,743	2,249	3,069	3,795	
Increase		207	73	556		136	117	506	820	726	3,019
Per cent of increase		26.68	7.43	52.65		9.13	7.20	29.03	36.46	23.66	389.05
Decrease					122						
Per cent of decrease					7.57						

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EMPLOYÉS WAS OBTAINABLE.

Mileage	2,277.64	3,115.02	3,632.54	1,916.60	1,854.90	1,580.39	2,103.39	772.60	736.60	126.68	

TABLE IV.—BUSINESS DONE.

ANALYSIS OF BUSINESS DONE.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
TONS OF FREIGHT MOVED:											
Total	6,499,165	7,880,272	8,542,268	11,274,424	12,814,172	13,821,686	15,993,142	20,497,755	19,006,586	21,348,182	
Increase		1,381,107	661,996	2,732,156	1,539,748	1,007,514	2,171,456	4,504,613		2,341,596	14,849,017
Per cent of increase		21.25	8.40	31.98	13.66	7.86	15.71	28.17		12.32	228.48
Decrease									1,491,169		
Per cent of decrease									7.27		
TONS OF FREIGHT MOVED 1 MILE:											
Total	1,083,244,484	1,493,964,548	1,611,470,664	2,071,400,521	2,281,288,016	2,376,580,974	2,673,606,621	3,416,525,486	3,363,048,634	3,737,366,191	
Increase		410,720,064	117,506,116	459,929,857	209,887,495	95,292,958	297,025,647	742,918,865		374,317,557	2,654,121,707
Per cent of increase		37.92	7.87	28.54	10.13	4.18	12.50	27.79		11.13	245.02
Decrease									53,476,852		
Per cent of decrease									1.57		
NUMBER OF PASSENGERS CARRIED:											
Total	2,907,262	3,501,878	4,180,025	5,246,840	6,480,627	7,087,347	7,416,969	9,961,182	10,555,274	11,343,176	
Increase		594,616	678,147	1,066,815	1,233,787	606,720	329,622	2,544,213	594,092	787,902	8,435,914
Per cent of increase		20.45	19.37	25.52	23.51	9.36	4.65	34.30	5.96	7.46	290.17
Decrease											
Per cent of decrease											
NUMBER OF PASSENGERS CARRIED 1 MILE:											
Total	231,075,835	303,959,372	344,870,943	396,140,489	416,949,787	437,438,647	508,577,833	634,858,656	648,726,790	670,947,052	
Increase		72,883,537	40,911,571	51,269,546	20,809,298	20,488,860	71,139,186	126,280,823	13,868,134	22,220,262	439,871,217
Per cent of increase		31.54	13.46	14.87	5.25	4.91	16.26	24.83	2.18	3.43	190.36
Decrease											
Per cent of decrease											
FREIGHT TRAIN MILEAGE:											
Total	11,557,650	13,318,480	14,483,032	17,279,056	18,550,718	18,300,262	19,653,215	26,086,971	28,364,623	29,695,857	
Increase		1,760,830	1,164,552	2,796,024	1,271,662		1,352,953	6,433,756	2,277,652	1,331,234	18,138,207
Per cent of increase		15.24	8.74	19.31	7.36		7.39	32.74	8.73	4.69	156.94
Decrease						250,456					
Per cent of decrease						1.35					
PASSENGER TRAIN MILEAGE:											
Total	5,333,855	8,695,624	8,650,146	9,600,029	10,472,255	10,903,428	11,770,208	14,958,575	18,497,369	19,369,708	
Increase		3,361,769		949,883	872,226	431,173	866,780	3,188,367	3,538,794	872,339	14,035,853
Per cent of increase		63.03		10.98	9.09	4.12	7.95	27.09	23.66	4.72	263.15
Decrease			45,478								
Per cent of decrease			0.52								
ALL OTHER MILEAGE:											
Total	846,174	996,082	990,693	2,106,031	1,710,651	1,888,308	1,742,556	3,036,719	4,508,602	3,493,283	
Increase		149,908		1,115,338		177,657		1,294,163	1,471,883		2,647,109
Per cent of increase		17.72		112.58		10.39		74.27	48.47		312.83
Decrease			5,389		395,380		145,752			1,015,319	
Per cent of decrease			0.54		18.77		7.72			22.52	

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF BUSINESS DONE WAS OBTAINABLE.

Tons of freight moved	354.65	677.84	676.27	342.83	159.47	253.89	357.64	488.85	429.94	266.58	
Tons of freight moved 1 mile	381.65	688.84	676.27	396.89	213.53	645.18	748.93	890.14	731.43	288.87	
Number of passengers carried	354.65	677.84	704.80	781.43	213.53	645.18	748.93	857.85	429.94	266.58	
Number of passengers carried 1 mile.	354.65	688.84	704.80	781.43	213.53	645.18	748.93	890.14	731.43	288.87	
Freight train mileage	246.65	553.84	569.80	648.99	216.09	645.18	379.93	511.14	452.23	288.87	
Passenger train mileage	219.65	553.84	569.80	648.99	216.09	645.18	379.93	511.14	452.23	288.87	
All other mileage	219.65	553.84	569.80	648.99	216.09	645.18	379.93	511.14	452.23	288.87	

TABLE V.—EARNINGS AND INCOME.

ANALYSIS OF EARNINGS AND INCOME.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
EARNINGS FROM FREIGHT SERVICE:											
Total	$27,890,883.24	$34,630,806.70	$35,929,138.63	$41,059,413.64	$41,859,675.54	$41,771,213.73	$43,488,776.44	$49,261,695.57	$47,749,222.69	$52,719,583.52	
Increase		6,739,923.46	1,298,331.93	5,130,275.01	800,261.90		1,717,562.71	5,772,919.13		4,970,360.83	$24,828,700.28
Per cent of increase		24.17	3.75	14.28	1.95		4.11	13.27		10.41	89.02
Decrease						88,461.81			1,512,472.88		
Per cent of decrease						0.21			3.07		
EARNINGS FROM PASSENGER SERVICE:											
Total	9,867,376.29	12,954,570.30	13,861,362.24	14,450,777.75	14,412,268.44	14,899,392.80	15,663,946.08	19,161,145.23	19,250,145.16	21,083,548.85	
Increase		3,087,194.01	906,791.94	589,415.51		487,124.36	764,553.28	3,497,199.15	88,999.93	1,833,403.69	11,216,172.56
Per cent of increase		31.29	7.00	4.25		3.38	5.13	22.33	0.46	9.52	113.67
Decrease					38,509.31						
Per cent of decrease					0.27						
GROSS EARNINGS FROM OPERATION:											
Total	37,758,259.53	47,585,377.00	49,790,500.87	55,510,191.39	56,271,943.98	56,670,606.53	59,152,722.52	68,422,840.80	66,999,367.85	73,803,132.37	
Increase		9,827,117.47	2,205,123.87	5,719,690.52	761,752.59	398,662.55	2,482,115.99	9,270,118.28		6,803,764.52	36,044,872.84
Per cent of increase		26.03	4.63	11.49	1.37	0.71	4.38	15.67		10.15	95.46
Decrease									1,423,472.95		
Per cent of decrease									2.08		
INCOME FROM ALL OTHER SOURCES:											
Total	1,007,897.81	1,031,918.39	2,471,604.42	1,850,977.52	2,484,141.32	2,180,266.75	3,229,327.22	2,555,016.01	4,708,291.58	3,764,168.72	
Increase		24,020.58	1,439,686.03		633,163.80		1,049,060.47		2,153,275.57		2,756,270.91
Per cent of increase		2.38	139.52		34.21		48.12		84.28		273.47
Decrease				620,626.90		303,874.57		674,311.21		944,122.86	
Per cent of decrease				25.11		12.23		20.88		20.05	
TOTAL EARNINGS AND INCOME:											
Total	38,766,157.34	48,617,295.39	52,262,105.29	57,361,168.91	58,756,085.30	58,850,873.28	62,382,049.74	70,977,856.81	71,707,659.43	77,567,301.09	
Increase		9,851,138.05	3,644,809.90	5,099,063.62	1,394,916.39	94,787.98	3,531,176.46	8,595,807.07	729,802.62	5,859,641.66	38,801,143.75
Per cent of increase		25.41	7.50	9.76	2.43	0.16	6.00	13.78	1.03	8.17	100.09
Decrease											
Per cent of decrease											
PER CENT OF OPERATING EXPENSES TO EARNINGS:											
Per cent	53.03	60.75	57.15	55.73	58.31	56.88	56.25	58.12	68.43	65.68	
Increase		6.82			2.58			1.87	10.31		11.75
Decrease			3.60	1.42		1.43	0.63			2.75	

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EARNINGS WAS OBTAINABLE.

Mileage	140.74	139.20	388.85	87.54	59.40	99.83	338.89	386.60	264.94	70.18	

TABLE VI.—EXPENDITURES.

ANALYSIS OF EXPENDITURES.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
OPERATING EXPENSES:											
Total	$20,363,973.00	$28,906,157.91	$28,453,391.30	$30,935,692.43	$32,811,011.07	$32,235,553.15	$33,272,933.72	$39,768,977.56	$45,849,172.14	$48,476,055.90	
Increase		8,542,184.91		2,482,301.13	1,875,318.64		1,037,380.57	6,496,043.84	6,080,194.58	2,626,883.76	$28,112,082.90
Per cent of increase		41.95		8.72	6.06		3.22	19.52	15.29	5.73	138.05
Decrease			452,766.61			575,457.92					
Per cent of decrease			1.57			1.75					
INTEREST ON FUNDED DEBT:											
Total	8,993,833.27	9,864,830.10	11,995,568.85	12,644,969.56	12,331,433.56	12,265,898.04	13,514,276.49	15,839,599.10	17,186,794.95	16,804,129.03	
Increase		870,996.83	2,130,738.75	649,400.71			1,248,378.45	2,325,322.61	1,347,195.85		7,810,295.76
Per cent of increase		9.68	21.60	5.41			10.18	17.21	8.51		86.84
Decrease					313,536.00	65,535.52				382,665.92	
Per cent of decrease					2.48	0.53				2.23	
RENTALS:											
Total	1,139,412.36	1,214,722.34	1,338,871.37	1,716,936.06	1,615,201.39	1,458,547.58	1,449,960.25	1,626,391.64	2,901,945.85	2,843,561.82	
Increase		75,309.98	124,149.03	378,064.69				176,431.39	1,275,554.21		1,704,149.46
Per cent of increase		6.61	10.22	28.24				12.17	78.43		149.56
Decrease					101,734.67	156,653.81	8,587.33			58,384.03	
Per cent of decrease					5.93	9.70	0.59			2.01	
TAXES:											
Total	689,508.59	1,055,864.51	1,327,578.91	1,570,879.91	1,676,241.02	1,711,344.02	1,925,864.66	2,029,754.25	2,673,490.07	2,839,309.75	
Increase		366,355.92	271,714.40	243,301.00	105,361.11	35,103.00	214,520.64	103,889.59	643,735.82	165,819.68	2,149,801.16
Per cent of increase		53.13	25.73	18.33	6.71	2.09	12.54	5.39	31.71	6.20	311.79
Decrease											
Per cent of decrease											
DIVIDENDS:											
Total	3,423,402.98	5,754,616.22	6,210,962.29	5,260,316.79	5,093,914.69	4,434,530.00	4,857,348.50	8,135,752.25	4,467,031.50	2,284,166.65	
Increase		2,331,213.24	456,346.07				422,818.50	3,278,403.75			
Per cent of increase		68.10	7.93				9.53	67.49			
Decrease				950,645.50	166,402.10	659,384.69			3,668,720.75	2,182,864.85	1,139,236.33
Per cent of decrease				15.30	3.16	12.94			45.09	48.87	33.28
TOTAL EXPENDITURES, INCLUDING MISCELLANEOUS:											
Total	36,161,556.10	47,560,621.40	50,311,575.92	55,296,133.90	55,591,773.85	54,287,274.98	58,184,724.39	70,214,810.88	75,517,773.18	75,942,078.40	
Increase		11,399,065.30	2,750,954.52	4,984,557.98	295,639.95		3,897,449.41	12,030,086.49	5,302,962.30	424,305.22	39,780,522.30
Per cent of increase		31.52	5.78	9.91	0.53		7.18	20.68	7.55	0.56	110.01
Decrease						1,304,498.87					
Per cent of decrease						2.35					
Surplus	2,604,601.24	1,056,673.99	1,950,529.37	2,065,035.01	3,164,311.45	4,563,598.30	4,197,325.35	763,045.93		1,625,222.69	18,180,229.58
Deficit									3,810,113.75		

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF EXPENDITURES WAS OBTAINABLE.

Mileage	140.74	139.20	388.85	87.54	59.40	99.83	338.89	386.60	264.94	70.18	

TABLE VII.—OPERATING EXPENSES.

ANALYSIS OF OPERATING EXPENSES.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	FOR 9 YEARS ENDING 1889.
MAINTENANCE OF WAY AND STRUCTURE:											
Total	$6,586,094.30	$10,793,326.38	$9,847,274.07	$9,342,126.86	$9,906,635.70	$9,419,703.30	$9,271,635.07	$10,366,865.98	$11,267,297.28	$11,626,817.42	
Increase		4,207,232.08			564,508.84			1,095,230.91	900,431.30	359,520.14	$5,040,723.12
Per cent of increase		63.88			6.04			11.81	8.68	3.19	76.54
Decrease			946,052.31	505,147.21		486,932.40	148,068.23				
Per cent of decrease			8.77	5.13		4.92	1.57				
MAINTENANCE OF EQUIPMENT:											
Total	4,028,569.21	4,492,953.19	4,896,317.28	5,435,660.87	5,534,033.94	5,217,644.46	5,243,907.89	6,598,946.10	8,260,874.98	8,480,752.60	
Increase		464,383.98	403,364.09	539,343.59	98,373.07		26,263.43	1,355,038.21	1,661,928.88	219,877.62	4,452,183.39
Per cent of increase		11.53	8.98	11.02	1.81		0.50	25.84	25.18	2.66	110.52
Decrease						316,389.48					
Per cent of decrease						5.72					
CONDUCTING TRANSPORTATION:											
Total	8,582,455.03	11,963,866.97	12,146,347.24	14,234,448.65	15,575,826.23	15,747,639.85	16,712,331.97	20,305,670.73	23,277,381.89	24,836,796.37	
Increase		3,381,411.94	182,480.27	2,088,101.41	1,341,377.58	171,813.62	964,692.12	3,593,338.76	2,971,711.16	1,559,414.48	16,254,341.34
Per cent of increase		39.40	1.53	17.19	9.42	1.10	6.13	21.50	14.63	6.70	189.39
Decrease											
Per cent of decrease											
GENERAL EXPENSES:											
Total	1,166,854.46	1,656,011.37	1,563,452.71	1,923,456.05	1,794,515.20	1,850,565.54	2,045,058.79	2,497,494.75	3,043,617.99	3,531,689.51	
Increase		489,156.91		360,003.34		56,050.34	194,493.25	452,435.96	546,123.24	488,071.52	2,364,835.05
Per cent of increase		41.92		23.03		3.12	10.51	22.12	21.87	16.04	202.67
Decrease			92,558.66		128,940.85						
Per cent of decrease			5.59		6.70						
TOTAL OPERATING EXPENSES:											
Total	20,363,973.00	28,906,157.91	28,453,391.30	30,935,692.43	32,811,011.07	32,235,553.15	33,272,933.72	39,768,977.56	45,849,172.14	48,476,055.90	
Increase		8,542,184.91		2,482,301.13	1,875,318.64		1,037,380.57	6,496,043.84	6,080,194.58	2,626,883.76	28,112,082.90
Per cent of increase		41.95		8.72	6.06		3.22	19.52	15.29	5.73	138.05
Decrease			452,766.61			575,457.92					
Per cent of decrease			1.57			1.75					

MILEAGE OF OPERATED LINE FOR WHICH NO REPORT OF OPERATING EXPENSES WAS OBTAINABLE.

Mileage	140.74	139.20	388.85	87.54	59.40	99.83	338.89	386.60	264.94	70.18	

[7-010]

CENSUS BULLETIN.

No. 165. WASHINGTON, D. C. February 19, 1892.

Population of places having 1,000 inhabitants or more in 1890.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., February 1, 1892.

This bulletin gives the population as returned under the Eleventh Census of all places, incorporated and unincorporated, in the United States, having 1,000 inhabitants or more, so far as they have been returned by the census enumerators separate from the population of the township, precinct, district, etc., of which they form a part. In the New England states the population of towns having 1,000 inhabitants or more has been used, except in Connecticut, where, in the case of cities or boroughs having 8,000 inhabitants or more which have been separately returned, the population of the city or borough and not that of the town is given.

Following the limitations just stated, there are 3,715 places in the United States which have a population of 1,000 or more. The distribution of these places by geographical divisions and by classified sizes, both as regards the number and population of such places, is shown in the following table:

CLASSIFIED SIZES.	THE UNITED STATES.		NORTH ATLANTIC DIVISION.		SOUTH ATLANTIC DIVISION.		NORTH CENTRAL DIVISION.		SOUTH CENTRAL DIVISION.		WESTERN DIVISION.	
	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
Total	3,715	26,109,074	1,481	12,168,521	270	1,966,336	1,375	8,699,300	375	1,917,195	214	1,357,722
400,000 and over	7	5,803,144	4	3,817,085	1	434,439	2	1,551,620	.....	.....	.....	.....
100,000 and under 400,000	21	3,894,816	7	1,210,443	1	230,392	9	1,645,103	2	403,168	2	405,710
50,000 and under 100,000	30	2,022,822	15	1,069,048	4	263,307	8	499,409	2	140,663	1	50,395
25,000 and under 50,000	66	2,268,786	30	1,042,074	4	145,882	17	553,711	9	281,980	6	245,139
15,000 and under 25,000	92	1,801,582	41	795,153	9	169,287	33	644,464	5	113,979	4	78,699
10,000 and under 15,000	138	1,659,020	55	665,127	10	117,087	50	604,870	13	152,337	10	119,599
8,000 and under 10,000	94	834,215	47	416,453	7	59,570	33	294,719	6	54,962	1	8,511
6,000 and under 8,000	158	1,084,320	76	520,483	7	49,745	58	396,623	13	92,369	4	25,100
5,000 and under 6,000	107	588,012	38	206,215	6	32,862	45	247,134	8	43,790	10	53,011
4,000 and under 5,000	192	847,570	87	383,645	12	51,619	69	306,836	13	55,984	11	49,495
3,000 and under 4,000	338	1,153,477	127	435,653	27	89,815	128	438,017	36	120,090	20	69,902
2,500 and under 3,000	279	764,602	116	316,877	31	86,595	84	229,455	29	79,964	19	51,801
2,000 and under 2,500	394	876,140	144	318,959	28	62,114	147	328,021	50	111,550	25	55,496
1,500 and under 2,000	636	1,096,609	241	419,429	48	82,234	232	398,047	74	126,715	41	70,184
1,000 and under 1,500	1,163	1,418,860	453	551,877	75	91,388	460	561,271	115	139,644	60	74,680

For convenience of analysis the results just presented are further condensed as regards size as follows:

CLASSIFIED SIZES.	THE UNITED STATES.		NORTH ATLANTIC DIVISION.		SOUTH ATLANTIC DIVISION.		NORTH CENTRAL DIVISION.		SOUTH CENTRAL DIVISION.		WESTERN DIVISION.	
	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
Total	3,715	26,109,074	1,481	12,168,521	270	1,966,336	1,375	8,699,300	375	1,917,195	214	1,357,722
25,000 and over	124	13,989,568	56	7,138,650	10	1,074,020	36	4,249,843	13	825,811	9	701,244
8,000 and under 25,000	324	4,294,817	143	1,876,733	26	345,944	116	1,544,053	24	321,278	15	206,809
4,000 and under 8,000	457	2,514,911	201	1,110,343	25	134,226	172	950,593	34	192,143	25	127,606
2,500 and under 4,000	617	1,918,169	243	752,530	58	176,410	212	667,472	65	200,054	39	121,703
1,000 and under 2,500	2,193	3,391,609	838	1,290,265	151	235,736	839	1,287,339	239	377,909	126	200,360

The distribution as regards classified sizes for the United States and for each geographical division, as given in the above summary, expressed in percentages, is shown in the following table:

CLASSIFIED SIZES.	THE UNITED STATES.		NORTH ATLANTIC DIVISION.		SOUTH ATLANTIC DIVISION.		NORTH CENTRAL DIVISION.		SOUTH CENTRAL DIVISION.		WESTERN DIVISION.	
	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
25,000 and over	3.34	53.58	3.78	58.66	3.70	54.62	2.62	48.85	3.47	43.07	4.21	51.65
8,000 and under 25,000	8.72	16.45	9.66	15.42	9.63	17.59	8.43	17.75	6.40	16.76	7.01	15.23
4,000 and under 8,000	12.30	9.63	13.57	9.13	9.26	6.83	12.51	10.93	9.07	10.02	11.68	9.40
2,500 and under 4,000	16.61	7.35	16.41	6.19	21.48	8.97	15.42	7.67	17.33	10.44	18.22	8.96
1,000 and under 2,500	59.03	12.99	56.58	10.60	55.93	11.99	61.02	14.80	63.73	19.71	58.88	14.76

Considering the results for the United States as a whole, as shown by these two tables, we find that there are 124 places which have a population of 25,000 or more, representing 3.34 per cent of the total number of places considered and having a population of 13,989,568, or 53.58 per cent of the total population included in places having a population of 1,000 or more. There are 324 places, or 8.72 per cent of the total number, having a population between 8,000 and 25,000 and containing 4,294,817 persons, or 16.45 per cent of the total population considered. There are 457 places between 4,000 and 8,000 population, containing 2,514,911 persons, or 12.30 per cent as regards number of places and 9.63 per cent as regards population; 617 places between 2,500 and 4,000 population, containing 1,918,169 persons, or 16.61 per cent as regards number and 7.35 per cent as regards population; 2,193 places between 1,000 and 2,500 population, containing 3,391,609 persons, or 59.03 per cent as regards number and 12.99 per cent as regards population.

A further distribution by percentages, according to location in geographical divisions, is shown for each classified size, both as regards number and population, as follows:

GEOGRAPHICAL DIVISIONS.	TOTAL.		25,000 AND OVER.		8,000 AND UNDER 25,000.		4,000 AND UNDER 8,000.		2,500 AND UNDER 4,000.		1,000 AND UNDER 2,500.	
	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
The United States	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
North Atlantic division	39.87	46.61	45.16	51.03	44.14	43.70	43.98	44.15	39.39	39.23	38.21	38.04
South Atlantic division	7.27	7.53	8.07	7.68	8.02	8.05	5.47	5.34	9.40	9.20	6.88	6.95
North Central division	37.01	33.32	29.03	30.38	35.80	35.95	37.64	37.80	34.36	34.80	38.26	37.96
South Central division	10.09	7.34	10.48	5.90	7.41	7.48	7.44	7.64	10.53	10.43	10.90	11.11
Western division	5.76	5.20	7.26	5.01	4.63	4.82	5.47	5.07	6.32	6.34	5.75	5.91

Taking the results as a whole, without regard to classified size, as shown in the foregoing table, it is seen that 39.87 per cent of the total number of places having 1,000 inhabitants or more is contained in the North Atlantic division, and, further, that the population of these places represents 46.61 per cent of the total population considered. The North Central division also contains 37.01 per cent of the total number of places and 33.32 per cent of the total population under consideration. These two divisions combined contain over three-fourths of the entire number of places having 1,000 inhabitants or more, and represent very nearly four-fifths of the total population of such places. Similar results in detail for each classified size are also shown in the same table.

According to the present census there were in 1890, as has already been stated, 3,715 places of 1,000 inhabitants or more, having a total population of 26,109,074, and representing 41.69 per cent of the total population of the United States. Comparing the results as regards population for each classified size with the total population for the entire country, we further find that in 1890 there were 1,522 places having a population of 2,500 and upward, with a combined population of 22,717,465, and representing 36.28 per cent of the total population. Carrying the analysis as regards population to the limit of 4,000 and upward, we find that in 1890 there were 905 places, containing 20,799,296 people, or 33.21 per cent of the total population of the entire country. In 1880 there were 580 places having 4,000 inhabitants or more, with a combined population of 12,936,110, representing 25.79 per cent of the total population at that census. The whole number of places in 1890 having a population of 8,000 or more was 448, with a combined population of 18,284,385, or 29.20 per cent of the total population of the entire country. According to the census of 1880 there were 286 places having 8,000 inhabitants or more, the combined population of such places being 11,318,547, and representing 22.57 per cent of the total population at that census. In 1890 we find that the 124 places having 25,000 inhabitants or more contain 13,989,568 persons, or 22.34 per cent of the total population. In 1880 there were 77 places having a population of 25,000 or more, containing in the aggregate 8,605,193, or 17.16 per cent of the total population returned at that census.

A more extended discussion of urban population, as represented by the population of cities of 8,000 inhabitants or more, has already been presented in Bulletin 52, entitled "Urban Population in 1890".

The following table presents the population for all places of 25,000 and upward in 1890, arranged by classified sizes, in the order of population:

CITIES.	Geographical division.	Population.
400,000 and over:		
New York, N. Y.	North Atlantic	1,515,301
Chicago, Ill	North Central	1,099,850
Philadelphia, Pa	North Atlantic	1,046,964
Brooklyn, N. Y	North Atlantic	806,343
St. Louis, Mo	North Central	451,770
Boston, Mass	North Atlantic	448,477
Baltimore, Md	South Atlantic	434,439
100,000 and under 400,000:		
San Francisco, Cal	Western	298,997
Cincinnati, Ohio	North Central	296,908
Cleveland, Ohio	North Central	261,353
Buffalo, N. Y	North Atlantic	255,664
New Orleans, La	South Central	242,039
Pittsburg, Pa	North Atlantic	238,617
Washington, D. C	South Atlantic	230,392
Detroit, Mich	North Central	205,876
Milwaukee, Wis	North Central	204,468
Newark, N. J	North Atlantic	181,830
Minneapolis, Minn	North Central	164,738
Jersey city, N. J	North Atlantic	163,003
Louisville, Ky	South Central	161,129
Omaha, Neb	North Central	140,452
Rochester, N. Y	North Atlantic	133,896
St. Paul, Minn	North Central	133,156
Kansas city, Mo. (a)	North Central	132,716
Providence, R. I	North Atlantic	132,146
Denver, Colo	Western	106,713
Indianapolis, Ind	North Central	105,436
Allegheny, Pa	North Atlantic	105,287
50,000 and under 100,000:		
Albany, N. Y	North Atlantic	94,923
Columbus, Ohio	North Central	88,150
Syracuse, N. Y	North Atlantic	88,143
Worcester, Mass	North Atlantic	84,655
Toledo, Ohio	North Central	81,434
Richmond, Va	South Atlantic	81,388
New Haven, Conn	North Atlantic	81,298
Paterson, N. J	North Atlantic	78,347
Lowell, Mass	North Atlantic	77,696
Nashville, Tenn	South Central	76,168
Scranton, Pa	North Atlantic	75,215
Fall River, Mass	North Atlantic	74,398
Cambridge, Mass	North Atlantic	70,028
Atlanta, Ga	South Atlantic	65,533
Memphis, Tenn	South Central	64,495
Wilmington, Del	South Atlantic	61,431
Dayton, Ohio	North Central	61,220
Troy, N. Y	North Atlantic	60,956
Grand Rapids, Mich	North Central	60,278
Reading, Pa	North Atlantic	58,661
Camden, N. J	North Atlantic	58,313
Trenton, N. J	North Atlantic	57,458
Lynn, Mass	North Atlantic	55,727
Lincoln, Neb	North Central	55,154
Charleston, S. C	South Atlantic	54,955
Hartford, Conn	North Atlantic	53,230
St. Joseph, Mo	North Central	52,324
Evansville, Ind	North Central	50,756
Los Angeles, Cal	Western	50,395
Des Moines, Iowa	North Central	50,093
25,000 and under 50,000:		
Bridgeport, Conn	North Atlantic	48,866
Oakland, Cal	Western	48,682
Portland, Ore	Western	46,385
Saginaw, Mich	North Central	46,322
Salt Lake, Utah	Western	44,843
Lawrence, Mass	North Atlantic	44,654
Springfield, Mass	North Atlantic	44,179
Manchester, N. H	North Atlantic	44,126
Utica, N. Y	North Atlantic	44,007
Hoboken, N. J	North Atlantic	43,648
Savannah, Ga	South Atlantic	43,189
Seattle, Wash	Western	42,837
Peoria, Ill	North Central	41,024
New Bedford, Mass	North Atlantic	40,733
Erie, Pa	North Atlantic	40,634
Somerville, Mass	North Atlantic	40,152
Harrisburg, Pa	North Atlantic	39,385
Kansas city, Kan	North Central	38,316
Dallas, Tex	South Central	38,067
Sioux city, Iowa	North Central	37,806
Elizabeth, N. J	North Atlantic	37,764
Wilkesbarre, Pa	North Atlantic	37,718
San Antonio, Tex	South Central	37,673
Covington, Ky	South Central	37,371
Portland, Me	North Atlantic	36,425
Tacoma, Wash	Western	36,006
Holyoke, Mass	North Atlantic	35,637
Fort Wayne, Ind	North Central	35,393
Binghamton, N. Y	North Atlantic	35,005
Norfolk, Va	South Atlantic	34,871
Wheeling, W. Va	South Atlantic	34,522
Augusta, Ga	South Atlantic	33,300
Youngstown, Ohio	North Central	33,220
Duluth, Minn	North Central	33,115
Yonkers, N. Y	North Atlantic	32,033
Lancaster, Pa	North Atlantic	32,011
Springfield, Ohio	North Central	31,895
Quincy, Ill	North Central	31,494
Mobile, Ala	South Central	31,076
Topeka, Kan	North Central	31,007
Elmira, N. Y	North Atlantic	30,893
Salem, Mass	North Atlantic	30,801
Long Island city, N. Y	North Atlantic	30,506
Altoona, Pa	North Atlantic	30,337
Dubuque, Iowa	North Central	30,311
Terre Haute, Ind	North Central	30,217
Chattanooga, Tenn	South Central	29,100
Galveston, Tex	South Central	29,084
Waterbury, Conn	North Atlantic	28,646
Chelsea, Mass	North Atlantic	27,909
Bay city, Mich	North Central	27,839
Pawtucket, R. I	North Atlantic	27,633
Akron, Ohio	North Central	27,601
Houston, Tex	South Central	27,557
Haverhill, Mass	North Atlantic	27,412
Brockton, Mass	North Atlantic	27,294
Williamsport, Pa	North Atlantic	27,132
Davenport, Iowa	North Central	26,872
Sacramento, Cal	Western	26,386
Canton, Ohio	North Central	26,189
Birmingham, Ala	South Central	26,178
Little Rock, Ark	South Central	25,874
Auburn, N. Y	North Atlantic	25,858
Taunton, Mass	North Atlantic	25,448
Allentown, Pa	North Atlantic	25,228
Lacrosse, Wis	North Central	25,090

a Includes 13,048 population, which, by decision of Missouri state supreme court, is now outside the limits of Kansas city.

As shown by the above table, there were 3 cities in 1890, New York, Chicago, and Philadelphia, which had a population in excess of a million, while in 1880 New York was the only city having such a population.

The following table gives the results in detail by states and territories for each geographical division, both as regards number and population, in the following order as regards size: 25,000 and over, 8,000 and under 25,000, 4,000 and under 8,000, 2,500 and under 4,000, 1,000 and under 2,500:

STATES AND TERRITORIES.	TOTAL.		25,000 AND OVER.		8,000 AND UNDER 25,000.		4,000 AND UNDER 8,000.		2,500 AND UNDER 4,000.		1,000 AND UNDER 2,500.	
	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.	Number.	Population.
The United States	3,715	26,109,074	124	13,989,568	324	4,294,817	457	2,514,911	617	1,918,169	2,193	3,391,609
North Atlantic division	1,481	12,168,521	56	7,138,650	143	1,876,733	201	1,110,343	243	752,539	838	1,290,265
Maine	192	507,103	1	36,425	7	93,921	18	95,922	24	72,356	142	208,499
New Hampshire	104	300,807	1	44,126	4	58,932	7	41,126	16	48,295	76	108,328
Vermont	116	251,079			2	26,350	8	48,265	14	42,428	92	134,016
Massachusetts	256	2,176,938	16	1,155,200	31	499,731	55	294,369	47	144,554	107	173,084
Rhode Island	32	342,122	2	159,779	8	112,792	7	37,764	6	17,575	9	14,112
Connecticut	124	682,416	4	212,040	13	173,247	20	114,188	29	90,795	58	92,296
New York	255	4,125,782	13	3,153,528	33	446,349	38	205,600	34	105,770	137	214,535
New Jersey	77	933,006	7	620,363	13	160,549	10	56,533	13	41,947	34	53,614
Pennsylvania	325	2,849,268	12	1,757,189	32	394,802	38	216,556	60	188,750	183	291,971
South Atlantic division	270	1,966,336	10	1,074,020	26	345,944	25	134,226	58	176,410	151	235,736
Delaware	12	82,444	1	61,431			1	4,010	1	3,061	9	13,942
Maryland	34	530,105	1	434,439	3	31,040	2	11,796	7	20,934	21	31,896
District of Columbia	1	230,392	1	230,392								
Virginia	43	311,529	2	116,259	7	105,706	5	26,739	11	34,017	18	28,808
West Virginia	24	104,627	1	34,522	2	18,516	2	13,968	5	14,359	14	23,262
North Carolina	44	156,385			5	62,544	7	34,515	6	18,700	26	40,626
South Carolina	37	154,366	1	54,955	2	23,960	1	5,544	11	34,363	22	35,544
Georgia	54	306,429	3	142,022	4	57,147	5	27,380	10	30,923	32	48,957
Florida	21	90,059			3	47,031	2	10,274	7	20,053	9	12,701
North Central division	1,375	8,699,300	36	4,249,843	116	1,544,053	172	950,593	212	667,472	839	1,287,339
Ohio	226	1,679,025	9	907,970	20	251,372	41	228,542	37	115,213	119	175,928
Indiana	136	704,231	4	221,802	14	178,764	19	106,567	26	82,906	73	114,192
Illinois	241	1,958,948	3	1,172,368	21	313,587	23	119,513	32	102,514	162	250,966
Michigan	150	858,314	4	340,315	16	205,780	19	106,456	24	77,763	87	128,020
Wisconsin	113	668,636	2	229,558	15	194,988	18	98,280	15	45,632	63	100,178
Minnesota	67	509,936	3	331,009	3	38,306	6	35,776	11	37,958	44	66,887
Iowa	135	541,071	4	145,082	8	124,148	11	64,933	23	71,601	89	135,307
Missouri	126	981,869	3	636,810	5	66,933	21	107,825	16	49,117	81	121,184
North Dakota	8	20,646					2	10,643			6	10,003
South Dakota	17	44,830			1	10,177			6	18,378	10	16,275
Nebraska	55	353,103	2	195,606	6	63,442	2	14,283	6	17,863	39	61,909
Kansas	101	378,691	2	69,323	7	96,556	10	57,795	16	48,527	66	106,490
South Central division	375	1,917,195	13	825,811	24	321,278	34	192,143	65	200,054	239	377,909
Kentucky	63	412,525	2	198,500	5	77,954	9	49,155	10	31,104	37	55,812
Tennessee	53	304,843	3	169,763	2	32,574	3	17,455	7	21,179	38	63,872
Alabama	41	186,802	2	57,254	2	31,881	6	34,782	9	28,318	22	34,567
Mississippi	40	114,004			3	34,098	3	17,137	6	18,731	28	44,038
Louisiana	27	314,515	1	242,039	2	22,457			7	22,681	17	27,338
Texas	114	464,327	4	132,381	7	92,965	11	64,274	21	62,506	71	112,201
Oklahoma	4	10,214					1	4,151	1	2,788	2	3,275
Arkansas	33	109,965	1	25,874	3	29,349	1	5,189	4	12,747	24	36,806
Western division	214	1,357,722	9	701,244	15	206,809	25	127,606	39	121,703	126	200,360
Montana	14	50,080			2	24,557			4	14,230	8	11,293
Wyoming	8	29,656			1	11,690	1	6,388	1	3,406	5	8,172
Colorado	29	212,805	1	106,713	3	46,082	3	15,792	6	17,318	16	26,900
New Mexico	9	23,188					1	6,185	1	3,785	7	13,218
Arizona	8	17,924					1	5,150	1	3,152	6	9,622
Utah	19	97,899	1	44,843	1	14,889	2	9,724	2	5,699	13	22,744
Nevada	7	21,041			1	8,511			2	7,513	4	5,017
Idaho	2	3,485									2	3,485
Washington	26	152,033	2	78,843	1	19,922	5	22,100	2	6,313	16	24,855
Oregon	16	94,137	1	46,385	1	10,532	2	11,313	6	16,863	6	9,044
California	76	655,474	4	424,460	5	70,626	10	50,954	14	43,424	43	66,010

The table following gives in alphabetical order all places having 1,000 inhabitants or more, according to the returns made under the Eleventh Census. The names of many places, incorporated and unincorporated, having 1,000 inhabitants or more, do not appear in this table, because of the failure of the census enumerator to return the population of such places separate from that of the township, precinct, district, etc., of which they form a part.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, AS RETURNED AT THE ELEVENTH CENSUS: 1890.

[The spelling of names is in accordance with the decisions of the United States board on geographic names.]

PLACES.	Population.
Abbeville town, S. C	1,696
Aberdeen city, Miss	3,449
Aberdeen city, S. D	3,182
Aberdeen town, Wash	1,638
Abilene city, Kan	3,547
Abilene town, Tex	3,194
Abingdon city, Ill	1,321
Abingdon town, Va	1,674
Abington town, Mass	4,260
Ackley town, Iowa	1,286
Acton town, Mass	1,897
Acushnet town, Mass	1,027
Ada village, Ohio	2,079
Adams town, Mass	9,213
Adams village, N. Y	1,360
Addison town, Me	1,022
Addison village, N. Y	2,166
Adrian city, Mich	8,756
Afton town, Iowa	1,045
Agawam town, Mass	2,352
Ahnapee city, Wis	1,015
Aiken town, S. C	2,362
Akron city, Ohio	27,601
Akron village, N. Y	1,492
Alameda city, Cal	11,165
Albany city, N. Y	94,923
Albany city, Ore	3,079
Albany town, Ga	4,008
Albany town, Mo	1,334
Albert Lea city, Minn	3,805
Albia city, Iowa	2,359
Albina city, Ore	5,129
Albion city, Mich	3,763
Albion town, Ind	1,229
Albion town, Me	1,042
Albion village, N. Y	4,586
Albuquerque town (new), N. M	3,785
Albuquerque town (old), N. M	1,733
Alburg town, Vt	1,390
Aledo city, Ill	1,601
Alexandria city, Va	14,339
Alexandria town, La	2,861
Alexandria village, Minn	2,118
Alexandria Bay village, N. Y	1,123
Alfred town, Me	1,030
Algona city, Iowa	2,068
Allegan village, Mich	2,669
Allegheny city, Pa	105,287
Allenstown town, N. H	1,475
Allentown city, Pa	25,228
Alliance city, Ohio	7,607
Alma city, Kan	1,125
Alma city, Wis	1,428
Alma village, Mich	1,655
Alpena city, Mich	11,283
Altamont town, Ill	1,044
Alton city, Ill	10,294
Alton town, N. H	1,372
Altoona city, Pa	30,337
Alvarado city, Tex	1,543
Ambler borough, Pa	1,073
Amboy city, Ill	2,257
Americus city, Ga	6,398
Ames city, Iowa	1,276
Amesbury town, Mass	9,798
Amherst town, Mass	4,512
Amherst town, N. H	1,053
Amite town, La	1,510
Amityville village, N. Y	2,293
Amsterdam city, N. Y	17,336
Anaconda city, Mont	3,975
Anacortes town, Wash	1,131
Anaheim city, Cal	1,273
Anamosa city, Iowa	2,078
Anderson city, Ind	10,741
Anderson town, S. C	3,018
Andover town, Mass	6,142
Andover town, N. H	1,090
Andrews town, Ind	1,390
Angola town, Ind	1,840
Anna city, Ill	2,295
Annapolis city, Md	7,604
Ann Arbor city, Mich	9,431
Anniston city, Ala	9,998
Annville village, Pa	1,283
Anoka city, Minn	4,252
Anson town, Me	1,444
Ansonia town, Conn	10,342
Anthony city, Kan	1,806
Antigo city, Wis	4,424
Antrim town, N. H	1,248
Antwerp village, Ohio	1,331
Apalachicola city, Fla	2,727
Apollo borough, Pa	2,156
Appleton city, Wis	11,869
Appleton town, Me	1,080
Appleton village, Mo	1,081
Arcanum village, Ohio	1,134
Archbald borough, Pa	4,032
Arcola city, Ill	1,733
Ardmore village, Pa	2,205
Argentine city, Kan	4,732
Argos town, Ind	1,101
Arkadelphia town, Ark	2,455
Arkansas city, Kan	8,347
Arlington town, Mass	5,629
Arlington town, Vt	1,352
Arlington Heights village, Ill	1,424
Ashburnham town, Mass	2,074
Asheville city, N. C	10,235
Ashfield town, Mass	1,025
Ash Grove town, Mo	1,350
Ashland borough, Pa	7,346
Ashland city, Wis	9,956
Ashland town, Ill	1,045
Ashland town, Ky	4,195
Ashland town, Mass	2,532
Ashland town, N. H	1,193
Ashland town, Ore	1,781
Ashland village, Neb	1,601
Ashland village, Ohio	3,566
Ashley borough, Pa	3,192
Ashley village, Ill	1,035
Ashtabula village, Ohio	8,338
Aspen city, Colo	5,108
Assumption village, Ill	1,076
Astoria city, Ore	6,184
Astoria town, Ill	1,357
Atchison city, Kan	13,963
Athens borough, Pa	3,274
Athens city, Ga	8,639
Athens town, Me	1,072
Athens town, Tex	1,035
Athens village, N. Y	2,024
Athens village, Ohio	2,620
Athens village, Tenn	2,224
Athol town, Mass	6,319
Atlanta city, Ga	65,533
Atlanta city, Ill	1,178
Atlanta town, Tex	1,764
Atlantic city, Iowa	4,351
Atlantic city, N. J	13,055
Attalla town, Ala	1,254
Attica city, Ind	2,320
Attica village, N. Y	1,994
Attleboro town, Mass	7,577
Auburn city, Cal	1,595
Auburn city, Me	11,250
Auburn city, Neb	1,537
Auburn city, N. Y	25,858
Auburn town, Ind	2,415
Auburn town, Mass	1,532
Auburn village, Ala	1,440
Auburndale village, Ohio	1,609
Audubon town, Iowa	1,310
Augusta city, Ga	33,300
Augusta city, Kan	1,343
Augusta city, Ky	1,447
Augusta city, Me	10,527
Augusta city, Wis	1,187
Augusta village, Ill	1,077
Aurora city, Ill	19,688
Aurora city, Ind	3,929
Aurora city, Mo	3,482
Aurora city, Neb	1,862
Ausable city, Mich	4,328
Austin borough, Pa	1,679
Austin city, Minn	3,901
Austin city, Nev	1,215
Austin city, Tex	14,575
Austin village, Ill	4,051
Avenue village, Pa	1,453
Avoca borough, Pa	3,031
Avon town, Conn	1,182
Avon town, Mass	1,384
Avon village, N. Y	1,653
Avondale town, Ala	1,642
Avondale village, Ohio	4,473
Ayer town, Mass	2,148
Bainbridge town, Ga	1,668
Bainbridge village, N. Y	1,049
Baker city, Ore	2,604
Bakersfield town, Cal	2,626
Bakersfield town, Vt	1,162
Baldwinsville village, N. Y	3,040
Ballard town, Wash	1,173
Ballston Spa village, N. Y	3,527
Baltimore city, Md	434,439
Bangor borough, Pa	2,509
Bangor city, Me	19,103
Baraboo city, Wis	4,605
Barboursville town, Ky	1,162
Bardstown town, Ky	1,524
Barkhamsted town, Conn	1,130
Barnesville city, Minn	1,069
Barnesville town, Ga	1,839
Barnesville village, Ohio	3,207
Barnet town, Vt	1,897
Barnstable town, Mass	4,023
Barnstead town, N. H	1,264
Barre town, Mass	2,239
Barre town, Vt	6,812
Barrington town, N. H	1,408
Barrington town, R. I	1,461
Barry city, Ill	1,354
Bartlett town, N. H	1,247
Barton town, Vt	2,217
Bartow town, Fla	1,386
Bastrop town, Tex	1,634
Batavia town, Ill	3,543
Batavia village, N. Y	7,221
Batesville town, Ark	2,150
Batesville town, Ind	1,169
Bath city, Me	8,723
Bath village, N. Y	3,261
Bath Beach village, N. Y	1,619
Bath on Hudson village, N. Y	2,399
Baton Rouge city, La	10,478
Battle Creek city, Mich	13,197
Baxter Springs city, Kan	1,248
Bay city, Mich	27,839
Bayfield city, Wis	1,373
Bayonne city, N. J	19,033
Bay Ridge village, N. Y	1,858
Bay St. Louis city, Miss	1,974
Bayshore village, N. Y	2,290
Beardstown city, Ill	4,226
Beatrice city, Neb	13,836
Beaufort town, N. C	2,007
Beaufort town, S. C	3,587
Beaumont city, Tex	3,296
Beaver borough, Pa	1,552
Beaverdam city, Wis	4,222
Beaver Falls borough, Pa	9,735
Bedford borough, Pa	2,242
Bedford city, Ind	3,351
Bedford city, Va	2,897
Bedford town, Iowa	1,643
Bedford town, Mass	1,092
Bedford town, N. H	1,102

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
village, Ohio	1,043
town, Tex	1,311
wn, Md	1,416
own town, Mass	2,120
village, Mich	1,730
ity, Me	5,294
town, Me	1,690
city, Ohio	9,034
taine village, Ohio	4,215
te borough, Pa	3,946
ine city, Iowa	2,623
non borough, Pa	1,147
w town, Ky	3,163
le city, Ill	15,361
le city, Kan	1,868
borough, Pa	1,418
city, Iowa	1,394
village, Ohio	3,052
nam town, Mass	1,334
Mines town, Mo	1,174
ol borough, Pa	1,146
t town, Mass	2,098
t town, N. H	1,142
lty, Kan	2,455
lty, Wis	6,316
village, Ohio	1,007
city, Tex	3,000
over borough, Pa	2,009
re city, Ill	3,867
re town, N. J	1,768
village, Ill	1,129
des town, Tex	1,424
city, Cal	2,361
gton town, Vt	6,391
town, Me	1,136
Harbor village, Mich	3,692
ville town, Ark	1,677
ad town, W. Va	2,934
village, Ohio	2,533
y town, Cal	5,101
r town, Va	3,899
fre town, Vt	1,421
city, Wis	4,149
town, Conn	2,600
town, N. H	3,729
town, Vt	1,514
k borough, Pa	2,701
k town, Me	2,294
ver city, Colo	3,317
ver city, Mich	2,566
ver town, Ala	4,544
y town, Me	1,195
town, Conn	3,401
town, Me	2,209
town, Vt	1,448
hem borough, Pa	6,762
hem town, N. H	1,207
y city, N. J	1,957
y town, Mass	10,821
ford city, Me	14,443
ields city, Mich	5,303
ring town, Tex	1,158
ea town, Mass	2,380
city, Miss	3,234
nnton city, N. Y	35,005
ore borough, Pa	2,261
ngham city, Ala	26,178
town, Ariz	1,535
rek city, N. D	2,186
hawk town, Colo	1,067
River Falls city, Wis	2,261
sburg town, S. C	1,245
stone town, Mass	6,138
city, Wash	1,563
lty, Neb	2,069
ville borough, Pa	3,126
ly borough, Pa	2,452
hester village, Ohio	1,196
ield village, Mich	1,132
ifield city, Iowa	1,013

PLACES.	Population.
Bloomfield town, Conn	1,308
Bloomfield town, Ind	1,229
Bloomington city, Ill	20,484
Bloomington city, Ind	4,018
Bloomsburg borough, Pa	4,635
Blossburg borough, Pa	2,568
Blue Earth village, Minn	1,569
Bluefield village, W. Va	1,775
Bluehill town, Me	1,980
Blue Island village, Ill	2,521
Bluffton city, Ind	3,589
Bluffton village, Ohio	1,290
Boise city, Idaho	2,311
Bolivar city, Mo	1,485
Bolivar town, Tenn	1,100
Bonham town, Tex	3,361
Bonne Terre village, Mo	3,719
Boone city, Iowa	6,520
Boonville city, Mo	4,141
Boonville town, Ind	1,881
Boonville village, N. Y	1,613
Boothbay town, Me	1,718
Boothbay Harbor town, Me	1,690
Bordentown city, N. J	4,232
Boscawen town, N. H	1,487
Boscobel city, Wis	1,570
Boston city, Mass	448,477
Boulder city, Colo	3,330
Boundbrook borough, N. J	1,462
Bourbon town, Ind	1,064
Bourne town, Mass	1,442
Bowdoinham town, Me	1,508
Bowie town, Tex	1,486
Bowling Green city, Ky	7,803
Bowling Green town, Mo	1,564
Bowling Green town, Ohio	3,467
Boyertown borough, Pa	1,436
Bozeman city, Mont	2,143
Bozrah town, Conn	1,005
Braceville village, Ill	2,150
Brackettville town, Tex	1,649
Braddock borough, Pa	8,561
Bradford city, Pa	10,514
Bradford town, Me	1,215
Bradford town, Mass	3,720
Bradford town, Vt	1,429
Bradford village, Ohio	1,338
Braidwood city, Ill	4,641
Brainerd city, Minn	5,703
Braintree town, Mass	4,848
Brandon town, Vt	3,310
Branford town, Conn	4,460
Brattleboro town, Vt	6,862
Brazil city, Ind	5,005
Bremen town, Ind	1,076
Brenham city, Tex	5,209
Brewer city, Me	4,193
Brewster town, Mass	1,003
Brewton town, Ala	1,115
Bricevillc village, Tenn	1,354
Bridgehampton village, N. Y	1,394
Bridgeport borough (a), Pa	1,030
Bridgeport borough (b), Pa	2,651
Bridgeport city, Conn	48,866
Bridgeport village, Ohio	3,369
Bridgeport village, Pa	1,001
Bridgeton city, N. J	11,424
Bridgewater borough, Pa	1,177
Bridgewater town, Mass	4,249
Bridgewater town, Vt	1,124
Bridgton town, Me	2,605
Bridport town, Vt	1,018
Brigham city, Utah	2,139
Brighton town, Vt	2,020
Brightwood town, Ind	1,387
Brimfield town, Mass	1,096
Brinkley town, Ark	1,510
Brisbin borough, Pa	1,508
Bristol borough, Pa	6,533
Bristol town, Conn	7,382

PLACES.	Population.
Bristol town, Me	2,821
Bristol town, N. H	1,524
Bristol town, R. I	5,478
Bristol town (c), Tenn	3,324
Bristol town, Vt	1,828
Bristol town (c), Va	2,902
Brockport village, N. Y	3,742
Brockton city, Mass	27,294
Brodhead village, Wis	1,461
Broken Bow city, Neb	1,647
Brookfield town, Mass	3,352
Brookfield town, Mo	4,547
Brookhaven town, Miss	2,142
Brookings city, S. D	1,518
Brooklin town, Me	1,046
Brookline town, Mass	12,103
Brooklyn city, N. Y	806,343
Brooklyn town, Conn	2,628
Brooklyn town, Iowa	1,202
Brooklyn village, Ohio	4,585
Brooksville town, Me	1,310
Brookville borough, Pa	2,478
Brookville town, Ind	2,028
Brownfield town, Me	1,134
Brownstown town, Ind	1,422
Brownsville borough, Pa	1,417
Brownsville city, Tenn	2,516
Brownsville city, Tex	6,134
Brownville town, Me	1,074
Brownwood city, Tex	2,176
Brunswick city, Ga	8,459
Brunswick town, Me	6,012
Brunswick town, Mo	1,748
Bryan city, Tex	2,979
Bryan village, Ohio	3,008
Buchanan village, Mich	1,994
Buckfield town, Me	1,200
Buckhannon town, W. Va	1,403
Buckland town, Mass	1,570
Bucksport town, Me	2,021
Bucyrus city, Ohio	5,074
Buena Vista town, Va	1,044
Buffalo city, N. Y	255,664
Buffalo town, Wyo	1,087
Bunker Hill city, Ill	1,269
Burke town, Vt	1,198
Burlingame city, Kan	1,472
Burlington city, Iowa	22,565
Burlington city, Kan	2,239
Burlington city, N. J	7,264
Burlington city, Vt	14,590
Burlington town, Conn	1,302
Burlington town, N. C	1,716
Burlington village, Wis	2,043
Burnet town, Tex	1,454
Burrillville town, R. I	5,402
Bushnell city, Ill	2,314
Butler borough, Pa	8,794
Butler city, Mo	2,812
Butler town, Ind	2,521
Butte city, Mont	10,723
Buxton town, Me	2,036
Cable village, Ill	1,276
Cabot town, Vt	1,074
Cadillac city, Mich	4,461
Cadiz village, Ohio	1,716
Cairo city, Ill	10,324
Calais city, Me	7,290
Calais town, Vt	1,082
Caldwell city, Kan	1,642
Caldwell town, Tex	1,250
Caldwell village, Ohio	1,248
California borough, Pa	1,024
California city, Mo	1,772
Calumet village, Mich	1,159
Calvert city, Tex	2,632
Cambridge city, Ind	1,782
Cambridge city, Mass	70,028
Cambridge city, Ohio	4,361
Cambridge town, Md	4,192

a In Fayette county.
b In Montgomery county.
c Total for Bristol town, in Sullivan county, Tennessee, and Washington county, Virginia, 6,226.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
Cambridge town, Vt	1,689	Cedar Springs village, Mich	1,035	Chilton city, Wis	1,424
Cambridge village, N. Y	1,598	Cedartown town, Ga	1,625	China town, Me	1,423
Camden city, Ark	2,571	Cedarville town, N. J	1,152	Chippewa Falls city, Wis	8,670
Camden city, N. J	58,313	Cedarville village, Ohio	1,355	Cincinnati city, Ohio	296,908
Camden town, Me	4,621	Celina village, Ohio	2,702	Circleville city, Ohio	6,556
Camden town, S. C	3,533	Centerville city, Iowa	3,668	Cisco town, Tex	1,063
Camden village, N. Y	1,902	Centerville town, Md	1,309	City Island village, N. Y	1,206
Cameron city, Mo	2,917	Central city, Colo	2,480	Clare village, Mich	1,174
Cameron city, Tex	1,608	Central city, Neb	1,368	Claremont town, N. H	5,565
Campbellsville town, Ky	1,018	Central city town, Ky	1,144	Clarence town, Mo	1,078
Camp Point village, Ill	1,150	Centralia borough, Pa	2,761	Clarendon borough, Pa	1,297
Canaan town, Me	1,130	Centralia city, Ill	4,763	Clarendon town, Ark	1,060
Canaan town, N. H	1,417	Centralia city, Wash	2,026	Clarinda city, Iowa	3,262
Canajoharie village, N. Y	2,089	Centralia city, Wis	1,435	Clarion borough, Pa	2,164
Canal Fulton village, Ohio	1,173	Centralia town, Mo	1,275	Clarksburg town, W. Va	3,008
Canandaigua village, N. Y	5,868	Chadron town, Neb	1,867	Clarksville city, Tenn	7,924
Canarsie village, N. Y	2,452	Chagrin Falls village, Ohio	1,243	Clarksville town, Ind	1,692
Canastota village, N. Y	2,774	Chambersburg borough, Pa	7,863	Clarksville town, Mo	1,186
Candia town, N. H	1,108	Champaign city, Ill	5,839	Clarksville town, Tex	1,588
Canisteo village, N. Y	2,071	Champlain village, N. Y	1,275	Clay village, Ind	1,004
Cannelton city, Ind	1,991	Chancy town, Iowa	1,039	Clay village, Ky	1,065
Cannon Falls village, Minn	1,078	Chanute city, Kan	2,826	Clay Center city, Kan	2,802
Canonsburg borough, Pa	2,113	Chapel Hill town, N. C	1,017	Claysville borough, Pa	1,041
Canton borough, Pa	1,393	Chardon village, Ohio	1,084	Clayton borough, N. J	1,807
Canton city, Ill	5,604	Chariton city, Iowa	3,122	Clayton village, Ill	1,033
Canton city, Miss	2,131	Charles city, Iowa	2,802	Clayton village, N. Y	1,748
Canton city, Ohio	26,189	Charleston city, Ill	4,135	Clayville borough, Pa	1,402
Canton city, S. D	1,101	Charleston city, S. C	54,955	Clearfield borough, Pa	2,248
Canton town, Conn	2,500	Charleston city, W. Va	6,742	Clear Lake town, Iowa	1,130
Canton town, Me	1,303	Charleston town, Mo	1,381	Cleburne town, Tex	3,278
Canton town, Mass	4,538	Charleston town, Vt	1,058	Cleveland city, Ohio	261,353
Canton town, Mo	2,241	Charlestown town, N. H	1,466	Cleveland town, Tenn	2,863
Canton village, N. Y	2,580	Charlestown town, W. Va	2,287	Cleves village, Ohio	1,227
Canyon city, Colo	2,825	Charlevoix village, Mich	1,496	Clifton town, S. C	2,639
Cape Elizabeth town, Me	5,459	Charlotte city, Mich	3,867	Clifton Forge town, Va	1,792
Cape Girardeau city, Mo	4,297	Charlotte city, N. C	11,557	Clifton Heights borough, Pa	1,820
Cape May city, N. J	2,136	Charlotte town, Vt	1,240	Clifton Springs village, N. Y	1,297
Cape Vincent village, N. Y	1,324	Charlottesville city, Va	5,591	Clinton city, Ill	2,598
Carbon town, Wyo	1,140	Charlton town, Mass	1,847	Clinton city, Iowa	13,619
Carbondale city, Ill	2,382	Chartiers borough, Pa	2,983	Clinton city, Ky	1,347
Carbondale city, Pa	10,833	Chaska village, Minn	2,210	Clinton city, Mo	4,737
Cardington village, Ohio	1,428	Chateaugay village, N. Y	1,172	Clinton town, Conn	1,384
Carey village, Ohio	1,605	Chatfield village, Minn	1,335	Clinton town, Ind	1,365
Caribou town, Me	4,087	Chatham town, Conn	1,949	Clinton town, Me	1,518
Carlinville city, Ill	3,293	Chatham town, Mass	1,954	Clinton town, Mass	10,424
Carlisle borough, Pa	7,620	Chatham village, N. Y	1,912	Clinton town, Tenn	1,198
Carlisle town, Ky	1,081	Chattanooga city, Tenn	29,100	Clinton village, N. Y	1,269
Carlstadt town, N. J	1,549	Cheboygan city, Mich	6,235	Clinton village, S. C	1,021
Carlyle town, Ill	1,784	Chehalis city, Wash	1,309	Clintonville city, Wis	1,466
Carmel town, Me	1,066	Chelmsford town, Mass	2,695	Cloquet village, Minn	2,530
Carmi city, Ill	2,785	Chelsea city, Mass	27,909	Cloverport city, Ky	1,527
Caro village, Mich	1,701	Chelsea town, Me	2,356	Clyde city, Kan	1,137
Carroll town, Iowa	2,448	Chelsea town, Vt	1,230	Clyde village, N. Y	2,638
Carrollton city, Ill	2,258	Chelsea village, Mich	1,356	Clyde village, Ohio	2,327
Carrollton city, Mo	3,878	Chenoa town, Ill	1,226	Coal village, Ill	1,672
Carrollton town, Ga	1,451	Cherokee city, Kan	1,087	Coal Creek village, Tenn	1,865
Carrollton town, Ky	1,720	Cherokee town, Iowa	3,441	Coaldale village, Pa	1,849
Carrollton village, Mich	1,074	Cherryfield town, Me	1,787	Coalton village, Ohio	1,459
Carrollton village, Ohio	1,228	Cherryvale city, Kan	2,104	Coalville city, Utah	1,166
Carson city, Nev	3,950	Chesaning village, Mich	1,056	Coatesville borough, Pa	3,680
Cartersville city, Ga	3,171	Chesapeake town, Md	1,155	Cobleskill village, N. Y	1,822
Carterville city, Mo	2,884	Cheshire town, Conn	1,929	Coffeyville city, Kan	2,282
Carthage city, Mo	7,981	Cheshire town, Mass	1,308	Cohasset town, Mass	2,448
Carthage town, Ill	1,654	Chester city, Ill	2,708	Cohoes city, N. Y	22,509
Carthage village, N. Y	2,278	Chester city, Pa	20,226	Colchester town, Conn	2,988
Carthage village, Ohio	2,257	Chester town, Conn	1,301	Colchester town, Ill	1,643
Cassopolis village, Mich	1,369	Chester town, Mass	1,295	Colchester town, Vt	5,143
Castile village, N. Y	1,146	Chester town, S. C	2,703	Coldwater city, Mich	5,247
Castleton town, Vt	2,396	Chester town, Vt	1,787	Colebrook town, Conn	1,098
Castleton village, N. Y	1,127	Chesterfield town, N. H	1,046	Colebrook town, N. H	1,736
Catasauqua borough, Pa	3,704	Chestertown town, Md	2,632	Colerain town, Mass	1,671
Catawissa village, Pa	1,809	Chetopa city, Kan	2,265	Colfax town, Wash	1,649
Catlettsburg village, Ky	1,374	Cheyenne city, Wyo	11,690	College Point village, N. Y	6,127
Catonsville village, Md	2,115	Chicago city, Ill	1,099,850	Collinsville city, Ill	3,498
Catskill village, N. Y	4,920	Chicago Junction village, Ohio	1,299	Colorado city, Colo	1,788
Cavendish town, Vt	1,172	Chico city, Cal	2,894	Colorado city, Tex	1,582
Cazenovia village, N. Y	1,987	Chicopee town, Mass	14,050	Colorado Springs city, Colo	11,140
Cedarburg city, Wis	1,361	Chillicothe city, Ill	1,632	Colton town, Cal	1,315
Cedar Falls city, Iowa	3,459	Chillicothe city, Mo	5,717	Columbia borough, Pa	10,599
Cedar Rapids city, Iowa	18,020	Chillicothe city, Ohio	11,288	Columbia city, Ind	3,027

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
Columbia city, S. C	15,353
Columbia town, Ill	1,267
Columbia town, Mo	4,000
Columbia town, Tenn	5,379
Columbiana village, Ohio	1,112
Columbus city, Ga	17,303
Columbus city, Ind	6,719
Columbus city, Kan	2,160
Columbus city, Miss	4,559
Columbus city, Neb	3,131
Columbus city, Ohio	88,150
Columbus city, Tex	2,199
Columbus city, Wis	1,977
Columbus Grove village, Ohio	1,677
Colusa city, Cal	1,336
Comanche town, Tex	1,226
Concord city, N. H	17,004
Concord city, N. C	4,339
Concord town, Mass	4,427
Concord town, Vt	1,425
Concordia city, Kan	3,184
Coney Island village, N. Y	3,313
Conneaut village, Ohio	3,241
Connellsville borough, Pa	5,629
Connersville city, Ind	4,518
Conshohocken borough, Pa	5,470
Constantine village, Mich	1,346
Conway town, Ark	1,207
Conway town, Mass	1,451
Conway town, N. H	2,331
Conyers town, Ga	1,349
Cooperstown village, N. Y	2,057
Copeland village, Pa	1,349
Cordele town, Ga	1,378
Corder village, Mo	1,145
Corinna town, Me	1,207
Corinth city, Miss	2,111
Corinth town, Me	1,154
Corinth town, Vt	1,027
Corinth village, N. Y	1,222
Corning town, Iowa	1,682
Corning village, N. Y	8,550
Corning village, Ohio	1,551
Cornish town, Me	1,118
Cornwall town, Conn	1,283
Corona village, N. Y	2,362
Corpus Christi city, Tex	4,387
Corry city, Pa	5,677
Corsicana city, Tex	6,285
Cortland village, N. Y	8,590
Corunna city, Mich	1,382
Corvallis city, Ore	1,527
Coshocton village, Ohio	3,672
Cottage City town, Mass	1,080
Coudersport borough, Pa	1,530
Council Bluffs city, Iowa	21,474
Council Grove city, Kan	2,241
Coventry town, Conn	1,875
Coventry town, R. I	5,068
Covington city, Ind	1,891
Covington city, Ky	37,371
Covington town, Ga	1,823
Covington town, Tenn	1,067
Covington village, Ohio	1,778
Coxsackie village, N. Y	1,611
Craftsbury town, Vt	1,271
Cranston town, R. I	8,099
Crawfordsville city, Ind	6,089
Cresco town, Iowa	2,018
Cressona borough, Pa	1,481
Crestline city, Ohio	2,011
Creston city, Iowa	7,200
Crete city, Neb	2,310
Crisfield town, Md	1,565
Crockett village, Tex	1,445
Cromwell town, Conn	1,987
Crookston city, Minn	3,457
Crotty village, Ill	1,190
Crown Point town, Ind	1,007
Crystal city, Mo	1,104
Crystal village, Minn	1,074
Cuba village, Ill	1,114
Cuba village, N. Y	1,386
Cuero town, Tex	2,442
Cullman town, Ala	1,017
Culpeper town, Va	1,620
Cumberland city, Md	12,729
Cumberland city, Wis	1,219
Cumberland town, Me	1,487
Cumberland town, R. I	8,090
Curwensville borough, Pa	1,664
Cuthbert town, Ga	2,328
Cuyahoga Falls village, Ohio	2,614
Cynthiana city, Ky	3,016
Dallas city, Tex	38,067
Dalles city, Ore	3,029
Dalton city, Ga	3,046
Dalton town, Mass	2,885
Dalton Station village, Ill	1,110
Damariscotta town, Me	1,012
Danbury city, Conn	16,552
Danby town, Vt	1,084
Danforth town, Me	1,063
Dansville village, N. Y	3,758
Danvers town, Mass	7,454
Danville borough, Pa	7,998
Danville city, Ill	11,491
Danville city, Va	10,305
Danville town, Ind	1,569
Danville town, Ky	3,766
Danville town, Vt	1,784
Darby borough, Pa	2,972
Dardanelle town, Ark	1,456
Darien city, Ga	1,491
Darien town, Conn	2,276
Darlington city, Wis	1,589
Darlington town, S. C	2,389
Dartmouth town, Mass	3,122
Davenport city, Iowa	26,872
David city, Neb	2,028
Dawson town, Ga	2,281
Dayton city, Ky	4,264
Dayton city, Ohio	61,220
Dayton city, Tenn	2,719
Dayton city, Wash	1,880
Deadwood city, S. D	2,366
Decatur city, Ala	2,765
Decatur city, Ill	16,841
Decatur city, Ind	3,142
Decatur town, Ga	1,013
Decatur town, Tex	1,746
Decatur village, Mich	1,109
Decorah city, Iowa	2,801
Dedham town, Mass	7,123
Deepwater city, Mo	1,102
Deerfield town, Mass	2,010
Deerfield town, N. H	1,220
Deering town, Me	5,353
Deer Isle town, Me	3,422
Deer Lodge city, Mont	1,463
Defiance city, Ohio	7,694
De Graff village, Ohio	1,076
Dekalb city, Ill	2,579
Delaud town, Fla	1,113
Delano borough, Pa	1,362
Delavan city, Ill	1,176
Delavan village, Wis	2,038
Delaware city, Ohio	8,224
Delhi village, N. Y	1,564
Delphi city, Ind	1,923
Delphos city, Ohio	4,516
Del Rio town, Tex	1,980
Delta village, Ohio	1,132
Deming town, N. M	1,136
Demopolis city, Ala	1,898
Denison city, Tex	10,058
Denison town, Iowa	1,782
Dennis town, Mass	2,899
Dennison village, Ohio	2,925
Denton city, Tex	2,558
Denver city, Colo	106,713
Depere city, Wis	3,625
Deposit village, N. Y	1,530
Derby town, Conn	5,969
Derby town, Vt	2,900
Derry borough, Pa	1,968
Derry town, N. H	2,604
Deshler village, Ohio	1,114
Des Moines city, Iowa	50,093
Desoto city, Mo	3,960
Detroit city, Mich	205,876
Detroit village, Minn	1,510
Dewitt city, Iowa	1,359
Dexter town, Me	2,732
Dickson borough, Pa	3,110
Dighton town, Mass	1,889
Dillon city, Mont	1,012
Dixon city, Ill	5,161
Dixon town, Cal	1,082
Dobbs Ferry village, N. Y	2,083
Dodge city, Kan	1,763
Dodgeville city, Wis	1,722
Donaldsonville town, La	3,121
Dorset town, Vt	1,696
Douglas town, Mass	1,908
Dover city, N. H	12,790
Dover town, Del	3,061
Dover town, Me	1,942
Dover village, Ohio	3,470
Dowagiac city, Mich	2,806
Downingtown borough, Pa	1,920
Doylestown borough, Pa	2,519
Doylestown village, Ohio	1,131
Dracut town, Mass	1,996
Dravosburg village, Pa	1,089
Dresden town, Me	1,048
Dresden village, Ohio	1,247
Dublin city, Tex	2,025
Dubois borough, Pa	6,149
Dubuque city, Iowa	30,311
Dudley town, Mass	2,944
Duluth city, Minn	33,115
Dunbar borough, Pa	1,381
Duncannon borough, Pa	1,074
Duncansville village, Pa	1,277
Dundee village, Mich	1,166
Dundee village, N. Y	1,200
Dunellen borough, N. J	1,060
Dunkirk city, N. Y	9,416
Dunkirk town, Ind	1,024
Dunkirk village, Ohio	1,220
Dunlap town, Iowa	1,088
Dunmore borough, Pa	8,315
Duquoin city, Ill	4,052
Durand city, Wis	1,154
Durango city, Colo	2,726
Durant town, Miss	1,259
Durham city, N. C	5,485
Durham town, Me	1,111
Duxbury town, Mass	1,908
Dwight village, Ill	1,354
Dyersburg city, Tenn	2,009
Dyersville town, Iowa	1,272
Eagle Grove city, Iowa	1,881
Eagle River village, Wis	1,154
Earlington town, Ky	1,748
Earlville city, Ill	1,058
East Aurora village, N. Y	1,582
East Brady borough, Pa	1,228
East Bridgewater town, Mass	2,911
East Chicago town, Ind	1,255
East Conemaugh borough, Pa	1,158
East Dubuque city, Ill	1,069
East Dundee village, Ill	1,150
East Greenwich town, R. I	3,127
East Guthrie town, Okla	2,141
East Haddam town, Conn	2,599
Easthampton town, Mass	4,395
East Hartford town, Conn	4,455
Eastlake village, Mich	1,856

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
East Las Vegas town, N. M	2,312	Enfield town, N. H	1,439	Flatonia city, Tex	1,304
East Livermore town, Me	1,506	Ennis city, Tex	2,171	Flemingsburg town, Ky	1,172
East Liverpool city, Ohio	10,956	Enosburg town, Vt	2,299	Flemington town, N. J	1,977
East Lyme town, Conn	2,048	Epping town, N. H	1,721	Flint city, Mich	9,803
East Machias town, Me	1,637	Erie city, Kan	1,176	Flora city, Ill	1,695
Eastman town, Ga	1,082	Erie city, Pa	40,634	Florence city, Ala	6,012
East Mauch Chunk borough, Pa	2,772	Escanaba city, Mich	6,808	Florence city, Kan	1,229
Easton city, Pa	14,481	Essex town, Conn	2,035	Florence town, Ariz	1,486
Easton town, Conn	1,001	Essex town, Mass	1,713	Florence town, N. J	1,310
Easton town, Md	2,939	Essex town, Vt	2,013	Florence town, S. C	3,395
Easton town, Mass	4,493	Essexville village, Mich	1,545	Flushing village, N. Y	8,436
East Palestine village, Ohio	1,816	Estherville town, Iowa	1,475	Fonda village, N. Y	1,190
East Portland city, Ore	10,532	Etna borough, Pa	3,767	Fond du Lac city, Wis	12,024
Eastport town, Me	4,908	Eufaula city, Ala	4,394	Ford village, Pa	1,255
East Providence town, R. I	8,422	Eureka city, Cal	4,858	Forest borough, Pa	2,319
East St. Louis city, Ill	15,169	Eureka city, Kan	2,259	Forest village, Ohio	1,126
East Stroudsburg borough, Pa	1,819	Eureka town, Nev	1,609	Forrest town, Ark	1,021
East Syracuse village, N. Y	2,231	Eureka town, Utah	1,733	Forrest town, Ill	1,021
East Tawas village, Mich	2,200	Eureka village, Ill	1,481	Forreston town, Ill	1,118
East Windsor town, Conn	2,890	Eureka Springs city, Ark	3,706	Fort Atkinson city, Wis	2,283
Eaton village, Ohio	2,934	Eutaw town, Ala	1,115	Fort Collins city, Colo	2,011
Eaton Rapids city, Mich	1,970	Evanston town, Wyo	1,995	Fort Dodge city, Iowa	4,871
Eatonton city, Ga	1,682	Evansville city, Ind	50,756	Fort Fairfield town, Me	3,526
Eau Claire city, Wis	17,415	Evansville village, Wis	1,523	Fort Gaines town, Ga	1,097
Ebensburg borough, Pa	1,292	Evart village, Mich	1,269	Fort Gratiot city, Mich	2,832
Eckley village, Pa	1,241	Everett borough, Pa	1,679	Fort Hamilton village, N. Y	2,817
Eden town, Me	1,946	Everett town, Mass	11,068	Fort Howard city, Wis	4,754
Edenton town, N. C	2,205	Evergreen town, Ala	1,783	Fort Kent town, Me	1,826
Edgar city, Neb	1,165	Excelsior Springs city, Mo	2,034	Fort Lee town, N. J	1,253
Edgartown town, Mass	1,156	Exeter town, N. H	4,284	Fort Madison city, Iowa	7,901
Edgefield town, S. C	1,168	Fairbury city, Neb	2,630	Fort Payne city, Ala	2,698
Edgerton city, Wis	1,595	Fairbury town, Ill	2,324	Fort Plain village, N. Y	2,864
Edgewater village, N. Y	14,265	Fairchance borough, Pa	1,092	Fort Recovery village, Ohio	1,186
Edina town, Mo	1,456	Fairfax town, Vt	1,523	Fort Scott city, Kan	11,946
Edinboro borough, Pa	1,107	Fairfield city, Iowa	3,391	Fort Smith city, Ark	11,311
Edinburg town, Ind	2,031	Fairfield town, Conn	3,868	Fort Valley town, Ga	1,752
Edwardsville borough, Pa	3,284	Fairfield town, Ill	1,881	Fort Wayne city, Ind	35,393
Edwardsville city, Ill	3,561	Fairfield town, Me	3,510	Fort Worth city, Tex	23,076
Effingham city, Ill	3,260	Fairfield town, Vt	1,825	Forty Fort borough, Pa	1,031
Egg Harbor city, N. J	1,439	Fairhaven city, Wash	4,076	Foster town, R. I	1,252
Elberton town, Ga	1,572	Fairhaven town, Mass	2,919	Fostoria city, Ohio	7,070
Eldon town, Iowa	1,725	Fairhaven town, Vt	2,791	Fowler town, Ind	1,285
Eldora town, Iowa	1,577	Fairmont city, Neb	1,029	Foxboro town, Mass	2,933
Eldorado city, Kan	3,339	Fairmont town, W. Va	1,023	Foxcroft town, Me	1,726
Eldorado Springs city, Mo	1,543	Fairmont village, Minn	1,205	Frackville borough, Pa	2,520
Eldred borough, Pa	1,050	Fairmount town, Ind	1,462	Framingham town, Mass	9,239
Elgin city, Ill	17,823	Fairport village, N. Y	2,552	Frankfort city, Ind	5,919
Eliot town, Me	1,463	Fairport village, Ohio	1,171	Frankfort city, Kan	1,053
Elizabeth borough, Pa	1,804	Fall River city, Mass	74,398	Frankfort city, Ky	7,892
Elizabeth city, N. J	37,764	Falls city, Neb	2,102	Frankfort town, Me	1,099
Elizabeth town, N. C	3,251	Falmouth town, Ky	1,146	Frankfort village, Mich	1,175
Elizabethtown borough, Pa	1,218	Falmouth town, Me	1,580	Frankfort village, N. Y	2,291
Elizabethtown city, Ky	2,260	Falmouth town, Mass	2,567	Franklin city, Ind	3,781
Elkhart city, Ind	11,360	Fargo city, N. D	5,664	Franklin city, Pa	6,221
Elkhorn village, Wis	1,447	Faribault city, Minn	6,520	Franklin town, Ky	2,324
Elkland borough, Pa	1,006	Farmer city, Ill	1,367	Franklin town, La	2,127
Elkton town, Ky	1,158	Farmersville village, Tex	1,093	Franklin town, Me	1,264
Elkton town, Md	2,318	Farmington city, Iowa	1,002	Franklin town, Mass	4,831
Ellensburg city, Wash	2,768	Farmington city, Mo	1,394	Franklin town, N. H	4,085
Ellenville village, N. Y	2,881	Farmington town, Conn	3,179	Franklin town, Tenn	2,250
Ellicott town, Md	1,488	Farmington town, Ill	1,375	Franklin town, Vt	1,300
Ellington town, Conn	1,539	Farmington town, Me	3,207	Franklin village, Ohio	2,729
Ellis city, Kan	1,107	Farmington town, N. H	3,064	Franklinville village, N. Y	1,021
Ellsworth city, Kan	1,620	Farmville town, Va	2,404	Frederick city, Md	8,193
Ellsworth city, Me	4,804	Far Rockaway village, N. Y	2,288	Fredericksburg city, Va	4,528
Elmhurst village, Ill	1,050	Fayette city, Mo	2,247	Fredericksburg town, Tex	1,532
Elmira city, N. Y	30,893	Fayette town, Iowa	1,062	Fredonia city, Kan	1,515
Elmore village, Ohio	1,198	Fayetteville city, Ark	2,942	Fredonia village, N. Y	3,399
Elmwood town, Ill	1,548	Fayetteville town, N. C	4,222	Freehold town, N. J	2,932
El Paso city, Ill	1,353	Fayetteville town, Tenn	2,410	Freeland borough, Pa	1,730
El Paso city, Tex	10,338	Fayetteville village, N. Y	1,410	Freeport borough, Pa	1,637
Elroy city, Wis	1,413	Fentonville village, Mich	2,182	Freeport city, Ill	10,189
Elwood town, Ind	2,284	Fergus Falls city, Minn	3,772	Freeport town, Me	2,482
Elyria village, Ohio	5,611	Fernandina city, Fla	2,803	Freetown town, Mass	1,417
Eminence town, Ky	1,002	Ferrisburg town, Vt	1,501	Fremont city, Neb	6,747
Emlenton borough, Pa	1,126	Festus city, Mo	1,335	Fremont city, Ohio	7,141
Emmetsburg city, Iowa	1,584	Findlay city, Ohio	18,553	Fremont village, Mich	1,097
Emporia city, Kan	7,551	Fishkill on Hudson village, N.Y	3,617	Frenchtown borough, N. J	1,023
Emporium borough, Pa	2,147	Fitchburg city, Mass	22,037	Frenchville town, Me	2,560
Enfield town, Conn	7,199	Fitzwilliam town, N. H	1,122	Fresno city, Cal	10,818

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
Friend village, Neb	1,347	Goodland city, Kan	1,027	Groveton town, Tex	1,076
Friendship village, N. Y	1,369	Gordon village, Pa	1,194	Grundy Center town, Iowa	1,161
Frostburg town, Md	3,804	Gorham town, Me	2,888	Guilford town, Conn	2,780
Fryeburg town, Me	1,418	Gorham town, N. H.	1,710	Guilford town, Me	1,023
Fulton city, Ill	2,099	Goshen city, Ind	6,033	Gunnison city, Colo	1,105
Fulton city, Mo	4,314	Goshen village, N. Y	2,907	Guthrie town, Okla	2,788
Fulton town, Ky	1,818	Gouldsboro town, Me	1,709	Guthrie Center town, Iowa	1,057
Fulton village, N. Y	4,214	Gouverneur village, N. Y.	3,458	Guttenberg town, Iowa	1,160
Fultonville village, N. Y	1,122	Grafton city, N. D	1,594	Guttenberg town, N. J	1,937
Gadsden town, Ala	2,901	Grafton town, Mass	5,002	Guyandotte village, W. Va	1,502
Gaffney town, S. C	1,631	Grafton town, W. Va	3,159	Hackensack town, N. J	6,004
Gainesville city, Fla	2,790	Graham town, Va	1,021	Hackettstown town, N. J	2,417
Gainesville city, Ga	3,202	Granbury town, Tex	1,164	Haddam town, Conn	2,095
Gainesville city, Tex	6,594	Granby town, Conn	1,251	Haddonfield borough, N. J	2,562
Gainesville town, Ala	1,017	Granby town, Mo	1,400	Hadley town, Mass	1,669
Galena city, Ill	5,635	Grand Forks city, N. D.	4,979	Hagerstown city, Md.	10,118
Galena city, Kan	2,496	Grand Haven city, Mich	5,023	Halletsville town, Tex	1,011
Galesburg city, Ill	15,264	Grand Island city, Neb	7,536	Hallowell city, Me	3,181
Galion city, Ohio	6,326	Grand Junction city, Colo	2,030	Hallstead borough, Pa	1,167
Gallatin city, Mo	1,489	Grand Ledge village, Mich	1,606	Halstead city, Kan	1,071
Gallatin town, Tenn	2,078	Grand Rapids city, Mich	60,278	Hamburg borough, Pa	2,127
Gallipolis city, Ohio	4,498	Grand Rapids city, Wis	1,702	Hamburg city, Iowa	1,634
Gallitzin borough, Pa	2,392	Granite town, Mont	1,310	Hamburg village, N. Y	1,331
Galva town, Ill	2,409	Graniteville town, S. C	1,791	Hamden town, Conn	3,882
Galveston city, Tex	29,084	Grant city, Mo	1,186	Hamilton city, Ill	1,391
Garden city, Kan	1,490	Grant Pass town, Ore	1,432	Hamilton city, Ohio	17,565
Gardiner city, Me	5,491	Granville town, Mass	1,061	Hamilton town, Mo	1,641
Gardner town, Mass	8,424	Granville village, Ohio	1,366	Hamilton village, N. Y	1,744
Gardner village, Ill	1,094	Gray town, Me	1,517	Hammond city, Ind	5,428
Garfield town, N. J	1,028	Grayville city, Ill	1,999	Hammonton town, N. J	3,833
Garnett city, Kan	2,191	Great Barrington town, Mass	4,612	Hampden town, Me	2,484
Garrett town, Ind	2,767	Great Bend borough, Pa	1,002	Hampton town, Iowa	2,067
Garrettsville village, Ohio	1,046	Great Bend city, Kan	2,450	Hampton town, N. H	1,330
Gastonia town, N. C	1,033	Great Falls city, Mont	3,979	Hampton town, Va	2,513
Gatesville city, Tex	1,375	Greeley city, Colo	2,395	Hancock town, Me	1,190
Genesco city, Ill	3,182	Green Bay city, Wis	9,069	Hancock village, Mich	1,772
Geneseo village, N. Y	2,286	Greenbush village, N. Y	7,301	Hancock village, N. Y	1,279
Geneva city, Ill	1,692	Greencastle borough, Pa	1,525	Handsboro town, Miss	1,021
Geneva city, Neb	1,580	Greencastle city, Ind	4,390	Hannibal city, Mo	12,857
Geneva village, N. Y	7,557	Green Cove Springs town, Fla	1,106	Hanover borough, Pa	3,746
Geneva village, Ohio	2,194	Greene village, N. Y	1,067	Hanover town, Mass	2,093
Georgetown town, Colo	1,927	Greenfield city, Ill	1,131	Hanover town, N. H	1,817
Georgetown town, Del	1,353	Greenfield city, Ind	3,100	Hanson town, Mass	1,267
Georgetown town, Mass	2,117	Greenfield town, Iowa	1,048	Harbor Springs village, Mich	1,052
Georgetown town, S. C	2,895	Greenfield town, Mass	5,252	Hardwick town, Mass	2,922
Georgetown town, Tex	2,447	Greenfield village, Ohio	2,460	Hardwick town, Vt	1,547
Georgetown village, Ohio	1,473	Green Island village, N. Y	4,463	Harlan town, Iowa	1,765
Georgia town, Vt	1,282	Greensboro city, Ga	1,313	Harmony town, Ind	1,020
Germantown village, Ill	1,178	Greensboro city, N. C	3,317	Harper city, Kan	1,579
Germantown village, Ohio	1,437	Greensboro town, Ala	1,759	Harpswell town, Me	1,766
Gettysburg borough, Pa	3,221	Greensburg borough, Pa	4,202	Harrington town, Me	1,150
Gibson town, Ill	1,803	Greensburg city, Ind	3,596	Harrisburg city, Pa	39,385
Giddings town, Tex	1,203	Greenview town, Ill	1,106	Harrisburg town, Ill	1,723
Gilberton borough, Pa	3,687	Greenville borough, Pa	3,674	Harrison city, N. J	8,338
Gilford town, N. H	3,585	Greenville city, Ala	2,806	Harrison town, Ark	1,438
Gilman city, Ill	1,112	Greenville city, Ill	1,868	Harrison town, Me	1,071
Gilmanton town, N. H	1,211	Greenville city, Mich	3,056	Harrison village, Ohio	1,690
Gilroy town, Cal	1,694	Greenville city, Ohio	5,473	Harrisonburg city, Va	2,792
Girard city, Ill	1,524	Greenville city, S. C	8,607	Harrisonville town, Mo	1,645
Girard city, Kan	2,541	Greenville town, Miss	6,658	Harrodsburg town, Ky	3,230
Girardville borough, Pa	3,584	Greenville town, N. H	1,255	Hartford city, Conn	53,230
Gladstone city, Mich	1,337	Greenville town, N. C	1,937	Hartford city, Wis	1,296
Glasgow city, Mo	1,781	Greenville town, Tex	4,330	Hartford town, Ind	2,287
Glasgow town, Ky	2,051	Greenville village, Tenn	1,779	Hartford town, Vt	3,740
Glastonbury town, Conn	3,457	Greenwich town, Conn	10,131	Hartford village, Mich	1,044
Glencoe village, Minn	1,649	Greenwich village, N. Y	1,663	Hartland town, Vt	1,393
Glendale village, Ohio	1,444	Greenwood town, Miss	1,055	Hartwell village, Ohio	1,507
Glenlyon village, Pa	2,255	Greenwood town, S. C	1,326	Harvard city, Neb	1,076
Glens Falls village, N. Y	9,509	Grenada town, Miss	2,416	Harvard town, Mass	1,095
Glenwood city, Iowa	1,890	Gretna town, La	3,332	Harvard village, Ill	1,967
Glocester town, R. I	2,095	Griffin city, Ga	4,563	Harwich town, Mass	2,734
Gloster town, Miss	1,142	Griggsville city, Ill	1,400	Hastings borough, Pa	1,070
Gloucester city, Mass	24,651	Grinnell city, Iowa	3,332	Hastings city, Mich	2,972
Gloucester city, N. J	6,564	Griswold town, Conn	3,113	Hastings city, Minn	3,705
Gloversville city, N. Y	13,864	Groton town, Conn	5,539	Hastings city, Neb	13,584
Goffstown town, N. H	1,981	Groton town, Mass	2,057	Hastings on Hudson village, N. Y	1,466
Golconda village, Ill	1,174	Groton town, Vt	1,040	Hatfield town, Mass	1,246
Golden city, Colo	2,383	Groton village, N. Y	1,280	Hattiesburg town, Miss	1,172
Goldsboro city, N. C	4,017	Grove borough, Pa	1,160	Haughville town, Ind	2,144
Gonzales city, Tex	1,641	Groveland town, Mass	2,191	Havana city, Ill	2,525

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
Havana village, N. Y	1,751
Haverhill city, Mass	27,412
Haverhill town, N. H	2,545
Haverstraw village, N. Y	5,070
Havre de Grace city, Md	3,244
Hawesville city, Ky	1,013
Hawkinsville town, Ga	1,755
Hawley borough, Pa	1,968
Hays city, Kan	1,242
Hayward town, Cal	1,419
Hayward village, Wis	1,349
Hazleton borough, Pa	11,872
Healdsburg city, Cal	1,485
Heber city, Utah	1,538
Hebron town, Conn	1,039
Hebron town, Neb	1,502
Helena city, Ark	5,189
Helena city, Mont	13,834
Hempstead city, Tex	1,671
Hempstead village, N. Y	4,831
Henderson city, Ky	8,835
Henderson town, N. C	4,191
Henderson town, Tenn	1,069
Henderson town, Tex	1,536
Hendersonville town, N. C	1,216
Henniker town, N. H	1,385
Henrietta town, Tex	2,100
Henry city, Ill	1,512
Herington city, Kan	1,353
Hermann town, Mo	1,410
Hermon town, Me	1,282
Hiawatha city, Kan	2,486
Hickman town, Ky	1,652
Hickory town, N. C	2,623
Hicksville village, Ohio	2,141
Higbee town, Mo	1,093
Higginsville village, Mo	2,342
Highgate town, Vt	1,853
Highland city, Ill	1,857
Highland Falls village, N. Y	2,237
Highland Park city, Ill	2,163
Highlands city, Colo	5,161
Hightstown borough, N. J	1,875
Hill village, Tenn	1,763
Hillsboro city, Tex	2,541
Hillsboro town, N. H	2,120
Hillsboro village, Ohio	3,620
Hillsdale city, Mich	3,915
Hinesburg town, Vt	1,205
Hingham town, Mass	4,564
Hinsdale town, Mass	1,739
Hinsdale town, N. H	2,258
Hinsdale village, Ill	1,584
Hinton town, W. Va	2,570
Hiram town, Me	1,063
Hobart town, Ind	1,010
Hoboken city, N. J	43,648
Hodgdon town, Me	1,113
Holbrook town, Mass	2,474
Holden city, Mo	2,520
Holden town, Mass	2,623
Holdredge city, Neb	2,601
Holgate village, Ohio	1,134
Holland city, Mich	3,945
Holley village, N. Y	1,381
Hollidaysburg borough, Pa	2,975
Hollis town, Me	1,278
Hollis town, N. H	1,060
Hollister town, Cal	1,234
Holliston town, Mass	2,619
Holly village, Mich	1,266
Holly Springs city, Miss	2,246
Holton city, Kan	2,727
Holyoke city, Mass	35,637
Homer city, La	1,132
Homer village, Mich	1,063
Homestead borough, Pa	7,911
Honeoye Falls village, N. Y	1,128
Honesdale borough, Pa	2,816
Honey Grove city, Tex	1,828
Honnerstown village, Pa	1,014
Hooksett town, N. H	1,893
Hoopeston city, Ill	1,911
Hoosick Falls village, N. Y	7,014
Hope town, Ark	1,937
Hope town, Ind	1,009
Hopedale town, Mass	1,176
Hopkinsville city, Ky	5,833
Hopkinton town, Mass	4,088
Hopkinton town, N. H	1,817
Hopkinton town, R. I	2,864
Hoquiam town, Wash	1,302
Horicon village, Wis	1,354
Hornellsville city, N. Y	10,996
Horseheads village, N. Y	1,716
Horton city, Kan	3,316
Hot Springs city, Ark	8,086
Hot Springs village, S. D	1,423
Houghton village, Mich	2,062
Houlton town, Me	4,015
Houma town, La	1,280
Houston city, Tex	27,557
Houston town, Va	1,285
Houtzdale borough, Pa	2,231
Howard city, Kan	1,015
Howard village, Mich	1,137
Howell village, Mich	2,387
Hubbard village, Ohio	1,498
Hubbardston town, Mass	1,346
Hudson city, N. Y	9,970
Hudson city, Wis	2,885
Hudson town, Mass	4,670
Hudson town, N. H	1,092
Hudson village, Mich	2,178
Hudson village, Ohio	1,143
Hughestown borough, Pa	1,454
Hughesville borough, Pa	1,358
Humboldt city, Kan	1,361
Humboldt city, Neb	1,114
Humboldt town, Iowa	1,075
Humboldt town, Tenn	1,837
Hummelstown borough, Pa	1,486
Huntingburg city, Ind	3,167
Huntingdon borough, Pa	5,729
Huntington city, Ind	7,328
Huntington city, W. Va	10,108
Huntington town, Conn	4,006
Huntington town, Mass	1,385
Huntington village, N. Y	3,028
Huntsville city, Tex	1,509
Huntsville town, Ala	7,995
Huntsville town, Mo	1,836
Hurley village, Wis	2,267
Huron city, S. D	3,038
Huron village, Ohio	1,380
Hutchinson city, Kan	8,682
Hutchinson village, Minn	1,414
Hyattsville town, Md	1,509
Hyde Park town, Mass	10,193
Hyde Park town, Vt	1,633
Hyndman borough, Pa	1,056
Ida Grove town, Iowa	1,563
Idaho Springs town, Colo	1,338
Ilion village, N. Y	4,057
Imlay village, Mich	1,251
Independence city, Iowa	3,163
Independence city, Kan	3,127
Independence city, Mo	6,380
Indiana borough, Pa	1,963
Indianapolis city, Ind	105,436
Indianola city, Iowa	2,254
Inwood village, N. Y	1,277
Iola city, Kan	1,706
Ionia city, Mich	4,482
Iowa city, Iowa	7,016
Iowa Falls town, Iowa	1,796
Ipswich town, Mass	4,439
Iron Mountain city, Mich	8,599
Iron Mountain village, Mo	1,101
Iron River village, Mich	1,117
Ironton city, Ohio	10,93
Ironwood city, Mich	7,74
Irvington village, N. Y	2,29
Irwin borough, Pa	2,42
Ishpeming city, Mich	11,19
Islesboro town, Me	1,00
Ithaca city, N. Y	11,07
Ithaca village, Mich	1,62
Iuka town, Miss	1,01
Jackson city, Mich	20,79
Jackson city, Miss	5,92
Jackson city, Tenn	10,03
Jackson town, La	1,27
Jackson village, Ohio	4,32
Jacksonville city, Fla	17,20
Jacksonville city, Ill	12,93
Jacksonville town, Ala	1,23
Jaffrey town, N. H	1,46
Jamaica town, Vt	1,07
Jamaica village, N. Y	5,36
James city, N. C	1,23
Jamestown city, N. Y	16,03
Jamestown city, N. D	2,29
Jamestown village, Ohio	1,10
Janesville city, Wis	10,83
Jasper town, Ind	1,281
Jay town, Me	1,541
Jeanerette town, La	1,309
Jeanette borough, Pa	3,296
Jefferson city, Mo	6,742
Jefferson city, Tex	3,072
Jefferson city, Wis	2,287
Jefferson town, Iowa	1,875
Jefferson town, Me	1,391
Jefferson town, N. H	1,062
Jefferson village, Ohio	1,346
Jeffersonville city, Ind	10,660
Jenkintown borough, Pa	1,609
Jericho town, Vt	1,461
Jermyn borough, Pa	2,650
Jersey city, N. J	163,003
Jersey Shore borough, Pa	1,853
Jerseyville city, Ill	3,207
Johnson city, Tenn	4,161
Johnson town, Vt	1,462
Johnsonburg village, Pa	1,280
Johnston town, R. I	9,778
Johnstown city, Pa	21,805
Johnstown village, N. Y	7,768
Joliet city, Ill	23,264
Jonesboro town, Ark	2,065
Jonesport town, Me	1,917
Jonesville village, Mich	1,288
Joplin city, Mo	9,943
Jordan village, Minn	1,233
Jordan village, N. Y	1,271
Junction city, Kan	4,502
Kahoka city, Mo	1,425
Kalamazoo city, Mich	17,853
Kalkaska village, Mich	1,161
Kane borough, Pa	2,944
Kankakee city, Ill	9,025
Kansas city, Kan	38,316
Kansas city (*a*), Mo	132,716
Kansas village, Ill	1,037
Kaufman city, Tex	1,282
Kaukauna city, Wis	4,667
Kearney city, Neb	8,074
Keene city, N. H	7,446
Keeseville village, N. Y	2,103
Keithsburg city, Ill	1,484
Kendall borough, Pa	1,937
Kendallville city, Ind	2,960
Kennebunk town, Me	3,172
Kennebunkport town, Me	2,196
Kennett Square borough, Pa	1,326
Kenosha city, Wis	6,532
Kent town, Conn	1,383
Kent village, Ohio	3,501
Kenton city, Ohio	5,557

a Includes 13,048 population, which by recent decision of Missouri state supreme court is now outside the limits of Kansas city.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
Keokuk city, Iowa	14,101	Las Vegas city, N. M	2,385	Little Falls village, Minn	2,354
Kerrville town, Tex	1,044	Lathrop town, Mo	1,082	Little Falls village, N. Y	8,783
Kewanee town, Ill	4,569	Latrobe borough, Pa	3,589	Little Rock city, Ark	25,874
Kewaunee city, Wis	1,216	Lattimer village, Pa	1,051	Littleton town, Mass	1,025
Keyport town, N. J	3,411	Laurel town, Del	2,388	Littelton town, N. H	3,365
Keyser town, W. Va	2,165	Laurel town, Md	1,984	Livermore town, Cal	1,391
Key West city, Fla	18,080	Laurens town, S. C	2,245	Livermore town, Me	1,151
Killingly town, Conn	7,027	Laurinburg town, N. C	1,337	Liverpool village, N. Y	1,284
Kingfisher town, Okla	1,134	Lawrence city, Kan	9,997	Livingston city, Mont	2,850
Kingman city, Kan	2,390	Lawrence city, Mass	44,654	Lockhart town, Tex	1,233
Kingston borough, Pa	2,381	Lawrenceburg city, Ind	4,284	Lockhaven city, Pa	7,358
Kingston city, N. Y	21,261	Lawrenceburg town, Ky	1,382	Lockland village, Ohio	2,474
Kingston town, Mass	1,659	Lead city, S. D	2,581	Lockport city, N. Y	16,038
Kingston town, N. H	1,120	Leadville city, Colo	10,384	Lockport village, Ill	2,449
Kinmundy city, Ill	1,045	Leavenworth city, Kan	19,768	Lodi village, Cal	1,013
Kinston town, N. C	1,726	Lebanon city, Ill	1,636	Logan city, Ohio	3,119
Kirksville city, Mo	3,510	Lebanon city, Ind	3,682	Logan city, Utah	4,565
Kirkwood village, Mo	1,777	Lebanon city, Ky	2,816	Logansport city, Ind	13,328
Kissimmee city, Fla	1,086	Lebanon city, Pa	14,664	Lompoc town, Cal	1,015
Kittanning borough, Pa	3,095	Lebanon town, Conn	1,670	London city, Ohio	3,313
Kittery town, Me	2,864	Lebanon town, Me	1,263	Londonderry town, N. H	1,220
Knightstown town, Ind	1,867	Lebanon town, Mo	2,218	Londonderry town, Vt	1,010
Knightsville town, Ind	1,148	Lebanon town, N. H	3,763	Long Branch town, N. J	7,231
Knoxville borough, Pa	1,723	Lebanon town, Tenn	1,883	Long Island city, N. Y	30,506
Knoxville city, Ill	1,728	Lebanon village, Ohio	3,050	Longmeadow town, Mass	2,183
Knoxville city, Iowa	2,632	Ledyard town, Conn	1,183	Longmont town, Colo	1,543
Knoxville city, Tenn	22,535	Lee town, Mass	3,785	Longview town, Tex	2,034
Kokomo city, Ind	8,261	Leechburg borough, Pa	1,921	Lorain village, Ohio	4,863
Kosciusko town, Miss	1,394	Leesburg town, Va	1,650	Los Angeles city, Cal	50,395
Kutztown borough, Pa	1,595	Lee Summit town, Mo	1,369	Los Gatos town, Cal	1,652
Lacon city, Ill	1,649	Leetonia village, Ohio	2,826	Loudon town, N. H	1,000
Laconia town, N. H	6,143	Lehighton borough, Pa	2,959	Loudonville village, Ohio	1,444
Lacrosse city, Wis	25,090	Leicester town, Mass	3,120	Louisiana city, Mo	5,090
Lacygne city, Kan	1,135	Leipsic village, Ohio	1,353	Louisville city, Ky	161,129
Lafayette city, Ind	16,243	Lemars city, Iowa	4,036	Louisville village, Ohio	1,323
Lafayette town, Ala	1,369	Lena town, Ill	1,270	Lowell city, Mass	77,696
Lafayette town, La	2,106	Lenox town, Mass	2,889	Lowell town, Vt	1,178
Lagrande city, Ore	2,583	Leominster town, Mass	7,269	Lowell village, Mich	1,829
Lagrange city, Ga	3,090	Leon town, Iowa	1,422	Lowville village, N. Y	2,511
Lagrange city, Mo	1,250	Leroy city, Ill	1,258	Lubec town, Me	2,069
Lagrange city, Tex	1,626	Leroy village, N. Y	2,743	Lucas town, Iowa	1,320
Lagrange town, Ind	1,784	Leslie village, Mich	1,058	Ludington city, Mich	7,517
Lagrange village, Ill	2,314	Lesueur borough, Minn	1,763	Ludlow town, Ky	2,469
Laharpe city, Ill	1,113	Lewisburg borough, Pa	3,248	Ludlow town, Mass	1,939
Lajunta town, Colo	1,439	Lewisburg town, W. Va	1,016	Ludlow town, Vt	1,768
Lake city, Minn	2,128	Lewiston city, Me	21,701	Luling town, Tex	1,792
Lake town, Fla	2,020	Lewistown borough, Pa	3,273	Lunenburg town, Mass	1,146
Lake town, Iowa	1,160	Lewistown town, Ill	2,166	Lunenburg town, Vt	1,019
Lake Charles town, La	3,442	Lexington city, Ky	21,567	Luray village, Va	1,386
Lake Forest city, Ill	1,203	Lexington city, Mo	4,537	Luther village, Mich	1,084
Lake Geneva city, Wis	2,297	Lexington city, Neb	1,392	Luverne village, Minn	1,466
Lake Linden village, Mich	1,862	Lexington town, Ill	1,187	Luzerne borough, Pa	2,398
Lake Mills village, Wis	1,053	Lexington town, Mass	3,197	Lykens borough, Pa	2,450
Lakeview village, Mich	1,024	Lexington town, Miss	1,075	Lyme town, N. H	1,154
Lamar town, Mo	2,860	Lexington town, N. C	1,440	Lynchburg city, Va	19,709
Lambertville city, N. J	4,142	Lexington town, Va	3,059	Lyndon town, Vt	2,619
Lampasas town, Tex	2,408	Liberty city, Mo	2,558	Lynn city, Mass	55,727
Lanark city, Ill	1,295	Liberty town, Ind	1,314	Lyons city, Iowa	5,799
Lancaster city, Ohio	7,555	Ligonier town, Ind	2,195	Lyons city, Kan	1,754
Lancaster city, Pa	32,011	Lima city, Ohio	15,981	Lyons village, N. Y	4,475
Lancaster city, Wis	1,543	Lima village, N. Y	1,003	McComb town, Miss	2,383
Lancaster town, Mass	2,201	Limington town, Me	1,092	McComb village, Ohio	1,030
Lancaster town, N. H	3,373	Lincoln city, Ill	6,725	McConnellsville village, Ohio	1,771
Lancaster town, S. C	1,094	Lincoln city, Kan	1,100	McCook city, Neb	2,346
Lancaster village, N. Y	1,692	Lincoln city, Neb	55,154	McDonald borough, Pa	1,698
Lanesboro town, Mass	1,018	Lincoln town, Me	1,756	McDonoughville town, La	2,235
Lansdale borough, Pa	1,858	Lincoln town, R. I	20,355	McGregor city, Iowa	1,160
Lansford borough, Pa	4,004	Lincoln town, Vt	1,255	McKee Rocks village, Pa	1,687
Lansing city, Iowa	1,668	Lincolnville town, Me	1,361	McKeesport borough, Pa	20,741
Lansing city, Kan	1,468	Linwood village, Ohio	1,291	McKenzie town, Tenn	1,166
Lansing city, Mich	13,102	Lisbon town, Iowa	1,079	McKinney city, Tex	2,489
Lansingburg village, N. Y	10,550	Lisbon town, Me	3,120	McLeansboro city, Ill	1,355
Lapeer city, Mich	2,753	Lisbon town, N. H	2,060	McMinnville city, Ore	1,368
Laplata town, Mo	1,169	Litchfield city, Ill	5,811	McMinnville town, Tenn	1,677
Laporte city, Ind	7,126	Litchfield town, Conn	3,304	McPherson city, Kan	3,172
Laporte town, Iowa	1,052	Litchfield town, Me	1,126	McSherrystown borough, Pa	1,020
Laramie city, Wyo	6,388	Litchfield village, Minn	1,899	Machias town, Me	2,035
Laredo city, Tex	11,319	Lithonia town, Ga	1,182	Machiasport town, Me	1,437
Larned city, Kan	1,861	Lititz borough, Pa	1,494	Macomb city, Ill	4,052
Lasalle city, Ill	9,855	Little Compton town, R. I	1,128	Macon city, Ga	22,746

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
Macon city, Mo	3,371
Macon town, Miss	1,565
Madawaska town, Me	1,451
Madison borough, N. J	2,469
Madison city, Ga	2,131
Madison city, Ind	8,936
Madison city, S. D	1,736
Madison city, Wis	13,426
Madison town, Conn	1,429
Madison town, Me	1,815
Madisonville town, Ky	2,212
Madisonville village, Ohio	2,214
Magnolia town, Ark	1,486
Mahanoy borough, Pa	11,286
Malden city, Mass	23,031
Malone village, N. Y	4,986
Malvern town, Ark	1,520
Malvern town, Iowa	1,003
Manasquan town, N. J	1,506
Mancelona village, Mich	1,205
Manchester city, Iowa	2,344
Manchester city, N. H	44,126
Manchester city, Va	9,246
Manchester town, Conn	8,222
Manchester town, Mass	1,789
Manchester town, Vt	1,907
Manchester village, Mich	1,191
Manchester village, Ohio	1,965
Mandan city, N. D	1,328
Mandeville town, La	1,012
Manhattan city, Kan	3,004
Manheim borough, Pa	2,070
Manistee city, Mich	12,812
Manistique village, Mich	2,940
Manitou town, Colo	1,439
Manitowoc city, Wis	7,710
Mankato city, Minn	8,838
Manning town, Iowa	1,233
Manning town, S. C	1,069
Mansfield borough (a), Pa	2,352
Mansfield borough (b), Pa	1,762
Mansfield city, Ohio	13,473
Mansfield town, Conn	1,911
Mansfield town, Mass	3,432
Manti city, Utah	1,950
Maquoketa city, Iowa	3,077
Marathon village, N. Y	1,198
Marblehead town, Mass	8,202
Marceline town, Mo	1,977
Marengo city, Iowa	1,710
Marengo village, Ill	1,445
Marianna village, Ark	1,126
Marietta borough, Pa	2,402
Marietta city, Ga	3,384
Marietta city, Ohio	8,273
Marine city, Mich	3,268
Marinette city, Wis	11,523
Marion city, Ill	1,338
Marion city, Ind	8,769
Marion city, Iowa	3,094
Marion city, Kan	2,047
Marion city, Ohio	8,327
Marion town, Ala	1,982
Marion town, S. C	1,640
Marion town, Va	1,651
Marionville town, Mo	1,159
Marlboro town, Mass	13,805
Marlboro town, N. H	1,695
Marlin town, Tex	2,058
Maroa city, Ill	1,164
Marquette city, Mich	9,093
Marseilles city, Ill	2,210
Marshall city, Ill	1,900
Marshall city, Iowa	8,914
Marshall city, Mich	3,968
Marshall city, Mo	4,297
Marshall city, Tex	7,207
Marshall village, Minn	1,203
Marshallville village, Ga	1,086
Marshfield city, Wis	3,450
Marshfield town, Mass	1,713
Marshfield town, Ore	1,461
Marshfield town, Vt	1,121
Martinez town, Cal	1,600
Martinsburg town, W. Va	7,226
Martins Ferry city, Ohio	6,250
Martinsville city, Ind	2,680
Marysville borough, Pa	1,115
Marysville city, Cal	3,991
Marysville city, Kan	1,913
Marysville town, Mont	1,489
Marysville village, Ohio	2,810
Maryville city, Mo	4,037
Maryville village, Tenn	1,686
Mascoutah city, Ill	2,032
Mason city, Ill	1,869
Mason city, Iowa	4,007
Mason city, Mich	1,875
Mason village, W. Va	1,029
Massena village, N. Y	1,049
Massillon city, Ohio	10,092
Matawan borough, N. J	1,491
Mattapoisett town, Mass	1,148
Matteawan village, N. Y	4,278
Mattoon city, Ill	6,833
Mauch Chunk borough, Pa	4,101
Maumee village, Ohio	1,645
Mauston city, Wis	1,343
Mayfield city, Ky	2,909
Maynard town, Mass	2,700
Mays Landing town, N. J	1,021
Maysville city, Ky	5,358
Mayville borough, Pa	1,695
Mayville city, Wis	1,165
Mayville village, N. Y	1,164
Mazomanie village, Wis	1,034
Meaderville town, Mont	1,075
Meadville city, Pa	9,520
Mechanicsburg borough, Pa	3,691
Mechanicsburg village, Ohio	1,459
Mechanicsville village, N. Y	2,679
Medfield town, Mass	1,493
Medford city, Wis	1,193
Medford town, Mass	11,079
Media borough, Pa	2,736
Medicine Lodge city, Kan	1,095
Medina village, N. Y	4,492
Medina village, Ohio	2,073
Medway town, Mass	2,985
Melrose town, Mass	8,519
Memphis city, Tenn	64,495
Memphis town, Mo	1,780
Menasha city, Wis	4,581
Mendota city, Ill	3,542
Menominee city, Mich	10,630
Menomonie city, Wis	5,491
Merced city, Cal	2,009
Mercer borough, Pa	2,138
Merchantville borough, N. J	1,225
Meredith town, N. H	1,642
Meriden city, Conn	21,652
Meridian city, Miss	10,624
Merrill city, Wis	6,809
Merrimac town, Mass	2,633
Methuen town, Mass	4,814
Metropolis city, Ill	3,573
Mexia town, Tex	1,674
Mexico city, Mo	4,789
Mexico village, N. Y	1,315
Meyersdale borough, Pa	1,847
Miamisburg village, Ohio	2,952
Michigan city, Ind	10,776
Middleboro town, Ky	3,271
Middleboro town, Mass	6,065
Middleburg village, N. Y	1,139
Middlebury town, Vt	2,793
Middlefield town, Conn	1,002
Middleport village, N. Y	1,217
Middleport village, Ohio	3,211
Middletown borough, Pa	5,080
Middletown city, Conn	9,013
Middletown city, N. Y	11,977
Middletown city, Ohio	7,681
Middletown town, Del	1,454
Middletown town, R. I	1,154
Midland city, Mich	2,277
Midway town, Ky	1,185
Mifflinburg borough, Pa	1,417
Milan city, Tenn	1,546
Milan town, Mo	1,234
Milan town, N. H	1,029
Milbank city, S. D	1,207
Milbridge town, Me	1,963
Milford town, Conn	3,811
Milford town, Del	1,226
Milford town, Mass	8,780
Milford town, N. H	3,014
Milford village, Mich	1,138
Millbury town, Mass	4,428
Milldale village, Ky	1,003
Milledgeville city, Ga	3,322
Millersburg borough, Pa	1,527
Millersburg village, Ohio	1,923
Millerstown borough, Pa	1,162
Millersville village, Pa	1,241
Millstadt village, Ill	1,186
Millvale borough, Pa	3,809
Millville city, N. J	10,002
Milo town, Me	1,029
Milton borough, Pa	5,317
Milton city, Fla	1,455
Milton town, Del	1,074
Milton town, Mass	4,278
Milton town, N. H	1,640
Milton town, Vt	1,585
Milwaukee city, Wis	204,468
Minden city, Neb	1,380
Minden town, La	1,298
Mineola town, Tex	1,333
Mineral Point city, Wis	2,694
Miners Mills borough, Pa	2,075
Minersville borough, Pa	3,504
Minerva village, Ohio	1,139
Mineville village, N. Y	1,844
Mingo Junction village, Ohio	1,856
Minneapolis city, Kan	1,756
Minneapolis city, Minn	164,738
Minonk city, Ill	2,316
Minot town, Me	1,355
Minster village, Ohio	1,126
Mishawaka town, Ind	3,371
Missoula city, Mont	3,426
Missouri Valley town, Iowa	2,797
Mitchell city, S. D	2,217
Mitchell town, Ind	1,583
Moberly city, Mo	8,215
Mobile city, Ala	31,076
Modesto town, Cal	2,402
Mohawk village, N. Y	1,806
Moline city, Ill	12,000
Momence village, Ill	1,635
Monett town, Mo	1,699
Monmouth city, Ill	5,936
Monmouth town, Me	1,362
Monongahela city, Pa	4,096
Monon town, Ind	1,064
Monroe city, La	3,256
Monroe city, Mich	5,258
Monroe city, Wis	3,768
Monroe town, Me	1,079
Monroe town, Mo	1,830
Monroe town, N. C	1,866
Monson town, Me	1,237
Monson town, Mass	3,650
Montague town, Mass	6,295
Montague village, Mich	1,623
Monterey city, Cal	1,662
Montesano town, Wash	1,632
Montevideo village, Minn	1,437
Montezuma town, Iowa	1,062

a In Allegheny county.

b In Tioga county.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
Montgomery city, Ala	21,883	Napoleon village, Ohio	2,764	New Madrid city, Mo	1,193
Montgomery town, Mo	2,199	Nappanee town, Ind	1,493	Newmarket town, N. H	2,742
Montgomery village, Minn	1,086	Nashua city, N. H	19,311	New Marlboro town, Mass	1,305
Montgomery village, N. Y	1,024	Nashua town, Iowa	1,240	New Milford town, Conn	3,917
Monticello city, Ill	1,643	Nashville city, Ill	2,084	Newnan city, Ga	2,859
Monticello city, Iowa	1,938	Nashville city, Tenn	76,168	New Orleans city, La	242,039
Monticello town, Ark	1,285	Nashville village, Mich	1,029	New Philadelphia city, Ohio	4,456
Monticello town, Fla	1,218	Natchez city, Miss	10,101	Newport borough, Pa	1,417
Monticello town, Ind	1,518	Natchitoches town, La	1,820	Newport city, Ky	24,918
Monticello town, Me	1,132	Natick town, Mass	9,118	Newport city, R. I	19,457
Monticello village, N. Y	1,016	National city, Cal	1,353	Newport town, Ark	1,571
Montoursville borough, Pa	1,278	Naugatuck town, Conn	6,218	Newport town, Me	1,188
Montpelier town, Idaho	1,174	Nauvoo city, Ill	1,208	Newport town, N. H	2,623
Montpelier town, Vt	4,160	Navarre village, Ohio	1,010	Newport town, Vt	3,047
Montpelier village, Ohio	1,293	Navasota city, Tex	2,997	Newport News town, Va	4,449
Montrose borough, Pa	1,735	Nazareth borough, Pa	1,318	New Portland town, Me	1,034
Montrose town, Colo	1,330	Nebraska city, Neb	11,494	New Richmond city, Wis	1,408
Montville town, Conn	2,344	Necedah village, Wis	1,708	New Richmond village, Ohio	2,379
Montville town, Me	1,049	Needham town, Mass	3,035	New Rochelle village, N. Y	8,217
Moorehead city, Minn	2,088	Neenah city, Wis	5,083	New Sharon town, Iowa	1,026
Moravia village, N. Y	1,486	Negaunee city, Mich	6,078	New Sharon town, Me	1,064
Morehead town, N. C	1,064	Neillsville city, Wis	1,936	New Shoreham town, R. I	1,320
Morenci village, Mich	1,248	Neligh city, Neb	1,209	New Straitsville village, Ohio	2,782
Morgan city, La	2,291	Nelsonville village, Ohio	4,558	Newton city, Ill	1,428
Morganfield town, Ky	1,094	Neodesha city, Kan	1,528	Newton city, Iowa	2,564
Morgan Park village, Ill	1,027	Neosho city, Mo	2,198	Newton city, Kan	5,605
Morganton town, N. C	1,557	Nephi city, Utah	2,034	Newton city, Mass	24,379
Morgantown town, W. Va	1,011	Nesquehoning village, Pa	1,655	Newton town, N. C	1,038
Morrellville village, Pa	2,827	Nevada city, Cal	2,524	Newton town, N. H	1,064
Morrillton city, Ark	1,644	Nevada city, Mo	7,262	Newton town, N. J	3,003
Morris city, Ill	3,653	Nevada town, Iowa	1,662	Newtown borough, Pa	1,213
Morris village, Minn	1,266	New Albany city, Ind	21,059	Newtown town, Conn	3,539
Morrison city, Ill	2,088	Newark city, N. J	181,830	New Ulm city, Minn	3,741
Morristown city, N. J	8,156	Newark city, Ohio	14,270	Newville borough, Pa	1,562
Morristown town, Tenn	1,999	Newark town, Del	1,191	New York city, N. Y	1,515,301
Morristown town, Vt	2,411	Newark village, N. Y	3,698	New York Mills village, N. Y	2,552
Morrisville borough, Pa	1,203	Newaygo village, Mich	1,330	Niagara Falls village, N. Y	5,502
Moultonboro town, N. H	1,034	New Bedford city, Mass	40,733	Nicholasville town, Ky	2,157
Mound city, Mo	1,193	Newbern city, N. C	7,843	Nickerson city, Kan	1,662
Moundsville city, W. Va	2,688	Newbern town, Tenn	1,236	Niles city, Mich	4,197
Mount Airy town, N. C	1,768	Newberry town, S. C	3,020	Niles city, Ohio	4,289
Mount Ayr town, Iowa	1,265	Newberry village, Mich	1,115	Noblesville city, Ind	3,054
Mount Carmel borough, Pa	8,254	New Bethlehem borough, Pa	1,026	Nogales town, Ariz	1,194
Mount Carmel city, Ill	3,376	New Boston town, N. H	1,067	Nokomis town, Ill	1,305
Mount Carroll city, Ill	1,836	New Braunfels city, Tex	1,608	Norborne village, Mo	1,005
Mount Clemens city, Mich	4,748	New Bremen village, Ohio	1,239	Norfolk city, Neb	3,038
Mount Desert town, Me	1,355	New Brighton borough, Pa	5,616	Norfolk city, Va	34,871
Mount Gilead village, Ohio	1,329	New Brighton village, N. Y	16,423	Norfolk town, Conn	1,546
Mount Holly town, Vt	1,214	New Britain city, Conn	16,519	Normal city, Ill	3,459
Mount Holly Springs borough, Pa	1,190	New Brunswick city, N. J	18,603	Norridgewock town, Me	1,656
Mount Joy borough, Pa	1,848	Newburg city, N. Y	23,087	Norristown borough, Pa	19,791
Mount Kisco village, N. Y	1,095	Newburg town, Ind	1,046	North Adams town, Mass	16,674
Mount Morris village, N. Y	2,286	Newbury town, Mass	1,427	North Amherst village, Ohio	1,648
Mount Olive village, Ill	1,986	Newbury town, Vt	2,080	Northampton city, Mass	14,990
Mount Pleasant borough, Pa	3,652	Newburyport city, Mass	13,947	North Andover town, Mass	3,742
Mount Pleasant city, Iowa	3,997	New Canaan town, Conn	2,701	North Attleboro town, Mass	6,727
Mount Pleasant city, Mich	2,701	Newcastle city, Del	4,010	North Baltimore village, Ohio	2,857
Mount Pleasant city, Utah	2,254	Newcastle city, Pa	11,600	North Berwick town, Me	1,803
Mount Pleasant town, S. C	1,138	Newcastle town, Ind	2,697	Northboro town, Mass	1,952
Mount Pulaski village, Ill	1,357	Newcastle town, Me	1,282	Northbridge town, Mass	4,603
Mount Sterling city, Ky	3,629	Newcastle town, Wyo	1,715	North Brookfield town, Mass	3,871
Mount Sterling town, Ill	1,655	New Comerstown village, Ohio	1,251	North Canaan town, Conn	1,683
Mount Vernon city, Ill	3,233	New Cumberland town, W. Va	2,305	North Danville town, Va	3,799
Mount Vernon city, Ind	4,705	New Decatur town, Ala	3,565	Northeast borough, Pa	1,538
Mount Vernon city, Ohio	6,027	New Gloucester town, Me	1,234	Northeast town, Md	1,249
Mount Vernon town, Iowa	1,259	Newhampton town, Iowa	1,314	Northfield city, Minn	2,659
Mount Vernon village, N. Y	10,830	New Harmony town, Ind	1,197	Northfield town, Mass	1,869
Muncie city, Ind	11,345	New Hartford town, Conn	3,160	Northfield town, N. H	1,115
Muncy borough, Pa	1,295	New Haven borough, Pa	1,221	Northfield town, Vt	2,628
Murfreesboro city, Tenn	3,739	New Haven city, Conn	81,298	North Haven town, Conn	1,862
Murphysboro city, Ill	3,880	New Haven town, Ind	1,079	North Indianapolis town, Ind	1,479
Muscatine city, Iowa	11,454	New Haven town, Vt	1,224	North Kingstown town, R. I	4,193
Muskegon city, Mich	22,702	New Holland village, Pa	1,060	North Knoxville town, Tenn	2,297
Myerstown village, Pa	1,880	New Hope borough, Pa	1,142	North Manchester town, Ind	2,384
Nacogdoches city, Tex	1,138	New Iberia town, La	3,447	North Muskegon village, Mich	1,590
Nanticoke borough, Pa	10,044	New Lexington village, Ohio	1,470	North Peoria village, Ill	1,086
Nantucket town, Mass	3,268	New Lisbon village, Ohio	2,278	North Platte city, Neb	3,055
Napa city, Cal	4,395	New London city, Conn	13,757	North Providence town, R. I	2,084
Naperville city, Ill	2,216	New London city, Wis	2,050	North St. Paul village, Minn	1,099
Naples village, N. Y	1,266	New London village, Ohio	1,096	North Smithfield town, R. I	3,173

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
North Springfield village, Ill	1,043
North Stonington town, Conn	1,463
North Tarrytown village, N. Y	3,179
North Tonawanda village, N. Y	4,793
Northumberland borough, Pa	2,744
Northumberland town, N. H	1,356
North Utica village, Ill	1,094
North Vernon city, Ind	2,012
Northville village, Mich	1,573
North Wales borough, Pa	1,060
Northwood town, N. H	1,478
North Yakima city, Wash	1,535
Norton city, Kan	1,074
Norton town, Mass	1,785
Norwalk city, Ohio	7,195
Norwalk town, Conn	17,747
Norway town, Me	2,665
Norwell town, Mass	1,635
Norwich city, Conn	16,156
Norwich town, Vt	1,304
Norwich village, N. Y	5,212
Norwood town, Mass	3,733
Norwood village, N. Y	1,463
Nunda village, N. Y	1,010
Nyack village, N. Y	4,111
Oak Cliff village, Tex	2,470
Oakdale town, Cal	1,012
Oak Harbor village, Ohio	1,681
Oakland city, Cal	48,682
Oakland town, Ind	1,524
Oakland town, Me	2,044
Oakland town, Md	1,046
Oakmont borough, Pa	1,678
Oak Park village, Ill	4,771
Oberlin village, Ohio	4,376
Ocala city, Fla	2,904
Ocean Grove town, N. J	2,754
Ocean Springs town, Miss	1,148
Oconomowoc city, Wis	2,729
Oconto city, Wis	5,219
Odebolt town, Iowa	1,122
Odessa village, Mo	1,272
Ogden city, Utah	14,889
Ogdensburg city, N. Y	11,662
Oil city, Pa	10,932
Oklahoma city, Okla	4,151
Okolona town, Miss	2,099
Olathe city, Kan	3,294
Old Lyme town, Conn	1,319
Old Saybrook town, Conn	1,484
Oldtown town, Me	5,312
Olean village, N. Y	7,358
Olney city, Ill	3,831
Olympia city, Wash	4,698
Olyphant borough, Pa	4,083
Omaha city, Neb	140,452
Onaro village, Wis	1,232
Onalaska city, Wis	1,587
Onawa town, Iowa	1,358
Oneida village, N. Y	6,083
O'Neil city, Neb	1,226
Oneonta village, N. Y	6,272
Opelika city, Ala	3,703
Opelousas town, La	1,572
Orange city, N. J	18,844
Orange city, Tex	3,173
Orange town, Conn	4,537
Orange town, Iowa	1,246
Orange town, Mass	4,568
Orangeburg city, S. C	2,964
Ord village, Neb	1,208
Oregon city, Ill	1,566
Oregon city, Ore	3,062
Orland town, Me	1,390
Orlando city, Fla	2,856
Orleans town, Mass	1,219
Orono town, Me	2,790
Oroville town, Cal	1,787
Orrington town, Me	1,406
Orrville village, Ohio	1,765
Orwell town, Vt	1,265
Orwigsburg borough, Pa	1,290
Osage city, Iowa	1,913
Osage city, Kan	3,469
Osage Mission city, Kan	1,097
Osawatomie city, Kan	2,662
Osborne city, Kan	1,174
Osceola city, Iowa	2,120
Osceola Mills borough, Pa	1,730
Osceola Mine village, Mich	1,413
Oscoda village, Mich	3,593
Oshkosh city, Wis	22,836
Oskaloosa city, Iowa	6,558
Ossipee town, N. H	1,630
Oswego city, Kan	2,574
Oswego city, N. Y	21,842
Oswego Falls village, N. Y	1,821
Otsego village, Mich	1,626
Ottawa city, Ill	9,985
Ottawa city, Kan	6,248
Ottawa village, Ohio	1,717
Ottumwa city, Iowa	14,001
Ouray city, Colo	2,534
Ovid village, Mich	1,423
Owatonna city, Minn	3,849
Owensboro city, Ky	9,837
Owosso city, Mich	6,564
Oxford borough, Pa	1,711
Oxford city, Miss	1,546
Oxford town, Ala	1,473
Oxford town, Me	1,455
Oxford town, Md	1,135
Oxford town, Mass	2,616
Oxford town, N. J	2,383
Oxford town, N. C	2,907
Oxford village, Mich	1,128
Oxford village, N. Y	1,477
Oxford village, Ohio	1,922
Ozark village, Ala	1,195
Pacific Grove town, Cal	1,336
Pacific town, Mo	1,184
Paoolett Mills town, S. C	1,125
Paducah city, Ky	12,797
Painesville village, Ohio	4,755
Palatka city, Fla	3,039
Palestine city, Tex	5,838
Palmer town, Mass	6,520
Palmer village, Mich	1,011
Palmyra city, Mo	2,515
Palmyra town, Me	1,004
Palmyra town, N. J	1,903
Palmyra village, N. Y	2,131
Palo Alto borough, Pa	1,424
Palouse city, Wash	1,119
Pana city, Ill	5,077
Paola city, Kan	2,943
Paragould town, Ark	1,666
Paris city, Ill	4,996
Paris city, Ky	4,218
Paris city, Tenn	1,917
Paris city, Tex	8,254
Paris town, Me	3,156
Paris town, Mo	1,487
Park city, Utah	2,850
Parker city, Pa	1,317
Parkersburg city, W. Va	8,408
Parkesburg borough, Pa	1,514
Parsons borough, Pa	2,412
Parsons city, Kan	6,736
Parsonsfield town, Me	1,398
Pasadena city, Cal	4,882
Passaic city, N. J	13,028
Pass Christian town, Miss	1,705
Paterson city, N. J	78,347
Pattersonville town, La	1,414
Paulding village, Ohio	1,879
Paulsboro town, N. J	1,131
Pawlet town, Vt	1,745
Pawnee village, Neb	1,550
Pawpaw village, Mich	1,391
Pawtucket city, R. I	27,633
Paxton city, Ill	2,187
Payne village, Ohio	1,146
Payson city, Utah	2,135
Peabody city, Kan	1,474
Peabody town, Mass	10,158
Pecatonica village, Ill	1,059
Peekskill village, N. Y	9,676
Pekin city, Ill	6,347
Pella city, Iowa	2,408
Pelzer town, S. C	1,878
Pembroke town, Me	1,514
Pembroke town, Mass	1,320
Pembroke town, N. H	3,172
Pen Argyl borough, Pa	2,108
Pendleton town, Ore	2,506
Penn Yan village, N. Y	4,254
Penobscot town, Me	1,313
Pensacola city, Fla	11,750
Pentwater village, Mich	1,510
Peoria city, Ill	41,024
Pepperell town, Mass	3,127
Perry city, Iowa	2,880
Perry village, N. Y	1,528
Perrysburg village, Ohio	1,747
Perth Amboy city, N. J	9,512
Peru city, Ill	5,550
Peru city, Ind	7,028
Peshtigo village, Wis	1,719
Petaluma city, Cal	3,692
Peterboro town, N. H	2,507
Petersburg city, Ill	2,342
Petersburg city, Va	22,680
Petersburg town, Ind	1,494
Petersham town, Mass	1,050
Petoskey village, Mich	2,872
Phelps village, N. Y	1,336
Philadelphia city, Pa	1,046,964
Philipsburg borough (*a*), Pa	3,245
Phillipsburg borough (*b*), Pa	1,494
Phillipsburg city, N. J	8,644
Phillipsburg town, Mont	1,058
Phillips town, Me	1,394
Philmont village, N. Y	1,818
Phippsburg town, Me	1,396
Phenix city, Ala	3,700
Phenix city, Ariz	3,152
Phenix village, N. Y	1,466
Phenixville borough, Pa	8,514
Piedmont town, S. C	2,436
Pierce city, Mo	2,511
Piermont village, N. Y	1,219
Pierre city, S. D	3,235
Piketon village, Ohio	1,022
Pilot Point village, Tex	1,090
Pinckneyville city, Ill	1,298
Pine Bluff city, Ark	9,952
Pine Grove borough, Pa	1,103
Pipestone village, Minn	1,232
Piqua city, Ohio	9,090
Pittsburg city, Kan	6,697
Pittsburg city, Pa	238,617
Pittsburg town, Tex	1,203
Pittsfield town, Ill	2,295
Pittsfield town, Me	2,503
Pittsfield town, Mass	17,281
Pittsfield town, N. H	2,605
Pittsford town, Vt	1,775
Pittston borough, Pa	10,302
Pittston town, Me	1,281
Placerville city, Cal	1,690
Plain village, Ohio	1,245
Plainfield city, N. J	11,267
Plainfield town, Conn	4,582
Plainfield town, N. H	1,173
Plainville town, Conn	1,993
Plainwell village, Mich	1,414
Plaistow town, N. H	1,085
Plano city, Ill	1,825
Plaquemine town, La	3,222

a In Center county.

b In Beaver county.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
Platteville city, Wis	2,740
Plattsburg city, Mo	1,634
Plattsburg village, N. Y	7,010
Plattsmouth city, Neb	8,392
Pleasant Grove city, Utah	1,926
Pleasant Hill town, Mo	2,217
Pleasanton city, Kan	1,139
Pleasant Ridge village, Ohio	1,027
Plymouth borough, Pa	9,344
Plymouth city, Ind	2,723
Plymouth city, Wis	1,503
Plymouth town, Conn	2,147
Plymouth town, Mass	7,314
Plymouth town, N. C	1,212
Plymouth town, N. H	1,852
Plymouth village, Mich	1,172
Plymouth village, Ohio	1,133
Pocahontas town, Va	2,953
Pocomoke town, Md	1,866
Point Pleasant town, W. Va	1,853
Poland town, Me	2,472
Polo city, Ill	1,728
Pomeroy city, Ohio	4,726
Pomfret town, Conn	1,471
Pomona city, Cal	3,634
Ponca city, Neb	1,009
Pontiac city, Ill	2,784
Pontiac city, Mich	6,200
Poplar Bluff city, Mo	2,187
Portage city, Wis	5,143
Port Allegheny borough, Pa	1,230
Port Byron village, N. Y	1,105
Port Carbon borough, Pa	1,076
Port Chester village, N. Y	5,274
Port Clinton village, Ohio	2,049
Port Deposit town, Md	1,908
Porter town, Me	1,015
Porters Mills village, Wis	1,195
Port Ewen village, N. Y	1,211
Port Fulton town, Ind	1,104
Port Gibson town, Miss	1,524
Port Henry village, N. Y	2,436
Port Huron city, Mich	13,543
Port Jefferson village, N. Y	2,026
Port Jervis village, N. Y	9,327
Portland city, Ind	3,725
Portland city, Me	36,425
Portland city, Ore	46,385
Portland town, Conn	4,687
Portland village, Mich	1,678
Port Perry village, Pa	1,031
Port Richmond village, N. Y	6,290
Portsmouth city, N. H	9,827
Portsmouth city, Ohio	12,394
Portsmouth city, Va	13,268
Portsmouth town, R. I	1,949
Port Townsend city, Wash	4,558
Port Washington city, Wis	1,659
Potsdam village, N. Y	3,961
Pottstown borough, Pa	13,285
Pottsville borough, Pa	14,117
Poughkeepsie city, N. Y	22,206
Poultney town, Vt	3,031
Pownal town, Vt	1,019
Prairie du Chien city, Wis	3,131
Pratt city, Kan	1,418
Pratt Mines town, Ala	1,046
Prescott city, Ariz	1,759
Prescott town, Ark	1,287
Presque Isle town, Me	3,046
Preston town, Conn	2,555
Princeton borough, N. J	3,422
Princeton city, Ill	3,396
Princeton city, Ind	3,076
Princeton town, Ky	1,857
Princeton town, Me	1,027
Princeton town, Mo	1,410
Proctor town, Vt	1,768
Providence city, R. I	132,146
Provincetown town, Mass	4,642

PLACES.	Population.
Provo city, Utah	5,159
Pueblo city, Colo	24,558
Pulaski town, Tenn	2,274
Pulaski town, Va	2,112
Pulaski village, N. Y	1,517
Punxsutawney borough, Pa	2,792
Putnam town, Conn	6,512
Putney town, Vt	1,075
Puyallup town, Wash	1,732
Quakertown borough, Pa	2,169
Quanah town, Tex	1,477
Quincy city, Ill	31,494
Quincy city, Mass	16,723
Quincy village, Mich	1,250
Quitman town, Ga	1,868
Racine city, Wis	21,014
Radford town, Va	2,060
Rahway city, N. J	7,105
Raleigh city, N. C	12,678
Randleman town, N. C	1,754
Randolph town, Me	1,281
Randolph town, Mass	3,946
Randolph town, Vt	3,232
Randolph village, N. Y	1,201
Rantoul village, Ill	1,074
Rapid city, S. D	2,128
Raritan borough, N. J	2,556
Raton town, N. M	1,255
Ravenna village, Ohio	3,417
Rawlins city, Wyo	2,235
Raymond town, N. H	1,131
Raynham town, Mass	1,340
Readfield town, Me	1,176
Reading city, Pa	58,661
Reading town, Mass	4,088
Red Bank town, N. J	4,145
Red Bluff city, Cal	2,608
Red Bud city, Ill	1,176
Red Cloud city, Neb	1,839
Redding city, Cal	1,821
Redding town, Conn	1,546
Red Jacket village, Mich	3,073
Redlands town, Cal	1,904
Red Oaks city, Iowa	3,321
Red Wing city, Minn	6,294
Redwood city, Cal	1,572
Redwood Falls village, Minn	1,298
Reed village, Mich	1,776
Reedsburg city, Wis	1,737
Rehoboth town, Mass	1,786
Reidsville town, N. C	2,969
Reno city, Nev	3,563
Renovo borough, Pa	4,154
Rensselaer town, Ind	1,455
Revere town, Mass	5,668
Reynoldsville borough, Pa	2,789
Reynoldton borough, Pa	1,379
Rhinebeck village, N. Y	1,649
Rhinelander village, Wis	2,658
Rice Lake city, Wis	2,130
Richfield city, Utah	1,531
Richfield Springs village, N. Y	1,623
Richford town, Vt	2,196
Rich Hill city, Mo	4,008
Richland Center city, Wis	1,819
Richmond city, Ind	16,608
Richmond city, Mo	2,895
Richmond city, Va	81,388
Richmond town, Ky	5,073
Richmond town, Me	3,082
Richmond town, R. I	1,669
Richmond town, Vt	1,115
Richmond village, Mich	1,074
Richwood village, Ohio	1,415
Rico town, Colo	1,134
Ridgedale village, Tenn	1,254
Ridgefield town, Conn	2,235
Ridgely village, Ill	1,007
Ridgewood town, N. J	1,047
Ridgway borough, Pa	1,903

PLACES.	Population.
Rio Grande city, Tex	1,968
Ripley village, Ohio	2,483
Ripon city, Wis	3,358
Rising Sun city, Ind	1,689
River Falls city, Wis	1,783
Riverside city, Cal	4,683
Riverside town, N. J	1,340
Riverside village, Ohio	2,169
Riverton town, N. J	1,075
Riverton village, Ill	1,127
Roanoke city, Va	16,159
Robinson city, Ill	1,387
Rochelle city, Ill	1,789
Rochester borough, Pa	3,649
Rochester city, Minn	5,321
Rochester city, N. Y	133,896
Rochester town, Ind	2,467
Rochester town, Mass	1,012
Rochester town, N. H	7,396
Rochester town, Vt	1,257
Rockaway Beach village, N. Y	1,502
Rockdale city, Tex	1,505
Rock Falls city, Ill	1,900
Rockford city, Ill	23,584
Rockford town, Iowa	1,010
Rock Hill town, S. C	2,744
Rockingham town, Vt	4,579
Rock Island city, Ill	13,634
Rockland city, Me	8,174
Rockland town, Mass	5,213
Rocklin town, Cal	1,056
Rockport town, Ind	2,314
Rockport town, Mass	4,087
Rockport town, Tex	1,069
Rock Rapids town, Iowa	1,394
Rock Springs town, Wyo	3,406
Rockville city, Ind	1,689
Rockville town, Md	1,568
Rockwood town, Tenn	2,305
Rocky Hill town, Conn	1,069
Rogers town, Ark	1,265
Rogers Park village, Ill	1,708
Rogersville village, Tenn	1,158
Rolla city, Mo	1,592
Rollinsford town, N. H	2,008
Rome city, Ga	6,957
Rome city, N. Y	14,991
Romeo village, Mich	1,687
Roodhouse city, Ill	2,360
Roseburg city, Ore	1,472
Rosedale city, Kan	2,276
Rosendale village, N. Y	1,706
Roslyn town, Wash	1,484
Roslyn village, N. Y	1,251
Roswell town, Ga	1,138
Rouse Point village, N. Y	1,856
Rowley town, Mass	1,248
Royalston town, Mass	1,030
Royalton town, Vt	1,483
Royersford borough, Pa	1,815
Rushville city, Ind	3,475
Rushville town, Ill	2,081
Rusk town, Tex	1,383
Russellville town, Ark	1,321
Russellville town, Ky	2,253
Rutherford borough, N. J	2,293
Rutland town, Vt	11,760
Ryegate town, Vt	1,126
Sabetha city, Kan	1,368
Sabina village, Ohio	1,080
Sac city, Iowa	1,249
Saco city, Me	6,075
Sacramento city, Cal	26,386
Saginaw city, Mich	46,322
St. Albans town, Me	1,206
St. Albans town, Vt	7,771
St. Augustine city, Fla	4,742
St. Bernard village, Ohio	1,779
St. Charles city, Ill	1,690
St. Charles city, Minn	1,178

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
St. Charles city, Mo	6,161	Santa Paula town, Cal	1,047	Shenandoah borough, Pa	15,944
St. Clair borough, Pa	3,680	Santa Rosa city, Cal	5,220	Shenandoah town, Iowa	2,440
St. Clair city, Mich	2,353	Saratoga Springs village, N. Y	11,975	Shepherdstown town, W. Va	1,515
St. Clairsville village, Ohio	1,191	Sarcoxie town, Mo	1,172	Sherborn town, Mass	1,381
St. Cloud city, Minn	7,686	Sardis town, Miss	1,044	Sheridan town, Ind	1,134
Ste. Genevieve city, Mo	1,586	Saugerties village, N. Y	4,237	Sherman city, Tex	7,335
St. Elmo village, Tenn	2,577	Saugus town, Mass	3,673	Shickshinny borough, Pa	1,448
St. George town, Me	2,491	Sauk Center city, Minn	1,695	Shippensburg borough, Pa	2,188
St. Helena town, Cal	1,705	Sauk Rapids village, Minn	1,185	Shirley town, Mass	1,191
St. Ignace city, Mich	2,704	Sault Ste. Marie city, Mich	5,760	Shoreham town, Vt	1,240
St. John village, Mich	3,127	Sausalito town, Cal	1,334	Shreve village, Ohio	1,012
St. Johnsbury town, Vt	6,567	Savanna city, Ill	3,097	Shreveport city, La	11,979
St. Johnsville village, N. Y	1,263	Savannah city, Ga	43,189	Shrewsbury town, Mass	1,449
St. Joseph city, Mo	52,324	Savannah town, Mo	1,288	Shullsburg city, Wis	1,393
St. Joseph village, Mich	3,733	Savannah town, Tenn	1,087	Sibley town, Iowa	1,090
St. Louis city, Mo	451,770	Saybrook town, Conn	1,484	Sidney town, Me	1,334
St. Louis village, Mich	2,246	Scarboro town, Me	1,794	Sidney village, N. Y	1,358
St. Martinville village, La	1,814	Schaghticoke village, N. Y	1,258	Sidney village, Ohio	4,850
St. Mary borough, Pa	1,745	Schenectady city, N. Y	19,902	Sigourney city, Iowa	1,523
St. Mary city, Kan	1,174	Schoharie village, N. Y	1,028	Silver city, N. M	2,102
St. Mary village, Ohio	3,000	Schuyler city, Neb	2,160	Silver Creek village, N. Y	1,678
St. Michael town, Md	1,329	Schuylerville village, N. Y	1,387	Simsbury town, Conn	1,874
St. Paris village, Ohio	1,145	Schuylkill Haven borough, Pa	3,088	Singsing village, N. Y	9,352
St. Paul city, Minn	133,156	Scituate town, Mass	2,318	Sioux city, Iowa	37,806
St. Paul city, Neb	1,263	Scituate town, R. I	3,174	Sioux Falls city, S. D	10,177
St. Paul Park village, Minn	1,173	Scotland city, S. D	1,083	Skaneateles village, N. Y	1,559
St. Peter city, Minn	3,671	Scottdale borough, Pa	2,693	Skowhegan town, Me	5,008
St. Regis Falls village, N. Y	1,210	Scranton city, Kan	1,572	Slater town, Mo	2,400
Salamanca village, N. Y	3,692	Scranton city, Pa	75,215	Slatington borough, Pa	2,716
Salem city, Ill	1,493	Scranton town, Miss	1,353	Sleepy Eye village, Minn	1,513
Salem city, Mass	30,801	Seabrook town, N. H	1,672	Smethport borough, Pa	1,150
Salem city, Mo	1,315	Seaford town, Del	1,462	Smithfield city, Utah	1,080
Salem city, N. J	5,516	Searcy town, Ark	1,203	Smithfield town, R. I	2,500
Salem city, N. C	2,711	Searsmont town, Me	1,144	Smyrna town, Del	2,455
Salem city, Ohio	5,780	Searsport town, Me	1,693	Snohomish city, Wash	1,003
Salem town, Ind	1,975	Seattle city, Wash	42,837	Snow Hill town, Md	1,483
Salem town, N. H	1,805	Sedalia city, Mo	14,068	Socorro city, N. M	2,295
Salem town, Va	3,279	Sedgwick town, Me	1,012	Soddy village, Tenn	1,173
Salida city, Colo	2,586	Seekonk town, Mass	1,317	Sodus village, N. Y	1,028
Salina city, Kan	6,149	Seguin town, Tex	1,716	Somers town, Conn	1,407
Salinas city, Cal	2,339	Selins Grove borough, Pa	1,315	Somerset borough, Pa	1,713
Salineville village, Ohio	2,369	Selma city, Ala	7,622	Somerset city, Ky	2,625
Salisbury city, N. C	4,418	Selma town, Cal	1,150	Somerset town, Mass	2,100
Salisbury town, Conn	3,420	Senatobia town, Miss	1,077	Somerset village, Ohio	1,127
Salisbury town, Md	2,905	Seneca city, Kan	2,032	Somersworth town, N. H	6,207
Salisbury town, Mass	1,316	Seneca town, Mo	1,101	Somerville borough, N. J	3,861
Salisbury town, Mo	1,672	Seneca Falls village, N. Y	6,116	Somerville city, Mass	40,152
Salt Lake city, Utah	44,843	Seward city, Neb	2,108	Sonora city, Cal	1,441
Saltsburg borough, Pa	1,088	Sewickley borough, Pa	2,776	South Amboy borough, N. J	4,330
San Angelo town, Tex	2,615	Seymour city, Ind	5,337	Southampton town, Mass	1,017
San Antonio city, Tex	37,673	Seymour town, Conn	3,300	South Bend city, Ind	21,819
San Bernardino city, Cal	4,012	Seymour town, Iowa	1,058	South Berwick town, Me	3,434
Sanborn town, Iowa	1,075	Seymour town, Tex	1,125	South Bethlehem borough, Pa	10,302
Sanbornton town, N. H	1,027	Shaftsburg town, Vt	1,652	Southboro town, Mass	2,114
San Buena Ventura city, Cal	2,320	Shakopee city, Minn	1,757	South Boston town, Va	1,789
Sand Beach village, Mich	1,046	Shamokin borough, Pa	14,403	Southbridge town, Mass	7,655
Sandersville city, Ga	1,760	Sharon borough, Pa	7,459	Southbury town, Conn	1,089
San Diego city, Cal	16,159	Sharon town, Conn	2,149	South Charleston village, Ohio	1,041
San Diego town, Tex	1,877	Sharon town, Mass	1,634	South Chester borough, Pa	7,076
Sandusky city, Ohio	18,471	Sharpsburg borough, Pa	4,898	South Denver town, Colo	1,491
Sandwich city, Ill	2,516	Sharpsburg town, Md	1,163	South Easton borough, Pa	5,616
Sandwich town, Mass	1,819	Sharpsville borough, Pa	2,330	South Fork borough, Pa	1,295
Sandwich town, N. H	1,303	Shawano city, Wis	1,505	South Glens Falls village, N. Y	1,600
Sandy Hill village, N. Y	2,895	Shawnee village, Ohio	3,266	South Hadley town, Mass	4,261
San Elizario town, Tex	1,397	Sheboygan city, Wis	16,359	South Haven village, Mich	1,024
Sanford city, Fla	2,016	Sheboygan Falls village, Wis	1,118	South Holland village, Ill	1,005
Sanford town, Me	4,201	Sheffield city, Ala	2,731	Southington town, Conn	5,501
San Francisco city, Cal	298,997	Sheffield town, Mass	1,954	South Kingstown town, R. I	6,231
Sangerville town, Me	1,236	Sheffield village, Pa	1,295	South Louisville town, Ky	1,782
San Jose city, Cal	18,060	Shelbina town, Mo	1,691	South Milford town, Del	1,330
San Luis Obispo city, Cal	2,995	Shelburne town, Mass	1,553	South Nyack village, N. Y	1,490
San Marcos town, Tex	2,335	Shelburne town, Vt	1,300	South Omaha city, Neb	8,062
San Pedro city, Cal	1,240	Shelby town, N. C	1,394	South Orange borough, N. J	3,106
San Rafael town, Cal	3,290	Shelby village, Ohio	1,977	South Peoria village, Ill	1,638
Santa Ana city, Cal	3,628	Shelbyville city, Ind	5,451	South Pittsburg village, Tenn	1,479
Santa Barbara city, Cal	5,864	Shelbyville city, Ill	3,162	Southport city, N. C	1,207
Santa Clara town, Cal	2,891	Shelbyville town, Ky	2,679	South River town, N. J	1,796
Santa Cruz city, Cal	5,596	Shelbyville town, Tenn	1,823	South St. Paul city, Minn	2,242
Santa Fe city, N. M	6,185	Sheldon town, Iowa	1,478	South Stillwater village, Minn	1,304
Santa Monica city, Cal	1,580	Sheldon town, Vt	1,365	South Thomaston town, Me	1,534

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
South Waverly borough, Pa	1,082
South Wayne town, Ind	1,107
South Williamsport borough, Pa	2,900
South Windsor town, Conn	1,736
Spanish Fork city, Utah	2,214
Sparrow Point town, Md	2,507
Sparta city, Ill	1,979
Sparta city, Wis	2,795
Sparta town, Ga	1,540
Spartanburg city, S. C	5,544
Spencer city, Ind	1,868
Spencer town, Iowa	1,813
Spencer town, Mass	8,747
Spencerville village, Ohio	1,266
Spokane city, Wash	19,922
Sprague town, Conn	1,106
Sprague town, Wash	1,689
Spring borough, Pa	1,797
Spring city, Utah	1,044
Springfield city, Ill	24,963
Springfield city, Mass	44,179
Springfield city, Mo	21,850
Springfield city, Ohio	31,895
Springfield town, Tenn	1,372
Springfield town, Vt	2,881
Spring Lake village, Mich	1,168
Spring Valley city, Ill	3,837
Spring Valley village, Minn	1,381
Spring Valley village, N. Y	1,028
Springville city, Utah	2,849
Springville village, N. Y	1,883
Stafford town, Conn	4,535
Stamford town, Conn	15,700
Stanberry city, Mo	2,035
Standish town, Me	1,841
Stanford town, Ky	1,385
Stanton city, Mich	1,352
Starksboro town, Vt	1,070
Starkville town, Miss	1,725
Statesville city, N. C	2,318
Staunton city, Va	6,975
Staunton village, Ill	2,209
Steelton borough, Pa	9,250
Sterling city, Ill	5,824
Sterling city, Kan	1,641
Sterling town, Conn	1,051
Sterling town, Mass	1,244
Steubenville city, Ohio	13,394
Stevens Point city, Wis	7,896
Stewartstown town, N. H	1,002
Stillwater city, Minn	11,260
Stockbridge town, Mass	2,132
Stockton city, Cal	14,424
Stockton Springs town, Me	1,149
Stoneboro borough, Pa	1,394
Stoneham town, Mass	6,155
Stonington town, Conn	7,184
Storm Lake city, Iowa	1,682
Stoughton city, Wis	2,470
Stoughton town, Mass	4,852
Stowe town, Vt	1,886
Strafford town, N. H	1,304
Stratford town, Conn	2,608
Stratford town, N. H	1,128
Streator city, Ill	11,414
Stroudsburg borough, Pa	2,419
Stryker village, Ohio	1,017
Stuart town, Iowa	2,052
Sturbridge town, Mass	2,074
Sturgeon Bay city, Wis	2,195
Sturgis village, Mich	2,489
Stuttgart village, Ark	1,165
Sudbury town, Mass	1,197
Suffield town, Conn	3,169
Suffolk town, Va	3,354
Sugar Notch borough, Pa	2,586
Sullivan city, Ill	1,468
Sullivan town, Ind	2,222
Sullivan town, Me	1,379
Sulphur Springs town, Tex	3,098
Summerville town, S. C	2,219
Summit Hill borough, Pa	2,816
Summit town, Miss	1,587
Sumner city, Ill	1,037
Sumter city, S. C	3,855
Sunbury borough, Pa	5,930
Superior city, Neb	1,614
Superior city, Wis	11,983
Suspension Bridge village, N. Y	4,405
Susquehanna Depot borough, Pa	3,872
Sutter Creek town, Cal	1,351
Sutton city, Neb	1,541
Sutton town, Mass	3,180
Swampscott town, Mass	3,198
Swansea town, Mass	1,456
Swanton town, Vt	3,231
Swanzey town, N. H	1,600
Swedesboro town, N. J	2,035
Sweet Springs city, Mo	1,137
Sycamore city, Ill	2,987
Syracuse city, N. Y	88,143
Tacoma city, Wash	36,006
Talbotton town, Ga	1,140
Talladega city, Ala	2,063
Tallahassee city, Fla	2,934
Tallapoosa city, Ga	1,699
Tallassee town, Ala	1,413
Tama town, Iowa	1,741
Tamaqua borough, Pa	6,054
Tampa city, Fla	5,532
Tamworth town, N. H	1,025
Tarboro town, N. C	1,924
Tarentum borough, Pa	4,627
Tarkio village, Mo	1,156
Tarrytown village, N. Y	3,562
Taunton city, Mass	25,448
Tawas village, Mich	1,544
Taylor town, Tex	2,584
Taylorville city, Ill	2,829
Tecumseh city, Neb	1,654
Tecumseh village, Mich	2,310
Tekamah town, Neb	1,244
Tell city, Ind	2,094
Temescal town, Cal	2,032
Temple city, Tex	4,047
Templeton town, Mass	2,999
Tenafly town, N. J	1,046
Terre Haute city, Ind	30,217
Terrell city, Tex	2,988
Tewksbury town, Mass	2,515
Texarkana city (a), Ark	3,528
Texarkana city (a), Tex	2,852
Thayer village, Mo	1,143
Theresa village, N. Y	1,028
Thetford town, Vt	1,287
Thibodeaux town, La	2,078
Thomaston town, Conn	3,278
Thomaston town, Ga	1,181
Thomaston town, Me	3,009
Thomasville town, Ga	5,514
Thompson town, Conn	5,580
Thorntown town, Ind	1,530
Three Rivers village, Mich	3,131
Ticonderoga village, N. Y	2,267
Tidioute borough, Pa	1,328
Tiffin city, Ohio	10,801
Tilton town, N. H	1,521
Tippecanoe village, Ohio	1,465
Tipton city, Ind	2,697
Tipton town, Iowa	1,599
Tipton town, Mo	1,253
Tisbury town, Mass	1,506
Titusville city, Pa	8,073
Tiverton town, R. I	2,837
Tivoli village, N. Y	1,350
Toccoa town, Ga	1,120
Toledo city, Ohio	81,434
Toledo town, Iowa	1,836
Tolland town, Conn	1,037
Tomah city, Wis	2,199
Tomahawk village, Wis	1,816
Tombstone city, Ariz	1,875
Toms River town, N. J	1,147
Tonawanda village, N. Y	7,145
Topeka city, Kan	31,007
Topsfield town, Mass	1,022
Topsham town, Me	1,394
Topsham town, Vt	1,187
Toronto village, Ohio	2,536
Torrington town, Conn	6,048
Towanda borough, Pa	4,169
Tower city, Minn	1,110
Tower city, Pa	2,053
Townsend town, Mass	1,750
Towson town, Md	1,487
Tracy village, Tenn	1,936
Tracy village, Minn	1,400
Traer town, Iowa	1,014
Traverse village, Mich	4,353
Tremont borough, Pa	2,064
Tremont town, Me	2,036
Trenton city, Mo	5,039
Trenton city, N. J	57,458
Trenton city, Tenn	1,693
Trenton town, Ill	1,384
Trinidad city, Colo	5,523
Troy borough, Pa	1,307
Troy city, Ala	3,449
Troy city, N. Y	60,956
Troy town, Vt	1,678
Troy village, Ohio	4,494
Truckee town, Cal	1,350
Trumansburg village, N. Y	1,211
Trumbull town, Conn	1,453
Tucson city, Ariz	5,150
Tulare city, Cal	2,697
Tullahoma village, Tenn	2,439
Tunbridge town, Vt	1,011
Tunkhannock borough, Pa	1,253
Tupelo town, Miss	1,477
Turner town, Me	2,016
Turner village, Ill	1,506
Tuscaloosa city, Ala	4,215
Tuscarora town, Nev	1,156
Tuscola city, Ill	1,897
Tuscumbia city, Ala	2,491
Tuskegee town, Ala	1,803
Two Rivers city, Wis	2,870
Tyler town, Tex	6,908
Tyrone borough, Pa	4,705
Uhrichsville city, Ohio	3,842
Ukiah city, Cal	1,627
Unadilla village, N. Y	1,157
Underhill town, Vt	1,301
Union borough, Pa	2,261
Union city, Ind	2,681
Union town, Me	1,436
Union town, N. J	10,643
Union town, S. C	1,609
Union town, Tenn	3,441
Union village, Mich	1,156
Union village, Ohio	1,293
Union Springs town, Ala	2,049
Union Springs village, N. Y	1,066
Uniontown borough, Pa	6,359
Uniontown town, Ky	1,037
Unionville town, Mo	1,118
Upland borough, Pa	2,275
Upper Alton city, Ill	1,803
Upper Sandusky village, Ohio	3,572
Upton town, Mass	1,878
Urbana city, Ill	3,511
Urbana city, Ohio	6,510
Utica city, N. Y	44,007
Uvalde town, Tex	1,265
Uxbridge town, Mass	3,408
Valatie village, N. Y	1,437
Valdosta town, Ga	2,854
Vallejo city, Cal	6,343
Valley Falls city, Kan	1,180

a Texarkana city has a population of 3,528 in Miller county, Arkansas, and 2,852 in Bowie county, Texas, making a total of 6,380.

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.	PLACES.	Population.	PLACES.	Population.
Valley village, N. D.	1,089	Washington borough, Pa	7,063	Wenona city, Ill	1,053
Valparaiso city, Ind	5,090	Washington city, D. C	230,392	Wesson town, Miss	3,168
Van Buren city, Ark	2,291	Washington city, Ill	1,301	West Bay city, Mich	12,981
Van Buren town, Me	1,168	Washington city, Ind	6,064	West Bend city, Wis	1,296
Vanceburg town, Ky	1,110	Washington city, Iowa	3,235	West Bethlehem borough, Pa	2,759
Vancouver city, Wash	3,545	Washington city, Kan	1,613	Westboro town, Mass	5,195
Vandalia city, Ill	2,144	Washington city, Ohio	5,742	West Boylston town, Mass	3,019
Van Wert city, Ohio	5,512	Washington town, Conn	1,633	West Branch village, Mich	1,302
Vassalboro town, Me	2,052	Washington town, La	1,064	West Bridgewater town, Mass	1,917
Vassar village, Mich	1,682	Washington town, Me	1,230	West Brookfield town, Mass	1,592
Vergennes city, Vt	1,773	Washington town, Mo	2,725	Westbrook town, Me	6,632
Vermilion city, S. D	1,496	Washington town, N. C	3,545	West Chester borough, Pa	8,028
Vermont village, Ill	1,158	Washington village, Ga	2,631	West Cleveland village, Ohio	4,117
Vernon town, Conn	8,808	Washington Heights village, Ill	2,283	West Conshohocken borough, Pa	1,666
Vernon town, Tex	2,857	Washington Mills village, N. Y	1,195	West Covington town, Ky	1,757
Verona borough, Pa	1,477	Waterboro town, Me	1,357	West Duluth village, Minn	3,368
Verplanck village, N. Y	1,515	Waterbury city, Conn	28,646	West End city, Ga	1,445
Versailles town, Mo	1,211	Waterbury town, Vt	2,232	Westerly town, R. I	6,813
Versailles village, Ohio	1,385	Waterford town, Conn	2,661	Westernport village, Md	1,526
Vevay city, Ind	1,663	Waterford town, Me	1,001	Westerville village, Ohio	1,329
Vicksburg city, Miss	13,373	Waterloo city, Ill	1,860	West Fairview village, Pa	1,137
Victoria city, Tex	3,046	Waterloo city, Iowa	6,674	Westfield borough, Pa	1,128
Villisca town, Iowa	1,744	Waterloo town, Ind	1,473	Westfield town, Mass	9,805
Vinal Haven town, Me	2,617	Waterloo village, N. Y	4,350	Westfield village, N. Y	1,983
Vincennes city, Ind	8,853	Watertown city, N. Y	14,725	Westford town, Mass	2,250
Vineland borough, N. J	3,822	Watertown city, S. D	2,672	Westford town, Vt	1,033
Vinton city, Iowa	2,865	Watertown city, Wis	8,755	West Hartford town, Conn	1,930
Vinton town, Va	1,057	Watertown town, Conn	2,323	West Indiana borough, Pa	1,634
Virden city, Ill	1,610	Watertown town, Mass	7,073	West Indianapolis town, Ind	3,527
Virginia city, Ill	1,602	Water Valley town, Miss	2,832	West Knoxville town, Tenn	2,114
Virginia city, Nev	3,511	Waterville city, Me	7,107	West Lafayette town, Ind	1,242
Viroqua city, Wis	1,270	Waterville village, N. Y	2,024	West Liberty city, Iowa	1,268
Visalia city, Cal	2,885	Watkins village, N. Y	2,604	Westminster town, Md	2,903
Voluntown town, Conn	1,060	Watseka city, Ill	2,017	Westminster town, Mass	1,688
Wabasha city, Minn	2,487	Watsontown borough, Pa	2,157	Westminster town, Vt	1,265
Wabash city, Ind	5,105	Watsonville city, Cal	2,149	West Nashville village, Tenn	1,047
Waco city, Tex	14,445	Waukegan city, Ill	4,915	West Newbury town, Mass	1,796
Wadesboro town, N. C	1,198	Waukesha village, Wis	6,321	West Newcastle borough, Pa	1,761
Wadsworth village, Ohio	1,574	Waukon town, Iowa	1,610	West Newton borough, Pa	2,285
Wahoo village, Neb	2,096	Waupaca city, Wis	2,127	Weston town, Mass	1,664
Wahpeton city, N. D	1,510	Waupun city, Wis	2,757	Weston town, Mo	1,134
Wakefield town, Mass	6,982	Wausau city, Wis	9,253	Weston town, W. Va	2,143
Wakefield town, N. H	1,528	Wauseon village, Ohio	2,060	West Pittston borough, Pa	3,906
Walden village, N. Y	2,132	Waverly city, Ill	1,337	West Plains city, Mo	2,091
Waldoboro town, Me	3,595	Waverly city, Iowa	2,346	West Point city, Ga	1,254
Walkerville town, Mont	1,743	Waverly village, N. Y	4,123	West Point town, Miss	2,762
Wallawalla city, Wash	4,709	Waverly village, Ohio	1,567	West Point town, Neb	1,842
Wallingford town, Conn	6,584	Waxahachie town, Tex	3,076	West Point town, Va	2,018
Wallingford town, Vt	1,733	Waycross town, Ga	3,364	Westport town, Conn	3,715
Walpole town, Mass	2,604	Wayland town, Mass	2,060	Westport town, Mass	2,599
Walpole town, N. H	2,163	Wayne town, Neb	1,178	West Roseland village, Ill	1,407
Walterboro town, S. C	1,171	Wayne village, Mich	1,226	West Rutland town, Vt	3,680
Waltham city, Mass	18,707	Waynesboro borough, Pa	3,811	West St. Paul city, Minn	1,596
Walton village, N. Y	2,299	Waynesboro village, Ga	1,711	West Springfield town, Mass	5,077
Wamego city, Kan	1,473	Waynesburg borough, Pa	2,101	West Stockbridge town, Mass	1,492
Wapakoneta village, Ohio	3,616	Weare town, N. H	1,550	West Troy village, N. Y	12,967
Wapello town, Iowa	1,009	Weatherford city, Tex	3,369	West Union city, Iowa	1,676
Wappinger Falls village, N. Y	3,718	Weatherly borough, Pa	2,961	Westwood village, Ohio	1,050
Ware town, Mass	7,329	Weathersfield town, Vt	1,174	Wethersfield town, Conn	2,271
Wareham town, Mass.	3,451	Webb city, Mo	5,043	Weymouth town, Mass	10,866
Warner town, N. H	1,383	Webster city, Iowa	2,829	What Cheer city, Iowa	3,246
Warren borough, Pa	4,332	Webster town, Mass	7,031	Whatcom city, Wash	4,059
Warren city, Ohio	5,973	Webster Groves village, Mo	1,783	Wheaton village, Ill	1,622
Warren town, Ind	1,120	Weedsport village, N. Y	1,580	Wheeling city, W. Va	34,522
Warren town, Me	2,037	Weeping Water city, Neb	1,350	White Bear Lake village, Minn	1,356
Warren town, Mass	4,681	Weimar town, Tex	1,443	Whitefield town, Me	1,215
Warren town, R. I	4,489	Weir city, Kan	2,138	Whitefield town, N. H	2,041
Warren village, Ill	1,172	Weldon town, N. C	1,286	Whitehall city, Ill	1,961
Warrensburg city, Mo	4,706	Wellesley town, Mass	3,600	Whitehall village, Mich	1,903
Warrenton town, Va	1,346	Wellfleet town, Mass	1,291	Whitehall village, N. Y	4,434
Warrington town, Fla	1,501	Wellington city, Kan	4,391	White Haven borough, Pa	1,634
Warsaw city, Ind	3,574	Wellington village, Ohio	2,069	White Plains village, N. Y	4,042
Warsaw town, Ill	2,721	Wells town, Me	2,029	Whitesboro town, Tex	1,170
Warsaw village, N. Y	3,120	Wells village, Minn	1,208	Whitesboro village, N. Y	1,663
Warwick town, R. I	17,761	Wellsboro borough, Pa	2,961	Whitestone village, N. Y	2,808
Warwick village, N. Y	1,537	Wellsburg city, W. Va	2,235	Whitewater city, Wis	4,359
Waseca city, Minn	2,482	Wellston city, Ohio	4,377	Whiting town, Ind	1,408
Washburn city, Wis	3,039	Wellsville city, Ohio	5,247	Whitingham town, Vt	1,191
Washburn town, Me	1,097	Wellsville village, Mo	1,138	Whitman town, Mass	4,441
Washington borough, N. J	2,834	Wellsville village, N. Y	3,435	Wichita city, Kan	23,853

PLACES HAVING A POPULATION OF 1,000 AND UPWARD, ETC.—CONTINUED.

PLACES.	Population.
Wichita Falls town, Tex	1,987
Wilber village, Neb	1,226
Wilbraham town, Mass	1,814
Wilcox village, Pa	1,037
Wilkesbarre city, Pa	37,718
Wilkinsburg borough, Pa	4,662
Williamsbridge village, N. Y	1,685
Williamsburg city, Va	1,831
Williamsburg town, Ky	1,376
Williamsburg town, Mass	2,057
Williamsburg village, Wis	3,133
Williamsport city, Ind	1,027
Williamsport city, Pa	27,132
Williamsport town, Md	1,277
Williamston village, Mich	1,139
Williamstown borough, Pa	2,324
Williamstown town, Mass	4,221
Williamstown town, Vt	1,188
Willimantic borough, Conn	8,648
Williston town, Vt	1,161
Willmar village, Minn	1,825
Willoughby village, Ohio	1,219
Willow Springs city, Mo	1,535
Willows town, Cal	1,176
Wills Point town, Tex	1,025
Wilmette village, Ill	1,458
Wilmington city, Del	61,431
Wilmington city, Ill	1,576
Wilmington city, N. C	20,056
Wilmington city, Ohio	3,079
Wilmington town, Mass	1,213
Wilmington town, Vt	1,106
Wilson town, N. C	2,126
Wilton town, Conn	1,722
Wilton town, Iowa	1,212
Wilton town, Me	1,622
Wilton town, N. H	1,850
Winamac town, Ind	1,215
Winchendon town, Mass	4,390
Winchester city, Ill	1,542
Winchester city, Va	5,196
Winchester town, Conn	6,183
Winchester town, Ind	3,014
Winchester town, Ky	4,519
Winchester town, Mass	4,861
Winchester town, N. H	2,584
Winchester town, Tenn	1,313
Windham town, Me	2,216
Windsor city, Mo	1,427
Windsor town, Conn	2,954
Windsor town, Vt	1,846
Windsor Locks town, Conn	2,758
Windsor Terrace village, N. Y	1,645
Winfield city, Kan	5,184
Winnebago village, Minn	1,108
Winneconne village, Wis	1,086
Winnemucca town, Nev	1,037
Winnetka village, Ill	1,079
Winnsboro city, S. C	1,738
Winona city, Minn	18,208
Winona town, Miss	1,648
Winslow town, Me	1,814
Winston city, N. C	8,018
Winterport town, Me	1,926
Winterset city, Iowa	2,281
Winthrop town, Mass	2,726
Winthrop town, Me	2,111
Winton borough, Pa	1,797
Wiscasset town, Me	1,733
Woburn city, Mass	13,499
Wolcott town, Vt	1,158
Wolfboro town, N. H	3,020
Womelsdorf borough, Pa	1,141
Woodbury city, N. J	3,911
Woodbury town, Conn	1,815
Woodland city, Cal	3,069
Woodlawn town, Ala	1,506
Woodsfield village, Ohio	1,031
Woodstock city, Ill	1,683
Woodstock town, Conn	2,809
Woodstock town, Va	1,068
Woodstock town, Vt	2,545
Woodstown borough, N. J	1,516
Woolwich town, Me	1,007
Woonsocket city, R. I	20,830
Wooster city, Ohio	5,901
Worcester city, Mass	84,655
Worthington town, Ind	1,448
Worthington village, Minn	1,164
Wrentham town, Mass	2,566
Wrightsville borough, Pa	1,912
Wyandotte city, Mich	3,817
Wymore village, Neb	2,420
Wyoming borough, Pa	1,794
Wyoming town, Ill	1,116
Wyoming village, Ohio	1,454
Wytheville town, Va	2,570
Xenia city, Ohio	7,301
Yankton city, S. D	3,670
Yarmouth town, Me	2,098
Yarmouth town, Mass	1,760
Yates Center city, Kan	1,305
Yazoo city, Miss	3,286
Yellow Springs village, Ohio	1,375
Yonkers city, N. Y	32,033
York borough, Pa	20,793
York city, Neb	3,405
York town, Me	2,444
Yorkville town, S. C	1,553
Youngstown city, Ohio	33,220
Ypsilanti city, Mich	6,129
Yreka city, Cal	1,100
Ysleta town, Tex	1,528
Yuma city, Ariz	1,773
Zanesville city, Ohio	21,099

ROBERT P. PORTER,

Superintendent of Census.

[7-010]

CENSUS BULLETIN.

No. 166. WASHINGTON, D. C. February 23, 1892.

MINERAL PRODUCTS OF THE UNITED STATES.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., January 6, 1892.

A complete exhibit of the quantity produced and value of all the mineral products of the United States for the years 1880 to 1889, inclusive, forms the present bulletin, prepared under the direction of Dr. DAVID T. DAY, special agent of the Census Office. The fifty-five varieties of minerals named in the tables are grouped as metallic and nonmetallic. The total value of the production for the years 1889 and 1880, the increase for the period shown, and the percentage of increase are given in the following table:

PRODUCTS.	1889.	1880.	Increase 1889 over 1880.	Per cent of increase.
Total	$587,230,662	$369,319,000	$217,911,662	59.00
Metallic	269,590,487	190,039,865	79,550,622	41.86
Nonmetallic	307,640,175	173,279,135	134,361,040	77.54
Unspecified minerals	10,000,000	6,000,000	4,000,000	66.67

COAL.—Of the bituminous coal mined in 1880 the total quantity is given as 38,242,641 long tons, and in 1889 as 85,383,059 long tons, showing an increase of 123.27 per cent.

Of the anthracite coal mined in 1880 the total quantity was 25,580,189 long tons, and in 1889 it was 40,714,721 long tons, an increase of 59.17 per cent.

Of the total quantity and value given in the table in the bulletin for the years named, the following statement shows the amount marketed:

COAL MARKETED.

YEARS.	BITUMINOUS.		ANTHRACITE.	
	Quantity.	Value.	Quantity.	Value.
1882	57,063,038	$72,453,797	29,120,096	$65,520,216
1883	65,030,171	78,036,205	31,703,027	71,534,311
1884	66,809,356	70,149,824	30,718,293	61,436,586
1885	63,569,284	80,040,564	32,265,421	72,274,544
1886	63,380,110	75,554,629	32,764,710	71,558,126
1887	75,454,464	94,230,752	35,273,442	79,365,244
1888	87,602,534	98,114,838	39,216,872	72,557,213
1889	65,723,110	72,873,784	35,863,230	63,463,572

PIG IRON.—The product of pig iron increased in the last decade more than twofold, viz: from 3,375,912 long tons in 1880 to 7,603,642 in 1889. This was valued, using the price of No. 1 anthracite pig iron at Philadelphia, at $89,315,569 in 1880 and $120,000,000 in 1889. The limestone used for flux tributary to this industry amounted to 4,500,000 tons in 1880, worth $3,800,000, and to 6,318,000 tons in 1889, worth $3,159,000. The production of iron ore in 1880 amounted to 7,120,362 long tons, valued at $23,156,957, and in 1889 to 14,518,041 long tons, valued at $33,351,978. The production of iron ores by states in 1889 and 1880 was as follows:

PRODUCT OF IRON ORES IN 1889 AND 1880.

STATES AND TERRITORIES.	1889.		1880.	
	Long tons.	Value.	Long tons.	Value.
Total	14,518,041	$33,351,978	7,120,362	$23,156,957
Alabama	1,570,319	1,511,611	171,139	201,865
Colorado	109,136	487,433	.....	.....
Connecticut, Maine, and Massachusetts	88,251	265,901	92,549	382,929
Delaware and Maryland	20,380	68,240	127,102	428,244
Georgia and North Carolina	258,145	334,025	84,584	148,907
Idaho and Montana	24,072	158,974	.....	.....
Indiana	.....	.....	458	1,018
Kentucky	77,487	135,559	57,865	165,395
Michigan	5,856,169	15,800,521	1,640,814	6,034,648
Minnesota	864,508	2,478,041	.....	.....
Missouri	265,718	561,041	344,819	1,674,875
New Jersey	415,510	1,341,543	676,225	2,910,412
New Mexico and Utah	36,050	70,956	.....	.....
New York	1,247,537	3,100,216	1,126,899	3,654,872
Ohio	254,294	532,725	488,753	1,369,530
Oregon and Washington	26,283	39,234	6,225	4,669
Pennsylvania	1,560,234	3,063,534	1,951,496	5,517,079
Tennessee	473,294	606,476	93,272	147,181
Texas	13,000	19,750	3,214	8,100
Vermont	.....	.....	500	2,750
Virginia and West Virginia	511,255	935,290	217,448	530,943
Wisconsin	837,399	1,840,968	37,000	73,000

ALUMINUM.—Aluminum was not reported in 1880, 1881, and 1882; in 1883 the quantity reported was 83 pounds, valued at $875, or $10.54 per pound; the product increased in 1884 to 150 pounds, in 1885 to 283 pounds, in 1886 to 3,000 pounds, valued at $9 per pound; in 1887 the product was 18,000 pounds, valued at $3.28 per pound; in 1888 the production was 19,000 pounds, and in 1889 the quantity produced rose to 47,468 pounds, valued at $97,335, or $2.05 per pound. The reduction in the price of this metal was continued, so that at the present time the price is lower than $1 per pound.

COPPER.—The product of copper in 1880 amounted to 60,480,000 pounds, and in 1889 to 231,246,214 pounds, an increase of 282.35 per cent.

LEAD.—In 1880 the quantity of lead produced was 97,825 short tons, and in 1889 182,967 short tons, an increase of 87.04 per cent. During this period the percentage of desilverized lead has increased from 71.69 to 84.01 per cent.

ZINC.—The total product in 1880 was 23,239 short tons, and in 1889 58,860 short tons. The great increase in production is fairly well distributed over the producing states.

QUICKSILVER.—The product has declined from 59,926 flasks of 76.5 pounds net, worth in San Francisco $1,797,780, to 26,484 flasks, worth $1,190,500. The supply, which practically all comes from California, is not maintained even at increased prices.

NICKEL.—This product amounted to 329,968 pounds in 1880, and to 252,663 pounds in 1889. The competition from nickel contained in Canadian copper matte is serious.

GOLD AND SILVER.—The production of gold has decreased from $36,000,000 in value in 1880 to $30,000,000 in 1883, and in the other years has fluctuated between these extremes. In 1889 the value of $32,886,744 represents a slight decline from the previous year. Silver, on the other hand, has

increased from $39,200,000 comparatively steadily to $66,396,988. In the case of both silver and gold the coining values are given, $20.6718 for gold and $1.2929 for silver per troy ounce. The following is the product by states:

PRODUCT OF GOLD AND SILVER IN 1889 AND 1880.

STATES AND TERRITORIES.	1889.		1880.	
	Gold.	Silver.	Gold.	Silver.
Alabama	$2,539	$100	$1,301	.....
Alaska	904,650	11,918	5,951	$51
Arizona	910,174	2,343,977	211,965	2,325,825
California	12,586,722	1,373,807	17,150,941	1,150,887
Colorado	3,883,859	23,757,751	2,699,898	16,549,274
Dakota	3,091,137	135,331	3,305,843	70,813
Georgia	107,605	464	81,029	332
Idaho	1,984,159	4,056,482	1,479,653	464,550
Maine	.....	.....	2,999	7,200
Maryland	10,369	.....	.....	.....
Michigan	87,040	18,885	.....	25,858
Montana	3,139,327	17,468,960	1,805,767	2,905,068
Nevada	3,506,295	6,072,241	4,888,242	12,430,667
New Hampshire	.....	.....	10,999	16,000
New Mexico	815,655	1,617,578	49,354	392,337
North Carolina	146,795	3,879	118,953	140
Oregon	964,309	23,382	1,097,701	27,793
South Carolina	46,853	232	13,040	56
Tennessee	.....	.....	1,998	.....
Texas	6,828	418,173	.....	.....
Utah	487,666	9,057,014	291,587	4,743,087
Virginia	4,100	13	9,321	.....
Washington	186,150	36,801	135,800	1,019
Wyoming	14,512	.....	17,321	.....

The number of gallons of mineral waters sold in 1880 was 2,000,000, while in 1889 there were 12,780,471 gallons sold, an increase of 539.02 per cent.

Petroleum varied from 26,286,123 barrels of 42 gallons in 1880, with slight fluctuations each year, and in 1889 showed a production of 35,163,513 barrels, the total amount during the decade being 273,092,712 barrels.

Returns show the value of natural gas produced in 1889 to be $21,097,099, the first report of the production being in 1882, when the amount was valued at $215,000.

With the exception of the following minor minerals, all the remaining productions named show a greater or less increase in quantity: mica, marl, flint, crude barytes, feldspar, chromic iron ore, and asbestos.

The statistics for 1880 are mainly revisions of the Tenth Census; those for 1881 are estimates by Dr. D. T. Day; from 1882 to 1888, inclusive, the statistics were furnished by the United States geological survey, with occasional modifications of the published figures.

The term "spot value" used in the table designates the value at the point of production. The terms "long tons" and "short tons" designate, respectively, the ton of 2,240 and 2,000 pounds.

The unspecified mineral products, the totals of which are grouped under the respective years, embrace the following: fire clay, common brick clay, terra cotta, building sand, glass sand, limestone used as flux in lead smelting, limestone used in glass making, iron ore used as flux in lead smelting, tin ore, iridosmine, nitrate of soda, carbonate of soda, sulphate of soda, native alum, mineral soap, strontia, and pumice stone.

Robert P. Porter.

Superintendent of Census.

MINERAL PRODUCTS OF THE UNITED STATES FOR THE CALENDAR YEARS 1880 TO 1889, INCLUSIVE. (a)

	PRODUCTS.	1880.		1881.	
		Quantity.	Value.	Quantity.	Value.
	Grand total		$369,319,000		$406,175,552
	Total value of metallic products		190,039,865		192,892,408
	Total value of nonmetallic mineral products		173,279,135		206,783,144
	Total value of mineral products unspecified		6,000,000		6,500,000
	METALLIC:				
1	Pig iron, value at Philadelphia, long tons	3,375,912	89,315,569	4,144,254	87,029,334
2	Silver, coining value, troy ounces (b)	30,320,000	39,200,000	33,077,000	43,000,000
3	Gold, coining value, troy ounces (c)	1,741,500	36,000,000	1,676,300	34,700,000
4	Copper, value at New York city, pounds (d)	60,480,000	11,491,200	71,680,000	12,175,600
5	Lead, value at New York city, short tons	97,825	9,782,500	117,085	11,240,160
6	Zinc, value at New York city, short tons	23,239	2,277,432	26,800	2,680,000
7	Quicksilver, value at San Francisco, flasks (e)	59,926	1,797,780	60,851	1,764,679
8	Nickel, value at Philadelphia, pounds (f)	329,968	164,984	265,668	292,235
9	Aluminum, value at Pittsburg, pounds	(g)		(g)	
10	Antimony, value at San Francisco, short tons (h)	50	10,000	50	10,000
11	Platinum, value (crude) at San Francisco, troy ounces	100	400	100	400
	NONMETALLIC (SPOT VALUES):				
12	Bituminous coal, long tons (i)	38,242,641	53,443,718	48,179,475	60,224,344
13	Pennsylvania anthracite, long tons (j)	25,580,189	42,196,678	28,500,016	64,125,036
14	Building stone		18,356,055		20,000,000
15	Petroleum, barrels (k)	26,286,123	24,183,233	27,661,238	25,448,339
16	Lime, barrels (l)	28,000,000	19,000,000	30,000,000	20,000,000
17	Natural gas		(g)		(g)
18	Cement, barrels (m)	2,072,943	1,852,707	2,500,000	2,000,000
19	Salt, barrels (n)	5,961,060	4,829,566	6,200,000	4,200,000
20	Limestone for iron flux, long tons	4,500,000	3,800,000	6,000,000	4,100,000
21	Phosphate rock, long tons (o)	211,377	1,123,823	266,734	1,980,259
22	Mineral waters, gallons sold	2,000,000	500,000	3,000,000	700,000
23	Zinc white, short tons	10,107	763,738	10,000	700,000
24	Gypsum, short tons	90,000	400,000	85,000	350,000
25	Borax, pounds	3,692,443	277,233	4,046,000	304,461
26	Mineral paints, long tons (p)	3,604	135,840	6,000	100,000
27	Manganese ore, long tons	5,761	86,415	4,895	73,425
28	Asphaltum, short tons	444	4,440	2,000	8,000
29	Pyrites, long tons	2,000	5,000	10,000	60,000
30	Crude barytes, long tons	20,000	80,000	20,000	80,000
31	Bromine, pounds	404,690	114,752	300,000	75,000
32	Corundum, short tons (q)	1,044	29,280	500	80,000
33	Marls, short tons (r)	1,000,000	500,000	1,000,000	500,000
34	Precious stones		50,000		60,000
35	Gold quartz, souvenirs, jewelry, etc		50,000		50,000
36	Flint, long tons	20,000	80,000	25,000	100,000
37	Fluorspar, short tons	4,000	16,000	4,000	16,000
38	Graphite, pounds		s49,800	400,000	30,000
39	Novaculite, pounds	420,000	8,000	500,000	8,580
40	Feldspar, long tons	12,500	60,000	14,000	70,000
41	Chromic iron ore, long tons	2,288	27,808	2,000	30,000
42	Mica, pounds	81,669	127,825	100,000	250,000
43	Slate ground as a pigment, long tons	1,000	10,000	1,000	10,000
44	Cobalt oxide, pounds	7,251	24,000	8,280	25,000
45	Sulphur, short tons	600	21,000	600	21,000
46	Rutile, pounds	100	400	200	700
47	Asbestos, short tons	150	4,312	200	7,000
48	Potters' clay, long tons	20,783	200,457	25,000	200,000
49	Grindstones		500,000		500,000
50	Millstones		200,000		150,000
51	Ozocerite, refined, pounds				
52	Infusorial earth, short tons	1,833	45,660	1,000	10,000
53	Soapstone, short tons	8,411	66,665	7,000	75,000
54	Fibrous talc, short tons	4,210	54,730	5,000	60,000
55	Lithographic stone, short tons			50	1,000

a The statistics for 1880 are mainly revisions of the results of the Tenth Census; those for 1881 are estimates by D. T. Day; from 1882 to 1888 the statistics have been taken from the reports of the United States geological survey, with occasional modifications. The statistics of lime, salt, cement, slate ground as a pigment, and rutile in 1889 are estimates by D. T. Day.

b $1.2929 per troy ounce.

c $20.6718 per troy ounce.

d Including copper made from imported pyrites.

e Of 76.5 avoirdupois pounds net.

f Including nickel in copper-nickel alloy and in exported ore and matte, except for 1881, for which no returns are available for matte.

g None reported.

MINERAL PRODUCTS OF THE UNITED STATES FOR THE CALENDAR YEARS 1880 TO 1889, INCLUSIVE.

1882.		1883.		1884.		
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
.....	$457,595,259	.....	$453,441,073	.....	$412,989,105	
.....	219,755,109	.....	203,128,859	.....	186,109,599	
.....	231,340,150	.....	243,812,214	.....	221,879,506	
.....	6,500,000	.....	6,500,000	.....	5,000,000	
4,623,323	106,336,429	4,595,510	91,910,200	4,097,868	73,761,624	1
36,197,695	46,800,000	35,733,622	46,200,000	37,744,605	48,800,000	2
1,572,186	32,500,000	1,451,249	30,000,000	1,489,949	30,800,000	3
91,646,232	16,038,091	117,151,795	18,064,807	145,221,934	17,789,687	4
132,890	12,624,550	143,957	12,322,719	139,897	10,537,042	5
33,765	3,646,620	36,872	3,311,106	38,544	3,422,767	6
52,732	1,487,042	46,725	1,253,632	31,913	936,327	7
281,616	309,777	58,800	52,920	64,550	48,412	8
(g)	.....	83	875	150	1,350	9
60	12,000	60	12,000	60	12,000	10
200	600	200	600	150	450	11
60,861,190	76,076,487	68,531,500	82,237,800	73,739,539	77,417,066	12
31,358,264	70,556,094	34,336,469	77,257,055	33,175,756	66,351,512	13
.....	21,000,000	.....	20,000,000	.....	19,000,000	14
30,510,830	24,065,988	23,449,633	25,790,252	24,218,438	20,595,966	15
31,000,000	21,700,000	32,000,000	19,200,000	37,000,000	18,500,000	16
.....	215,000	.....	475,000	.....	1,460,000	17
3,250,000	3,672,750	4,190,000	4,293,500	4,000,000	3,720,000	18
6,412,373	4,320,140	6,192,231	4,211,042	6,514,937	4,197,734	19
3,850,000	2,310,000	3,814,273	1,907,136	3,401,930	1,700,965	20
332,077	1,992,462	378,380	2,270,280	431,779	2,374,784	21
5,000,000	800,000	7,529,423	1,119,603	10,215,328	1,459,143	22
10,000	700,000	12,000	840,000	13,000	910,000	23
100,000	450,000	90,000	420,000	90,000	390,000	24
4,236,291	338,903	6,500,000	585,000	7,000,000	490,000	25
7,000	105,000	7,000	84,000	7,000	84,000	26
4,532	67,980	6,155	92,325	10,180	122,160	27
3,000	10,500	3,000	10,500	3,000	10,500	28
12,000	72,000	25,000	137,500	35,000	175,000	29
20,000	80,000	27,000	108,000	25,000	100,000	30
250,000	75,000	301,100	72,264	281,100	67,464	31
500	80,000	550	100,000	600	108,000	32
1,080,000	540,000	972,000	486,000	875,000	437,500	33
.....	75,000	.....	92,050	.....	82,975	34
.....	75,000	.....	115,000	.....	140,000	35
25,000	100,000	25,000	100,000	30,000	120,000	36
4,000	20,000	4,000	20,000	4,000	20,000	37
425,000	34,000	575,000	46,000	.....	(t)	38
600,000	10,000	600,000	10,000	800,000	12,000	39
14,000	70,000	14,100	71,112	10,900	55,112	40
2,500	50,000	3,000	60,000	2,000	35,000	41
100,000	250,000	114,000	285,000	147,410	368,525	42
2,000	24,000	2,000	24,000	2,000	20,000	43
11,653	32,046	1,096	2,795	2,000	5,100	44
600	21,000	1,000	27,000	500	12,000	45
500	1,800	550	2,000	600	2,000	46
1,200	36,000	1,000	30,000	1,000	30,000	47
30,000	240,000	32,000	250,000	35,000	270,000	48
.....	700,000	.....	600,000	.....	570,000	49
.....	200,000	.....	150,000	.....	150,000	50
.....	.....	.....	.....	.....	.....	51
1,000	8,000	1,000	5,000	1,000	5,000	52
6,000	90,000	8,000	150,000	10,000	200,000	53
6,000	75,000	6,000	75,000	10,000	110,000	54
.....	.....	.....	.....	.....	.....	55

h Part of the antimony in 1889 was valued at Philadelphia.
i Except in 1880 and 1889 this includes brown coal and lignite and anthracite mined elsewhere than in Pennsylvania.
j In 1880 and 1889 this includes all anthracite.
k Of 42 gallons.
l Of 200 pounds.
m Of 300 pounds for natural cement and 400 pounds for artificial Portland.
n Of 280 pounds net.
o Except for 1889 this represents only the South Carolina product.
p Ocher and metallic paint.
q Refined corundum from 1881 to 1888, both inclusive.
r Except for 1888 and 1889 this includes only New Jersey marls.
s Value of the crude product.
t Practically nothing.

MINERAL PRODUCTS OF THE UNITED STATES—CONTINUED.

	PRODUCTS.	1885.		1886.	
		Quantity.	Value.	Quantity.	Value.
	Grand total		$427,898,680		$465,504,294
	Total value of metallic products		181,586,587		215,364,825
	Total value of nonmetallic mineral products		241,312,093		245,139,469
	Total value of mineral products unspecified		5,000,000		5,000,000
	METALLIC:				
1	Pig iron, value at Philadelphia, long tons	4,044,525	64,712,400	5,683,329	95,195,760
2	Silver, coining value, troy ounces	39,910,279	51,600,000	39,445,312	51,000,000
3	Gold, coining value, troy ounces	1,538,376	31,800,000	1,881,250	35,000,000
4	Copper, value at New York city, pounds	170,962,607	18,292,999	161,235,381	16,527,651
5	Lead, value at New York city, short tons	129,412	10,469,431	135,629	12,667,749
6	Zinc, value at New York city, short tons	40,688	3,539,856	42,641	3,752,408
7	Quicksilver, value at San Francisco, flasks	32,073	979,189	29,981	1,060,000
8	Nickel, value at Philadelphia, pounds	277,904	179,975	214,992	127,157
9	Aluminum, value at Pittsburg, pounds	283	2,550	3,000	27,000
10	Antimony, value at San Francisco, short tons	50	10,000	35	7,000
11	Platinum, value (crude) at San Francisco, troy ounces	250	187	50	100
	NONMETALLIC (SPOT VALUES):				
12	Bituminous coal, long tons	64,840,668	82,347,648	65,810,676	78,481,056
13	Pennsylvania anthracite, long tons	34,228,548	76,671,948	34,853,077	76,119,120
14	Building stone		19,000,000		19,000,000
15	Petroleum, barrels	21,847,205	19,198,243	28,064,841	19,996,313
16	Lime, barrels	40,000,000	20,000,000	42,500,000	21,250,000
17	Natural gas		4,857,200		10,012,000
18	Cement, barrels	4,150,000	3,492,500	4,500,000	3,990,000
19	Salt, barrels	7,038,653	4,825,345	7,707,081	4,736,585
20	Limestone for iron flux, long tons	3,356,956	1,678,478	4,717,163	2,830,297
21	Phosphate rock, long tons	437,856	2,846,064	430,549	1,872,936
22	Mineral waters, gallons sold	9,148,401	1,312,845	8,950,317	1,284,070
23	Zinc white, short tons	15,000	1,050,000	18,000	1,440,000
24	Gypsum, short tons	90,405	405,000	95,250	428,625
25	Borax, pounds	8,000,000	480,000	9,778,290	488,915
26	Mineral paints, long tons	3,950	43,575	15,800	285,000
27	Manganese ore, long tons	23,258	190,281	30,193	277,636
28	Asphaltum, short tons	3,000	10,500	3,500	14,000
29	Pyrites, long tons	49,000	220,500	55,000	220,000
30	Crude barytes, long tons	15,000	75,000	10,000	50,000
31	Bromine, pounds	310,000	89,900	428,334	141,350
32	Corundum, short tons	600	108,000	645	116,190
33	Marls, short tons	875,000	437,500	800,000	400,000
34	Precious stones		69,900		79,056
35	Gold quartz, souvenirs, jewelry, etc		140,000		40,000
36	Flint, long tons	30,000	120,000	30,000	120,000
37	Fluorspar, short tons	5,000	22,500	5,000	22,000
38	Graphite, pounds	327,883	26,231	415,525	33,242
39	Novaculite, pounds	1,000,000	15,000	1,160,000	15,000
40	Feldspar, long tons	13,600	68,000	14,900	74,500
41	Chromic iron ore, long tons	2,700	40,000	2,000	30,000
42	Mica, pounds	92,000	161,000	40,000	70,000
43	Slate ground as a pigment, long tons	1,975	24,687	3,000	30,000
44	Cobalt oxide, pounds	c68,723	65,373	c35,000	36,878
45	Sulphur, short tons	715	17,875	2,500	75,000
46	Rutile, pounds	600	2,000	600	2,000
47	Asbestos, short tons	300	9,000	200	6,000
48	Potters' clay, long tons	36,000	275,000	40,000	325,000
49	Grindstones		500,000		250,000
50	Millstones		100,000		140,000
51	Ozocerite, refined, pounds				
52	Infusorial earth, short tons	1,000	5,000	1,200	6,000
53	Soapstone, short tons	10,000	200,000	12,000	225,000
54	Fibrous talc, short tons	10,000	110,000	12,000	125,000
55	Lithographic stone, short tons			40	700

a Not including lime in barrels, limestone for iron flux, or grindstones. *b* Value of the crude product.

MINERAL PRODUCTS OF THE UNITED STATES—CONTINUED.

1887.		1888.		1889.		
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
.....	$542,691,374	.....	$564,498,631	.....	$587,230,662	
.....	250,275,054	.....	256,257,517	.....	269,590,487	
.....	287,416,320	.....	303,241,114	.....	307,640,175	
.....	5,000,000	.....	5,000,000	.....	10,000,000	
6,417,148	121,925,800	6,489,738	107,000,000	7,603,642	120,000,000	1
41,269,240	53,350,000	45,783,632	59,195,000	51,354,851	66,396,988	2
1,596,500	33,000,000	1,604,927	33,175,000	1,590,869	32,886,744	3
185,227,331	21,115,916	231,270,622	33,833,954	231,246,214	26,907,809	4
160,700	14,463,000	180,555	15,924,951	182,967	16,137,689	5
50,340	4,782,300	55,903	5,500,855	58,860	5,791,824	6
33,825	1,429,000	33,250	1,413,125	26,484	1,190,500	7
205,566	133,200	204,228	127,632	252,663	151,598	8
18,000	59,000	19,000	65,000	47,468	97,335	9
75	15,000	100	20,000	115	28,000	10
448	1,838	500	2,000	500	2,000	11
78,470,857	98,004,656	91,106,998	101,860,529	85,383,059	94,346,809	12
37,578,747	84,552,181	41,624,611	89,020,483	40,714,721	65,879,514	13
.....	25,000,000	.....	25,500,000	.....	a42,809,706	14
28,278,866	18,877,094	27,612,025	17,947,620	35,163,513	26,963,340	15
46,750,000	23,375,000	49,087,000	24,543,500	68,474,668	33,217,015	16
.....	15,817,500	.....	22,629,875	.....	21,097,099	17
6,942,744	5,674,377	6,503,295	5,021,139	7,000,000	5,000,000	18
7,831,962	4,093,846	8,055,881	4,374,203	8,005,565	4,195,412	19
5,377,000	3,226,200	5,438,000	2,719,000	6,318,000	3,159,000	20
480,558	1,836,818	448,567	2,018,552	550,245	2,937,776	21
8,259,609	1,261,463	9,578,648	1,679,302	12,780,471	1,748,458	22
18,000	1,440,000	20,000	1,600,000	16,970	1,357,600	23
95,000	425,000	110,000	550,000	267,769	764,118	24
11,000,000	550,000	7,589,000	455,340	8,000,000	500,000	25
20,000	310,000	24,000	380,000	32,307	463,766	26
34,524	333,844	29,198	279,571	24,197	240,559	27
4,000	16,000	53,800	331,500	51,735	171,537	28
52,000	210,000	54,331	167,658	93,705	202,119	29
15,000	75,000	20,000	110,000	19,161	106,313	30
199,087	61,717	307,386	95,290	418,891	125,667	31
600	108,000	589	91,620	2,245	105,565	32
600,000	300,000	300,000	150,000	156,265	63,956	33
.....	88,600	.....	64,850	.....	188,897	34
.....	75,000	.....	75,000			35
32,000	185,000	30,000	175,000	11,113	49,137	36
5,000	20,000	6,000	30,000	9,500	45,835	37
416,000	34,000	400,000	33,000	.....	b72,662	38
1,200,000	16,000	1,500,000	18,000	5,982,000	32,980	39
10,200	56,100	8,700	50,000	6,970	39,370	40
3,000	40,000	1,500	20,000	2,000	30,000	41
70,000	142,250	48,000	70,000	49,500	50,000	42
2,000	20,000	2,500	25,000	2,000	20,000	43
d18,340	18,774	c8,491	15,782	13,955	31,092	44
3,000	160,000	(e)	.....	1,150	7,850	45
1,000	3,000	1,000	3,000	1,000	3,000	46
150	4,500	100	3,000	30	1,800	47
43,000	340,000	36,750	300,000	294,344	635,578	48
.....	224,400	.....	281,800	.....	439,587	49
.....	100,000	.....	81,000	.....	35,155	50
.....	.....	43,500	3,000	50,000	2,500	51
3,000	15,000	1,500	7,500	3,466	23,372	52
12,000	225,000	15,000	250,000	12,715	231,708	53
15,000	160,000	20,000	210,000	23,746	244,170	54
.....	.....	.....	.....	18	243	55

c Including that contained in ore and matte. d Including cobalt oxide in exported ore and matte. e None reported.

TOTAL MINERAL PRODUCTION OF THE UNITED STATES FROM 1880 TO 1889, INCLUSIVE, WITH VALUES, AMOUNTS, AND PERCENTAGE INCREASE OR DECREASE OF 1889 OVER 1880.

Products.	Production for 10 years.		Increase or decrease in 1889 compared with 1880.							
	Quantity.	Value.	Increase in quantity.	Percentage of increase.	Decrease in quantity.	Percentage of decrease.	Increase in value.	Percentage of increase.	Decrease in value.	Percentage of decrease.
Grand total		$4,687,343,630					$217,911,662	59.00		
Total value of metallic products.		2,165,000,310					79,550,622	41.86		
Total value of nonmetallic products.		2,461,843,320					134,361,040	77.54		
Total value of mineral products unspecified.		60,500,000					4,000,000	66.67		
METALLIC:										
Pig iron, value at Philadelphia, long tons.	51,075,249	957,187,116	4,227,730	125.23			30,684,431	34.36		
Silver, coining value, troy ounces (a).	390,826,236	505,541,988	21,034,851	69.38			27,196,988	69.38		
Gold, coining value, troy ounces (b).	16,143,106	329,861,744			150,631	8.65			$3,113,256	8.65
Copper, value at New York city, pounds (c).	1,466,122,116	192,237,714	170,766,214	282.35			15,416,609	134.16		
Lead, value at New York city, short tons.	1,420,917	126,169,791	85,142	87.04			6,355,189	64.96		
Zinc, value at New York city, short tons.	407,652	38,705,108	35,621	153.28			3,514,392	154.31		
Quicksilver, value at San Francisco, flasks (d).	407,760	13,311,274			33,442	55.81			607,280	33.78
Nickel, value at Philadelphia, pounds (e).	2,156,055	1,587,890			77,305	23.43			13,386	8.11
Aluminum, value at Pittsburg, pounds.	87,984	253,110	47,468				97,335			
Antimony, value at San Francisco, short tons (f).	655	136,000	65	130.00			18,000	180.00		
Platinum, value (crude) at San Francisco, troy oz.	2,498	8,575	400	400.00			1,600	400.00		
NONMETALLIC (SPOT VALUES):										
Bituminous coal, long tons (g).	675,157,603	804,440,113	47,140,418	123.27			40,903,091	76.53		
Pennsylvania anthracite, long tons (h).	341,950,398	712,729,621	15,134,532	59.17			23,682,836	56.12		
Building stone		229,665,761					24,453,651	133.22		
Petroleum, barrels (i)	273,092,712	223,066,388	8,877,390	33.77			2,780,107	11.50		
Lime, barrels (j)	404,811,668	220,785,515	40,474,668	144.55			14,217,015	74.83		
Natural gas		76,563,674					21,097,099			
Cement, barrels (k)	45,108,982	38,716,973	4,927,057	237.68			3,147,293	169.88		
Salt, barrels (l)	69,919,743	43,983,873	2,044,505	34.30					634,154	13.13
Limestone for iron flux, long tons.	46,773,322	27,431,076	1,818,000	49.40					641,000	16.87
Phosphate rock, long tons (m)	3,968,122	21,253,754	338,868	160.31			1,813,953	161.41		
Mineral waters, gals. sold	76,462,197	11,864,884	10,780,471	539.02			1,248,458	249.69		
Zinc white, short tons	143,077	10,801,338	6,863	67.90			593,862	77.76		
Gypsum, short tons	1,113,424	4,582,743	177,769	197.52			364,118	91.03		
Borax, pounds	69,842,024	4,469,852	4,307,557	116.66			222,767	80.35		
Mineral paints, long tons (n)	126,661	1,991,181	28,703	796.42			327,926	241.41		
Manganese ore, long tons	172,893	1,764,196	18,436	320.01			154,144	178.38		
Asphaltum, short tons	127,479	587,477	51,291	11,552.03			167,097	3,763.45		
Pyrites, long tons	388,036	1,469,777	91,705	4,585.25			197,119	3,942.38		
Crude barytes, long tons	191,161	864,313			839	4.20	26,313	32.89		
Bromine, pounds	3,200,588	918,404	14,201	3.51			10,915	9.51		
Corundum, short tons (o)	7,873	926,655	1,201	115.04			76,285	260.54		
Marls, short tons (p)	7,658,265	3,814,956			843,735	84.37			436,044	87.21
Precious stones		851,238								
Gold quartz, jewelry, etc.		760,000					88,807	88.81		
Flint, long tons	258,113	1,149,137			8,887	44.44			30,863	38.58
Fluorspar, short tons	50,500	232,335	5,500	137.50			29,835	186.47		
Graphite, pounds	2,959,408	358,935					22,862	45.91		
Novaculite, pounds	13,762,000	145,560	5,562,000	1,324.29			24,980	312.25		
Feldspar, long tons	119,870	614,194			5,530	44.24			20,630	34.38
Chromic iron ore, long tons	22,988	362,808			288	12.59	2,192	7.88		
Mica, pounds	842,579	1,774,600			32,169	39.39			77,825	60.88
Slate ground as pigment, long tons.	19,475	207,687	1,000	100.00			10,000	100.00		
Cobalt oxide, pounds (q)	174,789	256,840	6,704	92.46			7,092	29.55		
Sulphur, short tons	10,665	302,725	550	91.67					13,150	62.62
Rutile, pounds	6,150	19,900	900	900.00			2,600	650.00		
Asbestos, short tons	4,330	131,612			120	80.00			2,512	58.26
Potters' clay, long tons	592,877	3,036,035	273,561	1,316.27			435,121	217.06		
Grindstones		4,565,787							60,413	12.08
Millstones		1,306,155							164,845	82.42
Ozocerite, refined, pounds	93,500	5,500	50,000				2,500			
Infusorial earth, short tons	15,999	130,532	1,633	89.09					22,288	48.81
Soapstone, short tons	101,156	1,713,373	4,274	50.63			165,043	247.57		
Fibrous talc	111,956	1,223,900	19,536	464.04			189,440	346.14		
Lithographic stone, short tons.	108	1,943	18				243			

a $1.2929 per troy ounce.
b $20.6718 per troy ounce.
c Including copper made from imported pyrites.
d Of 76.5 avoirdupois pounds net.
e Including nickel in copper-nickel alloy and in exported ore and matte, except for 1881, for which no returns are available for matte.
f Part of the antimony for 1889 was valued at Philadelphia.
g Except for 1880 and 1889 this includes brown coal and lignite and anthracite mined elsewhere than in Pennsylvania.
h For 1880 and 1889 this includes all anthracite.
i Of 42 gallons.
j Of 200 pounds.
k Of 300 pounds for natural cement and 400 pounds for artificial Portland.
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m Except for 1889 this represents only the South Carolina product.
n Ocher and metallic paint.
o Refined corundum from 1881 to 1888, both inclusive.
p Except for 1888 and 1889 this includes only New Jersey marls.
q Including cobalt oxide in exported ore and matte.