

the initiated say, fetched 5150 francs; and a large round plate, with metallic reflections, and in the centre the bust of a woman, fetched 16,200 francs. At the Soltykoff sale in 1861 this same plate was sold for 1500 francs. At the Château de Langeais sale in 1887 a Caffagiuolo plate decorated with a figure of St. Geneviève brought 9300 francs.

In Chinese and Oriental porcelain the Drouot Exchange cannot compare in big prices with the exchanges of New York and London; nevertheless it is French collectors like Sechan, De Goncourt, Marquis, Du Sartel, Barbet de Jouy, Grandidier, and experts like Sichel, Bing, and Jacquemart, who have contributed more

than any others toward the classification, lucid description, and reasoned appreciation of the ceramic ware of the far East, studying qualities of paste and artistic perfection in decoration, and carefully avoiding the absurd crazes which have been provoked in other countries by the discovery of such designations as "mustard yellow," "crushed strawberry," and "peach-blow." Nor have the Parisians ever been in touch with the Londoners, whom the painter Whistler started in desperate chase after blue and white, and after hawthorn pots with or without their lids, for a pair of which English collectors, when the craze was at its height, some ten years ago, paid as much as £1000.

DAKOTA.

BY P. F. McCLURE.

ABOUT half-way between the Atlantic and Pacific oceans, on the northern boundary of the republic, is situated a Territory greater in area than either the kingdoms of Norway, Great Britain, or Italy, and more extensive than the combined surfaces of Maine, New Hampshire, New Jersey, Vermont, Rhode Island, New York, Maryland, two Massachusetts, three Delawares, three Connecticuts, and a half-dozen Districts of Columbia, all united in one. This is Dakota, whose Indian name, signifying leagued, aptly describes her population, drawn from every State of the Union, from all nationalities of the globe, and banded together with the one purpose of founding a home and enjoying the comforts and independence that word implies.

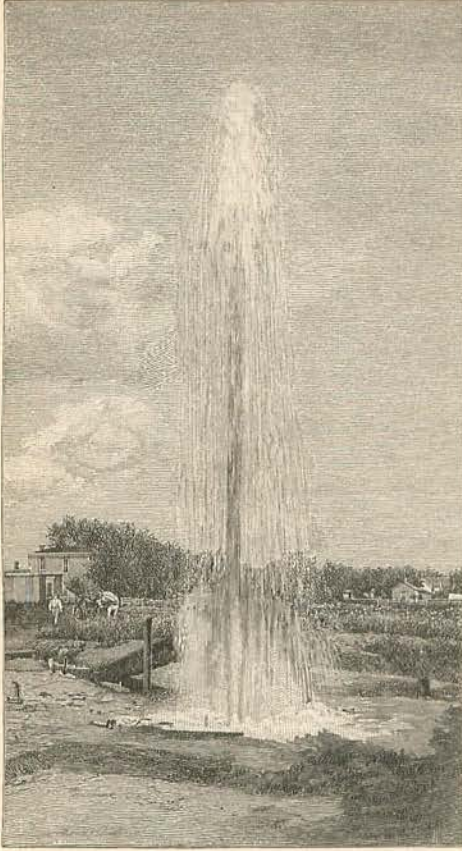
Attempts at settlement for agricultural purposes date from 1856, but the handful of pioneers, confined to the most southerly counties, were constantly harassed and frequently driven from their homes by hostile Indians, so that the increase of population was not noticeable until after the close of the civil war.

Congress created the Territory of Dakota in 1861, and President Lincoln, in the same year, appointed Hon. William Jayne, of Illinois, the first Governor. Eleven years after this date the building of two lines of railway across the eastern boundary—one coming from Minnesota and the other from Iowa, and the discovery of gold in the Black Hills by the expedition under General Custer in 1874,

led to a decided activity in the settlement of the Red River Valley, in the north, the counties of the extreme southeast, and the rich mineral district of the west—a growth which, spreading with each succeeding year, marks one of the most marvellous epochs in the history of the population of the West.

The national census of 1860 gave Dakota a population of less than 5000; that of 1870, 14,000; of 1880, 135,000; and five years later this number had increased, as shown by a federal census, to 415,610. Governor Church, in his annual report to the Secretary of the Interior (June 30, 1888), says that the present population of the Territory is 640,823.

Illinois, Kansas, or Minnesota may boast of prairie-land, but nowhere else in America is there a plain so even, broad, and gently undulating as the vast surface of Dakota, an expanse equivalent in length to the distance separating New York city and Cleveland, Ohio, and as far across in breadth as from Philadelphia, Pennsylvania, to Raleigh, North Carolina. An occasional mound or collection of buttes, the low hills of the Plateau du Coteau du Missouri, and the broken borders of the larger streams and lakes, give a slight and pleasing irregularity to such an ocean of level land. The Black Hills, covering nearly four counties, in the southwest, are the only considerable elevations within the Territory. Harney's Peak is 8200 feet high. The surface in general is free from rocky



ARTESIAN-WELL, YANKTON.

deposit or heavy forests, and the ploughman may turn his furrow for miles with never a deflection because of stump or stone.

The Missouri River, flowing from northwest to southeast, bisects the Territory, and furnishes, within her borders, upward of a thousand miles of navigable waters. The Red River of the North is navigable for steamers of two or three hundred tons burden nearly its entire course.

Smaller streams and lakes of pure water abound in every section, and these are fringed usually with a growth, somewhat sparse, of native trees—the varieties oftener met with including the cottonwood, ash, box-elder, oak, aspen, and willow. Norway pine grows abundantly in the Black Hills, and of suitable size for lumber.

Where the surface supply of water is lacking, wells, sunk or driven, seldom fail

of finding strong underground veins at an ordinary depth.

The artesian-wells of Dakota are probably the most remarkable for pressure, and the immense quantity of water supplied, of any ever opened. More than a hundred of such wells, from 500 to 1600 feet deep, are to-day in successful operation, distributed throughout twenty-nine counties, from Yankton, in the extreme south, to Pembina, in the extreme north, giving forth a constant, never-varying stream, which is in no wise affected by the increased number of wells, and showing a gauge pressure in some instances as high as 160, 170, 175, and 187 pounds to the square inch. This tremendous power is utilized, in the more important towns, for water supply, fire protection, and the driving of machinery, at a wonderful saving on the original cost of plant and maintenance, when compared with steam. In the city of Yankton a forty-horse power turbine-wheel, operating a tow-mill by day and an electric-light plant by night, is driven by the force of water flowing from an artesian-well, the cost of obtaining which was no greater than would have been the cost of a steam-engine developing the same power, not counting the continual outlay necessary (had steam been employed) for fuel, repairs, and the salaries of engineer and fireman. What has been

accomplished through the aid of natural gas and cheap fuel in building up manufacturing elsewhere, may some day be rivalled on the prairies of Dakota by tapping the inexhaustible power stored in nature's reservoirs beneath the surface.

The soil is a rich black alluvial loam from two to four feet in depth, underlying which is a brown clay subsoil of several feet.

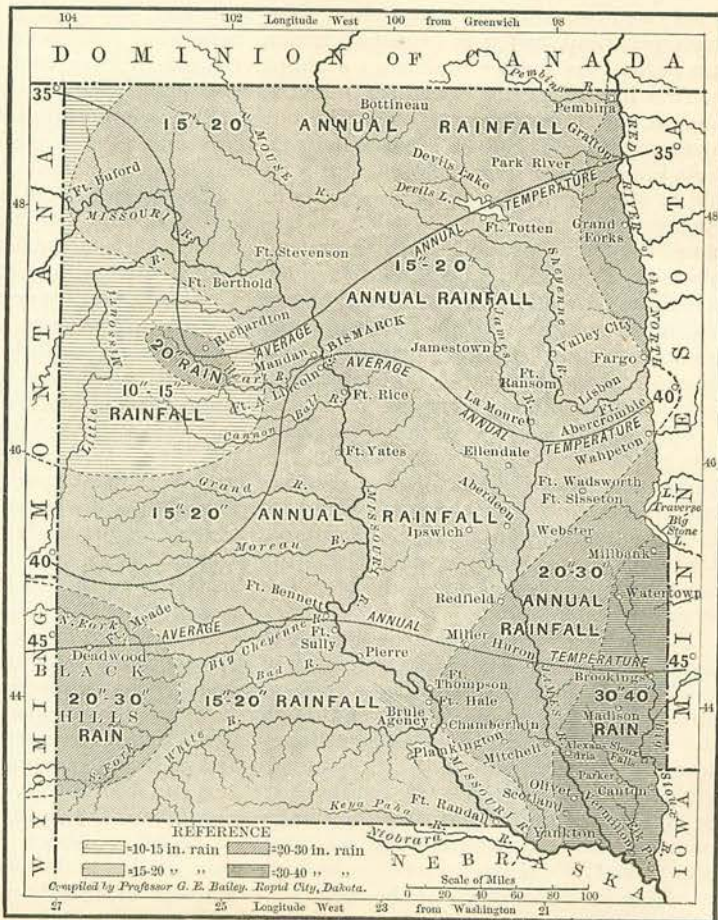
The beautiful carpet of natural grasses, buffalo, gramma, and blue-stem, stretching away in a vista confined only by the cloudless horizon, variegated by the coloring of greenest hue of growing grain, and by the bloom of the many flowers peculiar to the prairies, is a sight in the spring-time which fills the mind with that admiration of the grandeur of nature one experiences when upon the ocean or in the presence of mighty mountains. These rich, nutritious grasses are a source of wealth to the farmer and stock-grower

equalling that from the cultivated varieties of the East, and whether fed as hay or grazed from the already cured fields of the prairies, stock eat it greedily, and are fattened at literally no expense.

The notoriety of the Territory abroad has been established mainly, it would appear, on the fame of her wheat crop, and as being the birthplace of the "blizzard." Dakota is satisfied with, and feels that she has fairly won, the title of the grain field of America; but the testimony of her inhabitants and the proof of weather observations (as recorded by the United States Signal Service Bureau, army surgeons, and voluntary observers, covering in all a period of fifteen years) completely refute the standard Eastern idea of Dakota's climate.

The mean annual temperature of the entire stretch of country extending north from the northern boundary line of Nebraska — more than 400 miles — to the southern boundary of Canada is 41.5° , an average higher than that of either the State of Minnesota or New Hampshire. In the section of the Territory situated south of a line extended westward through Huron, on the James River, north of Fort Sully, on the Missouri River, and thence to Deadwood, in the Black Hills, the mean annual temperature is 45° , or about that of Nebraska, Iowa, northern Illinois, southern Michigan, Pennsylvania, and New York. The coldest month of the year is January, the thermometer indicating in that month an average temperature covering

the whole area of this vast country of 7° above zero. The mean temperature for July, the warmest month, is 72° . The average temperature of the three winter months is 11.8° ; of the spring, 41.1° ; and of the summer, 69.1° . The average temperature of the fall (September, October, and November) is 44.1° , or three degrees higher than during the three months of spring. There are really but two seasons in Dakota, summer and winter; the transition from snow to rain, from the cold of winter to the heat of summer, occurring with remarkable suddenness, generally in March, though sometimes as early as February. During the month of January the thermometer frequently registers a very low temperature, occasionally going 40° or more below zero; and yet, contrary to general opinion, these days of extreme cold are



DAKOTA WEATHER MAP.

not the most trying. When it is the coldest the sky is cloudless and the sun shines with a midsummer splendor, the atmosphere is at perfect rest, and the crackling of the frost, the crunching of the trodden snow, together with the intoxicating effect of each breath of dry, frozen air, create an exhilaration almost indescribable. An actual inspection of the thermometer is necessary to convince one that it is really so cold. The atmosphere, almost absolutely devoid of humidity, never penetrates and chills with that cold one feels in the damp, saturated air of the seaboard States. The most disagreeable storms of the winter occur when the temperature is but a few degrees below zero, and are accompanied by strong winds, blowing almost a hurricane, generally from the northwest, which swirl the dry powdered snow in whirlpools through the air, bewildering stock and blinding the traveller. On such occasions traffic is impeded, trains are halted, the farmer makes no attempt to feed his flocks, the wayfarer remains housed, or, if unfortunately caught out upon the prairie (and he is wise), he protects himself as well as possible, but stirs not a step until the storm has passed. Neither man nor beast can long withstand the facing of the keen, penetrating blasts or of the blinding particles of snow. All ideas of distance or of direction are lost in the confusion of the winds and the obscured atmosphere, and without these to guide him the traveller on the prairies is as a ship without a compass.

Fortunately storms of such severity are neither of long duration nor of frequent occurrence. The most disastrous one on record was the storm which swept over the Territory on the 12th of January, 1888, and the one concerning which the most woful exaggerations and distortions were circulated abroad.

The depth of snow upon the ground is light, when compared with the snowfall of the New England States, of New York, of Michigan, or Minnesota; and even though the season may be one of extraordinary severity, the total snowfall of a winter is less than four feet. Travel, overland or by rail, is maintained during the winter months, with but an occasional interruption from drifts of snow deposited by high winds in the depressions of the road.

The summer days are warm, made excessively so at times by the "Chinook

wind"—that remnant of the Japan current which, blowing through the mountain passes of Montana, and distributed by the great valley of the Missouri over the plains of Dakota, so materially reduces the cold of winter and adds to the heat of July. But whatever the unusual heat of the day, the temperature invariably falls at night to a degree insuring rest and refreshing slumber.

From the report of the Chief Signal Officer for 1886 (the only report available) it is learned that in Dakota three hundred and two days of the year were classed as either fair or clear, leaving sixty-three days, or an average of only five cloudy or stormy days to a month.

The warmth of summer lingers through the months of September and October, and it is not until late in December usually that winter assumes the mastery.

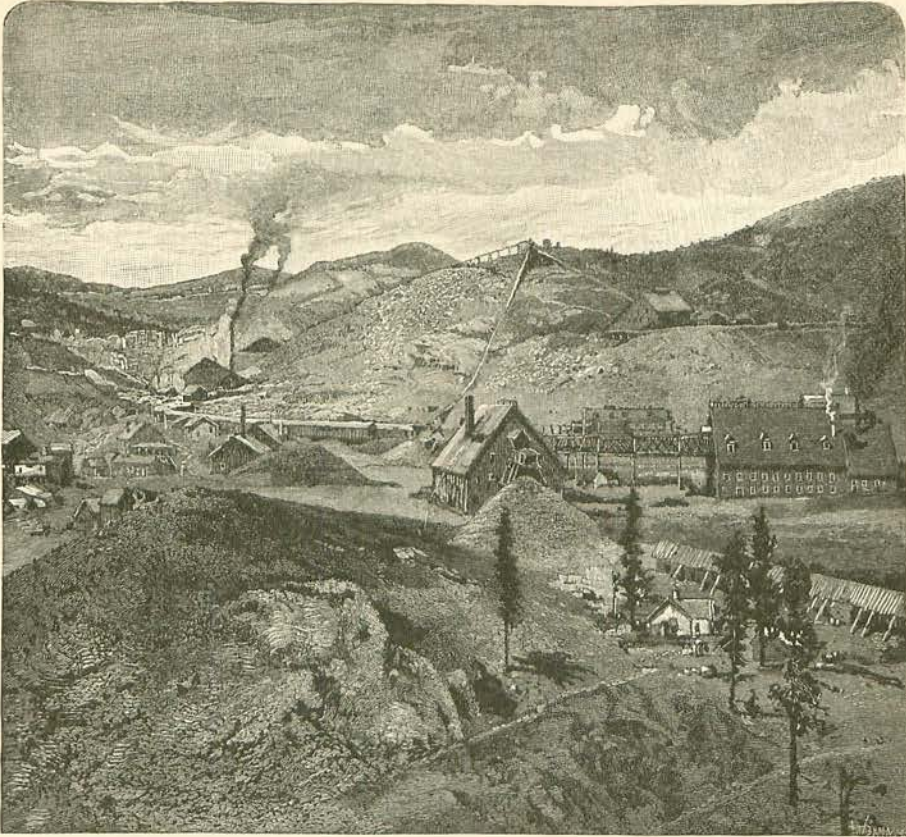
For pulmonary or bronchial troubles the rare, dry, and pure air is especially beneficial. No breath of miasma taints the atmosphere, and fearful scourges or depopulating epidemics are unknown.

The average annual precipitation (rainfall and melted snow) in the Territory, covering a period of sixteen years, is 22.35 inches. In April the average rainfall is 2.50 inches; May, 3.20; June, 3.64; July, 3.10; and in August, 2.65 inches.

The pulverizing of the naturally impervious sod, the prevention of prairie fires, the planting of trees, the building of cities, railways, and the other changes following on settlement, are bringing about the same gradual but certain increase of rainfall in Dakota which came with the reclaiming of those sections of the West and Northwest now contained within the boundaries of well-known and prosperous States. The rainfall during the period from 1880 to 1887 exceeded that of the period from 1872 to 1879 by a yearly average of 0.39 of an inch.

The known mineral deposits of the Territory, other than the extensive granite beds of the southeast and the coal fields of the northwest, are confined to the Black Hills region, comprised in the five counties of Butte, Lawrence, Pennington, Custer, and Fall River, on the boundary line separating Wyoming and Dakota.

No other section of equal area on the face of the globe presents the varied resources of this favored spot. Here are valleys of excellent farming land, hills clothed with nutritious pasturage, and



HOMESTAKE MINING WORKS, LEAD CITY.

furnishing natural shelter for stock, and mountains containing many of the minerals most valuable to commerce, science, and art, including deposits of gold, silver, copper, tin, lead, iron, coal, petroleum, salt, mica, marble, and porphyry.

At Lead City, near Deadwood, Lawrence County, are located the largest gold mines and mills in the world, the "Homestake." The ore bodies mined by this company show a working face from two hundred to four hundred feet wide, sinking to an inexhaustible depth. Six hundred stamps, crushing 20,000 cubic feet of rock every twenty-four hours, drop incessantly, day and night, in the several mills, without an intermission even for the Sabbath. During the ten years in which the mines of the Homestake combination have been operated they have produced about \$25,000,000 in bullion, and paid over \$6,000,000 in dividends to stockholders.

Eight miles south of Deadwood, in the

Galena district, silver ore is found in paying quantities, and is successfully reduced by the smelting process.

The Black Hills are seamed with veins of ore-bearing rock, which will return from \$25 to \$200 in gold to the ton of ore crushed. But unfortunately much of the ore is refractory, and cannot be treated by the ordinary process of amalgamation. Only recently the fact has been established that by the method known as lixiviation the precious metals could be cheaply separated from the stubborn rock, and following this discovery the immediate construction at Deadwood of leaching-works of one hundred tons capacity, at a cost of \$120,000, has been undertaken.

Mine owners have been waiting for years the solving of the vexing problem of how to treat the peculiar ores of Ruby, Bald Mountain, and other districts cheaply. The wealth and development which

are certain to result to the Black Hills from this discovery can scarcely be estimated.

But of far greater importance to the Territory, and indeed to all America, exceeding in prospective value any mines of the precious metals, are the rich and extensive deposits of tinstone. The United States imports annually tin-plates exceeding \$17,000,000 in value—a contribution to English trade which has existed from the foundation of the government, and promised (before the discovery of tin in Dakota was made) to grow with added years. So far as discovered the tinstone is confined within two separate districts—the northern section west of Deadwood, Lawrence County, and the southern or Harney's Peak section between Rapid City, Pennington County, and Custer, in the county of the same name. The tin-

stone is found in granitic veins, sometimes hundreds of feet in width, and yields from two to four per cent. By comparison with foreign tin mines it will be seen that this percentage is unusually heavy. The mines of Saxony return a yield of from one-half to one per cent., while in Cornwall the average is less than two per cent.

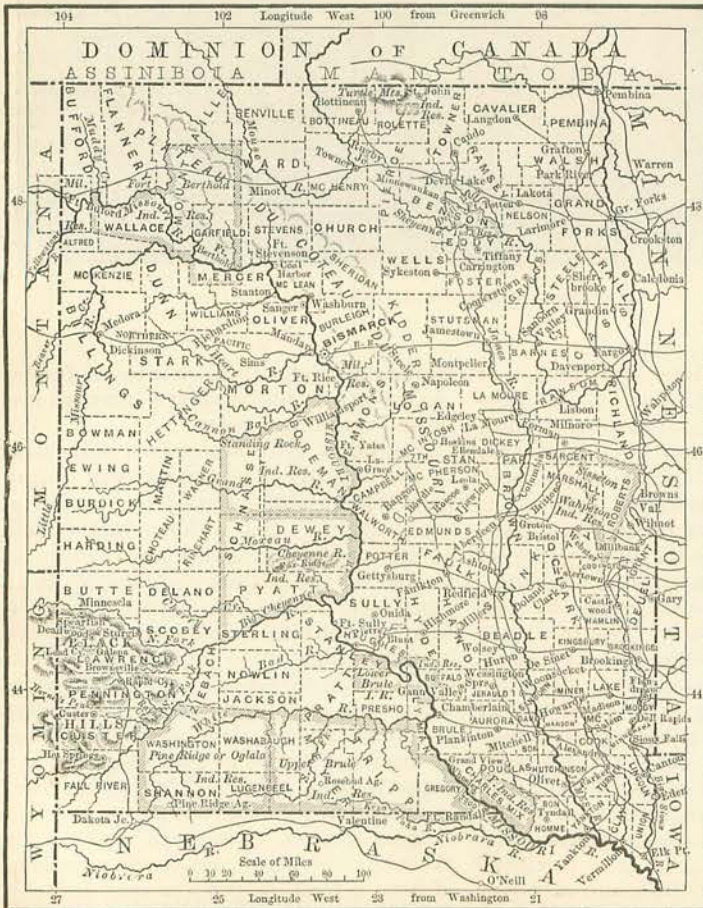
English capital is largely interested in the ownership and development of the Harney's Peak deposits, and American tin will soon be quoted in the markets of the world.

Professor Frank R. Carpenter, dean of the Dakota School of Mines, Rapid City, has demonstrated by recent tests that the tin can be separated from the encompassing rock by the very simple process of "jigging," the machinery to accomplish which costing but a comparatively small

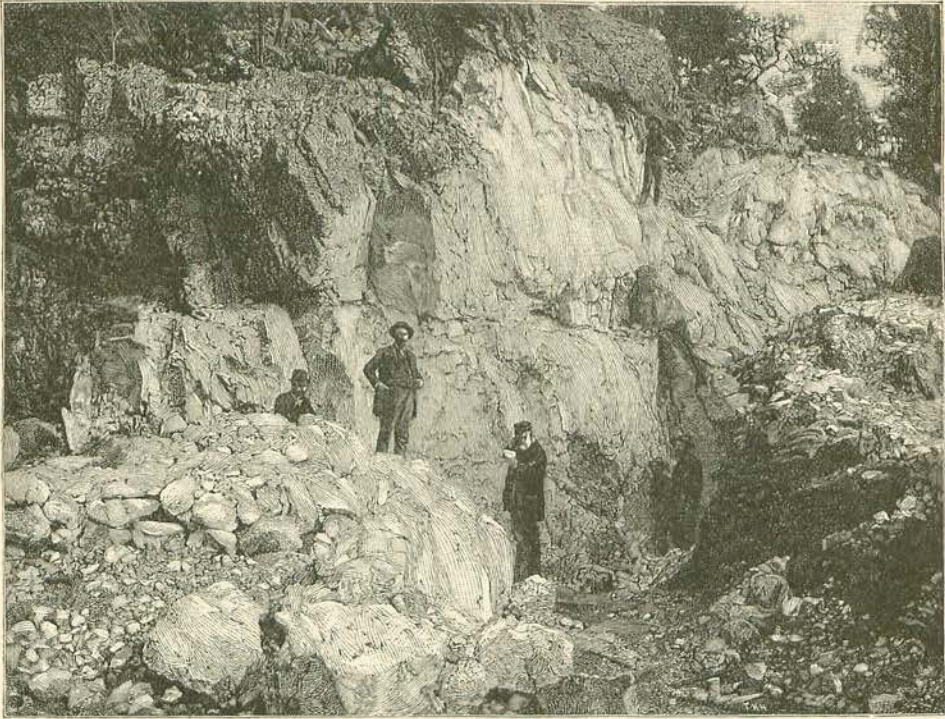
sum. As a result we may look for the development of tin mines and the erection of separating plants where, before, the large amount of capital required to establish the plant was an insurmountable barrier.

Mica is found abundantly, and is mined for commercial uses. Beds of gypsum and deposits of fire and potters' clay furnish a supply of these materials exceeding any possible demand. Bricks of excellent quality are made in every section of the Territory.

Lignite, or brown coal, underlies all that country west of a line drawn from the Turtle Mountains in the north, to the Black Hills in the southwest,



MAP OF DAKOTA.



OPEN CUT OF THE ETTA TIN MINE, BLACK HILLS.

and outcrops frequently in veins varying from five to twenty-five feet in thickness. It is an inferior quality of coal, but burns readily and furnishes a good heat. Mines are operated in Morton, Stark, Billings, and Ward counties, on the lines of the St. Paul, Minneapolis, and Manitoba, and the Northern Pacific railways.

In the vicinity of the mines the coal sells very low, from fifty cents to one dollar per ton, but excessive transportation charges have prevented thus far any general use of this native fuel. The ease with which it can be mined and the great area of the coal fields insure to the inhabitants of the Territory, when the extension of railway systems shall have brought about a reasonable tariff for carriage, a good fuel at one-third the present cost of imported coal.

Natural gas has been discovered in several localities, notably in Sully, Stutsman, Cass, and Spink counties. The discovery in each instance was more the result of accident than of any systematic investigation, and no effort has been made to utilize the flow, with the one exception of

the hotel at Ashton, Spink County, where the kitchen fires are fed by this fuel.

In Minnehaha County, in the vicinity of Sioux Falls and Dell Rapids, there is an outcropping of quartzite, with an exposed facing of some sixty or eighty feet. The stone has a pleasing flesh-colored tint, is exceedingly hard, and takes a beautiful polish, equalling the finest granite quarried in Scotland. An army of men finds employment in quarrying, dressing, and polishing the granite used for building and ornamental purposes, and in shaping it into paving blocks, which are shipped to Chicago, Kansas City, Omaha, and other Western cities.

Farming is the chief industry of the Territory, and the growing of wheat is the leading occupation of the farmer. With cheap lands and a rich soil easy of cultivation, requiring no preparation other than the turning of the sod, wheat is grown at a minimum cost for production, which varies from twenty-four cents per bushel, on the bonanza farms of the Red River Valley (where the large area tilled and the employment of special machinery

result in more than the usual economy), to thirty-six cents per bushel, the general average of cost on farms of ordinary size. The settler begins his operations on a very small capital, generally no more than four or five hundred dollars, and indeed the sole capital of many who now are prosperous and own valuable farms consisted of muscle and a determination to succeed. From such small beginnings have sprung the present magnificent grain fields of the Territory.

In 1860 less than a thousand bushels of wheat were raised in the Territory; in 1870 the crop amounted to 170,662 bushels; 2,830,289 bushels in 1880; 38,166,413 bushels in 1885; and in 1887, by the estimate of the statistician of the national Department of Agriculture, 52,406,000 bushels, or rather, if the evidences in the hands of the Territorial statistician are to be relied upon, 62,553,499 bushels.

The wheat grown is all of the spring variety, is planted during the months of March and April (sometimes as early as February), and harvested in July and August. Threshing immediately follows, generally directly from the shock, and within about four months from the time of seeding the new crop is on its way to the elevators of Minneapolis, Duluth, and Chicago. The commercial value of Dakota-grown wheat is based on its peculiar hardness, dryness, and richness in albuminoids. These qualities give it a special grade—"No. 1, hard"—and bring the highest market price in the great milling and wheat centres of the world.

Oats, rye, barley, buckwheat, flax, sorghum-cane, potatoes, and all kind of vegetables are grown extensively, and return a large yield. In 1860 the crop of oats amounted to 2540 bushels; in 1887 this had increased to 43,267,478 bushels. The yield of flax in 1887 was 3,910,944 bushels; of barley, 6,400,568 bushels; rye, 316,586 bushels; and buckwheat, 97,230 bushels.

There is a growing tendency among the farmers occupying the well-tilled sections of the Territory toward mixed farming and the diversifying of farm products. Each year sees an increased area sown to corn, oats, root crops, and other fodder for stock.

A few years ago it was said that corn would not mature in this climate. Today it is the leading crop of the southern counties, and the area planted in central

Dakota, the Black Hills, and along the Missouri River Valley is rapidly approaching the acreage devoted to wheat. The yield of corn in 1885 was 7,800,593 bushels; two years later, in 1887, the yield had increased more than 200 per cent., and, as reported to the Territorial statistician, amounted to 24,511,726 bushels.

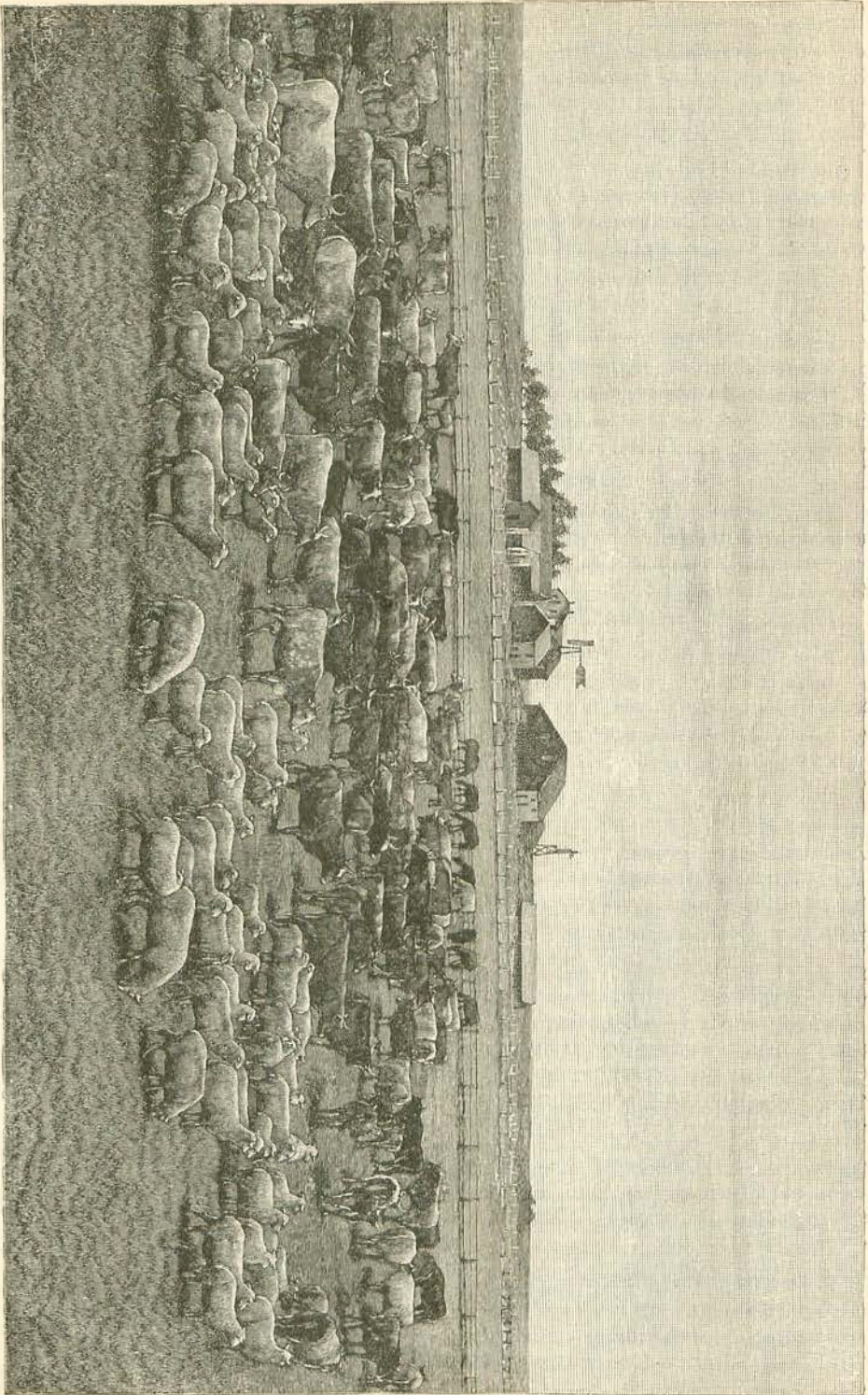
In 1887 the value of live-stock reached the sum of \$43,195,229, a sum fifty per cent. greater than the value of the three principal farm products—wheat, corn, and oats—of the same year. Seven years previous—in 1880—the total value of Dakota's live-stock amounted to \$6,463,274, showing an average annual increase, during the period between 1880 and 1887, of about \$5,000,000. In 1886 there were owned by the farmers and stock-growers of the Territory 710,934 head of cattle and 199,480 milch cows, valued at \$21,445,302; 227,027 horses, valued at \$17,618,192; 11,964 mules, valued at \$1,194,622; 427,176 hogs, valued at \$2,314,013; and 256,209 sheep, valued at \$623,100.

Cows, horses, sheep, and other cattle are fed throughout the year almost solely on the native grasses, and do remarkably well, coming out in the spring, if properly cared for, strong and in good flesh. These wild grasses cure to hay upon the ground, and are quite as rich and nutritious grazed in the winter season as in the summer. They cover every acre of prairie, of coteau, of valley land, a generous gift, which is all but wasted in that probably less than one acre of a thousand is utilized.

The climate is comparatively dry, and entirely free from prolonged rainy seasons of spring and fall—an advantage which attracts stock-men, because it insures security from many of those scourges which sometimes carry off entire flocks in the damp, moist climate of other localities. Sheep-raising is a specially successful venture, the diseases commonly so fatal to sheep being unknown within the Territory.

At least half a hundred creameries and no less than a dozen cheese factories are established in the more important localities—a conclusive proof of the growing interest in dairying and mixed farming.

The rapid expansion of the area planted to corn has carried with it a corresponding increase of investment in hog-raising—this increase in 1887 amounting to as much as twenty-five per cent.



A PRAIRIE STOCK FARM.—From a Photograph.

Hogs contribute largely to the revenue of the farmer in all that district south of the seventh standard parallel; and packing-houses in many towns not only supply the local demand, but find a market beyond the boundaries of the Territory.

One who has been a resident of this section of the Northwest the past five years cannot fail to observe the rapid improvement in the quality of the stock grown by the farmer. Through the encroachment of settlements and the heavy losses of cattle on the plains during the severe winter of 1886-7 the business of growing stock on ranges, without feed or shelter, has suffered immeasurably. Stock-growers of the Northwest have learned by costly experience that at least a little of that care and expense attending successful ventures in cattle-raising elsewhere is necessary in a country even so favored in the matter of rich grazing lands and equable climate as Dakota, and that, when it comes to feeding and sheltering, it is more profitable to grow an animal of good strain than a common one. As a result we find at the head of the herd on the farm, and exhibited at the county stock shows and Territorial fairs (of which two are held annually—one in North Dakota, one in South Dakota), Short-horn, Hereford, Polled Angus, Holstein, Jersey, and other high-grade cattle, imported draught-horses, and sheep and swine of the best standard breeds.

The Farmers' Alliance of Dakota, an organized movement on the part of those engaged in agriculture to protect and advance their interests, has been in existence four years, and developed great following and strength. The Alliance conducts (for the benefit of its members) a fire-insurance company, having a paid-up capital of \$100,000; a hail-insurance company on the mutual plan; a purchasing department, capital \$200,000; and an elevator company, with a capital stock of \$2,000,000. President H. L. Loucks, the able and efficient head of the organization, estimates the present membership of the Dakota Alliance at 17,000 farmers.

It should be remembered that this position in agricultural development has been attained with only a small fraction of her tillable lands under cultivation, with 27,000,000 acres (or an area greater than that of the State of Ohio) bound up in Indian reservations, not a foot of which, while so reserved, is subject to en-

try or development, and with 24,000,000 acres of the public domain outside of these reservations (a stretch of country nearly as large as the State of New York) unoccupied.

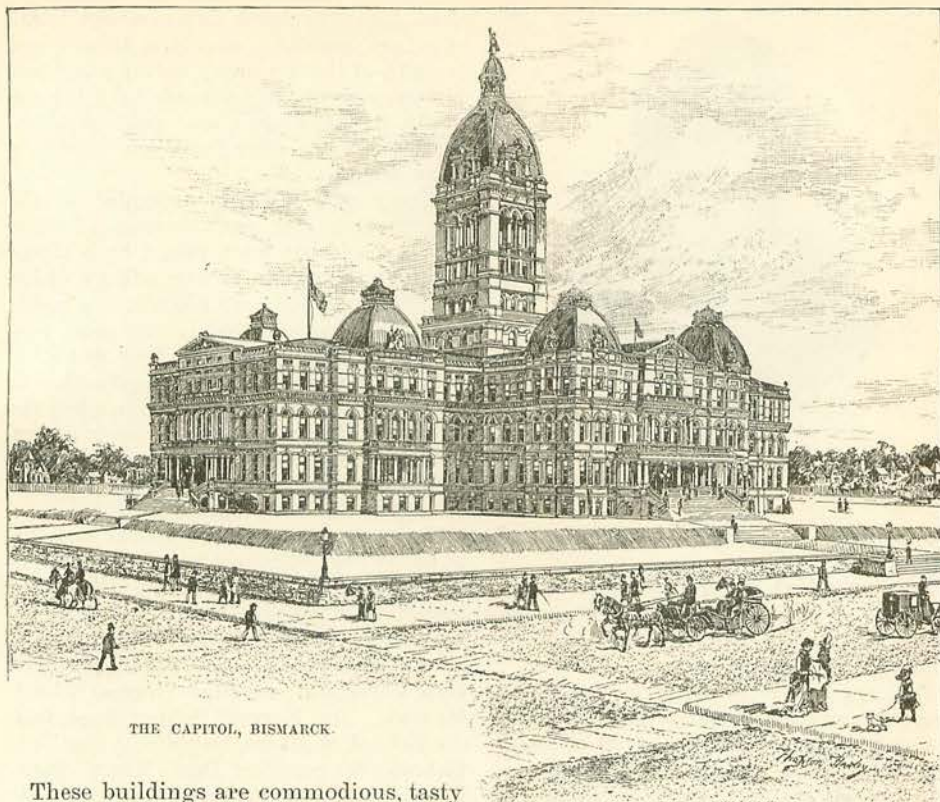
In 1860 the total value of improved lands in the Territory was rated at \$96,445; in 1880, at \$22,401,084; and in 1885, at \$156,767,918. In 1860 but 26,448 acres were farmed, which in 1880 had increased to 3,800,656 acres, and in 1885 to 16,842,412 acres.

The total assessed valuation of taxable property in 1880 (exclusive of railroads) amounted to \$20,321,530, in 1887 to \$157,084,365. The average assessed valuation of lands per acre in 1887 was \$3 67, and the average tax levy for Territorial purposes, $2\frac{9}{10}$ mills on the dollar. The net annual income of the Territory from taxation amounts to nearly \$400,000, and the disbursements to about \$325,000.

The total bonded indebtedness approximates the sum of one million dollars, or only three-fifths of one per cent. of the present assessed valuation. Of these bonds \$409,100, bearing interest at four and one-half per cent. per annum, sold in May, 1887, for a premium of one-half of one per cent.—a pretty strong endorsement by capitalists of the financial condition of the Territory.

Out of the funds derived from the sale of her bonds Dakota has established and maintains twelve public institutions, with an actual cash investment in the buildings and permanent improvements of each as follows:

Agricultural College,	
Brookings, Brookings County	\$100,140 00
University of North Dakota,	
Grand Forks, Grand Forks County	88,241 80
University of Dakota,	
Vermilion, Clay County	88,500 00
Normal School,	
Madison, Lake County	35,800 00
Normal School,	
Spearsfish, Lawrence County	30,000 00
School of Mines,	
Rapid City, Pennington County . .	35,820 00
School for Deaf-Mutes,	
Sioux Falls, Minnehaha County . .	53,512 00
Dakota Penitentiary,	
Sioux Falls, Minnehaha County . .	101,475 00
Bismarek Penitentiary,	
Bismarek, Burleigh County	95,281 20
North Dakota Hospital for the Insane,	
Jamestown, Stutsman County	276,200 00
Dakota Hospital for the Insane,	
Yankton, Yankton County	239,960 00
Dakota Reform School,	
Plankinton, Aurora County	30,000 00
Making in all	\$1,174,930 00



THE CAPITOL, BISMARCK.

These buildings are commodious, tasty structures of brick and stone, surrounded by ample grounds, and supplied in nearly every instance with all modern improvements, such as water-works, drainage systems, electric-light plants, steam-heating apparatus, etc.

Under the terms of the removal of the capital from Yankton in 1883, the city of Bismarck, its new location, donated to the Territory the present Capitol building, together with 320 acres of land—a gift of the value of \$200,000.

The total county indebtedness of the Territory, bonded and floating, deducting cash on hand and in sinking-funds, makes a sum less than \$3,000,000, or about two per cent. of the assessed valuation of Dakota in 1887.

Ten years ago the commercial interests of the Territory were cared for by the eleven banking institutions then existing, whose united capital amounted to \$70,000. The banking and loan business of this year is transacted by two hundred and thirty-seven private banks, sixty-two national banks, and fifty-one mortgage and loan companies, with a total capital thus engaged of \$11,293,000.

Seventeen years ago the first mile of railway was constructed across the boundaries of the Territory; to-day there are 4333 miles of completed track within her borders, or a railway mileage greater than that of either California, Kentucky, Massachusetts, or any one of more than one-half of the States of the Union. The construction of newly graded roads during the year 1887 amounted to 1017 miles, of which 716 miles were completed and in operation when the building season closed.

Two companies, the Chicago, Milwaukee, and St. Paul, and the St. Paul, Minneapolis, and Manitoba, each alone own and operate more than a thousand miles of railway in Dakota. The Northern Pacific lines cover 830 miles in the Territory, and those of the Chicago and Northwestern 761. These four great railway corporations of the Northwest, with their main and branch roads, reach not only every important city, town, and village, but far out upon the broad prairies, ahead of settlement or surveys, in an emulous



LEWIS McLOUTH.

strife for the possession of valuable territory.

The principal eastern connections and markets of North Dakota are Minneapolis, St. Paul, and Duluth; and of South Dakota, Chicago.

The aggressive, pushing policy of Northwestern railways in extending lines in advance of settlement is the secret of Dakota's rapid development and population. The first settlers of Kansas, of Minnesota, of Iowa, sought the West by slow and difficult wagon journeys, and awaited thereafter for years the approach of the steam-engine, which in those days came only when the pioneer had sufficiently developed the country to insure to railroads a paying traffic. Now the immigrant is carried quickly and comfortably by palace-car trains to his new home, be it on the prairies of Dakota, the mountain slopes of Montana, or the ocean shores of Washington Territory.

Notwithstanding this abnormal growth in population and of development, the cause of education has kept abreast of progress in other directions. More

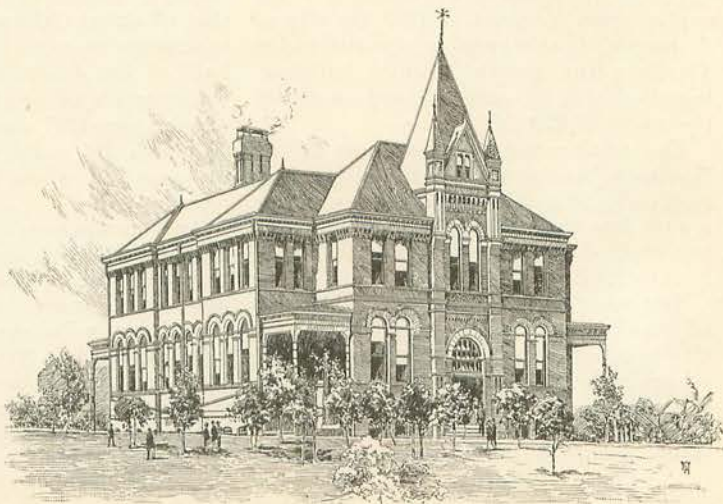
than four thousand public-school buildings are scattered over the length and breadth of the Territory, serving the double purpose of finger-boards pointing the youth to knowledge, and guide-posts directing the traveller from one township to another.

Every single dollar expended in the construction and maintenance of these 4065 schools has been raised by a direct tax upon the people, an expenditure which in 1887 amounted to \$1,633,561, or a larger sum than was devoted to the same purpose by any one of twenty-four States.

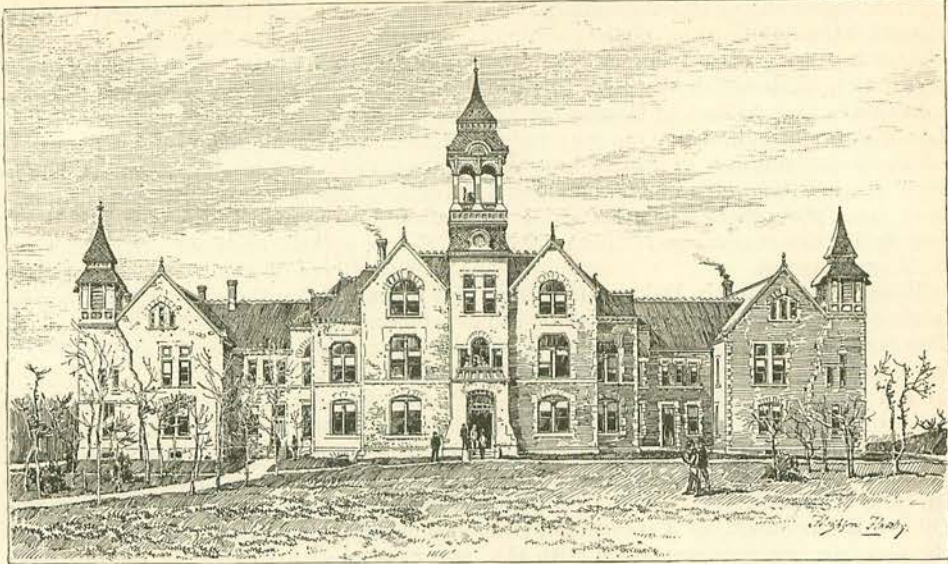
The reserved school lands, estimated to exceed 5,000,000 acres (available when the Territory attains Statehood), even at present values insure a future school fund sufficient to cover the most liberal expenditures of the commonwealth.

Seven institutions established and fostered by the Territory provide for higher education and instruction in special branches. These are the Agricultural College, Brookings; University of North Dakota, Grand Forks; the University of Dakota, Vermilion; the State Normal School, Madison; the Normal School, Spearfish; the School of Mines, Rapid City; and the Dakota School for Deaf-Mutes, Sioux Falls. All are provided with suitable buildings, and managed by faculties of able instructors.

In addition to the public institutions there are fourteen colleges, universities, and denominational academies.



HIGH-SCHOOL BUILDING, BISMARCK.



THE UNIVERSITY OF DAKOTA, VERMILION.

Of the denominational institutions having substantial structures and a widespread patronage there are the Yankton College, at Yankton (Congregational); Pierre University, at Pierre (Presbyterian); Sioux Falls University, at Sioux Falls (Baptist); All-Saints' School, at Sioux Falls (Episcopalian); Jamestown College, at Jamestown.

The interest displayed in educational matters is always an index of the religious and moral culture of a community. This holds true of Dakota, where the ratio of schools and colleges to the population is borne out in the number of churches established and pastors supported by the Territory. Towering church spires on the prairie, like signal-lights of the harbor, point out each city, town, or modest village. No matter how recent the settlement, how ambitious the strife for worldly possessions, the church and school are there, the site and foundations for which occupy the first cares of every new community. A recent official publication estimates the entire value of all church property as exceeding the sum of \$3,000,000, the number of church edifices at 600, and the number of church societies at 1000, supporting 800 pastors, or an average of one church organization to each post-office in the Territory.

Quite a noticeable feature connected with the settlement of Dakota is the

number of young men between the ages of twenty-one and thirty-five making up her population. They predominate, whether on the farm, in the trades, professions, and business undertakings, or in political and official management of Territorial and local affairs, and give to every enterprise that push and ambitious effort which has made a national reputation for the people.

The proportion of foreign-born to the entire population is about one in three, or at least that was the ratio in 1885, as shown by the federal census, and there is no reason to suppose it has changed in the three years since. A majority of the settlers of foreign nativity are Scandinavians, next come the Germans, Canadians, Irish, and Russians, in the order mentioned. One can scarcely name a foreign country which is unrepresented among the inhabitants of the Territory. Colonies of Jews from Poland, Mennonites from Russia, Turks from Roumelia, natives of Iceland, and representatives of nearly every clime, color, and religious sect upon the globe, are here engaged side by side in that struggle for home and independence which marks the better civilization of the world.

With the maturer growth of cities and communities there is observed the birth of literary and scientific organizations, the foundation of public libraries, and an expansion of social amenities.

The largest city of Dakota contains less than 12,000 inhabitants, while the pushing, energetic towns with from 1000 to 5000 population, that confidently look forward to a future akin to that of Chicago or St. Louis, are innumerable. One may judge of the great number of towns and villages dotting the prairies when it is stated that more post-offices are maintained in Dakota by the general government than in Massachusetts.

Bismarck, in North Dakota, the Burleigh county-seat, and the capital of the Territory, is situated on a plateau sloping gently from the low encircling hills to a frontage on the Missouri River—a site apparently designed by nature for the building up of a beautiful and prosperous city. The town was platted in 1872, and named in honor of Prince Otto von Bismarck, as a compliment to the German interests connected with the construction of the Northern Pacific Railroad. The city has a population of 4500, three school buildings, valued at \$30,000, six church edifices, United States land-office, City Hall, court-house, brewery, flour-mill, and other manufacturing enterprises, water-works system, electric-light plant, etc. The Capitol building and North Dakota Penitentiary are located on commanding sites near the outskirts of the city. The vast extent of excellent farming lands, the proximity of coal fields, and the advantages of a river commerce are the foundations of the city's growth and prosperity.

Ten years ago the population of Sioux Falls, the Minnehaha county-seat, in the southeastern part of the Territory, was 697. It has now a population of 11,000, and is the largest city of Dakota. Five railroad systems, the Chicago and Northwestern, the Chicago, Milwaukee, and St. Paul, the Chicago, Rock Island, and Pacific, the Illinois Central, and the St. Paul, Minneapolis, and Manitoba, give to Sioux Falls unusual transportation facilities. The Big Sioux River furnishes, at this point, a splendid power in a series of falls, with a total descent of ninety feet. The quarrying, shaping, and polishing of the granite which underlies the city forms one of the chief industries of the place. Sioux Falls is provided with street-car lines, water-works system, gas, electric-light plant, free postal delivery, public library, seven banks, fifteen houses of public worship, five brick

and stone school buildings, and twenty manufacturing establishments, employing more than \$1,000,000 in capital. Two Territorial institutions, the South Dakota Penitentiary and the School for Deaf-Mutes, and four colleges, under the management of the Episcopal, Baptist, Catholic, and Norwegian Lutheran denominations, are located in the city.

Fargo, at the head of navigation on the Red River of the North, has grown from the small village of 1874 to its present population, about 10,000. Seven passenger trains leave the city daily for St. Paul and the East, *via* the Northern Pacific, the St. Paul, Minneapolis, and Manitoba, and the Chicago, Milwaukee, and St. Paul railway systems, whose main lines or branches connect Fargo with every section of the Territory and the two oceans. The city is the financial and commercial centre of North Dakota, having six banks, three incorporated loaning agencies, a flour-mill (one of the largest in the Territory), and several other manufacturing establishments. Six public-school buildings, valued at \$125,000, and the Congregational College of North Dakota, furnish excellent educational facilities. Of churches there are eleven edifices, representing various denominations. The county buildings, including a court-house, sheriff's residence, and jail, were erected at a cost of \$160,000. In 1887 the assessed valuation of real and personal property in the city amounted to \$3,600,000, and in the county to \$13,000,000.

One of the prettiest cities of the Territory, as well as the oldest, is Yankton, the first capital of Dakota, situated on the southern boundary line, near the point where the James River empties into the Missouri. The present population of the city is about 5000, with five banks, seven churches, five school buildings, seven newspapers, United States land-office, a fine flouring-mill, two founderies, creamery, woollen factory, linseed-oil mill, two breweries, packing-house, comb factory, marble-works, pressed-brick works, soap factory, and two railroads—the Chicago, Milwaukee, and St. Paul, and the Chicago and Northwestern. Yankton College and the Academy of the Sacred Heart are institutions of higher education, well attended and ably managed.

Situated at the junction of the deep, narrow gorges of two mountain streams, in the very heart of the Black Hills, is



FALLS OF THE BIG SIOUX RIVER.

the city of Deadwood, the centre of a rich mining district, the county-seat of Lawrence County. Incorporated in 1881, the city now has a population of 5000, and supports three national banks (with a paid-up capital of \$500,000), two daily and two weekly newspapers, water-works system, electric-light plant, eight hotels, three machine-shops, four planing-mills, two founderies, a 200-barrel flouring-mill, United States land-office, three ward schools and one high-school building, and four imposing church edifices. A telephone exchange, employing 136 men and using 400 miles of wire, connects Deadwood with every important town or settlement of the hills. The business transactions of the city for the year ending April 30, 1888, aggregated \$13,000,000, and real estate transfers for the same period exceeded \$250,000. The assessed valuation of real and personal property, as returned for the year, amounts to \$2,500,000.

Rapid City, another Black Hills town, and the county-seat of Pennington County, has its location on a beautiful and swift stream, where the rugged moun-

tains and broken hills are seen only in the background. The city was located in 1876, and in twelve years has grown into a place of 5000 inhabitants, with four handsome and commodious church edifices, two national banks, street railway, water-works system, electric-lights, telephones, and a great number of substantial brick and stone buildings, including a \$52,000 hotel, a \$15,000 public-school building, and a fine court-house. The Dakota School of Mines occupies a handsome college building and a well-equipped laboratory, erected by the Territory. One railway, the Fremont, Elkhorn, and Missouri Valley, gives the city eastern connection by the way of Sioux City (Iowa) and Omaha (Nebraska). The opening to settlement of that portion of the Great Sioux Indian Reservation lying between Rapid City and the Missouri River to the east, and the development of the tin interests contiguous on the west, will determine the future greatness of the city.

The city of Grand Forks, the county-seat of one of the richest counties of the Red River Valley, has a population of 7500, with two public-school buildings

(heated by steam), seven churches, water-works system, gas-works, electric-lights, three national banks (having a united capital of \$500,000), a number of private banks, eight good hotels, two daily newspapers, three weekly, and two monthly, two railway systems, and river navigation. The leading industries of Grand Forks are the handling of wheat and the manufacture of flour and lumber. Three flour-mills, one feed-mill, a brewery (turning out 10,000 barrels of beer annually), two saw-mills (with the capacity of 200,000 feet of sawed lumber per day), two planing-mills, one boiler-works, one foundery, and a number of smaller enterprises give one an idea of the manufacturing interests of Grand Forks. The city has a courthouse and jail, a City Hall, fire department houses, and an opera-house.

The railway and commercial metropolis of central Dakota is the city of Aberdeen, the shire town of the great wheat-growing county of Brown. The Chicago and Northwestern, the Chicago, Milwaukee, and St. Paul, and the St. Paul, Minneapolis, and Manitoba railway systems operate lines radiating from the city in seven different directions, thus supplying exceptional advantages in the way of building up jobbing enterprises, advantages which her merchants have diligently improved. The first settlement in the vicinity of Aberdeen was made in the fall of 1880. Now the city has a population of 6000, two fine school buildings, six church edifices, water-works system supplied by the pressure from an artesian-well, electric-lights, three daily newspapers, two national and one private bank, opera-house, good hotels, a city hospital, and public and school libraries.

Mitchell, the county-seat of Davison County, was located in 1879, but her substantial and continuous growth dates from the entry of the first railroad, in 1880. In eight years the city has become a place of 5000 inhabitants, with lines of railways reaching north, south, east, west, and southeast. Mitchell has six churches, one private and two national banks, United States land-office, Holly system of water-works, one daily and two weekly newspapers, two public-school buildings, two opera-houses, foundery and machine-shop, a 250-barrel flour-mill, packing-house, and a variety of manufacturing establishments.

The chief city of Codington County,

Watertown, has a favorable location in the fertile valley of the Big Sioux River, at a point three miles distant from the beautiful Lake Kampeska. Six railway outlets give the business interests of the city access to a large and prosperous agricultural district. Although only nine years of age, Watertown has a population of 5000, six churches, three public-school buildings, three national and three private banks, water-works system, electric-lights, telephones, United States land-office, and one daily, one monthly, and three weekly newspapers. A 300-barrel flour-mill, foundery, and machine-shop, sash and door factory, and paint-works, represent the leading manufacturing interests. The city is proud of her many fine buildings, which include a \$75,000 bank, a \$40,000 hotel, a \$30,000 courthouse, and an opera-house costing \$25,000. The assessed valuation of Watertown's property, real and personal, foots up nearly \$1,000,000.

Huron, on the James River, the central city of that portion of the Territory south of the seventh standard parallel and east of the Missouri River, is located at the junction of two main trunk lines of the Chicago and Northwestern Railroad, and is the division head-quarters and pivotal point of that company's Dakota system. Twenty-two trains, carrying passengers, arrive and depart daily. June 1, 1880, the population of Huron was 300. Her present population exceeds 4000. In this period the city has added the following improvements: two brick school buildings, valued at \$30,000; seven church edifices; artesian system of water-works; sewerage system; electric-light plant; street railway; opera-house; four national banks; two daily and four weekly newspapers; one semi-monthly and three monthly periodicals; free postal delivery; and a United States land-office. The manufacturing establishments include cornice-works; artificial stone works; two flouring-mills; brick-yards; packing-house, and railroad machine-shops, employing 300 workmen.

By the terms of an act of Congress, approved April 30, 1888, about 11,000,000 acres of excellent farming and grazing lands, now contained within the boundaries of the Great Sioux Indian Reservation, are to be opened to settlement as soon as the necessary Indian consent shall have been obtained. The lands which

the Indians are asked to cede include nearly all of the reservation lying between the Cheyenne and White Rivers, bounded on the west by the Black Hills, and by the Missouri River on the east; all that portion of the reservation which is situated west of the 102d degree of longitude (Greenwich) and north of the main branch of the Cheyenne River; and a part of the Winnebago and Crow Creek Reservation on the east bank of the Missouri. For years the citizens of the Territory, more particularly those residing near the outer barriers of this great stretch of reserved lands, have labored to obtain a passageway connecting the mineral district of the Black Hills with the agricultural area east of the Missouri River—efforts which are soon to be crowned with success. The extinguishment of the Indian title to the tract as designated will be the harbinger of another era of progress and development of the Territory such as was witnessed during the years of 1883-4, and the two Mis-



LOUIS K. CHURCH.

souri River cities and railway termini, Pierre, Hughes County, and Chamberlain, Brule County, occupying strategic points, will assume the position, so confidently expected by their founders, of the most



DEADWOOD, IN THE BLACK HILLS (SOUTH VIEW).



BARTLETT TRIPP.



OSCAR S. GIFFORD.

important commercial marts and railway centres of South Dakota. Each city has excellent schools, fine churches, a splendid water-works system, and the various public buildings and business enterprises of a metropolis.

The present Governor of Dakota, Louis K. Church, was born in Brooklyn, New York, December 11, 1846, and is a lawyer by profession. He was, in 1885, appointed Associate Justice of the Supreme Court of Dakota, and immediately removed to the Territory, where he fulfilled the duties of Judge of the Fifth Judicial District in a manner highly satisfactory to the people.

Before the expiration of his term on the bench, Judge Church received the appointment of Governor of Dakota.

Hon. Oscar S. Gifford, Dakota's Delegate in Congress, also a native of New York, has resided in the Territory seventeen years. He is now serving his second term in Congress.

Hon. Bartlett Tripp, one of the most able lawyers in the Northwest, and Chief-Justice of the Supreme Court of Dakota, is a native of the State of Maine. He removed to Yankton, Dakota (his present residence), in 1869. In November, 1885, he was appointed Chief-Justice.

BULB GARDENS IN-DOORS.

BY JOHN HABBERTON.

THE "Dutch" bulbs take their name from the country in which most of them are propagated for the trade; they thrive in the entire temperate zone of any country. As a veteran florist once said to the author, a Dutch bulb can snap its fingers at the stupidest amateur alive, and grow and bloom in spite of him, whether the house be dark, light, hot, or cold. Its structure is so simple and complete that the bloom is not dependent even upon soil to develop flower buds, for these exist before the bulb is planted. All that is absolutely demanded of the cultivator is plenty of water.

Among the Dutch bulbs the hyacinth is the most satisfactory to persons who have room for but few plants. A single hyacinth fully developed is a flower show

in itself, so luxuriant is the foliage and so abundant the bloom, color, and fragrance. More variety and quantity of color may be found in a dozen pots of hyacinths, "dealers' selection," than in a large bed of ordinary garden flowers. They are as far superior in effect to the historic "lilies of the field" as these flowers were to "Solomon in all his glory." A single "spike" of hyacinths is as showy as a large "self"-colored bouquet, and "composes" better, nature being still superior to art in arranging flowers. The bloom remains undecayed much longer than that of roses, carnations, or geraniums. The natural symmetry of the plant is frequently marred by the heat and dryness of houses heated by furnaces, so the leaves bend and droop instead of giving