

GEOGRAPHY OF NORTH DAKOTA

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PHYSICAL FEATURES

Situation, Boundaries, and Extent. What is the location of North Dakota in North America? In the United States? Between what parallels of latitude and meridians of longitude does it lie? When it is noon in Fargo, what time is it in City of New York? In London?

What are the boundary lines of North Dakota? How do they differ? Where has it a natural boundary? To what great river system does the Red River belong? The Missouri?

With the scale of miles, measure the width from north to south and the average length from east to west. The area of North Dakota is 70,837 square miles, or about 7000 square miles less than that of South Dakota. What states does it about equal in size? How many states the size of Rhode Island would North Dakota make? What part of Texas would North Dakota equal?

Geological History. The key to the present surface of the state is found in its geological history. From this view point, the surface is divided into three great classes: the ancient lake beds, the areas covered and planed off by the great ice sheet, and the region untouched by the ice.

The layers of rocks which appear in the western part of the state, and which are largely responsible for the character of the soil of that region, were formed long before the glacial period underneath a great sea, which stretched across this portion of North America from the region of the Rio Grande to the Arctic Ocean, in the Cretaceous period of geologic time. Into this sea, enormous quantities of soil and rock waste were brought by the rivers from the continent on the east, and the long islands on the west, where now stands the Rocky Mountain highland. These materials, thus laid down upon the sea bottom, at different times and under different

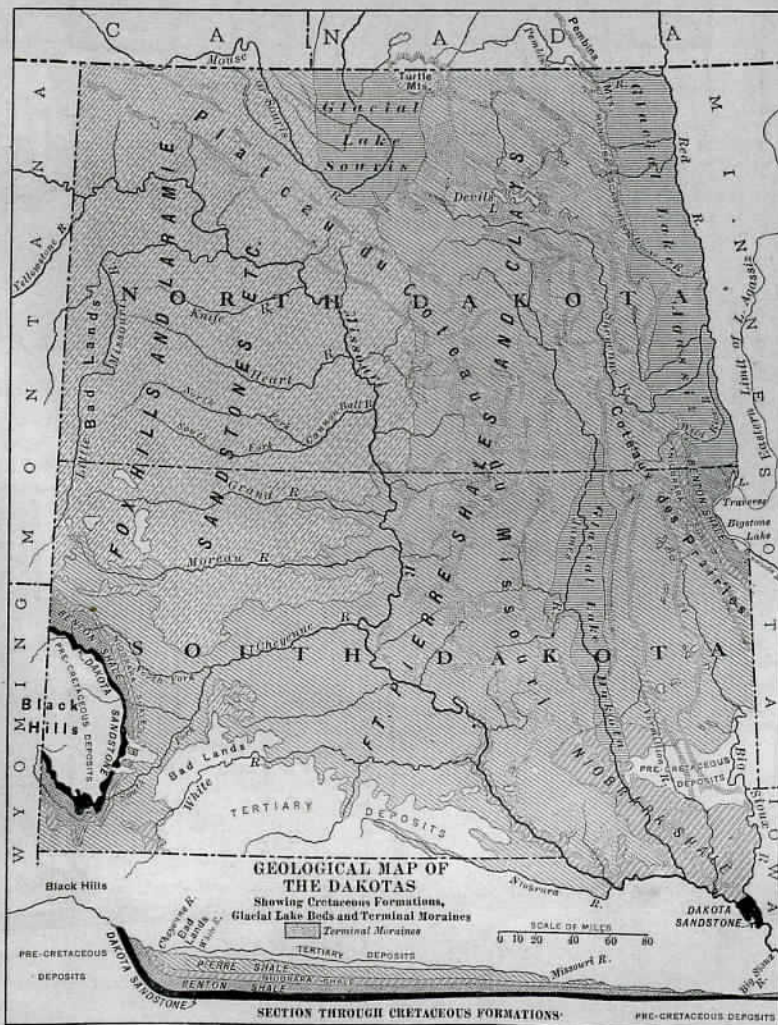
conditions, became later consolidated into the sandstones, shales, and clays of the Cretaceous series, and are now to be found underlying the surface material in different parts of the state, except in the extreme eastern. Within these strata lies most of the mineral wealth of North Dakota.

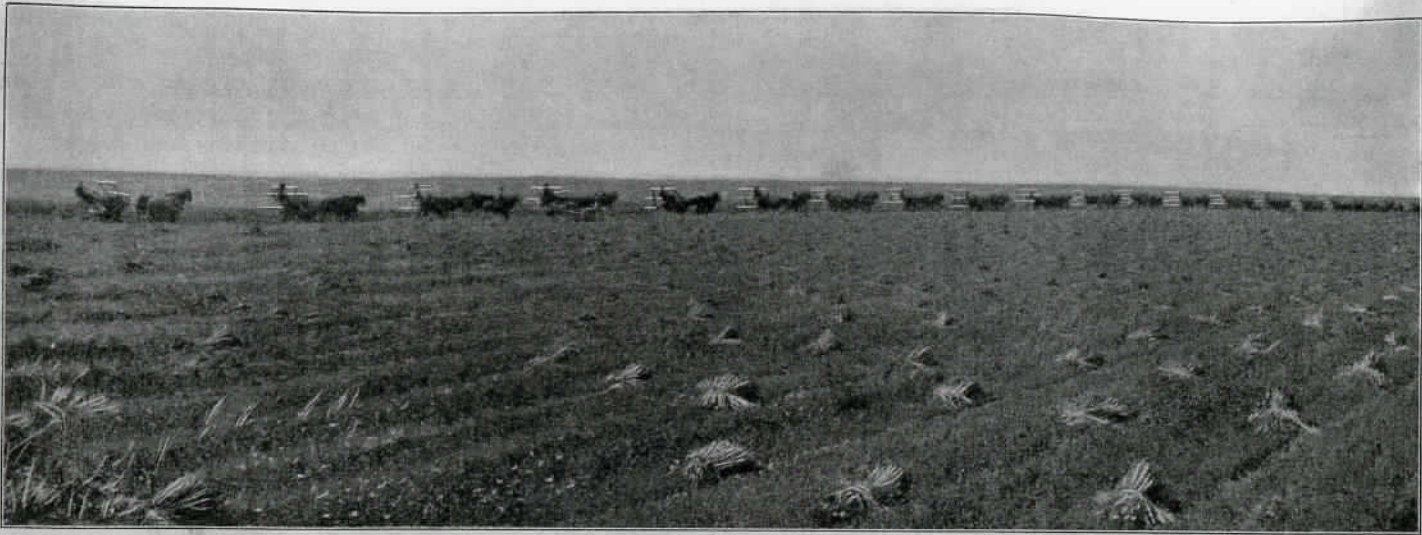
The first layers deposited upon the sinking land formed the Dakota sandstone, from which most of the artesian water supply is obtained. This sandstone, deep underneath the surface of the central part of the state, forms a great basin which collects the rain falling upon the foothills of the Rocky Mountains.

Upon the Dakota sandstone were laid down later, and in succession as the sea deepened, the Fort Benton shale, the Niobrara shale, the Fort Pierre shales and clays, and the Fox Hills sandstone. Latest of all, as the sea grew more shallow, and changes of sea level occurred frequently, was deposited the thick bed of the Laramie sandstones, shales, and clays, with layers of lignite coal.

After the formation of these rock strata underneath the Cretaceous sea, this portion of the continent was lifted permanently above sea level. It is supposed that this series of rocks nearly, if not entirely, covered the state, being about 3000 feet thick in the west, but becoming much thinner in the eastern part. Then, through the long centuries of the Tertiary period which followed the Cretaceous era, weathering went on, rivers carved great valleys, and the general land surface was slowly lowered. During this period, the Red River cut a very wide and deep valley, flowing northward as now, and it is thought that the water of the upper Missouri and its tributaries within this state emptied into the Red River before the great ice sheet turned it southward into its present channel.

At the present time, the Laramie rocks still cover the western part of the state to the eastern border of the Coteaux, appearing also in the Turtle Mountains and on a few buttes eastward. In the Bad Lands, many layers of the Laramie are well exposed. The Fox Hills sandstone is found in the shallow valley of the James River, and near the base of the Turtle Mountains, furnishing the sandy soil of the central section. The Fort Pierre shales and clays appear in Pembina Mountain





HARVESTING WHEAT ON THE LEVEL PRAIRIE, VALLEY OF THE RED RIVER.

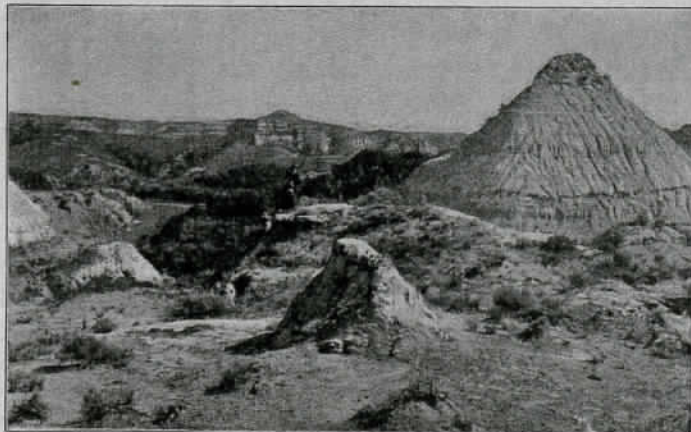
and in the deep valley of the Sheyenne, while below the Big Bend, this river has cut a gorge in the Fort Benton shale.

It is now known that, after the Tertiary period, the whole of northeastern North America was covered by a vast ice sheet which moved slowly southward during a long period of time, until it covered the northern United States as far south as the Ohio valley and reached the eastern banks of the Missouri in the Dakotas.

This enormous glacier moving from the northeast, brought from Canada great quantities of rock of all sizes, from huge boulders to the finest sand and rock flour, carried upon its surface, embedded in the ice, and dragged beneath it. The ponderous ice mass pushed itself over all elevations, planing off the tops, filling depressions, and gathering more rock as it progressed.

When it finally halted, along the present Missouri valley, and began its retreat to the north by a more rapid melting, this immense rock load, called "drift," was deposited everywhere, forming moraines. Glacial drift appears even upon the tops of the Turtle Mountains and on all buttes east of the Missouri River, and over the entire central portion of the state lies the ground moraine of finely pulverized rock flour and clay known as "till" or boulder clay. This layer of "drift" grows thinner towards the Missouri River, beyond which are traces of drift indicative of an earlier ice invasion.

When the ice appeared at times to neither advance nor retreat, the rock waste was deposited in long ridges called terminal moraines. Ten morainic belts can now be traced through North Dakota and Minnesota. These ranges of low hills have rounded tops, and are often thickly covered with stones more or less smoothed by the ice. All of the lakes of the state lie in depressions between these morainic hills. The rounded hills and ridges west of Larimore, near Coopers-town, Valley City, and Oakes, belong to terminal moraines. "The ridge" and "the mountains" lying between Larimore and Edinburg are parts of the medial moraine between the Dakota and Minnesota lobes of the ice sheet.



PYRAMID PARK, BAD LANDS OF THE LITTLE MISSOURI.

From the melting borders of these glaciers flowed streams loaded with rock waste into the Mississippi system, by way of the glacial "River Warren," which occupied the old valley, wherein now lie Lake Traverse, Bigstone Lake, and the Minnesota River. When the ice front of the Minnesota lobe had receded so far north in the old Red River valley that its streams could no longer find an outlet in the River Warren, a lake formed, into which great rivers flowed from the melting front of the Dakota glacier on the west. With the steady retreat of the ice sheet, the lake, now called Lake Agassiz, grew larger, until it extended far beyond Lake Winnipeg, covering 110,000 square miles.

The bed of this glacial Lake Agassiz now forms the broad level plains of the Red River valley, with its deep rich alluvial soil, surrounded by the old beach lines of gravel and sand. To these belong the deltas of the Pembina in the north, of the glacial Elk River where now lie Elk valley and Golden valley, and of the mighty Sheyenne in the south. At points upon the borders of both the Mouse and the Red River valleys to-day may be seen great tracts of sand hills that are ever shifting in the wind like the dunes on the shores of the Great Lakes and the sea.

The Sheyenne valley, which has been called the grandest example of a glacial valley in all the northern states, has had a varied history. At different periods in prehistoric times, it was the outlet of old Lake Souris and later of Devils Lake. At one time, the waters of glacial Lake Saskatchewan, lying in Canada, were drained into the Mississippi River, by way of Lake Souris, Sheyenne River, Lake Agassiz, and the River Warren. Lake Souris seems to have drained first into the Missouri, later into the James, still later directly into the Sheyenne, then, by way of Devils Lake, into the Sheyenne, and last of all into the Red River, by way of the Pembina, so easily were waters diverted from their former courses by the retreat of the ice and the uneven deposits of drift.

Surface. The surface of North Dakota presents three general types: level prairies with very gentle slopes; rolling prairies abounding in small lakes and rounded hills; and a region of broad plains broken only by well-established river valleys and scattered high buttes.

The finest example of the

chief tributaries in North Dakota are the Wild Rice, Sheyenne, Goose, Park, Pembina, and Mouse rivers.

The Sheyenne, the longest tributary, over 300 miles long, is wholly within the state. It lies, a small stream, in the bottom of a wide valley, and is considerably larger a hundred miles upstream than at its mouth near Fargo. The Mouse, or Souris River, makes a big, U-shaped bend into the state from Canada, and west of the Turtle Mountains returns to British territory, and, by way of the Assiniboine, enters the Red River near Winnipeg.

The Gulf slope is drained by the Missouri, the largest river of North Dakota, navigable in its entire course within the state. Its generally shallow waters, broad mud-flats, and shifting sand bars prevent its greater use in the commerce of the Northwest. In the spring of the year, it is the floodway for turbulent waters, heavily laden with the sand and soil wastes of the Rocky Mountains.

Its principal tributaries are from the west, the Yellowstone, Little Missouri, Knife, Heart, and Cannon Ball rivers. The James River, said to be the longest unnavigable stream in the world, drains, to some extent, the central part of the state, entering the Missouri on the southern boundary of South Dakota.

Southeast of the Turtle Mountains is a region draining into salty lakes having no visible outlets. Of these, Devils Lake is the largest and most beautiful. It is very irregular in outline, lying in the wind-ing depressions left among a group of morainic hills. Its length is over fifty miles, its width varies from one to six miles. The wooded banks and waters well-stocked with fish make it a pleasant summer resort.

Climate. The central position of North Dakota in North America gives it varying climatic conditions. It lies open to the cold north winds in winter, and to the warm winds from the southwestern plains in the summer. It is shut off from the modifying influences of the Pacific by the great western highland, and yet, because of the great cyclonic wind movements across the continent, in some seasons of the year it is often visited by moisture-laden winds from the Great Lakes and Atlantic Ocean. These conditions give the state a most healthful and invigorating climate.

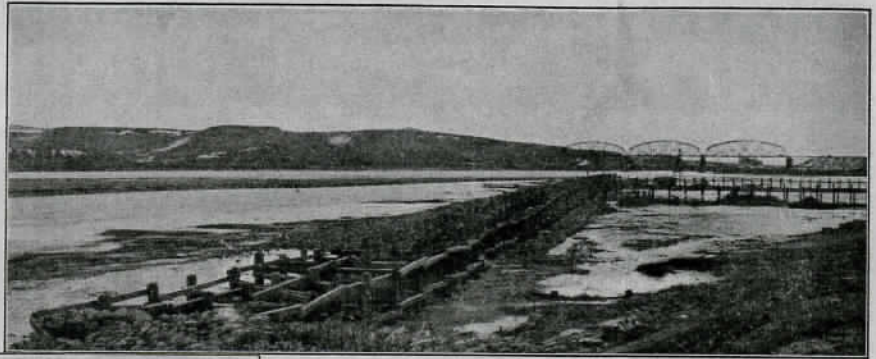
The winters are long and severe, but, because of the dryness of the air, a temperature of 40° F. below zero, which is sometimes reached, does not feel as cold as the air at zero in places near the sea or the Great Lakes, where the air is full of moisture. The average temperature

of the state for January is 6° F., and that for July is 68° F. The extremes of 45° F. below zero and 110° F. above are rarely reached.

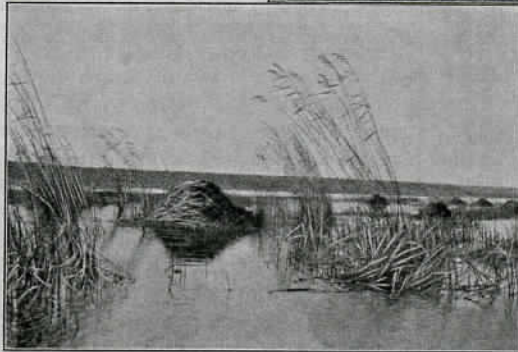
Owing to the vast expanses of prairie without adequate wind breaks, there come occasional fierce snowstorms called "blizzards," but these are of short duration, and many days, even in the depth of winter, are bright and springlike. The warm "Chinook" winds from the west noticeably raise the temperature in the western part of the state in winter. North Dakota is less subject to tornadoes than the states south and east of it.

In summer the days are warm and bright, the nights being almost invariably cool. Of the 365 days of the year 300 upon an average show cloudless sunshine. On account of the northern location, the length of days and nights varies greatly with the seasons, long days in summer, and as long nights in winter.

Most of the rainfall occurs in the growing season, the winter snowfall being generally very light. In the Red River valley and east-central portions, the precipitation averages 25 inches and is abundant for grain-raising. The



THE MISSOURI RIVER BETWEEN BISMARCK AND MANDAN.



VIEW ON THE MOUSE RIVER.

western half of the state lies in the semi-arid belt, east of the Rocky Mountains, having a rainfall of from 10 to 20 inches, and becomes, therefore, better adapted to mixed farming and stock-raising. The great depth to which frost penetrates is of much advantage in providing considerable moisture for the growth of grains in April and May. To the long periods of sunshine, and the short but cool nights of the summer season, are due the rapid growth and the excellent quality of the cereal crops.

RESOURCES

Soil. The state possesses a diversity of soils, fitting it for varied farming interests and industrial pursuits. The Cretaceous rocks that were worn away to a great extent in the eastern half of the state left, in the valleys and old lake beds, rich stores of minerals needed for plant growth, and later the ice sheet brought from Canada great loads of limestones and other rocks which, ground to powder, furnish the material needed for the great wheat and flax crops.

The soil in the Red River valley and old lake beds is a deep black loam of wonderful fertility. The soil of the glaciated areas is a more or less sandy loam, exceedingly fertile wherever the rainfall is sufficient. The counties including the Coteaux possess a soil containing just the right proportion of sand, clays, and humus or mold to raise to advantage alfalfa, corn fodder, and other stock foods. This, together with the uneven surface and lesser rainfall, fit this region for great dairying operations.

The soil west of the Missouri River, with its great proportion of rich elements, its friability and subsoil power to store moisture, can produce, even with its light rainfall, great crops of stock foods. It is preëminently fitted for stock-raising on dairy farms or on semi-ranges,

level prairie type is seen in the broad valley of the Red River, occupying the entire eastern portion of the state. This floorlike country extends on either side of the Red River to a distance of 30 or 40 miles, and forms one of the most fertile alluvial plains in the world.

Its soil is composed of the silt, or soil, brought down by the mighty rivers which flowed into Lake Agassiz. Other smaller level prairies are found wherever old glacial lakes once existed. This is the lowest portion of the state, having an elevation above sea level of 753 feet at Pembina, 835 feet at Grand Forks, 900 feet at Fargo, and 951 feet at Wahpeton.

West of the Red River valley lies a gently rolling prairie region, broken by several ancient river valleys, which are bordered by bluffs sometimes 150 feet in height, and now occupied by small streams, the Mouse, James, and Sheyenne rivers. This section has an elevation of from 1100 to 1600 feet above sea level. Upon the northern state line, rising to a height of 700 feet above the surrounding country, lies the plateau of the Turtle Mountains, including an area of about 1000 square miles.

Upon the east, separating the rolling prairie from the level Red River valley, lies a more or less conspicuous highland, extending north and south across the state, known as the Manitoba escarpment. This marks the western border of Lake Agassiz, and consists of outcropping Cretaceous rock beds. The ridge is highest in the north, where, called Pembina Mountain, it rises 350 to 450 feet above the valley plain on the east. Near Park River and Larimore it is a prominent feature, while in Traill and Cass counties it is scarcely noticeable, but rises again to the south, forming the Coteaux des Prairies on the southern boundary.

All of central North Dakota was once covered by the great ice sheet, which greatly changed the entire surface. Most of the long, crooked lines of low hills and hollows, ridges, and lakes of this section are features of the terminal moraines. Between the James and the Missouri rivers, extending diagonally across the state in a northwesterly and southeasterly direction, lies the "Plateau du Coteaux du Missouri." This region of high, rounded hills and deep depressions with many small lakes, rises quite suddenly, 300 or 400 feet from the rolling prairie east of it.

In the country west of the Missouri, which was untouched by the ice sheet, is found the third type of landscape: a surface made nearly level by long-continued weathering. This highest portion of the state has an elevation varying from 2000 to 2800 feet above sea level. The general level is broken by old watercourses,



ROLLING PRAIRIE.

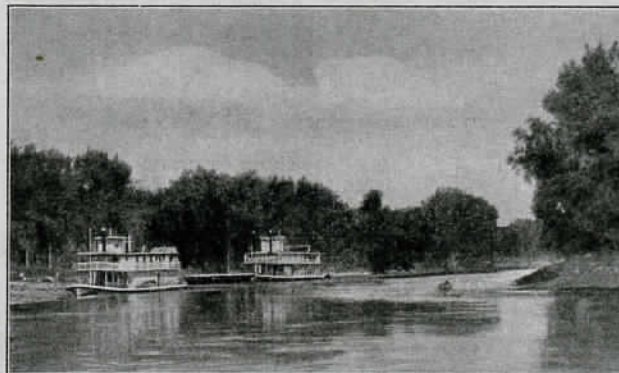
and here and there stand buttes and mesas, whose flat tops are remnants of the old higher prairie levels, eroded ages ago. In most of this section, erosion is now very slow on account of the long gentle slopes to the Missouri River. Where the slope of the river beds is more rapid, as in the Little Missouri and the Knife rivers, the many short tributaries push their heads back into the high land, and quickly form "bad lands," or tracts of deep winding valleys with intersecting gullies, leaving mesas and buttes of every form and size, in bewildering arrangement.

The early French travelers called these regions "Bad lands to travel through," and bad lands they prove to be for travelers on horse or foot, while for a carriage or mess wagon the greater part of the surface is impenetrable. They are, however, exceedingly fertile, affording abundant pasturage and giving fine shelter for ranchers' homes and stock.

The "Bad Lands" along the Little Missouri are confined to a tract only 10 to 20 miles wide along that river for 200 or more miles. Here river bluffs and buttes, often 400 or 500 feet high, reveal horizontal layers of many colored clays and shales, alternating with bands of sandstones and often with black beds of coal. In the region south of Medora, where the slow burning-out of the coal beds has baked the adjacent layers, the strata are often brilliantly colored in many tints of reds and yellows, while great masses of scoria, or natural brick, appear in many places. Elsewhere are fantastic forms in clay, carved by the joint action of wind and rain-rills.

Drainage. The principal drainage slopes are two, the Arctic and that to the Gulf of Mexico. The divide between them extends from the northwestern corner of the state to Lake Traverse just beyond the southeast corner, and forms a part of the "Height of Land," the relatively low, but most important watershed of the long eastern slope of North America.

So low is this "Height of Land" between Lakes Traverse and Bigstone, that, in seasons of extremely high water, the two lakes are said to be connected, and a canoe could pass from the Red River into Bigstone Lake, and thence into the Minnesota and Mississippi rivers.



THE RED RIVER.

Upon the Arctic slope is the Red River, forming the entire eastern boundary of North Dakota, a very crooked and sluggish stream in an almost level plain. Its waters eventually reach Hudson Bay by way of the Nelson River. From its mouth in Lake Winnipeg, it is navigable as far south as Grand Forks. Its



THRESHING WHEAT, RED RIVER VALLEY.

Minerals. Although farming products now seem the most important part of North Dakota's wealth, untold values are known to lie beneath the land surface awaiting future development.

Coal. According to the United States Geological Survey, the state contains nearly 32,000 square miles of land, underlaid by an estimated five hundred billions of tons of lignite. About a half-million tons are mined annually, thousands of tons being sent out from the counties of Ward and Stark alone.

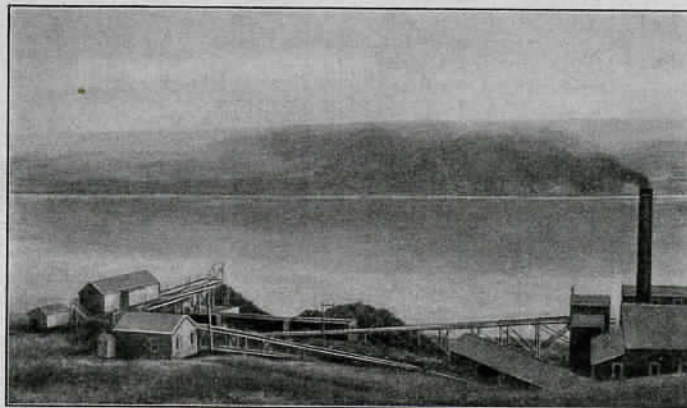
This brown coal is very free from sulphur, contains little ash, and in heating power is equal to 65 per cent of the best eastern soft coal. Government tests show that it is superior to Virginia anthracite and Ohio bituminous coal in the manufacture of producer power gas. The briquetting, or the molding of this coal into brick-shaped forms, will soon become a profitable industry. Lignite coal is burned in all of the state institutions, and is almost exclusively used for fuel in the western half of the state. In many localities the coal is at or so near the surface that it may be had for the digging, and some ranchers build their houses so close to the coal banks that their future supply of fuel is practically under the same roof.

Clay. The state is richly supplied with a fine variety of valuable clays, which are widely distributed. It is said that the clays suitable for common building brick are to be found in nearly every county, and that beds of semi-fire clays used for tile and drain-pipe, exist in every county west of the Missouri River, and in Burleigh county. The nearness of these clay beds everywhere to an abundance of lignite coal, renders their operation cheap and easy compared with similar deposits elsewhere.

The best known beds occur near Bismarck, Williston, and Dickinson and in Cavalier, Ward, Mercer, and Morton counties. Fire clays of medium grade are found in the Pembina Mountains, and of finest grade near Dickinson. Stoneware clays of fair quality occur near Minot, Dickinson, and in Pembina and Mercer counties. White earthenware clays of great value, suitable for white tableware, outcrop near Dickinson. Valuable beds of hydraulic cement clays appear in the Pembina Mountains, and are being worked at some points successfully. Stone of excellent quality is obtainable in the Turtle Mountains, at Harvey, Dickinson, and other points.

Natural Gas. Many artesian wells, varying from 300 to 1500 feet in depth, have been bored in the eastern and central portions of the state. This is a part of the greatest single basin underlying the central region of the United States. Artesian wells bored near Edgeley and at other points in the western James River valley give a rather strong flow of gas. Many flowing gas wells in Bottineau county are now used for illuminating and heating purposes.

Timber. North Dakota has no great forests. Narrow belts of timber are found along many of its streams and lake shores, and in the valleys of the Turtle and Pembina mountains. The cottonwood, box elder, ash, elm, and other trees, grow on the more level grounds; the oak and aspen and many shrubs upon northern slopes. Southward slopes are generally treeless on account of the greater exposure to extremes of temperature, especially during the spring months.



A NORTH DAKOTA COAL MINE.

The United States government in its aid to the Agricultural College and in the establishment of experiment stations throughout the state, has done much to prove to the residents that with the cessation of prairie fires, and the proper cultivation of the soil and care, these prairies may become the home of many hardy varieties of trees and shrubs. The hardier varieties of apples and many small fruits have been successfully raised within the state for a number of years.



BRINGING WHEAT TO ELEVATOR AND RAILROAD.

INDUSTRIES

Agriculture. North Dakota is preëminently a farming state. Although it is on the northern border of the United States, yet it has the advantage of long summer days; and the long periods of sunshine are of great importance to growing crops. The agricultural regions correspond quite closely to the surface and climatic divisions. The extremes being the rich alluvial soils of the comparatively low and level plains of the Red River valley, with ample rainfall, and the higher and rougher surface in the west where there is much less rainfall. The deficiency in rainfall in the semi-arid portions of the state is overcome, to a certain extent, both by dry farming and irrigation. By far the greatest crop is wheat, which is of the best quality and grades the highest in the markets of the world. Most of this crop is spring wheat.



A FLAX FIELD.

The total yield of wheat in some years has been about 117,000,000 bushels, and towns of 500 population in the wheat districts often contain six or seven immense elevators.

The "bonanza farms" of the Red River valley are known the world over. Some of them contain 30,000 acres. These farms are worked in divisions of two or three sections each, with a foreman over each division, and a superintendent over all. However, immense farms of this character have done little toward the upbuilding of the state. The tendency is constantly toward smaller farms, the larger ones being cut up and passing into the hands of single individuals. In the central part of the state, the average farm contains 320 acres.

The other important crops, in order of value, are oats, flaxseed, hay and forage, barley, corn, and potatoes. The growing of oats is quite general throughout the state, and there is a large and increasing acreage of corn, particularly in the southeastern counties. The annual corn crop is now about 5,000,000 bushels. Alfalfa has proved a paying crop in the more arid regions, and clover is being grown successfully in the eastern part of the state.

Winter wheat, spelt, and rye are grown in considerable quantities. Minor crops such as fruits and garden vegetables are chiefly limited to home consumption.

Numbers of farmers are turning their attention to fine stock, and dairy farms and creameries are in operation in various sections in increasing numbers. The annual value of the dairy and creamery products is far over \$4,000,000.

Stock-raising. In the Coteaux and on the Missouri slopes the wild upland grasses are very nutritious and cure naturally while standing. These natural ranges supported for thousands of years vast herds of deer and bison. During the latter

part of the last century, cattle in almost countless numbers ranged these far-stretching plains all the year round, without shelter other than that afforded by the deep valleys and the timber belts along streams, the snowfall in the western portion of the state being very light. In the order of value, the domestic animals are horses and mules, cattle, hogs, sheep, and poultry.

Since 1890, the influx of settlers has so encroached upon the ranges everywhere that the "cow country" west of the Missouri is now rapidly becoming a land of small farms, though northern shipping points still send thousands of head every autumn to the east. Western North Dakota presents almost ideal conditions of surface, soil, and climate for diversified farming, and must remain the great stock-raising section, using, not the old free ranges, but dairy farms and semi-ranges.



POWER PLOWING.



HARVESTED OATS.

The Treaty of 1818, fixing the north boundary line at 49° north latitude, brought these early settlements within the limits of the United States.

Aside from the settlements upon the border, and a few pioneers in the upper Red River valley, the actual settlement of the state is of recent date. The Northern Pacific Railway entered the territory at Fargo in 1872, reached Bismarck in 1880, and was completed to the Pacific Coast in the early eighties. The Great Northern Railway entered the territory at Grand Forks in 1880, and had crossed into the Rocky Mountains by 1888. The opening up of the country by these railroads and their numerous branches has been followed by a steady stream of immigrants.

It has been estimated that during the years of 1881-1883, 200,000 settlers entered the territory; in the spring of 1883, at the rate of 1000 a day. Later years have seen similar rapid settlements in every portion of the state opened up by newer lines of railroad. Now, in every portion of the state, the prairie is dotted with comfortable homes and fine groves of trees, where a few years ago roamed the Indian and the buffalo.

Organization. North Dakota is a part of the Louisiana Purchase which the United States acquired from France in 1803. As the earlier settled parts of the great tract became states, the region now known as North Dakota was considered, wholly or in part, successively as a portion of the territories of Missouri, Michigan, Wisconsin, Iowa, and Minnesota; that portion lying west of the Missouri River was for a time a part of Nebraska territory.

From 1858 to 1861, this part of the country was known only by its old name, the "Land of the Dakotahs." On March 2, 1861, the territory of Dakota was organized, including North and South Dakota, and stretching westward to the Rocky Mountains. President Lincoln appointed its first governor, and at Yankton, the first capital, the legislature met in 1862. In 1883, Bismarck became the capital.

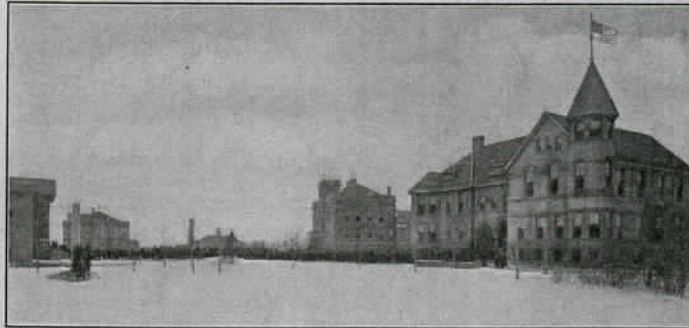


THE UNIVERSITY OF NORTH DAKOTA, GRAND FORKS.

North Dakota was admitted to the Union as a state November 2, 1889. There is both constitutional and legislative provision which prohibits the manufacture and sale of all intoxicating liquors in the state.

INHABITANTS

People. The population of North Dakota includes people from every state in the Union and nearly every country in Europe. The great majority of the inhabitants, however, are from the northeastern states, Canada, and the northern countries of Europe. The large numbers of Scandinavian farmers, by their industry and thrift, have done much toward the development of the wealth of the state. New York, Michigan, Wisconsin, Minnesota, and



NORTH DAKOTA AGRICULTURAL COLLEGE, FARGO.

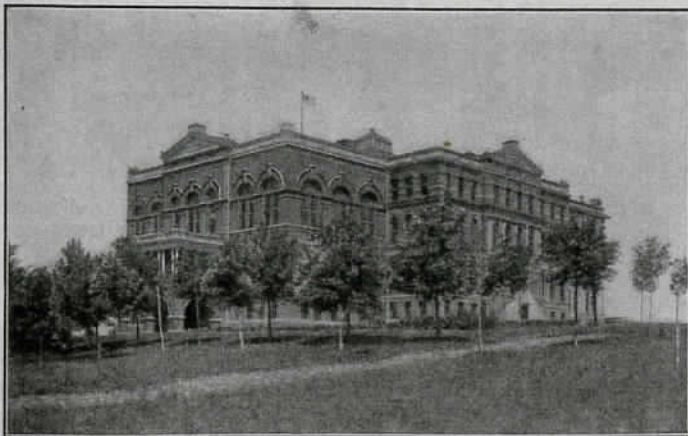
Iowa are well represented in every community. Owing to the recent settlement of the state, only the younger generation are native Dakotans.

In 1870, the population of the territory now included in North Dakota was 2405; in 1880, 36,909; in 1890, 182,719; and in 1910, 577,056. The rate of increase in the ten years from 1900 to 1910 is 81 per cent. Only four states in the Union have increased at a greater rate. The density of population is eight to the square mile. There are several thousand Indians in North Dakota, 2653 of whom are still gathered on reservations and are the wards of the government.

Government. The government of North Dakota consists of three departments: legislative, executive, and judicial.

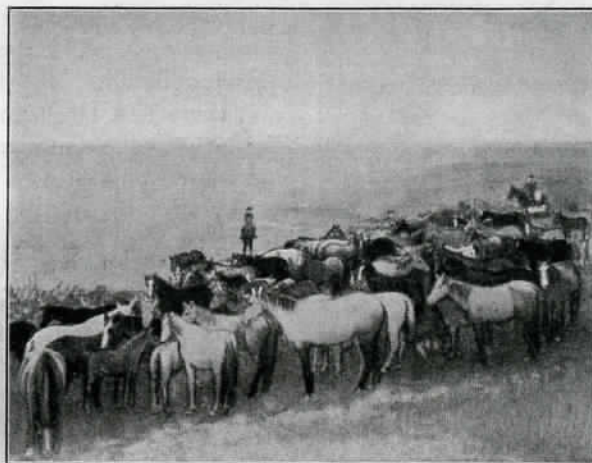
The legislative department consists of a senate and a house of representatives. The senators are elected for four years, one half of the number going out of office every two years; the representatives are elected for two years, or for one session of the legislature only.

The executive department consists of the following officers elected for terms of two years each: governor, lieutenant governor, secretary of state, treasurer, auditor, attorney-general, superintendent of public in-

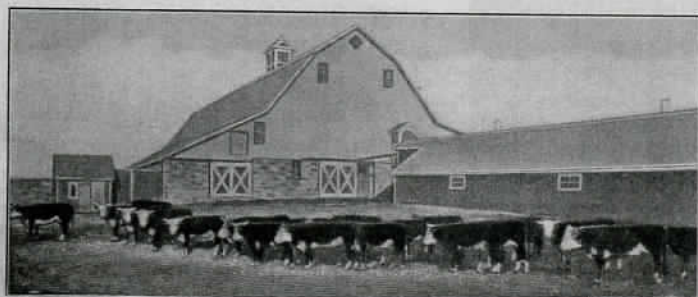


THE STATE CAPITOL AT BISMARCK.

Manufactures. The manufacturing industries of the state are still in their infancy. Many flour mills are located throughout the wheat region. One milling company alone, in their several mills, has a capacity of 8000 barrels a day. A sawmill, with an annual output valued at \$1,000,000, is located at Grand Forks, where is also a successful woolen mill. Portland cement is manufactured at Concrete, Cavalier county. Good brick is made in many parts of the state, and an excellent quality of pressed and ornamental brick is manufactured at Dickinson. The pressed brick of Hebron is noted from the Twin Cities to the Pacific Coast. A twine plant is in operation near Bismarck,



ROUNDING UP A HERD OF HORSES.



THOROUGHBRED CATTLE.

and candy and cracker factories are located at Fargo and Grand Forks.

Commerce. Most of the commerce of the state is carried on by railroads, a small portion only being transported upon the Missouri and Red rivers. From the Red River valley, the "bread basket of the world," and the entire state, wheat and flour are sent to Pacific ports, and by the way of Minneapolis and Duluth to Liverpool, whence it is distributed to the eastern world.

Three transcontinental lines of railroad pass through the state: the Northern Pacific, entering the state at Fargo, passes to the west, nearly on the 47th parallel; the Great Northern extends westward through the state near the 48th parallel; the Minneapolis, Saint Paul, and Sault Sainte Marie, or "Soo Line," crosses the state diagonally from Fairmount to Portal, connecting with the Canadian Pacific Railway at Moose Jaw, Saskatchewan. All these railroads have many miles of branch lines throughout the state. The Chicago, Milwaukee, and Puget Sound, and the Chicago and Northwestern railroads, enter the southern counties of the state. The moving of the immense crops of wheat, other cereals, flax, and potatoes,

justifies the intricate network of railroads in the eastern counties. About \$7,000,000 worth of live stock are shipped out of the state each year.

HISTORY

Exploration. The group of warlike Indian tribes who roamed these prairies unrestrained until the time of the Civil War, were called by the French the "Sioux," but by themselves the "Dakotahs," meaning leagued or allied. Their land was known two hundred years ago, among the fur-traders and missionaries, as the "land of the Dakotahs."

The state seal bears these words: "Liberty and Union, Now and Forever, One and Inseparable." The earliest account of this region was given by Lewis and Clark, who, while on their famous exploring expedition to the Oregon Coast, spent the winter of 1804-1805 at a point that they called Fort Mandan, near the mouth of the Knife River and near the present site of Washburn.

At this time the eastern part of this region was occupied by the Yankton Sioux, while the Mandans and the Arikaras were in the Missouri country. In 1808, the government established Fort Clark at the mouth of the Knife River, and made its first treaty with these Indians. At later dates portions of this land were explored by General John C.

Fremont with Jean Nicolle, and by Captain Pope and Lieutenant Warren.

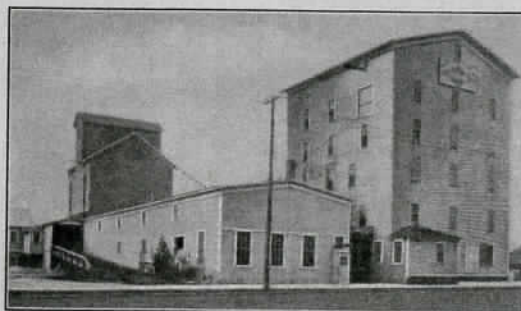
The reports given by these early travelers were misleading, and tended to discourage immigration. Captain Pope called the Devils Lake country the "salt water region"; Lieutenant Warren thought the land fit only to be inhabited by Indians and buffalo. The early geographies included all of the

present state in the "Great American Desert." The French called the Red River, "Riviere Sanglante"—bloody river—on account of the fierce conflicts on its banks between the Sioux and Chippewas.

The Sheyenne valley was famous in those days for its elk, deer, and buffalo. General Fremont speaks of passing, in 1838, through one herd of buffalo for two days, near the Big Bend of the Sheyenne. In this valley, in 1840, occurred a grand hunt on the Fourth of July, resulting in 2000 buffalo slain in one day.

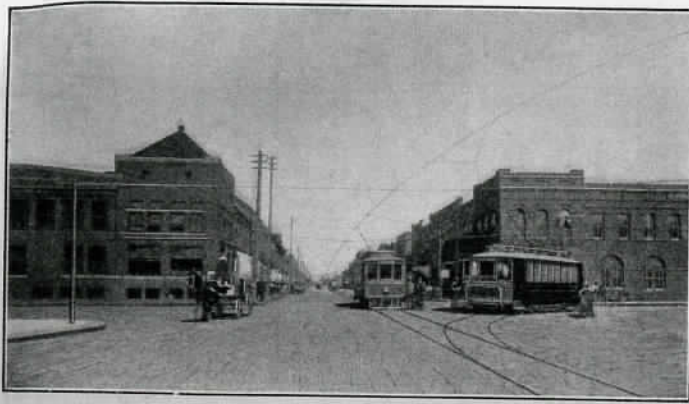


SHEEP IN STOCKYARD.



FLOUR MILL, GRAND FORKS.

Settlement. In 1780, a French trader settled on the site of Pembina. The first white families were English colonists, sent out by Lord Selkirk, who built a fort on land granted by the Hudson Bay Company where Pembina now stands, for the British claimed all of the territory north of the 47th parallel.



VIEW IN THE CITY OF FARGO.

struction, commissioner of insurance, and three railroad commissioners, besides appointive officers. All organized counties are governed by a board of county commissioners elected for four years.

The judicial department consists of a supreme court of five judges, elected for six years, the term of one expiring every two years; district courts with judges elected for two years; and justice courts in townships and municipalities. In the national judicial system, North Dakota is one district with its United States district judge, residing at Fargo. North Dakota has two senators and three representatives in Congress, and therefore has five votes in the electoral college.

Education. North Dakota has made liberal provision for the education of her youth. Two sections of land (1280 acres) in every township are granted by the Federal government for the support of the common schools, including high schools. These lands cannot be sold for less than \$10 an acre, and the interest accruing from the investment of this principal only can be used.

This endowment of land is now valued at about fifty millions of dollars. Some of these lands have already been sold for \$45 per acre, and as the state grows older, the school endowment must assume magnificent proportions. To the proceeds of this grant is added a general two-mill tax upon every dollar of property valuation, and the remainder desired in each school district is made up by local taxation. Over 7000 teachers now care for 6000 schools; and their annual maintenance now costs over \$4,000,000.

For the higher educational and benevolent institutions of North Dakota, the Federal government has granted a total of 562,000 acres of land. Thus the United States has given to North Dakota for educational purposes, more than four times as much land as there is in the state of Rhode Island.

The State University, to which is attached the School of Mines, is located at Grand Forks, the Agricultural College and United States Experiment Station is at Fargo; normal schools are located at Valley City, Mayville, and Minot. The State Industrial School is at Ellendale; the State School of Science, at Wahpeton; the School for the Deaf and Dumb, at Devils Lake; the School of Forestry, at Bottineau; the School for the Blind at Bathgate; and the School for the Feeble-minded, at Grafton.

Denominational institutions of higher learning are: Fargo College (Congregational), at Fargo; Wesley College (Methodist), at Grand Forks; Jamestown College (Presbyterian), and St. John's Academy (Catholic), at Jamestown; St. Mary's Abbey (Benedictine Monastery), at Richardton; Bruflat Academy (Lutheran), at Portland.

Other important institutions are the State Penitentiary, at Bismarck; the Hospital for the Insane, at Jamestown; and the Reform School, at Mandan.

CITIES AND TOWNS

Fargo, the county seat of Cass county, and the metropolis of North Dakota, is situated on the Red River of the North, at the crossing of the main line of the Northern Pacific Railway. The Great Northern and the Chicago, Milwaukee, and St. Paul railways also pass through the city. Fargo is 280 miles northwest of St. Paul and is the commercial and financial center of a large region of inexhaustible agricultural wealth. Here are implement manufactories, tile works, cracker and candy factories, packing houses, and many wholesale houses. It ranks first in the United States in the sale of threshers and binders, and third in that of all agricultural implements. Among its public buildings are the Federal building, Carnegie library, Court House, the State Agricultural College, Fargo College, Catholic and Episcopal cathedrals, and several fine hospitals.

Grand Forks, the county seat of Grand Forks county, and the second city in size and importance in the state, is located at the head of navigation on the Red River, opposite the mouth of the Red Lake River. It is 80 miles north of Fargo, and the same distance from the Canadian boundary, situated on the main line of the Great North-

ern Railway, and also on a branch of the Northern Pacific. It is the distributing point for the country north and west, and has fine flour mills and sawmills, a woolen mill, a large iron-working



VIEW OF BISMARCK FROM THE RAILROAD STATION.



VIEW IN THE CITY OF GRAND FORKS.

plant, many other factories, and wholesale houses. The State University is located here; also Wesley University, a Methodist institution; and St. Bernard's Catholic Academy. Grand Forks has a Federal building, a Carnegie library, and a fine City Hall.

Minot, the county seat of Ward county, is located on the Mouse River at the junction of the "Soo" and the Great Northern main lines. Its growth has been remarkable, and it has rapidly become an important shipping center for stock, coal, dairy products, and wheat. Here are two flour mills, machine shops, and other factories. One of the state normal schools is located here.

Bismarck, the capital of the state, and the county seat of Burleigh county, is situated on the east bank of the Missouri River, where it is crossed by the main line of the Northern Pacific Railway, near its intersection with the St. Paul, Minneapolis, and Sault Sainte Marie, or "Soo" Railway. It is the commercial center of the eastern "slope" country, and is a great shipping point for cattle,



CATTLE RANGE NEAR DICKINSON.

sheep, and horses, much traffic being by steamboat. The capitol stands on an elevation north of the city and the penitentiary east of it. Bismarck has many beautiful modern buildings. The new Fort Lincoln, a United States military post, lies within two miles of the city, old Fort Lincoln, farther down the river, having been abandoned. General Custer, in 1876, started from the old fort on the ill-fated Indian campaign that ended in his death and the loss of all his troops.

Devils Lake, the enterprising county seat of Ramsey county, is situated near the lake of the same name, and on the Great Northern main line. It is the center of an excellent farming region. Here is a fine opera house, Federal building, and good hotels. In common with every other city of any importance in the state, the public and high schools are excellent.

Valley City, the county seat of Barnes county, is picturesquely situated on the Sheyenne River at the crossing of the Northern Pacific and the "Soo" main lines. The State Normal here is said to be the most beautifully located of any of the state institutions. Other buildings are a Carnegie library, a flour mill with a capacity of 1800 barrels a day, two fine hospitals, and a large armory.

The High Bridge on the Northern Pacific Railway near Valley City is 3740 feet long and 154 feet high, one of the largest steel bridges in the world.

Jamestown, the county seat of Stutsman county, is a thriving city located on the Northern Pacific main line at its crossing of the James River. A branch of this railway extends north, connecting with the Great Northern, and one south, giving direct connection with South Dakota. The State Hospital for the Insane, a fine assemblage of buildings, is located here, also Jamestown College, and St. John's Catholic Academy. There is a large flour mill, railroad shops, and other industries.

Mandan, on the west bank of the Missouri River, where the Northern Pacific crosses the Heart River, is the county seat of Morton county. The State Reform School is located here. Mandan makes large shipments of cattle, sheep, and horses. It is in the coal country, and many small mines are in the vicinity.

Dickinson, the county seat of Stark county and the metropolis of the "cow country," is situated on the main line of the Northern Pacific Railway, about 100 miles west of Bismarck. It is an important shipping point for cattle, wool, coal, and wheat. The most extensive coal mines in the state are near Dickinson. The city has two large brick and tile manufactories, two flour mills, a Carnegie library, and a fine armory.

Williston, the county seat of Williams county and the most important commercial center in the extreme northwestern part of the state,

is located on the Great Northern Railway where it touches the Missouri River. Old Fort Buford, noted in Indian days, and the famous "Sioux Crossing," are near the present site of Williston. The United States government is developing a large irrigation project here. Large coal beds are found in the vicinity.

Wahpeton, the county seat of Richland county, is a busy shipping center on the upper Red River and the Northern Pacific and Great Northern railways. Flour, lumber, and agricultural implements are among its manufactures. The Red River Valley University is located here.

Grafton, the county seat of Walsh county, lies in the valley of the Red River of the North, at a junction of the Northern Pacific and Great Northern railways. It is a prosperous city and an important railway center, with an extensive trade in wheat, flour, and dairy products.

Other important places, all having varied interests, are: **Lisbon**, county seat, Ransom county; **Rugby**, county seat, Pierce county; **Casselton**, Cass county; **Enderlin**, Ransom county; **Hankinson**, Richland county; **Oakes**, Dickey county; **Harvey**, Wells county; **Kenmare**, Ward county; **Ellendale**, county seat, Dickey county; **Cando**, county seat, Towner county; **Bottineau**, county seat, Bottineau county; **Hillsboro**, county seat, Traill county; **Larimore**, Grand Forks county; **Carrington**, county seat, Foster county; **Langdon**, county seat, Cavalier county; **Mayville**, Traill county; **Lakota**, county seat, Nelson county; **Coopers-town**, county seat, Griggs county; **Lidgerwood**, Richland county; **Park River**, Walsh county; **Beach**, county seat, Golden Valley county; **Lamoure**, county seat, Lamoure county; **Glen Ullin**, Morton county; **Hope**, Steele county; **Velva**, McHenry county; **Marmarth**, Billings county; **Northwood**, Grand Forks; and **Hettinger**, county seat, Adams county.

POPULATION OF COUNTIES OF NORTH DAKOTA, 1910

Adams	5,407	Dickey	9,839	Lamoure	10,724	Oliver	5,577	Stark	12,504
Barnes	18,066	Divide	6,015	Logan	6,168	Pembina	14,749	Steele	7,616
Benson	12,681	Dunn	5,302	McHenry	17,627	Pierce	9,740	Stutsman	18,189
Billings	10,186	Eddy	4,800	McIntosh	7,251	Ramsey	15,199	Towner	8,963
Bottineau	17,295	Emmons	9,796	McKenzie	5,720	Ransom	10,345	Traill	12,545
Bowman	4,668	Foster	5,313	McLean	14,496	Renville	7,840	Walsh	19,491
Burke	9,064	Grand Forks	27,888	Mercer	4,747	Richland	19,659	Ward	25,281
Burleigh	13,087	Griggs	6,274	Morton	25,289	Rolette	9,558	Wells	11,814
Cass	33,935	Hettinger	6,557	Mountrail	8,491	Sargent	9,202	Williams	14,234
Cavalier	15,659	Kidder	5,962	Nelson	10,140	Sheridan	8,103	The state	577,056

POPULATION OF THE PRINCIPAL CITIES, TOWNS, AND VILLAGES IN NORTH DAKOTA, 1910

Abercrombie	299	Davenport	226	Hannaford	340	Michigan City	449	Rutland	224
Adams	338	Dazey	265	Harvey	1,443	Milnor	641	Ryder	338
Ambrose	320	Deering	150	Hatton	666	Milton	410	St. John	424
Anamoose	669	Devils Lake	5,157	Havana	387	Minnewaukon	510	St. Thomas	513
Aneta	654	Dickey	187	Hebron	597	Minot	6,188	Sanborn	390
Antler	342	Dickinson	3,678	Hettinger	766	Minto	701	Sarles	346
Ardoch	271	Dogden	320	Hillsboro	1,237	Mohall	493	Sawyer	327
Ashley	682	Donnybrook	297	Hoople	175	Monango	238	Scranton	214
Balfour	399	Douglas	171	Hope	909	Mylo	98	Sharon	304
Bartlett	120	Drake	348	Hunter	365	Neché	528	Sheldon	358
Barton	202	Drayton	587	Inkster	353	Nekoma	120	Sherwood	327
Bathgate	328	Dunseith	478	Jamestown	4,358	New Salem	621	Sims	86
Beach	1,003	Eckman	84	Kenmare	1,437	Nerborg	102	Souris	267
Berlin	137	Edgeley	749	Kensal	456	Niagara	157	Stanley	518
Berthold	454	Edinburg	300	Kermit	108	Nome	218	Starkweather	246
Binford	275	Edmore	344	Knox	330	Noonan	153	Steele	500
Bisbee	444	Egeland	266	Kramer	181	North Minot	432	Strasburg	273
Bismarck	5,443	Ellendale	1,389	Kulm	645	Northwood	769	Sykeston	276
Bottineau	1,331	Enderlin	1,540	Lakota	1,023	Oakes	1,499	Tagus	105
Bowbells	651	Esmond	353	Lamoure	929	Omemeé	332	Thorne	105
Bowdon	302	Fairdale	140	Langdon	1,214	Osnabrock	253	Tioga	203
Bowman	481	Fairmont	387	Lankin	341	Overly	182	Tolley	250
Brinsmade	203	Fargo	14,331	Lansford	456	Page	479	Tolna	209
Brocket	186	Fessenden	713	Larimore	1,224	Palermo	177	Tower City	452
Buffalo	241	Finley	516	Leeds	682	Park River	1,008	Towner	691
Cando	1,332	Flaxton	301	Lehr	182	Pembina	717	Underwood	422
Canton	115	Forbes	221	Lidgerwood	1,019	Perth	221	Upham	296
Carpio	257	Forest River	233	Linton	644	Petersburg	353	Valley City	4,606
Carrington	1,217	Forman	352	Lisbon	1,758	Pisek	312	Velva	837
Casselton	1,553	Fullerton	206	Litchville	484	Plaza	224	Verona	235
Cathay	225	Gardena	119	Ludden	109	Portal	491	Wahpeton	2,467
Cavalier	652	Garrison	406	McClusky	517	Portland	561	Walhalla	592
Cayuga	175	Glenburn	268	McHenry	398	Ray	436	Washburn	657
Churches Ferry	457	Glenn Ullin	921	McVile	310	Reeder	198	West Hope	592
Cogswell	418	Goodrich	410	Maddock	374	Reynolds	412	White Earth	264
Columbus	225	Grafton	2,229	Mandan	3,873	Richardton	647	Williston	3,124
Conway	184	Grand Forks	12,478	Mapleton	207	Rock Lake	194	Willow City	623
Cooperstown	1,019	Granville	455	Marmarth	790	Rolette	408	Wilton	437
Courtenay	539	Great Bend	191	Max	285	Rolla	587	Wimbledon	571
Crary	279	Hague	183	Maxbass	240	Rugby	1,630	Wishek	432
Crosby	206	Hamilton	213	Mayville	1,070	Ruso	141	Wyndmere	439
Crystal	376	Hankinson	1,503	Medina	343	Russell	161	Zealand	193