

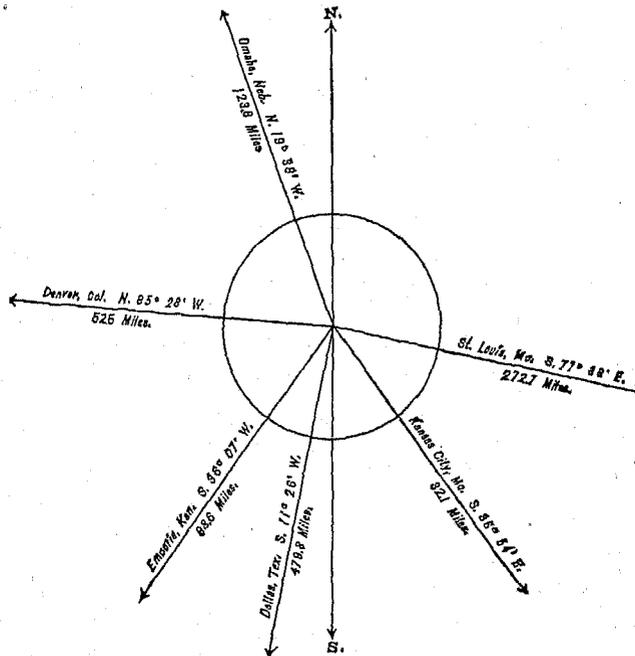
KANSAS.

ATCHISON,

ATCHISON COUNTY, KANSAS.

POPULATION
IN THE
AGGREGATE,
1860-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	2,616
1870.....	7,054
1880.....	15,105



POPULATION
BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	8,616
Female.....	6,489
Native.....	13,263
Foreign-born.....	1,842
White.....	12,306
Colored.....	* 2,799

* Including 3 Chinese and 9 Indians.

Latitude: 39° 34' North; Longitude: 95° 8' (west from Greenwich); Altitude: 1,000 feet.

FINANCIAL CONDITION:

Total Valuation: \$1,809,830; per capita: \$120 00. Net Indebtedness: \$449,687; per capita: \$29 77. Tax per \$100: \$4 23.

HISTORICAL SKETCH.

Colonel David R. Atchison, for whom this city was named, was a United States Senator from Missouri from 1843 to 1855. His name appears among those of seventeen persons, all from Platte county, Missouri, except two who were already residents of what is now Atchison county, who on July 27, 1854, in a grove at what is now the foot of Atchison street, organized the "Atchison Town Company". A survey of 480 acres was made for a town site, and on the 21st of the following September the first sale of lots took place, 400 being sold to actual settlers.

Probably political motives connected with the struggle then in progress for the control of the territory of Kansas, between the pro-slavery and anti-slavery parties, had much to do with establishing this settlement; but just why this spot was chosen is a mystery. "The peculiar configuration of the earth was not favorable for the easy building of a metropolis on the site of Atchison. Abrupt bluffs stood up from the banks of the river, rift only to allow an unromantic stream, with unstable banks, to empty its feeble current into the uncontrollable Missouri. It was an uninviting spot for the purposes to which it was dedicated, but not devoid of the picturesque." There is one fact, however, that redeems the choice of the first settlers, viz, its location on the Missouri. The Missouri river here makes a great curve to the westward, and Atchison makes the center of the bow, nearest the mountains. Others saw the point, and Doniphan, 5 miles up the river, and Sumner, 3 miles below, were established in harmony with this idea of being on the Missouri, and yet as near the mountains as possible in order to secure the commerce of the West and Southwest. Atchison has far outtrived her two competitors, and has won a success due in large part to her location.

Even early in 1855 the village attracted the attention of those interested in such matters, and became the Missouri River outfitting and starting point for a number of Salt Lake and other overland freighters, thus securing its first claim for recognition as a business center within twelve months from its inception. In February of that year the first newspaper was started, and in April the first postmaster was appointed. On February 22, 1858, it was incorporated as a city by the territorial legislature. During all these years "border warfare" had been continually waging over the territory, but Atchison, though founded by a party of pro-slavery men from Missouri, seems almost wholly to have escaped the turmoil and lawlessness from which Lawrence, Leavenworth, and other places suffered so much.

The first railroad between Kansas and the East was secured by the labors of the citizens of Atchison. In 1854 a charter was obtained from the Missouri legislature for the Atchison and Saint Joseph railroad, but it was not pushed to completion until February, 1860. Hitherto all communication with the outside world had been by the Missouri river or overland, but now an all-rail route was open to the Atlantic seaboard. The next year Kansas, although not yet rested from the struggle within her own borders, sent 21,806 men to the Union army, her total voting population being only 21,835.

For nearly four years Atchison, with the rest of Kansas, waited till the war should be over. This finished, her sons went to work at home, and since then the city, in common with the state, has flourished greatly. The financial crisis of 1873, and the general depression of the subsequent years, of course affected its growth more or less, and the visitation of grasshoppers or locusts, which so severely tried this region, destroying two-thirds of the growing crop of Indian corn and reducing the settlers of sixteen or eighteen of the new counties to destitution, redounded to the loss of Atchison, as well as of every commercial mart in the state. It did not fully recover from the depression of business till 1879, a year which marks a new era in its business history. "The general revival of trade, lending courage to capital and stimulating all branches of commerce, has been demonstrated by an extraordinary activity in building, in manufactures, in the carrying traffic, in jobbing, and in every department of business. Nearly 700 houses were erected during the year, and at this time an overteeming population cry out for more." As a mark of growth of the railroad business in Atchison may be instanced the erection of an elegant and commodious union depot within the last year, at a cost of \$120,000. It is the most costly structure ever built in the city and the largest depot in the state.

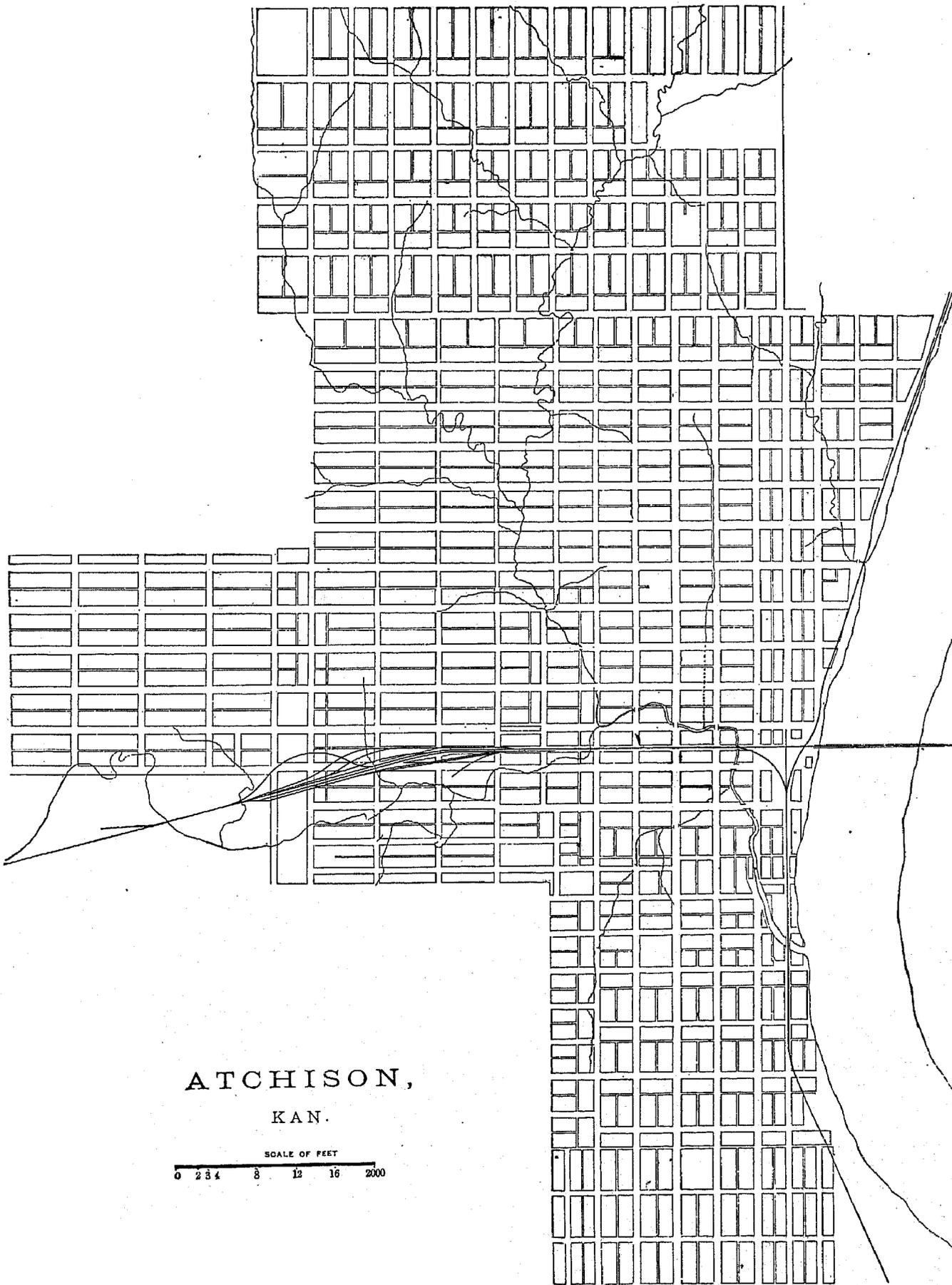
There is a very fine bridge across the Missouri here, of which Atchison is justly proud. It was constructed in 1874-75 by the American Bridge Company, of Chicago, Major O. B. Green being chief engineer and Captain H. L. Marvin first assistant. "It is built of wrought iron, and rests upon stone piers; its length is 1,182 feet and the approaches aggregate 2,000 feet, 500 on the west and 1,500 feet on the east side. Its width is 19 feet 6 inches, and it has 5-foot sidewalks on each side. The bridge consists of a draw-span on the western side, swinging on a circular pier sunk to the bed-rock, and 3 fixed spans, the former 382 feet long, giving 160 feet clear water-way on either side; the fixed spans each 260 feet long. The bottom chord of the bridge is 10 feet above the high-water mark of 1844, that being the greatest rise of the Missouri on record. The foundations consist of 4 stone piers and 2 stone abutments, with a pneumatic iron pier on the west side. All of the piers and both of the abutments are sunk to bed-rock. They are all constructed of stone from the Cottonwood quarries in this state. The bridge is floored, so as to be used for highway as well as for railroad traffic."

ATCHISON IN 1880.

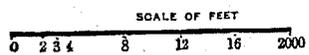
The following statistical accounts, collected by the Census Office, with the assistance of H. R. Bostwick, esq., city clerk, furnish an idea of the present condition of the city:

LOCATION.

Atchison lies on the right bank of the Missouri river, about 25 miles by land above Leavenworth, Kansas, and 20 miles by road southeast of Saint Joseph, at an elevation of 1,000 feet above the level of the sea, in latitude



ATCHISON,
KAN.



39° 34' north, and longitude 95° 8' west from Greenwich. The Missouri river gives water communication with all points between Fort Benton, Montana, and Saint Louis, as well as with all points on the Mississippi and Ohio rivers. It has here a draft of water of 18 feet, a channel capacity of 200 feet, and a current of about 4 miles per hour

RAILROAD COMMUNICATIONS.

Atchison, like all the flourishing western cities, is a great railroad center. Its 6 railroads, with the points to which they give immediate communication, are as follows:

The Atchison, Topeka, and Santa Fé railroad runs from Atchison via Topeka and Denver to Santa Fé. This road at present terminates at San Marcial, but is shortly to be finished to Guaymas.

The Atchison and Nebraska division of the Burlington and Missouri River railroad runs to Lincoln, where it connects with the other division, intersecting all southeastern Nebraska.

The southwestern division of the Chicago, Rock Island, and Pacific railroad, which terminates at Atchison, gives nearly straight lines to Chicago and Milwaukee via Rock Island.

The Kansas City, Saint Joseph, and Council Bluffs railroad, to the points named, is connected with Atchison by a short branch at Winthrop junction.

The Missouri Pacific railroad runs from Saint Louis, through Atchison, to Logan, its present western terminus; it is shortly to be completed to Denver. The Texas line of this road runs to Galveston.

TRIBUTARY COUNTRY.

The country immediately tributary to Atchison is mainly comprised in Atchison county, of which the city is the capital. This county has an area of 424 square miles, is bounded on the east by the Missouri river, and is drained by two creeks. The soil is pleasantly diversified and very fertile. The streams are bordered with forest trees. Almost the sole occupation of its inhabitants is farming, the most important products being wheat, corn, oats, dairy products, hay, and potatoes. In this county, as in the whole region of which Atchison is the center, hogs are very extensively raised. Last year, of 1,264,499 head of swine over 6 months old owned in the 113 counties of Kansas, 140,801 were owned in Atchison and the four surrounding counties. The country just east of the city, in Missouri, is also an important hog-raising district. The grain trade is of the greatest importance to Atchison. Less than four years ago this trade was confined to the purchase of farmers' deliveries from the country within a circle of about 25 miles. To-day the city is the center of the grain trade of Kansas, to accommodate which 4 large elevators and 5 extensive and thoroughly equipped flouring-mills are taxed to their utmost.

TOPOGRAPHY.

Atchison is surrounded on all save the river side by a semicircle, or rather horseshoe, of hills. The business part of the city, near the river, is 38 feet above low water. Half a mile to the west the ground is 60 feet above low water. The White Clay creek, running through the town from west to east, has a valley with an average width of one-quarter of a mile, and this forms the division between north and south Atchison. The ground rises to the north and south of this to an elevation of 180 feet, each side, in three-fourths of a mile. The continuous effort of Atchison engineering has been to reduce the grades of the streets running north and south, and to raise the level and increase the width, originally inconsiderable, of the White Clay valley. This process never ceases, and has so far progressed that the streets are now of gentle ascent, and ample room is afforded for the constant growth of the business portion, on Commercial and Main streets, Kansas avenue, and the intersecting streets in the valley. White Clay creek is the great natural sewer of the city, carrying off the waste water and refuse into the Missouri. There are no ponds or collections of stagnant water anywhere in or about the city. The soil is a rich black loam, and the rock is principally blue limestone. Of the hills surrounding the city some are covered by the natural forest, others form the eastern boundary of the rolling prairie which stretches away to the great plains. Beyond the former the country for three or four miles is generally wooded and gently undulating, then opening out into rich prairie.

CLIMATE.

According to the Smithsonian publications the average mean summer temperature of Atchison is 74.86°; average mean winter temperature, 27.06°; highest recorded summer temperature, 101°; lowest recorded winter temperature, -14°; and mean annual temperature, 51.35°.

STREETS.

Total length of streets, 52.25 miles, 3 miles of which have been paved with broken stone at a cost of \$1 85 per cubic yard. This kind of pavement here will last 8 years without repairs. The sidewalks are of wood, and many of the gutters are paved. Mr. Bostwick, in his report, says that there is no tree-planting along the sides of the streets, but Atchison is very fortunate in the possession of many natural forest trees. In Topeka, now a reasonably well shaded town, every tree has been planted; but in Atchison there are hundreds and thousands of

oaks, the original trees or their descendants. Last year the street expenditures, including sidewalks, gutters, and bridges, was over \$11,000. The city authorities prefer contract work on the streets, as they think it cheaper. A horse-roller is used. There are no horse-railroads or omnibus lines in the city, but 4 miles of track for a street-railway are now being laid.

WATER-WORKS.

The water-works are owned by a private corporation, and so far have cost \$150,000. The supply is taken from the Missouri river, and is lifted, by pumping, 224 feet into a settling reservoir 50x145 feet at bottom, and 106x185 feet at surface, and 13 feet deep. When the river is frozen the water is clear enough to use without settling; but at other times it is allowed to settle from 8 to 12 hours, and is then drawn into distributing reservoirs adjoining. Distribution is by gravity, through 4,000 feet of 12-inch cast-iron mains and 8 miles of pipe from 4 to 12 inches in diameter. There are 54 fire-hydrants, and the city pays \$6,000 annually for them. The average daily consumption is not stated, the operation of the works having only begun this year (1880).

GAS.

With the exception of the statement that the gas-works are not owned by the city, no information on this subject was furnished.

PUBLIC BUILDINGS.

The city owns and occupies for municipal purposes a city hall, which cost \$5,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are no public parks or pleasure-grounds in the city.

PLACES OF AMUSEMENT.

There are 2 theaters: Corinthian hall, with a seating capacity of 600, and the Coliseum theater, with a seating capacity of 300. A license fee of \$5 for each performance is paid to the city, the total annual receipts from this source being over \$500. There are no concert- and beer-gardens.

DRAINAGE.

The city has no system of sewers as yet. It is now being divided into districts, preparatory to introducing a system for which the city engineer is preparing plans, but it is stated that nothing will be done before the early part of 1882.

CEMETERIES.

There are 3 cemeteries, all owned by private corporations, as follows:

Oak Hill Cemetery, area 8 acres, adjoining the city limits.

Mount Vernon Cemetery, area 20 acres, situated 2 miles from the city limits.

Saint Benedict Cemetery, area 5 acres, 1 mile from the city limits.

During the past year there were 86 interments in Mount Vernon, 62 in Oak Hill, and 43 in Saint Benedict; a total of 191. Graves are required to be 6 feet deep. In Mount Vernon, lots 10 by 20 feet sell for \$25; in Oak Hill, lots 20 by 20 feet sell for from \$25 to \$50; and in Saint Benedict, lots 10 by 20 feet sell for \$20. All of the above cemeteries are finely laid out and beautifully located, the grounds being rolling and well timbered with native trees, besides being planted with many ornamental trees and shrubs. The revenue last year from the sale of lots was: Mount Vernon, \$855; Oak Hill, \$425; and Saint Benedict, \$103 50; making a total of \$1,383 50.

MARKETS.

There is no market building proper in Atchison, but a public market stand is provided, where tables are placed on one side and teams stand on the other, with a shed roof over all, for the sale of garden products. The charges are, for basket-men 5 cents and for teams 10 cents per day. All persons, teams, etc., bringing vegetables to market are required to stand at the market-place during market hours. The net proceeds to the city from this source in 1880, after paying all expenses except the market-master's salary of \$176, were \$623 80. The market is open daily from 4 to 10 a. m. The annual sales of vegetables in the market amount to \$22,000, being about 75 per cent. of the gross sales of vegetables in the city. There are no wholesale meat-markets; all meat- and fish-markets are retail, and occupy private buildings. The city ordinances provide that all country produce, except grain and meats, brought to the city shall not be sold except in the market place during market hours; but during the remainder of the day persons may dispose of them as they see proper.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary organization of Atchison is the board of health, consisting of the mayor and 1 councilman from each ward, 4 in all, annually appointed by the mayor and council. When there is no declared epidemic the

expenses of the board are merely nominal; during an epidemic they may be increased to any amount authorized by the city council. The board exercises general supervision over the health of the city, has power to take all steps necessary to promote its cleanliness and salubrity, to abate all nuisances, to do what may be deemed advisable to prevent the introduction or spread of contagious diseases, and to establish hospitals. The ordinances provide that the city marshal shall attend the meetings of the board, and shall serve all orders and precepts on persons when directed so to do by the board. The board meets at the call of the mayor. None of the members are physicians and none of them have police powers. Inspections are made only as nuisances are reported. When nuisances are found to exist the marshal serves a notice to abate within 24 hours. The board takes cognizance of defective house-drainage, privy-vaults, cesspools, etc., only when they come under the head of nuisances, and the same is true of the conservation and removal of garbage and the removal of excrement. There are no regulations governing the burial of the dead.

INFECTIOUS DISEASES.

Small-pox patients are isolated in a pest-house owned by the city and situated near the city limits. Scarlet-fever patients are neither isolated nor quarantined at home. The board of education has full control of the city schools, and can close them at will in case of the breaking out of contagious diseases in them. Vaccination is not compulsory, nor is it done at the public expense.

REGISTRATION AND REPORTS.

There is no system of registration of births, diseases, and deaths. The board reports to the city council as often as the council requires it; these reports are not published. The board has power to employ one or more physicians, at the expense of the city, in case of the breaking out of an epidemic.

MUNICIPAL CLEANSING.

Street-cleaning.—The cleaning of the streets of the city is under charge of the street commissioner. The work is done by the city's own force, wholly by hand, and once a week. Private abutters must clean the adjacent gutters once a week and leave the dirt in piles for removal by the street-commissioner's force. The sweepings are hauled off and deposited on low lands.

Removal of garbage and ashes.—All garbage and ashes are removed by the householders and deposited on low lands. There are no city regulations on the subject. No nuisance or probable injury to health is reported to result from the improper treatment of garbage.

Dead animals.—The carcasses of all animals dying within the city limits are hauled away by the owner and buried, at no cost to the city.

Liquid household wastes; human excreta.—No liquid household waste runs into the street-gutters. Most of it goes into cesspools on the premises, which are deep, are not provided with overflows, receive the wastes from water-closets, and are not governed by regulations as to cleansing. The greater proportion of houses in the city rely on privy-vaults. Hotels have water-closets delivering into private sewers leading to the river, but nearly all the few other water-closets in the city empty into cesspools. Privy-vaults within 20 feet of any street, shop, or business house must be not less than 6 feet deep and water-tight. There are no regulations concerning the emptying of privy-vaults. The dry-earth system is little, if any, used. In answer to the question as to the contamination of well-water by the escape of the contents of cesspools and privy-vaults, Mr. Bostwick says: "Our city has but few wells, rain-water collected in cisterns being generally used for drinking and household use, especially outside the limit reached by the water-works."

Manufacturing wastes.—There are no regulations on this head, and no report was made as to practice.

POLICE.

The police force of Atchison is appointed by the mayor, subject to the confirmation of the city council, and is governed by the mayor. The chief executive officer is the city marshal, who has general supervision of the force, under the direction of the mayor, and receives a salary of \$1,200 per year. The rest of the force consists of 10 officers, receiving \$600 a year each. They wear a blue uniform, with regulation cap, etc., which they themselves provide, and are each equipped with a club, whistle, navy revolver, and dark lantern. They are on duty 12 hours at a time, and patrol about 3 miles of streets each. In 1880 there were about 780 arrests, the principal causes being "disturbing the peace, drunk and disorderly, visiting houses of ill-fame, carrying concealed weapons", etc. Most of the persons arrested were fined from \$1 to \$25, and if unable to pay were put to work on the streets. About 850 free meals were furnished during the year, at a cost of 10 cents for each meal. The force co-operates with the fire department merely to the extent of maintaining order and guarding property at fires. Special policemen are appointed by the mayor for the same service and with the same standing as the regular force. The only casualty during 1880 in the force was the shooting and killing of a policeman by a drunken negro. The annual cost of the department is about \$7,000.

FIRE DEPARTMENT.

On January 1, 1880, the old volunteer fire department was superseded by the present combined paid and volunteer department, the change having been made with entire harmony. The chief of the fire department, who entered upon his duties at that time, says in his report for the year:

On assuming this * * * position * * * I was much embarrassed on account of the deficiency in apparatus to work with, a lack of a sufficient water-supply (for the first year at least), and the bad and unserviceable condition we found the hose in, and with an inconvenient way to transport them to fires. During this time no provisions were made for fire alarms; consequently too much time was often consumed in finding out the locality of the fire. Some of these embarrassments have in part been overcome, such as a sufficient supply of water, the purchase of new hose, hose-carriage, etc., but yet enough remain to prevent the organization of a good and efficient department, such as a city of the proportions and pretensions of Atchison demand.

The paid force of the present department consists of 1 chief and 1 assistant chief engineer, fireman, driver, pipeman, and night-watchman, with an annual pay-roll of \$2,940. The apparatus consists of a second-class steam fire-engine, a two-horse hose-carriage, a two-wheel hand hose-cart, a two-horse hook-and-ladder truck, 6 fire-extinguishers, and 1,500 feet of serviceable hose.

SCHOOLS.

There are 5 public-school buildings in the city, and, during the first term of 1880, 858 boys and 985 girls, a total of 1,843, were enrolled as scholars. There are 29 teachers, receiving an average salary of about \$54 per month. Saint Benedict's college, an institution conducted by the Benedictine fathers, has two commodious brick buildings. The number of students now in attendance is 95. The Atchison institute, claiming chiefly to fit its pupils for business and teaching, has between 200 and 300 students. Saint Scholastica's academy, under the care and management of the sisters of the Benedictine order, was completed in 1874 at a cost of \$60,000. The school now has 113 students. A Catholic parochial school, also under the charge of the Benedictine sisters, has about 200 pupils.

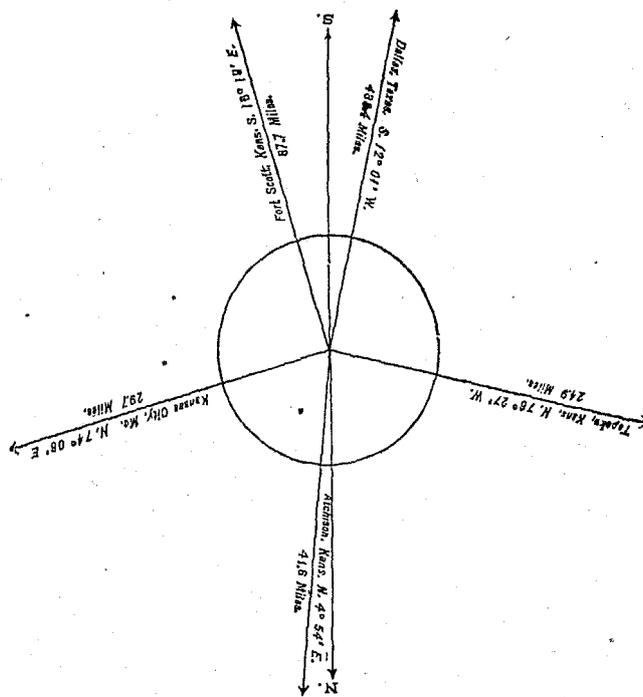
LAWRENCE, DOUGLAS COUNTY, KANSAS.

POPULATION

IN THE
AGGREGATE,

1860-1880.

Year	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	1,645
1870.....	8,320
1880.....	8,510



POPULATION

BY
SEX, NATIVITY, AND RACE,

AT
CENSUS OF 1880.

Male	4,181
Female	4,329
Native	7,489
Foreign-born	1,021
White.....	6,513
Colored	*1,997

* Including 2 Chinese.

Latitude: 33° 53' North; Longitude: 95° 12' (west from Greenwich); Altitude: 846 to 1,050 feet.

FINANCIAL CONDITION:

Total Valuation: \$1,848,640; per capita: \$217 00. Net Indebtedness: \$654,115; per capita: \$76 86. Tax per \$100: \$4 75.

HISTORICAL SKETCH.

In the years immediately following the Mexican war, settlers began to cross the Missouri and seek for homes along the eastern borders of what was then known as the vast wilderness of Nebraska. It soon became evident that the fertile lands in the southeastern corner of this region, now eastern Kansas, were to be the object of contention between the friends and the opponents of slavery. Both sides were terribly in earnest. In Massachusetts and Connecticut emigrants' aid societies were chartered in the spring of 1854, to assist emigrants to remove to Kansas, and to furnish them with weapons of defense. In May, Congress passed the Kansas-Nebraska bill, organizing the two territories, and expressly declaring the Missouri compromise to be inoperative in regard to them. The emigrants forwarded by the emigrants' aid societies entered the territory in very considerable numbers in the

spring and summer. One of the companies sent out left Massachusetts on July 17, and, with a few other persons from states outside of New England who had joined it on the way, arrived on August 1 at the place where Lawrence now stands. Two weeks later a second company arrived, numbering 60 or 70 persons, which was soon followed by a third and a fourth party. At first the place was known by the name of New Boston, but on October 1 of this year (1854) the name Lawrence was adopted in honor of Amos A. Lawrence, of Boston, who afterward gave \$10,000 to the town for educational purposes.

During the struggle for a free state which followed the Kansas-Nebraska bill, Lawrence took a very prominent part on the anti-slavery side, being the headquarters of John Brown, Lane, Robinson, and Conway, and other noted leaders. In common with nearly all the settlements in the state, it suffered severely in the turmoil of these years, being twice besieged and burnt. In spite of all its disasters the place flourished, and at the breaking out of the civil war was in a most prosperous condition.

Lawrence was checked in its growth by the absence of many of her citizens on the battle-field, but she was more unfortunate than the rest in being subject to the terrible calamity of sack and pillage.

On the morning of the 21st of August, 1863, the town was surprised by a party of Confederate raiders under Quantrell, who killed about 180 persons, among whom, it is said, there were a number of Union soldiers sick in hospital, and burnt some 75 dwellings and nearly as many other buildings owned as stores, workshops, etc., being nearly the entire business portion of the city. It is estimated that \$2,000,000 worth of property was destroyed. Rebuilding began actively in the spring of 1864, and in 18 months the burnt portions were nearly all restored, and its growth for the next 6 years was steady and prosperous. It has received accessions to its population from all the northern states. The character of its population has remained substantially the same from its first settlement.

LAWRENCE IN 1880.

The following statistical accounts, which have been compiled by the Census Office, will give a clear idea of the present condition of Lawrence:

LOCATION.

Lawrence is situated in Douglas county, in the eastern part of Kansas, on the Kansas river, 32 miles south-southwest of Leavenworth and 25 miles east by south of Topeka, at an average height of 875 feet above the level of the sea. Its lowest point has an altitude of 846 and its highest of 1,050 feet. Steamboats have traversed the whole course of the Kansas river at high water, but its navigation is not of any practical value, being obstructed by sand-bars and frequent changes in the channel.

RAILROAD COMMUNICATIONS.

The Kansas division of the Union Pacific railroad runs through Lawrence on its way from Kansas City to Denver, and the Leavenworth branch of this road runs from Lawrence to Leavenworth. One branch of the Atchison, Topeka, and Santa Fé starts from Atchison and one from Kansas City, meeting at Topeka, the latter coming via Lawrence; from Topeka the road runs to Denver, to Santa Fé, and at present to San Marcial, but it is shortly to be put through to Guaymas. One branch of the Kansas City, Lawrence, and Southern railroad starts from Kansas City and one from Lawrence; they meet at Ottawa, and thence the road runs down through southeastern Kansas as far as Harper.

TRIBUTARY COUNTRY.

The character of Douglas county, of which Lawrence is the capital, may be taken to illustrate that of all the country immediately tributary to Lawrence. This county has an area of about 500 square miles. It is partly bounded on the north by the Kansas river and is intersected by the Wakarusa river. The surface is pleasantly diversified and the soil is highly productive. Limestone is abundant. Groves of timber grow along the streams, and large prairies are numerous. Cattle, grain, tobacco, wool, hay, and dairy products are the principal articles produced, and agriculture is almost the sole occupation of the inhabitants.

TOPOGRAPHY.

Geologically, Lawrence is situated at the extreme upper portion of the true coal measures (carboniferous formation). That portion of the city lying south of the Kansas river has at the surface an average of from 1½ to 2 feet of alluvial soil, underlaid by compact clay from 10 to 25 feet in thickness; below the clay is limestone rock. The city is chiefly located in the broad valley of the Kansas river at its junction with the valley of the Wakarusa. Mount Oread, within the city limits, is the termination of the "high prairie" level between these two valleys. It is 175 feet above the general level of the city. The natural drainage is good. There are no ponds or marshes. The country for a radius of 5 miles is wooded along the two rivers, otherwise open. The soil is of the richest quality.

CLIMATE.

The highest recorded summer temperature is 108°; the highest in average years, 100°. The lowest recorded winter temperature, -26°; the lowest in average years, -10°. Local rains often follow the valleys of the two rivers, but fogs resting over them rarely extend over the city. The prevailing winds in summer are from the south-southwest; in winter, from the northwest. The former are often hot and dry, but bring from the gulf of Mexico the moisture which produces rain; the latter are cold and uniformly dry.

STREETS.

Total length of streets, 58 miles, of which $\frac{1}{2}$ mile is paved with broken stone, $\frac{1}{4}$ mile with wood, and the rest are unpaved. The broken-stone pavement cost 35 cents, and the wooden \$2 75, per square yard. The broken stone was laid but a few years ago to replace worn-out wooden paving, and very little repairing has since been needed. The city clerk reports that the wooden pavement wears out faster than it can be repaired, and goes on to say that experience shows that its cost is very high and that it will last only about 6 years. The city paid \$70,000 for $\frac{3}{4}$ mile of wooden pavement laid in 1871 and 1872; the $\frac{1}{4}$ mile yet left is worn out and will soon be taken up; the rest has been replaced by macadam. The sidewalks on the main streets are nearly all of wood, stone, or brick, varying from 4 to 5 $\frac{1}{2}$ feet in width. Gutters on the main streets are of stone, elsewhere of earth. There are no trees or grass plots in the center of the streets. Sidewalks are 1 foot and trees 9 feet from the fences, there being a single row of the latter on each side of the streets. Some of the work on the streets, such as macadamizing and the building of culverts, is let by contract, but most of the work is done by the day. The annual expenditures for all street work will average \$7,000 per year. Neither steam stone-crusher nor roller is used. There are no horse-railroads in the city, nor are there any water-works.

GAS.

The gas-works are not owned by the city. The daily average production of gas is 15,000 feet and the charge per 1,000 feet is \$3 25. The city pays \$22 per year for each street-lamp, of which there are 116.

PUBLIC BUILDINGS.

The city owns a city hall, 2 jails, and another building, not now occupied, for municipal purposes. The total cost of municipal buildings belonging to the city is \$35,000; of the city hall separately, \$32,000. The county rents rooms from the city.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of the parks in the city is 73.68 acres, divided as follows: *New University grounds*, 41.54 acres; *Old University grounds*, 8.27 acres; *South Park*, 12.86 acres; *Central Park*, 6.88 acres; *Clinton Park*, 4.13 acres. They were obtained by dedication, not by purchase, and very little has been done as yet toward their development.

PLACES OF AMUSEMENT.

There are neither theaters nor concert- and beer-gardens in this city. There are 2 halls used for concerts, lectures, etc., viz: Liberty hall, with a seating capacity of 800, and Fraser's hall, with a seating capacity of 500.

DRAINAGE.

No report on this head was received.

CEMETERIES.

There are 4 cemeteries connected with the city, as follows:

Oak Hill, 40 acres, $\frac{1}{2}$ mile east of the city limits, 2 miles from center.

Maple Grove, 20 acres, 1 mile north of city limits, $\frac{1}{2}$ mile from center.

Roman Catholic, 10 acres, $1\frac{1}{2}$ mile southeast of city limits, $4\frac{1}{2}$ miles from center.

Old City Cemetery, 1 mile west of city limits, $3\frac{1}{2}$ miles from center.

Oak Hill cemetery since 1865 has had about 2,000 interments; Maple Grove, since 1869, about 500. Nothing could be learned in regard to the others. There is no limit as to time of burial after death. Graves are dug not less than 5 feet in depth. Permits for burials in Oak Hill and Maple Grove cemeteries are obtained from the city clerk, and a full record is kept. The city clerk reports that the Roman Catholic cemetery is the only private one near the city; that it has been surveyed into lots and has been used for a number of years, but that there is no record either of burials or of ownership of lots, and, as far as he can learn, every Catholic does about as he pleases in selecting ground and making burials, without any regard to payment or surveyed lines. Oak Hill and Maple Grove are owned by the city. Lots are sold to individuals. There is no attempt in them at more than simple landscape gardening. All moneys received from the sale of lots and groves and from work done is kept in a separate fund for the use of cemeteries alone. This fund now amounts to \$6,400. The Old City cemetery was the original burying ground of the settlement; many bodies have been removed from it to Oak Hill.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY.

There is no board of health, and there has been none for ten years. The city clerk says that the city has not needed any. Nuisances are punishable like any other offense against the city ordinances, the delinquent being brought into the police court on complaint and there tried. There are no regulations concerning the burial of the dead. There have been no small-pox patients in the city since 1871; there were a few then and they were isolated. Scarlet fever has been rare. Vaccination is not compulsory, nor is it done at the public expense. There is no system of registration of births, diseases, or deaths. The city has had no epidemic since 1864. The mayor and marshal have the right to order nuisances to be abated whenever found.

MUNICIPAL CLEANSING.

Street-cleaning.—On the paved portions of the main streets the dirt is scraped up by private persons and removed by the city's own force. No other street-cleaning is attempted. This paved portion is cleaned once a week, and is said to be done very fairly. No separate account of the cost to the city is kept. The sweepings are used in filling up low places in back streets.

Removal of garbage and ashes.—The city clerk reports:

Our ordinances require all this matter to be taken care of by householders, under penalty of fine if they permit a nuisance to exist or create one. Offensive matter when removed is generally buried in a sand-bar on the banks of the river below the city. * * * No injury from the improper treatment of garbage has been made apparent here yet. The system is good, but fails somewhat in execution, by reason of laxity of individuals in entering complaint.

Dead animals.—When the owner of a dead animal is known he is compelled to remove the carcass outside the city limits within 24 hours; if he is not known, the carcass is buried at the city's expense in the sand-bar on the banks of the river below the city.

Liquid household wastes.—The city has no sewers, no water-works, and no water-closets, and the drainage is all surface drainage. No contamination of drinking-water from the escape of the contents of cesspools or privy-vaults has as yet been discovered.

Human excreta.—The city relies wholly on privy-vaults or water-tight boxes, the ordinances providing that every house must have a privy with a vault not less than 6 feet deep, or a portable water-tight box not less than 1½ foot deep, or a patent earth-closet. Earth-closets are very rare. Privies must be emptied between 10 o'clock p. m. and 4 o'clock a. m. Night soil is buried near running water away from the city, most often on the sand-bars in the Kansas river.

Manufacturing wastes.—The city has very little solid or manufacturing waste.

POLICE.

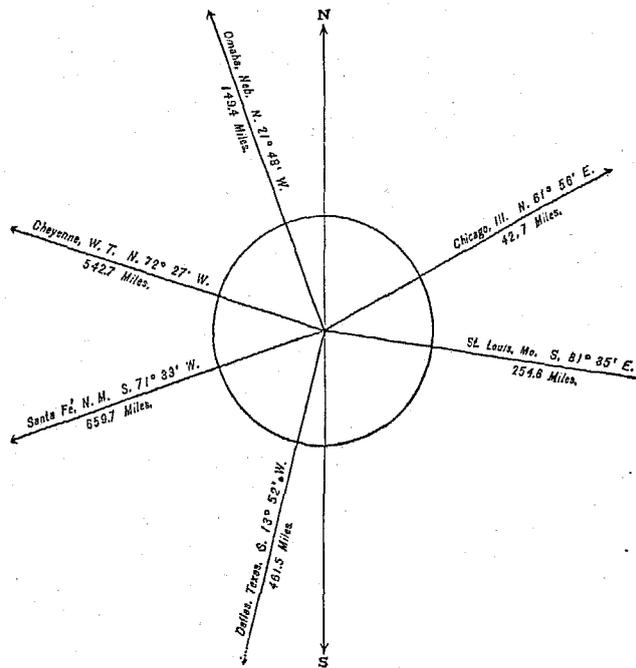
The police force is appointed by the mayor and council. Its chief executive officer is the city marshal; his duties consist in enforcing the city ordinances, and his salary is \$700 per year. There are 6 policemen, receiving \$600 per year each. They were not uniformed previous to 1881. They serve 12 hours a day each, and have no regular beats. In 1880 there were about 350 arrests, the principal causes being drunkenness and disturbance of the peace. Free meals were given to station-house lodgers (of whose number no record was kept) at a cost of 14 cents per meal. Special policeman are appointed by the mayor as occasion may require, and during their time of service they become part of the regular force. For the year ending June 15, 1881, the cost of the force was about \$1,700.

LEAVENWORTH,

LEAVENWORTH COUNTY, KANSAS.

POPULATION IN THE AGGREGATE, 1860-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	7,429
1870.....	17,873
1880.....	16,546



POPULATION BY SEX, NATIVITY, AND RACE, AT CENSUS OF 1880.

Male.....	8,171
Female.....	8,375
—	
Native.....	13,164
Foreign-born.....	3,382
—	
White.....	13,252
Colored.....	*3,294

* Including 1 Indian.

Latitude: 39° 15' North; Longitude: 91° 14' (west from Greenwich); Altitude: 890 feet.

FINANCIAL CONDITION:

Total Valuation: \$2,995,838; per capita: \$181 00. Net Indebtedness: \$396,573; per capita: \$23 97. Tax per \$100: \$2 65.

HISTORICAL SKETCH (a).

The city of Leavenworth takes its name from the United States fort and reservation located at this point, which was originally known as Cantonment Leavenworth, established by Colonel Leavenworth, of the Third United States Infantry, in May, 1827. The first settlement was made by a company of 32 persons from Weston, Missouri, who "claimed" the town site on June 9, 1854, thus making this the first town settlement in the territory. The town site was located on the "Delaware trust lands", as they were called, being a portion of the lands ceded to the United States by treaty with the Delaware tribe of Indians. It contained 320 acres, lying between the

^a This sketch was abridged from a "History of Leavenworth" by W. S. Burke and J. L. Rock, published under the supervision of the Leavenworth board of trade in 1880.

military reservation of Fort Leavenworth on the north and Three-Mile creek on the south, and extending west from the Missouri. The association which had been formed expended about \$4,500 during the summer of 1854 in cutting the timber and brush with which the site was thickly covered. A number of buildings were erected during the summer and fall, the first dwelling-house being completed about October 1. The first sale of lots took place on October 9 and 10, and netted \$12,000. The credit of naming the streets after the Indian tribes should be given to Major E. A. Ogden, one of the first trustees of the town association, as he suggested to the company as eminently proper that the Indian names should be preserved, and that they were out of the usual style of street names and especially euphonious.

The next spring the town progressed very rapidly; a city soon sprang into being as if by magic. The first newspaper printed in the territory, the *Kansas Herald*, was started here on September 15, 1854. The next one in this town was the *Kansas Territorial Register*, established July 1, 1855. The *Herald* was a pro-slavery organ, but the *Register* was a free-state paper, and was very independent and outspoken. Like most of its successors in Leavenworth, the *Register* was shortlived, and was thrown into the Missouri river, type, presses, and all, by a mob on the night of December 22, 1855. A city charter was granted by the first territorial legislature in 1855, and by the close of the year the United States court and the territorial, city, and county organizations were in full operation.

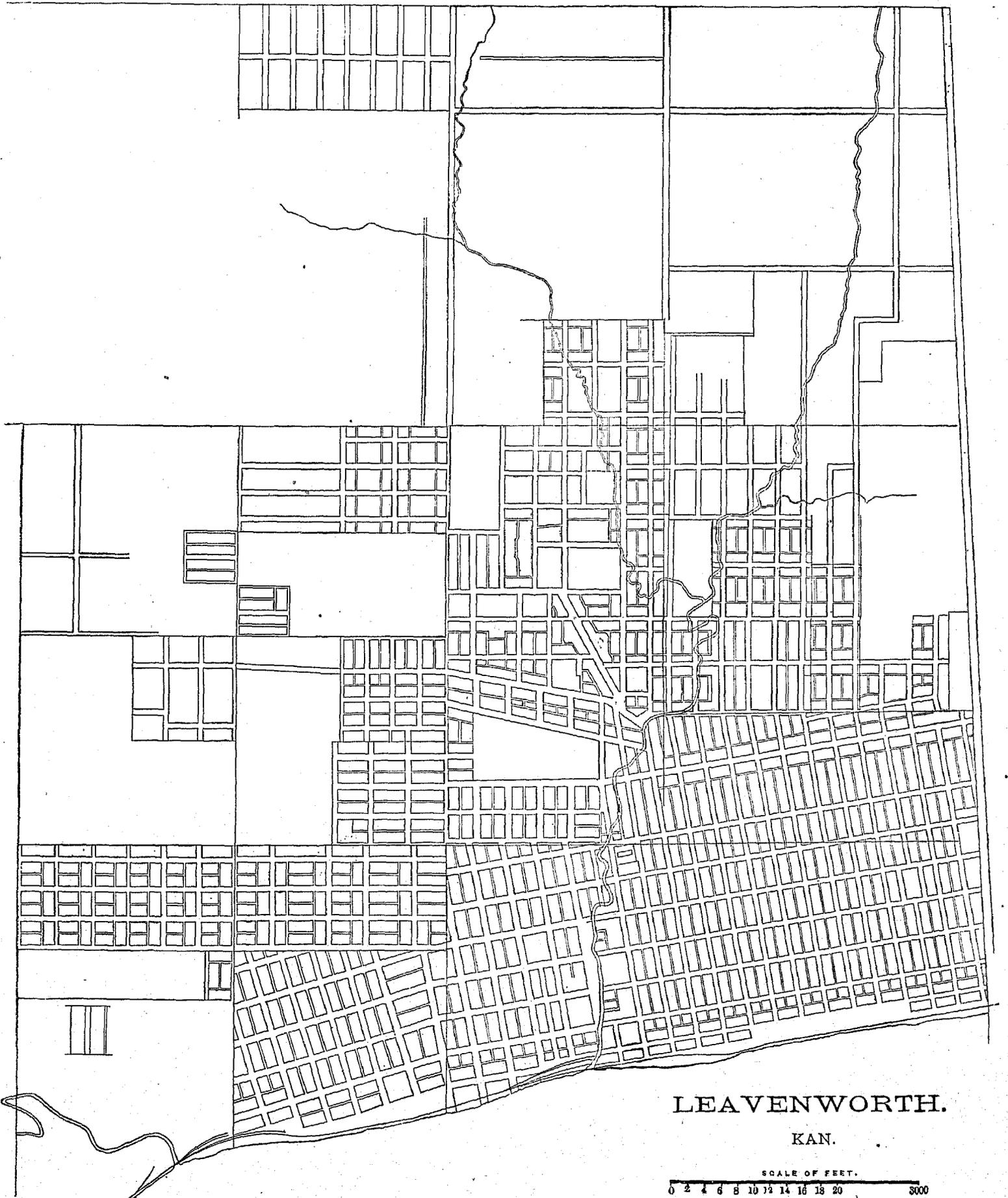
The growth of Leavenworth was rapid. The beginning of the civil war found the place a city in fact as well as in name, with streets and walks graded and paved, with fine churches, fine school-houses, elegant residences, with solid blocks of large and substantial business houses, and with a levee crowded with river steamers, and presenting a scene of life and animation such as is to be witnessed now only at the docks of important seaport towns. The war, which then began to bring demoralization and hard times or absolute ruin to nearly all the "border" towns and cities of the country, had the opposite effect upon Leavenworth, and stimulated the place to a new and more wonderful growth. The horrors of war drove away people and business from the neighboring towns of Missouri, which were subject to alternate raids from roving bands of soldiers of both contending armies, being pillaged one day by "jayhawkers" and sacked the next by "bushwhackers". Leavenworth, being situated immediately adjoining the government reservation, and protected by the guns of the fort, gave shelter and safety to hundreds of people who had been driven from their homes by the fortunes of war. The thousands of troops who were at the fort in those days stimulated the retail trade of the city to a wonderful extent. The town grew rapidly, money was abundant, everybody was busy and prosperous; but much of this growth and prosperity was artificial, and when the war ended the bubble quickly burst. The number of troops at the fort was reduced from many thousands to a few hundreds, cutting off nearly half the trade upon which the retail shops had lived; and the restoration of law and order gave security to the neighboring towns, which at once began to repair the wastes of war and recover their lost business at Leavenworth's expense. The city entered upon a period of depression extending over several years. It had been built to a large extent upon an inflated and fictitious basis, far beyond the demands of the country surrounding it; indeed, at that time one-fifth of the entire population of the state was within the corporate limits of Leavenworth. The town had grown to be a great city in the midst of a state which was yet comparatively without business and without people, and it was now compelled to wait for the country to grow up to it. This caused improvements to stop and business to languish, and soon gave the once growing, rushing city the reputation of a "dead town". Hitherto the sole dependence of the place had been upon commercial interests, mere buying and selling; now the people were forced to turn their attention to manufactures.

During the ten years following the close of the war a large number of manufacturing enterprises were engaged in, small at first, but all meeting with success from the start, and growing rapidly in magnitude and profitableness. In 1868 a mining company, which had been organized in 1863, was reorganized, and after about a year's work, coal was found of excellent quality and in abundance. This gave a fresh impetus to the rapidly growing manufacturing industries of the place.

As a money center, and the base of supplies for the vast West and Southwest, the financial importance of Leavenworth during the war, and for many years thereafter, excelled that of most cities of five times its population. Up to 1873 there were eight institutions doing a banking business, but the panic of that year, and the subsequent depression, coupled with a season of drought and failure of crops in Kansas, shortly followed by the terrible grasshopper scourge on her prairie, was too much for most of them, and only three survived. For the past few years the city has been growing at a very steady rate in population, wealth, and business. The population traces its origin to nearly every state in the Union, but mainly to New England and the middle states. There is a considerable portion of foreign-born residents, mainly from Ireland and Germany. No radical changes have occurred in the character of the population.

LEAVENWORTH IN 1880.

The following statistical accounts of the present condition of Leavenworth have been compiled mainly from information furnished by the Hon. W. M. Portescue, mayor of the city :



LEAVENWORTH.

KAN.

SCALE OF FEET.
0 2 4 6 8 10 12 14 16 18 20 3000

LOCATION.

Leavenworth is situated upon a high plateau on the west bank of the Missouri river, 2 miles south of fort Leavenworth, about 30 miles in a direct line south of Saint Joseph, and 40 miles east-northeast of Topeka, at an average of 890 feet above the level of the sea. The highest point has an altitude of 970 and the lowest of 729 feet. The Missouri is navigable for the larger classes of inland steamers nine months in the year. In front of the city there is a current of 3 miles per hour. There is a good levee, paved with round stone. The river affords water communication with all ports on the Missouri, Mississippi, and Ohio rivers. The "The History of Leavenworth" says:

The town site is rolling, and furnishes a perfect natural system of drainage; the inclinations are not sharp enough to cause any steep grades, or to interfere with the use or beauty of the streets, but sufficient to carry water from all points to the river. * * * It is surrounded on three sides by a range of hills, at an average distance of 2.5 miles. * * * Forming a crescent, which incloses the city upon the north, south, and west, [they] completely protect it from the force of the prevailing storms, which nearly always set from one of these three points. * * * There is nothing in the location or surroundings of the city to generate or aggravate disease—no swamps, no malarial places, no stagnant water, no imperfect drainage.

RAILROAD COMMUNICATIONS.

The southwestern division of the Chicago, Rock Island, and Pacific railroad runs from Leavenworth to Edgerton junction, where the line from Atchison joins it, and thence via Rock Island to Chicago and Milwaukee. The main line of the Missouri Pacific runs from Saint Louis via Kansas City through Leavenworth to Atchison, where it splits into lines going to Saint Joseph and Logan. At Sedalia, Missouri, this is crossed by the Texas line of the same road, running from Hannibal to Galveston, Texas. The Kansas City, Saint Joseph, and Council Bluffs railroad, connecting the places named in its title, passes through East Leavenworth, just across the river. The Leavenworth branch of the Kansas division of the Union Pacific connects with the main line at Leavenworth junction. The termini of this division are Kansas City and Denver. The Kansas Central railroad runs from Leavenworth to Garrison.

TRIBUTARY COUNTRY.

Leavenworth is surrounded on all sides by a very rich agricultural country, peculiarly adapted to growing wheat, rye, corn, and fruit, including apples, pears, peaches, apricots, plums, and all the varieties of small fruits grown in a temperate latitude.

Leavenworth county, of which the city is the capital and business center, has an area of about 450 square miles. It is bounded on the east by the Missouri river, and is intersected by Stranger creek. The surface is undulating, with a number of prairies, and well supplied with timber. Cattle, grain, and wool are the staple products. Tobacco, clothing, and carriages are the most important articles of manufacture. The principal occupation of the inhabitants of this, as of all the counties with which Leavenworth has trade, is agriculture, though the discovery of valuable deposits of coal at many points within a radius of 150 miles is rapidly developing manufacturing interests.

TOPOGRAPHY.

The soil of Leavenworth is what is commonly known as "black sandy loam", and is from 2 to 4 feet in depth. The subsoil is porous silicious marl. The underlying rock is sandy shale, and at the highest and lowest points limestone, all having a slight uniform dip toward the northwest. A workable vein of coal is found at a depth of 700 feet.

CLIMATE.

The highest recorded summer temperature is 110°; the highest in average years, 96°; the lowest recorded winter temperature, -21°; the mean summer temperature, 74.24°; the mean winter temperature, 28.69°. The prevailing winds are from the south and southwest. When they begin to blow they are mild and dry, but steadily increase in velocity and humidity until about the third day, in summer, thunder-storms occur. If the storm is extensive the maximum rainfall does not occur till the wind veers to the northwest. Occasionally the southeast wind will produce similar effects, but not in the same degree. The northerly winds are next in frequency, but are nearly always accompanied by lower temperature and less humidity. Easterly winds are always of moderate force and short duration, rarely bringing rain. Occasionally a protracted blow from the northeast in winter will bring rain or snow.

STREETS.

Total length of streets, 50 miles, of which 20 miles are paved with broken stone, and the rest are unpaved. The first of the paving with broken stone was done by contract during the war, and cost about \$1 35 per yard; the rest was done at a later period by day work, and cost about 70 cents per yard. The cost of keeping it in good repair is said to be "about one-half of 1 per cent. of average cost per annum". The sidewalks are of brick and stone. Gutters are paved with stone blocks. About 80 per cent. of the streets have trees planted on both sides.

The work of construction and repair of streets is done by the day, under the supervision of the street commissioner, and costs the city about \$6,000 per year. The experience of the city authorities indicates a decided preference for day work, for they think they procure better work at much less expense.

There are no horse-railroads.

WATER-WORKS.

A private company is preparing to construct water-works.

GAS.

The gas-works are not owned by the city. The daily average production of gas is 30,000 feet, and the charge per 1,000 feet is \$3. The city pays \$25 per year for each street-lamp, of which there are 60. The yearly income from water-rates is \$22,000.

PUBLIC BUILDINGS.

There is a market-house, with accommodations in it for the city council and city officers and the fire department, which cost \$30,000. The total cost of municipal buildings belonging to the city is given as \$80,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The following statement in regard to this subject was forwarded by Mayor Fortescue :

The absence of parks and pleasure-grounds maintained by the city of Leavenworth is accounted for by the fact that the city is joined on the north by the United States reservation at Fort Leavenworth, a magnificent tract of 6,000 acres, kept in a high state of improvement by the general government. It is provided with graded and paved public ways, with romantic drives, with smooth grass plots, and shady and cleanly kept grounds. It is a much finer, better, and far more extensive park and pleasure-ground than the municipality could afford to maintain, and being within 15 minutes' walk of the center of the city, it completely supplies the demand for public pleasure-grounds, and obviates the necessity of such a place maintained by the city. It reaches from the Missouri river to and beyond the high range of inner hills, 2½ miles to the west, and includes every variety of surface and scenery. With its natural beauties and its elegant improvements it is unsurpassed in beauty and attractions by any public grounds in the United States.

PLACES OF AMUSEMENT.

For theaters, the city has the New opera-house, finished in the most modern and approved style, with a seating capacity of 900, and the Delaware Street opera-house, lately repaired, seating about 800. Shows pay a license varying from \$5 to \$15 per night. There are 7 concert-halls and lecture-rooms of various sizes. There are 5 concert- and beer-gardens, situated in the suburbs, visited mainly as Sunday resorts, having seats and accommodations for 4,000 persons. On Sundays, in pleasant weather, they are generally all crowded.

DRAINAGE.

An 18-inch pipe sewer extends the length of Fourth street, discharging into the Missouri river. The cost was assessed upon the abutting property on the basis of frontage. A new charter adopted by the city in 1880 authorizes the construction of sewers, drains, and other public works. No information is given of the extent or cost of sewers to the present time, except that catch-basins cost \$125 each, and there are no manholes.

CEMETERIES.

There are 4 cemeteries connected with the city, viz :

Mount Muncil Cemetery, 2½ miles southeast from the city limits, containing 160 acres.

Mount Saint Mary Cemetery, 2½ miles south, 160 acres.

Greenwood Cemetery, 1½ mile southwest, 60 acres.

Mount Calvary Cemetery was opened June 1, 1869, and in no year since then have there been more than 88 nor less than 80 burial permits issued.

In Mount Muncil, from its opening, on July 21, 1866, to January 1, 1881, there were 3,181 interments; and in Greenwood, from 1867 to 1880, inclusive, there were 1,151. Mount Muncil cemetery is owned by a private corporation, and is handsomely laid out, being shaded by many natural trees and having gravel walks and drives; the price of lots ranges from \$30 to \$300; the ground is rolling and the landscape-gardening is good.

MARKETS.

Farmers' and lucksters' wagons occupy the sidewalk and half of the roadway of Shawnee, Fourth, and Fifth streets. A charge of 10 cents per week is made in order to pay the market-master. The market is open from 10 a. m. to 9 p. m. on Wednesdays and Saturdays. The rest of the trade of the city in provisions is carried on in private shops.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief health organization of Leavenworth is the board of health, an independent body, with 4 members, all of whom are physicians, acting with the city physician. They receive no compensation except during epidemics. The board may increase its power during epidemics to "what becomes necessary", and in the absence of epidemics it "has full power over the city". None of the members have police powers. Inspections are regularly made, and results reported to the mayor and council. If nuisances are not abated upon order so to do, the police authorities proceed to abate, and the delinquent is punished by fine or imprisonment. The board is appointed by the mayor, and is under the direction of the mayor and city council. It meets at the call of the chairman. Defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, street-cleaning, etc., are reported to the mayor and council, and the street commissioner is ordered to rectify the same. The board exercises no control over the conservation and removal of garbage. There are no regulations concerning the burial of the dead, the pollution of streams and harbors, or the removal of excrement. The last two are under the control of the street commissioner. Small-pox patients are sent to the public pest-house, situated 3 miles from the city. Scarlet-fever patients are isolated at home. Vaccination is not compulsory, and is done at the public expense only to the poor. The board reports to the mayor and council when necessary.

MUNICIPAL CLEANSING.

Street-cleaning.—Streets are cleaned by the city's force by hand, under the direction of the street commissioner, twice a week, and oftener when necessary. It is reported to be very well done. The annual cost is about \$3,500. Sweepings are deposited in the outskirts of the city. The place of deposit is the weak point in the system, as the results from the exposure of the sweepings to the weather are more or less deleterious to the health of the inhabitants.

Removal of garbage and ashes.—Garbage and ashes are removed by the city's own force to the outskirts of the city, the annual cost being about \$1,000, and, as in the case of street-sweepings, it is probable that injury to health arises from the place of final deposit. As to this system the report says: "It can be much improved by adopting systems executed in the larger eastern cities. All methods are defective in this vicinity, but are greatly improved of late years."

Dead animals.—Upon notification the proper persons at once remove dead animals and render them for grease. This service costs the city nothing, and is very good.

Liquid household wastes.—Nearly all the liquid household waste of the city is delivered into the public sewers. What dry wells or cesspools are used are nominally tight; they are all cleaned out at night.

Human excreta.—The dry-earth system is very little used. Night-soil is carried to the outskirts of the city and deposited near creeks.

Manufacturing wastes.—Manufacturing wastes run into the Missouri river.

POLICE.

The police force is appointed by the mayor. The chief executive officer is the city marshal, whose salary is \$1,000 per year. He is under the orders of the mayor, and has general supervision of the department. The rest of the force consists of a deputy marshal, receiving \$65 per month; a jailor, a guard, 2 specials, and 8 regular policemen, receiving \$50 per month each. They wear metropolitan uniforms, which are furnished by the city, and carry revolvers and clubs. They serve 12 hours per day each, and patrol the whole city. In 1880 there were 1,442 arrests. The station-house lodgers averaged 2 per night, against 3 per night in 1879. Free meals were given almost daily during the winter, at a cost of 8½ cents per meal. Whenever necessary the members of the force are compelled to co-operate with the fire and health departments; they are instructed to report to the latter "at once any disease in their respective wards". Special policemen are appointed by the mayor for enforcing the collection of the dog-tax and impounding animals. In 1880 the only casualty in the force was a death caused by being thrown from a wagon. The cost of the force for the year was nearly \$11,000. There are between 15 and 20 special policemen besides those just mentioned, who act as night watchmen for wholesale and manufacturing firms, and who serve without pay from the city. The street commissioner and other city officers are made special policemen, and it is found that it greatly increases their ability to carry out their instructions, as their word is regarded as law.

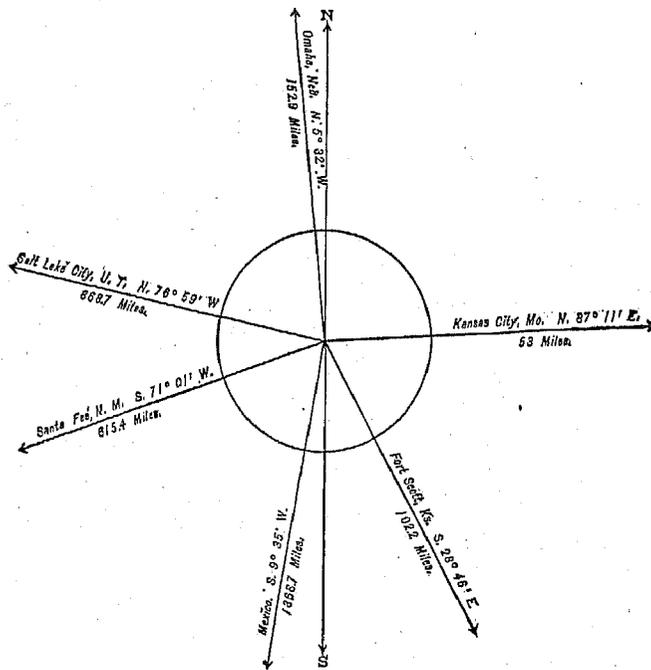
TOPEKA,

SHAWNEE COUNTY, KANSAS.

POPULATION

IN THE
AGGREGATE,
1860-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	759
1870.....	5,790
1880.....	15,452



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	8,140
Female.....	7,312
—	
Native.....	13,590
Foreign-born.....	1,862
—	
White.....	11,799
Colored.....	*3,053
* Including 5 Chinese.	

Latitude: 39° 3' North; Longitude: 95° 39' (west from Greenwich); Altitude: 904 feet.

FINANCIAL CONDITION:

Total Valuation: \$2,341,480; per capita: \$152 00. Net Indebtedness: \$333,249; per capita: \$21 57. Tax per \$100: \$4 36.

TOPEKA IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Topeka:

LOCATION, ETC.

Topeka, the capital of the state of Kansas, is situated on the Kansas river, about 70 miles above its confluence with the Missouri river, 68 miles west of the Missouri state line, in latitude 39° 3' north, and longitude 95° 39' west from Greenwich. The observation station of the Smithsonian Institution at this point is 904 feet above sea-level. The river on which the city lies has been traversed nearly its whole course by steamboats during the high

stage of water, but its navigation has very little, if any, practical value. The site of the city is upon high ground, commanding a fine view of some of the most charming prairie-landscape scenery of the West.

RAILROADS.

The Kansas division of the Union Pacific railroad, from Kansas City to Denver, and the Atchison, Topeka, and Santa Fé railroad, now completed from Kansas City to San Marcial, New Mexico, intersect here.

PLACES OF AMUSEMENT.

There is one opera-house, with a seating capacity of 600, and one temporary hall used for theatrical exhibitions, lectures, etc., with the same seating capacity. The theaters pay a license to the city of \$10 per night each. In addition there are four halls, used for various purposes.

SANITARY AUTHORITY.

There is no regular board of health, the sanitary needs of the city being cared for by the committee on health, consisting of 3 members, of the city council. The authority to expend money, either in absence or presence of epidemics, rests entirely with the council, and the members of the committee receive no pay for this service. In absence of epidemics the power of the committee is confined to looking after the general cleanliness of the city, while during epidemics it is governed by orders coming from the mayor and council. All matters pertaining to the public health are referred to the committee, and it reports back to the council such action as it may deem best to be taken. Though the ordinances provide for regular inspections during the summer months, it is reported that inspections are made only when nuisances are reported. When a nuisance is found to exist the person responsible for the same is ordered to abate it, and if this is not done, then the council directs the committee to do the work, assessing the cost upon the property. The conservation and removal of garbage are controlled by ordinances. There are no regulations concerning the burial of the dead. Small-pox patients are removed to a separate building on the poor-farm, outside of the city. Scarlet-fever patients are quarantined at home. The record of deaths is kept by the superintendent of the cemetery.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by the city with its own force, and wholly by hand. The work is done as often as the street commissioner deems necessary, and is as efficient as circumstances will permit. The sweepings are deposited outside the city limits.

Removal of garbage and ashes.—All garbage and ashes are removed by the householders. They are required to be kept in covered vessels, and removed at least twice a week in summer and when directed at other times, to some place designated by the city council. The garbage must not be thrown out in the streets or alleys. It is stated that nuisance and probable injury to health sometimes result when the ordinances governing the system are not strictly enforced.

Dead animals.—These are removed by the city and buried outside its limits, under a contract with the owner of the ground. The annual cost of this service is from \$75 to \$100, and from 75 to 100 dead animals are annually removed.

Liquid household wastes.—These are run into either street-gutters, sewers, or cesspools, probably one-half going into the former, which are not artificially flushed. The cesspools are nominally water-tight, receive the wastes from water-closets, and are cleaned out regularly. It is stated that in some localities drinking-water may be affected by the escape of the contents of vaults and cesspools, but no particulars were cited. The city is at present constructing some sewers.

Human excreta.—The water-closets in the city deliver half into the sewers and half into cesspools. The construction and emptying of vaults are regulated by ordinances. The night-soil is removed during certain hours of the night, in close-covered wagons, outside the city limits, and is allowed to be used for manuring land.

Manufacturing wastes.—Solid manufacturing wastes are sold to farmers, and liquids pass into cesspools.

POLICE.

The police force of Topeka is appointed by the mayor, subject to the approval of the city council, and is governed by the mayor. The chief of police, salary \$1,200 per annum, is the executive officer, and has direct supervision of the department. The remainder of the force consists of 9 patrolmen at \$625 a year each. The uniform is of navy-blue—coat, pantaloons, and vest—with a regulation hat, and each man furnishes his own, the city allowing \$25 to each man for this purpose. The patrolmen are furnished with regular police equipments. The hours of duty are from 6 a. m. to 6 p. m. During the past year the number of arrests was between 700 and 800; the principal causes being drunkenness, disturbing the peace, larceny, and violation of city ordinances. They

were finally disposed of by either fines or imprisonment. From \$2,500 to \$4,500 was reported to the police as lost or stolen during the year, and of this about one-half was recovered and returned to the owners. The force is required to keep order at fires and to serve health orders. In case of necessity special policemen are appointed by the mayor to serve for short periods, and perform the same duties as the regular force. During the past year the cost of the police force was about \$7,000

COLORADO.

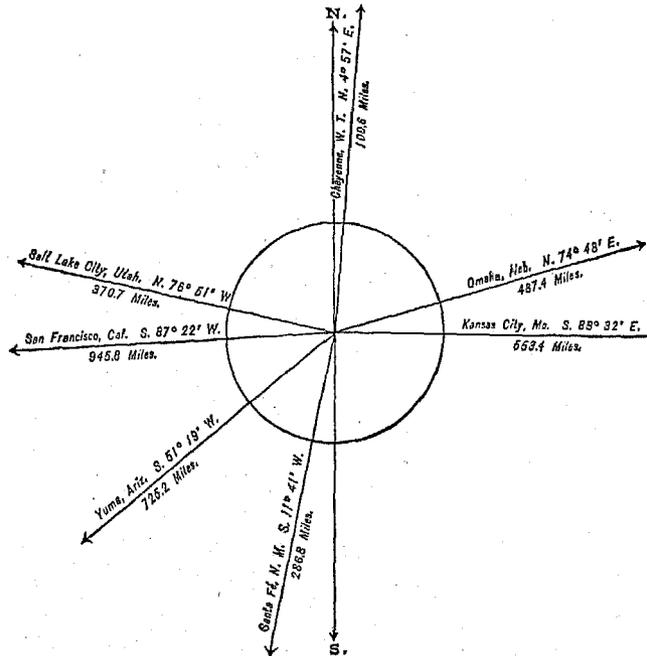
DENVER,

ARAPAHOE COUNTY, COLORADO.

POPULATION

IN THE
AGGREGATE,
1860-1880.

Year	Inhab.
1790	.....
1800	.....
1810	.....
1820	.....
1830	.....
1840	.....
1850	.....
1860	4,749
1870	4,759
1880	35,629



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	21,539
Female	14,090
Native	26,924
Foreign-born	8,705
White	34,344
Colored	*1,285

*Including 238 Chinese and 1 Indian.

Latitude: 39° 45' North; Longitude: 105° (west from Greenwich); Altitude: 5,250 feet.

FINANCIAL CONDITION:

Total Valuation: \$16,194,091; per capita: \$455 00. Net Indebtedness: \$20,000; per capita: \$0 56. Tax per \$100: \$3 75.

DENVER IN 1880.

The following statistical accounts, collected by the Census Office, indicate in part the present condition of Denver.

LOCATION

Denver, the commercial center of Colorado, and its most populous city, lies 15 miles east of the base of the Rocky mountains, on the South Platte river, in latitude 39° 45' north, and longitude 105° west from Greenwich.

The city occupies a series of plateaus, rising, as they recede from the river, by gentle ascents, the altitudes above sea-level varying from 5,250 to 5,375 feet. The river on which the city is situated is not navigable. Denver was first settled in 1858, and during the past decade its growth has been very rapid.

RAILROAD COMMUNICATIONS.

The following railroad lines touch this point:

The Colorado division of the Union Pacific railroad to Cheyenne, Wyoming territory, with branches to Central City and Georgetown, Colorado, and the Kansas division of the same road from Denver to Kansas City, Missouri.

The Denver and Rio Grande railroad to Espanola, New Mexico, with branches to Leadville and Durango, Colorado.

The Denver, South Park, and Pacific railroad to Leadville, Colorado.

CLIMATE.

The temperature tables of the Smithsonian Institution give for Denver a mean annual temperature of 48.13°; the warmest month being July, with a mean of 72.86°, and the coldest, January, with a mean of 26.57°.

STREETS.

There are 200 miles of streets in the city, none of which are paved. The sidewalks are of wood, cement, and stone, while the gutters are of cobble-stones or else the natural soil. Tree-planting along the sides of streets is almost universal, and is done entirely by the owners of the abutting property. The trees, to a large extent, are set at the outer edge of the sidewalks. The annual cost for construction and repair of streets is \$20,000, and day work is entirely used, the city hiring, at so much a day, what teams and wagons may be necessary. It is stated that the city gave up owning teams about four years ago, and since then no disposition has been shown to return to the old plan.

There are 8 miles of horse-railroads, with 20 cars and 50 horses, furnishing employment to 25 men. The number of passengers carried annually was not stated. The rate of fare is 5 cents. There are no regular omnibus lines, but 7 vehicles carry passengers for 50 cents each to any part of the city.

WATER-WORKS.

The water-works are owned by a private corporation, and their first cost was \$600,000. Water is taken from the South Platte river and pumped directly into the mains on the Holly system. The pressure on the pumps varies from 50 pounds for domestic purposes to 135 pounds for fire. The amount pumped per diem varies from 1,250,000 to 4,000,000 gallons, the consumption being 75 gallons per day for each head of the population. The annual cost of maintenance and repairs is \$25,000. The yearly income from water-rates was not given.

GAS.

The gas-works are not owned by the city. The charge per 1,000 feet is \$3. The city has been paying \$40 per annum for each street lamp, 343 in number, but has now made a contract with an electric-light company, under which the whole area within the corporate limits will be lighted by electric light.

PUBLIC BUILDINGS.

The only municipal buildings owned by the city are 6 fire-engine houses, costing \$25,000. A city hall and jail, to cost \$100,000, is to be erected shortly.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are 2 parks in Denver, with an area of 4 acres each. The land was given to the city, and so far nothing seems to have been done toward improving them. The parks are controlled by the city council.

PLACES OF AMUSEMENT.

There are 2 theaters in the city, one seating 300 and the other 500, and 2 halls that are occasionally used for theatrical performances, concerts, dances, etc. The theaters pay a license to the city amounting to \$100 annually. There are also 4 beer-gardens, with a seating capacity of 2,000, that are tolerably well patronized in summer.

CEMETERIES.

There are 4 cemeteries, all situated about 2½ miles from the center of the city, viz:
The *City Cemetery*, area 120 acres.

The *Hebrew and Catholic Cemeteries*, each 20 acres.

The *Riverside Cemetery*, size not given.

The *Masonic Cemetery*, area 40 acres, situated $1\frac{1}{2}$ mile from the center of the city, has been abandoned, and is now no longer used for interments.

It is estimated that the total number of interments in all the cemeteries is about 5,000, but it is stated that it is impracticable to obtain the number at different periods. There are no ordinances regulating interments. Riverside cemetery has been improved and tastefully laid out. It is owned by a private corporation, and nine-tenths of the interments are now made here.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary organization of Denver is the board of health, composed of the mayor, 3 aldermen, and the city physician, with 3 citizens appointed by the common council, and the city clerk, *ex officio* clerk of the board. At present 3 members are physicians. In ordinary times the annual expenses are \$1,500 for street-cleaning, sprinkling, and general sanitary measures. No provision has been made for the increase of expenses during epidemics. The authority of the board is almost unlimited in matters pertaining to health in absence of epidemics, while during epidemics its authority is unlimited. The city physician (salary \$1,200 per annum) acts as the executive officer, and has police powers on all matters concerning health. The board has regular monthly meetings and transacts its business as a deliberative body. Inspections are made regularly in all parts of the city. When a nuisance is reported a record is made and the proper officer is sent to examine and abate. Defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are constantly inspected, and corrected when required. The board has entire control over the conservation and removal of garbage.

INFECTIOUS DISEASES.

There have been no cases of small-pox since the destruction of the pest-house, and nothing was said respecting the treatment of possible cases. Scarlet-fever patients are generally quarantined at home, and a flag is displayed. The board takes cognizance of the breaking out of contagious diseases in either public or private schools "to such extent as it may deem proper". Vaccination is compulsory, but it is not done at the public expense.

REPORTS.

Physicians are required to report monthly to the health officer (city physician) all cases of births and deaths, giving in the latter case the cause and when and where contracted. The board makes no regular reports.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city, the teams being hired, and the manual work being done by prisoners. No sweeping-machines are used. The work is done fairly well, at an annual cost of \$3,000, and the sweepings are deposited 1 mile outside the city.

Removal of garbage and ashes.—All garbage is removed by the city, under contract. While awaiting removal it is required to be kept in barrels, and it is not allowed to keep ashes in the same vessel. It is finally disposed of by being taken outside the city and fed to swine. The annual cost to the city for this service is \$2,000. Ashes are removed by the householders, and are finally deposited in the bed of the creek. It costs each householder about \$2 a year for this work. It is reported that no complaints have been made concerning the keeping, handling, or removal of garbage.

Dead animals.—The carcasses of all animals dying within the city are removed under contract and buried. The cost of the service was not stated; the number of dead animals removed annually aggregating 1,000.

Liquid household wastes; human excreta.—There being no public sewers, the liquid wastes from houses pass into cesspools or privy-vaults. The cesspools are nominally water-tight, are not provided with overflows, receive the wastes from water-closets, and are cleaned out as often as required, under the direction of the scavenger or police. One-fifth of the houses have water-closets, all delivering into cesspools, and the remainder depend on privy-vaults. All the vaults are required by ordinance to be water-tight, and they are emptied at night in close-covered carts. The ultimate disposal of the night-soil is not stated, but none of it is allowed to be used for manuring land within the gathering-ground of the public water-supply.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Denver for 1880, being taken from tables prepared for the Tenth Census by William Odenheimer, special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	259	\$2,301,850	2,550	264	130	\$1,574,438	\$5,715,215	\$9,367,749
Blacksmithing.....	14	31,400	66		5	37,400	31,600	98,900
Boots and shoes, including custom work and repairing.....	13	8,700	45		2	22,178	23,200	60,725
Bread and other bakery products.....	16	97,200	100	6	11	82,800	355,900	574,552
Brick and tile.....	24	104,800	441		24	118,710	92,808	280,028
Carpentering.....	26	80,800	227		1	210,220	546,000	964,000
Carriages and wagons.....	9	261,000	123		2	102,000	104,000	435,000
Clothing, men's.....	6	3,350	5	16		13,225	27,350	52,350
Clothing, women's.....	3	18,300		130	5	60,200	92,150	176,500
Confectionery.....	6	7,000	28	1	4	17,250	20,700	49,550
Flouring and grist-mill products.....	7	162,000	85			44,486	926,112	1,124,442
Foundry and machine-shop products.....	10	176,500	240		10	157,420	426,130	771,522
Furniture.....	7	68,400	42	3	2	33,300	43,000	138,850
Hairwork.....	3	3,300		10		4,125	6,600	15,200
Leather, curried.....	3	16,700	13	1		8,500	53,250	90,550
Leather, tanned.....	3	16,700	13	1		9,000	38,300	53,800
Liquors, malt.....	6	281,500	70			52,065	119,470	217,710
Lock and gun-smithing.....	3	2,000	11			3,700	2,200	10,500
Marble and stone work.....	5	19,500	62			23,600	21,750	61,500
Mineral and soda waters.....	3	6,100	9			6,500	14,750	32,075
Printing and publishing.....	4	181,000	156	12	19	135,050	95,300	305,500
Saddlery and harness.....	9	91,250	61	2	12	47,050	94,600	207,350
Slaughtering and meat-packing, not including retail butchering.....	4	49,000	35		5	15,950	536,020	500,945
Tinware, copperware, and sheet-iron ware.....	12	25,250	47		10	26,650	60,900	128,100
Tobacco, cigars and cigarettes.....	9	14,150	23	3		16,578	33,500	77,025
Vinegar.....	3	13,000	10		3	4,300	13,000	24,500
Watch and clock repairing.....	10	25,500	13		1	11,130	18,800	50,880
All other industries (a).....	41	535,000	621	79	14	331,011	1,826,325	2,700,495

a Embracing awnings and tents; baking and yeast powders; brass castings; brooms and brushes; coffee and spices, roasted and ground; cutlery and edge tools; drugs and chemicals; dyeing and cleaning; flavoring extracts; fruits and vegetables, canned and preserved; furs, dressed; gloves and mittens; iron and steel; iron work, architectural and ornamental; jewelry and instrument cases; leather, dressed skins; lithographing; looking-glass and picture frames; lumber, planed; masonry, brick and stone; mattresses and spring beds; patent medicines and compounds; pickles, preserves, and sauces; plumbing and gasfitting; roofing and roofing materials; sash, doors, and blinds; soap and candles; stencils and brands; stereotyping and electrotyping; trunks and valises; upholstering; wheelwrighting; and whips.

From the foregoing table it appears that the average capital of all establishments is \$8,887 45; that the average wages of all hands employed is \$534 79 per annum; and that the average outlay in wages in materials, and in interest (at 6 per cent.) on capital employed is \$28,678 62.

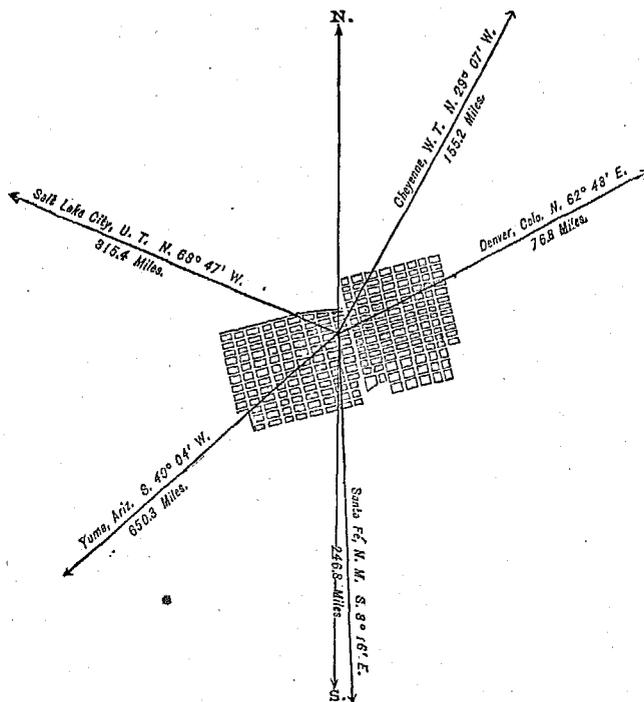
LEADVILLE,

LAKE COUNTY, COLORADO.

POPULATION

IN THE
AGGREGATE,
1880.

Inhab.
1790.....
1800.....
1810.....
1820.....
1830.....
1840.....
1850.....
1860.....
1870.....
1880..... 14,820



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	10,781
Female.....	4,039
—	
Native.....	10,902
Foreign-born.....	3,918
—	
White.....	14,539
Colored.....	*281

* Including 2 Indians.

Latitude: 39° 15' North; Longitude: 106° 17' (west from Greenwich); Altitude: 9,950 to 10,300 feet.

FINANCIAL CONDITION:

Total Valuation: \$2,433,327; per capita: \$164 00. Net Indebtedness: \$112,000; per capita: \$7 56. Tax per \$100: \$5 97.

HISTORICAL SKETCH.

The first white settlers came into California gulch at the time of the Pike's Peak gold excitement in 1859. A small town named "Oro" quickly grew up, and in 1860 for a short time the population numbered nearly 5,000. As the gulch was gradually worked out this number was reduced to a few hundred. In 1876 the carbonate veins were discovered, and the region again attracted the attention of the mining world. In the next year miners began to come into the place in large numbers, and the first reduction works were built. Mines were quickly developed and opened, and their extensive operation rapidly increased. In the summer of 1880 40 furnaces were in blast, 36 of which have kept in constant operation; also 3 stamp-mills for treating low-grade ores. Most of the houses of Leadville are built of wood, but many brick buildings were erected on the main business street in 1880. Several times fire has threatened to destroy the town, but the excellently organized fire companies have succeeded in preventing any serious conflagrations.

LEADVILLE IN 1880.

The following statistical accounts of the present condition of Leadville have been compiled by the Census Office:

LOCATION.

Leadville is situated in northwestern central Colorado, in the heart of the Rocky mountains. Its lowest point has an altitude of 9,950 and its highest of 10,300 feet. It lies at the mouth of California gulch. The stream flowing through the gulch empties into the Arkansas river about 3 miles west of the city and about 10 miles south of the springs whence it takes its origin, and is, of course, not navigable.

RAILROAD COMMUNICATIONS.

Leadville communicates with the outer world by means of two railroads, the Denver and Rio Grande and the Denver and South Park, both running from Leadville to Denver.

TRIBUTARY COUNTRY.

Leadville is the center of a mining district directly dependent upon it, having a radius of from 15 to 20 miles, and including the west slope of Park range, the east slope of the Continental range, and the mining camps of Eagle valley, Gold park, Twin lakes, Independence, and others. Ores extracted from the veins worked at these places are shipped to Leadville for treatment and reduction; and in exchange Leadville furnishes them with food, tools, and other necessaries. In former years gulch-mining for gold was actively carried on in California gulch, but this branch of mining has now become of minor importance. In some gulches within 10 miles of the city new fields of gold-bearing gravel-beds have been found, and renewed activity in gulch-mining is not improbable.

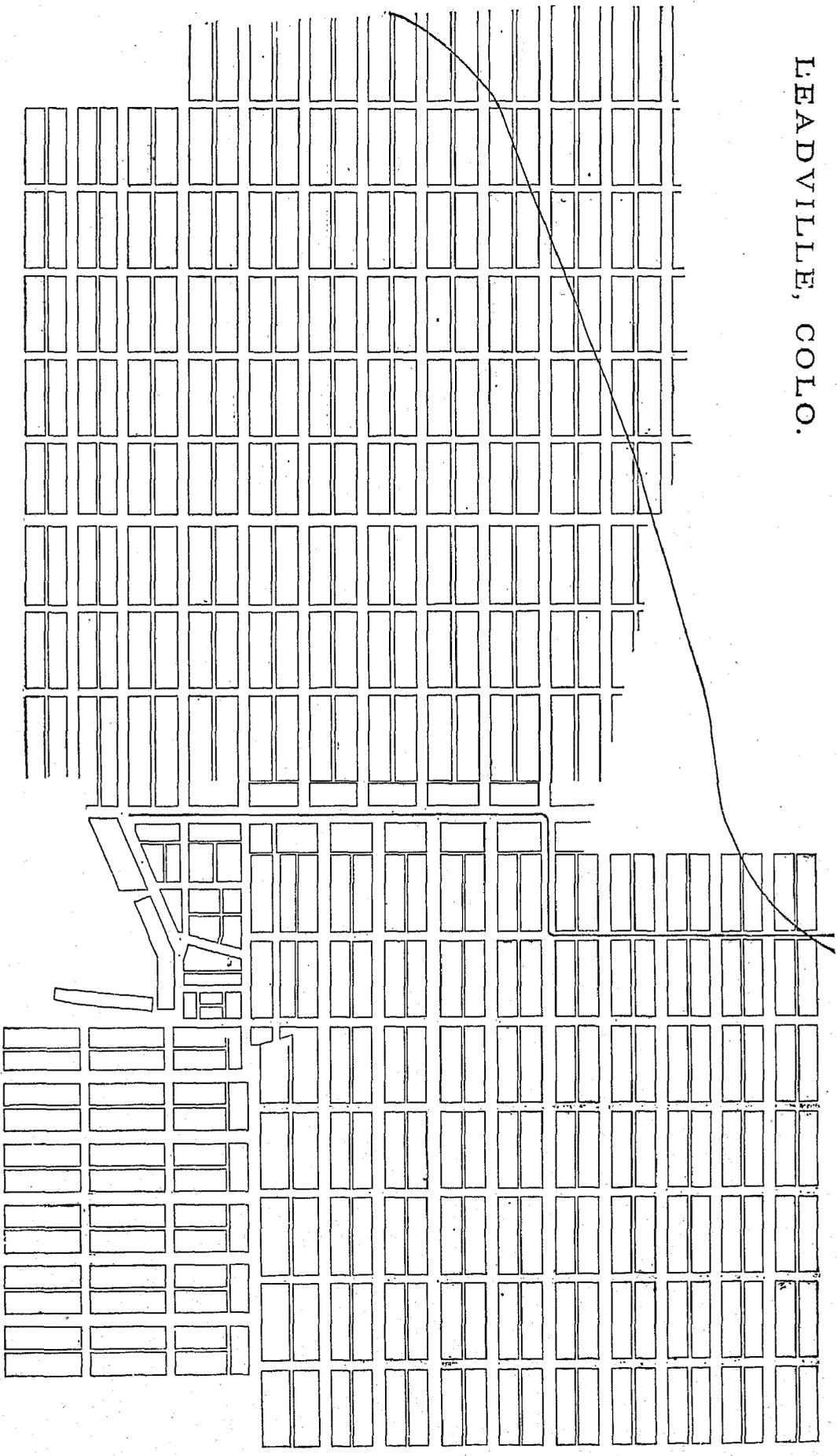
TOPOGRAPHY.

The valley of the Arkansas is limited by the Sawatch range, rising to a height of about 13,500 feet on the west, and by the Park or Mosquito range, rising to about 13,000 feet on the east. It is about 6 miles wide in this portion, and has an altitude of about 9,500 feet. The bottom of the valley consists of a terraced alluvial plain of gravel and sand of considerable thickness. It slopes up gently toward the foot of the range on either side. On this alluvial plain at the foot of Park range is built up the city of Leadville, protected on the east by the range, on the north by a prominent foothill, and looking out on the south over the flat open ground of the valley. The valley was originally covered with sage-bush, but by irrigation the greater portion of it has been converted into grass-land. The sloping sides of the valley between the bottom and the foothills were densely covered with pine until within a year or two, but it has been cut for mining, smelting (charcoal-burning), and building purposes. These forests ran up the mountain side to an altitude of from 11,500 to 12,000 feet, the timber line; but at least half of them have now been cut. A great portion of the woods was destroyed by forest fires. The soil of these forest lands is fertile and favorable to new growth.

The surface rock of the foothills east and north of the city is a felspathic porphyry of eruptive origin. This porphyry is invariably underlaid by a silurian limestone, the limestone by other sedimentary beds, and these by granite. In the different terraces formed by the foothills at the point of contact between the porphyry and the limestone are found mineral veins, consisting chiefly of iron and lead ores, which contain silver in varying quantities. These veins extend under a surface of about 5 square miles, and are opened and developed by many extensive mines, comprising many miles of shafts, tunnels, and drifts. The general character of the contact veins is the same throughout. Their course is the same as that of the Park range, being north and south, and their dip is to the east, varying from 10 to 15 degrees below the horizontal. The thickness varies from that of a thin seam to 50 feet. Large portions are filled with gangue which does not carry enough silver to pay for mining. The paying ore usually occurs in the gangue, or replaces it in the form of well-defined chutes of considerable length and of several hundred feet width, generally having a southeasterly direction. They are separated by portions of the vein, which the miners call barren, either because it is too thin to be mined or because the gangue is poor. Frequently the ore is found in pocket form in the gangue or in veins and caves of the limestones which are in connection with the contact vein. From these veins in the last three years immense quantities of lead and silver have been taken, and to this fact alone are due the existence and growth of Leadville. "The mining developments prove that for a series of years these veins will keep such an existence."

In the gravel beds of California gulch pure water is found at a depth of from 10 to 50 feet. A small stream of water flows through the gulch all winter; in spring and summer the quantity increases, so that it can be used for gulch-mining and for watering purposes.

LEADVILLE, COLO.



MOSS ENG. CO., N. Y.

CLIMATE.

From November, 1878, to December, 1879, Mr. Huber made a series of observations in order to establish the general features of the climate of the city. The observations were made at or about sunrise, 1 o'clock p. m., and after or about sunset.

The following table gives the result of these observations:

Temperature.

Month.	Maximum.	Minimum.	Maximum daily changes.
1878.			
December.....	43° F.	10° F.	32° F.
1879.			
January.....	41	11	28
February.....	42	13	28
March.....	56	14	28
April.....	58	10	29
May.....	66	27	33
June.....	72	30	34
July.....	77	41	36
August.....	76	28	35
September.....	69	30	36
October.....	66	18	37
November.....	46	.....	33

The regular observations were discontinued after November, 1879, but exceptionally high and low temperatures were noticed. The lowest temperature recorded was in December, 1880, when the mercury fell to -28° , and the highest in August, 1881, when it rose to 84° . Both extremes were of but short duration, and were exceptional. In general the winters and summers have shown the same features as those of 1879. The great uniformity of the temperature in the winter months is remarkable, the mean daily changes in none of them exceeding 12° . During the winter the weather is usually much calmer than in any other season. The cold in the calm, sunny days, even if intense, is not felt so much as in lower latitudes, at less altitude, and movement in the open air is agreeable and refreshing. In March, April, October, and November the morning and evening temperature remains below the freezing point, but at noon rises above it. In March, April, and November snow-storms often occur, but those of November are never severe. Those that last some days usually come from between northwest and southwest. October is pleasant and clear. In May and September the days are generally warm and agreeable, but the nights are cold and frosty; the morning temperature is seldom above the freezing point. Short, light snow-falls are not unusual in both months. June, July, and August being very moderate summer weather, it is exceptional when the mercury reaches 80° , and in June and August, at night, it sometimes goes down to the neighborhood of freezing. July is the only month that for the 3 years following December, 1878, had no frost. About the beginning of August the rainy season sets in, and always lasts from 4 to 6 weeks. During this period it rains almost daily. In the morning the air is usually calm and the sky clear; toward noon it becomes cloudy, and during the afternoon it rains in showers. These showers are generally accompanied by electric storms. The prevailing winds at Leadville come from the northwest; less often from the southwest and south; and very rarely from the southeast. The most violent storms occur in spring. During the summer and early autumn there is a regular daily air current from the northwest, beginning gradually about 10 a. m. and increasing in force till 3 or 4 p. m.; near sunset it abates again and the air remains calm all night. This current often increases to a storm-wind of great velocity.

STREETS.

Total length of streets, 88,000 feet, of which 3,500 feet are paved with slag, 12,000 with gravel, and the rest unpaved. The gravel costs 25 cents per square yard. No cleaning has been done on the paved streets. Sidewalks with but a few exceptions are of plank. There are about 1,000 feet of cobble-stone gutters, and about 20,000 feet of gutters excavated between the sidewalk and the road-bed, but not paved. Grass does not exist in this city, and there is no tree-planting. Ordinary repairs are done by day work, the chain-gang being employed. Street improvements are done by contract.

The total length of horse-railroad track in the city is 5,000 feet; total number of cars, 4; of men employed, 8; 10 mules are used. The road runs only 3 months in the year. The rate of fare is 10 cent.

WATER-WORKS.

The water-works are owned by a private company. They employ the gravity system, and pumping to a distributing reservoir. The total cost of the works was \$175,000. The available head of water will average 165

feet. The yearly cost of maintenance is \$12,000. The yearly income from water-rates is stated to be \$50,000. The daily consumption of water is estimated at 100,000 gallons. Water-meters are not used.

GAS.

The gas-works are not owned by the city. The daily average production of gas is 75,000 cubic feet, and the charge per 1,000 feet is \$4 05 net. The city pays \$5 per month for each street-lamp, 100 in number.

PUBLIC BUILDINGS.

The city owns no public buildings except the jail, which cost \$2,000; it is provided with rooms for the police court. A hall is rented for the city council and rooms for the city offices.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The city has neither public parks nor pleasure-grounds.

PLACES OF AMUSEMENT.

The following list of theaters, with their respective seating capacities, is reported: Tabor opera-house, 700; Grand Central theater, 400; Gaieties, 400; Theater Comique, 300; Carbonate-beer hall, 400; Academy of Music, 700. Theaters pay an annual license of \$300. There are 2 concert-halls and lecture-rooms, seating capacities not given. The report says there are no concert- and beer-gardens in the city, but probably some of the places enumerated as theaters are of this description.

DRAINAGE.

There are no sewers in the city.

CEMETERIES.

There are 2 cemeteries connected with the city, viz:

Old City Cemetery, containing about 3 acres, one-half mile due west from the center of the town.

Evergreen Cemetery, containing 120 acres, about 1 mile northwest of the center.

Interments are no longer made in the former. Evergreen cemetery is controlled by a private corporation. In the Old City cemetery, from the time of its opening in 1878 to its closing in November, 1879, there were 286 interments; since then there have been about 40 removals. In Evergreen cemetery from November, 1879, to November, 1881, there were 736 interments, including burials from the whole county and a number from Summit county. Graves therein must be 5 feet deep for children and 6 feet deep for adults. The stock company which owns it has invested some \$4,000 in surveying, fencing, and laying out the grounds. Every lot on the ground is either on a 15-, 20-, or 30-foot drive. The lots are sold for from \$10 to \$30 each. The income, after paying all wages, averages \$120 per month, which is put into a fund for the continual improvement of the grounds.

MARKETS.

There are no public or corporation markets in the city.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief health organization of Leadville is the board of health, consisting of the mayor and 2 aldermen, and 1 citizen annually selected by the city council. This board may appoint a physician to be the health officer of the city, to be known as the city physician. As to their power in respect to expenses, the ordinance establishing the board provides that "said board shall have full power to incur such indebtedness as shall be necessary for the proper execution of the powers herein conferred, and all debts lawfully contracted by said board shall be allowed and paid by the city council in the same manner that other claims and demands against the city are allowed and paid". The mayor is *ex officio* chairman of the board. His salary as mayor is \$3,000 per year. The board meets regularly once a month, and the mayor or any two members may call a special meeting at any time. The duties of the board are to "exercise a general supervision over the health of the city, with full power to take all measures to promote the cleanliness and salubrity thereof; to abate nuisances on every description of public or private property, and to prevent the introduction or spread of contagious diseases". They may appoint one or more persons to aid them in the discharge of their duties, such persons to be subject to the orders of the board or any member thereof, and, in carrying into effect the provisions of the health ordinance, to possess full police power. In the prosecution of their duties the board, or any of its members, agents, or employés, may enter any premises

between 6 o'clock a. m. and 6 o'clock p. m., and cause the abatement of all nuisances therein by serving a notice to abate within 24 hours. Through the city scavenger the board exercises complete control over the conservation and removal of garbage.

INFECTIOUS DISEASES.

As to small-pox, the mayor reports that the altitude is too high for the disease to exist, but the city ordinance makes full provision for it, stating that any physician who does not report to the clerk of the board within 12 hours the existence of any case of small-pox or other contagious disease he may be called to attend shall pay a fine of \$25 to the city; and, further, that any person who shall go about the city after the small-pox or varioloid eruption has made its appearance on him shall forfeit and pay to the city a sum not less than \$50 nor more than \$200. In case of any malignant, contagious, or infectious disease, the patient must be at once removed to the hospital or pest-house, if it can be done without danger; if not, "the board shall then take such measures as may be deemed necessary to prevent the spread of the contagion or infection". As yet there is no public pest-house. Vaccination is not compulsory, and is done at the public expense only in case of the poor.

REPORTS.

The board reports to the city council monthly, and its reports are published, but how is not stated. Aside from rare attacks of erysipelas, mountain fever, and, more frequently, pneumonia, which last is occasioned mostly by drinking and exposure, and occurs usually among the miners, the public health is excellent, and is gradually getting even better as the place improves and rains are more frequent.

MUNICIPAL CLEANSING.

Street cleaning.—The streets are cleaned by the city scavenger by contract, wholly by hand. He employs 4 mules and 12 men daily. There is no cost to the city. Sweepings are dumped two miles away from the city. The system is said to work well.

Removal of garbage and ashes.—Garbage is removed by the scavenger at the expense of the householders. Garbage is carried to the dumping-grounds. No nuisance or probable injury to health is thought to arise from the ill-treatment of garbage. Ashes are treated in the same way.

Dead animals.—Dead animals are hauled to the dumping-ground, and burned when they accumulate. About 240 are annually so disposed of. The city scavenger is allowed to receive \$4 for each large and \$1 for each small animal removed.

Liquid household wastes.—Chamber, laundry, and kitchen slops are all disposed of in the same way, but in what way is not stated. No further information on this head was supplied.

Human excreta.—Of the houses of the city less than 1 per cent. depend on privy-vaults and the rest on water-closets. All the latter empty into cesspools. Night-soil is taken to the dumping-ground by the city scavenger's force.

Manufacturing wastes.—All liquid and solid manufacturing wastes go to the dumping-ground.

Many of the ordinances are published without date, and the time when they went into force can not be ascertained. As an example of this uncertainty the cost of this department may be instanced. The mayor, in his report to the Census Office dated August, 1880, says that the annual cost to householders of street-cleaning, the removal of garbage and ashes, and the burial of dead animals combined, is about \$1,000 a month, and to the city nothing. On the other hand, a copy of the city ordinance, forwarded on January 15, 1881, provides that the "taking and removing of all swill, slops, and offal from premises within the city limits" shall be let out by contract. Again, the revised ordinances of August, 1881, provide that the city scavenger shall do this work, receiving no compensation from the city beyond his salary of \$100 per month, and being allowed to receive no extra remuneration from outside beyond the fees for removing dead animals.

POLICE.

The members of the police force are elected annually by the city council. The force is governed by the mayor, and its chief executive officer is the city marshal. The marshal has control and supervision, under the direction of the mayor, of the whole force and of all officers of the city on whom may be conferred police powers, and he receives a salary of \$180 per month. The rest of the force consists of a captain, with a salary of \$125 per month, 2 sergeants and 18 patrolmen, with salaries of \$100 per month each. They wear navy-blue uniforms with brass buttons, and each provides his own. They carry clubs and navy revolvers. They serve 8 hours per day each in

winter and 12 in summer, and patrol about 6 blocks. In 1880 there were 4,320 arrests, the principal causes being intoxication and disturbance of the peace. The mayor may appoint as special policemen without pay any persons of suitable character who may be in the employment of the city in other departments, or, upon the application of any five responsible citizens showing the necessity thereof, any number of additional patrolmen or watchmen. All such policemen possess the same powers as policemen on the regular force, and are subject to the orders of the city marshal and the rules and regulations of the police department. The yearly cost of the force is about \$30,000.

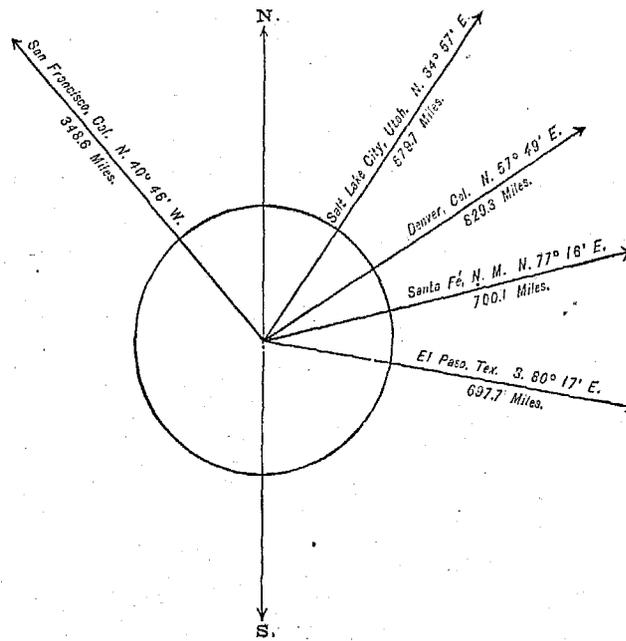
CALIFORNIA.

LOS ANGELES, LOS ANGELES COUNTY, CALIFORNIA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

Year	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	1,610
1860.....	4,392
1870.....	5,728
1880.....	11,183



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	5,910
Female.....	5,273
Native.....	7,978
Foreign-born.....	3,204
White.....	10,379
Colored.....	*804

*Including 605 Chinese and 97 Indians.

Latitude: 34° 3' North; Longitude: 118° 14' (west from Greenwich); Altitude: 457 feet.

FINANCIAL CONDITION:

Total Valuation: \$5,814,141; per capita: \$520 00. Net Indebtedness: \$310,177; per capita: \$27 74. Tax per \$100: \$2 90.

HISTORICAL SKETCH.

Pueblo de la Reina de los Angeles (town of the queen of the angels) was founded in September, 1781, by discharged soldiers who had been serving at the neighboring mission of San Gabriel. It was made a city and the capital of California by the Mexican congress in 1836, and was the seat of the last government, 1844-'46. It was captured by the American forces during 1846, after the battles of San Gabriel and La Masa.

Los Angeles remained a Mexican town in character for many years, but since 1868 the change has been great, and a new city has sprung up, the beauty of the situation, the equable climate, the fertility of the soil when subjected to irrigation, and the opening of railroads to this point having much to do with its later growth. There have been no large fires, and, except during 1878-'80, no periods of serious financial depression. Americans now predominate, and to their energy and perseverance the prosperity of the place is due.

LOS ANGELES IN 1880.

The following statistical accounts, mainly furnished to the Census Office by Hon. J. R. Toberman, mayor, indicate the present condition of the city:

LOCATION.

Los Angeles is situated in the center of the region known as "semi-tropical California", about 14 miles east of the Pacific ocean, in latitude $34^{\circ} 3'$ north, and longitude $118^{\circ} 14'$ west from Greenwich, on the west bank of the Los Angeles river, 30 miles above its mouth, and about 350 miles southeast of San Francisco. The altitude above sea-level at the Smithsonian Institution station is 457 feet. The river on which the city lies is not navigable, but a short railroad line to a seaport on the Pacific connects with coast-line steamers to San Francisco and other points.

RAILROAD COMMUNICATIONS.

The Southern Pacific railroad from San Francisco to Yuma, with a branch from here south to Wilmington, on the Pacific, 23 miles, and the Los Angeles and Independence railroad west to the harbor of Santa Monica, on the Pacific, 18 miles, afford ample railroad communications.

TRIBUTARY COUNTRY.

The country immediately tributary to the city is agricultural, and is said to be capable of sustaining a population of 1,000,000. Dairy products, barley, wheat, oats, orchard fruits, grapes, oranges, lemons, and limes are largely raised. The last three, at 14 years old, produce from \$200 to \$600 net per acre, while the vineyards produce from \$40 to \$200 per acre in raisins and brandy. Irrigation is carried on to a considerable extent.

TOPOGRAPHY.

The area of the city covers 6 square miles, two-thirds of which is in valley and one-third in hills. The soil is sandy, gravelly, "adobe", and red clay. The surrounding country, with the exception of a few places artificially planted, is open, with no marshes or overflowed lands, and the soil is the same as that underlying the city. Many of the hills have an altitude of from 200 to 400 feet and more above the sea-level.

CLIMATE.

Highest recorded summer temperature, 98° ; highest summer temperature in average years, 80° . Lowest recorded winter temperature, 33° ; lowest winter temperature in average years, 52° . The southwest trade-wind prevails for 9 months in the year and is cool and moist.

STREETS.

There are 200 miles of streets in the city, 20 miles of which are paved with broken stone, at a cost, as near as it may be estimated, of 10 cents per square yard. The sidewalks are of brick, asphalt, wood, cement, and gravel, and the gutters are laid with cobble-stones. There is no system of tree-planting along the sides of the streets. In street work all grading is done by contract, while repairs are done by day labor. A roller is used with good effect. There are 11 miles of horse-railroads in the city, using 10 cars and 40 horses, and giving employment to 15 men. The rate of fare is 5 cents.

WATER-WORKS.

The water-works are owned by a private corporation, and the total cost to date is \$500,000. Water is taken from the Los Angeles river and distributed by gravity, the available head being from 20 to 120 feet. The average daily consumption is estimated at 125 gallons for each head of the population, but the supply is at times deficient. There are 23 miles of pipe and 60 hydrants. The annual cost of maintenance and repairs is \$6,000 and the yearly income from water-rates \$20,000. Water-meters are not used.

GAS.

The gas-works are not owned by the city. The charge per 1,000 feet is \$4 50. The city pays \$51 12 for each street-lamp, 140 in number.

PUBLIC BUILDINGS.

The city owns and occupies for municipal uses, wholly or in part, the jail, clerk's office, police office, and jailer's dwelling, the total cost of which is stated to be \$5,000. There is no city hall, and the city owns no buildings in common with the county.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are 6 acres of parks in the city, that cost \$800, and in which are spent \$900 annually for care and maintenance. Mayor Toberman says: "Our city is 6 miles square, contains 10,000 acres of orchards and vineyards, which answer for public parks."

PLACES OF AMUSEMENT.

There are 2 theaters, with a seating capacity of about 600 each, and they pay a license to the city of \$5 per night. There are also 6 halls used for concerts, lectures, etc. There are one or two concert- and beer-gardens, that succeed but indifferently.

DRAINAGE.

There are 4 miles of main sewers and 6 miles of laterals in the city. These have been built according to the requirements of each case as it came up. Main sewers are of brick, and laterals are of burnt clay and cement pipes. Frequent flushings are required. The removal of deposits is done by day's work, but the amount and cost are not stated. The question, "What final disposition is made of the outflow of the sewers?" is answered: "Manuring gardens, vineyards, and orchards." The cost of sewers is paid one-third by the city and two-thirds by the owners of the abutting property. Assessments are laid on the basis of frontage. The price paid for a brick sewer 2 by 4 feet, 12 feet deep, built in 1880, is stated at \$12 per foot. The average cost of manholes is \$3 each, and it is reported that there are no inlet-basins. No further information on this subject was obtained.

CEMETERIES.

There are 4 cemeteries connected with the city: 1 public, containing 18 acres, and 3 private, containing 130, 15, and 5 acres, respectively. There are no church-yards or private burial grounds in which interments are no longer permitted. The number of interments was not stated, and the mayor reported that, as the city was small and "statistics meager", not much information could be furnished. The public or city cemetery is under charge of a sexton, who is appointed by the mayor and confirmed by the city council.

MARKETS.

There are no public or corporation markets in the city, the distribution of meats, poultry, fish, vegetables, etc., being effected through about 30 wholesale and retail meat-markets, 20 vegetable- and fish-markets, and 60 huckster wagons, 50 of the latter being owned by the Chinese.

SANITARY AUTHORITY—BOARD OF HEALTH.

The board of health of the city of Los Angeles is composed of the mayor and president of the common council *ex officio*, and 3 members of the common council. In ordinary times the annual expenses of the board are \$1,500 for salaries, and during an epidemic the board can increase its expenses. The authority of the board, either in absence of or during epidemics, is by ordinances full and complete so far as the sanitary needs of the city are concerned. The mayor is president of the board and general manager; he receives no salary for this duty. The executive officer is the health officer, salary \$840 per annum, appointed by the board by and with the consent of the council; he has full police powers. One assistant health officer, or "steward", at \$600 per annum, is also employed. In addition, the policemen are *ex officio* assistants to the health officer, and report all nuisances or violations of the health ordinances to him. The board meets weekly, and transacts its business as a deliberative body. General inspections are made semi-annually and special ones when ordered by the mayor. When nuisances are reported, the health officer is instructed to order the same abated within 3 days, and if this is not done the delinquent parties are prosecuted and fined from \$5 to \$50. In cases of defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, or street-cleaning, special instructions are given to the health officer. The control exercised by the board over the conservation and removal of garbage is to see that no nuisances occur. Burial permits are issued by the health officer on death certificate, which must be signed by the attending physician, the sextons of the several cemeteries reporting back all interments made.

INFECTIOUS DISEASES.

Small-pox cases are removed to the pest-house, situated northeast of the city, while scarlet-fever patients are quarantined at home. In case of an epidemic the board orders the schools closed. Vaccination is compulsory, and is done at the public expense, the health officer having an office for the purpose.

REPORTS.

The record of all births, diseases, and deaths is kept by the health officer, who reports them weekly to the council and to the National Board of Health. The board, as a rule, makes no reports that are published, but the health officer reports once a year to the city council, and his report is published with the other city documents.

MUNICIPAL CLEANSING.

Street cleaning.—The streets are cleaned at the expense of the city, with its own force, and wholly by hand. The work is done once a week, and is said to be efficient. The annual cost of the service is \$6,000, and the sweepings are deposited in the river-bed below the city, the trade-winds carrying the smell away, and no deleterious effects being perceptible.

Removal of garbage and ashes.—Garbage is removed both by the city and by householders, the city doing its portion with its own force. It is required to be kept in back yards, from which it is taken twice a week. Ashes and garbage may be kept in the same vessel, and they are both disposed of in the same manner as the street-sweepings. The cost to the city is included in the sum expended for street-cleaning, while that to the householders is not given. Mayor Toberman reports that the system is crude, but, owing to the peculiar conditions of the climate, effective, and no nuisance or probable injury to health arises from the manner of handling or disposing of the garbage.

Dead animals.—The carcasses of all dead animals are taken to the river-bed south of the city and there buried in the sand. The cost of this service, which is borne by the city, is included in the street-cleaning appropriation. Probably about 50 animals are so disposed of annually.

Liquid household wastes.—The principal portion of the liquid household wastes of the city are run into the public sewers, some going into cesspools, some being spread upon the ground in the rear of houses, and scarcely any going into the street gutters. The cesspools are usually porous, are not provided with overflows, sometimes receive the wastes from water-closets, and when full are abandoned and covered with earth. There are no particular regulations concerning their cleansing, but the health officer sees that they do not develop any nuisances. As the water-supply is from a distance, there is said to be no contamination from the escape of the contents of vaults and cesspools.

Human excreta.—About 20 per cent. of the houses have water-closets—90 per cent. of these delivering into the sewers and 10 per cent. into cesspools—while the remainder depend on privy-vaults. None of the latter are water-tight, and they are cleaned out when it is ordered by the health officer. The night-soil is used as manure on vineyards and orchards. It is reported that none is so used within the gathering-ground of the public water-supply; but as the Los Angeles river has a water-shed of about 180 square miles, it is more than likely that it is so used. About 2 per cent. of the houses in the city use the dry-earth system.

Manufacturing wastes.—The solid wastes are taken to the river-bed below the city, while the liquid wastes are run either into sewers or cesspools.

POLICE.

The police force of Los Angeles is appointed and governed by the police commissioners, consisting of the mayor, president of the council, and chief of police. The latter, with a salary of \$125 per month, is the executive officer and has general superintendence of the force, which is composed of 10 patrolmen, at \$75 a month each. The uniform is a military blue-dress coat with brass buttons, and each man provides his own. The patrolmen are equipped with revolvers and clubs, and are on duty 8 hours, with 8 hours off. The center of the city is patrolled by 8 men, while 2 policemen, mounted, patrol the suburbs. During the year 1880 930 arrests were made, the principal causes being, drunkenness, 346; disturbing the peace, 47; vagrancy, 86; larceny, 65; fighting, 58; disorderly and drunk and disorderly, 46, etc. Of these, 261 were fined, 257 discharged, 90 sent to the justice courts, 15 to San Francisco, etc. During the same time 50 station-house lodgers were accommodated, but no free meals were furnished them. The police co-operate with the fire, health, and building departments. Special policemen are appointed by the commissioners when they deem it necessary, generally for elections, holidays, etc. The yearly cost of the police force is about \$13,000.

OAKLAND,

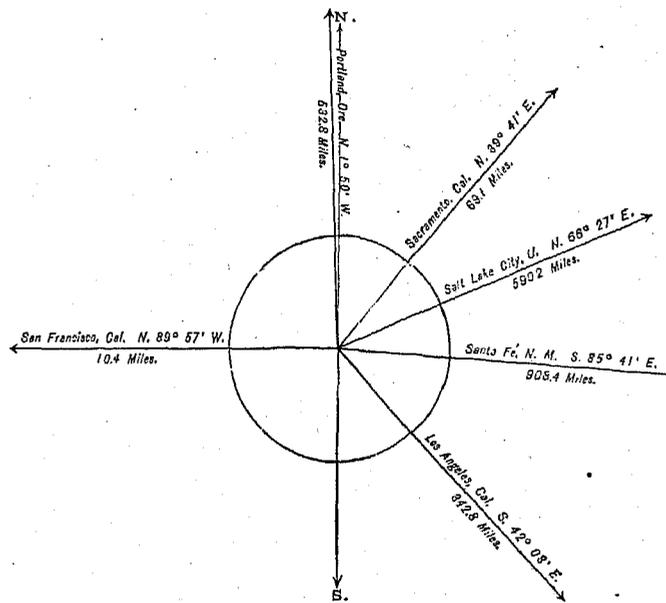
ALAMEDA COUNTY, CALIFORNIA.

POPULATION

IN THE
AGGREGATE,

1860-1880.

Year	Inhab.
1790	.....
1800	.....
1810	.....
1820	.....
1830	.....
1840	.....
1850	.....
1860	1,549
1870	10,500
1880	34,555



POPULATION

BY
SEX, NATIVITY, AND RACE,

AT

CENSUS OF 1880.

Male	18,117
Female	16,438
Native	23,534
Foreign-born	11,021
White	31,973
Colored	* 2,582

* Including 1,974 Chinese, 8 Japanese, and 7 Indians.

Latitude : 37° 48' North ; Longitude : 122° 15' (west from Greenwich) ; Altitude : 3.25 to 119 feet.

FINANCIAL CONDITION :

Total Valuation: \$28,348,778; per capita: \$820 00. Net Indebtedness: \$669,126; per capita: \$19 36. Tax per \$100: \$2 14.

HISTORICAL SKETCH.

The Contra Costa hills, just back of the present city of Oakland, were first visited in 1769 by some of the people belonging to Portala's land expedition. In 1820 Don Luis Peralta, a Spanish soldier of 40 years' service, applied to his government for a land grant and asked for a portion of the Contra Costa hills. His petition was granted, and a plot containing four or five leagues of land was assigned to him in this locality. The grant was called the "Rancho San Antonio", and it touched the lands belonging to the *Mission of San Francisco*. In 1842 Peralta divided his land among his sons, and that portion which is now embraced within the corporate limits of Oakland fell to Vincente Peralta. In 1850 the first actual settlement of Oakland was made. Part of the land was leased from the original owners and part of it was occupied by *squatters*, the latter being under the impression that the

property belonged to the government. The proprietorship of this land, including the whole water-front, was, owing to conflicting claims, long in dispute; and though the titles were partially settled in 1868, many cases are even now before the courts for final adjudication.

In 1852 the town of Oakland was incorporated, and on March 25, 1854, a city charter was granted. For the next twelve years the growth of the young city was slow. The school facilities were very inferior; only three or four churches were built; none of the streets were paved; land-title disputes were interminable, and occupied much of the time of the courts; fraudulent claims multiplied, the city was run into debt, and the future of Oakland looked gloomy. However, the opening of the creek and the construction of an opposition line of steamers to San Francisco, the completion of the local railroad, and the prospect of the terminus of the trans-continental railroad being located here revived interest in the city, and in 1866 business, as well as the prices of real estate, began to grow better. In 1868 a partial settlement of the "water-front question" was reached, and on November 8, 1869, the first through passenger train for the East left Oakland on the Central Pacific railroad, the first overland train from the East arriving here on the afternoon of the same day.

From that time on the growth of Oakland has been rapid. In 1873 the adjoining town of Brooklyn was annexed, thus adding over 3,000 to the population of the city, and in 1874 the county buildings were ordered to be located here. Municipal improvements were many; the harbor was enlarged, and the bar at the mouth of San Antonio creek was dredged; railroads branched out, and the means of communication with San Francisco were further increased, while the fact that the city was the terminus of the great overland trunk-line added much to the general prosperity. Oakland has never suffered from any serious conflagrations, and has been singularly exempt from either disastrous floods or severe earthquakes. The early settlers were from the eastern states, but of late years the tide of immigration has set strongly in this direction, and the population now contains representatives not only from every state in the Union, but from nearly every nationality on the globe.

OAKLAND IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Oakland :

LOCATION.

Oakland lies in latitude $37^{\circ} 48'$ north, and longitude $122^{\circ} 15'$ west from Greenwich, on the east shore of San Francisco bay and about 7 miles from the city of the same name. The altitudes above sea-level range from $3\frac{1}{2}$ to 119 feet. The frontage of Oakland on the bay is over a gently sloping beach, that reaches out more than two miles into the water before affording sufficient depth for commercial purposes. The estuary of San Antonio, opening into the bay opposite the city of San Francisco, extends inland for over two miles on the southern boundary of Oakland, and affords the opportunity for an artificial harbor. This creek has been so far improved as to give a depth of water of from 15 to 17 feet, with a channel width of 800 or 1,000 feet, and about one mile of shipping harbor. The improvements now in progress will widen and deepen the channel, as well as give four miles of additional harbor front. Water communication is now had with all points on the bay and the Pacific coast.

RAILROAD COMMUNICATIONS.

Oakland is the western terminus of the Central Pacific railroad, the main line running to Ogden, Utah, and numerous branches touching the northern and southern parts of the state, a short line of the same road running from here to San José and Tracy.

TRIBUTARY COUNTRY.

The country immediately tributary to the city is agricultural, many farms raising vegetables for the San-Francisco market.

TOPOGRAPHY, ETC.

The soil in and about Oakland is mostly a black sandy loam, well adapted for farming and gardening purposes. The country for 10 or 12 miles each way, up and down the bay, is open, the city having many oak trees, and from these it took its name. The land slopes up from the bay, San Antonio creek affording good natural drainage for most of the area covered by the city. Back from Oakland, at a distance of from three to five miles, rises the range known as the Contra Costa hills.

CLIMATE.

From the annual report of the health officer for 1880, from observations extending over a period of five years, the mean temperature of the warmest day is said to be 75.33° ; mean temperature of the coldest day, 33.66° ; maximum temperature for the year (1876), 97° ; and minimum temperature for the year (1876-77), 30° . The greatest monthly range of temperature is 49° and the least 19° .

STREETS.

Total length, 106 miles; of this, 61 miles are macadamized, 25 miles are graded but not paved, and 20 miles are ungraded. The macadam is made of hard blue trap-rock, crushed at the quarry, the bottom layer, of coarse stone, being laid from 6 to 10 inches thick, and then finished with fine-crushed rock, which is then wet and heavily rolled. The cost, as near as it may be estimated, is about 7 cents per square foot. The sidewalks are of cement, asphalt, gravel, and plank, while the gutters are paved with large broken stone. Trees are planted along the sides of the streets, about 20 inches inside the curb-line, on the sidewalks. The grading and construction of streets are done by contract, while all repairs are done by day labor. The mayor expresses a preference for this way of dividing the street work.

There are 13 miles of horse-railroads in the city, with 29 cars and 115 horses, and giving employment to 46 men. The number of passengers carried during the year was not stated. The rate of fare is 6½ cents. There are no omnibus lines.

WATER-WORKS.

The water-works are owned by a private corporation. The supply is obtained from an artificial lake, formed by an earthen dam 300 feet long and 75 feet high, which has a capacity of 20,000,000 gallons. The total cost of the works, including dam, was \$3,000,000. The water is brought to the city through a main conduit having a capacity of from 5,000,000 to 7,000,000 gallons daily, under a head of 216 feet, and distributed by gravity through 100 miles of mains, the available head ranging from 40 to 75 pounds to the square inch. The water is filtered by being passed through cotton cloths, stretched on frames, that are cleaned every day. The estimated daily consumption is 300 gallons per head of the population. The average annual cost of the works is \$60,000.

GAS.

The gas-works are not owned by the city. The daily average production is 125,000 cubic feet. The charge per 1,000 feet is \$3 50. The city pays 13 cents per night for each street-lamp, 823 in number.

PUBLIC BUILDINGS.

The city owns and occupies wholly for municipal purposes a city hall, costing \$30,000. The county buildings are owned by the county, the city having no interest in them. In addition to the city hall there are several other buildings owned by the city, but no description concerning them was furnished.

PUBLIC PARKS AND PLEASURE GROUNDS.

There are no large parks in Oakland, and, as most of the houses are surrounded by gardens, their want is not felt to any appreciable extent. There are six or seven public squares in the city, all donated, unimproved with the exception of being fenced in, and which are visited but very little. They are controlled by the city council.

PLACES OF AMUSEMENT.

There is but one theater in the city—Dietz' opera-house, with a seating capacity of about 800. It pays a license to the city of \$5 per day, \$50 per month, or \$100 per quarter. There are no concert- or lecture-halls other than those connected with churches. Badger's park, area 6 acres, is used during a portion of the year for picnics and other entertainments of a like nature. It is said that owing to the proximity of San Francisco, it being reached from here in 35 minutes, theaters, etc., are not very well supported in Oakland.

DRAINAGE.

There are 48 miles of sewers in Oakland. A large sewer extends from lake Merritt across the city 2 miles to San Francisco bay, and is known as the lake sewer. The remaining 26 miles are all of pipe, and equally divided between cement and vitrified clay—13 miles of each.

The first public sewer was laid in Broadway in 1870, consisting of 2 cement pipes, one on each side of the street, 8 inches in diameter at the summit and enlarging to 16 inches at the outfall, where they discharge into tide-water. In the following four years the streets parallel with Broadway were sewered in the same way, but with one pipe in each street extending from the summit to tide-water. In 1875 the lake sewer was built. A portion at each end along low wet ground is made of wood. The rest is of brick, and is the only brick sewer in the city. Water is admitted from the lake and flows out to the bay. Streets on either side of the lake sewer are provided with pipe sewers discharging into it, laid substantially as described, but, as the streets are not quite so regularly laid out as in the front part of the city, sometimes a number of laterals discharge into one main before reaching the lake sewer.

The surface of the city proper is very flat, the highest point being only 37 feet above high water, and the dividing line along the summit usually is not more than 25 or 30 feet high. The streets slope gently and uniformly to tide-

water on one side and to the lake sewer, which passes along a low place on the line of Twenty-second street. Sewers are laid at a depth of 8 or 9 feet, where such depths can be secured, but near their outlet they come within 4 or 6 feet of the street surface. The mouths of outlets are open and above water at ordinary tides. Ventilation is provided for by perforated covers in manholes built at intervals of 300 feet. It is reported that only those sewers in the west end of the city need flushing to a great extent. This is done from street hydrants, at a cost of from \$100 to \$150 per year. The main lake sewer was cleaned in 1880 by boat, buckets, and windlass, at a cost of \$750. It had not been cleaned before in two years.

The cost of building sewers is assessed upon the abutting property. Assessments are laid on the basis of frontage. The ordinary price paid for trenching, laying, and back-filling was from 25 to 75 cents per foot, according to depth. Brick manholes, with covers, cost from \$22 50 to \$40 each. Brick catch-basins, with cast-iron grating and granite curb, \$83; with iron curb and pipe-trap, \$62. Catch-basins made of 18- and 12-inch pipe and cast-iron collar, \$27. Lamp-holes of 6-inch pipe and iron cover, \$10 each. Pipes were used of three classes. The vitrified pipe, from 8 to 18 inches diameter, costs from 40 cents to \$1 25; Portland-cement pipes, circular, from 8 to 16 inches diameter, cost from 30 cents to \$1 10 per foot; egg-shaped cement pipes, from 10 to 12 inches, cost from 50 cents to \$1 25 per foot.

No sewerage work has been done since the new constitution of California came into effect in 1879, as it repealed the laws under which such work was done, and there has been no legislative action to provide funds for carrying on the work.

CEMETERIES.

There are 3 cemeteries connected with the city; all have been in existence for about sixteen years, and they are all situated together near the northern terminus of Webster street, at a distance of 2½ miles from the city hall: The *Mount View Cemetery*, area 200 acres, is owned by a private corporation, that was organized under the provisions of an act approved April 18, 1859, and has a total of 4,000 interments.

Saint Mary's Cemetery, area 40 acres, is owned by the Saint Mary's Cemetery association (Roman Catholic), and has a total of 1,500 interments.

Hebrew Cemetery, area 4 acres, has a total of about 50 interments.

There are no church-yards or private burial-grounds in which interments are no longer permitted. No burial is allowed to be made without a permit from the health officer. There is no special time after death for interment. For adults, graves are 6 feet deep, and for children, from 4½ to 5 feet deep. These figures apply to all cemeteries. The use of lots in the several cemeteries is solely for burial. The Saint Mary's Cemetery association guarantees to the lot-owners and their heirs possession of lots up to the year A. D. 2200, and the improvements and care are at each lot-owner's option, provided that the rights of others are not infringed. The construction of roads and other permanent works is at the expense of the cemeteries. The price of lots varies from 25 to 50 cents per foot, according to location. The revenue of Mount View cemetery for the year 1880 was about \$18,000; that of the other cemeteries was not stated.

MARKETS.

There are no public or corporation markets in the city. The markets are all in private buildings, with the exception of one that has 15 stalls, each renting for from \$10 to \$20 per month. None of them have more than one occupant. These markets are open from 6 a. m. to 6 p. m., and on Saturdays until 9 p. m. Each morning meat is brought from the slaughter-houses, which are about 5 miles from the city, and distributed to the markets.

SANITARY AUTHORITY—BOARD OF HEALTH.

The chief sanitary organization of Oakland is the board of health, an independent body, composed of 3 physicians, appointed by the city council, with the mayor, president of the council, and the city engineer, members *ex officio*, and the city physician, who as health officer is a member. The annual expense of the board in ordinary times is \$2,100, for salaries; the health officer receives \$100 per month, the 3 active members (physicians) receive \$25 a month each, while the *ex officio* members serve without pay. The matter of increasing the expenses rests with the city council, except during a small-pox epidemic, when, by ordinances, the board can do what is necessary irrespective of the cost. The powers of the board, except as stated, are at all times only such as are defined by the ordinances of the city council, "of which it is the creature". The mayor presides at all meetings, appoints the committees, etc. The health officer is the executive officer of the board, and as such has general supervision of the sanitary needs of the city. In ordinary times he has the services of one health inspector, and in times of epidemics all the assistants that may be needed. The health inspector and assistants have police powers sufficient to enable them to enter premises, make arrests, etc. The board meets once a month and transacts its business as a deliberative body. There are three standing committees—one on sewerage, garbage, etc.; one on prevailing diseases and their causes; and one on air, water, and food. Each committee has a physician as chairman. Inspections are made as nuisances are reported, and, if any time can be spared, systematically, in the neighborhood of the complaints. When a reported nuisance is found to be such, notice is served to abate. Defective house-

drainage, privy-vaults, cesspools, and sources of drinking-water are ordered to be corrected. The board does not at present do much toward the correction of defective sewage, and all street-cleaning is under direction of the city marshal. The report of the sanitary inspector for the year 1880 shows: Number of premises inspected during the year, 3,497; number of premises reinspected during the year, 1,566; number of private complaints attended to during the year, 474; number of privy-vaults connected with sewers during the year, 1,146; number of premises found connected with sewers, 1,698; number of premises supplied with city water, 2,796; number of premises supplied with well water, 559; number of inspected premises occupied by owners, 1,565; number of inspected premises occupied by tenants, 1,908; number of permits for sewer connections granted by marshal, 367. At present the board practically has no control over the conservation of garbage, but may cause arrest for non-removal; ordinances regulating the whole subject are now being prepared. All burial permits are issued by the health officer on certificates of death signed by a graduate in medicine or by the coroner. These certificates, which are filed at the health office, must state, in addition to the usual information as to cause of death, date and place, by whom treated, age, sex, nativity, etc., "location of residence"—whether on wet or dry land; "sewerage of residence"—whether connected with city sewer, cesspool, surface drainage, or no sewerage; "circumstances in life"—affluence, medium, poor; and "primary cause of disease". The board has no specific regulations as to the pollution of streams and harbors or the removal of excrement, only exercising a general supervision.

INFECTIOUS DISEASES.

As before stated, the authority of the board over diseases of an infectious or contagious nature is confined to small-pox, and at present (close of 1880) an epidemic of that disease has prevailed on the Pacific coast since last July. Patients who have no homes are removed to a pest-house, a tent being used for this purpose, while others are quarantined at home, a yellow flag is displayed, and the house guarded by special policemen. The ordinances forbid any child to attend the public schools from a house in which a case of contagious disease exists. Vaccination is compulsory, and is done by the health officer at the public expense. From the appearance of the first case of small-pox in Oakland, July 27, until the close of the year 1880, there were 21 cases, 4 of which were fatal. The health officer reports the number of vaccinations, either at his office or by his direction, as 4,740, and the number of revaccinations as 517.

REPORTS.

All births and deaths are recorded by the health officer in books kept for the purpose. No record of diseases is kept other than the cause of death, but the public-schools department reports to the health officer the relative proportion of sickness in the different sections. The board makes no report as a board, but the health officer is required to report monthly to the common council all births and deaths, as well as the number of persons treated by him. The health officer also makes an extended report as to the sanitary condition of the city, which, as well as his monthly report, is published in pamphlet form.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city, with its regular force, and wholly by hand. The cleaning is done "as often as finances will allow", a force of from 16 to 20 men being employed 8 or 10 months during each year. The work, when done at all, is done thoroughly. The annual cost is from \$15,000 to \$18,000, and the sweepings are deposited either in the bay or on low ground. It is said that the former is the best place for final disposal, as the water carries off the *débris*.

Removal of garbage and ashes.—All garbage and ashes are removed by the householders at their own expense. There are no regulations as to the conservancy of garbage while awaiting removal, but it is not allowed to be kept in the same vessel with ashes. The garbage is finally dumped into San Antonio creek or into the bay, and the ashes are deposited in low lots. The cost to householders is from 50 cents to \$1 a month each. It is reported that complaints are seldom made of the manner of keeping or disposing of the garbage.

Dead animals.—The carcasses of all animals dying within the corporate limits are removed and buried by the pound-master at the expense of the city. The annual cost of this service is \$1,187, and during the past year 59 horses, 11 cows, 41 sheep, 14 goats, 95 hogs, and 69 calves were buried.

Liquid household wastes; human excreta.—The principal portion of the liquid household wastes is run into the sewers, some going into vaults and cesspools, and none being allowed to reach the street gutters. The cesspools are being rapidly done away with. Those that now exist are generally porous, are sometimes provided with overflows that enter the sewers, receive the waste from water-closets, and are cleaned out when necessary. These, as well as the privy-vaults, are required by ordinances to be connected with the sewers, provided they are within 150 feet of any street in which a sewer is laid. Owing to the efforts of the health officer and his assistants these connections are being rapidly made. The health officer, in his last annual report, mentions several cases of well water that were more or less impure, the impurity being due to surface pollution or the escape of the contents of vaults and cesspools.

POLICE.

The police force of Oakland is appointed by the city council, and governed by the captain of police, who receives a salary of \$150 per month. The force consists of 25 patrolmen, with 2 sergeants, at \$100 per month each. The uniform is dark-blue beaver cloth with brass buttons, a dress coat, with a straight vest, each man providing his own. The patrolmen are equipped with clubs and pistols; they are on duty 10 hours out of the 24; the length of streets patrolled by them varies. During the past year 2,141 arrests were made, the principal causes being for larceny, misdemeanor, drunkenness, assault and battery, and violation of city ordinances. The majority of these were convicted. The total value of property lost or stolen during the year and reported to the police was \$15,687 45, and of this \$8,431 60 was recovered and returned to the owners. During 1880 there were 1,177 station-house lodgers, and a few meals, costing 5 cents each, were given to them. The force is required to co-operate with the fire department at all fires. Special policemen are appointed by the city council, and, though paid by private parties, are under the control of the captain of police. The yearly cost of the police force was not stated.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Oakland for 1880, being taken from tables prepared for the Tenth Census by James R. Hardenberg, chief special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	72	\$1,371,457	1,369	13	5	\$759,917	\$2,012,695	\$3,181,066
Boots and shoes, including custom work and repairing	4	37,000	10	2	.....	8,257	9,700	23,502
Bread and other bakery products	6	10,400	22	1	.....	14,700	54,900	83,000
Carriages and wagons	4	20,872	31	1	.....	20,800	29,500	75,800
Flouring and grist-mill products	3	240,000	44	.....	.....	24,974	710,000	800,510
Foundry and machine-shop products	4	21,500	22	.....	.....	11,440	15,200	38,500
Liquors, malt	3	105,000	67	.....	.....	28,235	102,327	183,500
Lumber, planed	3	169,535	108	.....	.....	77,538	72,600	178,000
Marble and stone work	3	4,500	12	.....	.....	7,550	7,400	18,970
Plumbing and gasfitting	5	67,000	41	.....	2	23,810	44,780	79,000
Saddlery and harness	6	17,050	19	.....	.....	9,638	15,500	37,688
Shipbuilding	3	120,300	166	.....	.....	187,911	482,208	686,290
Tobacco, cigars and cigarettes	6	7,800	17	.....	1	4,850	11,050	28,000
All other industries (a)	22	550,500	801	9	2	340,214	457,350	947,000

a Embracing bags, other than paper; blacksmithing; boxes, wooden packing; brooms and brushes; carpentering; confectionery; furniture; hats and caps; ice, artificial; iron railing, wrought; leather, tanned; painting and paperhanging; stone and earthen-ware; terra-cotta ware; tinware, copperware, and sheet-iron ware; upholstering and upholstering materials.

From the foregoing table it appears that the average capital of all establishments is \$19,048 01; that the average wages of all hands employed is \$547 per annum; and that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$39,651 38.

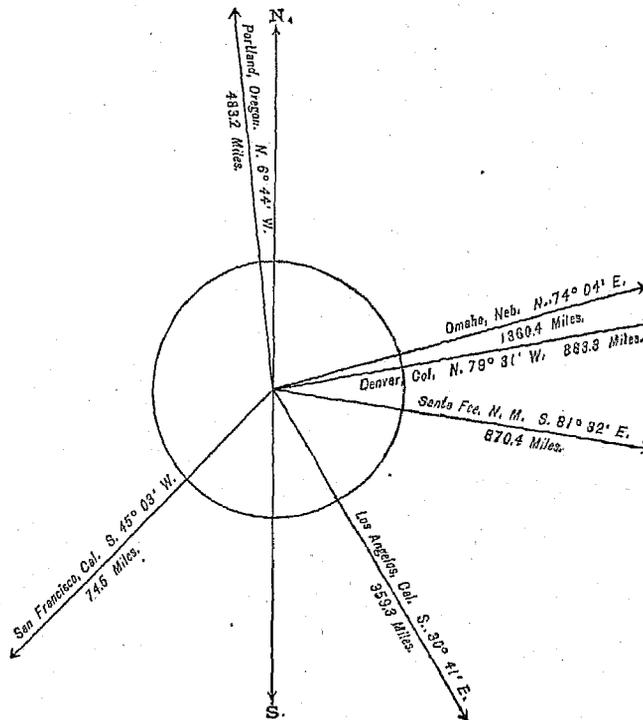
SACRAMENTO,

SACRAMENTO COUNTY, CALIFORNIA.

POPULATION

IN THE
AGGREGATE,
1850-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	6,820
1860.....	13,785
1870.....	16,233
1880.....	21,420



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	12,271
Female	9,149
Native	14,372
Foreign-born	7,048
White	19,180
Colored	* 2,240

* Including 1,781 Chinese and 4 Indians.

Latitude: 38° 34' North; Longitude: 121° 26' (west from Greenwich); Altitude: 52 to 85 feet.

FINANCIAL CONDITION:

Total Valuation: \$10,504,225; per capita: \$490 00. Net Indebtedness: \$861,000; per capita: \$40 20. Tax per \$100: \$4 00.

HISTORICAL SKETCH. (a)

In 1769 occurred the real discovery of the bay of San Francisco. In this year some fathers of the Franciscan order, accompanied by a military force, entered upper California and made the first white settlements. The military governor who came with them, in the course of an exploring expedition, discovered the bay of San Francisco, and in 1776 the Mission of San Francisco de los Dolores was founded on its western shore. This was one of a number of missions scattered along the coast, each one of which was the center of a large plantation, worked by the Indians whom the fathers had converted, and who lived in a condition of semi-slavery, but yet infinitely better than the barbarous state in which they had been found. For half a century these missions were very prosperous; but in 1826 the Mexican government passed an act for the liberation of the mission Indians, and the

demoralization and dispersion of the people soon ensued. The downfall of the missions quickly followed, being hastened by the wretched government of the Mexicans; and in 1845 the fathers were formally deprived of all their lands and wealth.

In the mean time a few white settlers had made their way over the mountains from the east, and now took advantage of the troubles between Mexico and the United States to claim this rich territory for their own country. The details of the "American conquest", as it is called, do not belong in such a sketch as this, and it must suffice to give the leading facts. In 1846 the American settlers in California raised the standard of revolt and declared it an independent state. On the 7th of July of that year Commodore Sloat hoisted the American flag over Monterey, the capital of upper California, and issued a proclamation declaring the province henceforth a portion of the United States; and on the 10th the revolutionists pulled down the bear flag and hoisted the stars and stripes in its stead. Commodore Stockton, who succeeded Sloat, having received official notice of existing war between the United States and Mexico, proclaimed California a territory of the United States and organized a temporary government. After the war was closed a territorial government was established.

One of the small number of foreign settlers who had entered California was General John A. Sutter, a native of Baden, but of Swiss education and citizenship. He came to America in 1834, and after many adventures found himself, in July, 1839, in the bay of San Francisco. He had heard glowing accounts of upper California, and especially of the valley of the Sacramento river, and, on expressing a desire to settle there, procured from the Mexican government, without difficulty, the grant of a large tract of land. To find the Sacramento was not so easy; but at length he succeeded, and after some exploration selected his land at the mouth of the American river, where he afterward erected fort Sutter, and where Sacramento now stands. He named this place "New Helvetia". The fort was soon built, and quickly became the chief trading post of that part of the country. The settlement around it grew, and General Sutter's property fast accumulated, until the latter part of January, 1848, when a sad change took place in the affairs of the old pioneer. Then came the discovery of gold—a discovery which made California what it is, which brought wealth and prosperity to thousands of men, but which ruined the man who was so unfortunate as to be one of the chief instruments in making it. At this time General Sutter had completed his establishment at the fort; had performed all the conditions of his grants of land; had, at an expense of at least \$25,000, cut a race of nearly three miles in length, and had nearly completed a flouring-mill near the present town of Brighton; had expended toward the erection of a saw-mill near the town of Coloma about \$10,000; and had got under way a large farm. But his mills were deserted by his workmen and became a dead loss; his laborers and mechanics, from his cook to his clerk, were taken with the gold fever; reckless immigrants from the East robbed him of his flocks, his herds, and finally of his lands; his possessions and his hopes were soon scattered and destroyed.

From the first discovery of California by the Spaniards the impression prevailed that the country was rich in silver, gold, and precious stones; but there is no reliable account of the finding of any of these till 1802, when it is said that silver was found in Alizal, in Monterey county, but the mine never produced any thing of consequence. The first mine to produce any noticeable amount of precious metal was the gold placers in the cañon of the San Francisquito creek, 45 miles northwest of Los Angeles. It was discovered about 1838 and was worked continuously for 10 years, when it was deserted for the richer discoveries in the Sacramento basin. Its total yield was probably not over \$60,000. Prior to the Mexican war it was known that gold-bearing rock was to be found in the country, and some gold-washing was done by the natives. It was reserved, however, for James W. Marshall to make the discovery on the 19th of January, 1848, at Sutter's saw-mill, on the south fork of the American river, near the present town of Coloma, in El Dorado county, 54 miles west of Sacramento. In the previous summer Marshall had formed a copartnership with General Sutter to build and run a saw-mill near the place, and about Christmas work was begun on it. In January a narrow ditch for a race was begun. On the 19th of that month Marshall discovered the gold near the lower end of the ditch. He immediately went down to the fort and showed some of the metal to General Sutter, who quickly proved that it was gold. The next day they went to Coloma and prospected about the place together with encouraging results. In spite of General Sutter's earnest request that the discovery be kept secret till his mills were finished the news leaked out, and soon all his employés, as well as everybody else in the vicinity, were hunting for gold. Then in the spring the people came rushing up from San Francisco and other parts of California. In San Francisco only five men were left to take care of the women and children. The single men locked their doors and left for "Sutter's fort", and thence went to the El Dorado. Large companies of men, women, and children could be seen on every road leading to the mines, their wagons loaded down with tools, provisions, etc. By the middle of August 4,000 persons were engaged in gold-mining. A month later the number was set at 6,000, and the average find per day for each person was put at one ounce. During the first 8 weeks of the golden times the receipts of gold-dust at San Francisco amounted to \$250,000, and during the 8 weeks ending September 23 they were \$600,000. Instances were known where one person collected from \$1,500 to \$1,800 in one day, and when a man with his pan or basket did not easily gather from \$30 to \$40 in a day he moved to another place.

Shortly after the great discovery at Sutter's mill there were a number of stores located at the fort, and an immense business was at once created at that point. A village quickly grew up, and in December the first plat of Sacramento was made. During the winter the roads to the mines were nearly impassable. Freight from the

fort to Coloma was \$1 per pound—\$2,000 per ton. Even at that price it was impossible to transport the necessaries rapidly enough to prevent serious apprehensions of famine in the remoter mining districts. At the blacksmith-shop at the fort \$64 was charged for shoeing a horse all round, \$16 for a single shoe. The upper part of the building in the fort was used as a boarding establishment, the cost of board being \$40 per week. The front room below was used for drinking and gambling purposes, the price of a drink being 50 cents. In those times hardly any one ever drank alone. Trading yielded an enormous profit. Fifty per cent. covered the expense of transportation from San Francisco, yet the Sacramento sales averaged 200 per cent. profit above the cost of goods in San Francisco. The political and social condition was anomalous; there was no law or system of government, and yet there was little actual disorder or discord. Miners came to town freighted with bags of gold, which they stored away as indifferently as they did their bags of tools, and the gold was seldom touched.

On the 1st of April, 1849, the number of inhabitants at the fort and in the city did not exceed 150. From February until June there was a steady course of improvement, the immigration coming by sea, and as yet in not very large numbers. In June immigrants by water began to arrive in thousands on their way to the mines. Sacramento, being the starting-point for all the northern mines, became the scene of unexampled activity. The several branches of the American, Bear, Yuba, and Feather rivers were the great points of attraction, and Sacramento was the fitting-out place for all of them. In June an overwhelming business was in progress, without a particle of method and in utter confusion and recklessness of manner. On the 26th of June the city numbered 100 houses, including the city hotel, which was 35 by 55 feet and 3 stories high, and had been framed for a saw- and grist-mill for General Sutter. Every sort of material that could be used in the construction of tents, houses, and stores rose to enormous value. Muslin, calico, canvas, old sails, logs, boards, zinc, tin, and old boxes became almost priceless commodities. Immigrants were coming in by hundreds, with no places to stay, and no shelter from the night air or the noonday sun except the shade of trees, and even this had been appropriated by earlier comers.

As was common anywhere at that early day, public gambling became a leading and absorbing feature of life in the city. While merchants, bankers, and corporations would hazard nothing in architectural ornament, gamblers were erecting magnificent saloons at enormous cost. A few poles stuck in the ground and covered with a wind-sail constituted the first gaming rendezvous. In the summer the famous "Round Tent" was put up, where every species of gambling was carried on in its most seductive aspect. "The toilers of the country," says Dr. John F. Morse in a history of Sacramento, "including traders, mechanics; and speculators, lawyers, doctors, and some apostate ministers, concentrated at this gambling focus like insects around a lighted candle at night." The gambling of this time was often upon a stupendous scale. Every saloon was crowded and every table blockaded by an eager crowd of gamblers. Not one person in ten, either by his absence or his condemnation, attempted to discountenance the mania. After the popularity of the Round Tent decreased, a great number of smaller and meaner establishments were started. Such was the ascendancy of gambling then, that the leaders of the craft were men of great influence, and for a while almost controlled the policy of the city. But while gambling was allowed a temporary ascendancy, there was another powerful influence approaching—that of the church—which at length effected a moral revolution in public sentiment. The first sermon was preached in April, 1849, and in the summer regular services were established. Against this influence gambling could make no more headway, and its votaries soon came to be viewed in their true relations.

In July a movement was made to organize a city government, and an election of councilmen was held. On the 20th of September a city charter, which had been prepared by the council, was voted upon, and was rejected, chiefly through the influence of gamblers, who preferred the lawless state of society which had hitherto existed. In a new election the law-and-order men turned out and adopted an amended charter. This one was not entirely satisfactory, and finally two new ones were submitted to the legislature, which combined them in a way that suited everybody. The city government, thus established out of chaos, encountered very serious difficulties, growing out of the prevailing sickness and destitution among the immigrants. Nine-tenths of the adventurers arriving in San Francisco made their way to Sacramento as soon as possible, where they arrived, many of them sick, debilitated, and almost penniless. The scurvy-stricken subjects of the ocean, and another more terrible train of scorbutic sufferers coming from the overland roads, began to concentrate here. Sacramento became a perfect lazaret-house of disease, suffering, and death long before an effective city government was organized. Such was the difficulty of procuring attendance for the sick, that even invalids who had money could not obtain attention. An informal association of Odd Fellows went to work to relieve the prevailing misery, but all they could do was not sufficient to dissipate it. Men continued to sicken and die without attention, and were buried without even the formality of being sewed up in a blanket. On the 23d of September the first rains came, and the bleak weather of fall and winter followed all too quickly, increasing the miseries of the sick and destitute to an almost incredible extent. Every one who could, began to erect more substantial buildings, and, notwithstanding the enormous prices of building material, stores and hotels were run up like magic. Hospitals, too, were secured, and the horrors of the situation were somewhat mitigated.

In January, 1850, a violent southeast storm swelled the waters of the Sacramento to such an extent that the whole city for a mile from the embarcadero was submerged, and but few houses escaped having their lower floors

covered with water. Business and merchandise were greatly damaged, a great quantity of goods and provisions being swept away. Invalids and the inmates of the hospitals suffered severely, and Dr. Morse says "many died in consequence of the terrible exposure to which they were subjected." The water quickly subsided and business was resumed. In March the city came near being flooded again, but active exertion saved the town from a second inundation. In the spring tents and canvas houses gave place to large and commodious stores and dwellings. Business began to assume something like system. Stage lines were established, threading every valley which led to the mines. The seasons in which this state of business was developed were remarkably exempt from disease, and the almost innumerable physicians of the former period of maladies were compelled to take to the less congenial business of mining. As a result the city rapidly grew both in numbers and in prosperity. But while every thing seemed so harmonious and prosperous, trouble was brewing beneath the surface, which was soon to throw the whole neighborhood into turmoil and confusion. This trouble culminated in the "squatter riots", as they are called. Nearly all this trouble came from the fact that the titles to land in California were principally held by the grantees of the Mexican government, who were protected in their rights by treaty. The settler from the East, not being conversant with this state of affairs, nor aware of the great elasticity of the lines of a Mexican grant, would frequently find his home claimed by some one, till then known only as a large land-owner, living often ten or more miles away. Others hoped to get tracts of land by taking advantage of defects in title; and a third class proposed to help themselves, and let the owner get them off if he could. In 1849, less than a year after the beginning of immigration into Sacramento, we find that trouble had arisen on this vexed question of titles. General Sutter claimed the land embraced within the city limits, through grants from the Mexican government and the guarantees of the treaty of peace between the United States and Mexico. His claim was sustained by adjacent settlements, by costly and valuable improvements, and by occasional occupation of the site of the city. He also had a survey and a map made of the land in question, and upon this claim conveyed the whole to his son, John A. Sutter, jr., who sold it in detail to citizens of Sacramento, all of whom were therefore interested in the maintenance of the Sutter title. On the other hand, the squatters, as the other party was called, maintained that the town plat was not in the grant from the Mexican government; that Sutter had overstepped the boundaries of his rightful possessions, and that the site was public land of the United States, and therefore subject to pre-emption, occupation, and improvement.

During the flood of January, 1850, among the only portions of the city not submerged was the ground immediately upon the edge of the river, which was at once occupied by tents and shanties. After the subsidence of the water the occupants refused to leave, and room for the levee, for the transaction of shipping business and the landing of merchandise, became scanty. At that time no one paid the slightest respect to a land title where it conflicted in any way with his own interest, and to resort to the processes of law would have caused ruinous delay in those rushing days. Thereupon the merchants and bankers took the matter into their own hands and proceeded to remove these obstructions by force, which they did with little opposition. This increased the bitter feeling between the squatters and the holders of Sutter titles. The squatters began to demonstrate their principles by settling upon lots in various parts of the town. Contentions ensued and multiplied, and removals were from time to time effected. On the 10th of May, 1850, a suit was begun against one John T. Madden, to secure his ejection from a lot which he had settled upon and claimed. The suit was decided against Madden, who then appealed his case to the county court, and on August 8 it came up for hearing. On the next day the judge rendered a decision sustaining that of the recorder. During this trial both parties became excited to the utmost degree, and on the 14th a party of some forty or fifty settlers, officered, mounted, and well drilled, reinstated Madden in the lot of which he had been dispossessed. The mayor, sheriff, and some citizens met them, and shots were interchanged, resulting in the death of three squatters and one of the citizens' party and the wounding of four citizens and a squatter. The city was at once put under martial law, and by evening order was effectually restored. The next day the sheriff, who had proceeded to Brighton with a party of citizens to make arrests, was killed and one of his party was wounded. In this fight two squatters were killed and two were wounded. This brought a summary end to the squatter party, and serious quarrels over land titles were heard of no more.

On the 20th of October the cholera made its appearance in Sacramento; on the 24th, 7 cases were reported, 5 of which were fatal; on the 27th, 6 cases were reported; on the 29th, 12; on the 30th, 19; and so the list goes on. On the 14th of November the daily mortality had decreased to 12, and on the 17th the plague was reported as having entirely disappeared. The precise number of deaths from this contagion can never be known, as many were returned as having died of dysentery, fevers, etc., for the purpose of quieting public apprehension. Of the physicians not a single educated one turned his back upon the city in its distress and threatened destruction, and 17 of them perished at the post of duty. In the week ending November 4 the deaths, so far as known, were 188, and at that date the daily mortality was about 60. What with the deaths and the consequent migration from the city the population soon diminished to not more than one-fifth of its ordinary standard, and when the disease finally disappeared the city was nearly depopulated, and there were not a few who thought it dead beyond the possibility of resurrection. Those who had survived the calamity, however, quickly returned, confidence in the health of the city was almost immediately restored, and business communications with the mines were reopened. In a few weeks, such was the elastic energy of the people, nearly all traces of the great calamity had disappeared, and the city was once more prosperous.

From this time Sacramento began to assume more the appearance, character, and habits of a well-regulated city, and consequently its subsequent history is almost entirely devoid of the charm and interest associated with the beginnings, however rude they may be, of a mushroom mining town. After 1850 the place sank into a dignified tranquillity, disturbed only by floods and fires, and such unromantic incidents as the entrance of the first railroad or the establishment of the state capital.

Sacramento has suffered from many floods. The first two, those of January and March, 1850, have been described. On March 7, 1852, the levee near the mouth of the American river caved in, and within five hours the city was almost entirely submerged. The flood lasted four days, but the damage to the city does not seem to have been extensive. January 1, 1853, it was again completely flooded, but the damage was slight. From 1853 to 1861 there was an intermission, but on December 9 of the latter year the levee upon the eastern boundary of the city gave way, and the waters of the American poured in on the city with the speed of a hurricane. Many lives were lost, but the number could never be ascertained. The loss of property was estimated at about \$1,500,000. On January 9, 1862, in consequence of incessant rains and the melting of snow upon the mountains, came another flood, in which it is believed that the Sacramento reached a height of 23 feet above low-water mark, or 5 inches higher than any previously recorded flood. While it lasted, four deaths from drowning were reported and the destruction of property was considerable. On January 22 and February 24 of the same year other floods and breaks in the levees occurred, but by comparison they were of minor consequence. No other flood worthy of note occurred till February, 1878. On the 20th of this month the river rose to 25 feet 10 inches above low-water mark, the highest yet known, but the levee system had been so perfected that the damage was slight.

The first general conflagration in the history of Sacramento occurred on November 2, 1859, at which time fully seven-eighths of the city was destroyed, the loss aggregating between \$5,000,000 and \$6,000,000. In July, 1854, another serious fire occurred, 200 frame buildings being destroyed, the total loss amounting to nearly \$500,000. Since then there have been a number of conflagrations, in which the loss was between \$40,000 and \$100,000, but none over the latter amount.

The first legislature under the constitution of 1849 met in that year at San José. In 1850 the people selected Vallejo as the state capital, but when the legislature assembled there on January 5, 1852, it was found that the place was too small, and on the 12th it was voted to adjourn to the new court-house at Sacramento, the free use of which had been offered to that body. The session was finished at Sacramento, but Vallejo was still considered the seat of government. In 1853 Benicia was chosen for the capital, and in 1854 the legislature met there. On February 25 a bill fixing the permanent seat of government at Sacramento became a law, and the state officers and legislature moved to that city at once, and the government has since remained there. The capitol building was not finished till December, 1869.

The first shovelful of dirt thrown in the construction of the Central Pacific railroad was in Sacramento on February 22, 1863. The history of the completion of this mammoth enterprise does not belong here. Suffice it to say that Sacramento claims a great part of the praise for the successful execution of the idea of connecting the Atlantic and the Pacific. The first railroad in California, the Sacramento Valley, was built in 1855-'56 from Sacramento to Folsom, the first train being placed on the track August 14, 1855.

SACRAMENTO IN 1880.

The following statistical accounts, mainly compiled by the Census Office, indicate the present condition of Sacramento:

LOCATION.

Sacramento, the capital of California and the county-seat of Sacramento county, is situated nearly in the middle of the state, on the left bank of the Sacramento river, at its junction with the American river. It is about 75 miles northeast of San Francisco in a direct line, 120 miles distant by water and 135 by rail. It varies in altitude from 52 to 85 feet above the level of the sea. The Sacramento river is navigable to this point for large boats, and light-draft boats can go 108 miles above the city. This gives it water communication with an immense grain country, but with no very important points above, and with San Francisco and all points on the bay below. During the high-water stage of the river in the season of 1878-'79 its greatest discharge past the city was 69,400 cubic feet per second. The cross-sectional area of the water-way at the foot of K street was 16,360 square feet; the mean velocity per second was therefore 4.24 feet, or 15,264 feet per hour. The least discharge in 1878 was 6,400 cubic feet per second; the corresponding cross-sectional area was 4,400 square feet; and the mean velocity therefore was 1.45 foot per second, or 5,320 feet per hour. As was remarked in the historical sketch of the city, it has suffered from many floods, and these have been invariably due to the rise in the waters of the American, not the Sacramento, river. In a report by Messrs. Goddard and Leet, engineers, made soon after the flood of December, 1861, we read:

Descending from the summit of the Sierra Nevada mountains, with a fall of from 500 to 50 feet per mile, confined by cañons from 2,000 to 600 feet in height, gathering in its course the accumulated waters of the gulch, stream, and cataract, the American river pours the drainage of more than 1,300 square miles of mountain area through the cañon at Folsom into the Sacramento valley with a torrent velocity, due to the fall, of 6,000 feet in 75 miles, in the form of a crushing, roaring wave, carrying destruction to everything movable in its course.

The many resultant inundations forced the city to build a system of strong levees. At no point is the Front Street levee along the Sacramento lower than 28 feet above the low-water mark. From this levee at G street going northerly and easterly is the "north levee", intended to protect the city directly from the waters of the American. This is the line on which all the breaks of former years, with one exception, have occurred. The danger of a break here has been reduced to a minimum by turning the course of the American river, thus avoiding the constant attrition and occasional heavy strains to which the levee was formerly subjected by the current and the sudden rises of the inconstant stream. By means of a canal the American has been made to empty into the Sacramento about a mile north of its old mouth. The north levee up to the American River bridge, a distance of about 2 miles, is from 0.5 to 1.5 mile east of the river channel, is strong and broad, and is deemed secure against breaking. Above the bridge it runs perhaps 3 miles, is 14 feet through at the top, and on the lowest ground 100 feet wide at the bottom. Throughout on both slopes it is grown with salt and alkali grasses, and has on the outside a strong turf. Below the bridge, in the space between the levee and the river, willows have grown up, and a great amount of sand and *débris* is thrown up every year. This *débris*, which is sent down from the mountains, is caused by hydraulic mining, and is rapidly filling up the channels of the American and the Sacramento. The "*débris* question" is one of the political and legislative questions of the day, but as yet little has been done about it.

RAILROAD COMMUNICATIONS.

With the exception of the Sacramento and Placerville railroad—a line running 49 miles to Shingle Springs—all the roads running out of Sacramento are controlled by the Central Pacific. The main line of this immense road runs from San Francisco to Sacramento in two divisions—one via Stockton and one via Benicia—and thence runs straight to Ogden, Utah, where it connects with the Union Pacific for the East. The California Pacific, now controlled by the Central Pacific, runs from San Francisco to Sacramento via Napa Junction. The Oregon division of the Central Pacific runs from Sacramento to Redding, in northern California.

TRIBUTARY COUNTRY.

Part of the country tributary to Sacramento is devoted to agriculture and part to mining. The character of Sacramento county may be taken as typical of the agricultural portion. The character of the soil in this county is varied; the river-bottoms are rich black soil when not covered with mining *débris*, which, as a whole, has done little injury to the lands of Sacramento county, except by causing more danger of overflow during the rainy season. The lands lying along the water-courses are very prolific; back from them the soil is generally of good quality, raises fair crops of wheat, and seems particularly well adapted to small fruits and vineyards. Along the margin of streams and on the prairie land live and white oak, with some sycamore trees, constitute the principal timber, affording to a considerable extent an article of export for fuel. Toward the east, in the mountainous region, pine and fir trees abound. Some black-walnut trees are found. The staple product is wheat, much of which is safely and profitably exported from the state. It stands the long sea voyage so well because it is so dry. In this, as in all the grain-producing valleys of the state, there is rarely ever any rain from April to October, and the heat for a large portion of the time is intense. From April to June the kernel is standing in the ear ripening and drying; when thrashed, it is placed where the sun or hot dry air has free access, and the drying process is completed. Thus nature does for California what in the eastern states is accomplished by artificial means. Sacramento county is fast becoming a large grape-growing district, being now the fifth in the state in the amount of acreage, which is increasing each year. In 1879, according to the surveyor-general's report, 3,640 acres were devoted to grape-growing in this county. The principal vineyards lie to the southeast, in close proximity to the city. In 1863 Mr. Wilson Flint, writing on grape culture, divided California into four districts, differing widely in isothermal and meteorological conditions as well as in variety of soil. He places the great plains and rolling slopes of Tulare, San Joaquin, and Sacramento valleys in the third, and the foothills of the Sierra Nevada, as well as the eastern slopes of the coast range west of the Sacramento valley, in the fourth; giving the warm and dry valleys preference over the first and second divisions—which lie west of the San Joaquin valley and south of Monterey county—for the uniform and perfect bunches, both in size and equal quality of cured raisins. To the fourth, or mountainous district, he gives the preference for the most valuable wines, because of its elevation and unevenness of surface, as well as favorable soil ingredients.

Besides Sacramento county the whole valley of the river is more or less tributary to the city. The small boats plying above Sacramento bring vast quantities of grain and other agricultural products to the city, where they are transhipped to other parts of the state, and indeed of the world.

Placer mining has almost entirely disappeared around Sacramento, having been superseded by hydraulic and quartz mining. In the immediate vicinity of the city the mining industry has shrunk to small proportions, but in regions more remote, but still to a certain extent tributary to Sacramento, it continues to be profitable and prosperous. Gold and silver are the metals mined.

TOPOGRAPHY.

The soil on the immediate site of Sacramento and for a large area round about consists of sedimentary deposits of a sandy character mixed with decomposed vegetable matter. This is from 40 to 60 feet in depth, and is underlaid

by coarse gravel, in which there are large boulders. In one of the numerous unsuccessful attempts to secure water by means of artesian wells a stratum of loose boulders was reached at a depth of 860 feet. In this attempt the borer was sent down 2,147 feet without striking a spring. These trials have shown that the bank of the Sacramento river is impervious to its waters. The annual floods which have been spoken of overflow some of the low land of the county, and the water is apt to remain and form stagnant swampy pools after the river has receded; but this is much less the case than formerly, owing to the system of levees which has been constructed over the county. There are a number of sloughs round the city, but most of them have been filled in. On the west bank of the river there are tule marshes. The country for a radius of 5 miles is open. On the east there are plains gradually rising toward the foothills of the mountains which range along the east of the county.

CLIMATE.

The highest recorded summer temperature is 108°; the highest summer temperature in average years, 96°. The lowest recorded winter temperature is 16°; the lowest winter temperature in average years, 27°. The mean summer temperature is 71°; the mean winter temperature, 48°; the mean annual temperature, 60°. Adjacent waters have very little influence on the climate. The marshes produce fever and ague, and bilious and other malarial fevers. A south wind from October to May generally brings rain. In the winter the north wind is dry and cold; in the summer it is very disagreeable and hot. Notwithstanding the rich soil, warm days, and luxuriant vegetation, the nights are always cool, as a breeze from the ocean reaches the city about 4 o'clock of each day during summer. The greatest rainfall in any year between 1849 and 1879, inclusive, was 36.36 inches in 1852-'53; the least was 4.71 inches in 1850-'51. During that time in only 2 years was there any rain in August; in only 5 years was there any rain in July; in only 7 years was there rain in September. In 1850-'51 rain fell in only 5 months (from January to May, inclusive), and in 1866-'67 in only 6 months (November to April, inclusive). The general rainy season begins from the first to the latter part of November and ends from the first to the middle of May. December 3, 1878, snow fell to the depth of one foot in the valley. Light snow had fallen in 1851, 1853, 1858, 1868, and some other years, but in no year as heavy as this. It is the boast of the inhabitants that "Sacramento has more pleasant days in the year than any other place yet known".

STREETS.

The total length of streets is not reported. They are 80 feet wide, with the exception of M street, which is 100 feet wide. The total length paved with cobble-stones is 12,430 feet; stone blocks, 1,200 feet; asphalt, none; broken slag from smelting works, 3,640 feet; wood, 1,000 feet; gravel, 14,320 feet. The cobble-stone pavements cost \$1.25 per square yard; the gravel, \$0.75; the slag, \$0.65 to \$0.75; stone blocks, \$2.50 to \$3. The cost of keeping in good repair, including sprinkling and cleaning, is \$30,000 per year. The sidewalks, 8 feet wide, are mainly of plank, with a space of 6 feet outside, which is faced with a 12-inch curbing and sowed with grass. The gutters are of cobble-stone. The manner of construction of sidewalks in the most thickly settled portion of the city is minutely regulated by a city ordinance. Trees have been planted on nearly all save the principal business streets of the city. They are set 12 feet from the fence-line. The work of tree-planting and grass-platting is all done by the property-owners at their own expense. The construction of streets is all done by contract; repairs by the day. There is a decided preference for this system. There are 6 miles of horse-railroad track, and the fare is 5 cents.

WATER-WORKS.

Water was introduced into the city in 1854. The works then built were superseded in 1873 by works using the Holly system, which are still in operation. They are owned by the city. Up to January 1, 1880, the water-works cost, exclusive of repairs and interest, \$514,492. The total cost of maintenance for the past year was \$42,242.60; the income from water-rates, \$39,127.86. The supply of water is obtained from the Sacramento river. The pressure in the mains for domestic use is 40 pounds; for fire purposes, 60 pounds. There are 25 miles of mains and 3,900 taps. The greatest amount pumped per diem is 3,000,000 gallons, and the least 1,000,000 gallons.

GAS.

The gas-works are not owned by the city. The charge per 1,000 feet is \$3.50. The daily average production is 110,000 cubic feet. The city pays \$4.10 per month for each street-lamp, 259 in number.

PUBLIC BUILDINGS.

There is no city hall, properly speaking. The city offices are situated in the water-works building.

PUBLIC PARKS AND PLEASURE-GROUNDS.

There are 2 public parks, with a total area of 32.5 acres. *Capitol Park*, on which is situated the state capitol, contains 30 acres, and is beautified with terraced lawns, shrubbery, patent-stone walks, and drives. It is bounded by L and N, Tenth and Fifteenth streets, and was deeded to the state by the supervisors in April, 1860, for capitol

purposes. It is controlled by the secretary of state. The *City Park* contains 2.5 acres, cost \$50,000, and is highly improved with walks, fountains, lawns, and shade trees. It is controlled by a board of trustees. The Agricultural park, owned by the state agricultural society, and controlled by its board of directors, has a mile race-track, which is watered and kept open for driving when not in use for racing.

PLACES OF AMUSEMENT.

The city has 1 theater, the Metropolitan, with a seating capacity of 1,500. There are 4 concert-halls and lecture-rooms, seating capacity not reported, but none large. The mayor writes that there is no really good hall in the place. Theaters pay a license fee to the city of \$5 for each performance. There is no place which could properly be called a beer-garden, except a small grove in which picnics are held, principally Sundays, by military and other societies, and at such times beer and other intoxicants are sold there.

DRAINAGE.

The part of the city supplied with sewers covers an area of about 500 acres. A main sewer is laid in each alternate street. Laterals are in each of the alleys at right angles. The total length of sewers is 10½ miles, of which 1¼ mile is made of wood, 1½ mile is of brick, egg-shaped, 3 feet by 5, and 6¾ miles are of clay and cement pipes. Those in the streets are 16 and 18 inches in diameter, and have a fall of from 5 to 10 inches in a block of 400 feet. Those in the alleys are 8 and 10 inches in diameter, and have a fall of from 6 inches to 3 feet in a block of the same length. The brick sewers discharge into the 16- and 18-inch pipes, and the outlet for the whole system is a cement-pipe sewer 30 inches in diameter and 1,800 feet long.

Sewers are flushed about once a month, and deposits are removed by hand through the manholes twice a month. Two men are constantly employed at this work. The cost is \$1,000 per year. The mouth of the outlet sewer is above water, and exposed for nine months of the year. Ventilation is provided for by manholes and open catch-basins. In two instances pipes for ventilation purposes are extended to the tops of houses. Water-closets are not allowed to discharge into sewers except by overflows from vaults. It is stated that the soil in many parts of the city is completely saturated with cesspool ooziings.

The cost of main sewers and of all branches at street crossings is paid by the city. Branch sewers in alleys are paid for by the owners of abutting property. Assessments are laid on the basis of valuations of land. The prices paid in 1880 are stated to be for 18-inch pipes, 84 cents per foot; 10-inch pipes, 34 cents; 6-inch, 25 cents per foot; manholes, \$35 each; catch-basins, \$30 each; 6-inch house branches, 29 cents each.

The main sewer at its outlet is 20 feet below high water and about level with low water in the Sacramento river. It discharges into an open canal, made for the purpose, 10 feet wide on the bottom, and having a rate of 1 in 2,000 for about 1 mile. Here it joins another drainage canal coming from the easterly part of the city, and is enlarged to 15 feet on the bottom, and the grade is reduced to 1 in 3,840 for 1 mile farther, where it flows into a lake or slough, and thence by a series of lakes and canals 20 miles to tide-water. The total fall of the canal and lakes is about 10 feet to mean tide-water in San Francisco bay.

The sewerage system is described in the schedule furnished as "rather incomplete and very unsatisfactory", owing to the low-lying position of the outlet, and also to the flat surface of the city. The highest street in the city is but 25 feet above low water in the river, and the ordinary level of street is about 13 to 15 feet. Most of the streets are from 8 to 10 feet higher than the lots, and the sewers, in some places remote from the outfall, are above the level of the adjacent lots. The rates of fall are so slight that deposits are constantly forming. It is reported that the extension of sewerage works to the eastern and more distant parts of the city has been discontinued on account of the condition of the sewers already laid. The beds of the Sacramento and American rivers are rapidly filling with *débris* from the mountains, caused by hydraulic mining. The city is surrounded by dikes to protect it from the higher floods. Pumping machinery has recently been set up to relieve the city from sewage and surface water in time of back water in the drainage canals.

CEMETERIES.

There are 5 cemeteries connected with the city, as follows:

City Cemetery, 33 acres, 10,238 interments.

New Helvetia Cemetery, 20 acres, 4,134 interments.

Saint Joseph's Cemetery, 20 acres, 1,015 interments.

Sunset Hill Cemetery, 5 acres, 827 interments.

Jewish Cemetery, 2½ acres, 171 interments.

The Helvetia cemetery contains within its limits the original burial plot of Sutter's fort. This was a public burying-ground until 1853, when the adjacent grounds were sold to private parties, who maintained the whole as a private cemetery until 1877. In that year the city trustees purchased it and incorporated it as a city cemetery, and since then the interments in it have more than doubled. The grounds are laid out into wide avenues and alleys, and are tastefully planted with trees and shrubs. There is a public reception vault within the grounds, and 3 large reservoirs supply plenty of water to keep the grass plots green.

The City cemetery, situated just south of the city limits, has been used as a place of burial since 1850, but the grounds were not regularly laid off into lots till 1856. In 1858 a lodge and gateway were built at the entrance, costing \$3,000. The cemetery is supplied with water from the city water-works, and also has a fine reservoir. All improved lots are walled in and filled with soil to hold moisture during the irrigating season. The roads are in excellent condition.

Saint Joseph's cemetery has been in use since 1865. No lots are sold outside the church membership (Roman Catholic), and no interments are allowed to other than church members.

The Jewish cemetery has been used since 1851. It is private and under the management of the Hebrew Benevolent Society. No lots are sold. Graves are free to members of the society. The revenue comes from contributions.

Sunset Hill or New Masonic cemetery has been used as a place of burial since 1869. In 1876 it was purchased by the Masonic fraternity of the city. It is managed by a board of trustees. The revenue is from the sale of lots. It is located directly south of the City cemetery.

MARKETS.

There are no public or corporation markets in the city. Third street, for a distance of 600 feet, is occupied from 3 to 8 o'clock a. m. by farmers' wagons, whence hucksters, etc., get their vegetables and fruits. The retail meat markets scattered through the city are supplied by the owners of slaughter-houses outside the city limits. The city ordinances set apart G street, between Ninth and Tenth (excepting the 40 feet adjoining the south sidewalk), as a market place for hay, straw, grain, and wood.

SANITARY AUTHORITY—BOARD OF HEALTH.

An act of the state legislature, approved March 29, 1880, gave the power to and made it the duty of the board of trustees of Sacramento to establish by ordinance a board of health. It provided that this board should consist of 5 practicing physicians, who should each be graduates of a medical college of recognized respectability, and that the president of the board of trustees should be *ex officio* president of the board of health. It gave this board "full power over all questions of foul or defective drainage, and of the disinfecting and cleaning of streets, alleys, cellars, cesspools, or nuisances of any description, and of low places within the city limits calculated to receive and retain unhealthy deposits"; and it enacted that "all expenses necessarily incurred in carrying out the provisions of this act shall be provided for by the board of trustees of the city of Sacramento, who are hereby authorized and directed to make appropriations therefor".

In accordance with this act a city ordinance was passed carrying out its provisions. Among other things this ordinance provided that the board should be elected annually, and that the president of the board of health, though an *ex officio* member of the board of health, should have the right to vote only in case of a tie. The section describing the powers of the board is worth quoting entire:

SECTION 2. The board of health shall have power to adopt such measures as will, in their judgment, best promote the health of the city and prevent the spread of disease; to enter into and examine in the daytime all vessels in port, buildings, lots, and places in the city; to prevent or forbid communications with infected families or houses, and, by and with the consent of the board of trustees, to establish a pest-house or hospital, and provide the necessary supplies therefor; and generally to exercise a supervision over hospitals, prisons, school-houses, and public buildings, so far as in their judgment may be necessary for the promotion of health.

When deemed advisable, the board, with the approval of the trustees, may appoint a health officer, who receives a compensation of \$50 per month when actually employed in the performance of his duties. This officer, immediately after his appointment, must make a thorough inspection of all places where nuisances are supposed to exist; he must, in general, act as the executive officer of the board; and he must file, without discrimination, information in the police court concerning violations of the health ordinances. He has power to enter houses in the daytime in order to make inspections. With the exception of his salary the expenses of the board are merely nominal. There has been no epidemic in the city calling for their interference for 15 years. The system of inspections can not be called regular, but still through the early part of the summer, at least, these are tolerably thorough. The Chinese quarter gives the authorities the most trouble. When nuisances are reported inspections are made, and, if found to exist, a written notice to abate is served. If this is not done, the delinquent is brought into the court and fined. As there are no wells to speak of, the contamination of drinking-water is inconsiderable. As to defective sewerage, the city had a local law, which gave the board power to compel property-owners to construct sewers in the alleys to connect with the main sewers. It worked well, but the new constitution which the city has adopted has rendered this law inoperative for the present. New legislation is hoped for. The only regulation as to the burial of the dead provides that the attending physician must make a report as to cause, etc., to the superintendent of the City cemetery.

INFECTIOUS DISEASES.

Scarlet-fever and small-pox are rare diseases here. The former has never been prevalent enough to call for any action on the part of the board. If it is thought advisable, small-pox patients are sent to the pest-house,

connected with the county hospital, about 3 miles from the city. The city owns no pest-house. Vaccination is supposed to be compulsory, but the law is not strictly enforced. Only the poor are vaccinated at public expense.

REPORTS.

The board publishes no regular reports. It sometimes sends a communication to the board of trustees, and reports monthly to the state board of health the number of births and deaths. The mayor states that in April, 1879, two homeopathic physicians were elected on the board, and that the rest of the board, who were allopathic, at once resigned. At present the board is composed entirely of homeopathic physicians. The mayor further reports that the people of the city are quite willing to conform to sanitary laws and the simple municipal regulations, and that the system works very well.

MUNICIPAL CLEANSING.

Street-cleaning.—Streets are cleaned both by the city and by private abutters. It is done partly by contract and partly by the city's own force. In the business portion of the town it is done every day, and is said to be done very well. The annual cost to the city goes in with street repairs, and so was not reported separately. In the report of the board of trustees we find that last year the disbursements for sprinkling streets amounted to \$8,738 50; for water for sprinkling streets, \$1,597 25; for labor and cleaning streets, \$3,655 38. The sweepings are carted to low lots and covered with earth.

Removal of garbage and ashes.—Garbage is removed both by the city and by householders. This summer a chain-gang is being used to do the work. The garbage is mostly taken off by swill-gatherers; ashes are carted off to low places and then covered with dry earth. The frequent inspections of the health officer, by preventing the accumulation of garbage, lessens the danger of nuisances or probable injury to health. The city ordinances provide that garbage shall not be thrown into the streets, and that if placed on the edge of the sidewalk in boxes or barrels it shall be removed within two hours.

Dead animals.—Dead animals are removed and buried outside the city limits at the owner's expense. If the owner can not be found, they are removed and buried at the city's expense. The annual cost of this service is inconsiderable.

Liquid household wastes.—Chamber, laundry, and kitchen slops are all disposed of in the same way. The city is full of cesspools. Wherever it is possible they are connected with the sewers to prevent overflows. Some house drains, but not many, are connected with the alley sewers. None of the liquid household waste runs into the gutters. The mayor says that "our subsoil is to a very great extent highly charged with sewage".

Human excreta.—It can not be definitely stated what proportion of the houses have water-closets, but it is certain that privy-vaults are largely in the excess. It is reported that none of the water-closets deliver into public sewers, but all into cesspools. Few, if any, of the privy-vaults are nominally water-tight. There are no regulations as to their construction and emptying. The dry-earth system is not used to any extent.

Manufacturing waste.—There are no establishments in Sacramento that produce any manufacturing wastes of consequence.

POLICE.

The police force is appointed by a board of police commissioners, consisting of the mayor, the police judge, and the chief of police, the last-named receiving a salary of \$1,800 per year. The board of police commissioners makes such rules as it may judge necessary for the appointment, employment, uniforming, disciplining, trial, and government of the members of the department. The force is composed of 11 regular and 6 local or special policemen. The regular officers receive \$1,200 per year each, and the local officers are paid by subscription. The uniform is of blue, with a black Alpine hat with gold band. The men provide their own uniforms. Each man carries a revolver, handcuffs, and a club. The day-watch serves 14 and the night-watch 7 hours. The force patrols 109 miles of streets. All local officers must report for duty at the police office at 8 o'clock p. m. and report off at 5 o'clock a. m., and all must answer the call of the chief or captain. The only peculiar section in the police regulations is this:

All local and special officers are directed to make monthly reports in writing to the police commissioners of all sums paid to them for services as such officers and by whom paid; also to make special reports in writing within 24 hours after the receipt of any money or other property coming to their possession as a present or reward for official services rendered or to be rendered; such reports shall give the amount of money and description of property received and the circumstances of its reception, with the name and address of the donor.

In 1880 there were 2,592 arrests, the principal cause being, as is concisely reported by the chief, "whisky". During the year there were 752 station-house lodgers. Free meals were given at a cost of 10 cents per meal. The force is required to co-operate with the fire department to the extent of rendering all the assistance possible and of preserving order at fires. Special policemen are appointed by the police commissioners, are under the direction of the chief of police, and are required to assist the regular officers. The only casualty in the force in 1880 was the breaking of an officer's wrist. The total cost of the department for the year was \$17,663 19.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Sacramento for 1880, being taken from tables prepared for the Tenth Census by James R. Hardenberg, chief special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries.....	160	\$1,072,400	868	10	46	\$547,602	\$2,011,889	\$4,003,934
Agricultural implements.....	3	14,000	6			3,840	18,050	31,125
Blacksmithing (see also Wheelwrighting).....	8	23,000	27	1	2	19,990	14,700	43,800
Boots and shoes, including custom work and repairing.....	12	7,000	16			12,860	14,531	39,041
Bread and other bakery products.....	9	50,400	28		2	19,881	81,241	127,338
Carriages and wagons (see also Wheelwrighting).....	4	69,000	42			24,477	26,000	74,445
Coffee and spices, roasted and ground.....	5	17,650	7			3,300	32,300	43,660
Confectionery.....	5	34,050	10			15,028	65,315	112,200
Cooperage.....	3	35,000	25		15	10,000	25,000	59,500
Foundry and machine-shop products.....	5	120,000	65		4	41,600	50,600	114,700
Furniture (see also Upholstering).....	7	76,000	83		4	40,441	97,000	158,600
Liquors, malt.....	6	105,000	51			23,975	92,310	165,000
Lock- and gun-smithing.....	3	3,200	5		1	3,400	1,900	8,500
Marble and stone work.....	9	45,700	38			27,308	27,900	77,700
Plumbing and gasfitting.....	5	8,200	17		1	12,350	21,580	39,850
Saddlery and harness.....	11	50,200	57			37,144	78,725	138,324
Slaughtering and meat-packing, not including retail butchering.....	3	65,000	19			8,800	120,650	138,500
Tinware, copperware, and sheet-iron ware.....	7	12,100	19		2	17,300	21,500	52,400
Tobacco, cigars and cigarettes.....	8	14,000	25		2	9,232	68,680	102,100
Upholstering (see also Furniture).....	3	9,000	9			6,480	9,400	20,750
Wheelwrighting (see also Blacksmithing; Carriages and wagons).....	4	4,500	11			9,588	3,600	18,500
All other industries (a).....	40	907,600	302	9	13	194,698	2,040,407	2,527,801

a Embracing awnings and tents; baskets, rattan and willow ware; boxes, wooden packing; brass castings; brick and tile; brooms and brushes; carpentering; carriage and wagon materials; clothing, men's; coffins, burial cases, and undertakers' goods; electrical apparatus and supplies; flavoring extracts; flouring and grist-mill products; gloves and mittens; glue; grease and tallow; leather, dressed skins; leather, tanned; liquors, distilled; lumber, planed; malt; mineral and soda waters; patent medicines and compounds; pickles, preserves, and sauces; printing and publishing; roofing and roofing materials; sash, doors, and blinds; shirts; soap and candles; stone- and earthen-ware; umbrellas and canes; watch and clock repairing; wood, turned and carved; and woolen goods.

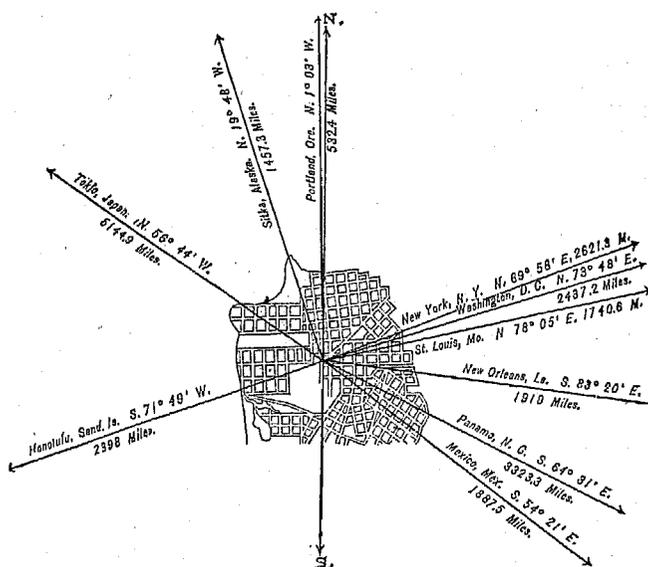
From the foregoing table it appears that the average capital of all establishments is \$10,452 50; that the average wages of all hands employed is \$592 74 per annum; and that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$22,249 53.

SAN FRANCISCO, SAN FRANCISCO COUNTY, CALIFORNIA.

POPULATION

IN THE
AGGREGATE,
1860-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	56,802
1870.....	149,473
1880.....	233,959



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	132,608
Female	101,351
—	
Native	129,715
Foreign-born	104,244
—	
White	210,496
Colored	* 23,463
* Including 21,745 Chinese, 45 Jap- anese, 45 Indians.	

Latitude: 37° 48' North; Longitude: 122° 21' (west from Greenwich); Altitude: 0 to 400 feet.

FINANCIAL CONDITION.

Total Valuation: \$244,477,360; per capita: \$1,045 00. Net Indebtedness: \$3,059,285; per capita: \$13 08. Tax per \$100: \$2 24.

HISTORICAL SKETCH. (a)

The first settlement within the limits now occupied by the city was made in 1776 by some Franciscan monks, who established a mission and presidio near the bay, to which they had given the name of their patron saint. September 17, 1776, the soldiers who were placed under the orders of the monks to afford them protection in case of need, took possession of the presidio, or military post, in the name of the king of Spain. The mission, which was named the "Mission Dolores", was situated about one mile from the northern extremity of the peninsula on which the

^a Nearly all the information and statistical accounts concerning San Francisco, including the historical sketch, were furnished by his honor Mayor M. C. Blake and A. Ballam, esq., city and county assessor.

present city is built, and about two miles from the bay. The mission had been founded for the purpose of spreading the doctrines of christianity among the Indians, and for more than half a century the population of the peninsula remained almost without change.

In 1831 the population, including Indians, was as follows: Mission, 237; presidio, 371. But at about this time there was a considerable increase in the population of the surrounding country from trappers, whalers, and adventurers of various kinds, who began to settle at various points. There began to be a considerable trade in hides and tallow, and the Mexican governor determined to establish a port of entry on the bay of San Francisco, and selected the shore of Yerba Buena cove for its site. He appointed Captain W. A. Richardson harbor-master, and in the latter part of 1835 that official erected the first structure, about which the modern city has grown.

In July of the next year Jacob P. Leese erected a building adjoining that of Captain Richardson, and the town of Yerba Buena was thus founded. In 1846 it had increased to a town boasting 200 inhabitants and 50 houses. On July 8 of that year, news of the war between Mexico and the United States having reached the Pacific coast, Commander Montgomery, of the United States sloop-of-war Portsmouth, acting under orders from Commodore Sloat, took possession of the town on the shore of Yerba Buena cove and raised the American flag on the plaza. The town was retained by the Americans until the close of the hostilities in 1848, when California was ceded to the United States by the treaty of Guadalupe Hidalgo. January 30, 1847, the name of the town had been changed to "San Francisco" by order of Washington A. Bartlett, the alcalde.

In April, 1848, San Francisco had 135 dwelling-houses, 10 unfinished houses, 12 stores and warehouses, and 35 shanties, while its population was about 1,000. At about this time the discovery of gold at Coloma, 60 miles from Sacramento, where it had been found the preceding January, became generally known. The first effect of this discovery upon San Francisco was to cause a rush of the greater portion of its inhabitants to the gold fields. But as soon as the discovery of precious metal became known in the eastern states immigration to California began, and in July, 1849, San Francisco had fully 5,000 inhabitants. At the close of the following year the number of inhabitants had increased to 34,776; and during the next 10 years over 22,000 people were added to the population. The discovery of the rich mineral lodes in Nevada at a time when the placer mines had been nearly worked out gave another impetus to the growth of the city, which was still further aided by the conviction that California was to be one of the great wheat-producing states.

After the cession of California to the United States the old Mexican form of the town government was retained by the inhabitants of San Francisco until May, 1850, when a charter was granted by the legislature, then in session, and San Francisco became an incorporated city. This charter, with an amendment that was made during the next year, remained in force until 1855, when the city was reincorporated. April 19, 1856, however, a radical change was made in the city government. By an act of the legislature, known as the "consolidation act", the city and county of San Francisco were consolidated. The old municipal government by two boards of aldermen was abolished, and in its stead was established a board of supervisors, consisting of one person elected from each of the 12 wards into which the city was divided, presided over by a president, who was the chief executive officer of the municipality. The president had all the powers of a mayor, and in a short time that title was by act of legislature attached to the office. The consolidation act was adopted by the new constitution as a part of its framework, so far as it related to the city of San Francisco, and is still in force.

During the years immediately following the discovery of gold the town rapidly spread over all that area bordering Yerba Buena cove that was available for building purposes, and the work of filling in the cove itself, which was very shallow, was begun soon after immigration commenced. The immigration was so great that it was with great difficulty that even the meanest accommodation could be provided. In consequence of the extraordinary growth of the town in population the structures that were erected were for the most part of the cheapest description and of the most inflammable character. Tents and houses built of canvas and boards existed everywhere, and the city was thus exposed to great danger from fire.

The first great fire occurred December 24, 1849, and in a few hours burnt to the ground nearly all the buildings in a block in the busiest portion of the city. The loss was estimated at \$1,000,000, but before the ashes were cold the work of rebuilding was begun, and in a short time new structures had taken the place of those destroyed. But on the morning of May 4, 1850, another conflagration started upon almost the spot where the fire of the previous December had begun. In a few hours three entire blocks had been cleared of their buildings, and property amounting to \$4,000,000 had been destroyed. Within ten days, however, more than half of the area desolated by fire had been covered with new buildings. June 14 another great fire began, and property valued at \$5,000,000 was burnt; but, as in former instances, the work of rebuilding was at once begun, and in a few weeks the burnt district was again covered with hastily erected and inflammable structures. September 17 of the same year another fire entailed a loss of about \$300,000; and December 14 a more serious conflagration destroyed \$1,000,000 worth of property.

But the most destructive fire that has ever visited the city broke out May 4, 1851. In less than twelve hours the entire business portion of the city, over twenty blocks in area, was burnt to the ground. Fully 1,500 buildings

of different kinds were burnt and property valued at \$10,000,000 or \$12,000,000 was destroyed. But another fire was yet to come, and on June 22 the buildings covering ten blocks in another portion of the city were burnt, at a loss of \$3,000,000.

This was the last great fire that visited San Francisco in its early days. The erection of more substantial buildings and the organization of an efficient fire department protected the city from other great conflagrations. The next large fire occurred August 28, 1876, when 142 buildings were destroyed and property valued at \$703,734 was burnt.

One of the last fires of any consequence occurred in 1877, when 62 buildings were burnt. The total loss at this fire was \$264,000.

During the first years of the gold excitement, when a constant stream of precious metal was pouring into San Francisco, business was flourishing and large fortunes were easily and rapidly made. But by the beginning of 1854 the glut of the market by speculators; the lack of water in the interior for mining purposes, and the consequent falling off in the production of gold; the effects of building which had gone on far in excess of the needs of the city; the difficulty experienced by banks in obtaining coin; the corrupt character of the municipal government, all contributed to bring on a financial crisis, which was precipitated by the failure of Page, Bacon, and Company's bank. Many other banks in the city and several in the country also suspended payment. But a winter followed during which there was rain enough for the mines, and gold was produced in abundance. The surplus stock of goods had been got rid of, much being left on the docks to spoil. Immigration continued, and confidence was restored.

But hard times followed again in the course of a few years. There were fears that as the placer mines became exhausted, which must eventually happen, San Francisco must decline; and these forebodings as to the future of the city were intensified by the breaking out of the Frazer River gold excitement in the latter part of 1857. The discovery of gold on the banks of that river would, it was feared, build up a powerful rival to San Francisco.

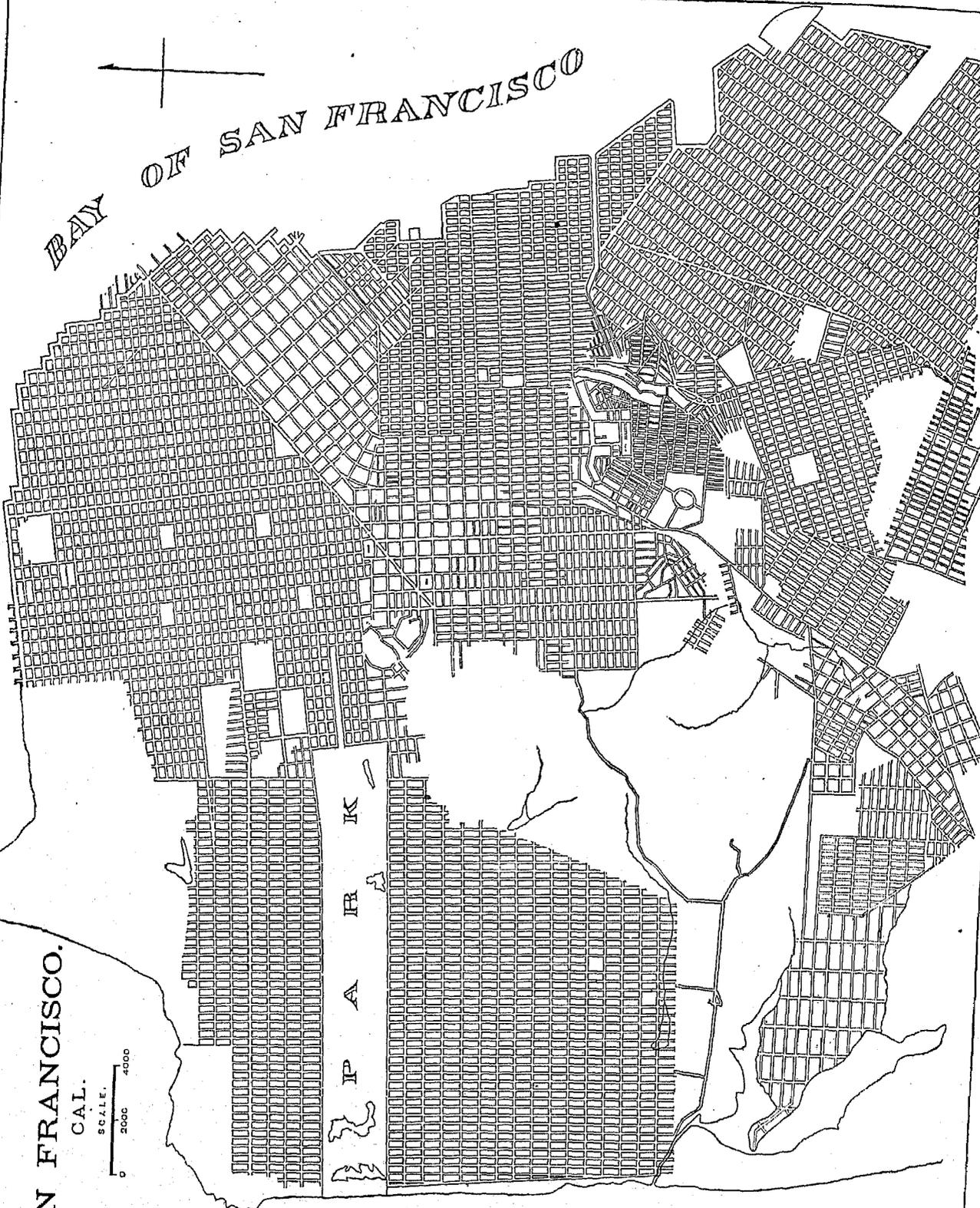
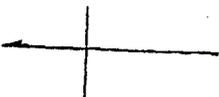
At the beginning of 1858 it became impossible to sell real estate or any other kind of property, and an exodus from the city began which threatened to depopulate it. A financial panic prevailed, during which there was a wholesale foreclosure of mortgages. But in December the fears as to the future of the city were somewhat calmed, and business began to revive. There was a steady improvement in business up to 1859-'60, when a new impulse was given to the prosperity of the whole coast, and to that of San Francisco in particular, by the discovery of rich gold and silver deposits in that great mineral-bearing ledge known as the Comstock lode. The excitement caused by the discovery of several rich bodies of ore increased steadily until 1864, when there began to be felt much doubt as to the future of the Comstock. The building of the Central Pacific railroad, which was begun in 1864, helped to tide over the depression, but eventually led to another period of depression in 1869. The benefits to be derived from the completion of the transcontinental road had been discounted, and when the road was opened for traffic in 1869, and it was seen how extravagant had been the expectations based upon it, a reaction took place and prices began to decline, and a period of depression ensued, from which, however, the city gradually recovered.

In August, 1875, the failure of the Bank of California produced another financial panic. The day after the failure of this bank the National Gold Bank and Trust Company closed its doors, but resumed business in a few days. For some days it was almost impossible to obtain money anywhere. In consequence of the panic the Merchants' Exchange Bank withdrew from business, and financial troubles growing out of the failure of the Bank of California were the prime cause of much financial distress. The energetic action of the directors of the Bank of California, aided by the good-will of the people, who did not wish to see an institution of which they were so proud utterly ruined, put the Bank of California upon its feet again in a few days, and the crisis, which was sharp while it lasted, was soon passed.

The last period of depression occurred during the years 1878-'79. The quasi-socialistic agitation, which was begun in 1877, led to a period of great depression during the next two years. Confidence in the security of property was weakened, business was depressed, and considerable capital left the city. But after the agitation had died out confidence slowly returned, and the year 1880 closes with a bright prospect for future prosperity.

The discovery of gold in California caused to flock to the Pacific coast adventurers and desperate men from every part of the world. The roughs from eastern cities, the criminals from England and Australia, and dangerous characters from almost every civilized nation came in great numbers to San Francisco, and they became so numerous that they bade defiance to the law, and began to roam through the city in gangs, assaulting, robbing, and murdering. It became necessary for peaceable citizens, early in the history of the gold excitement, to take some measures for the protection of their lives and property, and to relieve the city of the tyranny to which it was subjected. Accordingly a call was made for a meeting of citizens on the plaza July 16, 1849, and an organization was there effected. A body of armed men was formed, and the arrest of notorious criminals was begun. Many were tried before a court formed of some of the best citizens and were promptly convicted, but in no cases did the punishment inflicted extend to the taking of the life of the prisoner. The action of the organization, however, had a wholesome influence, and, many of the most desperate characters having been driven from the city, there succeeded a period of comparative quiet. But there still remained many criminals who chafed at the restraints put upon them, and who still continued to commit many crimes. Many of the large fires which swept over the city were believed to be set by them. In two years there were over 100 murders, for which not one criminal was hung. In 1851 affairs had

BAY OF SAN FRANCISCO



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become so bad that in June of that year it was determined to organize a vigilance committee. Such a committee was formed, having written articles of association, and including many of the most influential citizens. Several murderers were arrested, tried, and executed, and many more were driven away. Crime was to a great extent suppressed, although many criminals yet remained. Municipal government was corrupt and many men of unsavory character held municipal offices. The war against this corruption begun by James King, editor of the *Evening Bulletin*, gave rise to the second vigilance committee, which was organized in 1856. King was shot May 14 by James P. Casey, whom he had charged with stuffing ballot-boxes, and whose imprisonment in Sing Sing, New York, on a charge of felony, he had published. Casey had placed himself in the hands of the sheriff after the shooting, and was conducted to the county jail, where he was believed to be among friends. On the night following the shooting a large number of citizens met and organized a vigilance committee. By the end of the week several thousands of citizens had been enrolled. They were organized into companies of 100 each, electing their own officers. Each company also elected three members to represent it in the executive committee, which acted with the vigilance committee, and without whose concurrence no condemned prisoner could be executed. The companies were regularly drilled, and the whole force was placed under the command of a leader of military experience.

On Sunday, May 18, several thousands of the committeemen marched to the county jail, and, having planted a cannon in front of its door, demanded that Casey, and a criminal named Cova, charged with having murdered Major Richardson, be delivered up to them. Their demands were complied with, and several days were spent in the examination of the prisoners, who were sentenced to death. King died May 20, and the committee's prisoners were hanged from the windows of the committee's headquarters on the day of his funeral. The vigorous action of the committee struck terror in the hearts of the criminal classes, and a better state of affairs began. Crime was crushed out to a great extent, and politics were purified. The vigilance committee gradually became less and less a military organization, and was at last known as the People's party, the beneficial effects of whose influence were felt in politics for years after the committee ceased to exist.

The riots of 1877, when considerable property was destroyed by incendiaries, caused the organization of what was known as the safety committee, which was joined by many thousands of the best citizens. Its influence was healthful, and the danger of a serious riot was soon averted. Again, in 1879, the danger that was feared from those engaged in the quasi-socialistic movement gave rise to another organization for the protection of the city, and the fear which the ignorance respecting it inspired doubtless did much to quell the excitement and to bring about that peace and quiet which now exist.

The condition of affairs in San Francisco at the present time is gratifying. Much encouragement has been given to manufactures, and a determined effort is being made to procure the immigration to California of good settlers to assist in developing the resources of the state. All of the buildings erected within the past twelve months and in process of erection at the present time are far superior in design, quality of material, and care in construction, to most of the buildings erected prior to 1880.

SAN FRANCISCO IN 1880.

- The following statistical accounts, collected by the Census Office, indicate the present condition of the city:

LOCATION.

San Francisco, the chief city of California and the commercial metropolis of the Pacific coast, lies in latitude $37^{\circ} 48'$ north, and longitude $122^{\circ} 24'$ west from Greenwich, at the northern extremity of a peninsula which separates the bay of San Francisco from the Pacific ocean. The city stands on the inner side of the peninsula, which is 30 miles long and 6 miles across at this point, and at the base of high hills. The average altitude above sea-level is 183 feet; the lowest point being tide-level, and the highest 376 feet in settled portions, rising to 400 feet above sea-level in the northwestern portion of the city.

HARBOR.

The entrance to the bay of San Francisco is through a narrow, deep channel, called the Golden Gate, formed by the extension of the peninsula on which the city is built, which here approaches close to the coast on the northern side of the bay. There is, however, several miles off shore, a bar composed of loose sand which has a channel depth of 23 feet of water at low tide. Inside the bar the channel is much deeper, the average depth of water in the harbor proper being 42 feet. The land-locked water, to which the Golden Gate gives entrance from the ocean, has an area of 400 square miles, more than 200 square miles of which have a depth of over 6 fathoms. The harbor is protected on the ocean side by high hills, which, toward the north, rise to the dignity of mountains.

This inland sea is composed of three bodies of water connected with each other by comparatively narrow but very deep channels. The most southern of these divisions is San Francisco bay proper; connected with it on the north is San Pablo bay; and connected with the latter on the east is Suisun bay, into which flow the Sacramento and San Joaquin rivers, draining 53,000 square miles of territory in the interior of the state. The average rise and fall of the tides at the wharves in the city is $3\frac{1}{2}$ feet, the largest tide being $9\frac{1}{2}$ feet amplitude. The current along the city front at ebb spring tide is about 5 knots per hour, and the ebb at neap tide about $3\frac{1}{2}$ knots.

There are five ferries from the city to the several towns along the shores of the bay. The principal ones are those between San Francisco and Oakland and San Francisco and Alameda, two lines running to the former place. The rate of fare is 15 cents each way, a considerable reduction being made when monthly tickets are purchased. These three ferries carry about 6,000,000 passengers during the year. There is one ferry between San Francisco and Sausalito, distance 6 miles, and one between the former city and San Rafael, distance 15 miles. The fare over the former ferry is 25 cents, and over the latter 50 cents, each way.

RAILROAD COMMUNICATIONS.

The city has the following railroad facilities:

The Central Pacific railroad, main line to Ogden, Utah, connecting with the Union Pacific to the East, the northern division to Callstoga and Willows, the Oregon division to Redding, and the southern division to Tulare and Yuma, Arizona.

The North Pacific Coast railroad, to Duncan Mills, 80 miles.

The San Francisco and North Pacific railroad, to Cloverdale, 83 miles.

The South Pacific Coast railroad, to Vera Cruz.

The Southern Pacific Railroad of California, to Soledad, 143 miles.

The termini of the Central Pacific and main line of the Southern Pacific roads are on the Oakland side of the bay, but freight-cars are transported to this city on large boats, making San Francisco the practical terminus. The same is true of the South Pacific Coast road, which transfers its passengers and freight at Alameda across the bay.

TRIBUTARY COUNTRY.

The country in the immediate vicinity of the city is devoted principally to dairy farms, chicken ranches, and vegetable gardens. Oakland and Alameda, on the opposite side of the bay, are largely used as places of residence by persons doing business in San Francisco.

In addition to the local trade with this country, San Francisco may be said to control the trade of the Pacific coast as far north as Alaska and south to Panama. The whaling fleet in the Pacific draws most of its supplies from this point. In fact, all the country touched by the many railroads centering here may be said to be tributary to the city, and a large proportion of the wheat crops of the state come to San Francisco to be shipped.

TOPOGRAPHY.

The area of the city and county of San Francisco is 42 square miles, and includes, besides the entire end of the peninsula across to the ocean, Goat island, with an area of 141 acres, 2 miles east; Alcatraz island, with 30 acres, 1 mile north; and the Farallones islands, 24 miles off shore in the ocean. These latter are, strictly speaking, merely a collection of rocky islets. The surface of the extremity of the peninsula is very irregular. The southern half of the city is only a little above tide-water, while the northern part varies from 20 to 376 feet above tide, one point stretching up 24 feet higher. This forms a sort of amphitheater about a comparatively small tract of level land, the houses spreading over many of the hills to the north and west.

In 1846 the hills were steep and cut up by numerous gullies, and the low ground at their base was narrow, save in what is now the south part of the city, where there was a succession of ridges or dunes of loose barren sand, almost impassable for loaded wagons. The sand ridges have been leveled, the gullies and hollows filled up, and the hills cut down, and where large ships rode at anchor in 1849 there are now paved streets. Not less than 300 acres of the bay have been filled in, and the total expense of grading has been over \$30,000,000.

The underlying rock is calcareous sandstone, and its disintegration has produced the sand of which the peninsula is composed. There is no soil, the underlying rock being covered only with sand. In the southern part of the city there is an area which was once swamp land, and through which a creek now winds. The drainage of the city is bad, the waters from the hills coming down with great force into sewers that have little, if any, grade, and filling them with sand and *débris*. In the western part of the city, near the ocean, there is a lake of fresh water, of considerable size, called lake Merced. The peninsula is destitute of trees.

CLIMATE.

The climate of San Francisco is very equable, owing partly to the influence of the surrounding water, but principally to the steady westerly winds of summer, which reduce the temperature so that it ranges little above

that of winter. The lowest recorded temperature is 25°, in January, 1854, and the highest temperature—97° and 98°—was on September 10 and 11, 1852. The average highest summer temperature is 82.6°, and the average lowest winter temperature 40.2°. In 30 years the mercury has stood above 90° only 12 times. September is the warmest month and October the next warmest. Only twice has snow fallen in the city; once on December 29, 1856, when 3 inches fell, and again on January 12, 1868, when 2 inches fell. The mean annual amount of precipitation, in rain and melted snow, is 26.55 inches. The constant temperature of the ocean current which bathes the shore is 54°.

It is reported that the marshy ground in the southern part of the city exercises a harmful influence upon the health of that section.

STREETS.

The approximate length of the streets in San Francisco is 500 miles. Of these, 25 miles are paved with cobblestones, 20 miles with stone blocks, 5 miles with asphalt or other composition, 57 miles with broken stone, and 31 miles with wood, 27 miles of this latter being plank and 4 miles blocks. The cost per square foot of each, as nearly as it may be estimated, is, for cobblestones, 20 cents; stone blocks, 28 cents; asphalt, 27 cents; macadam, 12 cents; wood blocks, 28 cents; and planks, 10 cents. The cost of keeping each class of pavements in repair is not known, the accounts for this class of work not being kept separately. Stone blocks are said to be the easiest to keep clean, and are considered preferable as to quality and permanent economy. The sidewalks are of plank and asphaltum, laid on either wood or brick, the former largely predominating. In some parts of the city the sidewalks are laid with patent stone. Very few of the streets have gutterways, only the length of a few blocks being laid with gutters. There are but few trees planted in the streets. The climate here is such that sunshine is preferable to shade, and, owing to the strong and continuous winds from the ocean, it is difficult to keep growing trees in an upright position.

All streets are graded, paved, and sewered by contract, the cost being assessed on the abutting property-owners. When accepted by the city, it keeps them in repair by day labor.

The laws governing the city authorities in regard to the manner of accepting streets have been changed several times. Formerly, when any street or portion of a street had been constructed to the satisfaction of the committee on streets, wharves, grades, and public buildings, it was accepted whether the same had been paid for or not, and thereafter kept in repair at the public expense; but in 1878 this was changed, and a law was passed which provided for the acceptance of any portion of a street, and suspended from the benefits of acceptance those portions fronting properties whose owners had failed to pay the improvement assessments, which form the basis of acceptance. The accepted streets are now classified as follows:

1. Streets accepted to October 9, 1871, by resolutions under which the roadways and sidewalks are accepted.
2. Streets accepted from October 9, 1871, by resolutions under which the roadway only is accepted.
3. Streets accepted partially from April 4, 1870; that is, where no sewer is constructed, property remaining chargeable therewith when the sewer is deemed necessary; roadway only accepted.
4. Streets accepted partially from April 1, 1878; those portions of streets only being accepted in front of property the owners of which have paid the assessment for the work done.

The following table shows the annual sum disbursed on account of street work during the past 24 years:

Year.	Amount.	Year.	Amount.	Year.	Amount.
1856-'57	\$47,441 00	1864-'65	\$1,157,052 00	1872-'73	\$504,098 00
1857-'58	42,798 00	1865-'66	1,080,558 00	1873-'74	687,488 00
1858-'59	40,259 00	1866-'67	1,008,083 00	1874-'75	608,492 00
1859-'60	204,804 00	1867-'68	1,511,481 00	1875-'76	1,087,026 00
1860-'61	308,108 00	1868-'69	1,565,012 00	1876-'77	1,862,194 00
1861-'62	381,144 00	1869-'70	1,240,125 00	1877-'78	912,270 00
1862-'63	487,165 00	1870-'71	843,415 00	1878-'79	699,799 00
1863-'64	662,423 00	1871-'72	380,698 00	1879-'80	624,858 57

STREET TRANSPORTATION.

There are 10 lines of horse-railroads in the city, with an aggregate length of 45 miles, and 4 cable roads, with an aggregate length of 10 miles, but as most of the roads here have a double track there are over 100 miles of rails laid in the streets. Including the cable roads, these lines have 275 cars and 1,800 horses in use, and furnish employment to 650 men. The number of passengers carried annually is about 35,000,000, and the rate of fare on all roads is 5 cents. After the horse-cars had been in operation for some time, and were even being extended, it was found that the many high, steep hills in the northern and western portions of the city necessitated the adoption of other means of transportation at these points. A rise of from 50 to 80 feet in a block of 412 feet in length made horse-cars an impossibility, and the cable roads were the resort. On these lines a trench 3 feet deep is dug between each line of rails from one end of the road to the other, and a permanent channel, either of wood or iron, constructed therein. This channel is connected with the street above by a slot from $\frac{1}{4}$ of an inch to 1 inch wide. In the channel is

stretched a wire rope running on sheaves, and driven by an engine placed at some convenient point. The passenger cars are attached to a "dummy", which also has seats for passengers, with which is connected the "grip", that drops down through the slot in the roadway and grasps the moving cable. The cars are thus easily hauled up the steep grades. When it is desired to stop a car the grip in the cable is unloosed and the cable is allowed to run through it, while the dummy is at rest. Of the roads now in operation one passes over a hill 325 feet high, another over one hill 300 feet high, and another 280 feet high, while the highest point reached by the other two roads is 200 feet. When the roads were first constructed it was thought that they must all be laid on straight streets without any curves; but a road is now in course of construction which will have a curve of about 60°, and around this the cars will be allowed to run by force of gravity, the grip upon the cable to be relaxed just before the curve is reached. When one cable road crosses the other at right angles the cars pass over the point of intersection by force of gravity. In this case the grip, having been loosed and raised, passes above the intersecting cable and grasps it again on the other side.

These roads, which are peculiar to San Francisco, have not only solved the problem of rapid and cheap transportation of passengers over very steep grades, but have proved so economical in point of running expenses that not only are new lines being continually projected, but some of the horse-car lines are to be converted to cable roads.

WATER-WORKS.

The works for the water-supply for San Francisco are owned by a private corporation, the Spring Valley Water Works Company, and are estimated to have cost between \$8,000,000 and \$15,000,000. Water is brought to the city from 3 storage reservoirs, with a combined capacity of over 24,000,000 gallons, and is distributed by gravity, only 2,000,000 gallons a day being pumped. The average pressure in the mains in the city is 50 pounds to the square inch, the extremes being 10 and 100 pounds. The average consumption of water per diem is 16,000,000 gallons. The average cost of raising 1,000,000 gallons 1 foot high (coal duty) is 7½ cents. The income of the company for the year ending June 1, 1879, was \$1,258,000. This sum was almost entirely expended as follows: Operating expenses, \$300,000; interest on debt of about \$4,000,000, \$287,000; dividend on capital stock (\$3,000,000) at 8 per cent. per annum, \$640,000: a total of \$1,227,000. There are 5,460 water-meters in use, and they are found to reduce waste. Families consume, almost invariably, less than their rates when they use meters, and from 2 to 100 times more water without meters.

GAS.

The gas-works are owned by a private corporation. The daily average production of gas is 1,000,000 cubic feet. The charge to consumers is \$3 for 1,000 feet. The city pays 14½ cents per night for each street-lamp, 3,500 in number.

PUBLIC BUILDINGS.

The city owns and occupies for municipal purposes a building known as the old city hall, which was bought for \$100,000. A new city hall is now in course of erection, and so far about \$4,000,000 has been spent on it. No further information was furnished concerning the municipal buildings belonging to the city.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The 3 principal parks of San Francisco are: *Golden Gate Park*, area 1,050 acres; *Buena Vista Park*, area 36.22 acres; and *Mountain Lake Park*, area 20 acres. There are also 18 small squares located in different parts of the city. Golden Gate park is some 3 miles long and ½ mile wide, and extends to the ocean. Owing to disputes in regard to the titles to the land, the state purchased the property now comprised in this park and presented it to the city. There are 48,682 feet of macadamized roads and 4 miles of footwalks in this park. The total cost of improvement for the 3 larger parks is \$450,715 13, and the yearly cost of maintenance is about \$50,000. During the past year the number of visitors to Golden Gate park was as follows: On foot, 826,000; in carriages, 748,000; and on horseback, 35,134; the number of carriages being given as over 260,000. The larger parks are controlled by 3 park commissioners, 2 of whom are appointed by the governor, and the third chosen by these two.

PLACES OF AMUSEMENT.

There are 12 buildings in the city used for theatrical exhibitions, as follows: Grand opera-house, with a seating capacity of 2,000; California theater, seating 1,500; Baldwin theater, seating 1,000; Bush Street theater, seating 900; the Standard, seating 800; the Bella Union, seating 600; the Adelphi, seating 400; Tivoli garden, seating 1,000; Winter garden, seating 700; Woodworth pavilion, seating 4,000; Chinese Royal theater, seating 1,000, and the Chinese Grand theater, seating 1,000.

The above theaters pay a license to the city, based on their respective seating capacities, according to measurement, each seat being considered at 22 inches. They are divided into two classes, all over 975 seats being

ranked as first class, paying \$101 per quarter or \$301 per annum, and all under 975 being ranked as second class, paying \$76 per quarter or \$201 per year. The total amount received from this source during the past year was \$3,770.

There are about twenty small concert- and beer-halls in the city, with an average seating capacity of about 500.

DRAINAGE.

The total length of sewers constructed up to the census year is about 126 miles. Of these, about 75 miles had been constructed at the time of the preparation of a complete plan of sewerage (1876) by William P. Humphreys, city and county surveyor. Mr. Humphreys thus describes the condition of the sewers existing at that time:

The greater portion of these sewers are of brick, but their cost has been excessive, because, amongst other reasons, they have been unnecessarily large. The general size of the sewers is 3 feet by 5 feet. The brick sewers are egg-shaped, as they should be, with the smaller end down. Most of the streets in the older portion of the city have brick sewers, which extend up the hillsides to irregular distances. Where these sewers approach the lower portions of the city, where the foundation is not sufficiently solid to sustain a brick sewer without a resort to piling, the sewers are of wood, and are generally level, or nearly level. Being down, or nearly down, to low water, the tide rises and falls in them, so checking their outflow that most of them are to-day nothing more than elongated cesspools badly choked with offensive sewage matter. This evil must go on increasing from year to year until some change is effected and some remedy applied.

In fact, the existing sewers in the city have been built without regard to a system of any kind which looks to the general drainage of the city. Each sewer appears to have been built independent of all others and without regard to the duty it has to perform. Some of the alleys and short streets in the city, for instance, where there are only a few houses, have sewers of the same size as those in the larger streets, whereas a foot earthenware pipe, at one-fifth the cost of the great brick sewer, would have afforded much more efficient drainage for all such alleys and short streets.

Concerning the outfall of the sewers, he says:

The bay of San Francisco, being of great size, with strong tidal currents, affords great facilities for getting rid of the sewage matter of the city; but to make it available the sewers must be carried out to points where there are strong currents. If they stop short, the lower parts of the city must always remain in an offensive and unhealthy condition.

Along the busy water-front of the city some of the sewers do not extend out into the bay, but stop short, terminating inside of the rubble-stone bulkhead, where the offensive solid matter is deposited, and the liquid matter allowed to escape as best it can, rendering the slips between the wharves at times offensive to the last degree of endurance. All of these sewers should be carried out to the ends of the wharves, discharging their contents through a bent-hood, leading from the outer end of the sewer down below the level of low water. Discharging at such points, the tide will speedily remove the sewage matter away from the city, and there will be no offensive smell about the wharves.

In the construction of new wharves along the water-front, preparations should be made for continuing the sewers under them out to their ends, and also for the protection of the outer ends of the sewers at these points.

The system of sewers furnished by Mr. Humphreys is on what is known as the "combined" system, provision being made for the removal in the same channel of both storm-water and foul sewage. Most of the system is provided with an outflow by gravitation. One portion of the city, especially that east of Montgomery street, between Eastern and Pine streets, the heart of the business center of the city, is described as having very defective drainage, and the scheme for its improvement includes provision for steam-pumping, a 2-foot brick sewer being built along Front street, starting at Pine street and terminating in a large masonry tank near the water-front.

This sewer would run beneath all the present sewers, water- and gas-pipes. Its bottom on the inside, at Pine street, would be at a level of about 11 feet below the city grade, and falling about 1 foot to each block it would enter the tank at about 20 or 22 feet below the city grade, according to the position of the tank.

One-foot pipe-sewers laid at the proper grade below the present sewers would then convey all house sewerage within this district to the Front Street sewer, these small sewers leading from Montgomery street to Front street, and also from the city front to that street.

The present sewers in this district are to remain undisturbed, in order to carry the surface water of rains and the sewage west of Montgomery street, as far as these sewers extend, into the bay. But all house-sewers and drains within the pumping district are to be disconnected from them and be discharged into the lower or pumping system. In this way deep and dry cellars may be obtained throughout this important part of the city.

It is supposed that this new system will be self-cleansing; but if any difficulty in this respect should ever occur it will be a simple matter to flush them with salt water without pumping the water, for it will be seen that all these sewers are down to or below the level of low tide. An 8-inch pipe may therefore be laid at the level of half-tide or lower, beginning, say, at the foot of Davis street, extending southward along the water-front to the foot of Market street, thence up Market to Pine street, thence up Pine to Montgomery street, thence along Montgomery to Jackson street, the said pipe to have valves, worked from the street-level, and so arranged as to discharge the full capacity of the pipe into the head or the highest point of every sewer. By this arrangement the entire system of sewers may be completely flushed every day, or as often as may be found necessary.

The tank into which these sewers discharge must then be pumped out every day, its contents being discharged through an iron pipe into the strong tidal currents at the foot of Front street, or any other convenient place. For the better draining of some portions of the city a change of street grade is recommended, even in cases where the district is more or less occupied by buildings.

The only provision made for the ventilation of the sewers is by the perforation of manhole covers.

In his report for the year 1879-'80 the health officer of the city and county, J. L. Meares, M. D., says:

The most inexpensive and, in my opinion, the most practical and effective way of ventilating sewers is to have perforated instead of solid manhole covers, or, what would be better still, open grates.

In my report three years ago, where the subject is more fully discussed, I stated that the experience of other cities demonstrated that if these manholes are placed at proper distances, admitting a free circulation of atmospheric air, the foul and noxious vapors are so entirely diluted as to render them not only inodorous but comparatively harmless. The sewers of London are ventilated by gratings

placed at intervals of 100 feet. The sewers of Paris, being under the sidewalks, are ventilated through the gutters. The reduction of the death rate of London in a few years, from $37\frac{1}{2}$ in 1,000 population to about 23, is probably more due to the thorough ventilation of its sewers than all other causes combined. In further verification of these views I desire to call your attention to the construction of the Geary Street cable railroad.

The engineer under whose supervision this road was constructed found it necessary for purposes of drainage to connect the tubes through which the cable runs with the sewer in the street by cement pipes 4 inches in diameter. The pipes are placed at intervals of 40 feet, and so thorough does the ventilation seem to be that no complaint has been made of any offensive odors from this sewer since the construction of this road. Speaking from a sanitary standpoint, I believe Geary street to be the most desirable thoroughfare to live on in the city.

The report pays much attention to the question of flushing and cleansing, it being recommended that the heads of the sewers be connected with the water-supply in such manner that by the mere opening of stop-cocks flushing streams may be introduced. Mr. Humphreys thus discusses the system of flushing by damming up the sewage in the sewers and liberating it suddenly:

This requires an elaborate system of special flushing-gates or sluices fixed in the sewers to act first as dam to the sewage and then as a gate giving it free passage. These gates are of various descriptions and are fully described in some of the works on sewerage. They are expensive in construction, and require constant care and attention to render them effective. I apprehend that the latter would be the chief objection to their introduction into the sewers of this city. If we have not yet learned to take care of and keep clean the simple catch-basins alongside of our sidewalks, it is fruitless to hope that we will be able to keep in order and operate successfully an elaborate system of sluice-gates fixed in the sewers where they can not be seen or worked except by an expert.

After careful examination of all the authorities on this subject within my reach I can not recommend this system of flushing sewers in San Francisco at the present time. At best, supposing it to be carried out as perfectly as possible, it is only a poor expedient for cleansing the sewers.

He estimated the cost of flushing, by the system recommended, as that of the wages of three efficient men, costing \$4,000. This, it was thought, would be sufficient to secure thorough cleansing, whereas the city now pays \$15,000 a year for this purpose, and the sewers are not half cleansed.

The length and cost of the sewers constructed for the fiscal year 1879-'80 were as follows:

	Feet.	Cost.
Brick sewers	9,464.6	\$40,552.39
Pipe sewers	8,694.6	20,462.95
Redwood sewers.....	1,550.0	3,097.65
Cement sewers	2,298.9	4,080.98
Total	21,918.0	77,803.37

The following details are taken from the responses to the schedule of interrogatories furnished by the Census Office:

Brick sewers, with few exceptions, are egg-shaped, 3 feet wide by 5 feet high, built of two courses of brick. Cement and stone-ware pipes are round, from 12 to 18 inches in diameter. The redwood sewers are 3 by 5 feet in size. The mouths of the sewers are all exposed at low water. The final disposition of all sewage is into tide-water. About one-third of the deposits of the sewers is removed by hand, the remainder by flushing. Flushing is accomplished to a great extent by winter rains, owing to the contour of the city. The cost of the sewers is assessed on abutting property by the front foot.

USE-DRAINAGE.

In his report (1876) Mr. Humphreys says:

The construction of house-drains in this city depends at present upon the property-holders, each one building his own drains as he thinks best. House-drains are therefore private property; but, in a sanitary point of view, what concerns one citizen concerns all. I can not, therefore, be considered as touching on private rights by devoting a few words to this subject.

The material to be used in the construction of house-drains should have as smooth a surface as possible. It will then cause the least amount of friction, and consequently the least impediment to the progressive motion of its contents. The internal projections and the many impediments to the flow of sewage which are unavoidable in a brick drain, force upon us the necessity to look for a material which will guarantee a smoother surface, and which will also afford the assurance of impermeability without being subject to the frequent patchwork to which the numerous interstices of a brick sewer always render it liable. Glazed earthenware pipes of 6 inches diameter for a house of ordinary size are recommended as capable of obviating all these difficulties. For factories, hotels, and other large buildings the size should be increased.

The civic authorities should exercise a surveillance over the mode of laying house-drains and connecting them with the sewers by licensing a competent officer to discharge these duties, and exacting bonds as a guarantee for the faithful performance of the work, permits for that purpose being made always necessary when a connection is to be made.

CEMETERIES.

There are 11 cemeteries connected with San Francisco, but no information concerning them was furnished. There is 1 cemetery in the city which is no longer used for burial purposes. The total number of interments in all

the cemeteries from June 30, 1867, to June 30, 1880, was 55,235. The number of interments for the year ending June 30, 1879, was 5,154, and for the year ending June 30, 1880, 4,992. It is estimated that the total interments made in all the cemeteries aggregate about 85,000.

A burial permit is granted by the health officer on presentation of a physician's certificate as to cause of death. The depth of graves is, for adults 6 feet and for children 5 feet.

MARKETS.

There are no corporation or public markets in the city.

SANITARY AUTHORITY.

The chief health organization of San Francisco is the "board of health for the city and county of San Francisco". It consists of the mayor, who is *ex officio* president, and 4 physicians of good standing, appointed by the governor of the state, and holding office for five years. The annual expenses of the board, when there is no declared epidemic, are \$30,000, expended for the maintenance of quarantine, for the record of vital statistics, and for salaries. It has also the management of hospitals, almshouses, cemeteries, city physicians, etc.

During an epidemic the board may increase its expenses to any amount. In the absence of epidemics its authority enables it to abate nuisances, to examine markets and the articles sold therein, condemning such of the latter as are unfit for food; and to take a certain part in the management of public institutions. Section 3,012 of the "health and quarantine laws" of the city and county is as follows:

The board of health have general supervision of all matters appertaining to the sanitary condition of the city and county, including the city and county hospital, the county jail, almshouse, industrial school, and all public health-institutions provided by the city and county of San Francisco, and may adopt such orders and regulations, and appoint or discharge such medical attendants and employes, as to them seem best to promote the public welfare, and may appoint as many health inspectors as they deem necessary in time of epidemics.

The health officer is elected by the board of health, and holds office at its pleasure. He must be a graduate of some medical college in good standing, and must reside within the city limits of San Francisco. He is the executive officer of the health department, and may, in his discretion, cause the removal to a hospital of any and all persons within the limits of the city and county of San Francisco infected with variola.

The board of health appoints 1 quarantine officer, who shall be a physician in good standing, 1 secretary, 1 assistant secretary, 6 health inspectors, 1 market inspector, and 1 messenger, whose duties must be fixed by the board of health. It also appoints 1 superintendent physician, 1 resident physician, 1 steward, 1 matron, 1 apothecary, 2 visiting physicians, 2 visiting surgeons, as officers of the city and county hospital in and for the city and county of San Francisco, one each of said visiting physicians and surgeons to be nominated by the faculty of the medical department of the University of California, and one each of said visiting physicians and surgeons to be nominated by the Medical College of the Pacific. The board may also appoint 1 engineer for the city and county hospital. It may also appoint 1 superintendent, 1 resident physician, 1 matron, and such other employes as are now authorized by law, to be employed in and for the almshouse of said city and county. It also has power to appoint and prescribe the duties of 1 city physician and 1 assistant city physician, who shall be designated as police surgeons, and whose duty it shall be to make all autopsies required of them by the coroner of said city and county; and said board is also empowered to appoint such employes and such medical attendants as it may deem necessary in the health department and in all the various institutions which are by law placed under its supervision, and the compensation of such attendants and employes is to be fixed by the board of health. The appointing power aforesaid is vested solely in said board of health, and said board has power to prescribe the duties of said appointees, and may not remove the same without just cause. The heads of departments appointed by the board of health, to wit, the health officer, resident physician of city and county hospital, and superintendent of almshouse, can not be removed except by the concurrence of four members of said board of health.

The following annual salaries are allowed to the officers of the health department and such other officers and employes as are mentioned in the preceding section, viz: Health officer, \$3,000; quarantine officer, \$1,800; secretary, \$2,100; assistant secretary, \$1,200; health inspectors, \$1,200 each; market inspector, \$1,200; messenger, \$900; city physician, \$1,800; assistant city physician, \$1,200. All of said salaries, together with the salaries of such other employes of the health department as may be appointed by the board of health, must be paid in equal monthly installments out of the general fund of the city and county of San Francisco in the same manner as the salaries of the other officers of said city and county are paid.

The 8 inspectors employed have the same police powers as regular officers.

In the Chinese quarter regular house-to-house inspections are made. In other parts of the city inspections are made only as nuisances are reported. In the latter case an inspector examines the place, and, if the report is found to be true, serves upon the responsible person a notice to abate the nuisance, giving a reasonable length of time, varying according to the nature of the evil, to abate it. If his order is not obeyed, he issues another notice, when if this is not complied with within 48 hours he arrests the offender.

The inspection and correction of defective house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, and street-cleaning is carried on in the same manner as that of any other nuisance. This is true also of improperly kept or removed garbage. The determination of what constitutes a nuisance is vested entirely in the board, as per the following extract from the health and quarantine laws:

The board of health is hereby vested with power to act upon, define, determine, and adjudge what shall constitute a nuisance in said city and county, and to require the same to be abated in a summary manner. Any person who maintains, permits, or allows a nuisance to exist upon his or her property or premises after the same has been determined by said board to be a nuisance, and after notice to remove the same has been served upon such person, is guilty of a misdemeanor and shall be punished accordingly, and each day of existence after notice shall be deemed a separate and distinct offense; and it is the duty of the health officer to prosecute all persons guilty of violating this law by continuous prosecutions until the same is abated and removed.

The following are the regulations concerning the burial of the dead:

No person shall deposit in any cemetery or inter in the city and county of San Francisco any human body without first having obtained and filed with the health officer a certificate signed by a physician or midwife, or a coroner, setting forth, as near as possible, the name, age, color, sex, place of birth, occupation, date, locality, and cause of death of the deceased, and obtain from such health officer a permit; nor shall any human body be removed or disinterred without the permit of the health officer or by order of the coroner. Physicians, when deaths occur in their practice, must give the certificate herein mentioned.

It shall be the duty of the health officer to see that the dead body of a human being is not allowed to remain in any public receiving vault for a longer period than five days. At the expiration of that time he shall cause the body to be placed in a vault or niche constructed of brick, stone, or iron, and hermetically sealed. It shall also be his duty to require all persons having in charge the digging of graves and burial of the dead to see that the body of no human being who had reached ten years of age shall be interred in a grave less than 6 feet deep, or if under ten years of age the grave to be not less than 5 feet deep.

Superintendents of cemeteries within the boundaries of the city and county of San Francisco must return to the health officer, on each Monday, the names of all persons interred or deposited within their respective cemeteries for the preceding week.

No superintendent of a cemetery can remove or cause to be removed, disinter or caused to be disinterred, any corpse that has been deposited in the cemetery without a permit from the health officer, or by order of the coroner.

A general order of the board of supervisors covering the pollution of streams and harbor is:

No butcher's offal, garbage, or any dead animal, nor any putrid or stinking animal or vegetable matter shall be allowed to remain on the premises of any person, or to be thrown into any street or alley, place, or receiving basin, or in any standing water or excavation, or upon the grounds or premises of any person; nor shall any dead animal be buried or thrown into any of the tide-waters, lakes, streams, or reservoirs within the limits of the city and county.

Another regulation concerning the removal of excrement and night-soil is:

No person shall remove the deposits from any privy-vault or cesspool, or use any night-cart, without first having obtained from the superintendent of public streets, highways, and squares a permit authorizing the removal of such deposit, and designating a place where the same may be discharged, or the use of such night-cart, designating the location where such cart may be loaded or discharged.

Every such permit shall be carried, if for a vault or cesspool, at the work, if for a night-cart, with the cart, and exhibited on demand of any police officer, and be returned within thirty days from issue to the said superintendent.

No person shall load or discharge any night-cart at a different place from that designated in said permit, or alter any permit granted under this section.

All night-carts shall be under the control of the superintendent of public streets, highways, and squares, and the said superintendent may, for good cause, revoke any permit granted by him.

Small-pox patients are either taken to the hospital outside of the city or are isolated at their residences, upon which is placed a yellow or quarantine flag, or a placard is posted upon the doorway setting forth the fact that there is small-pox there. If the health officer deems it best, it is compulsory upon the patient to go to the hospital. Scarlet-fever patients are quarantined at home, and a flag is placed upon the premises.

The board of health requires that no child may attend the public schools without a certificate of vaccination. Should scarlatina break out in a school, the patient must be isolated.

Vaccination is not compulsory by law, but a public sentiment, made intelligently apprehensive by several severe visitations of small-pox, has made it well-nigh universal.

The health officer is required to keep a record of all births, deaths, and interments occurring in the city and county of San Francisco. Such records, when filled, are deposited in the office of the county recorder, and produced when required for public inspection.

Physicians and midwives are required on or before the fourth day of each month to make a return to the health officer of all births, deaths occurring in their practice, and of the number of still-born children during the preceding month. In the absence of such attendants the parents must make such report within thirty days after the birth of the child. Such returns must be made in accordance with rules adopted and upon blanks furnished by the board of health. Superintendents of cemeteries are required to make to the health officer weekly returns of all interments in their respective cemeteries. Except where they terminate fatally, no record is kept of diseases.

The health officer reports to the board of health once a month, and once a year to the board of supervisors. In his report for the year 1879-'80 he (J. L. Meares, M. D.) says, concerning the sanitary aspects of the Chinese population:

Estimating our population at 233,700, the annual ratio of deaths per 1000 is 18.50. Estimating the Chinese population (U. S. census) at 22,000, the annual ratio of deaths per 1000 is 21.22. Estimating the population of all other nationalities at 211,700 (U. S. census), the

annual ratio of deaths per 1000 is 18.29; thus showing that there are nearly three deaths in a thousand more among the Chinese than other nationalities, notwithstanding the Chinese population is composed almost entirely of adults, while more than one-third of the deaths in other nationalities are under five years of age.

Considering the miserable condition of our sewers and the presence in the very heart of our city of more than 20,000 Chinese, who live for the most part in underground habitations without any proper ventilation, breathing an atmosphere so contaminating as to be absolutely nauseating to those unaccustomed to it, we have much to be thankful for in estimating our ratio of mortality. Protected, as we are, by the presence of our trade-winds and the general salubrity of our climate, it is to be feared that only a repetition of virulent epidemics will awaken our people to the necessity of removing these constantly menacing causes of disease.

I have over and over again urged the enforcement of the cubic-air law as the only possible means of correcting the sanitary evils of the Chinese quarter.

By constant vigilance many nuisances are abated, and a great deal of money [is] expended to make this portion of the city even tolerable; but so long as these people are permitted to live as at present in overcrowded dens, socially, morally, and in a sanitary point of view they are a curse to San Francisco. The daily enforcement of the cubic-air law would compel many of these people to leave the city or to live in less-crowded quarters.

MUNICIPAL CLEANSING.

The city undertakes to clean the public streets, having the work done by contract. Sweeping-machines are used in all streets except those having steep grades (*i. e.*, hilly). The streets of the city are graded into classes according to the amount of their use. The principal streets are cleaned once a week, those of the second class once in two weeks, those of the third class once in four weeks, and those of the fourth class once in two months. This service is said to be performed very efficiently. The contract price is \$47 per mile per year. The sweepings are deposited on the swamps lying around the bay.

Removal of garbage and ashes.—Garbage is removed by householders. It is forbidden to throw it into streets or waters or allow it to become a nuisance, but it must be kept in iron or tin vessels and removed at least once a week. Garbage and ashes may be kept in the same vessel, and both, like the sweepings of the streets, are disposed of by being used for filling in marshes and swamp lands. The cost of removal of these two substances is about 50 cents per month to each householder. It is stated that the only probable injury to health resulting from the handling of garbage in the manner stated arises from the fact that it is sometimes retained too long on the premises where it is produced.

Dead animals.—The carcasses of animals dying within the city are removed by contract made with the city. Horses and cows are removed at no expense to the city, but the removal of cats, dogs, etc., costs the city \$75 a month. The system is said to be a good one and the contracts to be well fulfilled.

Liquid household wastes.—All the liquid household wastes are run into sewers where sewers exist. In the suburbs of the city, where they do not exist, cesspools and privy-vaults are used instead, no liquid wastes being allowed to run into street-gutters. As no well-water is used in San Francisco, the question of the possible pollution of drinking-water by the escape of the contents of privies, cesspools, etc., does not come up. Vaults, cesspools, etc., may be cleaned out only upon a permit therefor obtained from the health officer, which permit must accompany the vehicle in which the contents are to be conveyed, and must be exhibited upon the demand of any police officer.

Human excreta.—About three-quarters of the houses of the city have water-closets, while the rest depend upon privy-vaults. All of the water-closets deliver into public sewers. All privy-vaults are nominally water-tight, the law for their construction reading thus:

No person shall construct, without consent in writing of the health officer, any privy-vault on premises belonging to him or under his control, unless the walls and bottom of such vault be of stone or brick, laid in cement, and at least 8 inches in thickness.

No person shall construct or maintain, or suffer to be or remain upon his or her premises, or premises under his or her control, any privy or privy-vault, cesspool, sink, or drain, without connecting the same, by means of a cement, iron-stone, or iron pipe, with the street sewer in such a manner that it shall be effectually drained and purified, if there be a sewer in the street on which said premises may be situated with which the same can be connected. Every drain or branch sewer which shall connect with a dwelling-house or building, with any privy or privy-vault or cesspool, shall be constructed of cement, iron-stone, or iron, with a trap or apparatus which will effectually prevent the escape of gases from the sewer into such dwelling-house, building, privy, privy-vault, or cesspool.

Having obtained a permit for the emptying of a vault from the superintendent of streets, the regulations declare that no person shall—

use or drive any of the vehicles commonly known as "night-carts" in any portion of the city and county lying east of Van Ness avenue, south of Market street, and north of Seventeenth street, except between the hours of 12 o'clock midnight and 5 o'clock in the morning; use any night-cart or swill-cart at any time, unless the same be perfectly staunch, tight, and closely covered, so as to wholly prevent leakage or smell.

Night-soil is taken in boats out to sea and there dumped.

Manufacturing wastes.—The wastes of manufacturing establishments are disposed of, the liquid parts by running them into the sewers, and the solids as in the case of street dirt or garbage.

POLICE.

The police force of the city and county of San Francisco is appointed and governed by a board of three police commissioners, appointed by the judges of the superior court. The head executive officer of the force is the chief

of police. He has immediate control of the force, and is responsible for its general conduct and efficiency. His salary is \$4,000 per annum. The rest of the force, with their respective yearly salaries, are as follows: Five captains at \$1,800 each, 1 clerk to chief at \$1,800, 1 property clerk at \$1,800, 12 detectives at \$1,500 each, 25 sergeants at \$1,500 each, 12 corporals at \$1,380 each, 337 patrolmen at \$1,200 each. The uniform is of dark-blue cloth, and is furnished by the men themselves. Patrolmen are armed with clubs and revolvers. Their time of service averages 9 hours per day, and 43 square miles of territory are patrolled. For the year ending June 30, 1880, there were 21,063 arrests made by the force, the principal causes being as follows: Assault, 2,353; burglary, 345; disturbing the peace, 331; drunk, 9,127; gambling-tools in possession, 372; soliciting for house of ill-fame, 547; using obscene language, 1,037; larceny, 1,088; misdemeanor, 1,745; and obstructing streets, 526. The value of the property reported to the police during the year as either lost or stolen was \$104,302 80, and of this amount \$43,708 was recovered and returned to the owners. There were 2,030 station-house lodgers for the year ending June 30, 1880, as against 1,920 during the year ending June 30, 1879. Meals are freely furnished to the lodgers.

The police force is required to co-operate with the fire, health, and building departments in every way that may be conducive to the public interest. Special policemen are appointed at the request and at the expense of persons who desire their services. The total cost of the force for the year last mentioned is \$512,000.

FIRE DEPARTMENT.

The total force of the fire department of San Francisco numbers 303 men, apportioned as follows: One chief engineer, 1 assistant chief engineer, 4 assistant engineers, 1 clerk to commissioners, 1 janitor and messenger, 25 foremen of companies, 12 engineers of steam fire-engines, 12 stokers of steam fire-engines, 12 drivers of steam fire-engines, 9 drivers of hose-carriages, 9 stewards of hose-carriages, 4 drivers of trucks, 4 tillermen of trucks, 150 hosemen, 48 hook-and-ladder men, 1 superintendent of steam fire-engines, 1 assistant superintendent of steam fire-engines, 1 clerk of corporation yard, 1 sub-engineer and machinist, 1 veterinary surgeon, 2 hydrant-men, 1 carpenter, 1 corporation-yard watchman, 1 corporation-yard drayman. The apparatus consists of 17 steam fire-engines (5 being held in reserve), 18 two-wheel tenders (6 in reserve), 6 four-wheel hose-carriages (1 in reserve), and 5 hook-and-ladder trucks (1 in reserve). There are 72 horses and 24,150 feet of hose in use with the apparatus. In addition to the above, there are 1 hand-engine, 5 hose-reels, and 17,000 feet of hose stationed at various points over the city and used for the protection of property in the immediate vicinity. There are 1,352 fire-hydrants, located in different parts of the city, 43 of which are private, and 55 cisterns, with a total capacity of 2,011,856 gallons, for the use of the department.

The fire-alarm telegraph has 120 miles of wire, with 150 signal-boxes, and employs a force consisting of 1 superintendent, 3 operators, and 3 repairers. During the year ending June 30, 1880, there were 245 alarms given through the telegraph, 207 being for fire, 2 for second alarms, 11 duplicate alarms, 6 false alarms, 18 for chimney fires, and 1 for a bonfire.

The annual cost of the fire department for the fiscal year, including \$24,779 95 for materials purchased, is \$266,348 74, and the annual cost of the fire-alarm telegraph, including \$9,975 35 for extensions and repairs, \$18,075 35.

COMMERCE AND NAVIGATION.

[From the reports of the Bureau of Statistics for the fiscal years ending June 30.]

Customs district of San Francisco, California.	1879.	1880.
Total value of imports	\$35, 046, 379	\$41, 265, 317
Total value of exports:		
Domestic	\$35, 548, 417	\$37, 213, 443
Foreign.....	\$4, 117, 816	\$513, 217
Total number of immigrants	9, 253	7, 153

Customs district of San Francisco, California.	1879.		1880.	
	Number.	Tons.	Number.	Tons.
Vessels in foreign trade:				
Entered.....	567	639, 536	619	704, 054
Cleared	667	748, 119	672	777, 595
Vessels in coast trade and fisheries:				
Entered.....	260	320, 285	208	269, 132
Cleared	346	374, 023	323	332, 826
Vessels registered, enrolled, and licensed in district..	901	190, 310	867	201, 139
Vessels built during the year.....	30	3, 860	18	5, 795

MANUFACTURES.

The following is a summary of the statistics of the manufactures of San Francisco for 1880, being taken from tables prepared for the Tenth Census by Henry G. Langley, chief special agent:

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	2, 971	\$95, 968, 139	23, 662	3, 588	1, 102	\$14, 028, 534	\$47, 078, 072	\$77, 824, 299
Artificial feathers and flowers (see also Millinery and lace goods) ..	4	2, 550	2	1	.....	962	2, 700	5, 850
Awnings and tents	4	20, 100	5	7	3	6, 675	15, 850	20, 602
Bags, other than paper	3	275, 000	55	50	14	51, 800	1, 410, 000	1, 565, 000
Baking and yeast powders (see also Drugs and chemicals)	4	48, 000	24	3	.....	10, 575	97, 400	142, 345
Baskets, rattan and willow ware	8	8, 575	20	5	3	6, 560	4, 165	19, 400
Belting and hose, leather	4	85, 000	31	.....	.....	18, 565	73, 100	117, 780
Billiard tables and materials	5	102, 000	39	.....	.....	24, 632	45, 018	68, 360
Blacking	3	3, 500	3	.....	.....	1, 809	2, 250	7, 400
Blacksmithing (see also Wheelwrighting)	106	50, 973	155	.....	7	104, 653	102, 410	364, 886
Bookbinding and blank-book making	13	108, 300	118	55	32	110, 768	172, 890	382, 440
Boot and shoe findings	4	10, 700	11	1	.....	8, 080	30, 800	44, 750
Boot and shoe uppers	5	6, 700	9	1	.....	5, 538	15, 030	31, 980
Boots and shoes, including custom work and repairing	310	1, 080, 772	2, 464	184	96	1, 199, 730	2, 187, 811	4, 141, 547
Boxes, cigar	6	130, 635	140	35	10	72, 940	75, 165	206, 209
Boxes, fancy and paper	4	24, 500	18	42	9	20, 165	20, 450	50, 550
Boxes, wooden packing	7	154, 750	232	30	30	108, 400	210, 300	400, 500
Brass castings	8	142, 200	184	2	6	117, 940	232, 570	374, 850
Bread and other bakery products	119	428, 800	431	14	45	315, 082	1, 403, 001	2, 070, 384
Brick and tile	3	8, 800	79	.....	.....	22, 050	12, 025	46, 700
Bridges	8	90, 000	344	.....	.....	172, 970	374, 000	694, 000
Brooms and brushes	15	70, 800	96	.....	3	37, 649	69, 600	132, 200
Carpentering	181	431, 600	1, 100	1	1	907, 331	1, 090, 833	3, 121, 851
Carriages and wagons (see also Wheelwrighting)	52	338, 071	373	.....	1	230, 840	284, 814	714, 008
Clothing, men's	110	1, 126, 164	1, 087	610	18	908, 550	2, 204, 148	3, 782, 963
Clothing, women's	27	424, 250	31	632	7	220, 688	659, 152	1, 150, 207
Coffee and spices, roasted and ground	20	445, 450	160	6	10	99, 132	1, 057, 628	1, 336, 718
Coffins, burial cases, and undertakers' goods	13	72, 150	46	.....	.....	33, 753	54, 425	142, 000
Confectionery	29	190, 150	88	20	14	54, 622	345, 826	507, 026
Cooperage	28	424, 350	254	.....	5	181, 811	304, 620	605, 704
Cordage and twine	3	500, 700	145	.....	18	57, 215	402, 115	545, 230
Cordials and sirups	9	72, 200	44	.....	.....	28, 610	134, 590	208, 000
Corsets	4	4, 300	.....	6	1	3, 000	3, 550	12, 200
Cutlery and edge tools (see also Tools)	11	104, 500	54	.....	1	30, 623	37, 150	119, 330
Dentistry, mechanical	28	10, 480	15	.....	.....	7, 320	9, 010	30, 525
Drugs and chemicals (see also Baking and yeast powders; Patent medicines and compounds)	27	357, 925	118	2	3	76, 800	273, 801	571, 601
Dyeing and cleaning	9	27, 225	21	9	1	16, 331	14, 260	40, 466
Electroplating	10	21, 500	11	3	1	6, 542	13, 523	34, 375
Engraving and die-sinking	13	4, 320	5	.....	.....	3, 288	2, 430	20, 340
Engraving, wood	8	995	2	.....	.....	425	3, 340	17, 100
Fertilizers	3	145, 000	35	.....	.....	21, 588	66, 600	100, 100
Flags and banners	3	10, 000	5	11	2	7, 000	13, 200	35, 600
Flavoring extracts	6	17, 500	13	6	1	7, 164	36, 100	54, 500
Flouring- and grist-mill products	9	635, 600	142	.....	.....	103, 992	1, 991, 600	2, 275, 360
Food preparations	7	58, 400	35	1	4	22, 348	80, 892	104, 025
Foundry and machine-shop products	58	2, 391, 730	1, 888	.....	33	1, 243, 234	2, 017, 267	3, 889, 503
Fruits and vegetables, canned and preserved	6	920, 000	226	340	80	207, 000	609, 000	978, 000
Furnishing goods, men's	12	302, 350	121	189	.....	126, 265	509, 540	744, 245
Furniture (see also Mattresses and spring beds; Upholstering)	41	918, 975	556	20	12	352, 583	683, 895	1, 280, 210
Furniture, chairs	3	2, 800	10	.....	.....	5, 320	3, 750	13, 300
Furs, dressed	6	102, 250	17	101	.....	31, 429	158, 600	224, 400

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 10 years.	Females above 15 years.	Children and youths.			
Glass, cut, stained, and ornamented.....	5	\$77,450	30			\$22,100	\$66,900	\$103,000
Gloves and mittens.....	6	74,500	49	137		49,700	101,805	191,520
Glue.....	3	21,200	23		2	11,800	21,940	49,800
Hairwork.....	11	14,550	10	19		12,107	16,000	46,284
Hand-stamps.....	5	13,000	16			14,830	13,532	61,430
Hats and caps, not including wool hats.....	16	35,025	20	39		29,032	38,717	83,078
High explosives.....	6	934,000	172			76,786	680,410	1,565,868
Ink.....	3	61,000	15			9,450	59,000	97,500
Instruments, professional and scientific.....	8	18,050	17		1	9,948	17,088	44,712
Iron forgings.....	4	42,000	40		1	27,702	47,081	91,310
Jewelry.....	12	233,500	128		11	100,597	159,753	315,115
Lapidary work.....	7	4,425	9	1	3	11,035	16,670	39,120
Leather, curried.....	41	225,700	111		2	72,250	941,120	1,102,475
Leather, tanned.....	47	1,161,800	261		7	166,754	1,530,298	2,014,845
Liquors, distilled.....	5	199,000	36		1	20,250	170,075	258,200
Liquors, malt.....	38	1,666,520	813			404,830	1,507,284	2,722,270
Liquors, vinous (see also Liquors, distilled).....	6	120,000	49			16,236	51,445	83,521
Lithographing (see also Printing and publishing).....	7	122,000	64		9	63,301	77,200	193,712
Lock and gun-smithing.....	30	24,750	20			13,294	14,546	57,163
Looking-glass and picture frames.....	21	229,000	78	2	11	58,406	135,975	281,900
Marble and stone work.....	32	229,150	219			155,767	223,554	469,646
Masonry, brick and stone.....	24	75,650	191		1	135,827	182,633	391,734
Matches.....	3	39,600	53		5	21,500	156,800	198,600
Mattresses and spring beds (see also Furniture).....	8	123,200	59	2	2	35,142	94,215	159,737
Millinery and lace goods (see also Artificial feathers and flowers).....	19	137,600	13	198	2	78,932	305,000	456,300
Mineral and soda waters.....	8	40,300	27		1	18,365	31,100	80,175
Models and patterns.....	7	8,900	15		1	9,532	3,856	23,066
Musical instruments and materials (not specified).....	4	2,550	7			3,060	1,150	8,400
Musical instruments, pianos and materials.....	5	49,500	27			18,425	41,250	87,700
Paints.....	3	318,000	89	1		40,720	298,552	402,670
Painting and paperhanging.....	117	87,485	409	1	10	260,007	197,839	639,593
Patent medicines and compounds (see also Drugs and chemicals).....	15	52,800	45	6		16,732	71,820	156,000
Perfumery and cosmetics.....	3	13,000	11	11	16	12,400	27,800	61,603
Photographing.....	33	127,950	105	27	3	100,900	80,833	293,960
Pickles, preserves, and sauces.....	3	5,000	3		2	1,324	6,475	13,203
Plumbing and gasfitting.....	94	175,050	265	1	23	179,565	332,244	671,735
Printing and publishing (see also Lithographing).....	152	1,744,755	1,326	98	103	1,217,349	1,015,365	2,987,576
Roofing and roofing materials.....	16	69,450	150			91,021	129,220	271,875
Saddlery and harness.....	58	285,650	234	12	17	121,977	199,109	404,715
Safes, doors, and vaults, fire-proof.....	3	38,500	14			8,500	13,808	32,835
Sash, doors, and blinds (see also Wood, turned and carved).....	16	555,000	431		30	272,213	369,081	709,030
Saws.....	6	87,185	29		4	22,348	40,890	83,026
Shipbuilding.....	56	1,681,523	340			393,283	463,060	1,087,843
Shirts.....	25	88,100	181	173	1	85,188	153,940	303,050
Show-cases.....	6	4,320	8			5,088	10,875	23,800
Silk and silk goods.....	4	159,300	19	104	25	40,700	78,025	155,795
Silverware.....	3	116,000	24		6	20,550	37,600	87,000
Slaughtering and meat-packing, not including retail butchering.....	24	1,586,200	295		14	239,868	4,511,721	6,013,092
Soap and candles.....	19	456,650	150	14	5	86,855	676,489	836,293
Stencils and brands.....	5	6,125	10	1		5,894	2,860	16,792
Straw goods.....	8	33,500	33	72	3	38,600	26,450	85,200
Surgical appliances.....	5	4,925	2			1,076	2,400	11,672
Tinware, copperware, and sheet-iron ware.....	69	428,975	341		64	226,978	542,041	949,499
Tobacco, cigars and cigarettes.....	147	1,087,603	3,110	110	198	911,988	1,929,357	3,729,813
Tools (see also Cutlery and edge tools).....	4	13,100	11			9,365	17,800	38,150
Trunks and valises.....	7	106,631	43		4	29,312	84,500	166,598
Umbrellas and canes.....	4	20,850	5	11		9,616	26,600	53,050
Upholstering (see also Furniture).....	50	164,350	108	7	1	72,297	268,632	369,332
Upholstering materials.....	4	47,250	28	10	4	10,885	32,550	62,050
Watch and clock repairing.....	98	91,235	75	2	4	62,013	54,119	223,215

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 15 years.	Females above 15 years.	Children and youths.			
Wheelwrighting (see also Blacksmithing; Carriages and wagons).....	20	\$20,875	31	.....	1	\$23,142	\$23,350	\$74,712
Windmills	4	11,500	8	.....	.....	7,100	13,200	27,500
Window blinds and shades	10	92,100	43	2	.....	23,909	74,200	141,840
Wirework	6	273,308	70	.....	7	40,665	176,910	273,776
Wood, turned and carved (see also Sash, doors, and blinds).....	16	15,125	30	.....	3	21,006	28,390	72,776
All other industries (a)	88	5,682,100	1,815	128	107	1,121,786	9,103,563	11,203,095

a Embracing agricultural implements; axle-grease; babbitt metal and solder; bags, paper; bells; boot and shoe out stock; calcium lights; cement; drain and sewer pipe; electric lights; electrical apparatus; explosives and fireworks; fancy articles; files; foundry supplies; galvanizing; glass; gold and silver, reduced and refined; grease and tallow; housefurnishing goods; iron and steel; iron bolts, nuts, washers, and rivets; iron pipe, wrought; iron railing, wrought; ivory and bone work; jewelry and instrument cases; kindling wood; lamps and reflectors; lasts; lead, bar, pipe, sheet, and shot; leather, dressed skins; lumber, planed; malt; mantels, slate, marble, and marbleized; millstones, mirrors; mixed textiles; musical instruments, organs and materials; oil, essential; oil, linseed; photographic apparatus; pipes, tobacco; pumps; regalia and society banners and emblems; rubber and elastic goods; salt, ground; spectacles and eyeglasses; springs, steel, car, and carriage; stamped ware; stationery goods; steam fittings and heating apparatus; stereotyping and electrotyping; stone- and earthen-ware; sugar and molasses, refined; taxidermy; tobacco, chewing, smoking, and snuff; toys and games; type founding; varnish; vinegar; whips; wooden ware; woolen goods; and zinc.

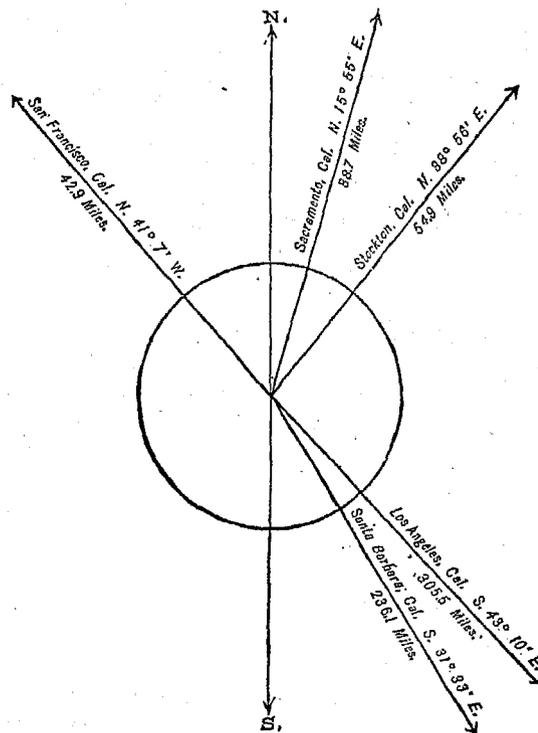
From the foregoing table it appears that the average capital of all establishments is \$11,904 45; that the average wages of all hands employed is \$524 87 per annum; and that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$21,887 81.

SAN JOSÉ,

SANTA CLARA COUNTY, CALIFORNIA.

POPULATION
IN THE
AGGREGATE,
1860-1880.

	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	
1860.....	4,579
1870.....	9,089
1880.....	12,567



POPULATION
BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	6,553
Female.....	6,014
—	
Native.....	8,733
Foreign-born.....	3,834
—	
White.....	11,834
Colored.....	* 733
* Including 634 Chinese and 8 Indians.	

Latitude: 37° 20' North; Longitude: 121° 53' (west from Greenwich).

FINANCIAL CONDITION:

Total Valuation: \$9,005,658; per capita: \$717 00. Tax per \$100: \$2 18.

NOTE.—San José, the capital of Santa Clara county, California, is pleasantly situated near the center of the beautiful Santa Clara valley, about 50 miles southeast of San Francisco, and 30 miles from the Pacific ocean. It was settled early in the present century, and the first legislature of California, under the constitution of 1849, met here. A branch of the Central Pacific, the Southern Pacific, and the South Pacific Coast railroads, respectively, pass through the city.

No information concerning this city was furnished by its officials.

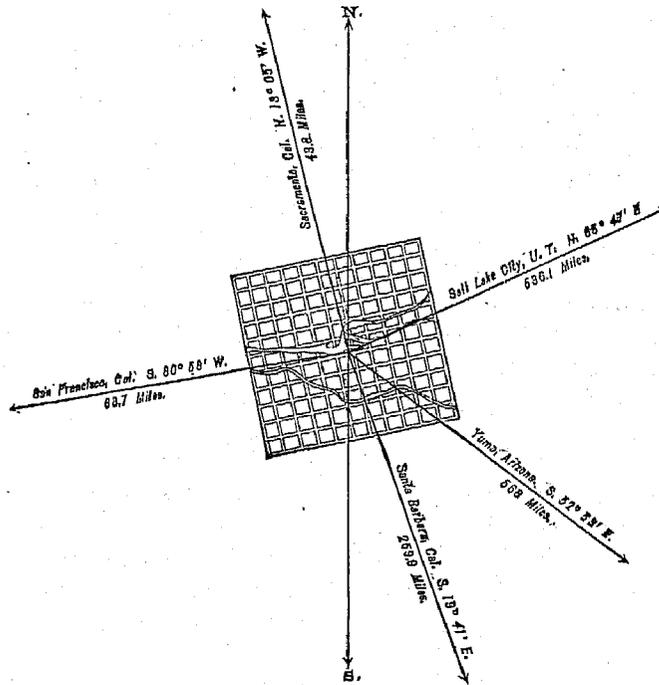
STOCKTON,

SAN JOAQUIN COUNTY, CALIFORNIA.

POPULATION

IN THE
AGGREGATE,
1860-1880.

Year	Inhab.
1790	.....
1800	.....
1810	.....
1820	.....
1830	.....
1840	.....
1850	.....
1860	3,679
1870	10,066
1880	10,282



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male	5,870
Female	4,412
Native	6,852
Foreign-born	3,430
White	9,392
Colored	*890
* Including 687 Chinese and 4 Indians.	

Latitude: 37° 57' North; Longitude: 121° 15' (west from Greenwich); Altitude: 25 feet (about).

FINANCIAL CONDITION:

Total Valuation: \$6,011,098; per capita: \$585 00. Net Indebtedness: \$385,615; per capita: \$37 50. Tax per \$100: \$2 70.

HISTORICAL SKETCH.

The site of Stockton is part of a large Mexican grant called the Rancho Campo de los Francises, owned by Captain Charles M. Weber. Here, at the head of a slough of the same name, navigable and connecting with the San Joaquin river 3 miles distant, in 1843 and 1844 settlements were made, but were very soon abandoned through fear of the Indians. Another attempt was made in 1846, but was again abandoned upon the breaking out of the war between the United States and Mexico. However, in 1847 a permanent lodgment was effected. "Being at the head of navigation and a convenient point of departure for the gold-mining regions of Calaveras, Tuolumne, and Mariposa counties, it soon became a place of considerable business importance, and commanded the trade of those prosperous counties." The most important change that has occurred in the history of the place (and it is generally conceded to have occurred about 1860) was when the grain-growing and agricultural interests succeeded the mining industry, or, as it has been called, the "transition from the gold period to the wheat period".

In December, 1848, a large portion of the cloth tents and houses which then constituted the town was destroyed by fire, causing an estimated loss of \$200,000. July 23, 1850, the town received a city charter. Again in May, 1851, nearly 7 acres of wooden and cloth houses were burnt, at an estimated loss of \$1,500,000. All kinds of merchandise and material at that time commanded a high price. The fires which occurred in February and July of 1855, and in 1858 and 1865, while destructive, burnt a cheap and temporary class of buildings, whose loss was not seriously felt. In fact, these fires increased rather than depressed business, as in many cases the material for the new buildings was being prepared before the fire was dead.

The population was cosmopolitan in its character, with a preponderance of Americans, and it has been thus since the discovery of gold.

STOCKTON IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Stockton:

LOCATION.

Stockton is located in latitude $37^{\circ} 57'$ north, and longitude $121^{\circ} 15'$ west from Greenwich. Its altitude above the San Joaquin river varies from 10 feet at its western boundary to 23 feet at its eastern side. Stockton slough, at whose head, 3 miles from the San Joaquin river, the city is located, is navigable, 1 mile and 900 feet of navigable water being within the city limits. Mormon slough, a branch of the Stockton slough, is navigable for 1 mile 1,640 feet within the city; and Fremont slough, another branch of the same, is navigable for 1,900 feet within the city; making a water front of $5\frac{3}{8}$ miles available for wharves. Wharves have already been built upon $1\frac{1}{4}$ mile of this distance. Stockton slough has a width of from 150 to 375 feet and a depth at low water of from 8 to 10 feet. Mormon slough has an average width of about 150 feet and a depth of from 4 to 10 feet. In Stockton slough the tide at low water rises and falls 2 feet. Below its mouth the San Joaquin river has a minimum width of 100 feet and a depth at low water of 7 feet. A daily line of passenger steamers of 400 and 500 tons plies between Stockton and San Francisco the year round, and for from 6 to 10 weeks in the spring and summer the San Joaquin river is navigable for small steamers from 200 to 250 miles above Stockton.

RAILROAD COMMUNICATIONS.

The western division of the Central Pacific, from San Francisco to Sacramento, passes through the city, and at Lathrop, 10 miles distant, connects with the southern division and the Southern Pacific, the present terminus being Tucson, Arizona. The Stockton and Copperopolis railroad terminates at Milton, 30 miles distant. The Stockton and Visalia railroad terminates at Oakdale, distant $3\frac{1}{4}$ miles.

TRIBUTARY COUNTRY.

Stockton is the chief depot for supplies for the grain-growing country of the San Joaquin valley, and for the wool-growing and mining country of the Sierra Nevada mountains, lying to the eastward of the valley.

TOPOGRAPHY.

The site of the city is at the foot or outlet of the San Joaquin valley, on level land, gradually rising toward the northeast at the rate of about 6 feet per mile, the nearest hill being about 15 miles distant, and the foothills of the Sierra Nevada about 35 miles. There are no forests in the valley, and only in some places scattering oak trees. The geological character of this part of the valley is gravel drift of great depth, borings of 1,200 feet having failed to find any rock basis. It consists of alternate strata of gravel and sand and clay, with a rich surface soil of from 4 to 6 feet in depth. The natural slope of the valley gives it good surface drainage by means of the water-courses through the valley. To the west of the city is a large scope of flat lowland, subject to periodical overflow, known as swamp and overflowed land, and originally covered with a dense growth of "tules". A great portion of this land is now reclaimed by banks and levees, and is in a high state of cultivation.

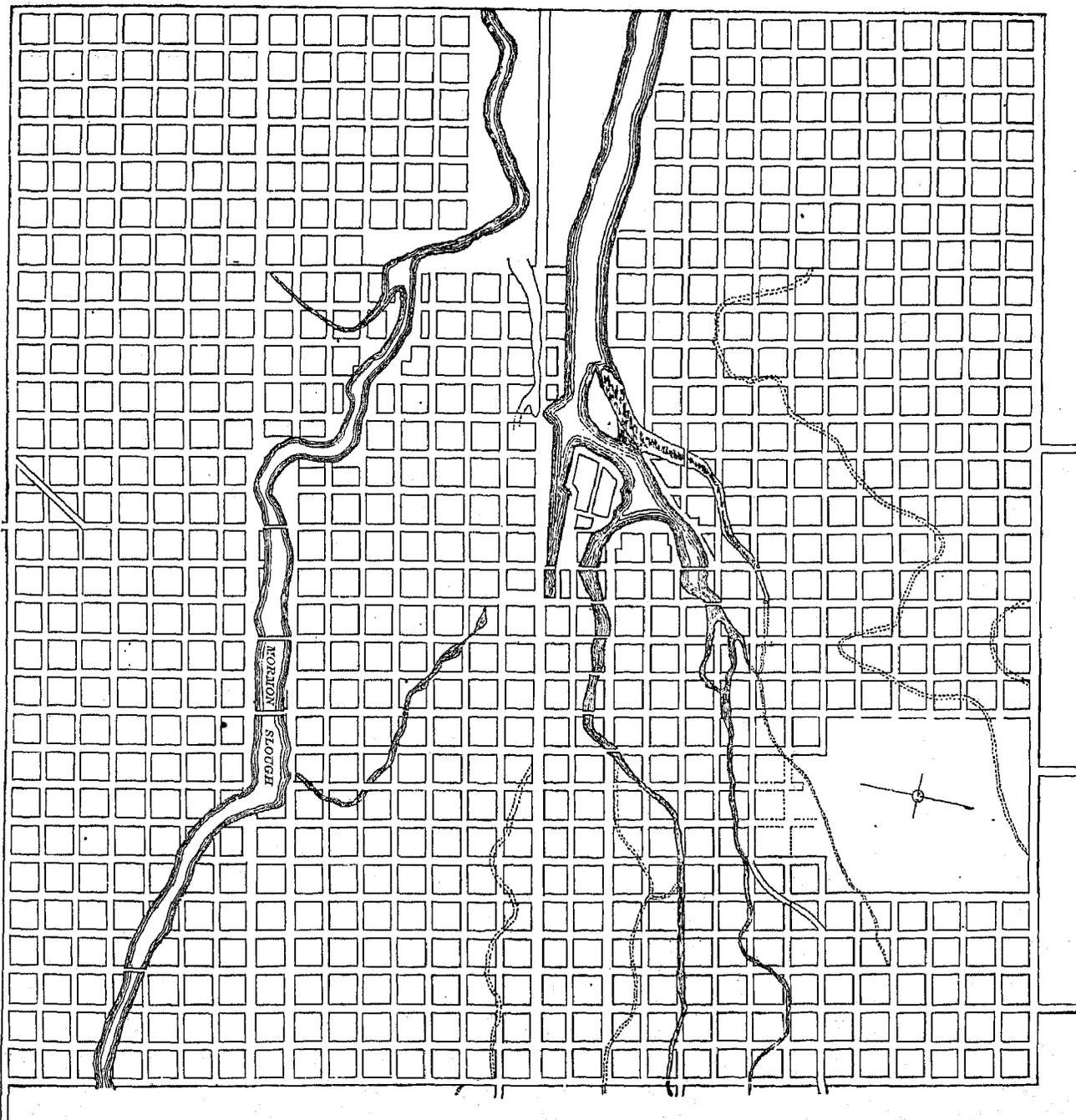
CLIMATE.

Highest recorded summer temperature, 110° ; highest summer temperature in average years, 100° . Lowest recorded winter temperature, 20° ; lowest winter temperature in average years, 27° . Mean annual temperature for 10 years, 61.35° .(a)

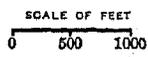
STREETS.

Stockton's total length of streets is 99 miles, of which 1 mile is paved with broken stone, and $10\frac{1}{2}$ miles with gravel. Broken stone costs $32\frac{1}{2}$ cents and gravel 28 cents per square yard. The streets are kept in repair at an

a. These figures cover a period of 10 years.



STOCKTON, CAL.



annual cost of about \$2,500. A few of the sidewalks are of asphaltum, but they are mostly of plank. The gutters are laid with redwood plank. The planting of shade-trees in front of private residences is almost universally practiced. These trees are chiefly cork elms, and are planted by the owners of the property abutting, being placed between the street and the sidewalk. There is annually expended on streets for construction, repairs, etc., about \$15,000. This work has always been done by contract.

There are 2 miles and 1,236 feet of horse-railroads in the city, the property of the Stockton Street Railroad Company, employing 5 men, 13 horses, and 4 cars, and carrying annually nearly 100,000 passengers at fares of 5 cents each.

The city is without omnibus lines.

WATER-WORKS.

The works for the water-supply belong to a private corporation. The water is pumped from 5 driven wells by 1 Cameron and 2 Blake direct-acting pumps into a tank and stand-pipe. The amount per day varies from 700,000 to 250,000 gallons. The company leases one of the flowing wells from the county and city, and furnishes free of charge water for public buildings and grounds and for fire purposes; the other wells belong to the company. There are about 8 miles of cast-iron pipe laid. Hydrants for fire purposes are not used, as the water is derived for this use from cisterns.

GAS.

The gas-works also are the property of a private company. The daily average production is 51,000 feet. The charge per 1,000 feet is \$3 75. The gas company furnishes street-lamps, to the number of 140, for \$3 57 $\frac{1}{2}$ each per month.

PUBLIC BUILDINGS.

The city and county own and occupy jointly the court-house and city hall and the county and city jail. The city owns 9 school-houses and the 3 fire-engine houses. The city hall and court-house cost \$80,000, of which the city paid one-half; the jail cost \$11,000, of which the city paid one-fourth; the school-houses cost \$85,569, and the fire-engine houses cost \$12,500.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Stockton has 7 small unimproved public parks, each of them being 300 feet square. These were given to the city by Captain C. M. Weber, the original owner of the land on which the city was laid out.

PLACES OF AMUSEMENT.

There is but one theater in the city, called the Stockton theater. Its seating capacity is 450. Entertainments pay a license fee of \$5 for the first day's performance and \$3 for each succeeding performance. There are also used for concert-halls and lecture-rooms, National hall (unfurnished), seating capacity about 500; Mozart hall, with a seating capacity of about 300; and Turn Verein hall, having a seating capacity of about 200.

DRAINAGE.

Concerning this subject the city clerk writes as follows:

There is no system of sewerage adopted by the city of Stockton. At the same time I doubt if there is a city in the United States more in need of one. Stockton is almost level, there being a fall from east to west of an average of about 6 feet in 335 feet. The streets are laid out nearly north and south and east and west. Two sloughs flow entirely through the city from east to west—one near the southern boundary (Mormon slough) and one near the center (Miner slough). In the winter or rainy season these sloughs are full of water, but both are dry in the summer or dry months, except the western portion of them, where they are affected by the tides. Another slough (Stockton channel) is a navigable stream as far as El Dorado street, about the center of the city. Miner channel is used by many persons to drain their kitchen wastes into. But the drains from kitchens and business-houses and water-closets are led into cesspools dug in the yards in nearly all instances. In fact, that is about the only means of drainage there is, except for a few who live near enough to the sloughs to drain into them.

Of course the result is that the yards are honeycombed with foul cesspools, which must eventually produce a fatal result on the health of the city.

Some 6 or 8 years ago the city council advertised for plans for sewerage. Several plans were presented, but none have been adopted. The subject is getting to be a very important one, and I hope that within a year or so some positive action will be taken whereby a general system may be adopted.

CEMETERIES.

On this subject no information was furnished by the city authorities, except that the principal cemetery, *Stockton Rural Cemetery*, is about 2 miles north of the city.

MARKETS.

There are no public markets in the city, all supplies of meat, poultry, fish, etc., being obtained at private stores.

SANITARY AUTHORITY—BOARD OF HEALTH.

The sanitation of the city is in the hands of the board of health, which board consists of 5 physicians elected annually by the city council. In the absence of epidemics the board incurs no expense; but in case of an epidemic, present or feared, any measures (and presumably any expense) deemed necessary may be taken. In addition to the duty of recommending to the city council such sanitary measures as may appear advisable—

The board of health shall have power to adopt such measures as will in their judgment best promote the health of the city and prevent the spread of disease; and they, or either of them, shall have authority to enter into and examine, or cause to be entered into and examined, in the day time all the vessels in port, buildings, lots, and plans in the city; to forbid or prevent communication with infected families or houses, and by and with the consent and control of the city council establish a pest-house or hospital and provide the necessary supplies therefor; direct and enforce the cleansing and purifying of all vessels, buildings, lots, vaults, and other places; to supply infected persons or families with provisions when communication with such persons or families has been prohibited; and generally to exercise a supervision over hospitals, prisons, school-houses, and public buildings, in so far as in their judgment the promotion of health requires, and to have the medical care of any pest-house or hospital that may be established under the provisions of this ordinance.

The board elects its own president and secretary, meeting as often as occasion requires; and, by the ordinance quoted from above, the chief of police is made the executive officer of the board, whose duty it is to carry into execution all of its orders and directions, both general and special. No assistant health officers or inspectors are employed, but the chief of police receives for his services in this connection a monthly salary fixed by the city council.

Inspections are made only as nuisances are reported, when, if they are found to be such, they are ordered to be abated. All defects in house-drainage, privy-vaults, cesspools, sources of drinking-water, sewerage, street-cleaning, etc., are noticed and acted upon only on complaint. The city attends to the removal of garbage. The pollution or filling up of streams is forbidden by ordinance.

INFECTIOUS DISEASES.

Small-pox patients are usually removed to the pest-house, which is situated about $\frac{1}{4}$ mile east of the city limits. But little attention is paid to the quarantining of scarlet-fever patients. The board requires the exclusion from schools of children from families suffering from contagious diseases. Vaccination is not done at the public expense, and is compulsory only on children attending school.

A register of diseases and deaths is kept by the board of health; one of births is kept by the county recorder. The board "reports to the state board of health, if required; no compulsion by statute".

MUNICIPAL CLEANSING.

Concerning this topic the city clerk writes:

Properly speaking, there is no such thing as municipal cleansing (as I think you understand it). The city employs a man with his horse and cart every Saturday, at \$2 50 per day, to go around the principal streets and pick up the dirt and sweepings from stores and cart them away; and that's all there is to it.

POLICE.

The chief of police is elected annually in May. The rest of the force is elected by the police commissioners, who are the mayor, police judge, and chief of police. The last-named is the chief executive officer of the force. He serves warrants from the police court, makes arrests for violation of ordinances, attends police court, and supervises and directs the police force. Salaries are as follows: Chief of police, \$1,200 per annum; 7 patrolmen at \$75 each per month; and 1 special policeman at \$30 per month. The force is not uniformed, and it is stated that they carry no arms or equipments. During the year ending April 30, 1881, 1,163 arrests were made, the principal causes for which were: Drunkenness, 523; disturbance of the peace, 182; battery, 82; vagrancy, 81; petit larceny, 67. The force co-operates with and executes the orders of the board of health in regard to nuisances. But 1 special policeman (included in the enumeration of the force) is appointed by the police commissioners with the consent of the city council. He is stationed at the railroad depot and receives \$30 per month. The cost of the police force for 1880 was \$10,977 10.

FIRE DEPARTMENT.

Stockton has 3 engine companies and 1 hook-and-ladder company. The following is furnished by the city authorities on this head:

The fire department is voluntary, and consists of a chief engineer and first and second assistant engineers, who are elected annually, on the first Monday in August, by the active members of the department; a board of delegates, consisting of 4 members of each company, who are elected annually and have power to make laws for the government of the fire department, [to] issue certificates of election, membership, and exemption, and to try any officer or member for any violation of the laws of the department. This board also annually elects a president, secretary, and treasurer of the fire department. There are 4 companies, of a maximum of 65 men each, possessing their own apparatus, as follows: 1 second-class Amoskeag steam-engine, 1 second-class Jeffries steam-engine, 1 second-class Babcock chemical engine, and 1 hook-and-ladder truck.

The city owns a Neafy and Levy engine, second class, which is kept as a relief engine. It also owns the engine-houses, hose-carts used with the company engines, hose, etc. Water for the supply of the department is furnished by 24 dug cisterns of a depth of about 23 feet, which ordinarily furnish sufficient water, but in the business portion of the city 8 of these cisterns are connected by 3-inch pipes with the mains of the water-works.

The chief engineer's report for the year ending September 1, 1879, gives 18 alarms, and estimated damage to property \$4,000. The engines, truck, and hose-carts are drawn by horses, which are the property of the several companies. The city furnishes supplies to the department and keeps the apparatus and houses in repair, under the supervision of the fire and water committee of the city council. The chief engineer receives a salary of \$20 per month; each steam-engine company is paid by the city \$220 per month, the Babcock engine company \$110 per month, and the hook-and-ladder company \$90 per month, for services of stewards, drivers, engineers, and horses. The total expenditures for the fire department for the year ending May 5, 1881, was \$10,438 94.

PUBLIC SCHOOLS.

The school department is under the management of the board of education, which is charged also with the disbursement of the public-school fund. The annual report of the board for the year 1879 gives the following statistics: Number of school-houses, 9; number of schools, 26; number of teachers, 33; number of children under 17 years, 3,167; number of children between 5 and 17 years, 2,300; number of children enrolled, 1,926; average number belonging, 1,288; current expenses for school department, \$38,903 64; total expenses for school department, \$39,469 15.

OREGON.

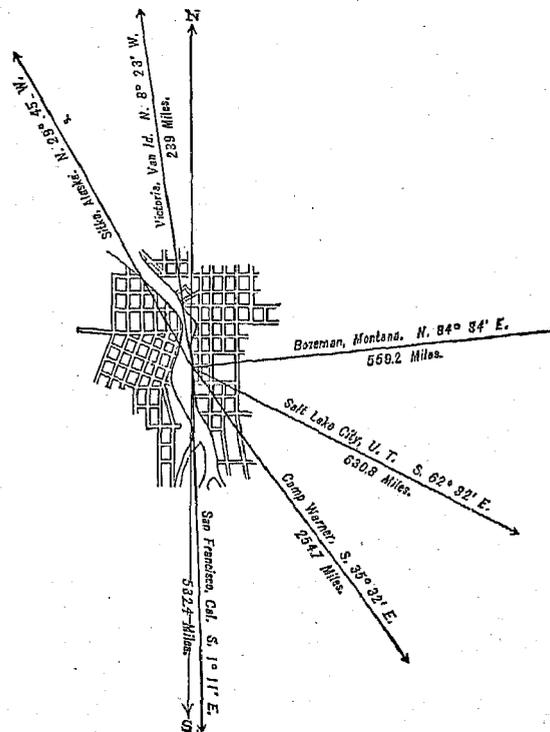
PORTLAND,

MULTNOMAH COUNTY, OREGON.

POPULATION

IN THE
AGGREGATE
1850-1880.

Year	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	821
1860.....	2,874
1870.....	8,293
1880.....	17,577



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT
CENSUS OF 1880.

Male.....	10,514
Female.....	7,063
Native.....	11,265
Foreign-born.....	6,312
White.....	15,707
Colored.....	* 1,870

* Including 1,668 Chinese and 10 Indians.

Latitude: 45° 30' North; Longitude: 122° 36' (west from Greenwich); Altitude: 45 feet.

FINANCIAL CONDITION:

Total Valuation: \$13,143,425; per capita: \$748 00. Net Indebtedness: \$76,500; per capita: \$4 35. Tax per \$100: \$3 05

HISTORICAL SKETCH.

Portland being the chief city of Oregon, its history is to a certain extent identical with that of the state. So far as maritime discovery confers a title to a region of country, the first claim to Oregon and Washington territory belonged to Spain, which, by the Greek pilot De Fuca in 1592, by Admiral Fonte in 1640, and by subsequent explorers, had visited and mapped the greater part of the coast as far as the 55th degree of north latitude. The discovery and exploration of the Columbia river by Captain Robert Gray, an American captain, who gave the name of his ship to it; the purchase of Louisiana, and all that belonged to it as far as the Pacific, from the French in 1803, their claim being the best, next to that of Spain; the explorations of the Columbia from its sources to its

mouth by Lewis and Clarke by order of our government in 1804-'05; and the treaty of limits concluded between Spain and the United States in 1819, by which all the territory north of the 42d degree of north latitude was expressly declared to belong to us, constituted our title to this region. In 1832 the first settlers from the East arrived.

In 1834 Jason Lee, with other Methodist missionaries, entered Oregon. Messrs. Parker and Marcus Whitman were sent by the American Board of Commissioners for Foreign Missions to the Snake region in 1835. Dr. Whitman returned to the states, and in 1836 again went to Oregon, accompanied by Rev. Mr. Spaulding. Their wives, who accompanied them, were the first white women who had crossed the plains, and their children were the first white children born in Oregon. Others followed soon after, and in 1842 the immigration was large. Two of these pioneers—A. L. Lovejoy and a gentleman named Overton—whilst *en route* for Vancouver to Oregon City, stepped ashore from their canoe at the point where Portland now stands, and, having examined the topography of the surrounding country, concluded at once that it was a most eligible position for a town site. At some time during the ensuing winter they returned, and began at once to clear off the land and to make preparations for the erection of a log cabin. Before they had carried out this scheme Overton disposed of his interest in the claim to J. W. Pettygrove, who, in conjunction with Lovejoy, had the claim surveyed and the boundaries established during the summer of 1844. A log house was completed and occupied by an employé during the next winter. In the summer of 1845 a more accurate survey was made, and the ground was laid off into streets and blocks. Lovejoy wanted to name the city Boston, in honor of the capital of his native state, while Pettygrove preferred to honor Portland, Maine, the city whence he came. The toss of a cent decided the question in favor of Portland. In 1846 D. H. Lownsdale bought Pettygrove's rights, a part of which he sold to Colonel U. W. Chapman and Stephen Coffin in 1849. These men finally got patents from the United States. Until then titles of lots were insecure and growth was slow; but now the place took a start, and very quickly was on a substantial footing.

Meanwhile the affairs of this region had been in a somewhat unsettled condition. England had claimed territory as far south as the Columbia river and even below, and finally offered to compromise on the Columbia. The dispute was not settled till 1846, when a treaty was concluded between the two nations fixing the boundary between the United States and British America on the 49th parallel, except at the straits of Fuca. A provisional government had been formed for the inhabitants of this region in 1843. Oregon was formally added to the United States, but had no territorial government till 1849. In the previous year it had been created a territory, including what is now Washington territory, but the first governor did not arrive till March, 1849. With a settled government and sound land titles, prosperity soon made itself manifest throughout the territory, and its growth was remarkable. Portland developed with the rest. In December, 1850, it reached the dignity of having a weekly newspaper—the *Weekly Oregonian*. In the first number of this sheet Portland was described as a town that had sprung into existence within an incredibly short space of time. The buildings were said to be of good style and taste, contrasting most favorably with the general dingy appearance of towns on the Pacific coast at that time.

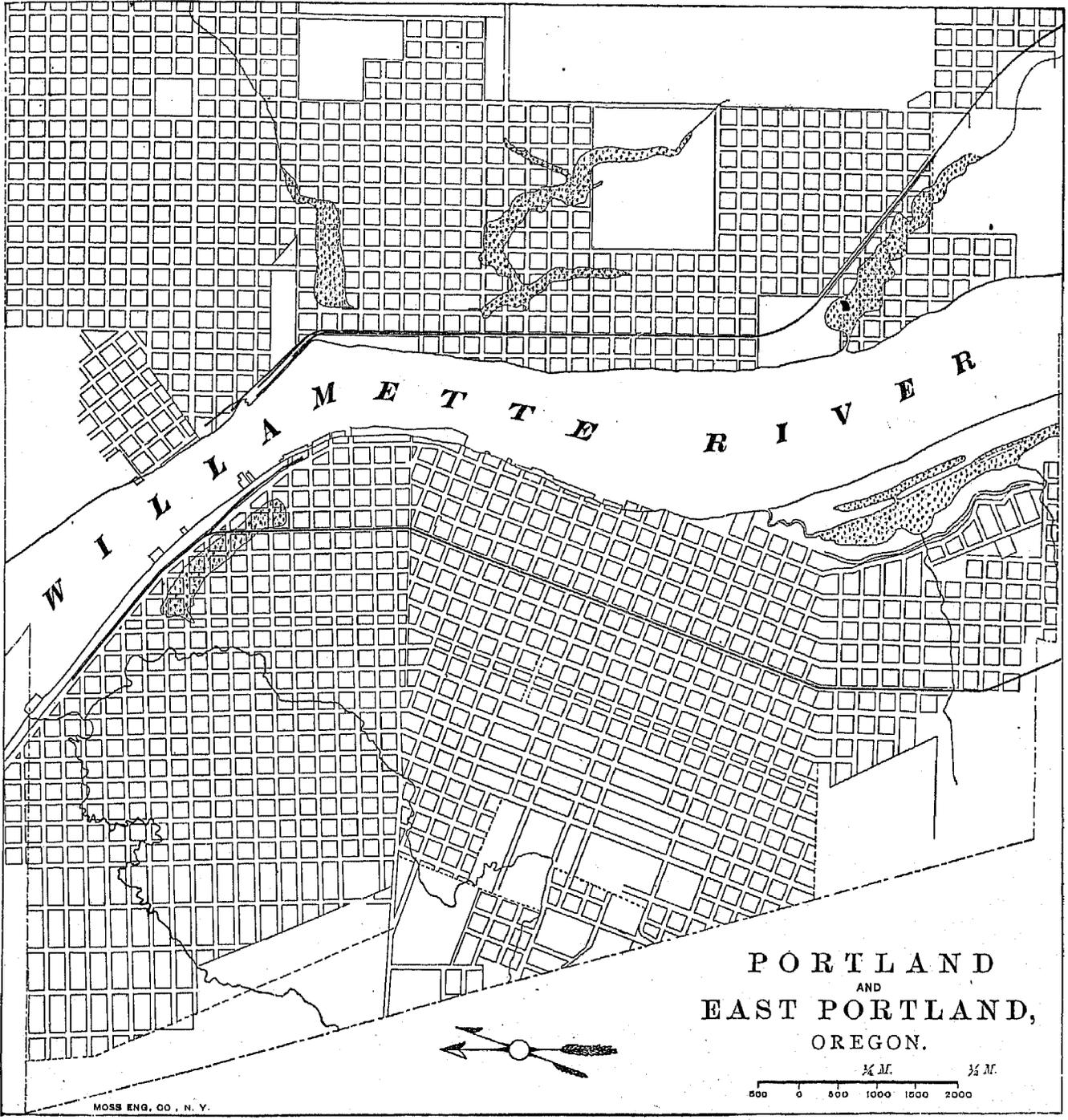
Few details have been found concerning the history of the city since 1850. The population of the territory increased so rapidly that in 1857 a convention was called, a constitution was adopted, and application was made for admission as a state. This was granted in 1859, and though for some years its progress was slow, since the opening of railroads in the Willamette valley and the discovery of gold in the eastern and middle parts of the state, its growth has been much more rapid. The growth of Portland has been moderately steady. It was incorporated as a city in 1851. The only serious fire from which it has suffered occurred on August 3, 1873, at which time a large part of the city was destroyed. The burnt district has since been rebuilt in better style. The population is American, with a large mixture of Europeans and Mongolians. Business is in the hands of men from the eastern and middle states, Great Britain, and Germany. Education is guided by Americans from New England and the northern states. The New England element has had a marked influence throughout.

PORTLAND IN 1880.

The following statistical accounts of the present condition of Portland have been compiled by the Census Office from very full answers from Hon. D. T. Thompson, mayor of the city, to schedules of questions sent him, and from miscellaneous sources:

LOCATION.

Portland, the capital of Multnomah county, Oregon, is situated on the west bank of the Willamette river, 12 miles above its confluence with the Columbia, 50 miles north by east of Salem, and 642 miles by sea from San Francisco. The base of the city grade is 12 feet above the level of the sea, and the highest point in the city has an altitude of 200 feet. It is at the head of ship navigation on the Willamette. There is both a river and a tidal current here. The spring tides rise and fall some 3 feet. There is a draught of water of from 22 to 70 feet. The deep channel varies from 500 to 800 feet in width. There are 2½ miles of harbor front. There is water communication with Eugene City, on the Willamette, at a distance of 172 miles, and with Lewiston, Idaho, via the Columbia river, on which are The Dalles and Wallula, a distance of 401 miles. By steamers on the Willamette



W I L L A M E T T E R I V E R

PORTLAND
AND
EAST PORTLAND,
OREGON.

500 0 500 1000 1500 2000
M. M.

MOSS ENG. CO., N. Y.

and Columbia, Portland is in daily connection with the southern terminus of the Pacific division of the Northern Pacific railroad at Wallula, Washington territory, and there is frequent communication with British Columbia and San Francisco.

RAILROAD COMMUNICATIONS.

Although numerous railroads are projected, and some under way, to give to Portland connection with different parts of Oregon and the whole Northwest, at present only two roads run out of the city—the Oregon and California, to Roseburg, and the Western Oregon, to Corvallis.

TRIBUTARY COUNTRY.

The Columbia basin has at present but one commercial center—the city of Portland. The Willamette valley, of which Portland is more especially the metropolis, is nearly as large as Maryland. It is 155 miles long and from 40 to 50 miles wide. The land is chiefly prairie. The mayor of Portland claims that is the finest valley in the United States, and that with good cultivation it will produce a larger quantity of wheat or other cereals to the acre than any other land in the country. It contains 6,000,000 acres, of which a little over 1,000,000 are now under cultivation. Droughts, high winds, and severe hail-storms are very rare. The most important towns and fully two-thirds of the population of western Oregon are in this valley. Lint, or fiber flax, from here carried off the first prize at the centennial exposition in 1876, where it was in competition with samples from Ireland, Holland, Russia, and Australia. The cultivation of flax is becoming an important factor in the agriculture of the state.

The Umpqua valley, a little farther south, is a first-class sheep-raising valley, 75 miles long and 40 broad. The soil is fertile. Still farther south lies the Rogue River valley, hilly and often mountainous, of about the same size as the Umpqua. In both of them coal, gold, and other minerals exist, and mining is carried on with profit. The Rogue River valley is especially adapted to fruit-raising, grapes and peaches being the predominant varieties. There are vast reserves of timber-lands scattered through the state, which affect largely its commercial interests. The large rivers are bountifully stocked with salmon, in fishing for which a large class finds profitable employment. Multnomah county, in which Portland is situated, is about 50 miles long and will average 10 miles in width. It is pretty generally covered with fir timber; there are also pine (but of a poor quality) and some oak and ash. Comparatively speaking, there is little good tillable land, a great portion of it being rough and mountainous. Along the northern line, on the Columbia river, may be found some of the grandest scenery in the world.

TOPOGRAPHY.

The city is located on a plateau, which gradually increases in height as it recedes from the river until it forms a range of hills at the western extremity of the city, whose greatest altitude is about 200 feet above the surface of the river. From this hill there is a beautiful view, embracing the meanderings of the Columbia and the Willamette, the Cascade range of mountains, and the snow-capped summits of mounts Hood, Saint Helen's, and Jefferson. At the low-water line the soil is alluvial, overlying gravel. The hills are of basalt rock, covered with soil and considerable timber. North of the city there is a lake covering 250 acres, which connects with the Willamette at high stages of the river. The country for a radius of 5 miles is wooded.

CLIMATE.

The highest recorded summer temperature is 99°; the highest in average years, 93°. The lowest recorded winter temperature is 3°; the lowest in average years, 17°. The mean summer temperature is 63°; the mean winter temperature, 40°. The Pacific ocean has much influence on the climate. The miasmatic influences exerted by the marshes are inconsiderable. The Cascade range of mountains on the east condenses the moist air of the Pacific, causing considerable rain. West and north winds are dry, south winds are wet. The chief rainfall occurs from November to March, inclusive, during which months the mean amount of precipitation in rain and melted snow is 35.88 inches; against 11.32 inches in the other seven months of the year. During July, August, and September this amount is only 1.79 inch.

STREETS.

The total length of streets is about 160 miles, of which 1.5 mile is paved with stone blocks, 15 miles with broken stone, 12 miles with plank, 1.5 mile with Nicholson pavement, and 4 miles with gravel. The stone-block pavement costs \$2 per square yard, the broken stone and gravel 50 cents, the plank 45 cents, the Nicholson \$2 12. Repairs are made by the abutting property-owners, and the cost can not be given. It is reported that stone blocks are the most easily cleaned, and the Nicholson, plank, gravel, and broken stone in the order mentioned. In the annual report for the year 1879 the mayor says that during the year—

there was expended for street improvements the sum of \$140,884 61. A large amount of this portion was paid for macadam. The past year has demonstrated the fact that this character of street will not answer where there is a large amount of heavy travel. Say east of Fourth street and between G and Jefferson streets, one year wears out the best macadam that has been made here, and something more durable must be devised. Either return to the Nicholson pavement (which will last about 4 years), which makes a fine street and is not expensive, or adopt the Belgian-block pavement. * * * I think it safe to assume that there will not be less than \$175,000 expended in street improvements in 1880.

In his report to the Census Office, in speaking of the permanent economy of these different kinds of pavement, the mayor says that the question is still undecided, but that for the main business streets stone block is growing in favor, and probably after this comes broken stone. The subject is under the immediate control of a street commissioner, receiving a salary of \$1,500 per year. The sidewalks are of wood, asphalt, or stone, and vary in width from 12 to 15 feet. Gutters are of wood, in box form, or of stone blocks. Trees are very generally planted on the residence streets, maple, locust, and elm being the principal varieties. Back of Fourth street about 6 feet of the width of the sidewalk, in the center, is used for the path, and the space on each side is devoted to grass-plots. The construction of streets is done by contract. The mayor writes that contract work is much the cheaper and day work much the better. Two steam stone-crushers are used. Much of the crushing is done by hand with heavy sledge-hammers after the stone is deposited on the street, but steam-crushed stone is preferred.

There is $1\frac{1}{2}$ mile of horse-railroad track. One-horse cars are used, and there are 5 of them. The total number of horses is 25, and of men employed 9. During the past year 218,000 passengers were carried. A single fare is 10 cents; four tickets are sold for 25 cents.

WATER-WORKS; GAS.

The water-works and gas-works are private. No information concerning them was furnished.

PUBLIC BUILDINGS.

The city owns a police building, in which are located the court-room and jail. The offices of the auditor and clerk, surveyor, superintendent of streets, and assessor are in a rented building; and the city attorney, city treasurer, and mayor have no offices whatever provided for them. There are 7 buildings belonging to the fire department. The total cost of municipal buildings belonging to the city is reported as having been \$90,000.

PUBLIC PARKS AND PLEASURE-GROUNDS.

The total area of public parks and pleasure-grounds is 49 acres. The *City Park*, containing 40 acres, is situated $\frac{1}{2}$ mile west of the city boundary, on high rolling hills covered with scattering fir and dogwood trees. It was purchased seven years ago at an expense of \$32,000, and still remains unimproved. The mayor reports that in round numbers there are annually 20,000 visitors to it on foot, 10,000 in carriages, and 5,000 on horseback. In the city there are 2 squares, of an acre each, which were given to the city by the owners of the town-plot. Parks are controlled by the common council and the superintendent of streets.

PLACES OF AMUSEMENT.

There are 2 theaters, viz, the New Market theater and the Turn-Verein, with seating capacities, respectively, of 900 and 450. Theaters pay an annual license of \$200 to the city. The only concert-hall and lecture-room is in the Masonic temple, which was constructed in 1873 at a cost of \$54,000; it will seat 350 persons. There are 2 beer-gardens, embracing about 4 acres each, with seats among the shade-trees. Each will accommodate about 400 persons. They are exceedingly well patronized, much more so than the theaters and lecture-rooms.

DRAINAGE.

The city is built on the west bank of the Willamette river, and the surface slopes gently toward the river, so that sewers from all parts of the city reach the river with a good rate of fall. All sewers are made of clay pipe from 8 to 20 inches in diameter. Outfalls are extended to the bottom of the river, and the mouths of outlets are submerged. Sewage is swept away by the rapid current of the river. The fall of the sewers is usually 1 in 12, and any deposits forming are easily swept away by flushing. Such work is done by the superintendent of streets with men employed regularly by the city for all kinds of work, and no record of cost is made. There is no provision for ventilation except through the inlet-basins located at each corner. The cost of sewers is paid by assessment on the abutting property. The blocks of the city are 200 feet square and the streets are 60 feet wide. The cost of each sewer is assessed upon the adjacent property on both sides as far as the middle of the block. The price paid for building sewers in 1880 was, for 12-inch pipe, 16 feet deep, \$1 80 per foot; for 10-inch pipe, 12 feet deep, \$1 25; for 8-inch pipe, 10 feet deep, 90 cents; for 6-inch pipe, 10 feet deep, 75 cents per foot; catch-basins, \$32 50 each. Manholes every 200 feet are included in the price of the sewer. The amount expended in 1880 was \$26,000. There is no record of the length or cost of the location of sewers built in former years.

CEMETERIES.

There are 3 cemeteries, and all are private. *Lone Fir Cemetery* is $1\frac{1}{2}$ mile east of the city, the *Jewish Cemetery* $1\frac{1}{2}$ mile south of the city, and the third, name not given, 3 miles south of the city. In the early days of the city, small plots within the present city limits were used for burial purposes, but by ordinance of the city council all bodies interred in these places have been removed to the cemeteries mentioned. No dead body is allowed to remain unburied more than 48 hours without permission from the chief of police. Graves must be not less than 4 feet in depth. The lots in the cemeteries are sold to individuals, in plots of 20 by 30 feet. They then become the private property of the purchasers, but can be used only for burial purposes. The roads are built and kept up by the corporation that lays out the grounds. Each individual improves the lot belonging to him as he pleases.

MARKETS.

There are no public or corporation markets in the city. The city ordinances require that all places used as markets shall be kept clean, and impose heavy penalties on the proprietors for violations of the rule.

SANITARY AUTHORITY—BOARD OF HEALTH.

The board of health of the city consists of the mayor, the chairman of the standing committee of the common council on health and police, and the chief of police, who is *ex officio* health officer; and every regular and special police officer having a regular beat is *ex officio* a health inspector, but they receive no extra pay therefor. Whenever it is deemed necessary the board may employ a physician to visit and examine persons sick with any contagious or infectious disease, and to advise the board in any matter relating to the health of the city. He receives such compensation as the board considers reasonable, subject to the approval of the common council. A city ordinance authorizes the board to make such expenditures as may be necessary for work and materials in and about the small-pox hospital and for furnishing and maintaining it, and for the suppression of contagious or infectious diseases, provided that the aggregate of such expenditure shall at no time exceed the amount of any appropriation applicable to its payment. The mayor reports that the board has power to adopt rules and regulations for the preservation of the health of the city in the absence of epidemics, subject to approval by a majority of the common council. The only regulation as to inspections is that, should a police officer observe that any building, premises, or street on his beat is in a condition offensive to the public health, he shall immediately report the same to the health officer. As to the appointment of the board, it is reported that the mayor is elected by the people, the chairman of the standing committee of the council on health and police is appointed by the mayor, and the chief of police is appointed by a board of police commissioners. The board meets when called together by the mayor. The inspection and correction of defective house-drainage, privy-vaults, cesspools, and sources of drinking-water are under charge of the police officers, acting as inspectors. It is within the power of the board to have the evil corrected at the expense of the property-owner. Defective sewerage, street-cleaning, etc., are under charge of the street commissioner, whose duty it is to correct all defective sewerage and see that the streets are kept clean. The expense is borne by the abutting property-owners. The board can direct the removal of garbage at the expense of the owner of the property from which it is removed; and the same statement applies to excrement.

INFECTIOUS DISEASES.

Small-pox patients may be isolated. Scarlet-fever patients are not isolated, but the occupant of the house where a case exists must display a red flag at the entrance. The school board may close the schools during the prevalence of disease. There is no public pest-house, but one is established, when necessary, in the outskirts of the city. Vaccination is not compulsory, nor is it done at the public expense.

REPORTS.

There is no system of registration of births, diseases, or deaths. The board makes no regular reports. The mayor writes:

We have been very fortunate in having but little business for the board of health to perform. There has been no necessity for the employment of a physician for three years past.

The following city ordinance deserves note:

For the purpose of preventing disease and preserving health, it shall be unlawful for any person or persons to use any tenement-house or other building used as a sleeping-apartment within the city of Portland which contains less than 550 cubic feet of air or space for each and every person lodging in such house or apartment.

The punishment for violating the above ordinance is a fine of not less than \$5 nor more than \$50 for each offense, or imprisonment in the city jail not exceeding 10 days.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned by private abutters at their own expense. The work is done by contract and by hand. The city ordinances provide that when the streets have been paved, macadamized, or planked they shall be swept or scraped clean every Friday afternoon. The streets are said to be kept clean. The sweepings are deposited in the suburbs, at a place designated by the street commissioner.

Removal of garbage and ashes.—Garbage is removed by householders. The work must be done between 4 and 6 o'clock a. m. Garbage is hauled outside the city. Ashes are used to fill up hollows in empty lots. The system works well.

Dead animals.—Dead animals are removed outside the limits of the city and buried at the cost of the owner when found; otherwise at the cost of the city. The police have charge of the matter.

Liquid household wastes.—Nearly all the household waste of the city runs into the public sewers. None of it goes into street gutters, and only a very little into cesspools, which exist only in the outskirts, where sewers have not been constructed. The cesspools are usually so porous as not to need overflows. When cesspools are used they

receive the wastes of water-closets. The water used in the city is taken from the Willamette river some distance above the city, and there is no possible chance of contamination at present. Cesspools are noticed by the city authorities only when they come under the head of nuisances.

Human excreta.—A very small proportion of the houses of the city depend on privy-vaults, almost every one being connected with a sewer and having water-closets. Few water-closets empty into cesspools. None of the privy-vaults are nominally water-tight. In case a vault is allowed to become a nuisance and the nuisance is not abated within 24 hours after the chief of police orders it, the delinquent is subject to a fine of not more than \$50 nor less than \$20, and must pay the cost of abating the nuisance. No privy or cesspool is allowed to be built under the sidewalk. The dry-earth system is not used to any extent. Night-soil is used to manure land outside the city, but not within the gathering-ground of the public water-supply.

Manufacturing waste.—Manufacturing waste runs into the sewers.

POLICE.

The police force is appointed by the mayor with the consent of the city council, and is governed by the mayor together with the committee on health and police. The general supervision of the force is under the charge of the chief of police, whose duty it is to see that all the ordinances of the city and criminal laws of the state are enforced within the city limits. He must give bonds in the sum of \$15,000, and receives a salary of \$2,400 per year. Captains receive \$1,200 and policemen 1,080 per year.

The force consists of 12 men, exclusive of the chief of police, 2 captains, 1 detective, and 1 clerk. Twelve men are thus left for patrol duty. These 12 men are divided into 3 watches, each of which does day and night duty. Their hours of service are so arranged that between the hours of 10 o'clock p. m. and 3 o'clock a. m. there are always two watches on duty, the usual number of men on patrol in the daytime being doubled at the most dangerous season of the night.

The watches are divided to do duty as follows: Watch A consists of 4 men who report and go on duty at 8 a. m. and remain until 12 o'clock noon, and again at 7 p. m. and remain until 12 midnight; watch B is composed of 4 men who report and go on duty at 12 noon and remain until 4 o'clock p. m., and again at 10 p. m. and remain until 3 a. m.; watch C is composed of 4 men who report and go on duty at 4 o'clock p. m. and remain until 7 p. m., and again at 12 o'clock midnight and remain until 6 o'clock a. m.

The members of the force wear a uniform of blue beaver with brass buttons, stiff round-top felt hats with cords, and overcoats like the rest of the suit. The uniform complete costs about \$110. The men furnish their own, but the city furnishes buttons, star, club, and belt. Each patrolman carries a short billy and a pistol. The cloth for the uniforms is purchased at wholesale by the chief of police. The force patrols 75 miles of streets. During the past year there were 529 arrests in state cases and 2,049 in city cases, a total of 2,578. Of these, 1,466 were for being drunk and disorderly, 182 for assault and battery, 131 for disorderly conduct, 129 for being disorderly by fighting, 126 for larceny, and the rest for minor offenses; 1,917 were fined, 889 were committed to jail for non-payment of part or whole of fine, 194 were dismissed by the court, 104 were held to answer, and the rest were disposed of in various ways. In 1880 there were 187 station-house lodgers, as against 124 in 1879. About 100 were furnished with free meals at a cost of 15 cents each. The amount of property reported lost or stolen was \$3,874; the amount recovered was \$7,339, all of which was returned to the owners. There were 6 special policemen appointed by the mayor in 1880 at the request of their employers, receiving no pay from the city. These policemen are governed by the rules and regulations of the police department, possess the same powers as the regular police force, are furnished with a star and belt and club, and have procured for themselves new full "regulation" uniforms. In cases of emergency the specials render assistance to the regular force. The salaries paid to members of the force in 1880 amounted to \$18,846; the board of prisoners cost \$1,321 20; the expenses of the police building were \$750; the salaries of the police commissioners amounted to \$387. The receipts from 1,257 days' work done by prisoners, at 50 cents per day, were \$628 50; the amount received for fines was \$7,067 40.

Among the arrests in 1879 there were 27 for keeping an opium-house and 64 for visiting one; among those in 1880 were 8 for keeping such a house and 23 for visiting one. In his annual report for 1879 the chief of police says:

Another evil, and a rapidly growing one, is the habit of opium-smoking, which is ruining the health and destroying the minds of many of our young men and girls. There are a large number of these dens, kept principally by Chinese, where men and women, young men and girls—some not over 13 years of age—congregate and indulge in this vile and filthy habit, and sleep off the stupor, subject to the insults and indignities that may be committed upon them by those not under the influence and by the Chinese themselves. Some of the females who frequent these places are married and have families, and young girls of the most respectable class of society. Could their names be published society would stand amazed.

It is almost impossible for the police to find out these places, as they are generally in rooms to reach which it is necessary to pass through dark, winding passages and doors fastened and guarded, sometimes requiring a guide; and when the den is reached all is dark, the inmates having escaped over roofs and by underground passages. Some more stringent and severe measures should be taken to break up these dens of infamy. No wonder that so many of our young girls fall from virtue. From the best evidence I have, there are about 500 to 600 white males and females who visit these dens in this city.

In his report for 1880 the chief recommends the adoption of a most stringent ordinance, making opium-smoking in any way or shape whatever a misdemeanor, punishable by a fine of not less than \$100 nor more than \$300, or imprisonment of not less than 90 days in jail.

UTAH TERRITORY.

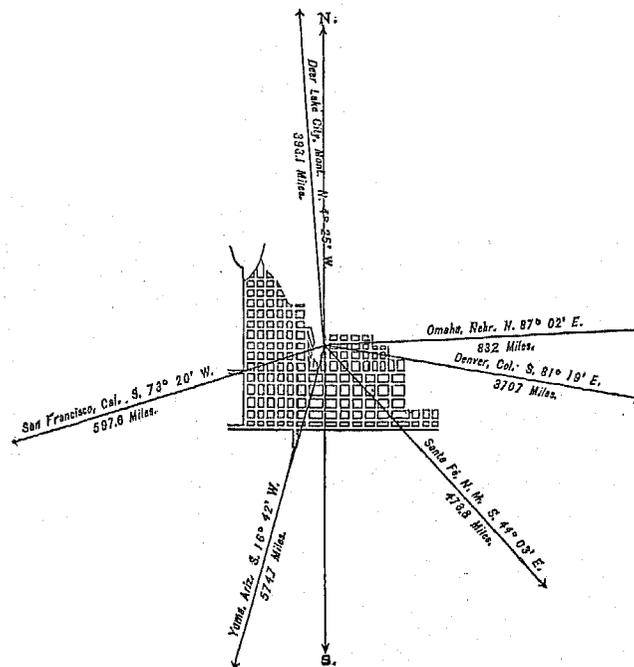
SALT LAKE CITY, SALT LAKE COUNTY, UTAH TERRITORY.

POPULATION

IN THE
AGGREGATE,

1850-1880.

Year	Inhab.
1790.....	
1800.....	
1810.....	
1820.....	
1830.....	
1840.....	
1850.....	6,157
1860.....	8,236
1870.....	12,854
1880.....	20,768



POPULATION

BY
SEX, NATIVITY, AND RACE,
AT

CENSUS OF 1880.

Male	9,953
Female	10,815
Native.....	13,095
Foreign-born	7,673
White	20,589
Colored	*179

*Including 82 Chinese and 11 Indians.

Latitude: 40° 46' North; Longitude: 111° 54' (west from Greenwich); Altitude: 4,350 feet.

FINANCIAL CONDITION:

Total Valuation: \$7,364,325; per capita: \$352. Net Indebtedness: \$67,000; per capita: \$3 23. Tax per \$100: \$1 70.

HISTORICAL SKETCH.(a)

Salt Lake City, the capital of Utah territory, was settled by a company of "Latter Day Saints", or *Mormons*, under the leadership of Brigham Young. This company is known in local history as the "*Pioneers*", or Mormon *Pioneers*, and was the advance-guard of the large body of Mormon people who were expatriated from Nauvoo, Hancock county, Illinois, in the year 1846. The pioneers left their winter quarters on the banks of the Missouri river (now Florence, Nebraska) April 7, 1847, numbering 143 persons, with 73 wagons, and were joined by about a dozen others on the journey. Orson Pratt and Erastus Snow, of the pioneers, entered the valley of the Great

^a John T. Caine, esq., recorder, collected and forwarded to this office all the statistical information concerning the city of Salt Lake here presented. John Jaques, esq., prepared the historical sketch with which this report is introduced.

Salt lake through Emigration cañon, about 5 miles southeast of the city, on July 21 of the same year, Mr. Pratt being the first to set foot on the site of Salt Lake City, as his companion remained three or four miles behind. In the evening the two returned to their camp, $1\frac{1}{2}$ mile up the cañon. The next day the main body of the pioneers entered the valley and encamped two or three miles south of the site of the city, moving northward on the 23d and camping near where Washington square is now located. On the 24th Brigham Young, who was sick with mountain fever, and the rear of the pioneers entered the valley. July 24 has ever since been recognized as "Pioneer day", and has generally been observed as a holiday. On the 29th about 150 members of the Mormon battalion, consisting of detachments of sick who had wintered at Pueblo, on the Arkansas river, arrived, accompanied by a party of Mormon emigrants, numbering about 50, who had started from Mississippi in 1846 and had also wintered at Pueblo. The battalion party was under the direction of Captains James Brown and Nelson Higgins and Lieutenant Wesley Willis. A fort, constructed of logs and adobes, was soon built on a 10-acre block now known as Pioneer square, in the 2d municipal ward, and within a few months the fort was increased to more than three times its original size. During the same fall about 1,500 Mormon emigrants, mostly from winter quarters, followed the pioneers and settled with them.

In 1847 a survey was made for the city. It was laid off in blocks of 10 acres each, or 40 rods square, with streets crossing each other at right angles, 8 rods wide, and including sidewalks of 20 feet. Each block was divided into 8 lots of $1\frac{1}{4}$ acre each, or 20 by 10 rods. Several additions have been made at different times to the original survey.

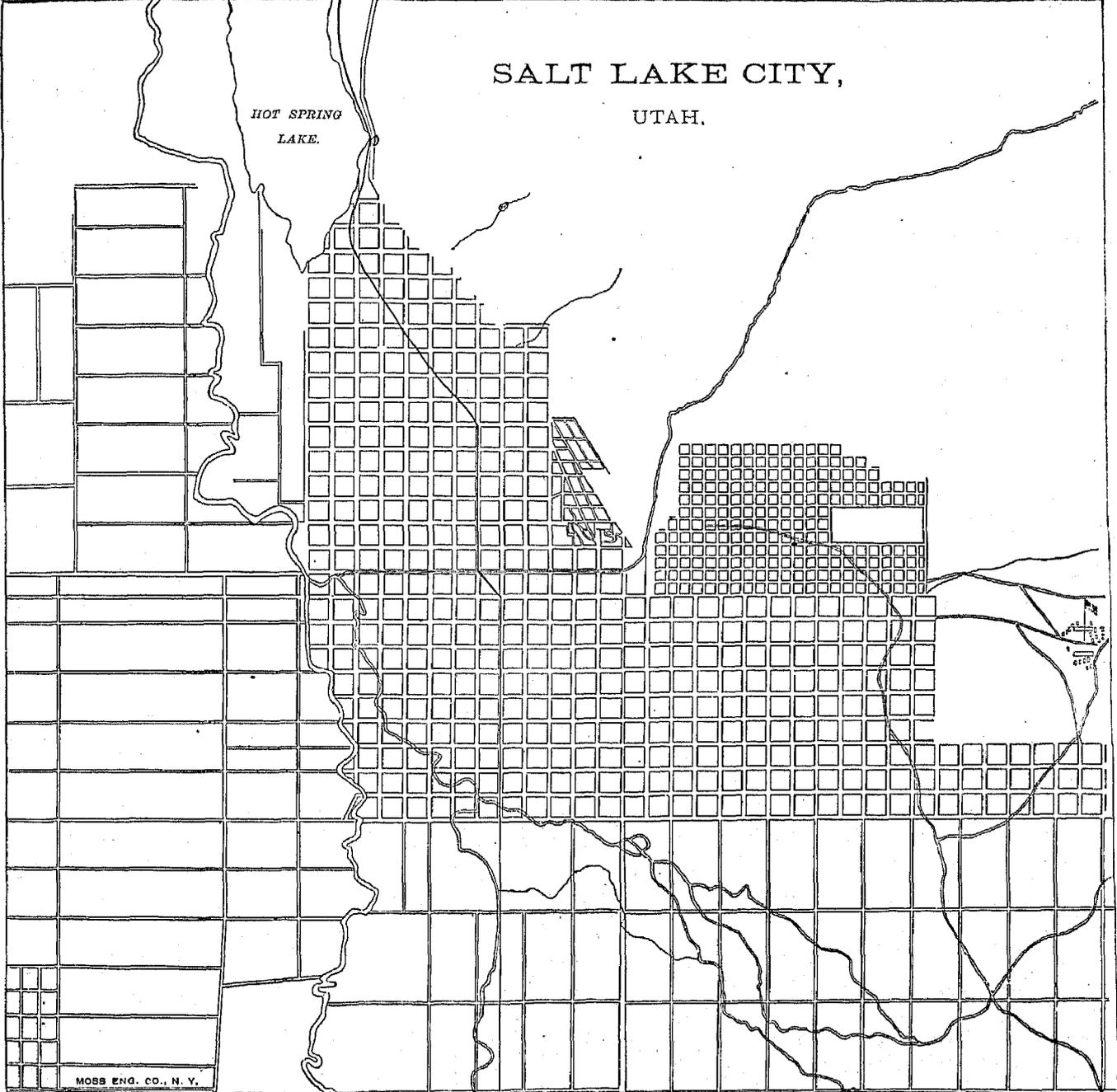
In the early years of settlement the government was vested in an ecclesiastical council of prominent residents, who assumed provisional municipal powers with the approval of the people. Great Salt Lake City was incorporated by an act of the general assembly of the provisional state of Deseret, approved January 19, 1851. The legislature of the territory of Utah, by joint resolution, approved October 4, 1851, adopted or legalized the laws of the provisional government of Deseret. The incorporation act, approved January 20, 1860, repealed the previous one but confirmed the old boundaries, except the north and east lines, which were slightly changed to secure greater definiteness. The corporation limits were about 8 miles east and west, and rather more than 6 miles north and south. An act approved January 18, 1867, removed the western boundary line from the bank of the Jordan about 2 miles west. In 1868 the name of Great Salt Lake City was changed to Salt Lake City, and in 1872 the south line of the city was removed about a mile north, thus cutting off a large portion of the farming lands that had previously been included in the corporate limits. Great Salt Lake City was naturally, from the first, the capital of the region around it. But an act of the legislature of the territory, approved October 4, 1851, made Fillmore City, Millard county, the seat of government, that city being 150 miles south of Great Salt Lake City and nearer the geographical center of the territory, and one wing of a state-house was subsequently built there. An act of legislature, approved December 15, 1856, removed the seat of government to Great Salt Lake City, where it has ever since remained, as by far the larger portion of the population resides in the northern part of the territory.

The passage through the city of many thousands of gold-seeking emigrants to California in 1848-'50 caused business to be very good, helped as it was also by the occasional arrival of gold dust from the Pacific coast. These emigrants eagerly engaged in barter, furnishing many articles of which the settlers stood in great need. Some of the gold-seekers were so eager to reach the end of their journey that they not only abandoned or destroyed much of their property on the road, but on arriving at this point disposed of teams, wagons, clothing, oxen, etc., in order to obtain pack-horses or mules and thus continue on their way more rapidly. The early settlers in this way got possession of many animals, carts, wagons, carriages, and other useful articles, at a price that was below cost in the Atlantic states. In the early summer of 1850 provisions became very high, flour selling for \$1 a pound, and even bringing \$25 per 100 pounds after harvest time. There were 5 mills busy all the time making flour, while numbers of emigrants stood around each begging for enough to carry them to the new El Dorado. The gathering of several thousand soldiers at camp Floyd (afterward fort Crittenden), about 40 miles southwest of the city, in 1858-'61, and the consequent demand for supplies, with the forced sale of large amounts of provisions, clothing, wagons, harness, implements, military stores, equipments, etc., when the encampment was broken up, made business exceedingly lively. In 1863 and several following years the development of the gold mines in Montana and Idaho caused much business and high prices in the city and vicinity, wheat being sold for \$5 or \$6 a bushel, flour from \$12 to \$25 a hundred pounds, and other things in proportion. In 1869 the construction and opening of the Union and Central Pacific railroads, followed closely by the discovery and development of valuable silver and lead mines in the territory, induced a most notable era of prosperity, which lasted several years and caused real estate in the city to go up to almost fabulous prices. The present year (1880), owing to the general revival of business throughout the country, with the projection or extension of several railroads in the vicinity, as well as the prospects of a bountiful harvest, promises to be very prosperous. In the earlier years of the settlement of the city there was a depression of business every winter. Merchandise was supplied almost entirely by ox-teams from the Missouri river, 1,000 miles east, which could travel only in the summer. Most of the staple goods thus brought were generally sold out by Christmas or soon after, so that the market was thenceforth bare of them until fresh supplies were obtained. A special business depression was occasioned by the advance of the United States troops into the

SALT LAKE CITY,

UTAH.

HOT SPRING
LAKE.



MOSS ENG. CO., N. Y.

territory in 1857-'58, nearly all the people in the city and vicinity migrating to the south. The year 1869 was not a very prosperous year, and the city suffered also in common with the rest of the country during the financial depression in 1873-'79.

The city suffered more or less from floods in 1850, 1853, and 1862, from prolonged periods of droughts in 1848, 1855, and 1879, and from destructive insects in 1848, 1854, 1855, 1867, 1868, 1870, and 1873. Nearly every year since the settlement of the city the population has been increased by Mormon immigrants from the various states of the Union, as well as from Europe, and even Australia, in numbers varying from 1,000 to 6,000 per annum. These immigrants always come to the city first. Since the completion of the Central and Union Pacific railroads the influx of persons other than Mormons—men connected with mining, etc.—has been considerable. "As the religious sentiment of the Mormon people favors marriage and large families, the increase of population resultant therefrom has been proportionately large."

SALT LAKE CITY IN 1880.

The following statistical accounts, collected by the Census Office, indicate the present condition of Salt Lake City:

LOCATION.

Salt Lake City lies in latitude $40^{\circ} 46'$ north, and longitude $111^{\circ} 54'$ west from Greenwich, 11 miles from Salt Lake, at the base of Wahsatch mountains, and occupies a most important position, not only in the territory but in the whole Rocky Mountain region. It has an altitude of 4,350 feet above the level of the sea, and the variation of the magnetic needle at the base meridian, as determined in 1873 by the United States Coast and Geodetic Survey, is $16^{\circ} 32'$ east. The city is not on navigable water. Salt lake, or, as it used to be called, "Great Salt lake", the southern end of which is a few miles to the west of the city, is the principal body of water in the great Fremont basin, and one of the most remarkable lakes on the globe. It is 70 miles long by 45 miles wide, and the surface is 4,250 feet above mean sea-level. It has a mean depth of 12 feet, with a maximum depth of 60 feet. The specific gravity of the water is 1.17, or almost exactly that of the Dead sea; but unlike that sea it abounds in animal life. It is navigated by a line of steamers from Corinne on the north shore, to Black rock on the south shore.

RAILROAD COMMUNICATIONS.

The following railroad lines radiate from the city:

The Utah Central railroad, to Ogden, Utah, connecting there with the Central Pacific to San Francisco, the Union Pacific to Omaha, and the Utah Northern to Dillon, Idaho.

The Utah Western railway, to terminus, distant 37 miles.

The Utah Southern, to Frisco, Utah.

TRIBUTARY COUNTRY.

The country in the immediate vicinity of the city is agricultural, the settlements being small and rather scattered. Salt Lake City is the center of supply not only for this region but for the mining camps in western Utah as well as in Idaho.

TOPOGRAPHY.

The city is built somewhat in the shape of an irregular and broad-faced L, the angle, an obtuse one, being formed by a short western spur from the Wahsatch range, the city hugging the southwest corner of the spur. Indeed, of late years the houses have crept up the foot of the spur on to the *bench*, as it is called. The present corporate limits are a little over 9 miles from east to west, and about 6 miles from north to south. This includes the Fort Douglas military reservation, 2 miles square, directly east of the city. The city is divided into 5 municipal wards, and subdivided into 21 ecclesiastical, or bishop's, wards. Localities are better known by the ecclesiastical than by the municipal title. The interior ecclesiastical wards consist uniformly of squares of 9 blocks each. The exterior ecclesiastical wards are of irregular size, owing to the growth of the city, but are generally larger, some much larger, than the interior wards. The soil is alluvial. In the higher portions of the city it is of a light-brown color, interspersed with gravel and sand, with an occasional admixture of clay. In places there are streaks of a coarser gravel, and sometimes hard pan is found. In the lower parts of the city the soil is a black loam of great fertility, decidedly impregnated with salt and alkali, and in dry places is sometimes covered with efflorescent incrustations. In the western portion the subsoil is a drab-colored clay, from which a good class of *adobe* (sun-dried brick) is made. Most of the soil requires irrigation for profitable cultivation. The city is watered chiefly by a stream, known as City creek, that comes down through a cañon in the mountains, directly into the city, on the north side, and from there is dispersed in numerous divisions and subdivisions over a good portion of the

corporate limits. Several small streams also flow from the Wahsatch range, and their waters are used for irrigation, the surplus finally passing into the Jordan river. The country within a radius of 5 miles is open. The warm springs, having a temperature of about 100° Fahrenheit, are at the foot of the spur on the northern border of the city. The water is therapeutic and is used for bathing purposes. About 1½ mile to the northwest are the hot springs, temperature 123° Fahrenheit, the water from which forms what is called Hot Spring lake, a shallow lake covering about 2 square miles, and extending from the base of the mountains nearly to the Jordan river.

CLIMATE.

Highest recorded summer temperature, 95°; lowest recorded winter temperature, -8°; mean annual temperature, 51.86°. The climate of Utah is naturally very dry. It is claimed, however, that the rainfall has greatly increased since the first settlement of the country.

STREETS.

But very little information was furnished on this subject. The streets are 137 feet wide, and the custom of tree-planting is quite general, rendering the city a conspicuous contrast with the surrounding country. The central portions of the city are supplied with water from City creek, through 10 miles of pipes, by gravity, the water being used for domestic purposes, fire, street-sprinkling, and, to a certain extent, for motive power. The central portions of the city are also lighted by gas, there being 6 miles of pipes laid in the streets. Several electric lamps, on the Brush system, are used in East Temple street, and also in some of the stores.

PUBLIC BUILDINGS.

No information on this subject was furnished.

PUBLIC PARKS AND PLEASURE-GROUNDS.

Salt Lake City has no large parks. There are four public squares, of 10 acres each, in different parts of the city that are intended for pleasure-grounds. Three of these were reserved for this purpose when the city was laid out, and one has since been purchased at a cost of \$5,000. These squares have only been partially improved, the total cost of improvements, such as fencing, planting trees, etc., having been \$10,000.

PLACES OF AMUSEMENT.

There is one theater in the city, but no information concerning it or other places of amusement was furnished.

DRAINAGE.

In reply to the schedule asking for information on this subject Mr. Caine says:

Salt Lake City has no sewers, nor has it yet adopted any plans looking to the early construction of sewers. It has depended entirely upon surface drainage, which has been greatly facilitated by the irrigation water-channels that run through all the streets of the city, being located at the outer edge of the sidewalks, as gutters are placed in the streets of other cities, and at the intersection of streets are carried across in covered culverts. All the surface water is conducted to these channels, and the flow of irrigating water through them usually keeps them clean and free from the accumulations of filth. Where this is insufficient to keep the channels open they are cleaned out by the property-owners, which cleaning is enforced by municipal authority. The waste water from these channels runs south and west, emptying into the Jordan river, which runs past the city on the west. This system, which heretofore has answered the purpose of drainage, and does yet where the city is thinly inhabited, is becoming quite inadequate to the wants of the business center, which is being rapidly built up in solid blocks, and the time is not far distant when some more perfect system of drainage will have to be adopted.

CEMETERIES.

There are 4 cemeteries within the corporate limits of Salt Lake City:

City Cemetery, area 100 acres.

Holy Cross Cemetery, area 1.5 acre

Hebrew Cemetery, 1.8 acre.

These are all situated together, between Birch, Willow, Mountain, and Wall streets.

Mount Olivet Cemetery, area 20 acres, on the Fort Douglas military reservation.

There are 2 small private burial grounds, one belonging to the family of Brigham Young, area 100 square rods, and the other to the family of Heber C. Kimball, area 25 square rods, in which burials are no longer made; they are both situated near the center of the city, not far from Temple block.

The total number of interments in the several cemeteries, so far as past records show, is: City cemetery from September 27, 1848, 9,423; Hebrew cemetery from October 31, 1867, 49; Holy Cross cemetery since March 25, 1873, 127; Mount Olivet cemetery from April 4, 1877, 184; Brigham Young's, 63, and Heber C. Kimball's, 51; making a total of 9,897. A full record of the person deceased is required to be furnished to the city sexton (who is *ex officio*

registrar of deaths) before interment. No limit of time is established between the time of death and of burial, the proper officer regulating this according to circumstances. Graves less than 4 feet 6 inches in length are required to be 4 feet 6 inches deep, and all graves over 4 feet 6 inches in length are required to be 6 feet deep.

The City cemetery is owned by the corporation of Salt Lake City. Lots one rod square are sold for \$12 each, the corporation giving purchasers a warrantee title running to them, their heirs and assigns forever. Owing to the absence of water, no landscape-gardening has been attempted, owners improving their lots to a limited extent. Since 1860 there has been expended on improvements in this cemetery \$12,623 63, and the revenue during the same period was \$8,777 81. Mount Olivet cemetery was established by virtue of an act of Congress approved May 16, 1874, and is controlled by regulations published by the Secretary of War. Lots 18 feet square are sold at prices ranging from \$10 to \$50. The improvements mainly consist in fencing and the laying out and grading of roads. So far the total cost of improvements has been \$4,035 91 and the revenue \$3,902 40. The Hebrew cemetery belongs to the Hebrew Congregation B'nai Israel of Salt Lake City. Each head of a family belonging to the congregation is entitled to a lot 25½ by 31 feet. In former years the expenses were borne by voluntary contributions; but at the present time each lot is assessed \$3 per annum. The total expenses so far have been \$2,500. In the Holy Cross cemetery graves are furnished free of charge to persons dying in the faith of the Roman Catholic church. The annual interments in all the cemeteries during the past eleven years were as follows: 1870, 281; 1871, 368; 1872, 406; 1873, 431; 1874, 437; 1875, 391; 1876, 386; 1877, 392 (a); 1878, 497; 1879, 514; 1880, 204.

MARKETS.

There are no public or corporation markets in the city, except an open market for the sale of wood, coal, hay, and similar articles that are sold in bulk from wagons. All meats, poultry, fish, vegetables, fruits, etc., are sold at private stores or stands, while during the summer some fresh vegetables and fruits are peddled through the streets from country wagons. A few years ago an effort was made to establish public markets in different parts of the city, and to compel all retail dealers in meats, etc., to do their business therein; but the plan met with so much opposition that it was abandoned and the market buildings and grounds were sold.

SANITARY AUTHORITY.

There is no board of health in Salt Lake City. An ordinance provides that the city council shall appoint one or more quarantine physicians, who, associated with the mayor, shall form a board of quarantine. This board takes cognizance only of diseases of a contagious nature occurring within the city and in a district 12 miles around the corporate limits. The board can take all measures necessary to prevent epidemics on the introduction of disease. The city ordinances define nuisances and prohibit the same, but nothing is said as to who has the matter in charge. In case of small-pox, the board of quarantine can isolate patients by sending them to the pest-house, which is situated on a plateau southeast of the city. Vaccination is not compulsory, nor is it done at the public expense. Diseases and births are not recorded, but the city sexton keeps a record of all deaths and publishes a monthly mortuary report. Mr. Caine adds the following to the above information:

The city for its population probably covers a larger area of ground than any other in the Union. Outside of the business center the houses are detached. The streets are mostly 137 feet wide, and the sanitary regulations of compactly built cities have not, to the present time, been found necessary here.

MUNICIPAL CLEANSING.

Street-cleaning.—The streets are cleaned at the expense of the city, with its regular force and wholly by hand. The work is done under the direction of the street supervisor, according to the necessities of the case. The cost is included in the general street work, no separate account of the cleaning being kept. The sweepings are deposited in low places in grades of streets or on vacant lands outside the city. "The system is defective, and as the city becomes more densely populated a more effective one must be adopted."

Removal of garbage and ashes.—These are generally removed by the city with its own force. While awaiting removal the garbage is kept in boxes or barrels until called for by the city carts. Ashes and garbage are allowed to be kept in the same vessels. The garbage is deposited on vacant ground outside the city, while the ashes are disposed of in the same manner as the street-sweepings. The cost of the service is included in the regular street work. No injurious effects are reported from the manner of keeping, handling, or disposing of the garbage. "The system is defective, but answers the immediate wants of a new and sparsely inhabited city. The work is pretty thoroughly executed."

Dead animals.—The carcasses of all animals dying within the city limits are removed, under direction of the city marshal, and buried outside the corporate limits. No account is kept of the cost of the service or of the number of dead animals removed annually.

Liquid household wastes; human excreta.—There being no public sewers in the city, the liquid household wastes are either run into cesspools or thrown out on the surface of the ground, a small amount only reaching the

street gutters. The cesspools are porous, are not provided with overflows, in some cases receive the wastes from water-closets, and are not governed by any regulations as to their cleansing. The number of water-closets and their proportion to privy-vaults was not stated. There are no regulations as to the construction or cleaning out of privy-vaults. The night-soil is either buried in the ground, used as manure, or hauled outside the city. "The water in many of the wells in that portion of the city built on lower ground than that where the bulk of the cesspools exist has been rendered unfit for use, and it is asserted that zymotic diseases have been engendered from using water from infected wells." The public water-supply comes from the mountains around the city, and is in no danger from contamination.

Manufacturing wastes.—There are no regulations governing this matter. There are only a few manufacturing establishments, and they are located on the outskirts of the city, where the solid wastes can be buried in the ground and the liquid carried off by the stream emptying into the Jordan river.

POLICE.

No information was furnished on this subject.

CITY GOVERNMENT. (a)

The municipal government of Salt Lake City is vested in the city council, composed of the mayor, 5 aldermen (1 from each of the 5 municipal wards) and 9 councilors, all qualified electors, and all elected biennially, by the qualified voters, on the second Monday in February in the even years. At the same election 1 marshal, 1 treasurer, 1 recorder, and 1 assessor and collector are elected. All the above officers hold office for two years, or until their successors are elected and qualified. The mayor and aldermen are conservators of the peace and justices of the peace in the city, having jurisdiction in municipal and territorial cases, civil and criminal. The city council has power to appoint other city officers, and remove them by a two-thirds vote at discretion; to remove elective city officials by a two-thirds vote for cause, after opportunity for hearing, and to fill vacancies; to prescribe the duties and powers of officers if not designated by law, or beyond those so designated, arrange their fees and determine their compensation; to purchase or dispose of property in behalf of the city, and control its finances; to control public grounds, streets, sidewalks, and bridges; to declare, define, and abate nuisances; to direct the location of buildings where dangerous, unhealthful, or unpleasant business is carried on; to license, tax, and regulate various pursuits, and restrain, punish, prohibit, or suppress same; to borrow money, generally to an amount the interest on which shall not exceed one-fourth of the taxes assessed the year previous; to levy and collect taxes not exceeding 5 mills on the dollar for contingent expenses, 5 mills for street improvements and repairs, and 1½ mill for water control; to levy and collect poll- and ditch-taxes; to establish and regulate police; to provide for the election of trustees and appoint a board of school inspectors; to provide for public schools or other institutions of learning; to provide a school fund by direct tax or otherwise; to build and control hospitals, infirmaries, and medical colleges; to build a house of correction; to control the location of railroad tracks and depots, and the use of locomotive engines in the city; to control the location of gas-works, canals, telegraph poles, etc.; to levy special taxes for street and sidewalk improvements, making and repairing sewers and drains, and lighting streets in districts benefited thereby; to make regulations for the peace, convenience, cleanliness, and good order of the city, the protection of property therein, and the health, safety, and happiness of the inhabitants; to appoint quarantine physicians; to regulate street shade trees, fences, public pounds, pumps, wells, cisterns, hydrants, etc.; to provide for taking census of the inhabitants; to regulate the registration of births and deaths and the burying of the dead; to take care of, provide for, and educate destitute and neglected children; to appoint watchmen and policemen, also inspectors of various kinds, weighers, gaugers, and sealers of weights and measures, and prescribe their duties; to regulate the measuring of wood and the weighing of coal; to distribute and control the water flowing into the city; to supply the inhabitants with water, and for that purpose to construct and maintain the necessary canals, flumes, dams, reservoirs, and other water-works, and levy and collect special taxes in districts benefited by the water-works; to procure and control fire-engines, etc., and engine-houses for the same; to organize fire, hose, and ladder companies; to prevent and extinguish fires, define fire districts, and prevent the erection of wooden buildings therein; and must publish quarterly statements of receipts and disbursements of revenue.

The recorder keeps the records, papers, and seal of the city; keeps a list of licenses issued; records the proceedings of the council and all ordinances and resolutions passed by it; keeps a plat of surveys by the city; and administers oaths, and receives and approves official bonds.

The treasurer receives and disburses the funds of the city, and is the custodian of all property of the city not otherwise provided for, and reports yearly to the council.

The marshal, by himself or deputy, has charge of the city hall; attends the meetings of the council; acts as doorkeeper and sergeant-at-arms; preserves the peace and good order of the city and of public meetings; brings

^a Salt Lake City being practically a Mormon city, and the headquarters of that sect, the following, as reported by Mr. Caine, is given entire.

disorderly persons to trial; serves processes; executes the orders and judgments of the mayor or council; visits and inspects slaughter-houses and examines the record books; and is the principal ministerial officer, with power to appoint deputies.

The assessor and collector assesses the taxable property in the city; collects the taxes; sells property of delinquents; may appoint deputies; and reports annually.

The following officials are appointed by the council: 1 auditor of public accounts, 1 supervisor of streets, 1 captain of police (the mayor appoints and controls the police force), 1 water-master, 1 sexton, 1 inspector of buildings, 1 sealer of weights and measures, 1 inspector of liquors, 1 inspector of provisions, 1 stock inspector, 1 jailor, 1 market-master, 1 surveyor, 1 attorney, and 1 chief engineer of the fire department. The duties of these officials are indicated by the titles, and are about the same as those performed by the same officers in other cities. The water-master is the only one peculiar to Salt Lake City; he regulates and distributes the water flowing into the city, and adjudicates difficulties in the distribution of the supply in the several wards; he reports quarterly to the council, and has several assistants.

MANUFACTURES.

The following is a summary of the statistics of the manufactures of Salt Lake City for 1880, being taken from tables prepared for the Tenth Census by A. A. Leonard, special agent :

Mechanical and manufacturing industries.	No. of establishments.	Capital.	AVERAGE NUMBER OF HANDS EMPLOYED.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
All industries	166	\$860,415	696	114	118	\$123,537	\$812,733	\$1,610,133
Awnings and tents	3	900	6	4	..	3,437	7,000	13,880
Blacksmithing	12	7,200	22	..	..	12,971	7,994	35,164
Boots and shoes, including custom work and repairing	19	74,885	124	20	36	60,484	107,380	206,601
Bread and other bakery products	9	28,200	17	6	4	11,912	63,120	96,072
Brick and tile	6	53,325	28	..	26	7,967	5,111	24,612
Carpentering	4	10,650	14	..	..	8,910	14,300	20,800
Carriages and wagons	5	11,400	25	..	1	14,980	13,515	36,600
Confectionery	3	7,000	3	1	..	1,475	16,860	26,180
Dentistry, mechanical	6	8,100	4	2	..	2,259	2,850	18,050
Flouring and grist-mill products	4	52,000	10	..	..	4,650	107,830	125,875
Foundry and machine-shop products	7	87,000	64	0	2	42,171	44,510	117,770
Furniture	4	25,350	22	4	4	13,259	18,325	49,387
Jewelry	3	2,600	7	..	..	6,783	9,150	19,302
Lime	3	36,000	16	..	2	7,150	3,040	16,770
Liquors, malt	3	100,500	82	..	1	16,125	60,125	162,020
Marble and stone work	3	4,400	5	..	..	3,868	3,300	9,400
Masonry, brick and stone	3	120	2	..	..	250	200	1,535
Painting and paperhanging	3	5,500	17	..	5	11,600	5,600	24,740
Photographing	5	6,600	8	4	2	5,693	3,170	16,300
Printing and publishing	6	154,660	114	11	17	91,861	64,054	202,625
Saddlery and harness	11	23,800	30	..	4	14,230	42,195	60,067
Tinware, copperware, and sheet-iron ware	3	32,000	21	..	5	21,200	47,400	85,070
All other industries (a)	41	128,725	102	44	0	62,350	165,707	278,833

a Embracing baking and yeast powders; baskets, rattan and willow ware; bluing; bookbinding and blank-book making; brass castings; clothing, men's; cordage and twine; iron railings, wrought; kaolin and ground earths; lasts; leather, curried; leather, dressed skins; leather, tanned; lock- and gun-smithing; mattresses and spring beds; mineral and soda waters; plumbing and gasfitting; sash, doors, and blinds; saws; soap and candles; stencils and brands; stone- and earthen-ware; tobacco, cigars and cigarettes; trunks and valises; upholstering; watch and clock repairing; wood, turned and carved; wooden ware; and woolen goods.

From the foregoing table it appears that the average capital of all establishments is \$5,183 22; that the average wages of all hands employed is \$458 55 per annum; and that the average outlay in wages, in materials, and in interest (at 6 per cent.) on capital employed is \$7,770 46.

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OF
CITIES AND SUBJECTS.

TABULATED INDEX OF CITIES AND SUBJECTS.

	City.	State.	Cemeteries.	Climate.	Commerce and navigation.	Distance chart.	Drainage.	Financial condition.	Fire department.	Garbage.	Gas.	History.	Infectious diseases.	Inspection.	Internments.	Location.
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1	Akron	Ohio	338	337		335	338	335			337	335, 336				336
2	Alexandria	Va.	58			55	58	55			58	55-57	59			57
3	Atchison	Kans.	754	753		751	754	751	750		754	751, 752	755			752, 753
4	Atlanta	Ga.	160	150		157	160	157			160	157-159	161			159
5	Augusta	Ga.	165, 166	165		163	165	163			163	163, 164	166			164
6	Aurora	Ill.	479	478		477	479	477	480		478	477, 478	479			478
7	Austin	Tex.	306	305		301	308	301		308		301-304	308	308	308	304
8	Baltimore	Md.	19, 20	16	24	3	19	3	23, 24	21	17	3-15			20	15
9	Bay City	Mich.				595		595				595	596			
10	Belleville	Ill.	483	482		481	483	481			482	481, 482				482
11	Beloit	Wis.	643	642		641	643	641			643	641				642
12	Bloomington	Ill.	487	486		485	487	485			487	485, 486				486
13	Burlington	Iowa	709	708		707	709	707	711		700	707	710		710	708
14	Canton	Ohio				340		340				340				
15	Cedar Rapids	Iowa	713	713		712	713	712			713					712
16	Charleston	S. C.	100, 101	99	103, 104	95	100	95	103	102		95-98	102			98
17	Chattanooga	Tenn.	138	136		135	137	135	139		137	135, 136	138			136
18	Chicago	Ill.	506	494	510	489	498, 499	489	500		496	480-492	507		506	492
19	Chillicothe	Ohio	342			341	342	341			342	341				342
20	Cincinnati	Ohio	368-370	360, 361		344	364, 365	344	373		362	344-358	371, 372			358
21	Cleveland	Ohio	383, 384	380	387	377	382, 383	377	388		381	377, 378	384, 385		384	379
22	Columbia	S. C.	108	107		105	107	105		108	107	105, 106	108			106
23	Columbus	Ohio				390	392	390	393		391	390, 391				391
24	Council Bluffs	Iowa	717	716		715	717	715			717	715				716
25	Covington	Ky.	114	113		111	114	111			113	111, 112	115			112
26	Dallas	Tex.	313	312		311	313	311			313	311, 312	314			312
27	Davenport	Iowa	722	721		719	722	719			721	719, 720	722			720
28	Dayton	Ohio	399	398		394	399	394	401		398	394-397	400			397
29	Denver	Colo.	770, 771	770		769		769			770		771			769, 770
30	Des Moines	Iowa	727, 728	726		725	727	725	729		727	725, 726				726
31	Detroit	Mich.	610, 611	605	615	598	609, 610	598	614		608	598-603				604
32	Dubuque	Iowa		731		730		730			732	730				731
33	East Saginaw	Mich.	621	619		617	620, 621	617	623		620	617, 618	622			618
34	Eau Claire	Wis.				644		644				644				
35	Evansville	Ind.	441	440		437	441	437			440	437-439	442			439
36	Fond du Lac	Wis.	648	647		645	648	645	649		647	645, 646				646
37	Fort Wayne	Ind.	446	445		444	446	444			446	444, 445	447	446	447	445
38	Galesburg	Ill.	516	515		514	516	514			516	514, 515	517			515
39	Galveston	Tex.	319	318	321	315	319	315	321		319	315-318	320			318
40	Georgetown	D. C.				53						53, 54				
41	Grand Rapids	Mich.	625	625		623	625	623			625	623, 624	626			624
42	Hamilton	Ohio				403		403				403				
43	Hannibal	Mo.	551	550		549	551	549			551	549, 550	552			550
44	Houston	Tex.	325	325		323	325	323		326		323, 324	326		326	324
45	Indianapolis	Ind.	452, 453	451		449	452	449	454		451	449, 450	453			450

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.....	838	338	837	337	830	335	337	336	337	337	336	337	337	1
.....	58	59	58	58	50	55	58	57	58	57	58	58	2
.....	754	755	754	754	755	751	754	753	754, 755	756	753, 754	753	753	754	3
.....	162	161	160	160	162	157	160	159	161	159, 160	159	159	160	4
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.....	479	479, 480	478	478	480	477	478	478	479	478	478	478	6
.....	306, 307	308, 309	305	300	305	301	305	304	307	305	304, 305	304	7
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.....	597	596	595	596	9
.....	483	483, 484	482	483	484	481	482	482	483	482	482	482	10
.....	643	643	643	643	641	643	642	643	642	642	642	11
.....	487	488	487	487	488	485	487	486	487, 488	488	486, 487	486	486	487	12
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.....	108	108	107	107	108	105	107	106, 107	108	107	107	107	107	22
.....	393	392	391	392	392	390	391	391	392	391	391	391	23
.....	717	717, 718	717	717	718	715	717	716	717	716	716	716	24
.....	116	115	113	113	115	111	113	112	114, 115	113	112, 113	112	113	25
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.....	772	771	770	770	769	770	770	771	770	770	770	29
.....	720	728	728	727	727	728, 729	726	727	726	728	726, 727	726	726	727	30
.....	615, 616	611, 612	613	608, 609	609	614	598	608	604	612, 613	614	605, 606	604, 605	604	607	31
.....	732	732	732	730	732	731	731	731, 732	731	731	732	32
.....	732, 733	621	622	620	620	622	617	620	618	621	619	619	619, 620	33
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.....	516	517	516	516	518	514	516	515	517	515	515	515	38
.....	322	319, 320	320, 321	319	319	321	315	319	318	320	318	318	319	39
.....	627	625	626, 627	625	625	59	40
.....	623	625	624	626	625	624	625	41
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46	Jackson	Mich.	630	629		628	630	628				630	628, 629			629
47	Jacksonville	Fla.	183	182		181	183	181	184		183	181, 182	183			182
48	Jacksonville	Ill.				519		519				519, 520				
49	Joliet	Ill.	523	522		521	523	521			522	521	523			522
50	Kalamazoo	Mich.	634, 635	633		632		632	636		634	632	635			633
51	Kansas City	Mo.	557	555		554	550, 557	554	559		556	554, 555	558			555
52	Keokuk	Iowa.	730	735		734	736	734			736	734	736, 737			735
53	La Crosse	Wis.	652	651		650	652	650			651		652			650, 651
54	La Fayette	Ind.		459		457		457			459	457, 458				458
55	Lawrence	Kans.	759	759		757	759	757			759	757, 758				758
56	Leadville	Colo.	776	775		773	776	773			776	773	777			774
57	Leavenworth	Kans.	764	763		761	764	761			764	761, 762				763
58	Lexington	Ky.	119, 120	119		117	119	117		121	119	117, 118	120		120	118
59	Lincoln	Nebr.	741	740		739	741	739			741	739, 740	742			740
60	Little Rock	Ark.				211		211				211, 212				
61	Los Angeles	Cal.	781	780		779	781	779			780	779, 780	781			780
62	Louisville	Ky.	127	123		122	125-127	122	123, 129		125	122, 123				123
63	Lynchburg	Va.	63	62		60	62	60		64	62	60, 61	63		63	61
64	Macon	Ga.	171	170		169	170	169			170		171			169
65	Madison	Wis.	657, 658	656		654	657	654			657	654, 655	658			656
66	Memphis	Tenn.	147	143		140	144-147	140		148	144	140-143	148, 149		148	143
67	Milwaukee	Wis.	672	666	675	660	668-672	660	675	673	667	660-665	673		673	665
68	Minneapolis	Minn.	691	690		687	691	687	694		691	687-689	692			689
69	Mobile	Ala.	196	195	197	191	195	191			195	191-194	196			194
70	Montgomery	Ala.	201	200		199	201	199			201	199, 200	202			200
71	Muskegon	Mich.	639	638		637	639	637			639	637, 638	639			638
72	Nashville	Tenn.	154			151	154	151			154	151-153				153
73	New Albany	Ind.	462	461		460	462	460			462	460, 461	463			461
74	New Orleans	La.	270, 280	271, 272	293	218	276-279	213			274	213-267		262-285		268
75	Newport	Ky.	133	132		131	133	131			133	131, 132				132
76	Norfolk	Va.	68	67	69	65	68	65		68	67	65, 66	68			66
77	Oakland	Cal.	786	784		783	785	783			785	783, 784	787			784
78	Omaha	Nebr.	747	746		743		743	748		746	743-745	747			745
79	Oshkosh	Wis.	680	680		678	680	678			680	678, 679				679
80	Pensacola	Fla.	188	187	189, 190	185	188		189			185-187	189			187
81	Peoria	Ill.	527	520		525	527	525			527	525-526	527			526
82	Petersburg	Va.	72			71	72	71	74	73	72	71, 72	73			
83	Portland	Oreg.	826	825		823	826	823			826	823, 824	827			824, 825
84	Portsmouth	Ohio	406	405		404	406	404			405	404, 405	406		406	405
85	Portsmouth	Va.	77	76		75	77	75		77	76	75	77		77	76
86	Quincy	Ill.	533	532		530	533	530	535		533	530, 531	534			531
87	Racine	Wis.	685	684		682	685	682	689		684	682, 683	685			683
88	Richmond	Ind.	467	466		465	467	465	469		467	465, 466	467, 468			466
89	Richmond	Va.	82	81	84	79	82	79		83	81	79, 80	83		83	80
90	Rockford	Ill.	539	538		537	539	537	540		539	537				538
91	Rock Island	Ill.	544	543		541	543	541			543	541, 542	544			542
92	Sacramento	Cal.	796, 797	795		789	796	789			795	789-793	797			793, 794
93	Saint Joseph	Mo.	564	562		561	563, 564	561			563	561, 562	564			562
94	Saint Louis	Mo.	587, 588	580		567	589-587	567	591		581	567-578	588, 589		588	579
95	Saint Paul	Minn.	700	698		666	699	696			699	696-698				698
96	Salt Lake City	Utah	832	832		829	832	829				829-831				831
97	San Antonio	Tex.	331	330		327	331	327			330	327-329	331		331	329
98	Sandusky	Ohio				408		408				408, 409				
99	San Francisco	Cal.	808, 809	804, 805	812	800	807, 808	800	812		806	800-803				803
100	San José	Cal.				816		816				816				
101	Savannah	Ga.	177, 178	176	180	173	177	173	179		177	173-175	178			176
102	Selma	Ala.	206	206		204	206	204		207	206	204, 205	207		207	205
103	Shreveport	La.	299	299		298	299	296			299	296-298	300			298
104	South Bend	Ind.				470		470				470, 471				
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