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A. S. DIMOND,
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THE MAGIC NORTHLAND.

AN ILLUSTRATED GUIDE FOR TOURISTS

TO THE

NEW NORTHWEST.

EMBRACING DESCRIPTIONS OF THE CLIMATE, THE HEALTH AND PLEASURE RESORTS,
HUNTING FIELDS, LAKES, RIVERS, WATERFALLS, AND OTHER
POINTS OF INTEREST IN

MINNESOTA, WISCONSIN AND DAKOTA.

BY A. S. DIMOND,

EDITOR AND PUBLISHER OF THE TOURIST AND SPORTSMAN.

MINNEAPOLIS, MINN.

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INTRODUCTORY.

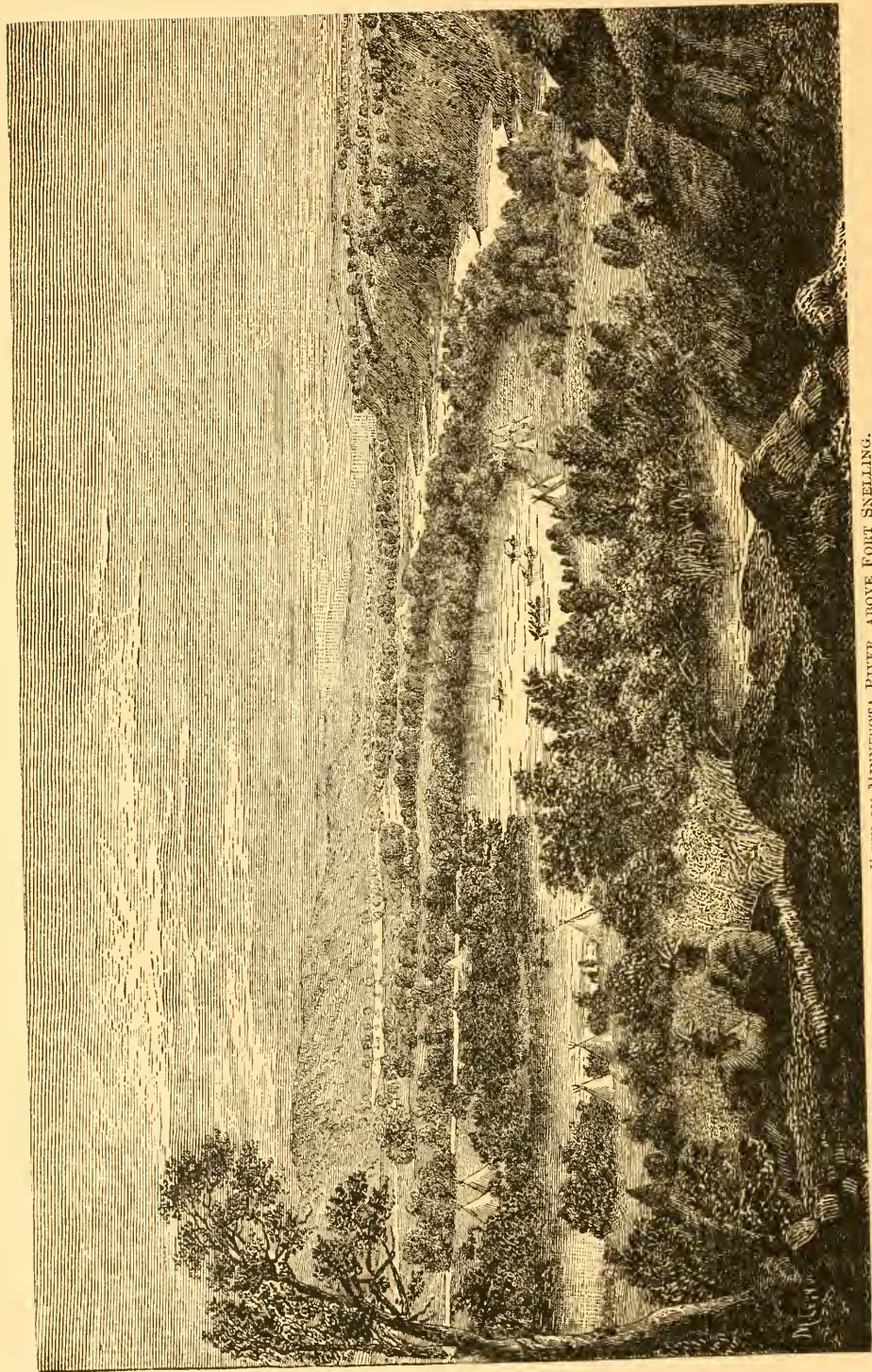


THE rapid development and settlement of the New Northwest has attracted capitalists to large and remunerative fields of investment, one of the results of which has been the construction of new lines of railway through sections of Minnesota, Dakota and Manitoba, that were before inaccessible to the ordinary traveler. By these additional facilities for traveling, immense tracts of fertile land have been opened to settlement, and the farmers enabled to reach the markets with their products; hundreds of beautiful lakes,

heretofore comparatively unknown, and many of our rivers, the scenery of which is unrivalled in attractions, are brought within reach of the tourist from any part of the continent; the sportsman has placed before him a land filled with game of all kinds—a land as wild as nature can produce, yet traversed by the most modern and luxurious of traveling equipages, which set him down in the midst of a forest where deer, bear and lynx will give him sufficient occupation, or on the vast plains where antelope and buffalo range, and when his hunt has ended, return him to civilization.

It is now only necessary to show the attractiveness of this new country fairly to health and pleasure seekers, emigrants seeking cheap and good homes, and to sportsmen to increase the tide of travel which has already turned in this direction. To assist in this we have compiled this "Guide." The information it contains has been selected from reliable sources, much of it having been gathered by the writer during the five years' publication of *THE TOURIST AND SPORTSMAN*, from personal observation. We have endeavored to be brief so as not to be tiresome, and have rather underrated than magnified the beauty and attractiveness of the country. The pleasure and health to be derived from a summer spent at the forest-girt lakes, among the rugged hills, along the rivers, or on the wonderful wheat farms of the Magic Northland, cannot be overrated; no language can exaggerate its attractiveness, and the visitor who spends his summer in the Northwest will say, "The half has not been told of its wondrous beauty."

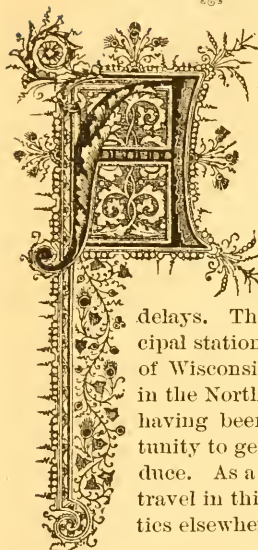
We have already issued one edition of thirty thousand copies of "Magic Northland," the matter in which was confined to descriptions of Minnesota summer resorts. In this edition we present additional features of interest, and in subsequent editions shall endeavor to make our information as complete as possible to the time of publication.



VIEW ON MINNESOTA RIVER, ABOVE FORT SNELLING.

The Magic Northland.

How to Reach the New Northwest.



JOURNEY to the Northwest, at the present time, is accompanied by so many pleasant incidents that the time seems unexpectedly short, and the traveler reaches his destination almost without fatigue, and prepared to attend to business or enjoy the delights of our rural homes.

The passenger business has increased to an extent that required the adoption by the railway companies of all the modern improvements for comfort, safety and speed, and perfecting arrangements with connecting lines so as to avoid delays. Through tickets are sold and baggage checked between all principal stations in the East, South and Southwest and Canada, and those of Wisconsin, Minnesota, Dakota and Manitoba. New railway lines in the Northwest are spreading in all directions, several hundred miles having been built in the last two years to afford immigrants an opportunity to get lands, and to give them outlets to markets for their produce. As a matter of fact the Northwest is fully up to the demands of travel in this respect, as will be noted by reference to the railway statistics elsewhere in this work.

FROM CHICAGO TO MINNESOTA.

There are now three lines of railway from Chicago to St. Paul and Minneapolis, by which passengers are carried through without change of cars, at the same rates of fare and with but little variation in time. Each has its peculiar advantages, and all pass through country rich in picturesque and admirable scenery, and presenting many novel and interesting things to attract the attention.

The trains of the line known as the "Short Line," composed of the Chicago, Burlington and Quincy, the Burlington, Cedar Rapids and Northern, and the Minneapolis and St. Louis Railways, leave Chicago from the Union Depot on the lake shore, and pass through Central Illinois to Burlington, Iowa, thence across the grand prairies of Iowa to Albert Lea, Minnesota; the route from the latter point to Minneapolis passing through a rich agricultural district, divided into prairie and woodland, with numerous lakes and streams to vary the landscape. This route presents to the traveler a variety of scenery, passing, as it does, through thickly settled parts of the three great garden States of the West, where all branches of northern agricultural pursuits may be viewed in their best and most progressive phases.

The Chicago, Milwaukee and St. Paul Company operate two lines of railway from Chicago to St. Paul and Minneapolis, from which points their Hastings and Dakota

Division extends to the Territory of Dakota and the Far West. By this route the passenger is carried through the richest portions of Illinois, Wisconsin and Minnesota, passing through Oconomowoc and other Wisconsin watering places.

The Chicago, St. Paul, Minneapolis and Omaha Line traverses a portion of Wisconsin unsurpassed for picturesque scenery, embracing many fine lakes, important lumbering streams, trout brooks, and magnificent forests. On this line are the noted watering places of Geneva Lake, Madison, Devil's Lake, Baraboo, Lake Winnebago, and Sparta.

Connecting at St. Louis with all leading railways from points South, East and West, the "Short Line," composed of the Chicago, Burlington and Quincy, the Burlington, Cedar Rapids and Northern, and the Minneapolis & St. Louis Railways, form a through line to Minneapolis and St. Paul. This route is from St. Louis *via* Burlington, Cedar Rapids and Albert Lea, to Minneapolis, passing through the finest regions of the West. Arrangements have been made with all leading railways to ticket and check through, and the passenger makes the journey in luxurious coaches, surrounded by all the safeguards of modern invention.

From Omaha and other southwestern points, the traveler reaches Minnesota over the St. Paul, Minneapolis and Omaha Line, through a grand and attractive country, where, at some points, vast fields of wheat stretch as far as the eye can see; and new farms, new manufactories, and new towns may be seen in rapid succession, presenting evidences of enterprise peculiar to western people, and not surpassed except by the growing regions of Western Minnesota and Dakota.

One of the pleasantest routes to Minnesota during the summer is that from St. Louis to St. Paul by steamers on the Mississippi, and many prefer this mode of travel. If one has leisure, it is enjoyable.

A trip by the Great Lakes from Chicago to Duluth, and thence to St. Paul over the St. Paul and Duluth Railway, or to Minneapolis via the Minneapolis and St. Louis Railway, forms one of the grandest excursions on the American continent, including, as it does, all the leading ports on Lakes Michigan and Superior. The increase of business by this route has been doubling up, until the demand calls for a large number of steamers. One of the transportation companies has increased its number of vessels to twelve, most of which are first-class steamers, magnificent in equipment, and affording accommodations equal to those found in the finest hotels. They connect with railway lines at Ashland and Duluth for the summer resorts of Wisconsin and Minnesota.

FROM MINNEAPOLIS AND ST. PAUL.

From the two principal cities of Minnesota, the traveler may reach nearly all points in Minnesota, Wisconsin, Dakota and Manitoba by lines of railway which, although comparatively new, are equal to the best of western roads.

The St. Paul, Minneapolis and Manitoba Company operate two lines, passing through the magnificent Park Region of Minnesota to Dakota, and Manitoba. By this line the great wheat farms of Western Minnesota and Eastern Dakota, and many of the pleasantest summer resorts—notably Lake Minnetonka and the lakes of Otter Tail and Douglas counties—may be reached.

The Northern Pacific Railway traverses a large portion of Minnesota and Dakota, northward and westward of St. Paul, and is rapidly stretching out its arms into the Far West. It has a branch from Brainerd to Duluth, by which a large portion of the grain products from the great wheat farms among which it passes, are carried for shipment by the Lakes to the seaboard. The great National Park will probably be reached by another year, which will open up to the tourist the most wonderful region on the globe.

The St. Paul, Minneapolis and Omaha Company operate a line of railway from St. Paul to Stillwater, by which Lake Elmo and the Valley of the St. Croix is reached.

The Minneapolis and St. Louis Railway have recently extended a line from Albert Lea to Fort Dodge, Iowa, passing through a comparatively new country.

The Lyndale, Lake Calhoun and Lake Minnetonka Railway Company, operate a narrow-gauge line—with steam motors—from Minneapolis to Lakes Calhoun and Harriet. An extension of the line to Lake Minnetonka will be made early this season.

The Hastings and Dakota branch of the Chicago, Milwaukee and St. Paul Company, beginning at Hastings, runs through a new but rapidly growing region to Big Stone Lake, and thence into Dakota.

Following is a statement of railroads within the State, with number of miles in operation, and points of termini, January 1, 1881:

Chicago, Milwaukee & St. Paul Railway.

Name of Road.	FROM	TO	Miles.
River Division	La Crescent	St. Paul	130.47
River Division—Short Line	St. Paul	Minneapolis	10.30
Iowa & Minnesota Division	Minneapolis	Iowa Line (Le Roy)	130.54
Iowa & Minnesota Division	St. Paul Junction	St. Paul	5.61
Iowa & Minnesota Division	Austin	Iowa Line (Lyle)	11.37
Hastings & Dakota Division	Hastings	Ortonville	202.44
Wabasha Division	Wabasha	Zumbrotta	59.00
Southern Minnesota	Grand Crossing	Dakota Line	297.25
Central Railroad of Minnesota	Mankato	Wells	40.00
Chicago, Clinton, Dubuque & Minnesota	Iowa Line	La Crescent	25.00
Caledonia, Mississippi & Western	C., C., D. & M. Junction	Preston	58.71

St. Paul, Minneapolis & Omaha Line.

St. Paul & Sioux City	St. Paul	St. James	121.27
Sioux City & St. Paul	St. Paul	Iowa Line	66.25
Worthington & Sioux Falls	Near Worthington	Dakota Line	42.53
Blue Earth City Branch	Lake Crystal	Elmore	43.50
Rock River Branch	Luverne	Iowa Line	10.00
Minnesota & Black Hills	Heron Lake	Woodstock	44.00
St. Paul, Stillwater & Taylor's Falls	St. Paul	Stillwater	17.55
" " "	Stillwater Junction	Lake St. Croix	3.25
" " "	Stillwater	Bridge	5.50

St. Paul, Minneapolis & Manitoba Railway.

Main Line	Minneapolis Junction	Breckenridge	207.10
Branch Line	St. Paul	Sank Rapids	75.75
St. Vincent Extension	East St. Cloud	St. Vincent & N. Boundary	319.62
Red River & Manitoba	Breckenridge	Barnesville	30.00
Red River Valley	Crookston Junction	Grand Forks	24.56
Branch	Barnesville	Moorhead	22.24
Branch	Morris	Brown's Valley	47.50

St. Paul & Duluth Railroad.

St. Paul & Duluth	St. Paul	Duluth	156.00
Stillwater & St. Paul	White Bear	Stillwater	13.00
Knife Falls Branch	Northern Pacific Junc.	Knife Falls	6.00
Taylor's Falls & Lake Superior Railroad	Wyoming	Taylor's Falls	20.30

Northern Pacific Railroad.

Northern Pacific	Northern Pacific Junc.	Moorhead	229.50
Western, or Brainerd Branch	Sank Rapids	Brainerd	60.50

Minneapolis & St. Louis Railroad.

Minneapolis & St. Louis	Minneapolis	Albert Lea	108.00
Minneapolis & Duluth	Minneapolis	White Bear	15.00
Branch	Albert Lea	Iowa Line	13.50

Winona & St. Peter Railroad.

Winona & St. Peter	Winona	Dakota Line	288.56
Winona, Mankato & New Uhn	Mankato Junction	Mankato	3.75
Plainview	Plainview Junction	Plainview	15.01
Chatfield	Chatfield Junction	Chatfield	11.46
Rochester & Northern Minnesota	Rochester	Zumbrotta	24.48
Minnesota Valley	Sleepy Eye	Redwood Falls	24.40
Chicago & Dakota	Tracy	Dakota Line	46.38

Burlington, Cedar Rapids & Northern	Iowa Line	Albert Lea	12.50
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Total number of miles 3,099.59



CHESTER CREEK FALLS, NEAR LAKE SUPERIOR.

MINNESOTA.

Its Advantages as a Resort for Invalids.

IT seems to be one of the leading characteristics of our American people to be always seeking a change of scene; and it has been often said that about one-fourth of the population of the country were to be found in the cars, on steamboats, or in stages, every day, journeying for business, health or pleasure. While the greater number are bent on business, those traveling for their health, seeking by change of scene and climate a cure for physical ailments, largely outnumber the pleasure seekers. Almost every public vehicle, at all times of the year—whether it be the ocean steamer or the railway car—will be found to embrace in its list of passengers a full quota of invalids. Those who live in the colder countries of the North, seek the genial climes of the Southern States or foreign resorts in the winter. While those of the South seek to escape the perils of fever and malarial diseases in the hot months, by a pilgrimage to the cooler zones of the North.

While climate is a most important consideration to the business man, emigrant and pleasure seeker, it is far more important to those enfeebled by disease, and for this reason we have sought, in compiling this little work, to select our statistics from the writings of those who have made the treatment of invalids a study, so that none may be misled by unreliable statements.

Minnesota, like every other section, has its full share of acute afflictions, and while in old territorial days it was said of certain sections that it became necessary to kill some one to start a village burying ground, because it was too healthy for any one to die a natural death,



we cannot boast of that now—the burying grounds have all got a good start ; but there are many kinds of disease which are not peculiar to the country, and which are relieved by a residence here. Of these we may mention malarial fevers and pulmonary diseases, on which our climate has frequently a favorable effect. As to the causes, and the effects in different localities sought by invalids, we give extracts from a lecture before the medical society of Peoria, Ill., by J. Murphy, M. D., a resident of that city, who says :

The study of climate in relation to its influence on disease is one of the most interesting and important which can occupy the attention of the physician. When we consider that there is a class of disease which in ordinary climate is almost invariably fatal, and, further, when we consider that this class is a very numerous one, and fatal beyond any other, and when we are aware that this class of disease is a progressive one—that is, it is becoming more frequent every year in every fixed population, and when we know that certain climatic conditions are favorable to this disease, at least as an adjunct to other remedial agents, it is impossible to over-estimate its interest and importance.

The class of diseases to which I refer are those affecting the pulmonary organs—the throat and lungs, which usually baffle every hygienic, dietic and medical treatment which the most accomplished physician can practice, which literally reckon their victims by hecatombs, and the bare mention of the mortality from which would shock our humanity and almost stagger our belief.

If there is any climate which will aid to any extent in lessening the ravages of consumption, both science and humanity demand that that climate be immediately utilized. It is unfortunate for the medical profession, as well as for the public, that the ideas of medical men on the subject of climate, as bearing on disease, have not been more firmly fixed and more absolutely maintained. If a man has consumption, he has a right to ask, and be informed, where he should go to be benefited. Is it not time that the question of locality should be definitely settled? That it has not been settled long ago is a blot and degradation on the medical profession, and the thinking portion of the public consider it as such. Ever since consumption commenced its ravages, a change of climate has been recommended ; but, unfortunately, no particular climate can be settled on.

Until within a recent period, we sent our consumptive patients to the tropics, only, however, to deteriorate or die; and we should blush that it should have been a non-professional man—the late N. P. Willis—who first demonstrated the folly of such a course. Fashionable eastern physicians still send their consumptives to Madeira, to Torquay, to almost every point on the sombre and dingy shores of the Mediterranean, from the Pillars of Hercules to the Bosphorus, besides Algiers and Tunis. Others, again, recommend Cuba and Florida; San Antonio, Texas; New Mexico; Colorado, California and Minnesota.

Unfortunately, we have no positive data to enable us to know with any degree of certainty what relative influence those different localities have over lung diseases; but we do know that the pro rata fatality of the disease rather increases than diminishes, proving, undoubtedly, that a removal to a majority, at least, of those localities produces no beneficial effects. We know, also, that in several of those places, consumption, at least, occasionally occurs as an epidemic disease, which, except the principle of like curing like be true, almost precludes the possibility of those already laboring under the disease being benefited by a residence there.

To determine the question of locality, the inductive system of reasoning is just as valuable and decisive as it is in philosophy and logic. Unfortunately the very term climate is liable to infinite misconception, and has generated much confusion. This is a very simple word, apparently; but it is really one of the most complicated in the language. Every physical phenomenon presented by a country—its geographical position, topography, altitude, character of soil and subsoil, river system, with reference especially to its drainage facilities and rapidity of current, the mean temperature of the different seasons; the dryness or moistness of the air, the mean force of the air currents at different seasons, the number of calm days during the year, and especially in summer, whether the winds often change their direction, the forest system of the State, and a multitude of other phenomena which might be enumerated, are all, so to speak, component parts of the climate, and mutually exert a powerful influence on its composition and character.

In the first place we must ascertain, as far as our experience and observation may enable us, what climatic considerations are most favorable to consumption. In making this estimate, we must always remember that consumption is a disease of debility; that every one laboring under this disease is already weak, and that whatever has a tendency to increase the existing prostration is positively injurious. We want a climate from which malaria is entirely exempt—the depressing effects of this agent operating most unfavorably on this disease. I am aware that there were at one time, and possibly may be still, some men, calling themselves physicians, who considered that

there was an antagonism between malaria and consumption to the advantage of the latter. Such admirable ignorance, however, it would be an act of unpardonable stupidity to confute. A dry atmosphere is also required—not dry to aridity, because a perfectly dry air is positively irritating to the lungs, and has a tendency to render the whole system feverish. A moist, cold air, by chilling the integument, drives the blood into the internal organs, and favors congestion, while moist, warm air has a positively depressing effect on the system. Both lower the vitality of the body, producing feeble action and insufficient nutrition. A moist atmosphere contains less oxygen than a dry one, and less of that life-giving principle, ozone. It is this excess of moisture in the air that prevents Santa Barbara and San Diego—otherwise so salubrious—from affording any permanent benefit to consumptives.

Constant perturbation of the air is another climatic factor of infinite importance to persons laboring under lung diseases. Stagnation generates impurity, and consequent loss of oxygen. Such air becomes unfit to enter the invalid's lungs, depressing the spirits, and inducing general torpidity and prostration. Frequent changes in the direction of the air currents are also essential in those diseases, as it is invariably found that trade winds in the temperate zone become loaded with moisture, and are otherwise unhealthy. Madeira furnishes an admirable illustration of this position, as, notwithstanding its having as equable temperature as any other, its freedom from malaria, its sheltered position, and delightful weather, it is a charnel house for consumptives, owing unquestionably to the atmosphere being too stagnant and the winds too unchangeable.

While constant motion of the air is requisite, it is of equal importance that the currents should not be too violent. Living as much as possible in the open air is essential to the consumptive. If the air is moving at a velocity of under ten miles an hour, the invalid can be out and receive enjoyment and vigor; but if this velocity is doubled, the natural heat of the body is rapidly abstracted, and depression and debility are produced. This is one cause of the unfavorableness of Colorado for this class of patients.

All air possesses more or less moisture. A certain degree of it is essential to comfort and to health. What the consumptive invalid demands is an air in which the amount of moisture is nearly as possible uniform. Every one has felt in the Western States the pungent, penetrating south wind, loaded, as it always is, with moisture in winter, although the accompanying temperature is comparatively high, and the delicious feeling generated when the wind changes to the north, with a much lower thermometer, but a perfectly dry atmosphere. It is this consideration which prevents those laboring under lung diseases from deriving any positive advantage from a residence on the shores of the Mediterranean, the degree of moisture in the air constantly changing with the direction of the wind.

Another climatic condition required in lung and throat diseases is that the mean annual rainfall should be small, but it should fall if possible during the six growing months.

An absorptive soil, and a subsoil possessed of sufficient capillary attraction to absorb rapidly any redundant moisture, and prevent its evaporation, is equally essential.

A country in which the natural drainage is as perfect as possible, and in which there are no sluggish flowing rivers or streams, no extensive marshes or stagnant pools, and in which the water is pure and the soil productive, is what those laboring under throat and lung diseases demand.

General purity of the air is a climatic necessity for the consumptive, and it is only to be found in northern latitudes, where we have coolness, another conspicuously requisite agent.

These climatic conditions comprise everything, almost, which locality can accomplish for the phthisical invalid. Where are they to be found? Space will not permit so full a discussion of the different health resorts for this class, which have been recommended, as I could wish. I am not aware of a single locality in Europe which physicians have any confidence in as possessing any curative effects in consumption. Change of climate and of scene has always a healthful influence on every invalid; and this, it is generally supposed, is the chief effect which is experienced by those visiting there.

The West Indies, including Cuba, have long since been abandoned by every one not absolutely insane. The climate of Florida is, generally, too stagnant, too moist, and too malarious to benefit lung diseases. To persons with sound lungs, but with constitutions too feeble to bear the rigors of a western winter, this State affords a suitable winter residence.

Aiken, South Carolina, and San Antonio, Texas, afford admirable winter residences for those who have weak lungs, and are liable, in consequence, to frequent winter colds; but we have no satisfactory evidence that really tuberculous diseases are benefitted by either of those climates.

The climate of New Mexico is scarcely sufficiently known to admit of legitimate criticism; and if it were ever so favorable, the country at present would scarcely afford the requisite conveniences for an invalid.

California has more remarkable climatic resources than any other country in the world, and for all diseases, except those of the lungs, presents unrivalled facilities for cure; but for this class of affections the air is too stagnant generally throughout the State. In the vicinity of San Francisco

Bay, it is too pungent and damp; on the southern coast, too moist and relaxing; at the foot-hills, too hot and dry; in the Sierras, too windy and changeable.

Whatever other advantages Colorado may present for tuberculous diseases, and I am not aware of any of an important character, its altitude will always prevent its being a sanitarium for those diseases. The expansion of the walls of the chest at that height is so considerable, requiring proportionate expansion of the lung tissue, that almost inevitable hemorrhage must ensue if the tubercular disease has commenced. I am not informed nor is it important to inquire, whether tubercle occurs among the residents there or not.

Minnesota is the only place that I am aware of in which the various climatic resources that I have mentioned as being favorable for the cure of consumption can be found.

Its position is so high that malarial diseases never originate there; its system of natural drainage is the most perfect in the world; the topography and character of the soil indicate sanitary conditions of a high character; the rainfall is less than in any other State in the Union, and occurs almost entirely during the growing months; the air is dryer than in any other section, and the trifling moisture it contains more uniformly distributed.

The perturbation of the air is more constant, the changes in the direction of the winds more frequent, and the air currents slower, than in any other part of the world.

In addition, it is said, consumption never originates there, and the health statistics show a smaller mortality than any other State, Oregon, I believe, excepted.

The trifling amount of rain, and the dry atmosphere, enable invalids to pass the entire day in the open air, while, as I can testify to from actual experience, the crisp, elastic atmosphere enables exercise to be indulged in with nothing but pleasurable feelings resulting, which in Illinois would produce almost insufferable weariness and exhaustion.

But it, perhaps, is chiefly to the cool, invigorating air, free from impurities, and rich in ozone and oxygen, acting as a tonic on the system, invigorating the circulation, strengthening the nerves, stimulating digestion, and promoting the nutritive functions, that Minnesota is fast becoming a consumptive sanitarium.

But, besides these climatic considerations, there are others—of subsidiary importance, it is true—but still of importance to the invalid, as amusing his mind, recreating his feelings, withdrawing his attention from his ailments, and dissipating the ennui which continued ill health invariably generates. Every physician is aware of the powerful influence which the physical surroundings exercise on the mind of the sick. Probably Minnesota possesses more of those physical requisites than any other country in the world. The entire surface of the State presents everywhere a charming variety. Noble rivers, grand old forests and peerless lakes, the latter in endless variety and beauty, meet the eye and gratify the sense wherever we go.

The Falls of St. Anthony, the Dalles of the St. Croix, the weird loneliness of the St. Louis, the Falls of Minnehaha, the junction of the Mississippi and the Minnesota at Fort Snelling—reminding us of the meeting of the Rhone and the Seine—afford some of the finest scenery on the continent.

There is no sublimity in Minnesota; none of the savage grandeur of the Rocky Mountain canons or the Alpine Jungfrau, or Matterhorn, but there is a quiet beauty, a fascinating aggregation of those delicious details which go to make up a landscape especially charming from the absence of anything exciting or stimulating in its characteristics; a delicious commingling of wood, water and prairie, such as it is elsewhere difficult to find, and the soothing influence of which on the invalid mind is infinitely preferable to the stimulus of grandeur and sublimity.

This testimony of Dr. Murphy is that of one who has made the treatment of pulmonary diseases a life-long study, and gained for himself a favorable position among the eminent practitioners of Illinois.

To pursue the subject further, we quote from a well-written work by Dr. J. Mattocks Brewer, of St. Paul, who has treated the subject at length and in a masterly manner. As our space is limited, we are compelled to omit many parts that are interesting to the invalid; but it will be seen from our extracts that he coincides with Dr. Murphy in many particulars:

There is no disease which calls more loudly for room than consumption; the tendency of the disease is suffocation, constriction, want of air, and the indication is to supply it, as much for the moral effect as the physical. Air, boundless and pure, is the "*eau de vie*" of the consumptive. The progress of the disease is characterized by an ever-increasing desire for more air, purer air, better air; it is a necessity, it is his life. Pure air is stimulating, it excites, it is *tonic*.

As we write, we feel a certain enthusiasm in dwelling on a health resort, bounded only by lati-

tude and longitude, called by a soul-inspiring name, "the great Northwest." We write of the northwest quarter of the continent of North America, yet we limit the title of our work to Minnesota, as Minnesota is at present the only Northwestern State.

Minnesota lies between the forty-third and forty-ninth parallels of latitude, and between the eighty-ninth and ninety-seventh degrees of west longitude. It contains about eighty-four thousand square miles of territory, an area equal to all the New England States. A peculiar, and we may say novel position does our State occupy.

Within the limits of Minnesota is what is known as the "height of land of the continent," an immense triangular elevation, almost in the geographical center of the continent, from whose sides flow the three great watercourses of America. To the east the great St. Lawrence, to the north the Red River, and to the south the Mississippi. At this point we reach an elevation of seventeen hundred feet above the Gulf; this rise is almost imperceptible from the Gulf; it is not a mountain, it is simply a height of land, as its name signifies. In addition to these large rivers, some twenty or thirty smaller rivers traverse the State in different directions. The State is well drained—admirably drained as a whole. At this latitude, however, standing water is comparatively harmless, so far as miasm is concerned. It is generally conceded that above forty-five degrees the seasons are not favorable for the generation of fevers. During the long winters the morasses freeze to the bottom, and it is late in the spring or summer before they become heated sufficiently to generate miasm.

The system of rivers we have mentioned is not the only means of drainage in the State. Numerous lakes dot the State in all directions, measuring from half a mile to ten miles in diameter. We made an effort to count them on the map, but we found it impossible—they number thousands. The surface of the State being rolling prairie, these lakes act as reservoirs for the water; yet the great majority of them contain *live water* and are well stocked with fish. St. Paul is supplied with water from one of these lakes.

In addition to the lakes and watercourses of the State, the soil absorbs moisture very readily. In most parts of the State the soil is a sandy loam, with gravelly subsoil. There is comparatively but little clay in the State—by this we mean clayey land, not an entire absence of clay.

Again, the inhabited parts of the State are not very heavily timbered; forests exist in groves and belts, rather than in large tracts, thus exposing the ground to the direct rays of the sun, which facilitates evaporation. There are no mountains in the State, to contract and condense moisture from the clouds and prevent evaporation by acting as a barrier to the free course of the dry western winds. A damp, cold soil is fully as detrimental to health as a damp, cold climate.

Minnesota, then, possesses peculiar advantages, which render the soil very dry: First, the lay of the land is rolling; second, it is intersected in all directions by rivers; third, the gravelly soil easily absorbs moisture by reason of its composition; fourth, there is but little timber and no mountains to prevent speedy evaporation of moisture; and, what is more potent than all, a dry wind passes over our State almost unobstructed at all times.

Latterly, medical men are speaking highly of elevated regions for consumptives; they would send their patients to mountain table-lands. While undoubtedly there are advantages connected with these elevated regions, yet the disadvantages fully offset them. In Minnesota one can enjoy the benefit of mountain air with none of its disadvantages.

We quote Wheelock's Minnesota: "Without high mountains, we have, nevertheless, in the highlands of the northeast, which do not rise more than five hundred feet above the level of the State, all the phenomena of a series of lofty elevations; and this region deserves to be designated as the mountain district of Minnesota, if not from its actual height, at least from its rapid culmination of low temperature and the development of mountain flora toward the north.

Now, to sum up the characteristics of our climate: First, the climate of Minnesota is dry—it is dry of necessity; we are so far from large bodies of water that we are but slightly subjected to their influences. For the past thirty years our annual rain-fall has been but twenty-five inches, including snow; we have also but little foggy or misty weather. On the Atlantic coast the rain-fall, as large as it is, is of little moment compared with the fogs and heavy dews. This is best illustrated in Great Britain; the yearly rain-fall in England is the same as in Minnesota, but the island is almost constantly enveloped in mist and fog. We subjoin the rain-fall of parallel forty-five and the Gulf States during the four seasons of the year:

	ATLANTIC COAST.	PACIFIC COAST.	GULF STATES.	MINNESOTA
Spring	12 inches.	8 inches.	12 inches.	6 inches.
Summer	3 "	10 "	20 "	12 "
Winter	10 "	10 "	9 "	6 "
Autumn	20 "	10 "	14 "	2 "
Total	45 "	38 "	55 "	26 "

If we were called upon to classify our climate, as a whole, we should call it strictly a tonic climate—tonic in the broad, full sense of the term; tonic as all northern latitudes are tonic; tonic as Scotland is tonic, which is called "one of the healthiest climates in the world." The tonicity of her climate is stamped with a physical impress which shows itself upon all of her people; it is a tonicity which has made the Scotch race big and brawny, broad-shouldered and big-boned; it is a healthfulness which has made them long-lived. The average duration of Scotchmen's life is longer than that of other European nationalities. Their climate has given tone to their morals, health to their religion; theirs was a religion that was nurtured and reared in the open air; it was a religion that took a strong hold upon *healthy* hearts—not hearts enlarged with enthusiasm or pulsating with excitement—but hearts which beat with the healthy rhythm of a settled purpose; theirs is a pulse which beats slow, but full. Yet Scotland is not a medicinal climate; it is a healthy, tonic climate.

The climate of New England is a tonic climate, and partakes largely of the characteristics of Scotland. The New Englanders are, as a general thing, a large-boned race; they have fine physiques, and are a healthy people; their climate is, strictly speaking, in the full sense of the word, a tonic climate. But yet Scotland and New England are tonic for a certain class of diseases. While the climate possesses many advantages, still, like all climates, it also has marked disadvantages, and disadvantages insurmountable for the very disease under consideration—consumption.

Now, we ask, is there any reason why Minnesota should not be a healthy State? Too far north for miasmatic influences; too far from the coasts for the deleterious effect of excessive moisture; too far from the alkaline waters of the west not to enjoy the blessings of pure water; the configuration of the land such as to admit of perfect drainage; the soil such as rapidly to absorb moisture; the occupation and habits of our population such as to insure health—why should our State not be healthy and the mortality low?

We clip from Colonel Hewitt's valuable little work on Minnesota, the following table of the relative mortality of the different States, which he compiled from the census returns of 1870. It should be borne in mind that these figures, so far as Minnesota is concerned, include *non-resident* deaths. By non-resident we would be understood to mean those who seek our State for their health:

STATE.	Popula- tion.	Deaths	Per- cent.	1 for every	STATE.	Popula- tion.	Deaths	Per- cent.	1 for every
Alabama	964,201	12,760	1.32	75	Missouri	1,182,012	17,557	1.48	67
Arkansas	435,450	8,860	2.03	49	New Hampshire.....	326,073	4,469	1.37	72
California	379,994	3,705	.97	102	New Jersey.....	672,035	7,525	1.11	89
Connecticut.....	460,147	6,178	1.33	74	New York.....	3,880,735	46,881	1.20	82
Delaware.....	112,216	1,346	1.11	90	North Carolina.....	992,622	12,607	1.27	78
Florida.....	144,225	1,769	1.25	79	Ohio.....	2,339,511	24,724	1.05	94
Georgia.....	1,057,286	12,807	1.21	82	Oregon.....	52,465	251	.47	209
Illinois.....	1,711,951	19,263	1.12	88	Pennsylvania.....	2,906,115	30,214	1.03	96
Iowa.....	674,913	7,260	1.07	93	Rhode Island.....	174,620	2,479	1.41	70
Indiana.....	1,350,438	15,205	1.12	88	South Carolina.....	703,708	9,745	1.38	72
Kansas.....	107,306	1,443	1.34	74	Tennessee.....	1,109,801	15,176	1.36	73
Kentucky.....	1,155,684	16,467	1.44	70	Texas.....	604,215	9,369	1.55	64
Louisiana.....	708,002	12,329	1.74	57	Vermont.....	315,098	3,355	1.06	93
Maine.....	628,379	7,614	1.21	82	Virginia.....	1,596,318	22,474	1.40	71
Maryland.....	687,049	7,370	1.07	93	Wisconsin.....	775,831	7,129	.92	108
Massachusetts.....	1,231,063	21,304	1.73	57	District of Columbia	75,080	1,275	1.69	58
Michigan.....	749,113	7,399	.98	101	Nebraska.....	28,841	381	1.32	75
Minnesota.....	172,123	1,109	.64	155	New Mexico.....	93,516	1,305	1.39	71
Mississippi.....	791,305	12,214	1.54	64	Utah.....	40,273	374	.92	107

We wish here to mention one great mistake that invalids make in visiting our State, and that is in the briefness of their stay. They frequently come too late in the spring, and go away too early in the fall. June is almost invariably a warm, pleasant month, and October, while it may seem very cool to those accustomed to a warmer climate, is one of the best months of the year, and if the patient exercises reasonable care in keeping warmly clothed, he will find the bracing air beneficial. The winter months are also favorable to consumptives, as is well illustrated by the hosts of people who have made Minnesota their permanent home, simply because its climate has given them the relief they sought. The terrors of a Minnesota winter are easily endured after one has been here long enough to discover that the climate of other States is more

uncomfortable at ten degrees below zero, than this is at a much lower temperature. It is a pure, dry air, free from that dampness which no amount of clothing can protect one from. On this subject we quote from a pamphlet compiled by Talbot Jones, M. D., of St. Paul, from the evidence of various medical men throughout the State, who have given the matter their attention, and from his personal observation :

When we come to examine into the comparative merits of climate with reference to the influence it exerts for good, or as a curative agent, we are at the outset almost bewildered at the diversity of opinion which is entertained as to just what constitutes a good climate.

The great importance of climatic treatment in appropriate cases of consumption has been recognized and insisted upon since medicine had its birth as a science. Hippocrates had very clear ideas as to the efficacy of climate in the disorder. Aretæus recommended long sea voyages, just as Bennett does to-day; while Celsus spoke of the benefit to be derived from camping in the pine forests, as does Professor Loomis now. However widely the profession may differ concerning the etiology and morbid anatomy of consumption, there is a singular unanimity of opinion among authorities that, in order to arrest the progress of the disease already commenced, or diminish to a minimum the probability of its development in those threatened, most reliance must be placed in climatic treatment. The acrimonious contests which have been waged among pathologists for more than half a hundred years, with regard to the pathological changes which take place in the lungs of phthisical subjects, have not correspondingly obscured the advantages likely to result to the invalid by a change of situation; but, having concentrated attention upon the whole subject, it has rather been the means of uniting all schools in a common belief that in climate alone can reliance be placed as a curative agent. "Of all the means hitherto recommended for the cure of phthisis, none have been followed more frequently by complete cessation of the disease than change of situation." [Laennec on the Chest.] "The most important means in the treatment of phthisis, indeed the sovereign remedy, as compared with all others, is climate. If it is taken advantage of early enough, and not, as unhappily is too often the case, when it is already too late, we may expect the best results from it. I have often observed, and every physician as well as myself must have observed, the most cures of chronic phthisis from climatic influences; it is true many are but temporarily benefited, but sometimes there are perfect cures." [Waldenburg.] These two quotations from eminent authorities, representing different schools of thought, will suffice to show the high estimation which is placed upon climate as a therapeutic agent.

When we begin to inquire into the character and comparative merits of climate, we are at once struck with the fallacy of the doctrine, which has obtained for generations, that the disease is more frequent in cold than in warm latitudes. Just the reverse of this is true. From an extensive series of data, it has lately been shown that the further we progress north the greater immunity the inhabitants enjoy from consumption. It is well known that "far up in the north, where the Ice King is," consumption is either extremely rare or altogether unknown. In the bleakest, coldest, and most exposed portions of the globe, where winter exists well-nigh continuously, and where sudden and severe changes of the atmosphere hold to a maximum, consumption is very infrequent. Indeed, so true is this that we are forced to the conclusion that extreme cold is inimical to the production of consumption.

Professor Flint quotes Dr. Hjaltelin, who resides in Iceland, as declaring that phthisis is unknown on that island. Finmark, northern Greenland, north Sweden and Norway are likewise almost exempt from a disease which carries off one-tenth of the population of the tropics. The mortuary reports of St. Petersburg and Moscow, Russia, show a mortality from phthisis much less than that of either Constantinople or Rome, both of which places are favorite sanitarïa for pulmonary invalids. Stockholm, in a cold climate, although never spoken of as a health resort, shows an annual death-rate from consumption only half as great as that of either Venice, Florence, or Pisa, which are in a warm climate, and which have been heretofore greatly lauded as health resorts. Thorowgood, in his work on the "Climatic Treatment of Consumption," says that the mortality from consumption in London is 277 in 100,000; while in Norway it is but 100 in 100,000. Northern Scotland shows fewer deaths from this disease than southern England, and London mortuary reports compare very unfavorably with those of Edinburgh.

"The inhabitants of cold climates are not particularly liable to be affected by the external forms of tuberculous disease." [Mr. Phillips on Scrofula.] Colonel Tulloch, in his report to the British war offices, shows that the soldiers sent to cold and dry countries are less frequently affected by scrofula than those stationed in hot countries. In Nova Scotia and New Brunswick, where the winter temperature is very low, the disease is less frequent than in Jamaica and at Sierra Leone. [See Fisk Fund Prize Essay.] The mortality of Montreal, Canada, to-day is less than that of

Havana; and that of St. Paul less than that of Jacksonville, Florida. Quebec is much less scourged by disease than is New Orleans, Mobile, or Galveston. Dr. Forry, who has written exhaustively on the subject of consumption as it affects the American army, is authority for the statement that the proportion of soldiers annually attacked by consumption amounts to 10% per 1,000 in the entire country, while in the northern regions, where the climate is most severe, the proportion of phthisical patients is not more than 5 per 1,000.

"Fifteen years ago the belief prevailed that the essential climatic element for the arrest and cure of phthisis was a warm, dry atmosphere. More recent observations and investigations have settled the fact that phthisis is not necessarily hastened in its development by a low (cold) temperature, and is not prevented or cured by a higher temperature." [Loomis before the American Medical Association, 1878.] While, therefore, the immunity which cold countries enjoy from phthisis is clearly indicated, attested alike by a large series of data and a vast clinical experience, observation equally exact, and from authority fully as high, tends to establish the truth that the favorite habitat of consumption is included within the isothermal lines of 30° and 40° mean annual temperature. While no zone is absolutely free from the disease it is the temperate and torrid ones where the death rate holds to a maximum.

When we consider the high rate of mortality in humid southern climates, not only to patients sojourning there in quest of health, but to the natives who have always resided there; and, on the other hand, when we know the favorable results which, as a rule, attend the sending of patients to cold latitudes, as well as the low rate of mortality to the natives from consumption in these localities, the question is a difficult one to answer. Although practically not so important, the question why warm climates should exhibit such a large death rate from phthisis, is still an interesting one. Take for example Cuba, or, indeed, any of the West India Islands or Florida. The latter is perhaps to-day more frequented by pulmonary invalids than any of our southern places of resort. The exceeding fatality of consumption to families who for generations have resided in that State, as well as the unfavorable effects, as a rule, observed upon patients who visit that State in declining health, is well known. We are not surprised that such is the case after having carefully analyzed the climate, for really there is little that can be said in its favor, and a great deal which must be said against it. "Two causes predominate over all others—deficiency of muscular exercise and humidity give rise to most chronic disorders. These causes act principally upon the skin; they tend incessantly to repel within the torrent of the circulation superfluous or excrementitious elements which should be eliminated from the economy; they produce alterations of the blood and cachectic states of the system, of which the origin is unknown." [Edwards]. The effects of a hot and humid atmosphere upon the skin is either to entirely suppress cutaneous transpiration, or to reduce it to a minimum. We have the highest authority for the statement that the suppression of this insensible perspiration, from whatever cause, is not only immediately harmful and dangerous, but is very likely to even rise to the tuberculous cachexy. The importance of the skin as a supplementary organ to the lungs, in ridding the economy of effete matters, is universally acknowledged. "In hot and damp weather the cutaneous perspiration is performed with difficulty, a feeling of languor and depression, which makes the heat appear stifling and renders all exertion insupportable." [Foissac, "De la Meteorologie."] This indisposition to exertion, either physical or mental, due in part to humidity, suppression of the insensible perspiration, and to heat, is a serious drawback to a patient's improvement. A certain amount of exercise in the open air is the *sine qua non* to the successful treatment of a patient with phthisis. Florida would be unfit for a patient to visit, for this reason if for no other. Here everything invites to repose, an irresistible feeling of languor seizes a person, one's energies are paralyzed, and exercise consequently neglected. "There is a sensation of fullness in the head, and it has the effect of diminishing the nervous energies, and of inducing nervous congestion of the internal organs." As a natural result of this lack of muscular exertion and neglect of exercise, there follows great relaxation of both the nervous and muscular systems—effects so disastrous that even the warmth of climate and change of scene, with the fresh hope these inspire, can not counterpoise them. The ideal climate is still undiscovered; and, while we must admit this, it does not lessen the value of certain features of climate, which have been discovered and shown to possess decided advantages in the treatment of consumption. Out of a vast accumulation of facts with regard to climate, from exhaustive analysis of the influence on phthisis of humidity, altitude, temperature, soil, ozone, direction and velocity of the wind, elevation above the sea, voyages upon the sea, atmosphere pressure, etc., there are some facts upon which the profession are agreed. Careful investigation of this matter made by competent and trustworthy men, both in this country and in Europe, clearly indicates the importance of altitude in the climatic treatment of consumption.

When the favorable influence which altitude exerted upon consumption became apparent to the profession, for a time sea voyages were nearly abandoned, and hitherto favorite resorts near the sea coast deserted. The tide turned toward the mountains. Invalids who had heretofore relied on favorable effects of long sea voyages, now placed all their hopes in resorts from 2,500 to 8,000 feet

feet above the sea—the greater altitude (they supposed) the better. A more lamentable mistake could scarcely have been made. In avoiding Scylla they ran into Charybdis. The result of breathing this rarefied air, to persons unaccustomed to it, produces very distressing effects. In many it gives rise to hæmorrhage from the lungs. It throws sudden increased labor upon the lungs and heart. Distressing effects are manifested in divers ways, and these extreme altitudes, after a fair trial, had to be abandoned for situations less elevated. Late investigations seem to indicate that the comparative infrequency of phthisis among inhabitants residing in elevated regions is due, not so much to mere altitude, as to the absence of organic matter in the atmosphere of these high elevations.

"It is now established beyond doubt that organic substances, whether gaseous products of putrefactive processes, or microscopic germs floating in the atmosphere, when they reach the bronchial tubes in the inspired air, are capable of exerting morbid processes which lead to serious results. It has been demonstrated that these organic substances are more numerous in the lower than in the higher strata of the atmosphere, and that they continue to diminish the higher we ascend, until a certain height is reached in the mountain ascent, and they entirely disappear." [Loomis]. These deleterious organic substances, which are continually inhaled in the lower strata of the atmosphere, are one of the strongest arguments against sending patients to Florida, the West Indies, New Orleans, and cities on our Atlantic and Gulf coasts. In these situations, the altitude being small (the mean of Florida being but 57 feet above the sea, and that of New Orleans even less), the effect upon the organism must be most pernicious. The favorable effects of the inhalation of ozone, to consumptives, is well known, and the absence of this form of active oxygen in situations with but slight elevation above the sea should discourage physicians from sending their patients to such resorts. There is much more ozone in the higher than in the lower strata of the atmosphere. That ozone is exceedingly valuable in the climatic treatment of phthisis is clearly indicated. The manner in which it operates on the organism is best explained by Dr. Schreider in his work on Climatology. Ozone possesses high oxidizing power and purifies the atmosphere by chemically uniting with the products of decomposition. It destroys organisms by combining with them. "It also promotes nutrition and blood changes by supplying to the respiratory organs a most active form of oxygen. Therefore, when choosing a health resort for phthisical invalids, we would give the preference to a locality in which there is constantly an excess of ozone in the air, for experience has established the fact that there the climate is especially salubrious."

It is my belief that a serious misapprehension obtains among authorities with regard to the supposed injury which results to phthisical patients from variations of the atmosphere. It is a popular belief that, the nearer we approach to absolute uniformity of temperature, the nearer we approach to the ideal climate. To my mind a more fallacious idea never gained popular credence; a more pernicious one the professional man has rarely been called upon to correct. If this can be substantiated, cold climates should by all means be avoided; and the physician who has heretofore advised patients to seek a cold, bracing, tonic atmosphere, where changes in the atmosphere the world over holds to a maximum, has either displayed ignorance of just what constitutes an atmosphere favorable to the successful treatment of consumption, or else has been trifling with human life.

If variation in the temperature of the atmosphere is so terrible in its effects as many would have us believe, the question at once arises, why is pulmonary consumption not more common in cold latitudes where, as it has been shown, variability is the rule, and uniformity the exception?

After a careful study of the foregoing facts, and by way of summing up, we believe that we are justified in drawing the following deductions:

1. No zone enjoys entire immunity from pulmonary consumption.
2. The popular belief that phthisis is common in cold climates is fallacious.
3. The idea, now so prevalent, that phthisis is rare in warm climates is as untrue as it is dangerous.
4. The disease causes a larger proportion of deaths on the seashore—the mortality diminishing with elevation up to a certain point.
5. Altitude is inimical to the development of consumption, owing, chiefly, to the greater purity of the atmosphere in elevated situations, its freedom from organic matter, and its richness in ozone.
6. Moisture arising from a clay soil or due to evaporation is one of the most influential factors in its production.
7. Dampness of the atmosphere, from whatever cause and in any altitude, predisposes to the development of the disease, and is hurtful to those already attacked.
8. Dryness is a quality of the atmosphere of decided value.
9. The most unfavorable climate possible for consumptives is one of uniform high temperature and a high dew point (warm and moist).
10. That the effects due to change in the atmosphere are by no means so pernicious as are generally supposed, and that upon this subject present views require modification.



DEVIL'S TRACK RIVER, NEAR GRAND MARAIS, LAKE SUPERIOR.

A few words with regard to the geography of Minnesota—its altitude, geology, the character and configuration of its soil, and other physical aspects: The surface of Minnesota is generally undulating. It consists chiefly of rolling plains or prairie, which have an elevation varying from 1,200 to 1,900 feet above the sea.

Little need be said with regard to the soil of the State. Professor N. H. Winchell, of the University of Minnesota, who has given the subject careful and intelligent study, says, by way of summary: "Hence, we may denominate the soils of Minnesota, except in the southwestern part of the State, the limits of which have not yet been accurately ascertained, as *drift soils*. The terms 'limestone soil' and 'sandstone soil' are almost inapplicable to our State----" A large portion of the State has a soil which is a light, sandy loam. The highlands of Minnesota constitute the watershed of this continent. There are three rivers in the State whose sources are but a few miles apart, the waters of which, pursuing different directions, empty, one into the Arctic Ocean, one into the Atlantic, while a third mingles its waters with those of the Gulf of Mexico. In the "Medical Statistics of the Provost-General's Bureau, 1875," published under authority of the War Department, the mean altitude of twenty-two of our Northern and Western States are given as follows:

	Feet.		Feet.		Feet.
Minnesota,	1,100	Delaware,	100	Rhode Island,	125
West Virginia,	1,050	New York,	800	Ohio,	700
Iowa,	900	Missouri,	800	Pennsylvania,	700
Wisconsin,	850	Michigan,	800	Indiana,	675
Vermont,	600	Illinois,	625	New Hampshire,	625
Maine,	375	Kentucky,	600	Massachusetts,	400
New Jersey,	200	Maryland,	375	Connecticut,	300
		District of Columbia,	125		

From this table it will be seen that, of all the States east of the Rocky Mountains, Minnesota has the greatest altitude. As might be expected, this varies in different portions of the State. The highest elevation is about 2,000 feet above the sea. Lake Itaska, which is the source of the Mississippi river, has an altitude of 1,530 feet.

There is no country of which I have any knowledge, situated in the same latitude as Minnesota, and whose mean altitude is upward of 1,100 feet, which is not subject to atmospheric variations just as great as those observed in this State. Therefore, when it is proposed to try the effects upon a phthisical patient of a cold, bracing climate as a therapeutic measure, the fact must be kept constantly in view that such a climate, in whatever zone, is subject to sudden atmospheric changes. So true is this, that coldness and climatic variability are well nigh synonymous terms. My own observation has led me to the conclusion that individuals wintering in Minnesota, if warmly clad in woollens, experience none of the pernicious effects from sudden changes in the atmosphere which not a few describe, but none here have observed. A careful inquiry among physicians residing in different portions of the State, has elicited nothing but what is confirmatory of such a statement. Sudden variations in the atmosphere, exposure, etc., are supposed in the great majority of cases to stand in a causative relation to pneumonia. Accepting this as partly true, it would seem that this disease would be an exceedingly common one in Minnesota, where atmospheric changes are not only great but sudden. Investigations (*vide* "Vital Statistics," U. S., 1860) indicate that the mortality from pneumonia is twice as great in the New England and the Middle States, and much greater also in the Southern States than it is in Minnesota. Copying from the "Vital Statistics" of Minnesota, the deaths from consumption were as follows through four years:

Total deaths from consumption during the winter months for four years, 455.

Total deaths from consumption during the summer months for four years, 512.

Whenever the claims of Minnesota as a desirable resort for consumptives is urged, we are almost invariably met with the same reply, viz: that the rigors of the winter are entirely too severe on patients; and, atmospheric variations being great and sudden, the effects must be hurtful.

I have elsewhere attempted to show that neither of these objections can be substantiated, either by an appeal to the mortuary reports of this State, or to the experience and observation of the physicians practicing here.

Consumption may almost be termed an "indoor" disease, and lack of exercise in the open air as a development cause is scarcely less important than heredity itself. It is my sincere belief that invalids can be as much in the open air in this State during the 365 days of the year, as they can in any State in the Union. With warm wrappings they can be in the open air almost all the time, during our winter as well as our summer months. The whole number of days during our winters the extreme cold of which prevents invalids being out of doors, are fewer in number than are the rainy days during a corresponding period of time in Florida, which, of course, prevents invalids from being out. Let an unprejudiced person carefully study the meteorological reports as published by the War Department, with reference to the bearing upon this subject, and he will, I am satisfied, be convinced that more actual time can be spent in the open air in the State of Minnesota than in Florida.

To ascertain the opinion of the profession of this State concerning the effects of climate upon phthisis, the Minnesota State Board of Health recently sent out a circular and received the following replies:

Question. I. Is tubercular consumption as liable to be developed here as in the eastern or southern portions of our country, in persons predisposed to the disease? Forty-one answers were received. Yes, 1; no, 37; undecided, 3.

Q. II. Have you known any cases to originate in this State in persons not supposed to be predisposed to the disease? Forty-one answers were received. Yes, 17; no, 21; undecided, 3.

Q. III. Does the climate of Minnesota favor the cure of phthisis pulmonalis (any form) originating elsewhere? Forty-one answers. Yes, 39; no, 2. More than one-half supplemented the answer with "in the early stages of the disease."

Q. IV. If so, to what characteristics of the climate is the favorable effect due, and in what manner is it produced? Thirty-nine answers. "To dry and stimulating character of the atmosphere." "Tonic effects upon the whole system." "To elevation and a clear and dry atmosphere." "To dry atmosphere and ozone." "Stimulating effects of atmosphere in connection with outdoor exercise." "To light and its effects mostly." "Cold winters more favorable than mild."

Q. V. In what stage of the disease are consumptives most likely to be benefited by residence here? Forty answers. In the incipient stage, 32. In all stages, but better in early stage, 8.

Q. VI. Is a tendency to hæmorrhage in any stage of the disease an indication favorable or unfavorable to immigration to this State? Forty answers. Favorable, 18; unfavorable, 6; undecided, 12.

Q. VII. What months are most favorable to immigration here? Forty answers. Autumn, 8; Summer, 12; Spring, 5; late Spring or early Fall, 10; any month, 2; undecided, 3.

Q. VIII. Do you know of persons now living in the State or elsewhere who came here while suffering from phthisis, either incipient or developed, and who were cured or benefited by residence here? Forty-one answers. Yes, 24; many, 7; a few, 3; no, 1; cannot say, 6.

The favorable view I entertain with regard to the climate of Minnesota, being the opinion of but a single individual, would be entitled to but little weight, if the deductions drawn cannot be established by an appeal to facts and corroborated in the experience and observation of the medical practitioners located in different portions of the State. Elsewhere attention has been directed to the meteorological and mortuary reports of the State, and the bearing they have upon this subject. With regard to the replies to the circular sent out by the State Board of Health, I think they possess great value. They clearly indicate the estimation which is placed upon the climate of this State by forty of the oldest and most prominent practitioners in it, who have through a series of years had ample opportunity to watch and study climatic effects upon phthisis as it has occurred in their own practice. Dr. D. W. Hand, president of the State Board of Health, writes as follows upon this subject:

"Persons with an hereditary tendency to consumption, or with the disease already beginning, will find this climate remarkably well adapted to their wants. Between the pleasant rolling prairie, the wooded lake region, and the dense pine forests of the northern section of the State, they can choose what seems most agreeable and best adapted to them, while the dry, bracing atmosphere will enable them to live much of the time out of doors without fear of 'taking cold.' This comparative exemption from taking 'colds' when exposed to the open air, day or night, is, in my opinion, one of the greatest charms of this climate."

The late distinguished Congregational divine, Rev. Horace Bushnell, D. D., of Connecticut, who spent a summer in this State for the benefit of his health, wrote concerning this climate, as follows: "The winter climate is cold, and yet so dry and clear and still, for the most part, as to create no great suffering. One who is properly dressed finds the climate much more agreeable than the amphibious, half-fluid, half-sloppy, grave-like chill of the East. Real snow storms are rare; there were none last winter. A little more snow to make better sleighing would be an improvement. As to rain in winter, it is almost unknown. There was not a drop of it last winter, from the latter part of October to the middle of March, except a slight drizzle on Thanksgiving day. I had spent a year in Cuba without benefit. I had spent also nearly a year in California, making a gain in the dry season, and a partial loss in the wet season, returning, however, sufficiently improved to resume my labors. Breaking down again from this only partial recovery, I made the experiment now of Minnesota; and, submitting myself, on returning, to a very rigid examination by a physician who did not know at all what verdict had been passed by other physicians before, he said, in accordance with their opinions, 'you have had difficulty in your right lung, but it is now healed.'"

It is almost universally remarked that, shortly after their arrival in Minnesota, invalids notice a marked improvement in their appetite and digestion. So true is this that there are medical writers who maintain that this improvement of digestion and assimilation is a more influential factor in the successful treatment and cure of consumption, as it presents itself in this State, than all the other favorable conditions combined. It is not alone the nitrogenous foods which are so well digested,

but the hydro-carbons as well. It is the latter variety which play such an important *role* in the constructive metamorphosis of tissue.

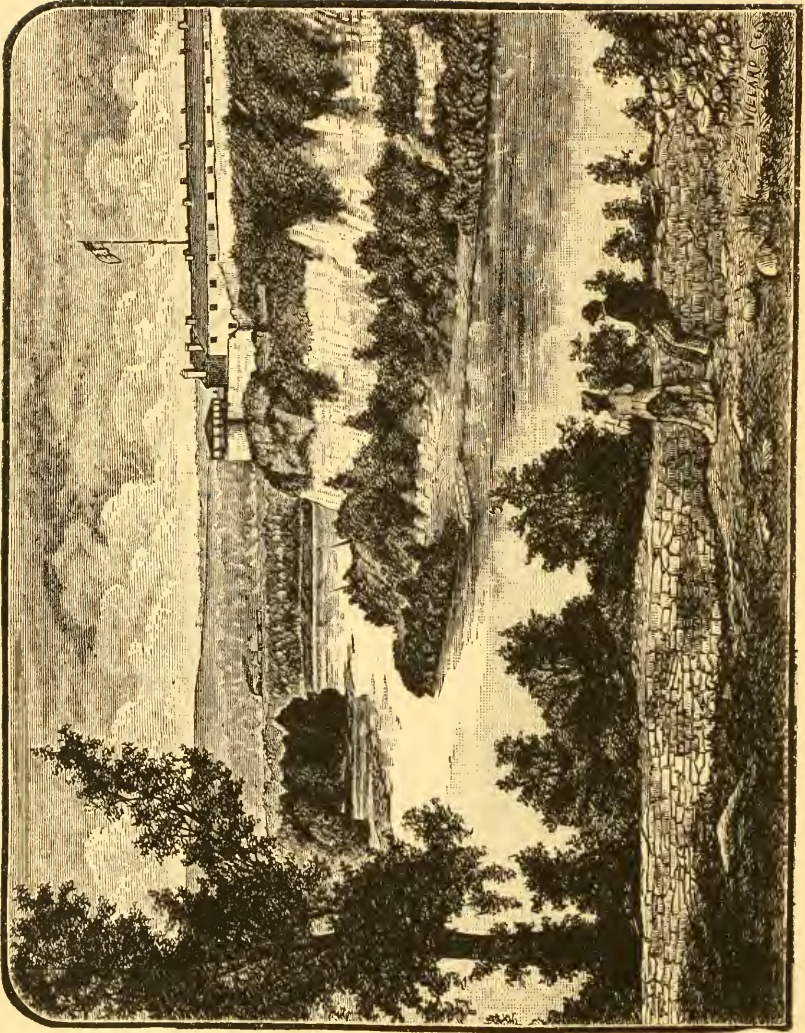
"The deficient digestion of animal food in phthisis is a very serious thing. It keeps the patient in such a weak state that fatal effects follow shocks that could otherwise be borne up against." "In tuberculous consumption the body wastes away, not because of the destruction of fat being increased, but because of its renewal being arrested." "The great object in the treatment of phthisis is to get the system in such a condition that it will assimilate fat." "To find the easiest assimilated oil and to prepare the digestion for the absorption of oil are the main problems in the cure of consumption." Chambers on the Indigestion.

There is, perhaps, no State in the Union in which the processes of digestion and assimilation are more actively performed than in Minnesota. This was commented upon in the replies received in answer to the circular sent out by the State Board of Health. To my mind, one of the most serious objections against warm climates, as a resort for consumptives, is the intense dislike which patients acquire for foods which are rich in hydro-carbons, but especially oils. So high an authority as Baron Liebig states that oily foods are disgusting to persons in hot climates. When, therefore, Dr. Chambers has shown how immensely important it is that consumptives should take oil and assimilate it, taken in connection with the declaration of Liebig that such food is disgusting to persons in warm climates, the question at once arises: Is a medical adviser ever justified in sending invalids to warm resorts, where this pernicious influence will be most operative?

It is during the first stage of consumption (the curative stage) that invalids derive so much benefit from a visit to Minnesota. Nowhere in this paper have I desired to create the impression that, during the advanced stages of this malady, the climate of this State would be beneficial. I cannot insist too strongly upon the inutility of sending phthisical patients to this State who are in the advanced stages of the disease. It is my belief, that where the stage of ulceration and excavation has been reached—and this can only be determined by means of physical diagnosis—this climate does positive harm. There are, however, numerous exceptions to this rule.

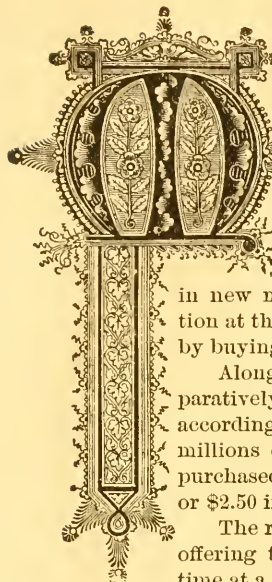
Professor Loomis is of the opinion that camping in pine forests is one of our most valuable means in combating consumption. The turpentine exhaled from pine trees, as is well known, converts ordinary oxygen into ozone, and it has been shown that this is definitely valuable as a remedy in phthisis. The immense pine forests of Minnesota will afford the invalid ample opportunity to test the value of Professor Loomis's suggestion.

— In closing this paper I cannot do better than give the conclusions at which Dr. Franklin Staples, of this State, arrived in his "Report on the influence of Climate on Pulmonary Diseases in Minnesota," read before the American Medical Association in 1876. He says: "Among the conclusions to which we think our investigation has led are the following: First. Owing to the geographical position of Minnesota, the altitude and general physical condition of the surface of the country, the character of the soil, the temperature and comparative dryness of the atmosphere, the character of the sun's light here, the freedom from all forms of paludal poisons, and to other causes, the climate of the State is stimulating and favorable in its effects upon diseases of the lungs and air-passages, which are dependent upon and characterized by debility, imperfect digestion and assimilation, and the tuberculous and strumous diathesis. Second. That the beneficial effects of the climate are due largely to influences exerted directly or indirectly upon the functions of nutrition. Third. That acute lobar pneumonia is not to any great extent prevalent here, but that the chronic forms of pneumonia inflammation are found to exist, and that the cases of phthisis pulmonalis originating here have been generally of pneumonic origin; but that this does not conflict with the fact that phthisis contracted elsewhere and under different climatic conditions may be benefitted and cured by influences found to exist here; and that we find facts to verify this conclusion, especially in the large number of the present inhabitants of the State now in good health, who came from other localities as invalids suffering from evident phthisis pulmonalis, either caseous or tuberculous. Fourth. That, since the climate of the northwest, in common with that of all other regions and countries, has its imperfections, its disadvantages in some classes of invalids suffering from pulmonary disease, as well as its great advantages to others, an intelligent discrimination should be exercised on the part of the medical profession of the country concerning the patients to be sent to Minnesota for relief; and it should be known that, for the consumptive, merely temporary residence here is not likely to result in permanent benefit."



FORT SNELLING, MINNESOTA.

HOMES IN THE NORTHWEST.



MINNESOTA offers many inducements to immigrants seeking new homes, where they may be enabled to improve their condition in life. While thousands of acres are added annually to the productive lands of the State, there yet remain large tracts subject to pre-emption, or location under the homestead or tree-culture laws. New lines of railway are reaching out from the large cities to gather in the products of the new farms, and new towns are springing up like magic. Capitalists find profitable investment

in new mills, manufactories and stores, and mechanics find occupation at their various trades, or opportunity to become independent by buying land and turning farmers.

Along many of the lines of railway, land is still to be had at comparatively low figures, ranging in price from \$5.00 per acre upward, according to location. The United States government has several millions of acres subject to entry or pre-emption, which may be purchased at \$1.25 per acre if outside of railroad land grant limits, or \$2.50 if within those limits.

The railway companies give great inducements to actual settlers, offering their lands at a low price, and giving the purchaser long time at a small interest. Of these are the St. Paul, Minneapolis and Manitoba, Northern Pacific, St. Paul and Sioux City, St. Paul and Duluth, Hastings and Dakota, St. Paul, Stillwater and Taylor's Falls, and the Chicago and Northwestern, all of which companies make special terms for land seekers by a reduction of rates of fare to view their lands.

State lands are sold at auction to the highest bidder, \$5.00 per acre being fixed by law as the minimum price which can be received, and the rate of interest at 7 per cent. to those who purchase on time.

To give the reader what may be considered the most reliable information about Minnesota lands and how to obtain them, we quote from the official pamphlet of the State Board of Immigration, and the recent report of the Commissioner of Statistics:

UNOCCUPIED LANDS.

Of the unoccupied lands in Minnesota, nearly 10,141,989 acres remained unsurveyed on the 1st of January, 1881. The title to these is still in the United States government, but on their survey about 600,000 acres will enure to the State as school lands, and a considerable further quantity as swamp lands and grants for railroads. Of the surveyed lands that are yet unoccupied, some 3,130,000 acres still belong to the United States government, about 3,000,000 acres to the State, nearly 7,000,000 acres to railroad companies, and, perhaps, 500,000 acres to private individuals—making an aggregate of about 13,630,000 acres.

GOVERNMENT LANDS.

The lands belonging to the United States are divided among nine districts, with a local land office in each for their disposal, to-wit:

1st District—Office at Worthington. 2d District—Office at New Ulm. 3d District—Office at Red-

wood Falls. 4th District—Office at Benson. 5th District—Office at Fergus Falls. 6th District—Office at Crookston. 7th District—Office at Taylor's Falls. 8th District—Office at Duluth. 9th District—Office at St. Cloud.

HOW TO OBTAIN THEM.

"Possession of government lands may be acquired by purchase at public or private sale, by pre-emption and subsequent purchase, or by continued occupation under the homestead and timber culture laws. The price for agricultural lands is uniformly one dollar and twenty-five cents per acre when beyond the limits of a railroad grant, or two and a half dollars per acre when within such limits. Mineral lands have their values fixed by appraisal.

"When public sales of government lands are to be made, notice is given by advertisement, and the lands are offered at auction to the highest bidder. To purchase at private sale the buyer goes to the land office of the district, describes the tract, and pays the full amount of purchase money.

"To pre-empt land that has been offered at public sale, any person, man or woman, over twenty-one years of age, who is, or has declared his intention to become a citizen of the United States, must, within thirty days after his settlement upon the land, file a statement at the local land office of the district, declaring his intention to pre-empt such land (not more than 160 acres being allowed to one person), and pay a fee of two dollars. Within one year of his settlement upon the land, he must make proof of his actual settlement upon and cultivation of the tract and secure the same by making payment at the prices given above. In case the land has not been offered he has three months' time in which to file his declaratory statement, and thirty months before making final payment. In case a pre-emptor dies during the interval between settlement and payment, his heirs may consummate the purchase.

"To obtain a homestead (the limit being now 160 acres, whether within or outside of a railroad grant), the applicant, either man or woman, must file his application describing the land at the local land office, together with an affidavit that he is, or has declared his intention to become a citizen, and that he desires the land for his own occupancy and for that of his family. He must then pay a commission of fourteen dollars. Having resided upon and cultivated a reasonable portion of the land continuously for five years, he must then, or within two years thereafter, prove such occupation to the district land officers and pay a further commission of four dollars, when he will obtain a complete title. In case of death, acquisition of title may be consummated by his heirs.

"Under the Timber Culture act, the party files an application for the land and an affidavit that it is for his own use, paying fourteen dollars. The first year he must plow one-thirty-second part, cultivate it the second year, and plant it in trees (not less than 2,700 to the acre) the third year. The second year he must plow another thirty-second part, cultivate it the third year, and plant it in trees the fourth year, 2,700 to the acre. Eight years after filing application, upon proving that there are at least 675 thrifty trees on each acre on a sixteenth part of the tract, he becomes entitled to the land on payment of a further sum of four dollars. In case of death, heirs can obtain the title.

"State lands are scattered all over the surveyed portions of the State. Their lowest price is fixed by law at \$5 per acre; and they are also separately appraised. They are always sold at public sale to the highest bidder, fifteen per cent. of the purchase money being required in cash, and the remainder to draw seven per cent. per year interest until date fixed for payment at time of sale."

A soldier having served in the army or navy during the war of the rebellion for over ninety days can obtain 160 acres of any of the public lands by filing, himself or by an attorney, a declaratory statement, and within six months after making his homestead entry, commencing settlement and cultivation, and continuing the same for five years, less the time he served in the army or navy.

The extent of Minnesota may be gained from the following statement: It has an area of 83,530 square miles, or 53,459,200 acres. Of this 51,000,000 acres is land, and 2,459,200 water. It is 375 miles in length, north and south, and its average width 250 miles.

This area is divided into arable lands, which require comparatively little work to subdue, embracing prairie and sparsely timbered land, 57,530 square miles, or 37,115,840 acres; pine lands, 21,000 square miles, or 13,440,000 acres; the "Big Woods" of hard wood timber, 5,000 square miles, or 3,200,000 acres.

The water area embraces about 8,000 lakes, varying in size from forty acres to 100,000 acres, and some two or three cover about 100,000 each; there are 5,000 lakes which have an average of 300 acres each.

From the recent report of Hon. F. S. Christensen, State Commissioner of Statis-

ties, we gather some facts that may be interesting to all who desire to locate in Minnesota, and we give them space:

	ACRES.
Lands surveyed in the State to January 1, 1881.....	40,605,851
Lands unsurveyed, estimated.....	10,141,989
Total in private hands.....	21,315,312
Total United States and State lands sold in 1880.....	1,649,702

The total value of personal property in the State, assessed in 1880, amounted to \$66,245,688; of real property, \$292,352,349.

POPULATION.

The population of Minnesota, as shown by the United States census of 1880, is 780,807. The following table gives the population by counties:

Aitkin.....	370	Isanti.....	5,070	Ramsey.....	46,168
Anoka.....	6,979	Itasca.....	124	Redwood.....	5,378
Becker.....	5,402	Jackson.....	4,804	Renville.....	10,596
Beltrami.....	10	Kanabec.....	505	Rice.....	22,499
Benton.....	3,019	Kittson.....	914	Rock.....	3,685
Big Stone.....	3,739	Kandiyohti.....	10,156	St. Louis.....	4,553
Blue Earth.....	22,395	Lac Qui Parle.....	4,905	Scott.....	13,478
Brown.....	10,856	Lake.....	106	Sherburne.....	3,860
Carlton.....	1,234	Le Sueur.....	16,111	Sibley.....	10,731
Carver.....	14,149	Lincoln.....	2,946	Stearns.....	22,552
Cass.....	250	Lyon.....	6,234	Steele.....	12,463
Chippewa.....	5,362	McLeod.....	11,295	Stevens.....	3,861
Chisago.....	7,997	Marshall.....	995	Swift.....	7,470
Clay.....	5,900	Martin.....	5,253	Todd.....	6,156
Cook.....	66	Meeker.....	11,708	Traverse.....	1,504
Cottonwood.....	5,554	Mille Lacs.....	1,503	Wabasha.....	18,308
Crow Wing.....	2,307	Morrison.....	5,877	Wadena.....	2,086
Dakota.....	17,414	Mower.....	16,804	Washington.....	19,553
Dodge.....	11,415	Murray.....	3,739	Waseca.....	12,485
Douglas.....	9,159	Nicollet.....	12,351	Watonwan.....	5,958
Faribault.....	12,999	Nobles.....	4,479	Wilkin.....	1,925
Fillmore.....	28,220	Olmsted.....	21,553	Winona.....	27,268
Freeborn.....	16,074	Otter Tail.....	18,963	Wright.....	18,124
Goodhue.....	29,505	Pine.....	1,305	Yellow Medicine.....	5,890
Grant.....	3,004	Pipe Stone.....	2,315		
Hennepin.....	66,590	Polk.....	11,453	Total.....	780,082
Houston.....	16,339	Pope.....	5,876		

The population of cities containing over 3,000 inhabitants, may be seen by the following table:

Minneapolis.....	48,053	Red Wing.....	5,811	Hastings.....	3,810
St. Paul.....	41,639	Mankato.....	5,552	St. Peter.....	3,463
Winona.....	10,205	Faribault.....	5,433	Owatonna.....	3,161
Stillwater.....	9,059	Rochester.....	5,103		

RAILROADS.

There is now in operation within the State, 3,099.59 miles of railway, and about seventy-five miles more will be completed early this year.

The total stock of railroad lines within the State is valued at \$1,778,144; total debt, \$48,391,388. Gross earnings for 1880, to June 30, \$10,774,826; operating expenses, \$6,604,400; net earnings, \$4,170,425. The movement of freight was 3,934,380 tons, an increase of nearly one-third over 1879. Passengers carried, 1,934,406, an increase of a quarter of a million over 1879.

Railroad lands sold during the year ending June 30, 1880, amounted to 506,951 acres, for which was received \$1,175,368. Lands sold from June 30 to Nov. 30, 214,342.36 acres, for which was received \$581,080.61.

RAILROAD LANDS.

In regard to lands now in the hands of railroad companies, we annex extracts from the official reports of land commissioners to the commissioner of statistics:

MINNESOTA CENTRAL, HASTINGS & DAKOTA AND ST. PAUL & CHICAGO RAILWAYS.

Hastings & Dakota Railway Company have sold during the year ending Dec. 1st, 1880, 26,325 acres, at an average of \$7.15 per acre. About 280,000 acres remain unsold on the line of said railway between Glencoe, McLeod county, and Ortonville, Big Stone county, Minnesota.

The Minnesota Central Railway Company has about 25,000 acres unsold on the line of the Chicago, Milwaukee & St. Paul Railway from Minneapolis to Lyle, Mower county, Minnesota. About 3,000 acres have been sold during the year at an average of \$6.95 per acre.

The St. Paul & Chicago Railway Company have sold from grant of State swamp land during the year 18,351 acres, and have now for sale 425,000 acres of land located in every county in the State west of the Mississippi river.
GEO. E. SKINNER, Land Commissioner, Faribault.

ST. PAUL, MINNEAPOLIS & MANITOBA RAILWAY.

Sales of land made by this company during the eleven months ending Nov. 30th last, amount in the aggregate to 196,867.51 acres. The company has now for sale lands situated in Wright, McLeod, Meeker, Renville, Kandiyohi, Chippewa, Swift, Pope, Stevens, Grant, Traverse, Wilkin, Stearns, Morrison, Todd, Douglas, Otter Tail, Becker, Clay, Polk, Marshall and Kittson counties, 2,120,980 acres. On east side of Mississippi river in Anoka, Isanti, Sherburne, Mille Lacs, Benton and Morrison counties, 168,400 acres. These lands may be divided into three general classes:

1. **HEAVILY TIMBERED LANDS**, lying in the counties of Hennepin, Carver, Wright, McLeod, Meeker and Stearns.

This district is covered with heavy and valuable timber, such as oak, maple, basswood, elm, butternut, white and black ash, etc. The land is generally undulating, and the soil is a deep black loam, well adapted to the culture of all kinds of small grain and corn.

It is remarkably well watered by streams and beautiful lakes, in the vicinity of which are usually found valuable grazing and meadow lands—making it suitable for stock raising.

As a subdivision of this general class of lands, and resembling them in some particulars, are to be included the lands east of the Mississippi river, in the counties of Anoka, Isanti, Sherburne, Mille Lacs, Benton and Morrison. These are mostly open timber and brush lands, having a gently rolling surface, and a light, warm, loamy soil, producing very rapid growth, and as well adapted to the culture of corn as any other part of the State.

2. **PARTLY TIMBERED LANDS**.—These lands, situated in Meeker, Kandiyohi, Stearns, Todd, Pope, Douglas and Otter Tail counties, are in that intermediate part of the State, where nature blends prairie and woodland in beautiful alternation, symmetry and useful proportion. The surface is gently undulating, with a deep, rich, black loam soil, from two to three feet deep, and which will produce anything and everything usually grown on the farm of the nineteenth century.

Both the lines of this company run through this region and afford excellent facilities for its development and progress. Good towns, villages, churches, schools, and all the requirements of civilization abound, commensurate with the requirements of the country.

3. **PRAIRIE LANDS**.—These choice lands are on the line of the road in Swift, Stevens, Big Stone, Grant, Traverse, Wilkin, Clay, Polk, Marshall and Kittson counties. Some of this district is a comparatively new country, through which the railroad was only completed in the autumn of 1878. Notwithstanding this, it is already settling up with a rapidity which is without a parallel in any other part of the State. This class of lands includes that most fertile portion of the State known as the famous Red River Valley of the North.

The selling prices of this company's lands are from \$2.50 to \$10 per acre, according to quality and location; the average selling price is \$5.

To actual settlers in the Red River Valley an amount nearly equal to one-half of the purchase money is allowed on all lands brought under cultivation in three years from the date of sale. This rebate is made for the sole purpose of inducing speedy settlement and cultivation.

D. A. MCKINLAY, Land Commissioner, St. Paul.

ST. PAUL & DULUTH RAILROAD.

The sales of St. Paul & Duluth Railroad Company to Nov. 30th, 1880, foot up 31,175.91 acres.

From actual examination we are prepared to state that the entire country is in a very prosperous condition, not a single instance having been found where any settler required any assistance, beyond that given every winter in the purchase of wood and ties, and such other material as may be cut from the lands in the process of clearing.

The St. Paul & Duluth Railroad Co. offers for sale upwards of 1,000,000 acres of agricultural lands.

The lands are sold in tracts of forty acres and upwards, for cash or on long credit: a liberal deduction being made for entire cash payment.

When lands are sold on credit the price or value of the land is divided into eight equal installments, payable annually without interest. To induce settlers on some portions of the line, the company offers to sell lands in tracts of forty acres and upwards, at rate of \$5 per acre, payable in eight annual installments without interest, and agrees to purchase during four successive years all the ties, wood, etc., that may be cut from the lands cleared and cultivated, and to pay for same at regular rates as rapidly as delivered on track. By these means employment is given to settlers while clearing land for a term of years, by the end of which time they will be in a condition of independence. The lands offered for sale are situate in the several counties of St. Louis, Carlton, Pine, Chi-

sago, Aitkin, Kanabec, Isanti, Mille Laacs, Cook, Lake, Crow Wing, Morrison, Benton, Sherburne, Anoka and Washington, making a total of 1,272,729.08 acres.

The heavy timber which covers so large a portion of the lands of the St. Paul & Duluth Railroad Company, shelters them from the strong winter's wind, and renders them capable of raising winter wheat of the first quality, while spring wheat is sown with as equal a certainty of yield as in any other portion of the State.

Corn, rye, oats, barley, and all the vegetables are grown with great facility, and will amply repay the farmer for the labor bestowed upon them.

The hardwood lands, so called, are interspersed with natural meadows or grazing lands, which afford excellent facilities for grazing purposes, and will make the finest stock farms in the Northwest. Hay in abundance for keeping stock during the winter may be had for the cutting, the nutritious quality of the grass being such that cattle do not require grain. Red Top and Blue Joint grow naturally wherever the timber is cut and clearings made, reaching a height of seven feet and cutting from three and one-half to four tons per acre. Within the past few years quite a number of settlers, taking advantage of the facilities for grazing and other requisites that abound along this road for stock raising purposes, have taken lands and are successfully raising the finer grades of stock for market. Large numbers of cattle are fattened for the various markets along the line of the St. Paul & Duluth Railroad, and the mining towns on Lake Superior. Large quantities of hay (which is becoming an important article of trade), are also transported to the same points.

There are a number of special hay markets throughout this region, where baling for shipment is carried on largely, and where there is ready sale for the wood and ties and other products of the timber lands.

The most prominent improvement made in the last few years is the Mahtowa stock farm, situate near the old Black Hoof station, twelve miles from Northern Pacific Junction, or thirty-six miles by rail from Duluth. Less than two years ago the entire township might be said to have been a wilderness—to-day of the farm proper which includes over 800 acres, 450 acres have been cleared and seeded to tame grasses. About 150 head of cattle are being wintered, including a herd of about thirty short horns of the most approved families of thoroughbreds.

A large quantity of other stock, Berkshire swine, Lincoln sheep, etc., is kept on the farm. Large and permanent buildings have been erected and the results so far give practical demonstration of the wisdom of those who inaugurated the enterprise.

Since the opening of this farm the country in the vicinity is being rapidly filled up with homestead settlers, nearly all government lands being taken and rapidly put under cultivation.

The soil is excellent; and when the timber is cut, most excellent grass springs up, affording good grazing at once.

With a good market, plenty of work the entire year and good crops without failure, as a matter of course, the people are prosperous. It could not be otherwise. Those who started in this part of the State a few years ago with little or nothing, are now generally well-to-do, and settlers who came in later are fast acquiring a competency.

Although the winters of Minnesota are apparently longer, the actual number of days in which stock has to be fed here is no greater than in Ohio and Illinois. All stock requires shelter during the winter in this climate, but no more so than in Indiana, Ohio or Illinois; the chilling winter rains of those states being far more injurious to the stock than the severest cold of this State. Timber being close at hand, strong warm buildings for the shelter of stock may be erected at very small cost, while abundance of clean, fresh water being supplied from numerous lakes and running streams, present advantages that will make the business of stock raising amongst the most profitable in the State.

It requires also but very little outlay to commence and operate a farm along the line of this road. Good, substantial and comfortable houses can be built at the mere cost of the labor required to erect them; game of all kinds is found in abundance; the lakes and streams of water abound in fish; and the products of the farm find ready sale; the lumber region will furnish them with employment during the winter season.

PHILIP S. HARRIS, Manager Land Department, St. Paul.

CHICAGO & NORTHWESTERN RAILWAY COMPANY.

The Winona & St. Peter Railroad Company have still unsold in Redwood, Murray, Lyon, Lincoln, Yellow Medicine and Lac Qui Parle counties, 669,553 acres.

The prices of these lands vary according to quality and location with respect particularly to railroad facilities. The range of prices is \$2.00 to \$8.00 per acre. But few pieces are more than \$6.00 per acre, and they are in close proximity to towns and important stations.

In my last report I stated that a railroad was being constructed from Tracy, on the Winona & St. Peter Railroad, in a westerly direction into the Territory of Dakota. During the past season this road has been extended from Volga, D. T., (where work was suspended last year,) to Pierre, on

the Missouri river, a distance of about 184 miles. The building of this line, now 255 miles long, has opened up vast tracts of very desirable land subject to pre-emption and homestead settlement. This fact will explain the comparative small sale of lands belonging to this grant in the State of Minnesota. This company has also made sales of large quantities of its lands along the westerly end of its line in Dakota. Very large areas of Dakota land tapped by the lines of railway controlled by the Chicago & Northwestern Railway, have been placed under cultivation during 1880. These facts all enhance the value and desirability of the lands in Minnesota, but in pursuance of the liberal policy heretofore adopted by this company, the prices at which the lands are offered for sale have not been advanced.

The purchaser under contract is required to make payment as follows: The first year one-fifth of the purchase price, with interest on the balance at six per cent. The second year, interest only on the balance of the purchase price. The balance of the purchase price in two, three, four and five years, with interest in advance each year on unpaid balances—excepting the last year, which is one-fifth of the purchase price only. To parties who desire to pay the full amount of the purchase price in advance, a discount of 12½ per cent. is made from the regular price.

C. H. SIMMONS, Land Commissioner, Chicago.

NORTHERN PACIFIC RAILROAD COMPANY.

The company has now for sale in the State of Minnesota the following lands: St. Louis, Mille Lacs, Aitkin, Crow Wing, Cass, Morrison, Todd, Wadena, Otter Tail, Becker and Polk counties, 1,451,136 acres. The lands of the Western Railroad in the counties of Stearns, Morrison, Crow Wing and Todd, amounting to 251,319 acres, are also for sale at this office.

These lands lie in three several sections or divisions of country, formed by the water shed.

St Louis county lies east of the dividing ridge, between the waters of the Mississippi river and Lake Superior, and hence is in the lake basin. This county is heavily timbered with pine.

Mille Lacs, Aitkin, Crow Wing, Cass, Morrison, Todd and Wadena counties are in the valley of the Upper Mississippi river.

Mille Lacs county is covered with a dense growth of pine and has numerous lakes and small streams.

Aitkin county has a heavy growth of white pine in its northern portion, and considerable hard maple, oak, ash, butternut and basswood further south, where the country is broken by fertile meadow land and dotted with beautiful lakes.

Crow Wing county.—The uplands are covered with pine, while much oak, ash and maple is found on the river bottoms. There are excellent farming lands in the valley of the Mississippi river, which flows through the county from north to south.

Cass county.—The surface is more varied than that of almost any other county in the State. It contains an immense number of lakes, and it is from here that the Mississippi river takes its start for the Gulf of Mexico. There are extensive forests, excellent meadow lands, and many prairie openings.

Morrison county teems with natural wealth. One-fourth is rich prairie, in the northern and eastern portions a heavy pine growth is found, while the remainder of the forests contain hard wood.

Todd county resembles Morrison, containing rich agricultural lands and much timber.

Wadena county.—Fully two-thirds is fertile prairie land with strong, deep soil; the other third is well timbered.

The counties of Otter Tail, Becker and Polk are west of the divide between the Mississippi and Red rivers, and hence are in the valley of the latter stream.

Otter Tail county—one of the largest in Minnesota, and the most populous of any in which the railroad company has land. One-half of its surface is rolling prairie, extremely fertile; the balance is heavily timbered, and the entire county is dotted with fine lakes.

Becker county—one of the most attractive in the State. It is about one-half prairie and one-half timber. In all parts there are charming lakes with timbered banks, or gently sloping prairie lands about them.

Polk county contains some of the richest prairie lands in the valley. There is but little timber, and the surface is well drained by many streams which run into the Red River.

The settlement on the line of this railroad in Minnesota is proceeding steadily and healthfully, the best class of substantial, thrifty people selecting locations and establishing homes. The country is extremely varied, the dense tracts of valuable timber lands running into a region beautifully diversified with prairie and timber, and the whole terminating in the rich open prairies of the Red River valley.

The great forests are yielding millions of feet of valuable pine lumber annually, supplying the inhabitants of the open prairie westward through Dakota. Many lumbermen are employed in this extensive industry, thus affording steady employment for settlers, who can devote themselves to

their own farms during the warm months and profitably employ their winter in the woods. Hay is obtained at little cost from the rich river bottoms and natural prairies throughout the region, and in many localities profitable farms are opened in the forests where grain and vegetables are grown in abundance and perfection, with markets near by.

Lakes are found in great numbers throughout the country. In the "Park Region," which is located about the central part of the Minnesota division of the railroad, the lakes are surrounded partly by handsome natural groves, and partly by fertile prairie openings, forming a most attractive country for diversified farming.

The country westward to the Red River, which separates Minnesota from Dakota, is well-known as possessing a soil remarkable for its power of producing the best wheat in the world, the famous No. 1 "Hard." This rich valley country extends about a hundred miles each way from the railroad.

Towns and villages are located at short intervals through the State, and these have already assumed the character and appearance of the substantial towns of the old eastern states. Society is founded on a basis of refinement and intelligence, and the religious and educational advantages are equal to those of the oldest parts of the country.

Minnesota is greatly benefited by the settlement of the lands opened in Dakota and beyond by the Northern Pacific Railroad. The population on the line has increased from 40,000 to 50,000 in the last two years, and all pay tribute to the State, as the rapidly increasing wealth of the new settler is in a great measure disbursed within its limits. The opening of the Territory of Montana, so rich in natural resources, will advantage the State, and the wealth of that territory will begin to flow in next season.

The tide of emigration is undoubtedly now flowing with greater impetus to the wheat fields, stock ranges, and mineral regions opened by the Northern Pacific than to any other portion of the United States, and the spring of 1881 will bring an increase of population much in excess of any previous year. The outlet for the whole great Northwest is through Minnesota, and the growth of the territories west must add to the importance and wealth of the State.

The lands of the company are offered at \$2.50 per acre, upward, according to location and quality, on very easy terms, and preferred stock is taken at par on all lands east of the Missouri River.

JAMES B. POWER, Land Commissioner, St. Paul.

Drake & Wilder, trustees of the St. Paul & Sioux City road, report that the company has sold from its land grant, the past year, largely on long time contracts, 2,480 acres, and has unsold 35,217, all of which are located in the counties of Renville and Chippewa in this State.

THE STILLWATER & ST. PAUL RAILROAD COMPANY'S LANDS

Are located between the Hastings & Dakota and the St. Paul, Minneapolis & Manitoba Railroads, in the counties of Renville, Kandiyohi and Chippewa.

This company has yet for sale about 60,000 acres of fine prairie lands, with a rich black soil, well adapted to wheat raising.

These lands are sold at five, six and seven dollars per acre, on fifteen years time contract, drawing interest at the rate of six per cent. per annum.

On the fifteen years credit plan, the first payment will be only \$25 (principal and interest) per forty, and in a farm of 160 acres the annual payment will be \$100.00.

The agent for the sale of these lands is F. S. Christensen, St. Paul, Minn., and applications can also be made to A. G. Luce, Granite Falls, or Wm. Christensen, Olivia Station, Renville county, Minn.

EDUCATIONAL.

The educational department is under the charge of a superintendent of public instruction, appointed by the governor. Each county elects by popular vote a county superintendent. Common school districts have boards of three trustees; independent districts have six directors, and special districts such number as the law in each case determines.

The following statistics of public schools for 1880 is taken from the report of the Superintendent of Public Instruction:

Value of school houses and sites.....	\$3,156,210.00
Permanent school fund.....	4,450,000.00
Current school fund.....	150,485.90
Amount to each scholar.....	1.50
Number of resident pupils between five and twenty-one years of age.....	172,442
Number in public schools not of school age or non-residents.....	7,806
Total enrollment 1880.....	180,248

Total number of school houses.....	3,693
Total number of teachers.....	5,215
Average monthly wages of male teachers.....	\$35.29
Average wages of female teachers.....	27.52
Total paid for teachers' wages.....	\$933,205

Total cost of schools for 1880 is nearly as follows:

Apportioned from school fund.....	\$150,485.90
Licenses, fines and estrays.....	20,943.00
One mill tax.....	257,000.00
Special taxes.....	900,000.00
Total cost.....	\$1,328,428.90
Cost to a scholar enrolled.....	\$7.37

NORMAL SCHOOLS.

There are three Normal schools supported by the State government, located at Winona, Mankato and St. Cloud. The institution at Winona has been in existence for twenty-one years, and during that time "it has had under instruction in its normal department seventeen hundred young men and women, the sons and daughters of our farmers, mechanics and business men."

The Normal school at Mankato was established twelve years ago, and that at St. Cloud eleven years since. The enrollment for 1880 was: Winona, 342; Mankato, 179; St. Cloud, 205; total, 726. Total number of graduates for the year, 78; since establishment, 774. Graduates of these schools are preferred in selection of teachers for public schools.

FOR THE EDUCATION OF THE DEAF, DUMB AND BLIND.

This institution is located at Faribault. The attendance for 1880 numbered 134 deaf and dumb, and 43 blind pupils. Pupils are taught to work at various branches of industry, among which are printing, coopering, shoe-making, tailoring, broom making, dress making, etc. The institution is free, and open to all deaf, dumb and blind in the State between the ages of ten and twenty-five years. The only charge is for incidental expenses.

HOSPITALS FOR INSANE.

There are two hospitals for the insane, one located at St. Peter, and the other at Rochester. The number of patients reported at the St. Peter hospital Nov. 30th, 1880, was 612; at the Rochester hospital, 113. The expenditures of the first hospital for 1880, amounted to \$103,195.83; for the second hospital, \$26,458.53.

REFORM SCHOOL.

This institution is located on the east side of the Mississippi river, nearly midway between St. Paul and Minneapolis. There are at present 119 inmates. The expenditures for 1880 amounted to \$37,679.05.

THE STATE PRISON

Is located at Stillwater. The convict labor is leased at present to Seymour, Sabin & Co., for manufacturing purposes. Number of convicts, 254. The expenses for 1880 amounted to \$48,678.22; the earnings to \$25,707.95.

MINNESOTA UNIVERSITY.

(See description of University in Minneapolis department.)

INDIANS IN MINNESOTA.

For the Chippewas of Minnesota three reservations have been set apart—the White Earth Reserve, containing thirty-six square miles of the best farming land in Minnesota, with abundance of wood and water; the Red Lake Reserve, where arable land is limited in quantity, but sufficient for the needs of the tribe, and of good quality; and the Leech Lake Reserve, where there are only a few patches of land scattered along the shores of the lake and accessible only by canoe, on which fair crops of corn and potatoes can be raised. The rest is covered with pine timber, and for agriculture would not be worth the heavy expense of clearing it.

The three thousand Indians at White Earth and Red Lake are practically self-supporting, having harvested this year 39,000 bushels of wheat, 13,000 bushels of corn, and 22,000 bushels of potatoes. Nearly all at White Earth wear citizen's dress, live in houses, send their children to school, attend church on the Sabbath, and lead a quiet, industrious, agricultural life. Many have surrounded themselves with the comforts of civilized life, and a casual observer would notice but little difference between their settlement and the white farming communities of the frontier.

For many years the Red Lake Indians have managed to take care of themselves, supplementing the fish and small game of the reserve with moderate but never failing crops of corn, and some potatoes. For several years past their garden patches have been enlarged each year; some property

in the way of stock, cattle and implements has been accumulated, and wheat raising has been successfully introduced. One after another they are renouncing wigwams for log houses, built by their own hands; and, with very small expenditures of money, are slowly and steadily advancing to that degree of civilization which the White Earth Indians reached in a few years, by means of liberal appropriations from Congress and generous contributions from missionary societies. The Red Lake Reserve is remote from settlements, is suited to all the wants of the Indians there, and, on the whole, is as good a home as could be found for them, and one to which they are devotedly attached.

The only hope for the Pillager Chippewas at Leech Lake lies in their removal to White Earth; and though such removal a few years ago would have met with determined opposition, it is believed that many are now beginning to realize the hopelessness of the situation at Leech Lake, and the advantages which the White Earth reservation offers. Without doubt if a yoke of cattle or a house, or some other assistance in the way of getting established at a new place could be offered them, many families would be ready to remove thither at once. A gradual removal of this sort would be more advantageous and economical than to undertake to transplant the whole tribe at one time. But without some appropriation from Congress for the purchase of cattle, building of houses, furnishing seed, implements, etc., for the first season, nothing in this direction can be attempted with any hope of success.

At White Oak Point and vicinity, and at Mille Laes and Snake River, are 770—525, and 250 Chippewas, respectively. The White Oak Point Chippewas have a barren, worthless reservation on which they cannot live. The Mille Laes are on a fine tract of land, which can never be their own (their only title to it being the privilege of occupancy during good behavior) and which is coveted and trespassed on by whites. The branch of the Mille Laes at Snake river are on small tracts of land purchased by themselves at government rates, in the neighborhood of Brunswick, Minn., near the Northern Pacific Railroad. All of these Indians are in close contact with whites, have free access to liquor, and are grafting on to barbarism all the degradation of which civilization is capable. Wretched, poverty-stricken, drunken, debauched and diseased, it might almost be questioned whether they are not even now beyond hope. But the interests of the white communities in their vicinity would require that some determined effort be made for the reclamation of these Indians, even though they had themselves forfeited all claims to humane treatment from a government which committed the blunder, if not the crime, of relegating them to a reservation or leaving them in a position in which a white man would become a savage. The settlements and lumber camps must be relieved of the demoralizing presence of those whom they have demoralized, and it becomes the imperative duty of the government to give these Indians a new home where they will be out of the way of the whites, and where they will have an opportunity for and encouragement in a better mode of living. Fortunately there is no question as to the place to which they should be removed, the White Earth Reservation being ample, both in size and resources, to accommodate all the Indians in Minnesota. The best methods and means to be used to induce the Indians to remove would be a subject for future consideration, the immediate necessity being an appropriation to defray the expenses of the removal and assist the Indians in opening farms, putting up houses, &c. I would recommend that, at its next session, the attention of Congress be called to the urgency of this matter. The sum required to remove and settle these Indians is far less than the waste and loss which is the inevitable outcome of pauperism and vagrancy. Population of Agency Indians in 1880, 6,198.—*Rep. Com. Indian Affairs.*

EXEMPTION LAWS.

The State law exempts from attachment, levy, or sale upon execution, or any other process issuing out of any court within the State, a homestead not exceeding eighty acres, with dwelling house thereon and its appurtenances; one-half acre in village less than 5,000 inhabitants, or one lot in city over 5,000 inhabitants, with dwelling on each.

Exemptions: Wearing apparel, books, pictures, household effects, up to \$500; 3 cows, 10 swine, 1 yoke oxen and a horse, or 1 span of horses or mules, 20 sheep and their wool, food for stock for one year's support, 1 wagon, 1 sleigh, 2 plows, 1 dray, and other farming utensils not exceeding \$300; provisions and fuel for support of debtor and family for one year; tools and instruments of mechanic or miner; stock in trade to \$400; library and implements of professional man; sewing machine; 50 bushels of wheat, same of oats, 15 of potatoes, 3 of corn, 30 of barley; wages of laboring man to \$20. Redemption: Real estate sold under execution and foreclosure, one year; for taxes, three years. Married Women: All property acquired by wife before or after marriage remains her separate estate, neither controlled by or subject to debt of husband. Interest: Legal, 7 per cent.; by contract in writing, 10. Usury: Interest taken above 10 per cent., or compounding, voids the whole debt.

MANUFACTURES.

Amount of lumber scaled and manufactured in 1880, was as follows:

Total number of logs scaled.....	2,171,952
Total feet of logs scaled.....	419,282,190
Total feet of logs sawed.....	379,009,080
Total feet of lumber manufactured.....	391,980,230
Total number of lath.....	86,523,700
Total number of shingles.....	150,665,750
Total number of pickets.....	479,075

MISCELLANEOUS.

Internal Revenue collections for 1880—First District, (office at Rochester).....	\$104,534.64
“ “ “ “ Second District, (office at St. Paul).....	273,922.91
Receipt of duties collected at the St. Paul custom house amounted to.....	16,934.73
“ “ “ Duluth “ “.....	7,671.94
Pension claims paid for 1880 amounted to.....	182,880.83

AGRICULTURAL PRODUCTS.

Statistics of manufacturing and agricultural operations are made up from returns of county officers to the secretary of state and commissioner of statistics, and crop returns are reported each year in June. The acreage, therefore, is the only basis for estimates of the year after that date. The following summary is made up for the year ending June, 1880, from the tables in the last report of the commissioner of statistics:

TOTALS OF ACREAGE AND CROPS OF 1879, AND ACREAGE OF 1880.

CROPS.	Total Acreage 1879.	Total yield 1879.	Average yield per acre.	Total Acreage 1880.
Wheat.....	2,762,521	31,218,634	11.30	2,963,325
Oats.....	567,371	20,667,933	36.42	688,415
Corn.....	379,766	12,939,901	33.95	455,514
Barley.....	96,351	2,423,932	24.87	118,856
Rye.....	11,534	172,887	14.98	11,688
Buckwheat.....	3,380	33,163	9.80	3,177
Potatoes.....	37,910	3,915,890	103.26	40,618
Beans.....	2,156	24,434	11.33	2,105
Flax Seed.....	12,966	99,378	7.66	45,236
Timothy Seed.....	39,376
Clover Seed.....	18,460
Sugar Cane Syrup, gallons.....	5,933	446,946	88.80	7,317

OTHER AGRICULTURAL PRODUCTS OF 1879.

Cultivated Hay, tons.....	194,994	Hops, lbs.....	4,071	Grapes, lbs.....	135,086
Wild Hay, tons.....	1,200,506	Maple Sugar, lbs.....	58,462	Strawberries, quarts.....	237,626
Butter, lbs.....	15,639,069	Maple Syrup, galls.....	10,670	Tobacco, lbs.....	65,089
Cheese, lbs.....	586,448	Apples, bushels.....	124,261	Wool, lbs.....	948,184

PRICES OF WHEAT DURING 1880.

The following table from the Pioneer Press, gives prices paid for Nos. 1, 2 and 3 wheat in the Minneapolis market during the year 1880:

DATE.	No. 1.	No. 2.	No. 3.	DATE.	No. 1.	No. 2.	No. 3.	DATE.	No. 1.	No. 2.	No. 3.
January 1.....	\$1.22	\$1.19	\$1.11	March 14.....	\$1.15	\$1.12	\$1.04	August 4.....	94	91	83
January 6.....	1.20	1.17	1.09	March 20.....	1.12	1.09	1.01	August 7.....	90	87	79
January 11.....	1.18	1.15	1.07	March 23.....	1.09	1.06	98	August 11.....	84	81	73
January 13.....	1.16	1.13	1.05	March 31.....	1.07	1.04	96	August 24.....	87	84	76
January 14.....	1.13	1.10	1.02	April 9.....	1.05	1.02	94	August 26.....	83	81	73
January 15.....	1.15	1.12	1.08	April 20.....	1.02	99	91	September 10.....	85	83	75
January 16.....	1.13	1.10	1.02	April 23.....	1.05	1.02	94	September 13.....	87	85	77
January 18.....	1.11	1.08	1.00	May 6.....	1.09	1.06	98	September 15.....	89	87	79
January 19.....	1.15	1.12	1.04	May 9.....	1.11	1.08	1.00	September 27.....	88	85	77
January 21.....	1.12	1.09	1.01	May 20.....	1.08	1.05	97	October 4.....	91	88	80
January 23.....	1.10	1.07	99	May 24.....	1.06	1.03	95	October 11.....	93	90	82
January 26.....	1.08	1.05	97	May 25.....	1.01	98	90	October 17.....	95	92	84
January 30.....	1.10	1.07	99	May 26.....	98	95	87	November 4.....	97	94	86
February 1.....	1.08	1.05	97	June 2.....	95	92	84	November 7.....	95	92	84
February 3.....	1.09	1.07	98	June 10.....	98	95	87	November 18.....	97	94	86
February 4.....	1.08	1.05	97	June 21.....	93	90	82	November 26.....	99	96	88
February 9.....	1.10	1.07	99	June 25.....	90	87	79	November 30.....	96	93	83
February 11.....	1.13	1.10	1.02	June 28.....	88	85	77	December 2.....	94	91	81
February 16.....	1.16	1.13	1.05	July 10.....	91	88	80	December 10.....	94	91	79
February 23.....	1.18	1.15	1.07	July 13.....	95	92	84	December 14.....	92	89	77
March 6.....	1.15	1.12	1.05	July 20.....	1.00	97	89	December 14.....	90	87	75
March 10.....	1.13	1.10	1.02	July 28.....	97	94	86	December 21.....	88	85	73

The following named counties produced over one million bushels of wheat each in 1879: Dakota, Fillmore, Freeborn, Goodhue, Olmsted, Wabasha and Winona. Lowest average yield, 8.92 bushels per acre; highest, 12.28.

The leading corn producing counties were Blue Earth, Dakota, Faribault, Fillmore, Goodhue, Hennepin, Houston, Le Sueur and Olmsted. Lowest average per acre, 29.35 bushels; highest, 46.53. The counties of Dodge, Fillmore, Goodhue, Mower, Olmsted, Wabasha and Winona, each produced over 100,000 bushels of barley. Lowest average, 22.65; highest, 28.51 bushels per acre.

The acreage of flax for 1879 was six times that of the previous year, and the acreage for 1880 over three times that of 1879.

The total number of farms reported for 1880, is 74,888, showing an increase of 6,823 over the previous year; total cultivated area, 4,503,761 acres, an increase of 500,000 acres over 1879.

The stock returns for 1880, are: Horses, 251,346; cattle, 560,219; mules, 88,66; sheep, 250,873; hogs, 216,913.

FORESTRY ASSOCIATION.

The necessity of protecting the timber resources and providing for the future on our large prairies, led some years since to the formation of a Forestry Association. An appropriation of \$2,500 was made by the legislature to aid the association in its work. A tree planter's manual has been published by Hon. Leonard B. Hodges, of St. Paul, containing everything of value pertaining to forest tree planting, which may be obtained free by application to that gentleman. The report for 1880 shows that there were planted on "Arbor Day" 419 acres; number planted during season, 4,082 acres; number of acres now growing, 25,331.

VITAL STATISTICS.

In the tables for 1879 we find some information that may be of interest to home readers, and we make the following summary:

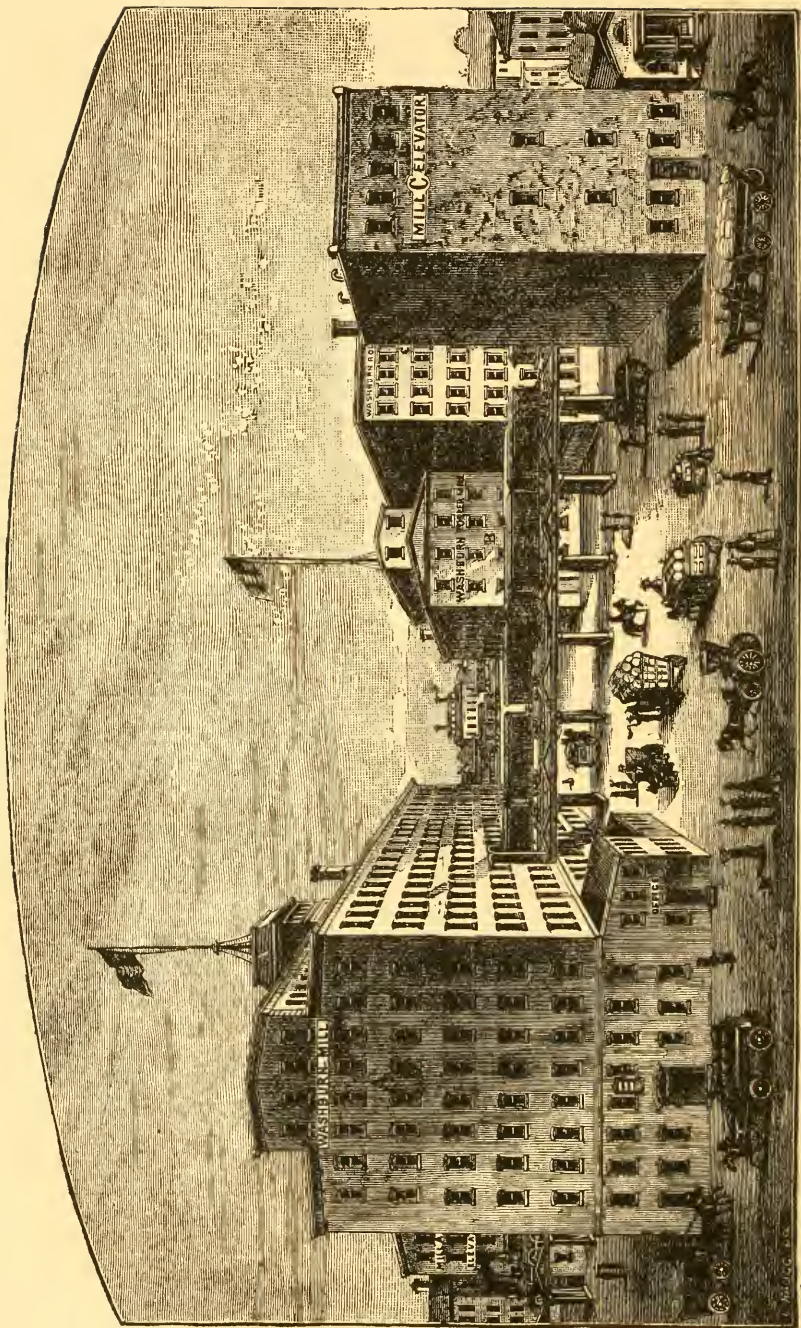
BIRTHS.

Total number of births, 23,474, of which 12,190 were males, and 11,206 females. Twin births, 264 males, 260 females; triplets, 12 males, 6 females; illegitimate births, 180.

DEATHS.

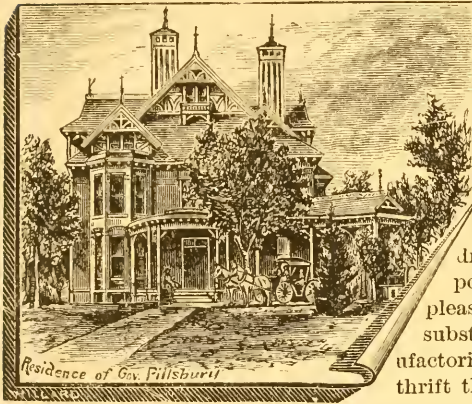
Total number of deaths, 8,777; male, 4,693; female, 4,084. For the causes of death consult the following table:

Measles.....	57	Lock Jaw.....	7	Joint Diseases.....	5
Scarlatina.....	225	Epilepsy.....	16	Tumor.....	17
Diphtheria.....	951	Convulsions.....	234	Ulcer.....	4
Quinsy.....	5	Brain Diseases.....	113	Abscesses.....	11
Croup.....	221	Other Nervous Diseases.....	12	Stillborn.....	164
Whooping Cough.....	58	Pericarditis.....	2	Premature Birth.....	325
Typhoid Fever.....	297	Aneurism.....	11	Cyanosis.....	4
Erysipelas.....	31	Heart Diseases.....	207	Other Malformations.....	5
Puerperal Fever.....	30	Hemorrhage.....	17	Teething.....	34
Influenza.....	9	Epistaxis.....	3	Childbirth.....	95
Dysentery.....	76	Laryngitis.....	4	Change of Life.....	3
Diarrhœa.....	75	Bronchitis.....	38	Abortion.....	1
Cholera Infantum.....	409	Pleurisy.....	14	Womb Diseases.....	4
Cholera Morbus.....	43	Congestion of Lungs.....	157	Flooding.....	1
Remittent Fever.....	3	Pneumonia.....	106	Old Age.....	284
Spotted Fever.....	53	Asthma.....	28	Marasmus.....	39
Rheumatism.....	43	Other Lung Diseases.....	239	Atrophy.....	25
Fever.....	79	Gastritis.....	9	Wounds.....	2
Delirium Tremens.....	4	Enteritis.....	156	Fractures.....	2
Intemperance.....	1	Peritonitis.....	23	Burns and Scalds.....	31
Worms.....	7	Hernia.....	3	Poison.....	14
Syphilis.....	2	Spleen.....	3	Drowning.....	57
Dropsy.....	179	Stomach Diseases.....	37	Suffocation.....	6
Cancer.....	124	Jaundice.....	8	Lightning.....	9
Canker.....	11	Liver Disease.....	51	Railroad Accident.....	28
Mortification.....	2	Other Bowel Diseases.....	45	Shooting.....	20
Scrofula.....	16	Bright's Disease.....	15	Otherwise.....	197
Consumption.....	874	Diabetes.....	15	Murder.....	10
Hydrocephalus.....	146	Gravel.....	12	Suicide—Poison.....	6
Tubercular Meningitis.....	21	Inflammation of Bladder.....	6	" Hanging.....	6
Cephalitis.....	4	Kidney Diseases.....	17	" Shooting.....	8
Apoplexy.....	48	Ovarian Dropsy.....	2	" Drowning.....	2
Paralysis.....	82	Uterine Diseases.....	10	" Otherwise.....	23
Insanity.....	3	Spinal Diseases.....	27		



WASHBURN MILLS "A," "B," AND "C," MINNEAPOLIS, MINNESOTA.

MINNEAPOLIS AND ITS SUBURBS.



HERE are few cities in the country so universally admired as this young and thriving metropolis of Minnesota. Its beautiful homes, embowered in trees and shrubbery, its clean and inviting lawns, and numberless flower gardens and greenhouses, and its broad sidewalks and wide streets, combine to make a drive or ramble through the residence portion of the city a source of constant pleasure and surprise. Its unique and substantial business blocks and huge manufactories give it an air of enterprise and thrift that causes the eyes of the business man to open wide in wonder at the unexpected

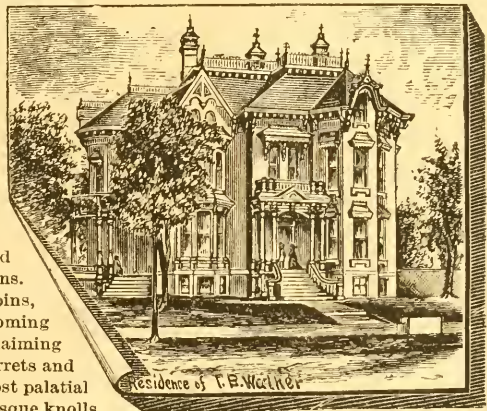
reality, and a visit to the scenes of activity at its mills and manufactories on both sides of the river, makes him think there is considerable truth in the stories of Western enterprise, in which Minneapolis has recently been given so large a share.

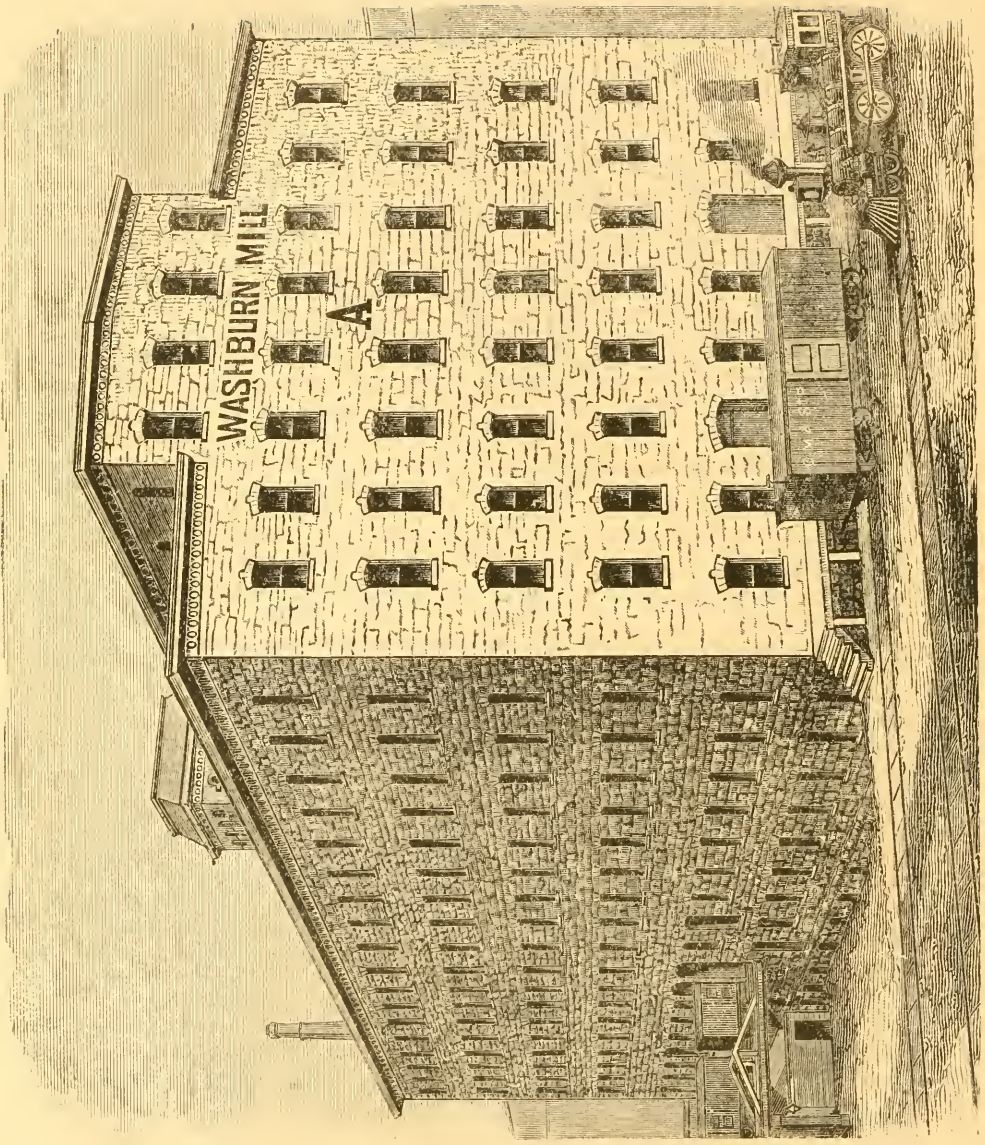
One can scarcely make the stranger believe that this is the work of but a quarter of a century, or that the population has increased from 10,000 in 1860, to nearly 50,000 in 1881, and that there are over fifty large manufactories operated by water power, besides the numerous extensive ones run by steam.

It was only on the 3d of July last that the bi-centennial anniversary of the discovery of Saint Anthony Falls was celebrated at the State University, and the history of the two centuries told in poetry and prose. But to the thousands gathered on the campus of the grand educational institution in its suburb, nothing could speak more eloquently of the progress and greatness of our State than a glance over its metropolis, still in its infancy, yet spreading out for miles within view, and including within its limits the largest flouring mills in the world, and manufactories which send their products to every leading city on the globe.

A recent visitor thus describes, in Lippincott's Magazine, the impressions received upon entering Minneapolis:

"A little farther on we are introduced to Minneapolis through its beautiful environs. There are no dirty little straggling cabins, overflowing with unwashed children, coming out along the railroad to meet us, and claiming our sympathizing attention, but pretty turrets and high jutting windows and balconies of almost palatial residences, rise above the trees on picturesque knolls,





WASHBURN MILL

A

WASHBURN MILL

WASHBURN MILL

through which we catch glimpses of cool lawns shaven like velvet, broad piazzas and rustic seats, and hammocks swinging in the shade. The people seem to have taken the cue which Nature gave them, and have added the beauty of the highest art to her perfect work. The groves of forest trees and the sloping grounds have been improved and adorned in such a manner as to almost hide the hand that has touched them. Most of the finer buildings are built of a soft, gray stone, against which the dark-green five-leaved native ivy, which entwines itself around the steeples of the highest churches in the greatest profusion, shows in beautiful contrast, leading us to indulge in that comfortable, satisfied feeling we have about all those plants and shrubs that are children of the soil, and able to withstand the buffetings of our latitude without much sheltering care from us.

"If we could get off here where we first enter the city, and walk down into it through the broad, handsome streets, whose dwellings on either hand are set back among trees and surrounded with unfenced lawns glistening with the spray of fountains making rainbows in the sunlight, we should carry away a picture of Minneapolis with no shadow in it.

"We cannot see the river, but we are close beside it, and can hear the pleasant sound of falling water and the busy wheels of the many mills which are the basis of all the prosperity of this very thriving and prosperous city. At this point, and for some distance above, the river, divided by two or three continuous booms for keeping the lumber separate, is fairly choked with logs floating down to the mills. Arrived there, they are drawn up, one by one, as if by magnetic attraction, and in the twinkling of an eye, almost, they pass out below in smooth, ribbon-like boards.

"One cannot help thinking, as he makes the "grand round" of the city by carriage (which the livery-men expect all visitors to do), across the magnificent suspension bridge, circling Nicollet Island—which is a very bouquet of beautiful homes—and over the river again, between the Falls of St. Anthony, with the artificial wooden aprons that have converted them into a sort of sloping dam, and the delicate Bridal Veil, beyond which rise the pleasant grounds and buildings of the University, that Minneapolis is remarkably free from the unbeautiful scenes of apparent poverty and wretchedness that mar so many cities.

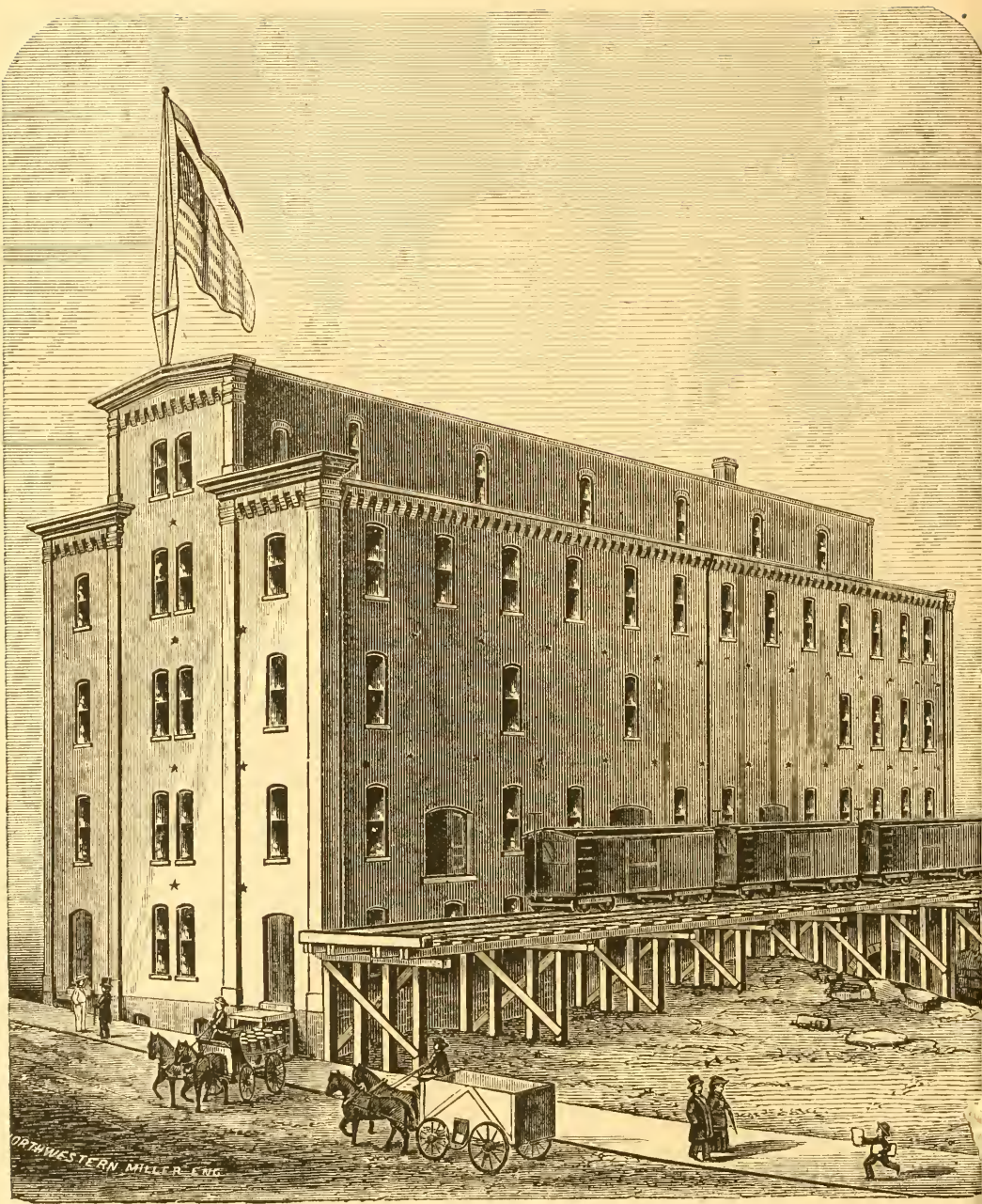
"You may dismount and go about on foot down all the narrower back streets, and still you find houses that are true homes and people with happy faces. Here is shown the value of influence and effect of surroundings: every builder of no matter how small a cottage, racks his brain for some pretty architectural design, and lays out his diminutive grounds with an inspiration caught from his wealthier neighbor. And in the arrangement of the magnificent merchants' blocks, with their

immense plate-glass windows, there is evinced an artistic taste and skill unsurpassed, and rarely equaled, in other western cities.

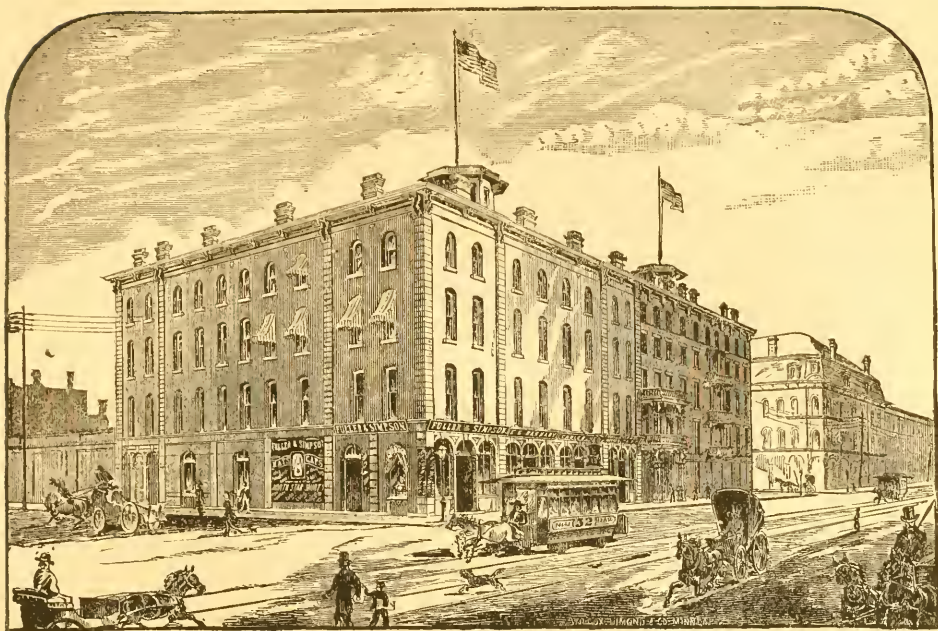
"Minneapolis is the pet and pride of the Northwest, the goal toward which many of the merchants and professional men in small country towns are looking forward for retirement in middle life, or when they have accumulated a competency. Its admirers regard it with a pride and affection that borders on tenderness, because it offers so many beautiful things; things that touch the finest perceptions, to the eye of the beholder—really offered so persistently that you cannot go away without a look at its treasures. One



SILVER CASCADE, MINNEAPOLIS.



STANDARD MILLS, MINNEAPOLIS. CAPACITY, 1,000 BARRELS DAILY.



NICOLLET HOUSE BLOCK, MINNEAPOLIS.

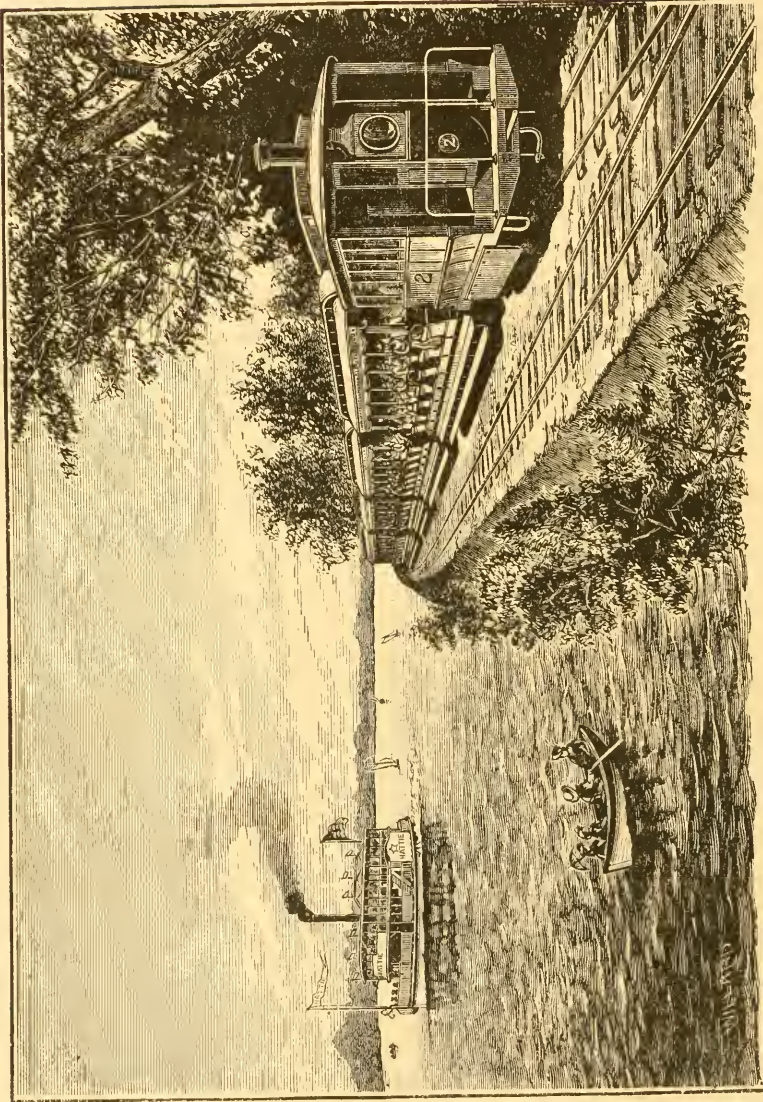
does not think of it simply as a city, but all its tempting resorts, the lakes and Fort Snelling and Minnehaha, with which it is intimately connected by rail and carriage-ways, enter into account."

The description of our city given above is a good illustration of the manner in which visitors are captivated by the unexpected beauty of many parts of it. It spreads over considerable territory, and one of the most noticeable features of the city is the amount of space embraced in the grounds about even the humbler homes. The mania for covering a lot with all the tenements that can be built upon it has scarcely begun, except near the business centers, and every one can enjoy the gratifying sensation of having plenty of room to enjoy freely the exhilarating climate, which, more than aught else, is the cause of the rapid growth of our State.

To "do" Minneapolis thoroughly, one must visit the milling districts on both sides of the river, which present an admirable aggregation of sights—a mixture of the grand creations of Nature and the works of man—the falls that give the water-power for man's use, and the engineering and architectural skill to make that power available.

There are some twenty-seven flouring mills in Minneapolis, with capacities ranging from seventy-five to four thousand barrels of flour a day, sending out two millions barrels a year, which goes to all the principal marts¹ of the world. Trains are made up at Minneapolis, loaded with flour from the various mills in sacks made expressly for exportation purposes, and unloaded at New York to steamers for English ports, where it is a successful competitor with their own production, grading better quality and costing less.

Twenty saw mills receive logs from the river, which have been floated down by the spring freshets from the vast pineries of northern Minnesota, and send out two hundred millions feet per annum to the markets of the Northwest and South.



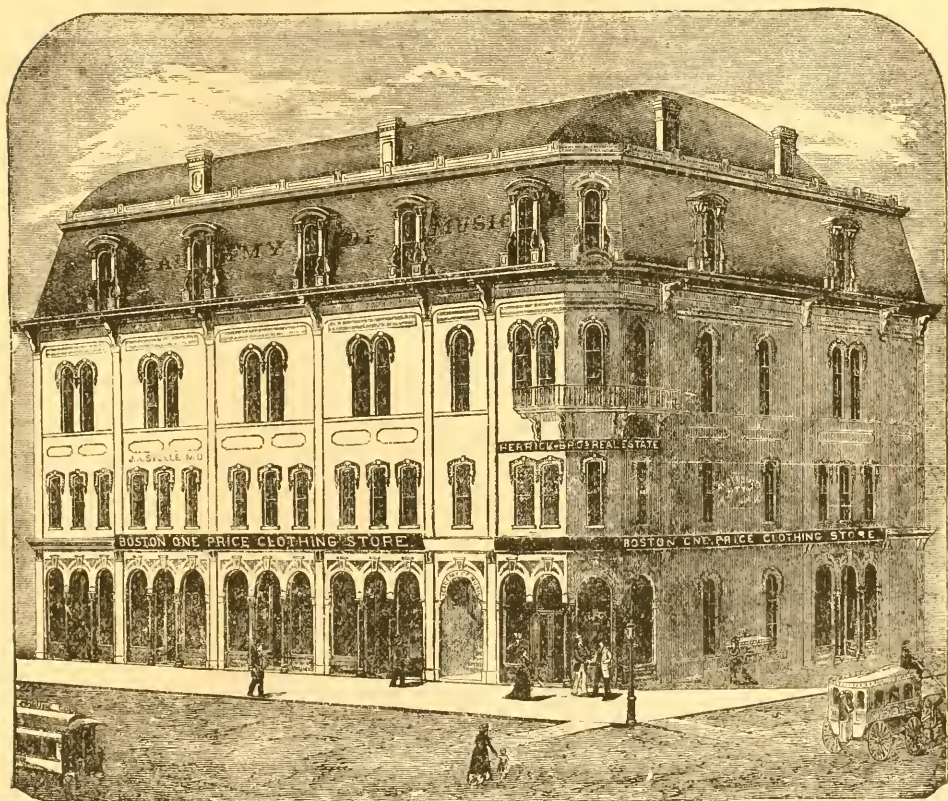
VIEW ON THE MINNEAPOLIS, LAKE CALHOUN AND LAKE MINNETONKA RAILWAY, AT LAKE CALHOUN.

A ramble about the city should include a visit to the residence quarters on both sides of the river, which may be made on foot, or by carriage or street cars.

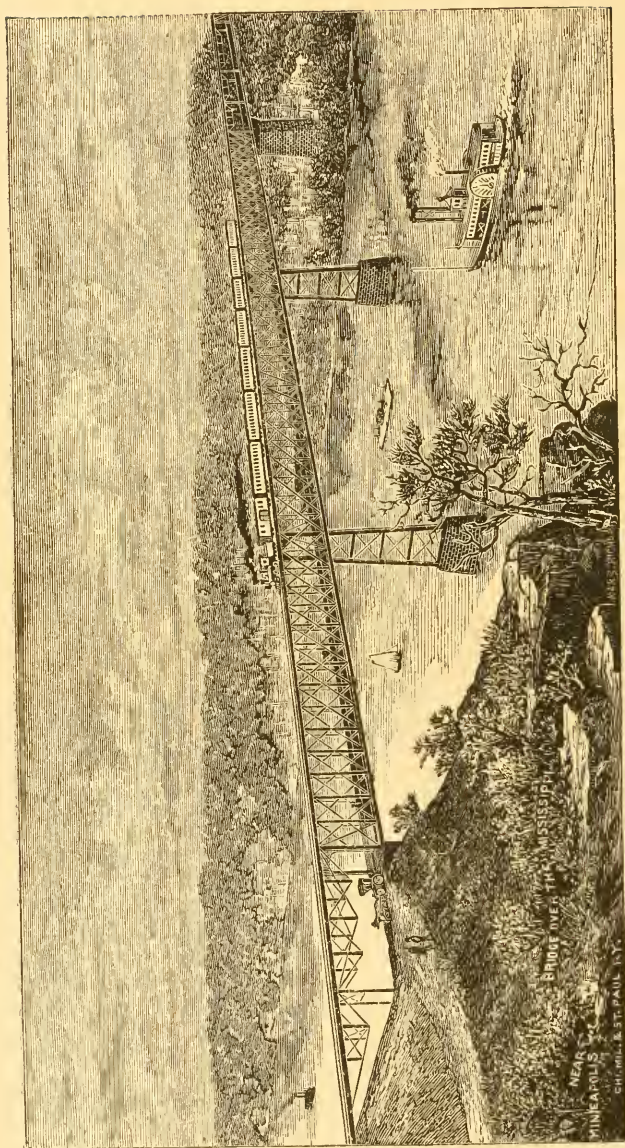
The suspension bridge across the Mississippi river, the Minnesota University, Mineral Spring and the manufacturing district on Hennepin Island, the mammoth new Pillsbury A mill, the iron bridge below the falls, and the beautiful residences on Nicollet Island are attractive places of the East Side.

In the west division are the immense flouring mills, with elevated railways to unload wheat into the second story of the mills, and load flour for transportation; the large saw mills with their hundreds of men and teams carrying away lumber to the storing yards and railways in various parts of the city; the paper, woolen, and cotton mills, planing mills, city water works, cooper shops, elevators, machine shops, and dozens of other work shops, make up a scene of activity and business that creates wonder in the mind of the visitor unused to the go-ahead ways of western business men.

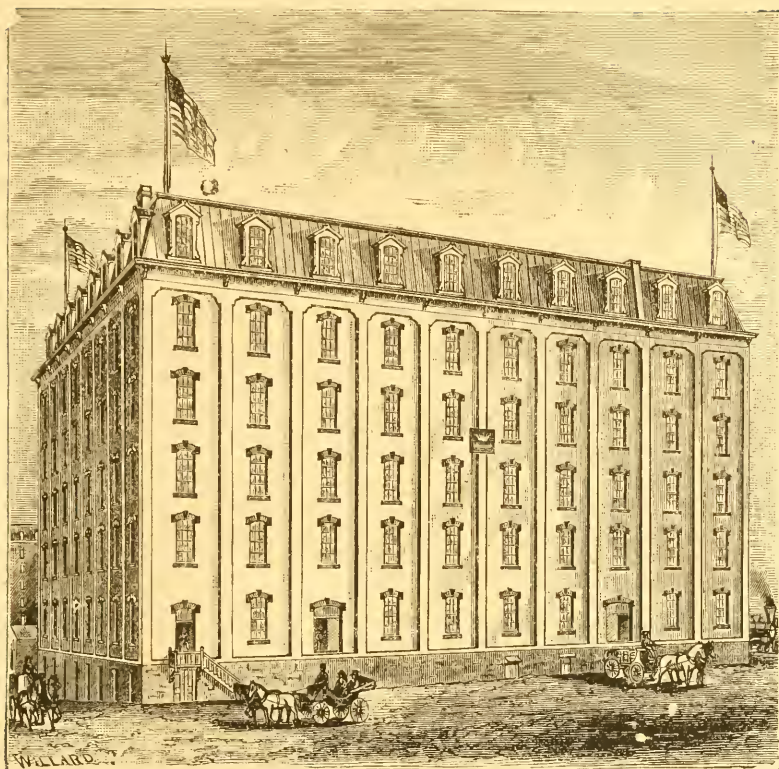
Near the city, go in what direction you will, beautiful lakes dot the landscape, and offer pleasant retreats and excellent fishing. Minnehaha Falls, Fort Snelling, Lakes Calhoun and Harriet, Lake Como, Twin, Cedar, Crystal, and a dozen other lakes, present attractions never surpassed and seldom equalled in the country.



THE ACADEMY OF MUSIC, MINNEAPOLIS.



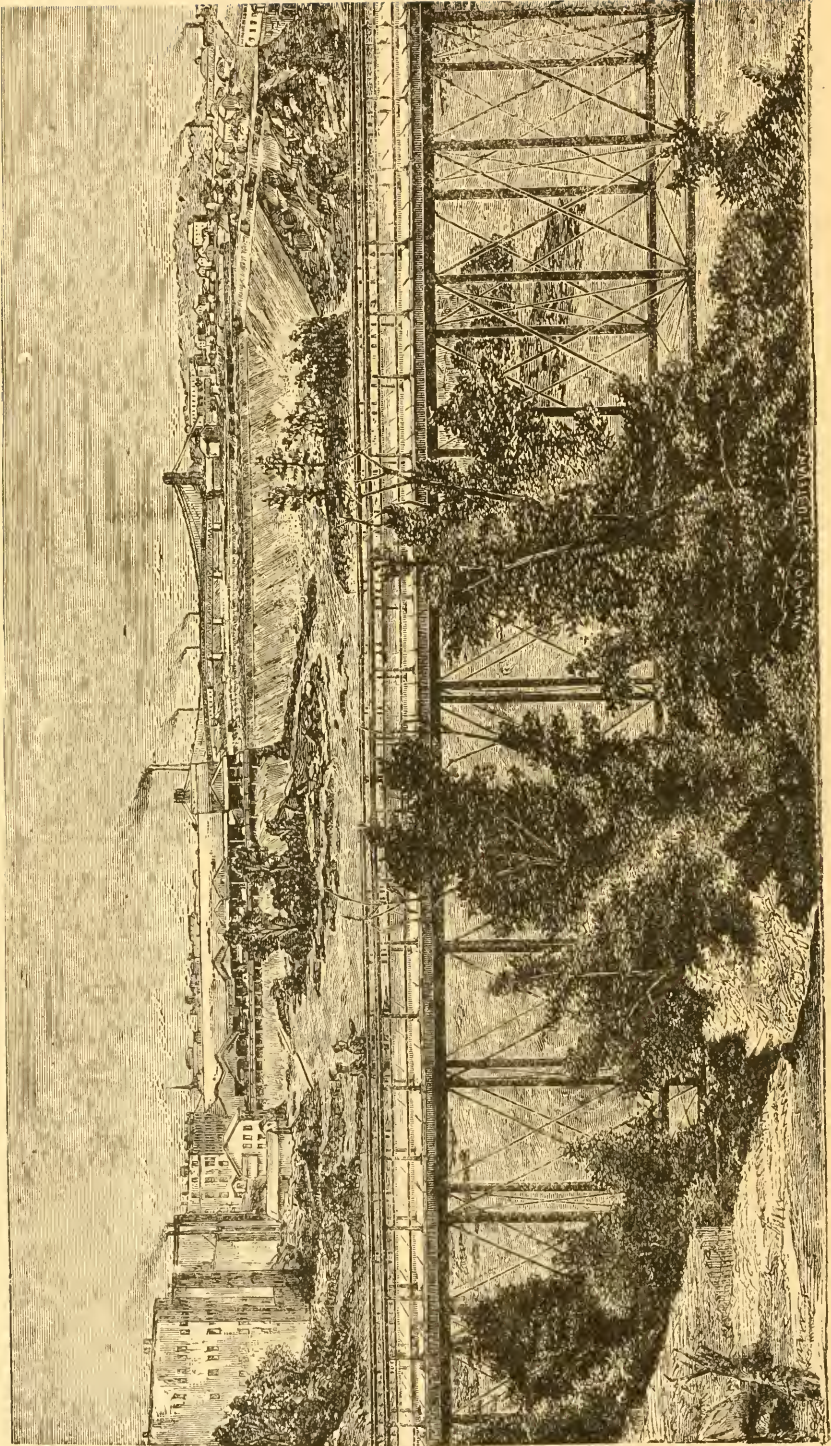
SHORT LINE RAILWAY BRIDGE OVER THE MISSISSIPPI AT MINNEAPOLIS.



CROWN ROLLER MILL, MINNEAPOLIS. CAPACITY, 2,400 BARRELS PER DAY.

ST. ANTHONY FALLS.

The water power furnished by the Mississippi river at and above the falls was the foundation of the prosperity of Minneapolis. While the land in this corner of Hennepin county was yet a part of the government reservation, the hungry eye of the land-seeker was fixed upon it, and when, in 1840, an act of Congress made it subject to pre-emption, it was immediately taken possession of. The town on the east side of the river grew rapidly, and became a lively business point. Even at that early date, the "Village of St. Anthony Falls" was looked upon as a rival of St. Paul, but, from causes not necessary to mention here, the attention of business men was diverted to the advantages of the site on the west side of the river, which had been christened Minneapolis—"the City of Waters." The first bridge to span the Father of Waters was built between the two villages, and maintained by taking toll until the union of the two places into one corporation in 1872. Dating from the completion of the bridge, in 1852, the growth of the city has been steady, and, since 1870, rapid. The population was comprised mainly of eastern people, many of whom were from the pine regions of Maine. These early settlers were men of muscle as well as of mind, and to their labors in the pine woods during the winter, and in the primitive saw mills at the falls in the summer, we owe the beginning of our growth as a city. Lumber was king here, in the early days, the mines of wheat and bonanzas of the



ST. ANTHONY FALLS, WEST OF HENNEPIN ISLAND, FROM THE IRON BRIDGE, MINNEAPOLIS.

flour trade being discoveries of later years. But the two interests have always worked together harmoniously for the advancement of the general welfare.

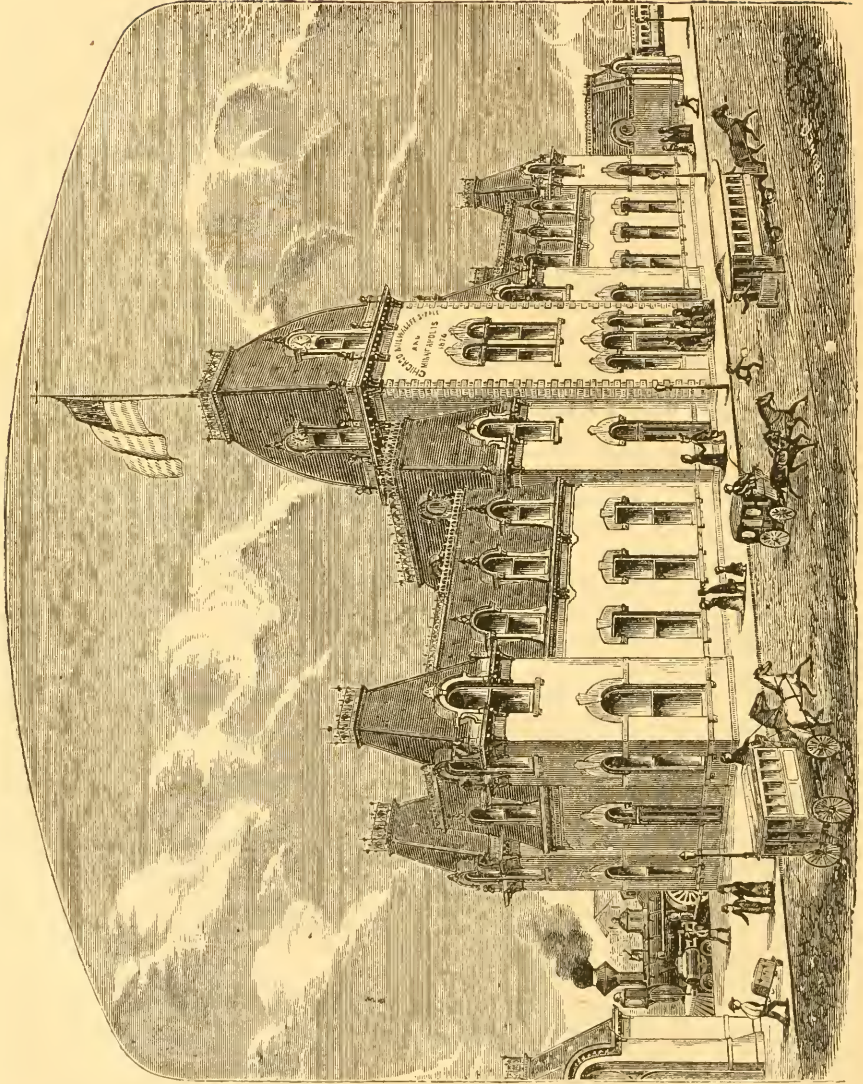
The organization of companies for improving and utilizing the water power took place soon after St. Anthony was settled, and the names of many of the pioneers were on the lists of stockholders. The fall of eighty-two feet within the city limits is estimated to give 120,000 horse-power; this is naturally divided so as to be available on both sides of the river. At present the mills and manufactories operated by water power are concentrated near the falls, the water being conveyed through canals to the various establishments.

The preservation of the water power here has been an expensive investment, both to our citizens and the government, and few who visit the falls, and see the smooth volume of water gliding down the inclined plane, have any idea of the labor required to build and keep it in repair, and not many, even of our own citizens, know how this work was done, or why it became necessary.

Our State Geologist tells us that the falls were once located as far down the river as Fort Snelling, and the evidences along the rocky banks of the river bear evidence to the correctness of the statement. The river flows in a bed of limestone of some twenty feet in depth, underlying which is a bed of sandstone of considerable depth. The torrents falling over the brink of the limestone ledge gradually washed out the sandstone beneath, until the overhanging rock, being left without support, broke off in huge masses. This process continued for ages, until the falls receded to their present location. The last break, which occurred some ten or twelve years since, took off masses of rock nearly thirty feet in width, and the occurrence awakened serious alarm. The improvements of the two water-power companies, consisting of dams, canals, etc., and the construction of a tunnel under Nicollet Island, added to the wear and tear of the falls, until it was deemed necessary to take immediate measures for preventing the rock being entirely destroyed, and the falls reduced to a mere



HENNEPIN AVENUE, LOOKING EAST FROM WASHINGTON AVENUE.



CHICAGO, MILWAUKEE & ST. PAUL RAILWAY PASSENGER DEPOT, MINNEAPOLIS.



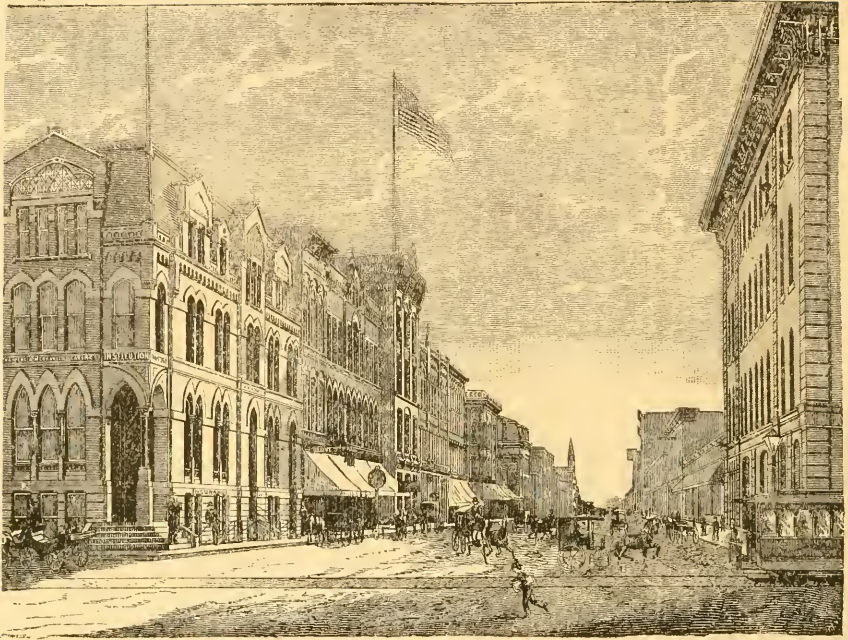
SOUTHEAST CORNER WASHINGTON AVENUE AND FIRST AVENUE SOUTH.

rapids. In 1866, the first wooden apron was constructed, and the tunnel filled up. The mill owners and others spent large sums of money on these improvements, but the aid of congress being solicited, an appropriation of \$50,000 was secured, which was afterwards increased, until over half a million dollars has been spent in the work, besides what had already been paid out by private enterprise, the total reaching nearly a million dollars.

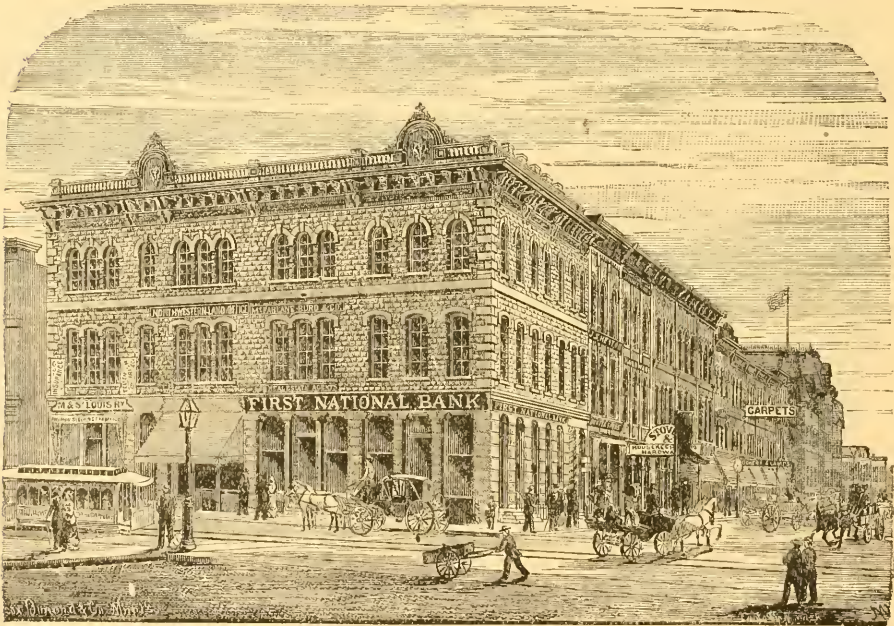
Extending across the river, between the limestone ledge which forms the river-bed and the sandstone below, a wall of concrete four feet in thickness and thirty-eight feet in height was built, by tunneling under the crest of the falls. This work was nearly three years in process of construction, being completed in 1876. The wall prevents the action of the water from affecting the sandstone beneath, and the dams and wooden apron protect the upper rock from the wear and tear of the elements above. The last apron was built about two years ago, but has been kept in thorough repair.

Logs are prevented from going over the apron, and sluice-ways have been provided for their passage at the side of the falls. Dams extend along and across the river at the crest of the apron, and a short distance above, from which the canals of the various manufacturing establishments receive the water and conduct it to the turbine wheels which operate the machinery. As the visitor to the mills walks or drives along the street on which they are located, he is not aware that he is traveling over numberless streams of rapid running water, for they are hidden by plank coverings, fitted so closely as to entirely conceal from view everything below.

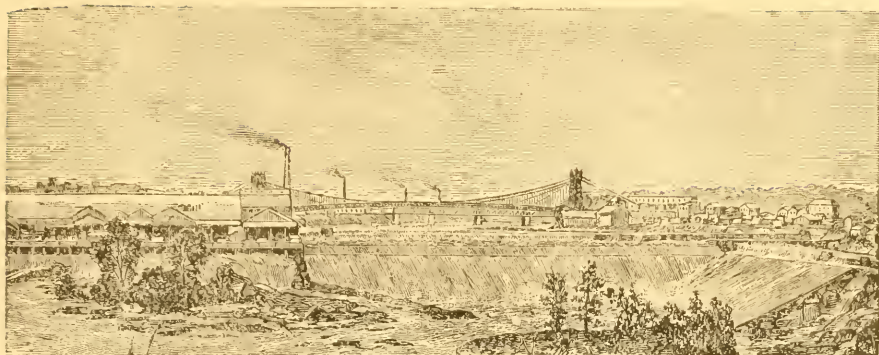
On the east side of the river the power is supplied to the various mills and manufactories in a similar manner to that of the west side, but the improvements are not so extensive.



NICOLLET AVENUE, LOOKING WEST FROM WASHINGTON.



NICOLLET AVENUE, LOOKING EAST FROM WASHINGTON.



The water power is owned and controlled by two organizations, the St. Anthony Falls Water Power Company and the Minneapolis Mill Co.

The St. Anthony Falls Water Power Co., controlling the water power on the east side of the Mississippi river, was chartered February 26th, 1856, and the Minneapolis Mill Company, owning and controlling the power on the west side of the falls, was chartered on the 27th of the same month and year.

The first dam was built on the east side of the river in 1848, and four saw mills built soon after.

The first dam was built on the west side in 1857-58, and the first flouring mill—the Cataract—built by Eastman & Gibson, in 1858.

Of the improvements made by the two companies for making the power available, we quote from the Minneapolis Board of Trade Report:

“The appliances for controlling and utilizing the water power of the Minneapolis Mill Company consist of a low or waste dam built on the ledge, commencing in the center of the channel of the river and connecting with the dam of the St. Anthony Water Power Company, thence running down stream diagonally towards the western shore 400 feet; thence a high dam again down stream, parallel with the shore 500 feet, forming a pond above the mills; thence at right angles 400 feet to the pier at the head of the canal, upon which last portion is built the block of saw mills. With this dam a head of 13 feet is maintained, and a sufficient supply of water directed to the canal, while the large proportion of the water passes over the low dam and is wasted on the falls.

“The canal is excavated along the shore 350 feet to a point opposite the brink of the fall, of a width narrowing from 80 feet to 55, and below this point 500 feet further of a uniform width of 55 feet, and carrying a depth of 14 feet of water.

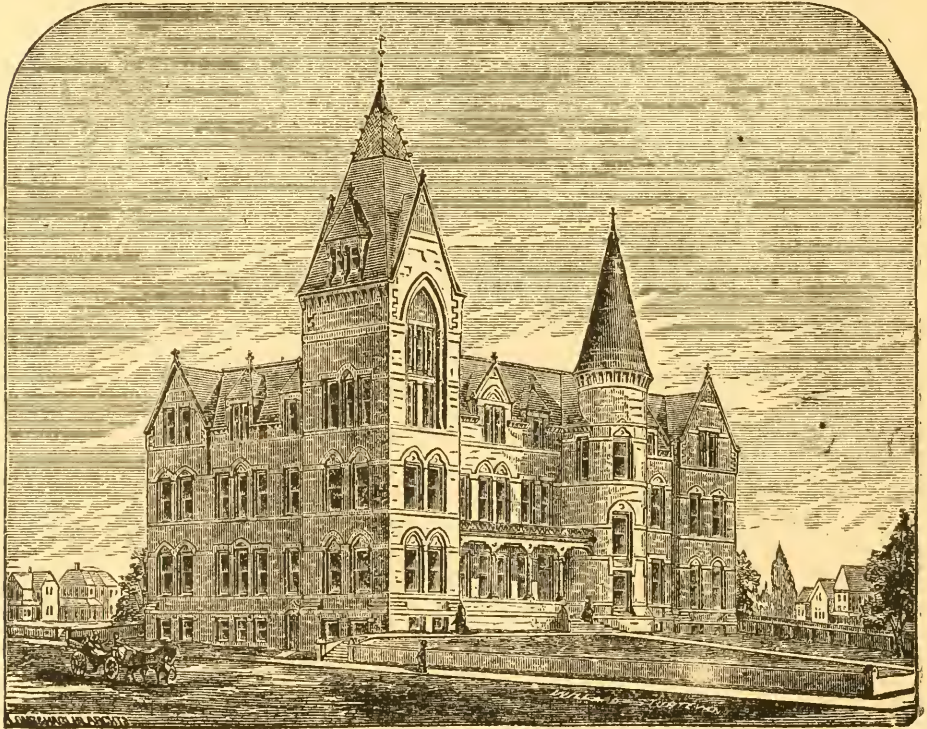
“The improvements of the St. Anthony Falls Water Power Company consist of a dam from the east shore to Hennepin Island, 400 feet up the shore of Hennepin Island, 650 feet from head of Island, west 200 feet, thence diagonally to the dam of the Minneapolis Mill Company, 600 feet; total length of dam, 1,850 feet. The company has sold eight saw mill sites on the dam in the east channel, which, together with three flouring mills, and several other manufactories, renting power for manufacturing purposes, utilize about 1,300 horse power, under varying heads. The whole water fall on the company's land is 69 feet.”

The last named company recently sold its property and franchises to the St. Paul, Minneapolis & Manitoba Railway Company, and extensive improvements are in progress, with a view to make the power available, as well as to secure room for railroad purposes along the east side of the river.

Considerable improvements have been made during the past winter on the canals of the Mill Company on the west side of the falls, and on the platform occupied by the saw mills.

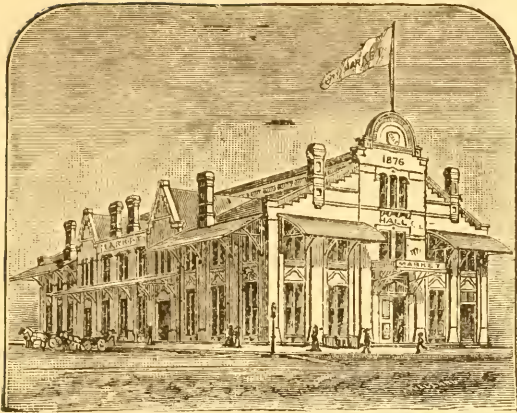


SOUTHWEST CORNER OF FIRST AVENUE SOUTH AND WASHINGTON AVENUE.



MINNEAPOLIS HIGH SCHOOL BUILDING

THE PLATFORM.



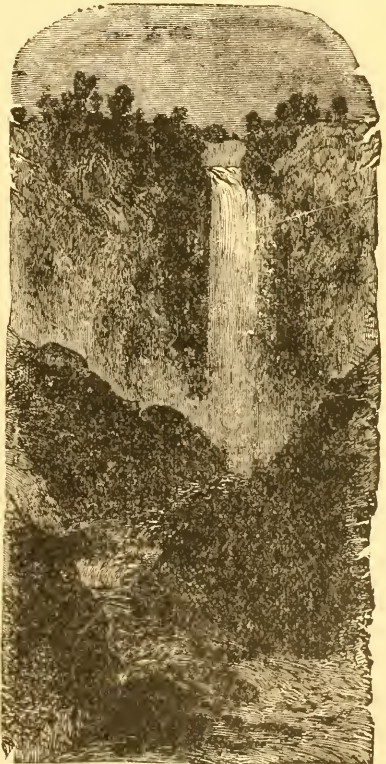
CITY MARKET HOUSE, MINNEAPOLIS.

west. These mills, situated at the foot of the dams, receive the logs from the water at one side of the building, and transform them into lumber, lath and shingles, which are loaded on wagons on the other side, to be taken to the storage yards. The same stream that floats the logs to the mills, passes through the canals beneath them and furnishes the motive power for driving the saws, which eat their way through over a hundred million feet of logs each year.

The best view of the apron is to be had from the outer edge of the platform. It is somewhat difficult to get to during week days, on account of the number of teams constantly at work, but any one will be well repaid for the trouble of making their way to it. It is visited on Sundays by hundreds of our citizens, who never tire of the view of the wildly rushing water and numberless beautiful cascades to be seen below.

THE WATER WORKS.

Near the west end of the platform is the City Water Works building, owned and operated by the city. It was built in 1876, and the Holly system put in operation. New and larger pumps have since been put in, the present capacity being 20,000,000 gallons of water per day. The motive power for operating the pumps is derived from the same source as the water we drink—the Mississippi river. There is no reservoir in the city, the water being forced directly through the mains in all parts of the city, the pressure being increased at every alarm of fire. One engine is kept constantly going, the other being held in reserve for emergencies.



BRIDAL VEIL FALLS.

The natural inequalities of the grounds about the falls on the west side of the river were not, apparently, such as to make the place adapted to use as mill sites. But the pioneer lumbermen did not allow such trifles to deter them from making improvements, and a vast framework of huge logs and timbers was constructed, near and upon which seven saw-mills were built, where the daily product of lumber amounts to nearly a million feet. Here may be seen the wonderful power this Father of Waters exerts for the benefit of the States of the New North-

THE FLOURING MILLS.

No one can pass through the milling district of Minneapolis without being impressed with the grandeur of its mills. Built closely together, some of them towering to a height of nine stories, and mostly of stone or brick, they have an appearance of strength and solidity not exhibited by buildings used for other purposes. The hurry and bustle of numberless men and teams, and the movement of cars on the elevated railways, loading and unloading grain or flour at the doors of the mills, the murmur of machinery and roar of the falls, all tend to add to the impressiveness of a scene unequalled in the world. The flouring mills here are twenty-seven in number, all deriving their power from a common source, and manufacturing over two millions of barrels of flour a year, besides about seventy thousand tons of bran.

We give place to the following extracts pertaining to this subject from Secretary Sturtevant's last report to the Board of Trade:

"In the early days of milling in Minneapolis, medium sized mills were considered the safer, and, as a rule, the most profitable, but the whole system is changed. Then this market was limited to a comparatively small territory, and the production of wheat was not large enough to render a supply at all times certain. Now, however, with America and all Europe for a market, and with single orders for from 10,000 to 15,000 barrels of flour, millers find it necessary, to secure the best trade, that they shall control a large manufacturing capacity in order that they may be able to fill large orders promptly and to secure uniformity of quality, which is an absolute necessity if one would hold the foreign or the best American trade. Moreover, there is economy both in the construction and operation of a large mill over a small one. The cost of a mill with a capacity for 4,000 barrels daily, is much less than that of sixteen mills of 250 barrels capacity, or of eight mills of 500 barrels capacity, or even of four mills of 1,000 barrels capacity. The relative cost of operating a large mill is still less, and the chances for a uniform grade of flour is increased in the same ratio as the additional capacity of the mill. Hence the tendency to increase the size and capacity of mills.

"No city in America has so large a capital invested in milling as Minneapolis. No flour in the world stands as high in the markets of Europe and America as that manufactured at Minneapolis, unless it be the fancy Hungarian flour, sold largely in England. This, however, is fast giving place to the choice Minneapolis fancy. English flour dealers and millers predict that, at an early day, American spring wheat fancy flour will take the place of the Hungarian fancy in all English markets.

"Minneapolis millers manufactured more flour in 1880 than any other city in America, and will have a capacity the ensuing year double that of any other city. The three largest mills on the continent are located here, and three firms operate mills with a daily capacity of 17,200 barrels."

The following table gives a list of the mills, their capacity, and by whom owned or operated:

NAME OF MILL.	CAPACITY (BLS).	OWNER OR LESSEE.
Washburn A.....	4,200.....	Washburn, Crosby & Co.
Washburn B.....	650.....	Washburn, Crosby & Co.
Washburn C.....	1,650.....	Washburn, Crosby & Co.
Pillsbury A.....	4,000.....	C. A. Pillsbury & Co.
Pillsbury B.....	800.....	C. A. Pillsbury & Co.
Anchor.....	550.....	C. A. Pillsbury & Co.
Empire.....	550.....	C. A. Pillsbury & Co.
Excelsior.....	600.....	C. A. Pillsbury & Co.
Crown Roller.....	3,000.....	Christian Bros. & Co.
Pettit.....	1,200.....	J. A. Christian & Co.
Standard.....	1,000.....	E. V. White & Co.
Northwestern.....	1,000.....	Side, Fletcher & Holmes.
Galaxy.....	800.....	Cahill, Fletcher & Co.
Cataract.....	550.....	D. R. Barber & Son.
Minneapolis.....	450.....	Crocker, Fisk & Co.
Humboldt.....	600.....	Hinkle, Greenleaf & Co.
Holly.....	225.....	Hinkle Bros.
Dakota.....	250.....	H. F. Brown & Co.
Model.....	250.....	Russell, Hinehne & Co.
North Star.....	500.....	J. C. A. Crosswell.
Phoenix.....	300.....	Stamwitz & Schober.
Union.....	225.....	G. W. Goodrich & Co.
Zenith.....	600.....	Day, Rollins & Co.
Trade Steam.....	100.....	Hawthorne Bros.
Palisade.....	500.....	Leonard Day & Co.
Eagle Steam.....	75.....	Colburn, Christian & Co.
Arctic.....	250.....	Woodbury Fisk.
Minnetonka.....	350.....	Fletcher, Loring & Co.

Total daily capacity..... 24,875

A FAMOUS GROUP.

The NORTHWESTERN MILLER, a leading milling paper published at Minneapolis, gives us the following well written description of the group of mills illustrated on page 20:

That the mighty waterfall, scarcely second to any in the world, which less than thirty years ago was free and untrammled, should be so soon brought under man's control and made the center and mainstay of one of the most flourishing manufacturing cities on the Western Continent, is scarcely more a matter for wonder than are the group of mills, which are now clustered about its crest, subjects of admiration. The mills of Minneapolis have made its name famous throughout the civilized world, and of the twenty-five massive structures which take into their garner the wheat crop of the Northwest and send it forth, immaculate in its snowy whiteness, to the uttermost parts of the earth, millions of barrels every year, there are none more widely renowned than the cluster of mills which are the subject of this article. To the faith which the owner of these mills had in the possibilities for development of the Falls of St. Anthony, is due much of the substantial prosperity which Minneapolis now enjoys, and that faith needs no better exemplification than the immense enterprises which are its outgrowth.

The name of ex-Gov. C. C. Washburn is most intimately connected with the milling history of this city. In 1856 he was one of the original incorporators of the Minneapolis Water Power Company, which had for its object the improvement and utilization of the water power on the western half of the Falls of St. Anthony. From that time to the present he has always been active in pushing ahead to new and more extensive improvements. The mills which bear his name will be in years to come his most fitting monument. It is not our purpose to give a complete description of these mills, but will simply give some facts as to capacity, dimensions, etc., which will serve to give an idea of their extent, and satisfy the curiosity of our readers.

The first of the three Washburn mills to be built was what is now known as the "B" mill. It was erected in 1866, and then contained eleven run of stones, and was the largest mill at that time on the falls. It was in this mill, when operated by Mr. Washburn in company with Mr. Geo. H. Christian, that the first experiments in making "new process" flour were made in America, and where the first purifier was placed at work. It is 62x94 feet, and six stories high, and was long known as the "Big Mill." In 1880 it was shut down for five months and completely overhauled and remodeled on the roller system. Its present daily capacity is 650 barrels.

The second Washburn mill was the old mill "A," which was built in 1873-4, and was 100x147 feet, seven stories high, and contained forty run of stones. It was a "new process" mill, and had a capacity of from 1,200 to 1,500 barrels daily. When it was finished it was by far the largest, most complete and modern in its appointments of any mill in the country, and soon acquired a national reputation. It was completely destroyed by the great mill explosion of May 2, 1878, the ruin being so complete that literally there was not one stone left upon another. The next day the site for mill "C" was surveyed and the stakes set for the foundations of a mill equal, if not greater in capacity than the one destroyed.

Washburn mill "C" was built in 1878, and was at first constructed on the new process system. It contained about twenty pairs of mill stones, and was very thoroughly equipped. Since then it has been, by the addition of rollers, etc., made into a roller mill with a capacity of 1,650 barrels per day. It is 105x140 feet, six stories high. It was in this mill that Gov. Washburn started his experimental roller mill in the winter of 1878-9.

The last and greatest of the Washburn mills is the mammoth mill "A." It stands on the site of the old mill "A," and was built in 1880-81. It is constructed on the most approved plans for roller milling. The first half of the mill, started up last summer, had a capacity of about 1,500 barrels per day. The other half of the mill, the machinery for which is now in position, will bring its capacity up to 3,500 barrels per day, and it is proposed to make the daily capacity of the mill reach or exceed 4,200 barrels daily. The mill is 160x244 feet, and eight stories high, the area of each floor being 24,400 square feet, or considerably over half an acre. A double railway track runs through the mill on a level with the second floor.

The daily capacity of the three mills will be, when mill "A" is running fully up to its proposed capacity, 6,500 barrels per day, requiring about 30,000 bushels of wheat daily. To handle this large amount it is plain that ample wheat storage is necessary. This is furnished by the elevators connected with the mills, and by the storage in the mills themselves. The mill "A" elevator is 35x94 feet, seven stories high, and has a storage capacity of 82,000 bushels. The cleaning machinery for mill "A" is in the building, and has a capacity for cleaning 900 bushels per hour. When cleaned the wheat is carried into subterranean bins in mill "A," which can hold 68,000 bushels of clean wheat. Mill "B" has storage room for 40,000 bushels, while mill "C" in its subterranean bins can stow away an equal amount. The mill "C" elevator is 50x48 feet, six stories high, and has storage room for 78,000 bushels, and cleaning capacity of 500 bushels per hour. The combined storage capacity of the

mills and elevators is 308,000 bushels, or enough for a ten days' run. In 1880 the three mills turned out 610,000 barrels of flour, although mill "A" was not started up until along in the summer, and mill "B" was shut down for changing to the roller system for about five months.

Three hundred men are employed in and about these mills. In the three mills 231 pairs of rollers are in operation, and thirty-five run of buhrs. The mills are owned by C. C. Washburn, and operated by Washburn, Crosby & Co., the firm being composed of C. C. Washburn, John Crosby, Wm. H. Dunwoody, and Chas. J. Martin.

THE CROWN ROLLER MILL.

The following descriptions of the "Crown Roller Mill" and "Standard Mill," are also from the NORTHWESTERN MILLER:

Minneapolis has long been known as the "City of Mills," and its cluster of mills, so near together that a person standing in the center is almost within stone's throw of the farthest one, contains more than one which in size, capacity and perfection of equipment has been the wonder of the many visitors who throng the "platform." Of this cluster of mills the "Crown Roller," although exceeded in size by one other, is the most conspicuous and the first to claim the attention of the incoming stranger. This proud prominence it enjoys no less from its immense size than from its commanding position on the highest ground around the falls. The building itself is so immense that the illustration of it on page forty-five fails to convey any adequate conception of its size. It is situated at the corner of First Street and Fifth Avenue South, and fronts 124 feet on First Street, and 145 feet on Fifth Avenue. The foundation and basement walls are of native blue limestone, resting on the solid limestone ledge which forms the crest of the falls of St. Anthony. Above these enduring foundations the massive walls of cream-colored brick rise to a height of about seventy-five feet, and the whole is surmounted by a mansard roof, which forms the sixth or attic story of the mill, and makes the total height of the building over one hundred feet from the ground. Some idea of its magnitude may be gained when it is known that over two million brick were used in its construction, and that in its interior over a million and a half feet of lumber have been used. Work on the foundations was begun early in April, 1879. The capacity of this mill is now 3,000 barrels per day.

Enclosed in the same walls, on the west side of the mill, is the elevator. It is separated from the mill proper by a brick wall which rises above the roof, and through which there is only one opening into the mill. The peculiarity of the elevator is that the wheat is stored in circular iron bins. There are thirty of these bins, each seven and one-half feet in diameter and sixty feet deep. The space between the bins, which are placed close together, is also used for storage bins. The total capacity for the elevator is 98,000 bushels.

The mill is owned by Messrs. John A. and Lewellyn Christian and Mr. Charles M. Hardenberg. Mr. C. E. French is associated with them in operating the mill, the firm name being Christian Bros. & Co. Messrs. J. A. & L. Christian formerly operated the old Washburn A mill, and have been prominently identified with the milling interest of Minneapolis since the introduction of the new process. This mill, as constructed, embodies the results of their long experience, and is worked on the gradual reduction or high-grinding system, improved and perfected as far as American ingenuity has yet been able to go.

THE STANDARD MILL.

The mill building proper fronts on Sixth Avenue South, between First and Second Streets, and is 55x115 on the ground, and including the basement, is six stories high. Adjoining the rear end of the mill and rising to the same height, and under the same roof, but separated from it by a brick fire wall, is an elevator 40x55 feet. The whole building, as shown in the illustration on page forty, is 55 feet wide and 155 feet long. The mill contains twenty runs of four and one-half feet French buhrs, and twenty-six pairs of rolls. There is plenty of room and power to add more rolls, and as fast as their superiority is fully established, they will, without doubt, be added.

It is not possible, in the space we have at our command, to enter fully into a minute description of the machinery of the mill, or to trace the course of the wheat from the storage bins in the elevator to the flour in the barrel, but we will give a concise description of the general plan and arrangement of the mill. Beginning with the elevator we find that the wheat, after being weighed in, is elevated by a storage elevator and distributed into the bins, nine in number, having an aggregate storage capacity of 35,000 bushels. As used, the wheat is drawn from these bins, elevated to the fifth floor, where it is discharged into a grading reel, which separates it into two grades. These two grades are cleaned separately, each grade having its own set of cleaning machinery.

On the fourth floor of the elevator are two Richmond separators, through which the wheat passes from the grading reel. It then goes through two cockle separating machines on the third floor, two Richmond brush machines on the second floor, and two more Richmond brush machines on the first floor, after which it passes down into the basement, through the Victor wheat heaters,

and there the coarse and fine grades are each crushed separately on a set of 14x36 inch smooth chilled iron rollers, there being one set of rolls for each grade. In the basement, or rather below it, is the wheel pit, in which is a 44-inch Victor turbine wheel, which drives the mill, working under a head of thirty-three to thirty-five feet. The basement also contains the main gearing to drive the mill. In the basement of the mill proper are twenty iron husk frames, placed in two parallel lines of ten each, and resting on substantial brick and stone foundations. The basement is floored with cement, and we may also say for the benefit of those of our readers who are strict temperance men (and what millers are not?) that it contains a living spring of pure, cold water, where he that is athirst may refresh himself.

The first floor above the basement is the grinding floor, and it is without doubt one of the cleanest, lightest and best arranged in this country. Entering it from the street, in the front left-hand corner is the office. Stepping from the office into the grinding room, the visitor finds himself at the end of the two parallel lines of mill stones, each line consisting of ten run. One line is on the north side of the mill, and the other occupies the center of the floor. Right back of the center line of stones is a double line of Gray's patent noiseless belt roller mills. At present there are twelve of these mills in position, each mill having two pairs of 9x18 inch chilled iron rolls. There is room for ten more of these machines in the same double line.

The next floor is the packing floor, containing five Eureka flour packers and one bran packer. Here are also the stock garnerers and middlings bins over the roller mills and the mill stones. The conveyors are all hung to the joists overhead, so that the floor is free from obstructions. This floor is on a level with the floor of the cars standing on the elevated track of the Minneapolis & St. Louis Railroad, shown in the cut, so that the flour can be rolled directly into the cars. The Chicago, Milwaukee & St. Paul road also have a side track on the south side of the mill, and the packing floor is so arranged that cars can be loaded with flour or bran on either track with the least possible labor.

On the third floor of the mill are located ten "Standard" purifiers. The bolting chests also begin on this floor, and in this story are twenty reels, each nineteen feet long. On the north side of the room is the dust room for the ten purifiers, and on the south side are the flour bins over the packers. On this floor are also two aspirators and two bran dusters, and the bins for bran and shorts. The fourth floor also contains ten "Standard" purifiers, dust room for same, and the upper half of the bolting chests containing twenty nineteen feet reels and two Richmond bran dusters.

The fifth floor, or attic, is one-half the width of the mill building, and contains the gearing, shafts, etc., to drive the elevator and bolting chests, and four twenty-four feet and four eighteen feet reels.

The mill property, including the land upon which it stands, and the water privileges, which belong with the lot, represents an invested capital of nearly or quite \$200,000, and is owned and operated by Messrs. E. V. White and D. Morrison, under the firm name of E. V. White & Co. It has a capacity of 1,000 to 1,200 barrels a day. (See illustration on page 38.)

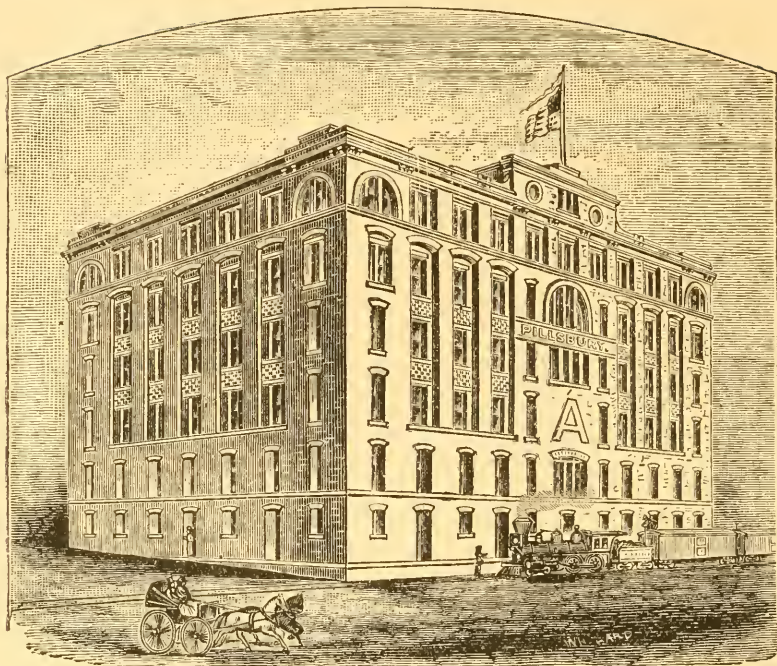
PILLSBURY "A" MILL.

This new mill is situated on the east bank of the Mississippi river, at the corner of Main Street and Third Avenue, East Division, and being seven stories high, symmetrically proportioned, and built of blue limestone, presents a massive and commanding appearance. Its dimensions are 175x115 feet, and when completed will be capable of making 4,000 barrels of flour per day. In explanation it may be here remarked that there will be two entirely separate mills under one roof, each of which can be operated independently of the other. Each side is to be an exact duplicate of the other.

The front side of the mill, which faces Main street and the river, is the one on which will be noticed the words "Pillsbury A." It is along here, commencing a block above, that the East Side Water Power Company have constructed their main canal, sixteen feet wide and about thirty-two feet deep, which conveys the water from the river to the mill. The inlet by which the water passes from the canal to the wheel is in the shape of a large arch directly in the center of the basement wall. Power is furnished by two fifty-five inch Victor water wheels, under a working head of forty-five feet.

Running across the center of the basement is the main line shafting, 144 feet long, which takes power from the water wheels by means of two forty-eight inch leather belts, each 126 feet long. This shaft rests on heavy stone and brick piers that reach down to the ledge, two of its pulleys weighing 13,000 pounds each. Located in the basement, and running through to the top of the next story, is a large wheat bin with a capacity of 50,000 bushels.

Ascending one story we find ourselves on the grinding floor, the one-half of which is wholly taken up by 100 double roller mills, arranged in six lines—two rows of ten each and four of twenty each—and ten run of millstones. The stones are arranged in one line near the center of the upper end of the mill, and will be elegantly fitted up, the wood work about the top of the husk frame being of walnut and ash.



PILLSBURY "A" MILL.

Going up another story we come to the packing floor, where, arranged in a line at the back side, are ten packers—eight for flour and two for bran. The remaining space, excepting twenty feet at the lower end, is reserved wholly for storing and handling the flour after being packed. A little below the level of this floor, on both sides, are railroad tracks, giving facilities for shipping flour and receiving wheat. The twenty feet above mentioned contains the wheat cleaning machinery.

On the third floor the bolting chests commence, and reach up through the four stories to the attic. They are arranged in one row of eight double and four single chests, and on three of the floors they contain forty fourteen-foot reels. Running parallel with the bolting chests is a row of twenty-three purifiers, and, like the chests, a similar arrangement of them is carried out through all the four stories. Back of the purifiers are the cylindrical boiler iron flour packer bins, measuring thirty-two feet high and six feet in diameter. In the wheat cleaning department of this floor are four brush machines, two Kurth cockle separators, and four bran dusters. The only difference between the third, fourth and fifth stories is in the arrangement of the cleaning machinery. On the fourth there are in the regular department four brush machines and four separators, while in the space between the bolting chests are four bran dusters and two centrifugal flour dressing machines. On the fifth floor this class of machinery consists of two centrifugal flour dressers and four bran dusters between the bolting reels, and in the regular department four scourers and four brush machines. In the sixth and last floor excepting the attic, the bolting chests are not as large as below, containing only twenty-two instead of forty reels.

This finishes a partial description of what will be one of the most complete mills in the world. To take a trip through it one cannot help but be impressed with the simplicity and nicety of arrangement of all its details. Everything has been placed just where it is most convenient, does the most good, and effects the greatest economy of room. The wood work is exceptionally fine, and is claimed to excel anything in the city or elsewhere.

Its precautionary measures against fire are most perfect. Four large "risers" run from bottom to top of the building, and to them on each floor will be attached 100 feet of hose, while each floor is provided with four fire extinguishers. The building is heated by steam, generated by two large steel boilers, located in the basement of an addition 25x46 feet, at the lower end of the mill. A large passenger elevator is in the center of the mill, running from the first to the topmost story. Around the elevator shaft is an iron winding stairway.

For handling the great amount of wheat that will be required by their mills, the firm have built a 200,000 bushel elevator on the line of the St. Paul, Minneapolis & Manitoba railroad, but a short distance from the mill.

The plans and machinery for the mill have all been furnished by Minneapolis establishments, and the gentlemen superintending its construction are resident business men.

The proprietors, Messrs. C. A. Pillsbury & Co., have a reputation as millers equal to that of Gov. Washburn and the Christians, and when the A mill is completed, they will be able to turn out with their five mills—the Anchor, Empire, old Pillsbury, Excelsior and Pillsbury A—6,000 barrels of flour per day. The members of the firm are George A., Gov. J. S., Fred. and C. A. Pillsbury. When the mill is completed its cost will come close to half a million dollars. The building, the walls of which are seven feet at the base and taper to two feet at the top, with heating apparatus, alone cost \$125,000.

ANCHOR MILL.

This mill has a capacity of 600 barrels per day, and is operated by C. A. Pillsbury & Co. The building is of limestone, seven stories in height, including basement, and is 50x75 feet in size. It was among the first to be changed to the roller system. It has thirty-six rolls and four run of stone. The power is furnished by an American water wheel, under a thirty to thirty-three feet head. It has a very complete outfit, mainly consisting of twenty-eight purifiers, thirty-five reels, separators, scourers, etc.

CATARACT MILL.

This is the oldest mill on the falls. It was built in 1858, by Eastman & Gibson, and was the first mill, except the old Government mill, to be put in operation on the west side of the falls. The mill proper is 65x44 feet, five stories high, including the basement, and is constructed of the blue limestone common to this city. Adjoining it on the river side is a fireproof elevator, with a storage capacity of 20,000 bushels. In the upper part of the elevator is a receiving separator, through which the wheat passes as it comes from the cars, and is then distributed to the respective bins. The Cataract has a capacity of 600 barrels per day. It is owned and operated by D. R. Barber & Son. It is located on the river front below the platform, and the elevated railways give it shipping and receiving facilities.

EMPIRE MILL.

The Empire is operated by C. A. Pillsbury & Co., and has a capacity for 600 barrels per day. Its storage capacity is 4000 bushels. The building is of limestone, 70x70 feet, four stories and basement. Five run of stone and thirty-three sets of rolls are in the mill.

EXCELSIOR MILL.

This mill is one of the Pillsbury series. It is of limestone, 45x100, six stories and basement, containing forty-five sets of rolls and two run of stone. The machinery is run by a 350 horse power Victor wheel, under a head of thirty-three feet.

GALAXY MILL.

The Galaxy is operated by Messrs. Cahill, Fletcher & Co., and has a capacity of 750 barrels per day. It contains fifty-two sets of rolls and six run of stone, twenty-one purifiers, thirty-five reels. The cost of changes and improvements during the last year amounted to \$25,000.

HOLLY MILL.

The Holly Mill is third in the row of flouring mills on the river front. It is five stories high besides basement, built of blue limestone, and is about forty feet wide by sixty feet long. Its machinery, an addition to which was made the past winter by introducing the roller system, consists substantially of twelve set of rolls, nine purifiers, three run of stone—one of which is a pony, and the usual amount of cleaning machinery, bolting apparatus, etc. The Holly is owned and operated by Messrs. F. S. and W. H. Hinkle, under the firm name of Hinkle Bros.

MINNEAPOLIS MILL.

Operated by Messrs. Crocker, Fisk & Co., has a capacity of 450 barrels. It contains twenty-two sets of rolls and seven run of stone. The building is of stone, four stories and basement, 60x60 on the ground. It has a storage capacity of 10,000 bushels of wheat.

MINNETONKA MILLS.

While this mill is located on Minnetonka creek, it is owned and operated by Minneapolis men—Messrs. Fletcher, Loring & Co.,—and properly comes into the list of Minneapolis Mills. It has a capacity of 350 barrels per day.

MODEL MILL.

Located near the Crown Roller, is the Model Mill, owned by Russell, Hineline & Co. It has a capacity of 250 barrels per day, about one-fourth of the product being exported. It is a roller mill, with ten sets of rolls, and three run of buhrs. The mill is of stone and brick, 42x62 feet, four stories high. It has a storage capacity of 3000 bushels in the mill, and in equipment and product ranks with the best mills in the city. The gentlemen composing the firm are R. P. Russell, Geo. Hineline, and J. W. Rootes.

NORTHWESTERN MILL.

The Northwestern is a comparatively new mill, having been built in 1879-80, and ranks among our best and largest ones. It is situated near the center of that massive row of mills on the river's brink on the West Side, and is one of the most commanding in appearance of the row. It is built of lime stone, is 55x106 feet, seven stories high, and has a daily capacity of about a thousand barrels. The proprietors, Messrs. Sidle, Fletcher, Holmes & Co., will very soon materially add to its complement of machinery, raising the capacity to twelve hundred barrels.

OLD PILLSBURY, OR "PILLSBURY B" MILL.

Is one of the five mills operated by Messrs. C. A. Pillsbury & Co., and has just been completed from a most thorough overhauling. Nothing save the walls were left in the renovation, and in consequence it may now be classed among the most complete of roller mills. Including basement it is six stories high, 60x65 on the ground, and by the late improvements will be enabled to turn out 800 barrels daily. Its total number of rolls is fifty-eight, of which twenty-four set are corrugated and twelve smooth. By the overhauling all but four run of buhrs were thrown out. The remainder of the machinery consists substantially of thirty purifiers, two scratched rolls for grinding low grade of flour, a full line of cleaning machinery and two centrifugal flour dressing machines, besides a complete bolting system. The motive power is furnished by a 44-inch Victor water wheel. The mill is built of blue lime stone and is located about the middle of the row of mills on the river bank between Sixth and Seventh Avenues South.

PALISADE MILL.

Operated by Leonard, Day & Co. The building is of blue limestone, 65x85 feet, five stories, and contains twelve run of stone and twenty-three sets of rolls, with a complete outfit of machinery throughout. Power is transmitted from two wheels of thirty and thirty-five inch size, under a head of fifty feet. The Palisade retained its buhrs when making a change to the roller system, and the estimate of its capacity, 500 barrels, is considered lower than that given by other mills of equal machinery.

PETTIT MILL.

The Pettit mill has just lately been changed to the roller system, and its capacity is estimated at from 1,000 to 1,200 barrels per day. The building is of blue limestone, 60x100 feet, five stories high. It employs thirty-five men, of which seven are regular millers. The power is furnished by a Swain water wheel of 350 horse power, with a head of forty feet. The mill is operated by J. A. Christian & Co.

PHENIX MILLS.

This establishment is located on the east side of the river, and is owned and operated by Messrs. Stamwitz & Shoher. An addition of 26x50 feet, four stories in height, has been added to its former size during the past year. The present capacity is 250 barrels of flour per day. It has twelve sets of rolls and three run of stone, with a full line of other machinery necessary to make the manufacture of flour by the roller system complete.

TRADE STEAM MILL.

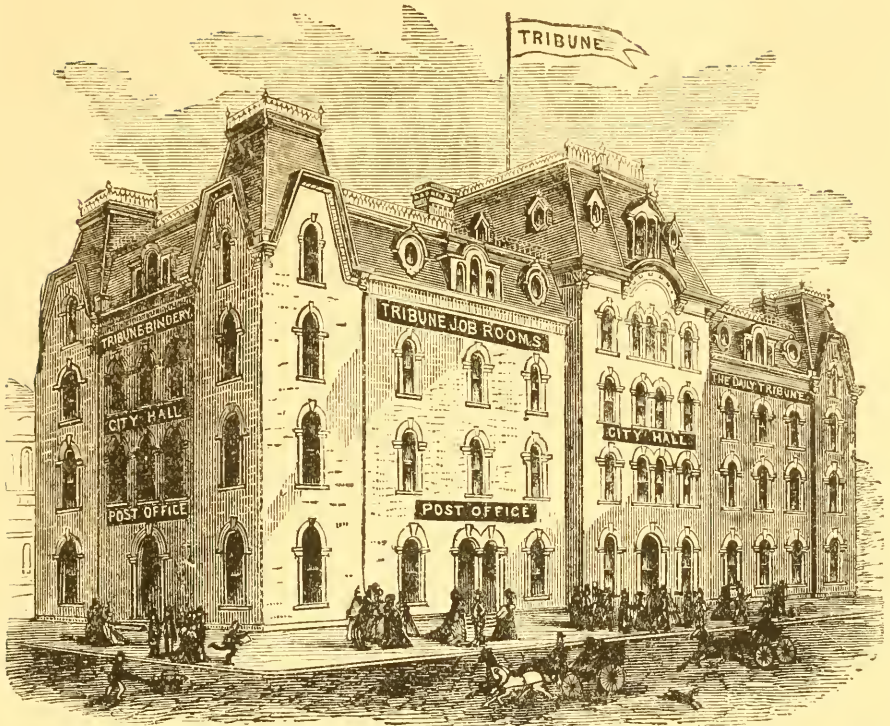
Is located on Second Street near First Avenue South, and is operated by Hawthorne Bros., as a custom mill. It has a capacity of about 100 barrels per day.

UNION MILL.

Is operated by Goodrich & Co., and has a capacity of 230 to 250 barrels per day. It is 40x80 feet, four stories and basement. Operates on the New Process—not roller system—and has six run of stones and five sets of smooth rolls.

ZENITH MILL.

The Zenith, operated by Day, Rollins & Co., is 40x102 feet, six stories above the basement, built of stone. It has five run of stones and twenty-two sets of rolls, giving it a capacity for 600 barrels per day, and a perfect outfit of separating and cleaning machinery. It has storage for 12,000 bushels of wheat, and is operated by a 48-inch American wheel.



CITY HALL BUILDING, MINNEAPOLIS.

Random Sketches of Past and Present.

In 1837 the first "claim shanty" above the St. Croix was built. It was located opposite St. Anthony Falls, on the east side of the Mississippi, and belonged to Mr. Franklin Steele, who lived to see his wilderness home transformed into a beautiful and thriving city, of which he was a citizen until 1880, when he passed away suddenly, full of years and honored by all.

Mr. Steele bought the town site of St. Anthony and "Boom island" for \$500 from the original claimants, securing the title from the government subsequently by entry and purchase at the regular price.

In 1848 there were but four houses in St. Anthony village, one of which was occupied by Mr. R. P. Russell as a store. A saw mill with two saws was started in the fall of 1848. Mr. Russell is still an honored resident of the city.

In 1849 the St. Charles Hotel was built by Mr. Anson Northrup, and Mr. Steele sold a half interest in his village property to Mr. A. W. Taylor, of Boston, for \$20,000, which he bought back three years later for \$25,000.

In 1851 the Minnesota University was located here by act of the territorial legislature, but the building was not ready for occupation until 1867, when it was opened as a preparatory school, and the first commencement held in 1873.

The first bridge to span the Mississippi river was built in 1854, being the old suspension bridge, which occupied nearly the same position as the present structure. Two steamers were also built about the same time to run above the falls.

In 1855 the population of St. Anthony was three thousand.

Minneapolis was named by Mr. George D. Bowman, editor of the St. Anthony Express, having been appointed a committee for the purpose by the citizens, who were unable to agree upon a name, and by constant use of the name in his paper, finally established it. Col. Stevens says "it is allowed on all hands to be a beautiful combination of the native Sioux and classic Greek." "Minne" is Sioux for water, and "polis" Greek for city.

The first house in Minneapolis was built by Col. John H. Stevens, in 1849-50, the only other buildings on the west side of the falls being the old government mill and mill house, which have long since passed out of sight. Mr. C. A. Tuttle followed. The land being part of the military reserve, the settlers occupied their claims by permit from the government until 1852, when it was opened to settlers by act of congress, and in 1855 the right of pre-emption was granted. Col. Stevens still haunts the busy places of the metropolis, and may be found at his editorial post on the Farmers Union in the City Hall, ready to tell of the wondrous products of his farm.

The first session for the United States District Court for the Territory of Minnesota west of the Mississippi river, was held in the government mill at Minneapolis, by Judge Meeker.

In 1856 the water-power companies were chartered and organized.

The first flouring mill on the West Side was built in 1858.

In 1872 the villages of St. Anthony Falls and Minneapolis were consolidated, and became the City of Minneapolis.

May 3d, 1878, occurred the great explosion and fire, which destroyed five of the largest flouring mills.



SUSPENSION BRIDGE, MINNEAPOLIS.

A synopsis of the Minneapolis Board of Trade Report for 1880, will afford some idea of the status of business at the present time:

Sixteen railways lead from Minneapolis to various points in the Northwest, and sixty-five passenger trains arrive and depart daily. The companies operating these roads are as follows:

The Minneapolis & St. Louis Railway to St. Louis *via* Albert Lea and Burlington; to Duluth, Stillwater, and Taylors Falls; and to Fort Dodge, Iowa.

The Chicago, Milwaukee & St. Paul, river division, to Chicago; Iowa Division; Hastings & Dakota Division; and Minneapolis & St. Paul Short Line, running twelve trains daily each way between Minneapolis and St. Paul.

The Chicago, St. Paul, Minneapolis & Omaha Line; Eastern Division to Chicago; Western Division to Omaha; and Northern Division to Northern Wisconsin.

St. Paul, Minneapolis & Manitoba, operating lines: North to Winnipeg, west to Breckenridge, and branches to Osseo and Upper Lake Minnetonka. This company also operates a passenger line running eleven trains a day each way between Minneapolis & St. Paul.

Northern Pacific to Dakota and the Far West, and to Duluth.

St. Paul & Duluth to Lake Superior.

The Minneapolis, Lake Calhoun & Lake Minnetonka Railway, to Lakes Calhoun, Harriet and Minnetonka.

These companies have built new railways in the territory tributary to Minneapolis, a total of 1,635 miles, divided as follows:

Chicago, Milwaukee & St. Paul.....	442 miles.
Northwestern.....	350 "
Chicago, St. Paul, Minneapolis & Omaha	247 "
St. Paul, Minneapolis & Manitoba	222 "
Northern Pacific.....	217 "
Minneapolis & St. Louis.....	129 "
St. Paul & Duluth.....	28 "
	1,635 "

Receipts and shipments by rail during 1880, give the following totals:

Receipts, cars.....	56,823
Shipments, cars.....	58,439

This is divided as follows:

Receipts of merchandise.....	13,745 cars.	Shipments of oats.....	58,800 bushels.
Shipments ".....	11,107 "	Receipts of flour.....	103,000 barrels.
Receipts of wheat.....	10,914,100 bushels.	Shipments ".....	2,051,840 "
Shipments ".....	133,600 "	Receipts of mill-stuff.....	8,868 tons.
Receipts of corn.....	599,400 "	Shipments ".....	65,590 "
Shipments ".....	310,300 "	Receipts of lumber.....	20,400,000 feet.
Receipts of oats.....	274,300 "	Shipments ".....	164,620,000 "

Of miscellaneous articles received during the year, there were of barley, 113,200 bus.; flax seed, 143,500 bus.; pig iron, 5,980 tons; live stock, 24,380 head; brick, 2,250,000; wood, 20,130 cords; coal, 52,840 tons; barrel stock, 2,021 car loads; lime, 84,300 barrels; cement, 13,200 barrels.

These figures represent actual receipts and shipments, and do not include merchandise in transit through the city for other points.

The aggregate of the wholesale trade of the city is given at \$24,299,200, including in the table the following lines of goods: Groceries, staple and fancy, including fruits; dry goods, clothing, hats and caps; wines, liquors and cigars; queensware, drugs and oils; hardware, stoves, etc.; boots, shoes, leather and hides; crackers, confectionery, etc.; paper and stationery; agricultural implements of all kinds; furniture, carpets, etc.; produce commission.

An estimate of the value of the retail trade places the total at \$18,000,000, and covers the transactions of over four hundred firms.

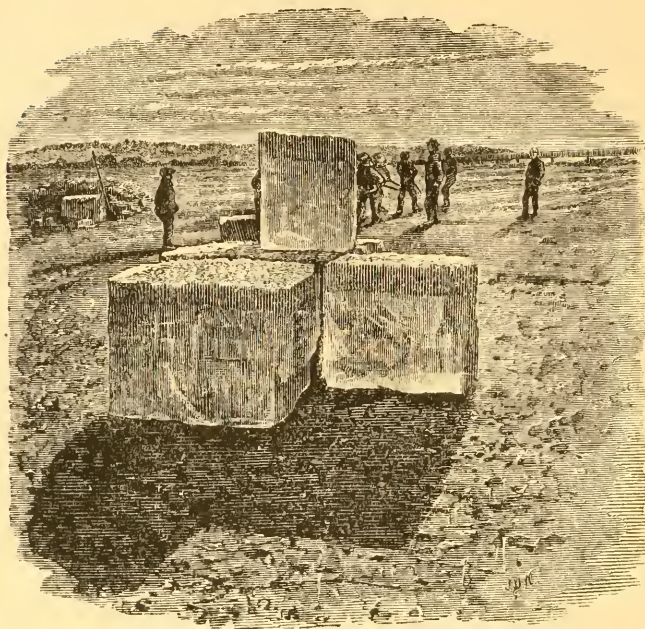
MANUFACTURES.

Flour, 2,148,840 barrels; lumber, 195,452,182 feet; shingles, 67,058,500; lath, 31,432,500. The stock on hand January 1, 1881, was as follows: Lumber, 93,127,371 feet; lath, 21,996,000; shingles, 13,546,250.

Miscellaneous manufactures during the year:

Iron works, farm machinery, carriages and wagons.....	\$3,560,000	Cooperage of all kinds.....	851,000
Furniture and kindred goods	520,000	Soap	410,000
Builders' goods of all classes.....	1,173,000	Brown paper, etc.....	287,000
Woolen, cotton and knit goods.....	510,000	Brewers and vinegar rectifiers.....	260,000
Clothing and furnishing goods.....	725,000	Brick and manufactured stone.....	275,000
Boots, shoes, harness and trunks.....	710,000	Printers and book-binders.....	320,000
Crackers, candies and cigars.....	421,000		
Linseed, and other oils and chemicals.	311,000	Total.....	\$10,333,000

Number of men employed in manufactories, 7,250.



HARVESTING ICE IN WINTER AT MINNEAPOLIS.



WINTER SCENE AT ST. ANTHONY FALLS.

BUILDING STATISTICS.

Twenty-six (26) business blocks, containing forty-three stores.....	\$257,000
Eleven frame stores.....	16,300
Two elevators.....	70,000
Expended upon three flouring mills.....	376,000
Other mill improvements.....	60,000
Manufacturing buildings.....	136,600
Four school buildings.....	38,000
Expended on four church buildings.....	62,000
County jail building.....	60,000
Four railroad buildings.....	26,000
Street car and other public stables.....	27,000
Four hundred and seventy-three residences, costing more than \$1,000 each.....	889,200
Other residences, not included, and estimated at eighty, at an average cost of \$800.....	64,000
Total.....	\$2,092,700

LIVE STOCK.

Total value of live stock, including pork-packing, as follows:	
Pork-packing and hogs.....	\$425,000
Cattle, sheep, etc.....	1,255,000
Horses and mules.....	680,000
Total.....	\$2,360,000

CITY FINANCES.

Value of real and personal property owned by the city.....	\$1,290,639 68
Value of school buildings and property.....	392,611 93
Total.....	\$1,683,251 61
Bonded debt of the city.....	1,101,000 00
Bonded school debt.....	96,500 00
Total debt.....	\$1,167,500 00
No floating debt.	
Assessed value (about two-thirds) of real and personal property in 1880.....	\$28,013,315 00
Rate of tax levy for 1879-80, 16.1 mills.	

BANKING HOUSES.

The banking business of Minneapolis represents a capital stock of about two and three-quarter millions of dollars. A clearing house has been in operation since the beginning of the year 1881, through which the banks transact business. The list comprises the following banks: Bank of Minneapolis; Bank of Valentine G. Hush; Citizens Bank; Farmers and Mechanics Savings Bank; First National Bank; Hennepin County Savings Bank; Northwestern National Bank; Security Bank of Minnesota.

FIRE DEPARTMENT.

There is a paid department of sixty-nine men; two steam fire engines, five 2-horse hose carriages, one 1-horse hose carriage, two hook and ladder trucks, one chemical apparatus and hook and ladder truck. The department ranks well with those of leading cities in the country.

STREET RAILWAY.

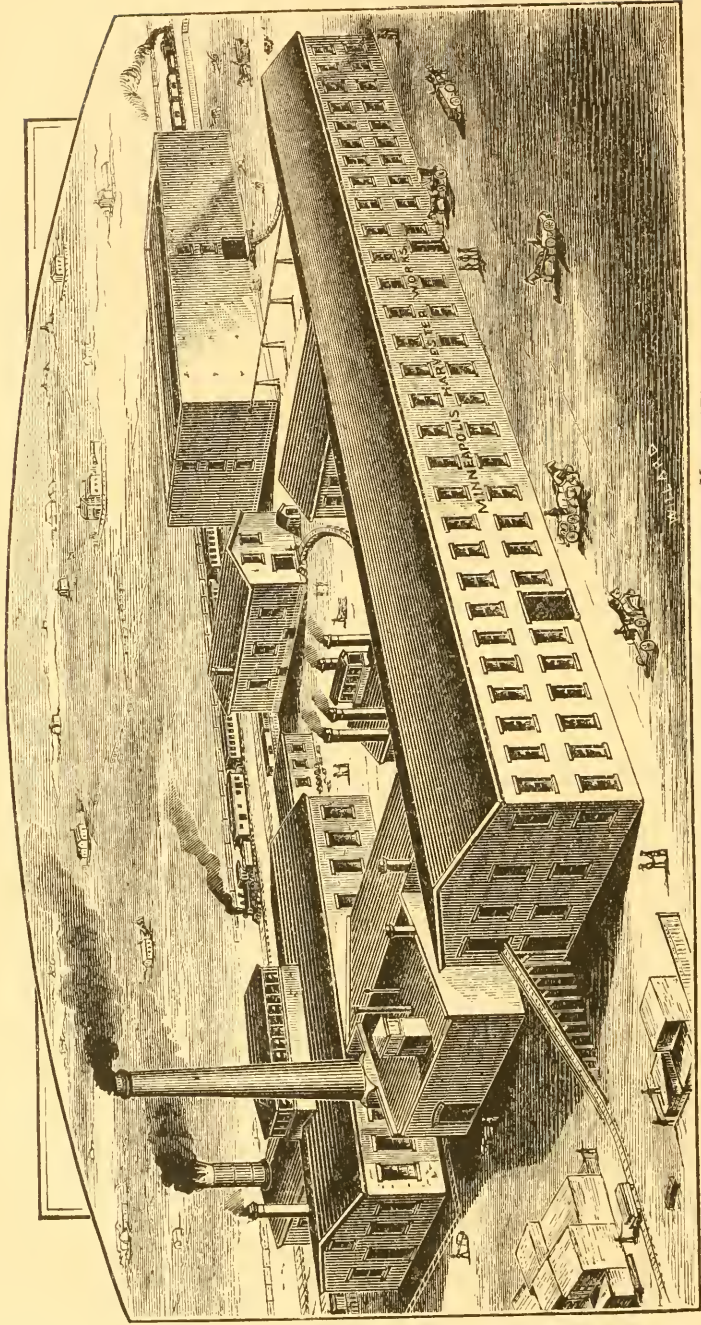
There are five lines of street railway, with thirteen miles of track.

NEWSPAPERS.

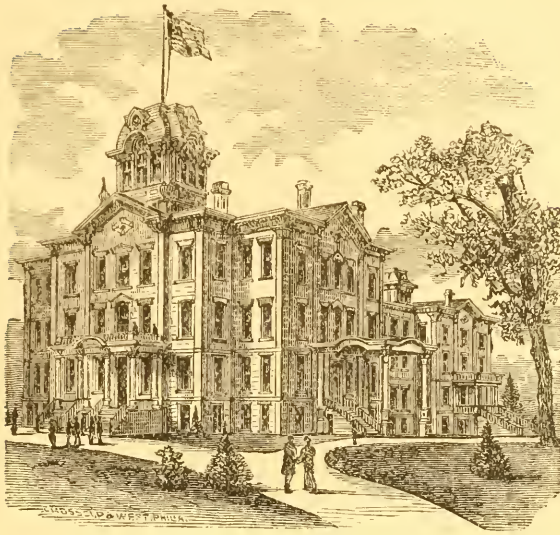
DAILY—Tribune, morning; Journal, evening; Herald, evening; Hotel Gazette. WEEKLY—Northwestern Miller; Tribune and Farmers Union; Lumberman; Spectator; Minneapolis Weekly; Temperance Advocate; Tourist and Sportsman; Budstikken (Norwegian); Staats Tidning (Swedish); Freie Press (German). MONTHLY—The Housekeeper; Minnesota Homestead; Real Estate Journal.

THE ICE CROP.

Here the records are at fault, and even the Secretary of the Board of Trade has not dared to attempt an estimate of the "last returns." It is too vast and illimitable a field for even the average inquisitive Yankee to explore, and we have had to bring our engraver to the front to show how the crop looks in the "shock." It makes an out-icing looking picture, especially about July. There was cut last winter 39500 tons.



MINNEAPOLIS HARVESTER WORKS, MINNEAPOLIS, MINNESOTA.



THE UNIVERSITY OF MINNESOTA.

EDUCATIONAL.

The educational advantages furnished by Minneapolis have been an important factor in its growth, and our people have good reason to be proud of their progress in this as well as in other matters. Our school system ranks with that of many of the leading cities of the land, and the facilities thus offered for securing a good education, as well as the location of the University of Minnesota and other important institutions of a like character within its limits, has formed a great inducement for families to locate here. The school buildings are all large and conveniently arranged. There are sixteen public school buildings, including the High school, which is a handsome stone structure, costing about \$100,000. The pupils number nearly 6,000, teachers 128, and the valuation of school property is estimated at nearly half a million dollars. The graded system is established, and graduates of the High school are prepared to enter the State University or for a course in college.

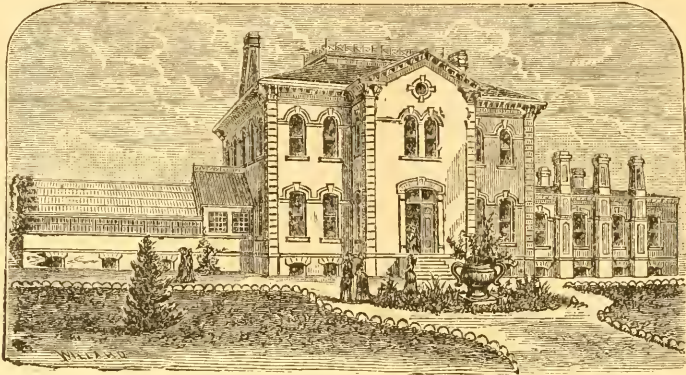
This institution was located on the east bank of the Mississippi, below St. Anthony Falls, by virtue of a law of the territorial legislature, passed in 1851, and the main building was completed in 1867, when the institution went into operation as a preparatory department. It has an endowment of public lands, which may yield a fund of a million dollars. The University includes, besides the usual literary departments, the Colleges of Agriculture and Mechanic Arts, the former having already its separate buildings.

The main University is 90x186 feet in size, and four stories in height, with tower. It contains fifty-four rooms, of which one is an assembly hall, 60x90 feet, twenty-four feet high; its library possesses 15,000 volumes; the collections of zoological, technological, industrial and other specimens, are large and interesting.

The work of the University has always been of a high character, the educational advantages being such as to prepare the student for the active duties of life, or for professional study. Tuition is free for youth of both sexes who can pass examination for admission.

Changes recently made in the faculty are confidently expected to raise still higher the reputation of the institution for thorough work. The faculty have been reinforced by a very competent instructor in elocution. A course in vocal music is now given free to all who desire it, by one of the most successful teachers of the west.

Spite of many drawbacks incident to lack of means to do the work pressing upon her, the University may claim to be abreast with the leading colleges of the west.

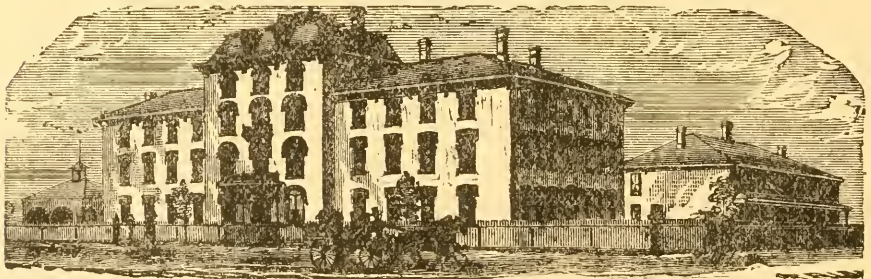


AGRICULTURAL COLLEGE.

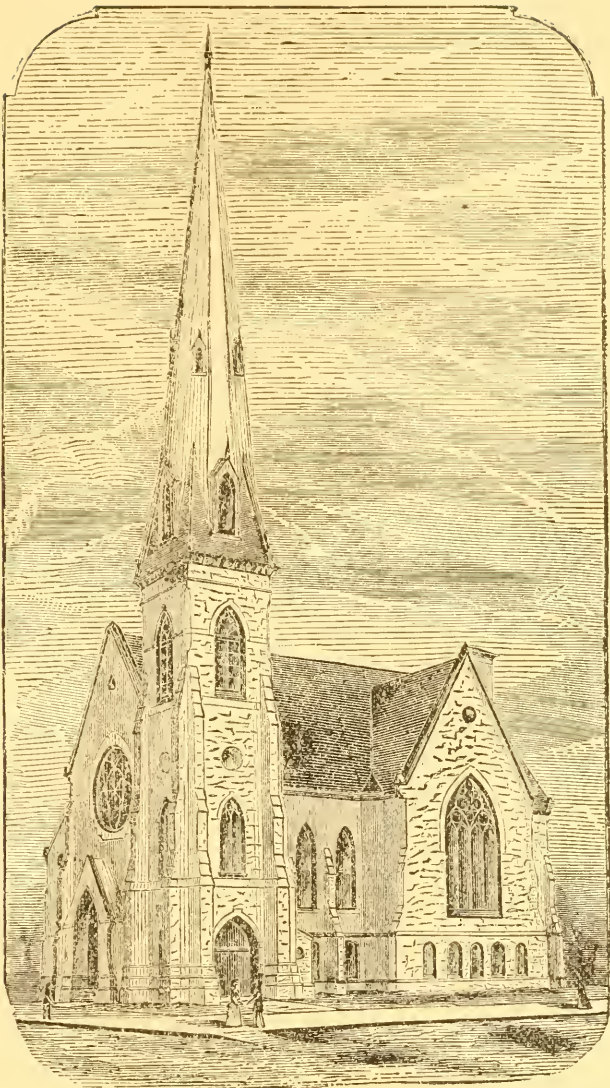
The College of Agriculture occupies a building 54x146, with laboratory, hot houses, etc., attached, and is doing a good work in assisting our youth in attaining a knowledge of the theory of this important branch of labor. It has had a recent accession of a competent professor of agriculture from the east.

Augsburg Seminary is owned and operated by the Conference for the Norwegian-Danish Evangelical-Lutheran Church of America. The purpose of the institution is to educate ministers for the Lutheran church of the Norwegian and Danish nationality. It has three distinct departments; one academic department, with a course of one year; one collegiate department, with a course of four years; and one theological department with a three years' course. The institution was originally organized and located in Marshall, Dane county, Wisconsin, in 1869, but for different reasons it was removed to Minneapolis, Minn., in 1872. It was, during its operation in Marshall and at the time of its removal to Minneapolis, only a theological seminary, the collegiate department being added in 1874.

The teachers of the institution are three professors of theology and two teachers, one instructor in English, one in Norwegian, and six assisting teachers.



AUGSBURG SEMINARY, MINNEAPOLIS.

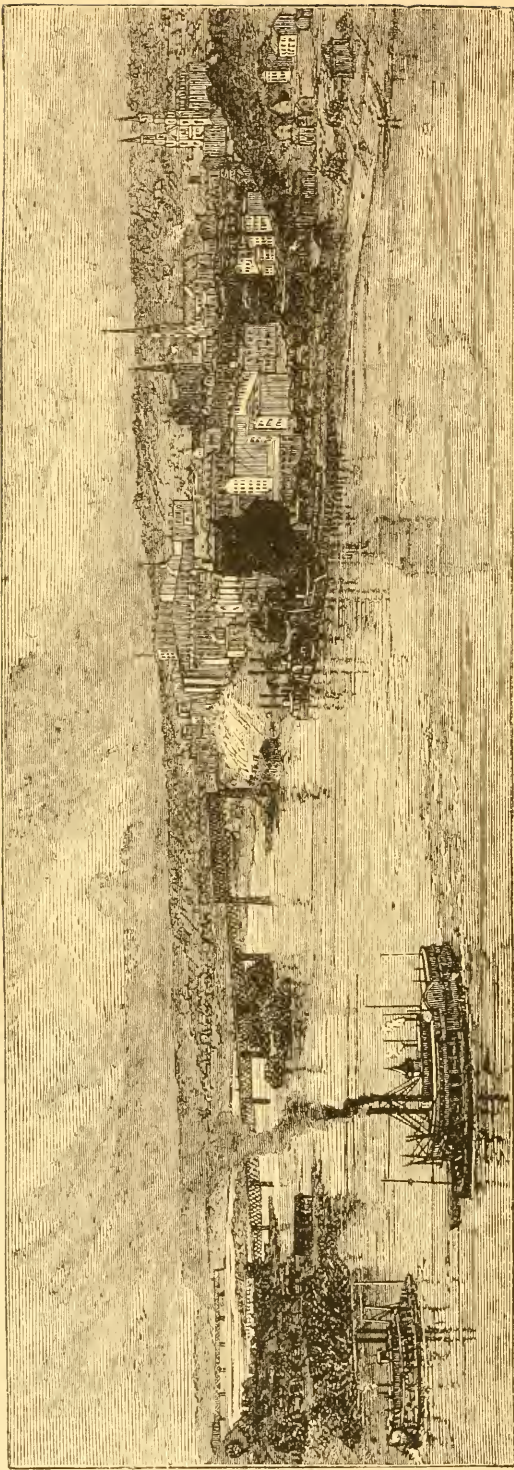


UNIVERSALIST CHURCH, MINNEAPOLIS.

CHURCHES

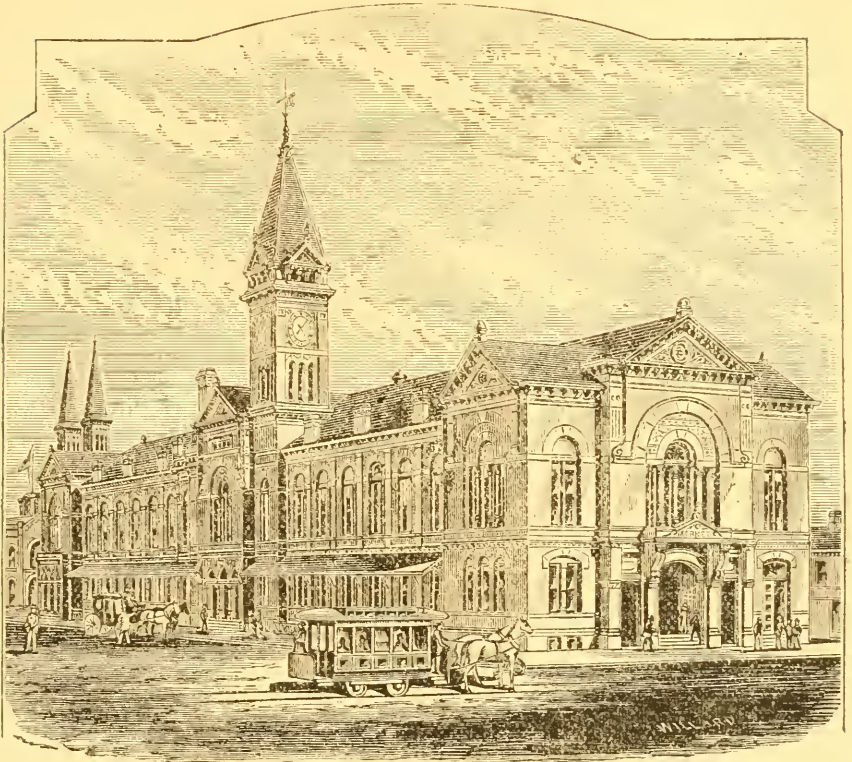
There are seventy churches in the city, of denominations as follows: Lutheran, 12; Methodist, 11; Baptist, 10; Catholic, 7; Presbyterian, 6; Congregational, 5; Advent, 2; Friends, 2; Evangelical, 1; Universalist, 1; Disciples, 1; Swedenborgian, 1; Hebrew, 1.

• Among the church buildings are several fine structures, notably the Universalist church, which cost about \$125,000, and Plymouth Congregational church, costing about \$85,000. A new Presbyterian church is in course of erection, and will probably be as fine a building as any in the city.



CITY OF ST. PAUL, MINNESOTA.

SAINT PAUL AND ITS ENVIRONS.



SAINT PAUL CITY MARKET.

ST. PAUL, the capital of Minnesota, is located on the east bank of the Mississippi river, on high ground, which gives it a commanding view of the surrounding country. The scenery is picturesque and charming, presenting many attractions to the traveler. It is the oldest city in the state, the first settlers driving their stakes and putting up their claim cabins in 1838, shortly after the ratification of the treaty by which the Indians ceded their lands to the government; it was incorporated as a town in November, 1849, and as a city in March, 1854.

Being located at the head of navigation on the Mississippi river, St. Paul soon became the most important point in the State, and attained the position of chief commercial city of the Northwest, which it still retains.

The visitor will view with wonder the great number of magnificent brick and stone business blocks that line the streets, and the evidences of prosperity indicated by the numerous buildings in progress of erection in all parts of the city. Our illus-

trations are but a fair sample of the modern business blocks recently built and in progress.

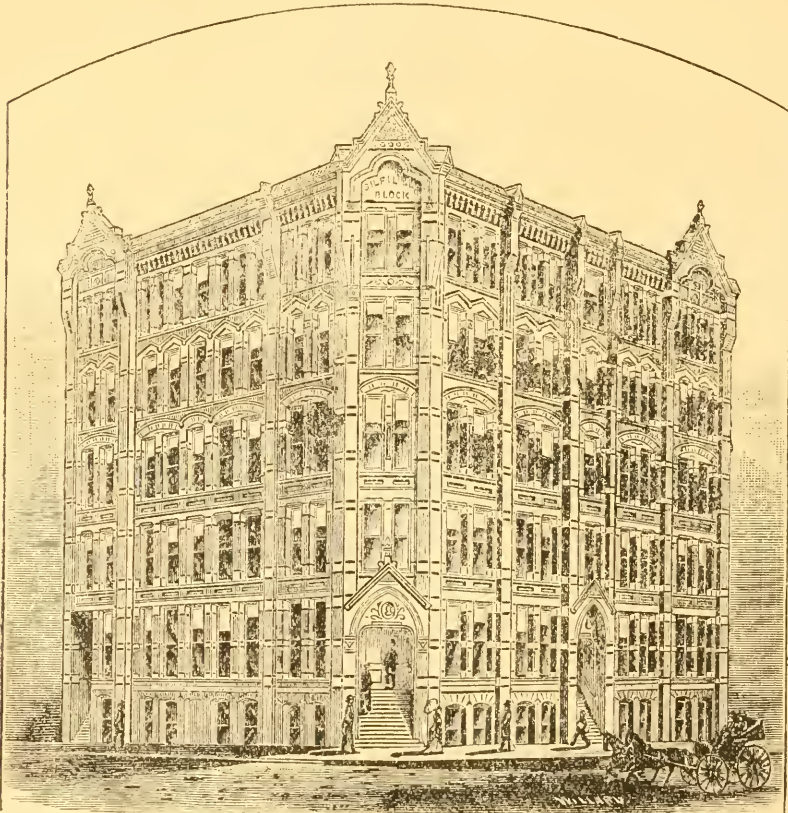
The population of St. Paul is given by the last United States census at 41,639, but it is claimed by well posted citizens that this is from four to five thousand under a correct enumeration.

As an indication of present prosperity, and prospects of steady growth in the near future, we give from the annual report of the *Pioneer Press* a summary of business matters at the commencement of the present year.

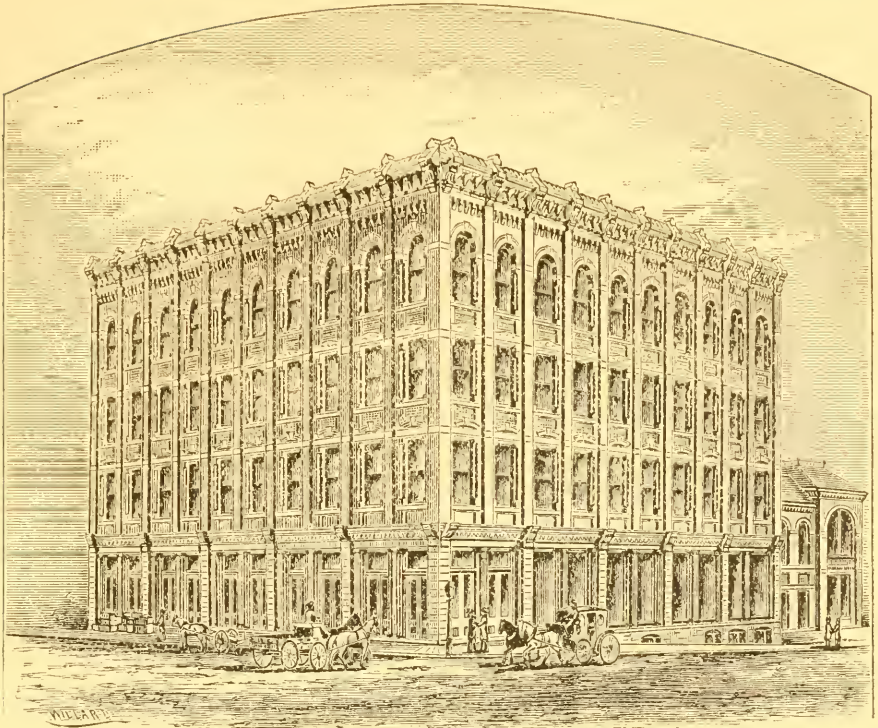
Of the demand for new buildings, that paper says:

"The demand for tenement houses for families of moderate means is largely in excess of the supply. Notwithstanding the increase of more than 500 dwellings during the year 1880, scarcely a house in the city is vacant to-day. A large number of tenement houses and blocks were erected, and every one was rented before they were completed, and all are occupied now, while the cry is still for more. It is to be noted that the character of the tenements is annually improving in architectural appearance, as well as in their number."

The value of public and private buildings erected during 1880, foots up in round numbers \$2,000,000, and work on street improvements, \$435,000. The Fort Snelling bridge—built jointly by the government and the city of St. Paul—Hamline University and the new Union Park, add about \$100,000.



NEW GILFILLAN BLOCK, ST. PAUL.



NEW KELLY BLOCK, ST. PAUL.

Railway companies have expended in and about the city, on permanent improvements, about half a million dollars.

While St. Paul does not make any particular claim to being a manufacturing city, the totals for the year 1880 are estimated at \$11,500,595.

St. Paul has seven banks, representing a capital of \$3,325,550.

Duties collected at the custom house for the year amounted to \$16,934.73.

To show at a glance the wonderful commercial prosperity of St. Paul, the following recapitulation of the transactions in the various branches of the wholesale trade during the year 1880 is given:

Grain.....	\$6,240,100	Iron, steel, etc.....	750,000
Groceries.....	8,500,000	Leather and findings.....	400,000
Dry goods and notions.....	6,000,000	Flour.....	500,000
Boots and shoes.....	2,500,000	Fruits, etc.....	500,000
Coal.....	1,500,000	Confectionery.....	400,000
Hides, furs, etc.....	1,775,000	Saddlery hardware.....	400,000
Hardware.....	1,350,000	Furniture.....	300,000
Cigars and tobacco.....	1,200,000	Queensware.....	300,000
Drugs, etc.....	1,200,000	Pork and beef packing.....	300,000
Agricultural implements.....	1,150,000	Lime, plaster, etc.....	225,000
Wines and liquors.....	1,000,000	Field and garden seeds.....	20,000
Books, stationery, etc.....	750,000	Live stock.....	570,000
Men's clothing.....	650,000	Horses.....	600,000
Lumber.....	650,500		
Hats, caps and fur goods.....	600,000	Total.....	\$49,910,600
Mill machinery and supplies.....	600,000		

The real property valuation for taxation for 1880, was \$21,048,048, and the personal \$6,907,329, and shows an increase of over four and a quarter millions over the preceding year.

The death rate in 1880 was 16.7 for each one thousand inhabitants.

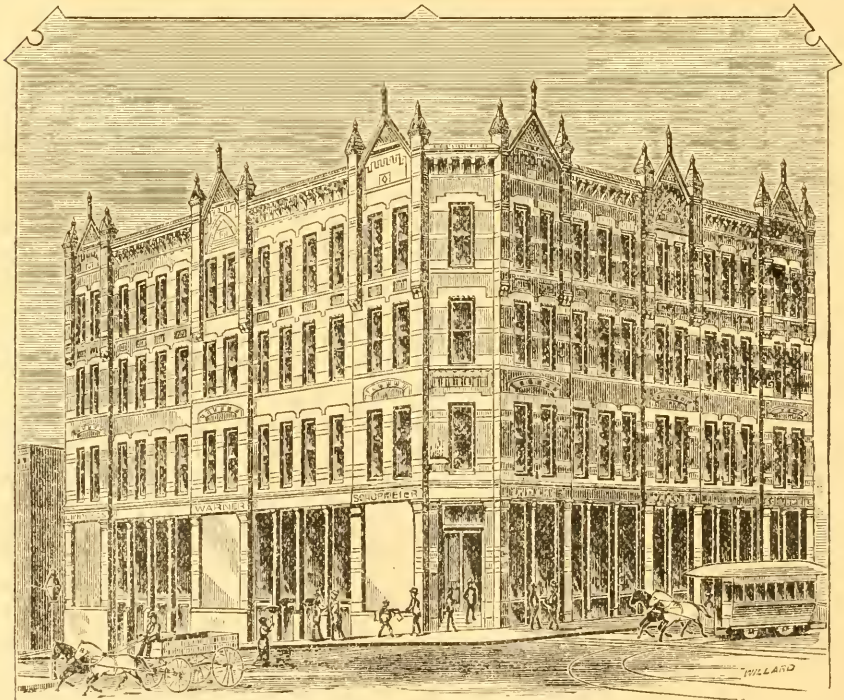
• St. Paul has twelve public schools, with an enrollment of 4,605 pupils, an increase of 1,100 over the preceding year. The parochial and private schools show an attendance of 5,985.

There are forty church societies in St. Paul, divided in denominations as follows: Baptist, 4; Catholic, 7; Congregational, 1; Episcopal, 3; Evangelical, 2; Hebrew, 2; Lutheran, 7; Methodist, 9; Presbyterian, 5; Swedenborgian, 1; Unitarian, 1.

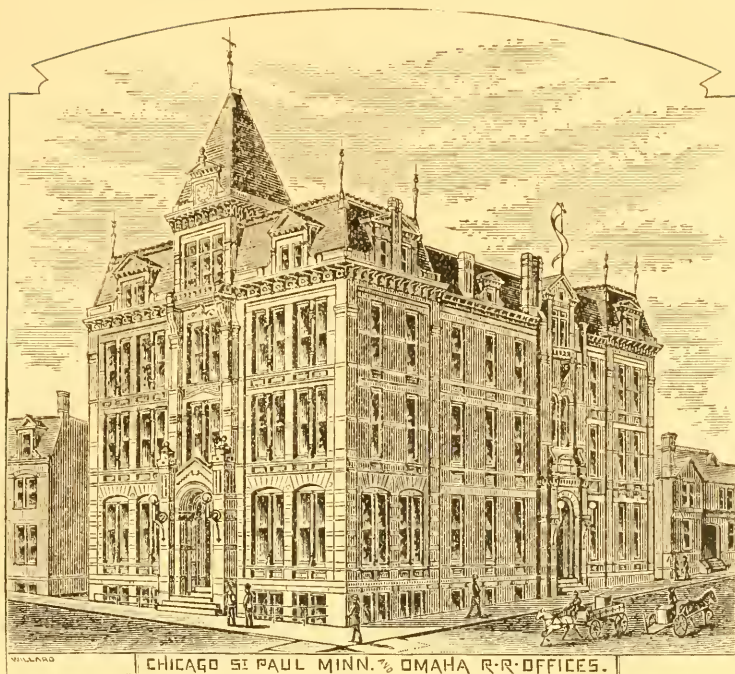
The business of the post office gives total transactions at \$309,683.57.

"The city, owing to its position as the center of a great railway system no less than to its geographical situation, is naturally the entrepot between the markets of the East and the fertile regions of the New Northwest. With the rapid settlement and development of that vast territory, the importance of St. Paul as a commercial point is bound to increase, and it will not be many years before it rivals many of the now larger cities of the West in the variety and extent of its industries and the magnitude of its trade. Even now it is second in this respect only to cities like Chicago and St. Louis, and many of its business enterprises would reflect credit on the more pretentious interests of those metropoli of trade.

"A canvass among the multitude of wholesale houses shows that the per cent. of increase in trade during the year ranges all the way from fifteen to fifty, and a few instances were found where the volume of business had actually doubled itself. The causes of this almost unexampled prosperity are of easy explanation. In the first place, the factors entering into the general prosperity of the country, have contributed largely to the result. The bountiful crops throughout the Northwest have placed the agricultural communities in a position to supply themselves with not only the necessities, but the luxuries of life, and they have liberally recompensed themselves for the forced economy of past years. The ranks of purchasers in the territory tributary to St. Paul have been swelled by a mighty tide of immigration. Since



LINDEKES, WARNER & SCHURMEIER BLOCK, ST. PAUL.



early spring thousands of people from the crowded cities and exhausted fields of the East and of Europe have passed through St. Paul seeking new homes on the fruitful soil of Minnesota and Dakota. The sales of railroad and government lands have been immense, and thousands of acres have, for the first time, been placed under cultivation. This vanguard of the population of the mighty agricultural empire of the great Northwest naturally has looked upon St. Paul as a depot of supplies, and the demand from this source has greatly swelled the traffic of the city. The stupendous enterprise shown by the various railroad companies forming the St. Paul system, in extending and improving their lines, has materially assisted in the development of the trade of the city, by opening new territory to settlement and giving access to districts already settled.

"Prosperous as the past year has been, the future holds out still brighter promises, and the trade that now amounts to over \$10,000,000 per annum, will doubtless be doubled within the next few years. Already the business has outgrown the quarters which were thought to be amply sufficient a few years ago, and to meet the growing needs stately and palatial blocks are being erected, which for elegance of appearance and elaborateness of appointments and conveniences will favorably compare with those to be found in larger cities. It is entirely within the bounds of prudence to say that the leading wholesale houses of St. Paul are not surpassed, either in the enterprise of their management or the magnitude of their transactions, by those of any city in the West."

Located but a short distance from most of the leading summer resorts, St. Paul has been for years headquarters for many of the tourists from abroad. Its numerous fine hotels afford ample accommodations, and the excursion trains running to the lakes enable them to enjoy the pleasures of the rural resorts at any time they wish.

White Bear Lake, described in another part of this work, is but twelve miles distant, by the St. Paul & Duluth railway, and it may also be reached over a fine carriage road of about the same distance.

Lake Elmo is twelve miles from the city, on the Chicago, St. Paul, Minneapolis & Omaha line, which runs excursion trains to the lake during the day.

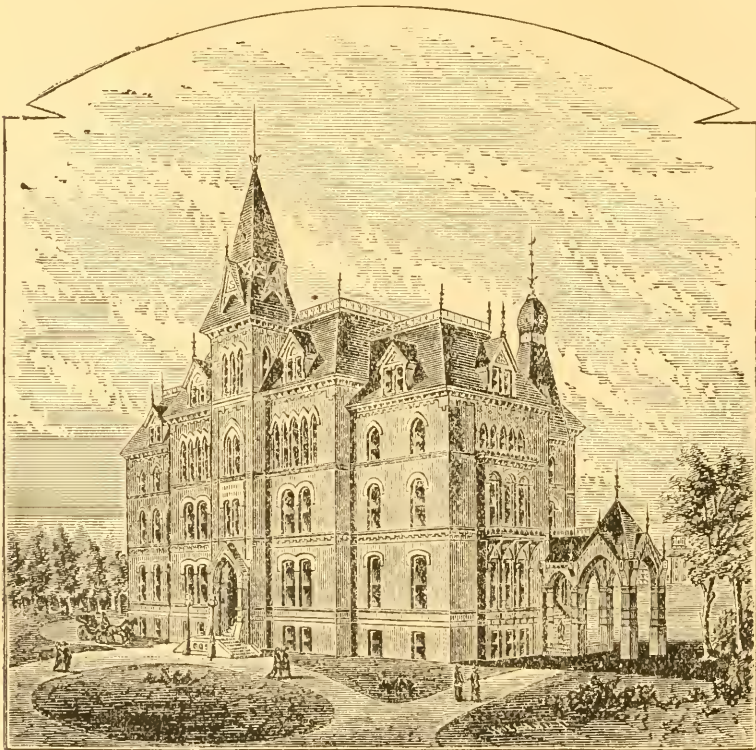
Lake Minnetonka is but twenty-five miles distant, by the St. Paul, Minneapolis & Manitoba railway.

Lake Como, four miles from the city, Prior Lake, the Dalles of the St. Croix, Lake St. Croix, the Lake Pepin resorts, are all readily accessible by some one of the sixteen railway lines that lead from the city in all directions.

Trains between St. Paul and Minneapolis leave each city every hour in the day, on two lines of railway, the run being made in thirty minutes.

HAMLIN UNIVERSITY.

"This institution, founded in the year 1854, was originally located at Red Wing, where it continued in successful operation until the year 1869. Oppressed by financial embarrassment, the trustees reluctantly concluded to close it until an adequate endowment could be secured. Red Wing not being regarded as sufficiently central, it was determined to locate it nearly midway between St. Paul and Minneapolis. Owing to the great financial depression which immediately followed, the enterprise progressed slowly, and often for months and even years was entirely suspended. Thus eleven years rolled away—a gloomy interregnum during which a generation was deprived of the opportunity for Christian culture such as their fathers had enjoyed. But the long looked for hour has at last arrived, and the reproach of Minnesota Methodism is about to be taken away. The elegant and commodious college edifice was completed and opened September 22d, 1880, with an attendance of fifty students. The second term began with 100."

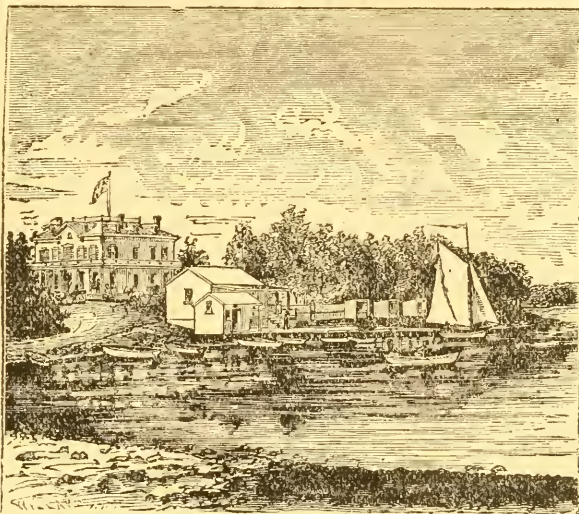


HAMLIN UNIVERSITY, MIDWAY BETWEEN ST. PAUL AND MINNEAPOLIS.

MINNESOTA FISH HATCHERY.

An establishment of much interest to every citizen of Minnesota, and to visitors from abroad as well, is the State fish hatchery, about a mile below St. Paul. Here the commissioners have labored assiduously in the work of propagating several varieties of fish to stock the rivers and lakes of Minnesota. Brook trout have been put into streams along the Minnesota river, where they have thrived, and bid fair to become a permanent addition to the list of delicacies on the tables of the people. Whitefish, California salmon, lake trout, shad, etc., have been placed in suitable waters, and some of the varieties are multiplying rapidly.

The hatchery is under the care of Mr. Watkins, formerly of Red Wing, and visitors to Willow Brook, as the place has been named, will be courteously entertained.



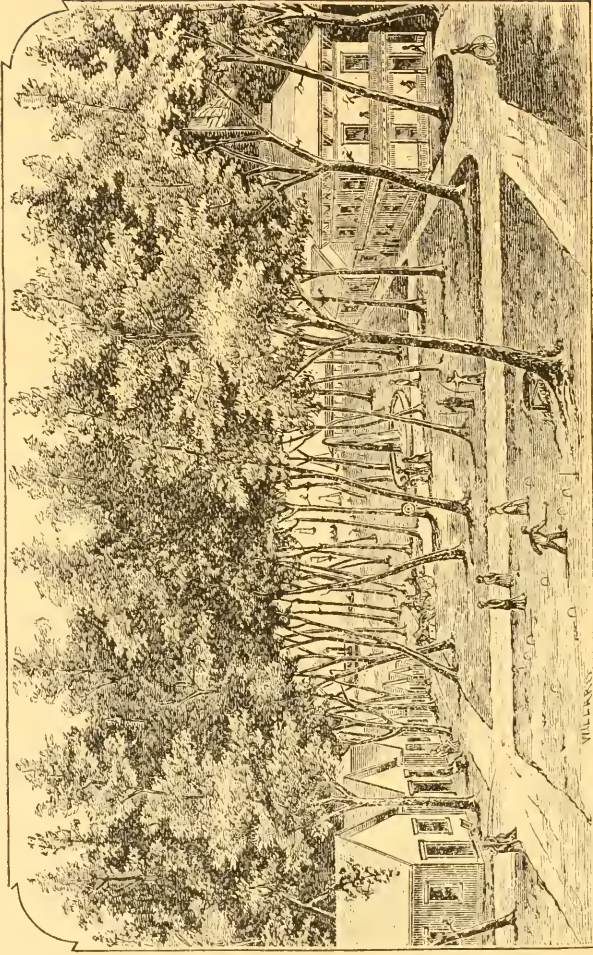
LAKE COMO, NEAR ST. PAUL.

Four miles from St. Paul, over a fine, hard, gravel road, is Lake Como, a fashionable resort of the denizens of the capital city, and a more beautiful spot does not exist, even in Minnesota. On a beautiful, cool summer evening the drive to Como is most enchanting. A short distance from the city is situated Carver's Cave, the site of the treaty between Jonathan Carver and the Indians, by which the title to large tracts of land were secured from the aborigines. Many other points of historical and natural interest can be found in the immediate vicinity of the city.

The antiquarian and lover of the curious should visit the rooms of the Minnesota Historical Society, where, besides a large library, and files of state newspapers dating back to the organization of the Territory, a Museum of Indian curiosities is kept, which will be found interesting.

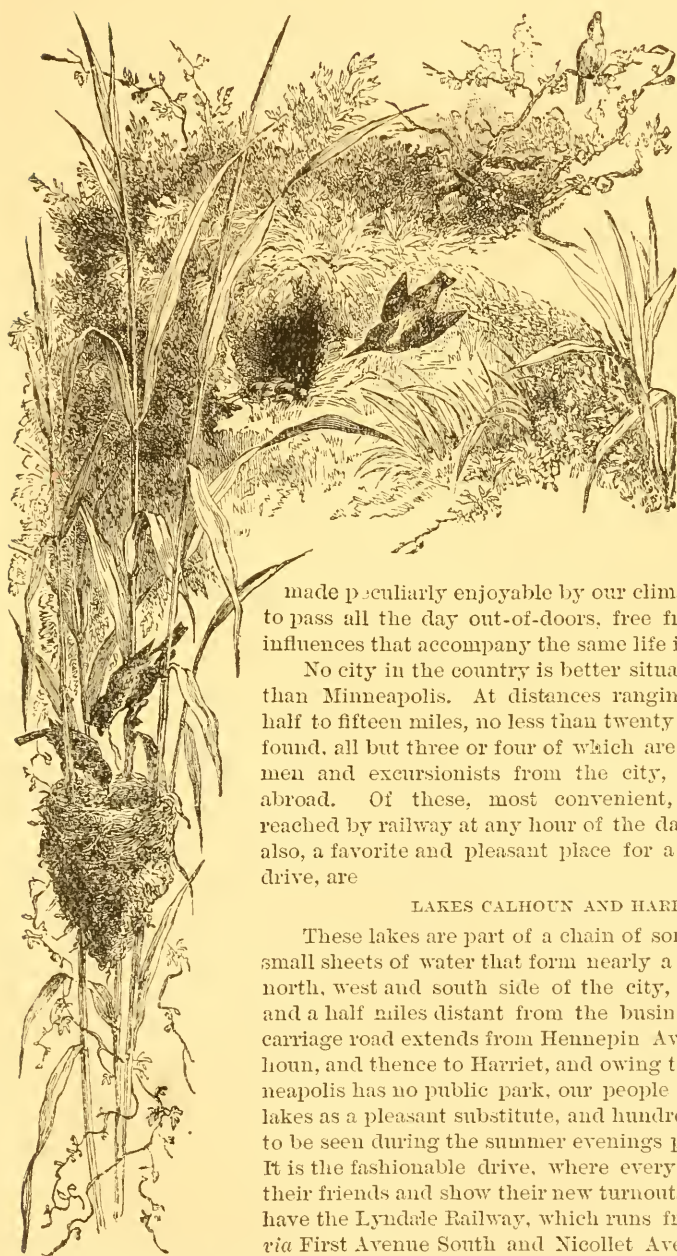
A few miles from St. Paul, on the St. Paul, Minneapolis and Omaha line, is Lake Elmo, a popular summer resort, and most beautiful and inviting retreat. A fine hotel, Elmo Lodge, affords good accommodations for guests, and is well patronized.

The Minnesota Boat Club has its boat house and grounds on the island above the bridge across the river, and it is a very attractive place in the summer.



FAIRVIEW HOUSE, OSAKIS LAKE, 130 MILES WEST OF ST. PAUL.

WHERE WE RUSTICATE



NO matter in what direction we may go, on the public highway or by rail, we find the landscape diversified by lakes, most of them surrounded by timber, many furnishing good fishing, and all beautiful. Here and there we find cottages located on pleasant sites, where in summer, a merry company may be found enjoying the health-giving sports that are

made peculiarly enjoyable by our climate, that allows one to pass all the day out-of-doors, free from the enervating influences that accompany the same life in other states.

No city in the country is better situated in this respect than Minneapolis. At distances ranging from two and a half to fifteen miles, no less than twenty large lakes are found, all but three or four of which are sought by sportsmen and excursionists from the city, and tourists from abroad. Of these, most convenient, as being readily reached by railway at any hour of the day, and furnishing, also, a favorite and pleasant place for a summer evening's drive, are

LAKES CALHOUN AND HARRIET.

These lakes are part of a chain of some twelve or fifteen small sheets of water that form nearly a semi-circle on the north, west and south side of the city, and are but three and a half miles distant from the business center. A fine carriage road extends from Hennepin Avenue to Lake Calhoun, and thence to Harriet, and owing to the fact that Minneapolis has no public park, our people have sought these lakes as a pleasant substitute, and hundreds of carriages are to be seen during the summer evenings passing to and fro. It is the fashionable drive, where every one goes to meet their friends and show their new turnouts. Besides this, we have the Lyndale Railway, which runs from Bridge Square *via* First Avenue South and Nicollet Avenue to Lakes Cal-

houn, Harriet and Minnetonka. It is operated by steam motors, and furnishes our

citizens a pleasant and convenient mode of travel to all points on the route, taking the place of the street car in the city.

Lake Calhoun is a handsome sheet of water about a mile across, its banks being partially prairie, relieved by several fine groves. An excursion steamer, owned by the Lyndale Railway, carries excursionists about the lake, and gives an opportunity to visit any of the hotels, of which there are several, or the groves on the south side. An immense building, known as the Pavilion, is located near the railway, which is used for parties during winter and summer. The Lurline Boat Club has its boat house and docks on the south side, and the lake is one of the best for their pastime. The Minneapolis Gun Club also have grounds near the lake. Lakeside Cemetery is situated on a knoll on the bank of the lake, from which a fine view can be had. It is a favorite spot for those who love to wander in the "City of the Dead," and few ever leave without visiting the tomb of the "Lady of the Lake," who has slept so many years on the banks of the lake she loved so well. There are a number of very fine monuments in the cemetery, most noticeable of which are those of the Washburn and Harrison families, which cost \$10,000 and \$7,000 respectively.

Lake Harriet is about the same size as Calhoun, but its banks have more timber, and it is generally considered the handsomer lake. There is no hotel or house of entertainment on Lake Harriet, but it has a notable attraction in the stock farm and summer residence of Mr. Chas. McC. Reeve. Lake Harriet was the location of the first mission school among the Dakotas that was opened in the wilds of Minnesota, and, we believe, the first place where the savages were given religious instruction. Both these lakes were the homes of bands of the Dakotas, and were among the last of the lakes in this vicinity to be deserted after the whites came to take possession of the land west of St. Anthony Falls.

LAKE OF THE ISLES

Is located northeast of Lake Calhoun, from which it is separated by a narrow strip of land, probably thrown up by the ice, and along which the wagon road to Excelsior, Lake Minnetonka, passes. Lake of the Isles possesses no attraction except its fields of water lilies, which are usually abundant in their season.

In the chain of lakes north of Lake Calhoun are Cedar Lake, Twin Lakes, Keegan's Lake, Crystal Lake, and some half dozen others of more or less note.

CEDAR LAKE.

Cedar Lake is located on the St. Paul, Minneapolis & Manitoba Railway, two and half miles from the city. It was formerly a pleasant resort, and quite popular with visitors and a noted camping place for city people. But from various causes it has ceased to be attractive. Its water is gradually subsiding, and it will probably become in a few years a mere marsh. This is caused, it is believed, by the boring of an artesian well near the city limits, which draws its supply from Cedar Lake.

MEDICINE LAKE.

This is one of the popular resorts at all times of the year for lovers of piscatorial pleasures. It is a famous lake for wall-eyed pike particularly, and other kinds of fish are caught in great numbers. It is located about eight miles west of the city, and is reached by the Wayzata wagon road from Plymouth avenue, the route diverging to the right a short distance from the "Farmer's Home." At Medicine Lake there is no hotel, but a party by the name of Smith keeps boats, tackle, and other accommodations for visitors. Our sportsmen all speak well of the place, and the lake furnishes more big fish stories than any other small lake in the country.

PARKER'S LAKE,

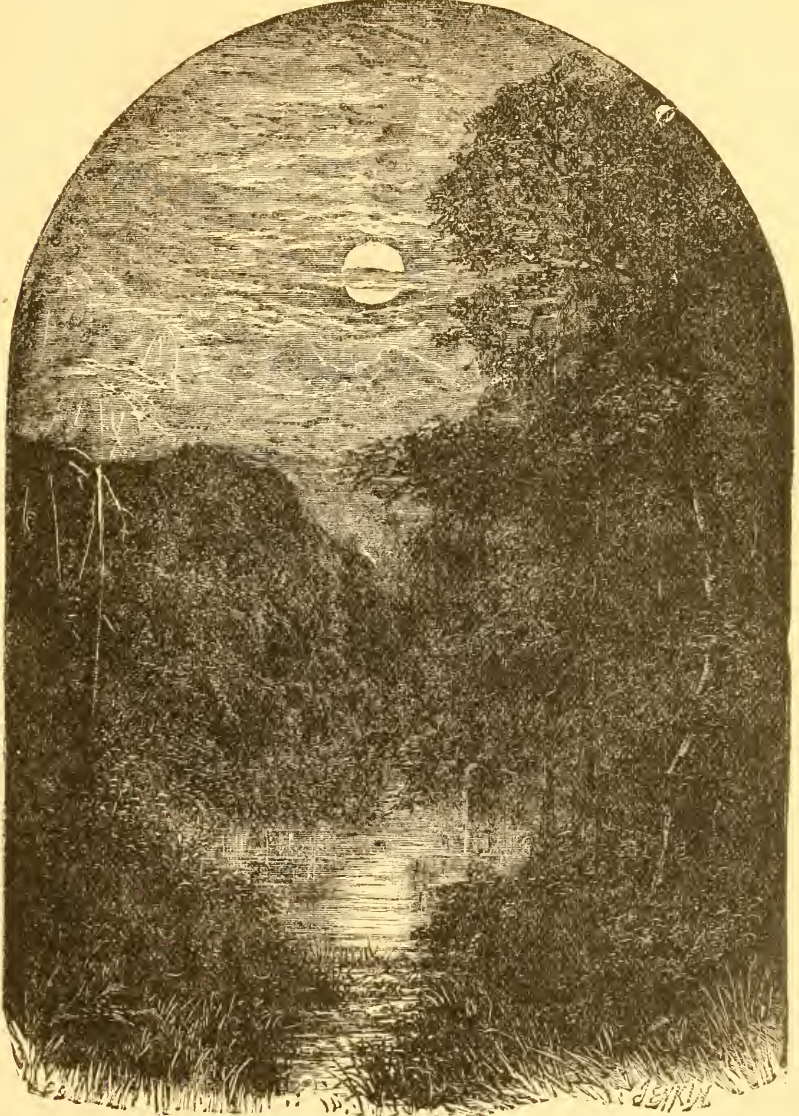
Lying to the right of the wagon road between the Farmer's Home and Wayzata, is also a profitable place for sportsmen to visit, but owing to its out-of-the-way location, is not much frequented.

Of Twin Lakes, Cedar Lake, Keegan's Lake, and a half dozen others lying west and northwest of the city, it is hardly necessary to speak, except as handsome specks

in the landscape, which add much to its attractiveness in summer and make grand skating parks in winter.

BIG MEDICINE SPRING.

One of the places that should be better known and visited more frequently than it now is, is that called "Big Medicine Spring." "Indian Spring," etc. It is located on the road leading out from Western avenue, a mile or two from the city limits. It was a noted resort for the sick of the Indian tribes who roamed in this neighborhood, and its waters are believed to possess remarkable curative properties. It bubbles out at the foot of a hill. The water does not taste nice—it wouldn't be a "medicine spring" if it did; but it is good for what ails you.





MINNEHAHA FALLS

A pleasant trip of four miles from Minneapolis on the River Division of the Chicago, Milwaukee & St. Paul Railway, or a drive by carriage over a level prairie, and we are at the Falls of Minnehaha, immortalized by poet and painter. Passing through the grounds of the hotel, we descend a steep stairway to the gorge below, and a few steps brings us to a little wooden bridge thrown across the creek. In the spring-time, when the water is high and the foliage at its best, no fairer sight than that which meets us here could be wished for.

"Stars in the silent night
 Might be enchained,
 Birds in their passing flight
 Be long detained,
 And by this scene entrancing
 Angels might roam,
 Or make their home,
 Hearing, in waters dancing,
 'Mid spray and foam,
 Minnehaha!"

As we remember it years ago, before the side of the glen was marred by the platform that now decorates its side, it was a place where one could forget that there was an outside world of noise and work and care, and the simple beauty of the murmuring cascade, with its numberless rainbows shimmering in the sunlight, gave one a feeling of rest that was delicious.

It is still beautiful, though one feels that it should have been allowed to remain as Nature formed it, and cannot but regret that the money-making propensities of man should be allowed to deform so fair and picturesque a picture.

Crossing the little bridge, we pass along the steep hillside by a rugged path to the chamber under the crest of the fall, where we look through a fleecy curtain of descending water, some thirty feet wide and sixty feet long.

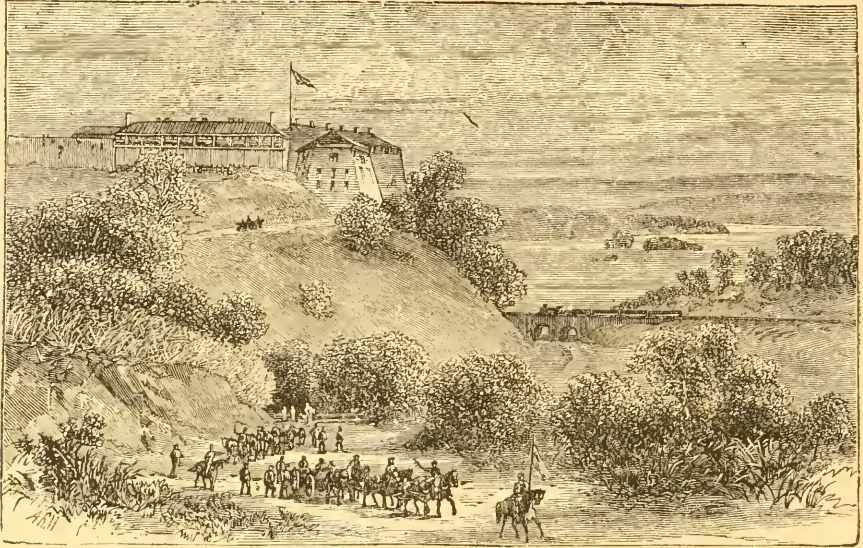
With all its summer glories surrounding it, Minnehaha is a place to be remembered; and when we have returned home, its beauty comes to us frequently in thought, standing out clear and distinct among the beautiful scenes in "The Magic Northland."



MINNEHAHA FALLS IN WINTER.

It is in winter, however, that Minnehaha is most enchanting and weird. When the ice has formed in columns from the crest to the pool below, if one can crawl into the chamber back of it, he will witness a sight that is rarely seen. It is like a fairy grotto—but cold as an Esquimaux lodge. The light passing through the ice has a similar effect as that of sunlight upon the falling water, but the colors are deeper and not so fleeting; hence we may recline on an icy couch and take in all its beauty of form and color as leisurely as we choose. With the thermometer down among the thirties the sensations are charming and enticingly romantic—but usually one does not linger long to enjoy them. Illuminations of Minnehaha used to be fashionable in winter, and were quite well patronized by the lads and lasses of the dual cities; but the enjoyment was generally most vigorous in the hotel parlors.

Minnehaha is free ground to all who wish to visit it. The property was purchased some years since from the United States government by Hon. Franklin Steele, and though offered for sale by him, a stipulation was inserted in the deed that an admission fee should never be charged for entrance to the grounds.



FORT SNELLING AND CHICAGO, MILWAUKEE & ST. PAUL RAILWAY BRIDGE.

FORT SNELLING.

Located on the heights at the junction of the Minnesota and Mississippi rivers, three miles below Minnehaha Falls, is the United States Military Post of Fort Snelling. As one of the "old landmarks" around which cluster memories of the early struggles of the pioneers of civilization with the savage tribes that have since been sent to other hunting grounds, this fort is a place of considerable interest. It is a prominent object in one of the finest landscapes in the country, and has frequently been compared by travelers to some old castle on the Rhine. Recent changes, however, have considerably changed and modernized the surroundings, and deprived it of much of its picturesqueness. The building of officers' quarters outside of the walls, and demolishing of the tower that formerly occupied the extreme point of the bluff, has given it much less the appearance of a fortification than it previously wore, although making it, probably, pleasanter for those who reside there. The fort is free to the inspection of the public, who may enter within its walls and view whatever of interest there is to be seen. In these days of peace, however, it does not present a very warlike appearance. Of incidents connected with its history many interesting stories are told, which illustrate the dangers, trials and hardships to which the early settlers were subjected, and the character of their savage neighbors. As a matter of interest we quote from the Annals of the Minnesota Historical Society concerning Fort Snelling and the early days, while the territory now included within the boundaries of our State was the home of the Dakotas:

Beautifully located on an elevated bluff, at the junction of the Minnesota and Mississippi rivers, its massive walls make a strong impression on the mind of the traveler. Within its enclosures have been quartered some of the most efficient officers of the United States army, who have received with hospitality the various scientific expeditions that have from time to time passed

through the country. On the island in front of the Fort, Pike encamped, and entered into negotiations for the site of the present fort. In 1817, Major Long, in a report to the War Department, recommended the site for a permanent fort. In 1819, three hundred men of the Sixth regiment, under command of Colonel Leavenworth, left Detroit, for the purpose of commanding the fort. On the 17th of September they established a cantonment on the south side of the Minnesota river, at the present ferry.

In the summer of 1820, when Col. Snelling had command, Fort Snelling was begun. St. Louis, distant nine hundred miles, was at that time the nearest town of any importance. After the erection of the fort, the first clearing at the Falls of St. Anthony was made and a grist mill built. The wife of Capt. George Gooding, of the Fifth regiment, was the first white woman who ever visited those beautiful Falls.

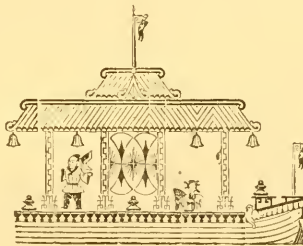
The daughter of Mrs. Clark (now Mrs. Van Cleve, a resident of this city), was born while the troops were stationed at Prairie du Chien.

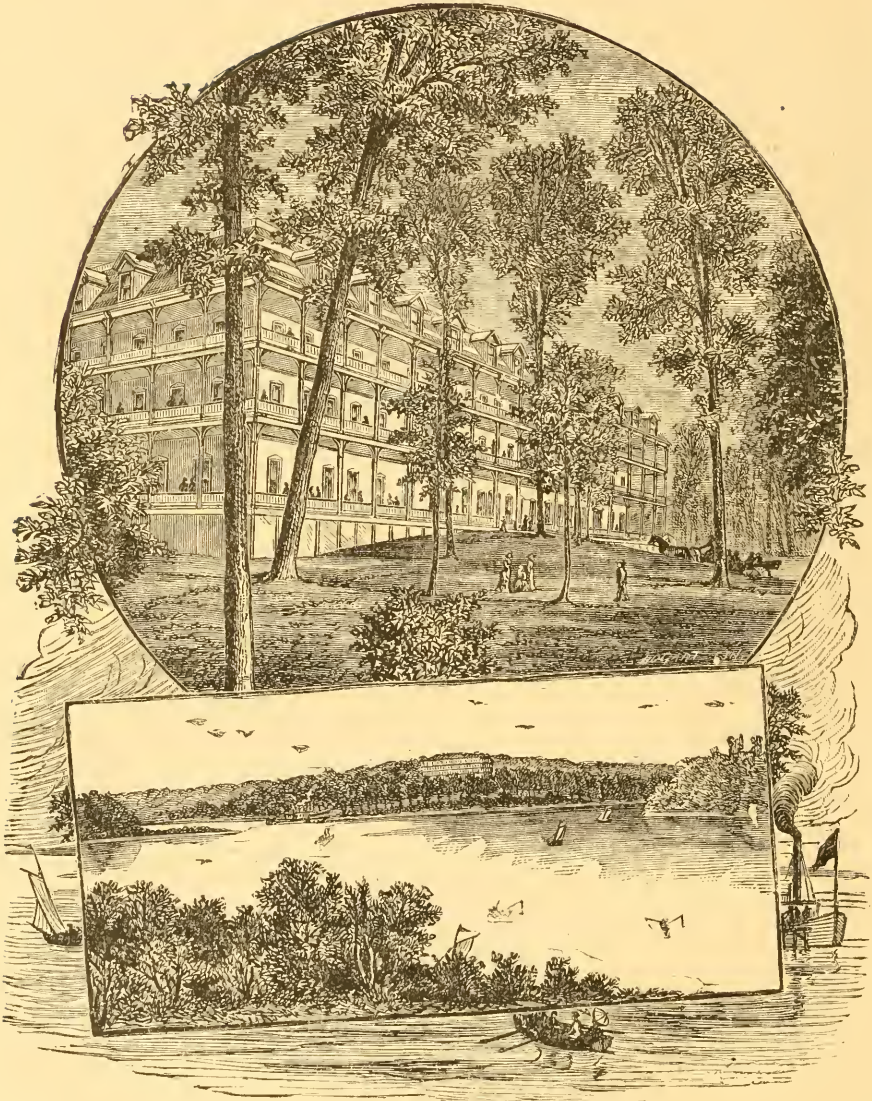
The first row of barracks that were put up were of hewn logs, the others of stone. The Fort was built in a diamond shape, to suit the ground at the extreme point. Where the tree had stood was a half-moon battery, and inside this were the officers' quarters, a very neat stone building, the front of cut stone; at the opposite point a tower. The fort was enclosed by a high stone wall, and is well represented in the drawings of it.

At the expiration of two years, the regiment moved into the fort, although not completed. The families of the officers occupied quarters in the row assigned to them. It was just before this time that Mrs. Snelling lost her youngest child—thirteen months old. The grave stone that marks its earthly remains is still in existence in the graveyard at the fort.

In June, 1823, the first steamboat made its appearance at the fort, much to the astonishment of the savages, who placed their hands over their mouths—their usual way of expressing astonishment—and called it a "fire-boat." A salute was fired from the fort, as it was expected that the Inspector General was on board; and it was returned from the boat. The Indians knew not what to make of it, and they were greatly alarmed, until all was explained. Additions were made to the society of the garrison; several officers, who had been absent, returned to their regiment, bringing wives and sisters, so that at one time the company numbered ten ladies. There were six companies, which fully officered, would have given eighteen or twenty officers, but there were seldom or never that number present at one time.

Fort Snelling is now used as a depot for troops and supplies, and a large number of new buildings have been added outside of the walls, which are occupied as officers' quarters.





VIEW OF ST. ALBAN'S BAY AND HOTEL ST. LOUIS.

LAKE MINNETONKA.



THIS is the gem of northwestern lakes where annually gather many thousands of nomadic health seekers, who find in the immense forests that surround it, in the rural homes that nestle in shady groves on the banks of its bays, and in the limpid depths of its waters the renewed vigor that comes from out-of-door life in our climate.

The Big Woods nearly encloses Lake Minnetonka in its midst, and many cozy villas are built beneath the branches of the great monarchs of the forest on its banks, while villages and hotels have sprung up at convenient and available points. Steamers ply on its crystal waters to carry pleasure seekers to their destination, and fleets of sail and row boats are to be found at all parts of the lake, to supply the demand of fishing parties.

Wayzata, the railway station on the north shore of Lake Minnetonka, is reached from Minneapolis and St. Paul by the St. Paul, Minneapolis & Manitoba Railway, the distance being fifteen miles from Minneapolis, and twenty-five miles from St. Paul. Excelsior, on the south side of the lake, is reached from Minneapolis *via* the Minneapolis & St. Louis Railway, and the Minneapolis, Lyndale & Minnetonka Railway. The two lines to Excelsior are now being built, and it is expected will be completed some time in July. Until their completion, passengers for Excelsior go *via* the St. Paul, Minneapolis & Manitoba Railway to Wayzata, and from thence by steamer.

During the summer trains are run to accommodate business men who have summer residences on the lake, and trip tickets, good until used, and commutation tickets, to be used within a limited time, are sold at greatly reduced rates.

The various points about the lake are reached by steamers, which make regular trips to meet trains to and from the city. There will be this season at least six passenger steamers, viz: one side-wheel, one stern-wheel, and four propellers.

The past season has been the most prosperous one in the history of Minnetonka as a summer resort, over twenty thousand round-trip railway tickets having been sold to the lake, and thirty-five thousand round-trip passengers carried on steamers. The latter does not include those who occupy villas that can be reached without taking passage on the steamers.

The "Big Water" is a curious aggregation of bays, and is a wonder in itself. With a length of over thirty miles and a breadth of about three or four miles at the widest part, it has a shore line of over two hundred miles. Its undulating shore, bold headlands or points, high, forest-covered banks, and constantly changing views, as seen from the steamers, constitute its great charm, and make it unlike any other lake in the world. One may pass weeks in sailing about its bays, and on every expedition encounter something new and charming. The angler always finds ample employment in securing the bass, pickerel and croppie that abound in all parts of the lake. There is a summer home on its banks for every one. The palatial hotels of Minnetonka Park, Carson's Bay, "Breezy Brow," and Crystal Bay, Mound City, Shady Isle and Excelsior, open their halls to the fashionable and the unfashionable alike. The sick and the well, the grave and the gay, all find places in the crowds of people who enjoy the excursions, the dancing and merry-making, or seek rest in the quiet homes that overlook the blue water.

Those people who wish to avoid the noise and bustle of hotel life, can find pleasant homes in the village of Excelsior, or in the retired nooks about the lake, where the air is laden with the perfume of fruit blossoms and sweet scents from rustic



WAYZATA, NORTH SHORE OF LAKE MINNETONKA.

flower beds, and where glimpses of blue water may be seen through vistas of green trees; where one may dress in old clothes, and swing lazily in a hammock, or recline on a velvety couch of moss at the foot of some venerable old maple, and dream of the dusky Indian maids and braves who dwelt here only a quarter of a century ago, or of the adventures on the last fishing excursion. They are places where one feels a sense of rest and relief, and a longing to stay awhile longer when the time comes to go back to labor, and the turmoils of life.

In the thirty miles travel required to make a tour of the lake resorts by steamer, one sees many beautiful views, which are constantly changing as we pass from bay to bay. The broad and expansive scenes of lake and forest as we pass out of Wayzata Bay into the larger bay to the west, where we take in views of Point Wagon, a curious promontory where the Indians were wont to assemble for their wild feasts and dances about the medicine stone, said to have been painted red with the blood of slain enemies, and on which each brave deposited the scalps he had taken in his forays; Spirit Island,

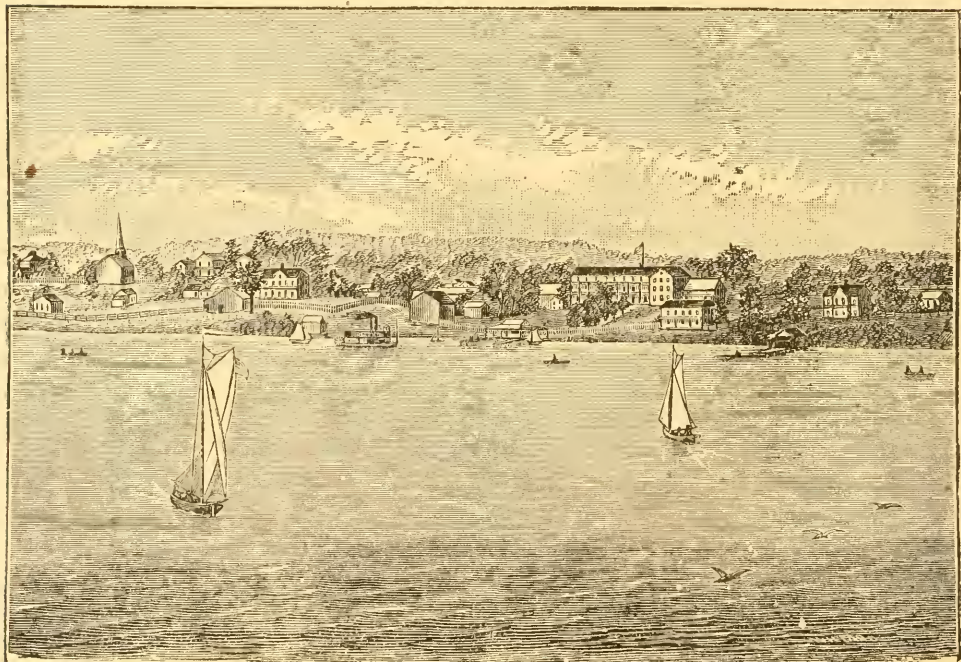


BATHING GROUNDS AT EXCELSIOR, LAKE MINNETONKA. where the lovely Indian maid was sacrificed to appease the spirit of a Dakota warrior who in life was fain to take her to his "tepee," but from whom she fled to join an Ojibway chief, who slew his rival to secure the maiden, out was afterwards taken and tortured at the stake; of Point Lookout, with its half dozen beautiful villas, embowered in trees, high above the lake; of Breezy Point, with its club houses, Maple Wood, with its comfortable cottages, and the twin cottages of Cozy Nook, all very near neighbors, where crowds of happy people lounge on piazzas, swing in hammocks, or sail in boats about the bay; of Starvation Point, which has a legend of sickness and wolves and almost death, in the old days, but is now enlivened by groups of ruddy cheeked lads and lasses, and comfortable elderly people, who come out to catch fish and cultivate appetite and muscle, and, by roughing it in the bush, acquire a vigorous condition of bodily health which may last them through until next vacation; Big Island looms up in the midst of all, with its beautiful points, covered with grand old maples, where are seen dozens of white tents, with innumerable loungers, making themselves generally comfortable. South of Big Island we glide by Northome, a large and handsome villa. Carson's Bay, with its Hotel St. Louis, where the Minneapolis & St. Louis railway trains deposit passengers who wish to take to the steamers or stop at the hotel, is one of the almost hidden nooks, invisible until we are nearly opposite it, when it affords us a handsome view. On the south shore are Ingleside villa, Wood Grove and Moss Bank. On further we see a romantic little island, called, for short, Gale's Island, but christened "Brightwood" by its owner.

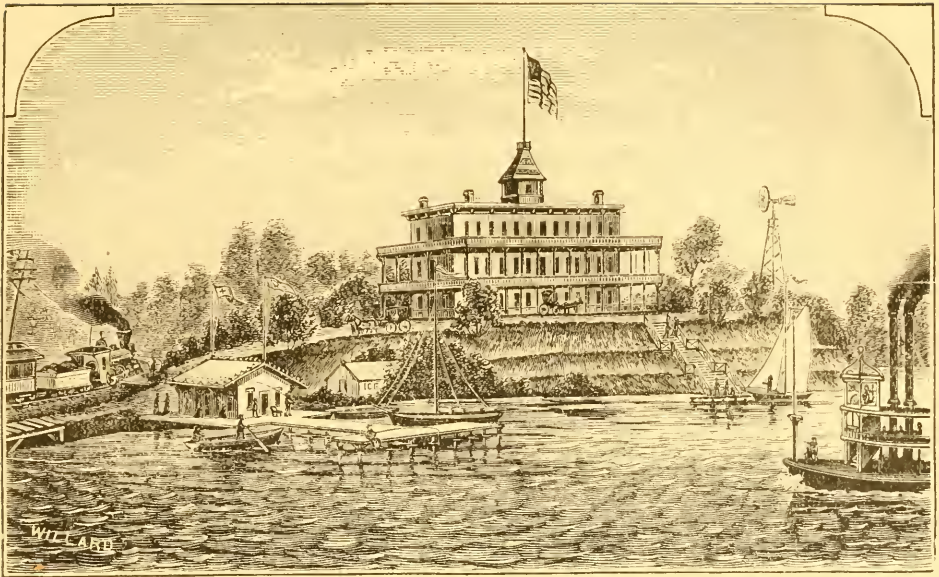
The village of Excelsior is located on the southwest side of this large bay, on a peninsula of hills, lying between two bays, and extending out on a high ridge known as the Commons—set apart as a public pic-nic grove and camping ground, where hundreds of the visitors go to bathe.

Excelsior is a village of about 400 inhabitants, who generally devote their time in summer to caring for their guests from abroad. The summer boarding houses are numerous, and their proprietors are kindly people who have acquired the reputation of trying to do their best for their boarders, and asking only a reasonable compensation therefor—a feature, by-the-way, that is worth mentioning, and one which applies to most of our Minnesota resorts. Excelsior is the center of business for the lake and country south of it, and boasts of a large trade. It is naturally adapted to a summer resort, having high ground, ample shade, and a diversity of lake scenery. Fine drives extend in various directions into the country back of it, where well-kept farms, with large orchards and fruit gardens vary the monotony of a forest drive. Dozens of picturesque little lakes are sprinkled about promiscuously, where one can shoot ducks in season, and gather pond-lilies any time during the summer, and catch the largest and gamiest of pickerel and bass.

A mile west of Excelsior is located Minnetonka Lake Park, a tract of 225 acres of forest land, on a peninsula bounded by Gideon's Bay, the main lake, as it is called, and the Narrows; Gideon's Bay is a sheet of water setting back between the Excelsior shore and the Park for over a mile, and its banks are destined to be the future summer home of a host of people who will build cottages. On the Excelsior side of the bay, a number of gentlemen from Iowa City and Burlington, Iowa, have started a summer settlement which they call "Iowa City Park," where they have already built four cottages, and made other improvements. They own a fleet of small boats and a steam pleasure yacht, and are well enough "fixed" to enjoy life most pleasantly, especially as they are all enthusiastic lovers of the lake and its pastimes. Adjoining Iowa City Park on the west is Belleview, with two charming cottages.



EXCELSIOR, SOUTH SHORE OF LAKE MINNETONKA



ARLINGTON HOUSE, WAYZATA, LAKE MINNETONKA.

Lake Park is the last stopping place for steamers on the trip to the Upper Lake resorts, and is distant by the route the steamers traverse, from Wayzata, at least six miles. There are many points north of the Narrows, in Lower Lake, which the tourist should visit, if he remains long enough to do it leisurely, especially as some of the most prolific fishing grounds are to be found in the bays of the North Arm.

The new line of the St. Paul, Minneapolis & Manitoba railway extends along this part of the lake, and its completion the coming season will open up large tracts of valuable lake shore property which has heretofore been inaccessible to the general traveler, and extensive improvements are contemplated by Messrs. Angus, Hill and Shepherd, which are not, at this writing, definitely determined, but will include the erection of a magnificent hotel, to cost about \$150,000, and the creation of a grand park for summer villas.

A very handsome property, located opposite the head of Big Island, known as Buena Vista, is owned by Messrs. Potter and Huntington, of Minneapolis, who built three or four neat cottages, some of which have been sold to parties for summer homes.

Passing through the Narrows, which is a narrow channel connecting the two large bodies of water, designated for convenience as Upper and Lower Lakes, we sail through a succession of bays, with high banks, covered with primeval forest. An occasional clearing is visible as we pass along, but most of the main shore and a greater part of the islands have been left almost unimproved, being only partially thinned out to supply the demand for fuel.

On the left, after leaving the Narrows, we pass a high point, where the State Fruit Farm is located; one of those experiments that legislators are sometimes led to aid. Its mission is to propagate hardy varieties of fruit.

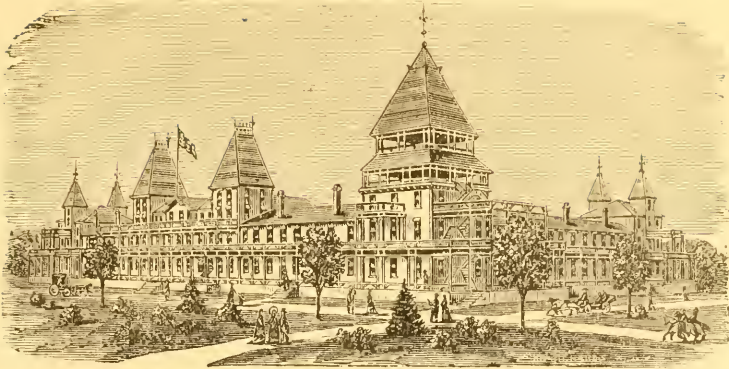
Spring Park, on the right, is one of the improvements begun last season, and one that promises to be of considerable magnitude. The St. Paul, Minneapolis &



VIEW FROM HOTEL ST. LOUIS, LAKE MINNETONKA.



VIEW FROM LAKE PARK HOTEL, LAKE MINNETONKA.



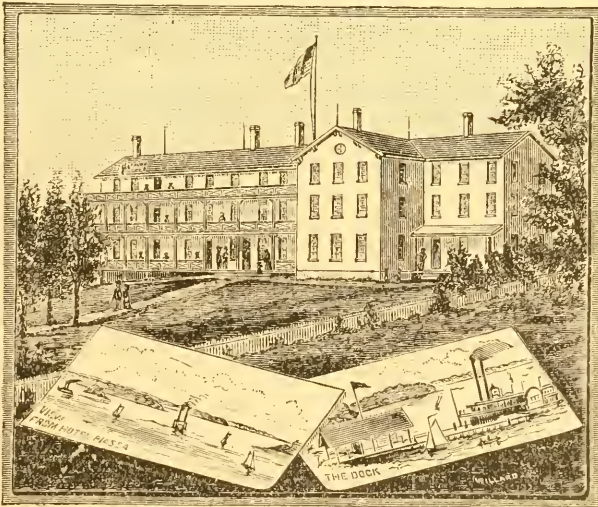
LAKE PARK HOTEL, LAKE MINNETONKA.

Manitoba branch line has a station at Spring Park, which gives it the benefit of communication both by land and water. It is a fine tract of woodland, well adapted for a village of villas, and as lots are sold at fair rates, there is every reason to believe it will be a successful venture. Some fifteen or twenty were sold last summer, on which, we understand, cottages are to be built within a time limited by the terms of sale.

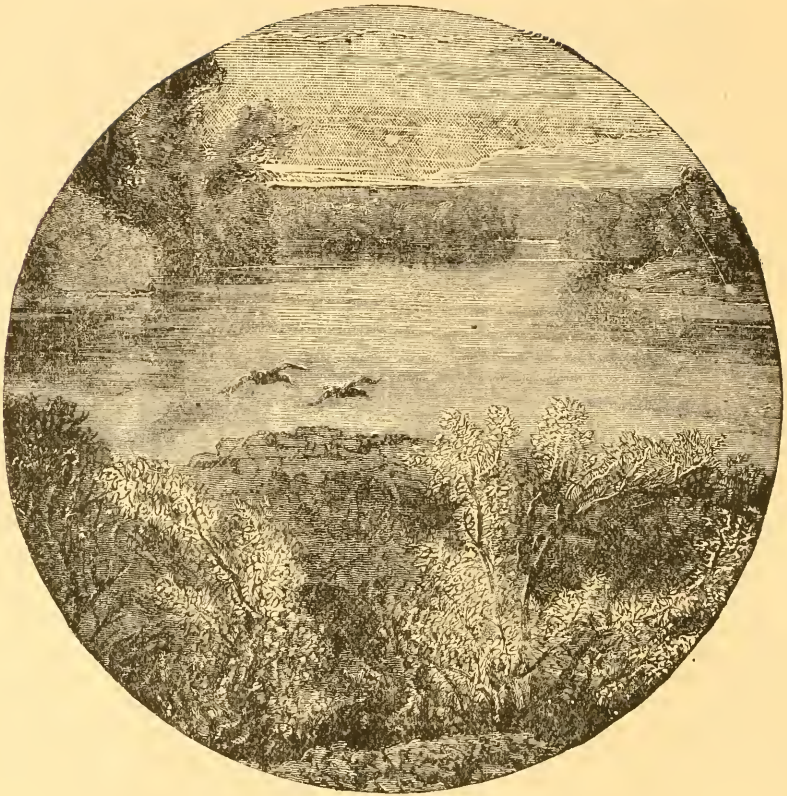
A little further on we pass Shady Isle, whereon a large summer resort hotel—Hotel Harrow—is located. Opposite Shady Isle, is a long point known as Howard's Point, on which are two villas—Hazeldene and Idylwild.

The beautiful islands of Upper Lake form one of its most attractive features, giving a variety and wildness to the scenery which is pleasing to the eye. Fire Fly (or Dunlap's) Island a summer home, is one of the most romantic spots one could desire.

Enchanted Island is the enchanting home of Mr. and Mrs. Chas. Zimmerman, who have spared no pains in its adornment. Phelps Island, containing over three hundred acres, is one of the finest pieces of property on the lake. Crane Island, one of



EXCELSIOR HOUSE, LAKE MINNETONKA.



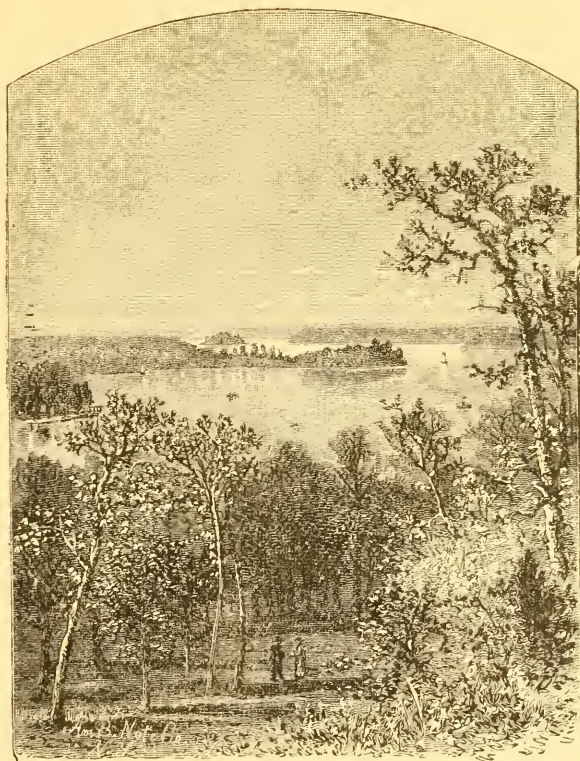
CRANE ISLAND, UPPER LAKE MINNETONKA.

the curiosities of the Big Water, is noted as the home of myriads of birds—blue heron, cormorant and buzzard disputing possession, and keeping up a perpetual struggle for the spoils. The steamers usually pass Crane Island during the trip, to enable the passengers to get a sight of the birds, which are sometimes put to flight by the scream of the whistle.

The Hermitage, located opposite Crane Island, is one of the most interesting points on Lake Minnetonka, its history possessing romantic as well as sad features. It was for years the residence of Capt. Frank Halstead, a gentleman of rare talent, and qualities which made him loved by all who knew him. He was one of the earliest settlers on the lake, and lived unmarried, though seldom without companions. Loving his lake home, he surrounded himself with many comforts, among which were a sailing yacht, boat and a small well selected library. He adorned his cabin walls with engravings and chromos of nautical scenes, displaying considerable taste in their selection. Serving four years in the navy during the war, he came back to his cabin prepared to enjoy its peaceful rest with even greater zest than before, and passed his days in apparent content. Fond of society, and a companionable man, he had many calls from tourists, whose company he always seemed to enjoy. Thus he lived until the winter of 1876, when he began the building of the steamer *Mary*, which, when the hull was ready for the machinery, was taken to Excelsior, where he remained until

she was taken out on a trial trip. For some cause he grew moody and depressed, and one day in June left for the city, where he transacted business which indicated that he meditated the commission of the deed which ended his earthly career. He was missing for a fortnight before search was made, and his body found off the shore of Crane Island, opposite his cabin. He rests in a grave on the banks of the lake, on the spot where he was accustomed to pass his leisure hours in reading, and overlooking a scene which for beauty has no parallel on the continent.

Reaching out from the Hermitage, to the Northward, extends a long point known as Hardscrabble, west of which is located a handsome villa called Mapleshade, owned by Mr. W. T. Whitehouse, of St. Paul. It is elegantly fitted up with the modern con-



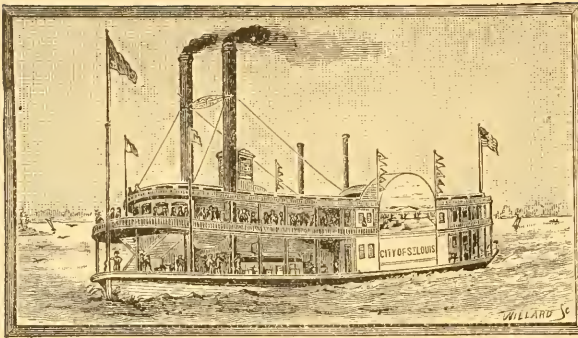
CRYSTAL BAY, LAKE MINNETONKA.

veniences of a city residence, and its owner, with dogs, gun, boats and all sorts of hunting paraphernalia, enjoys life, making it a permanent home.

Mound City is the next on the route. Here is located the Chapman House, kept by Sumner M. Chapman, where passengers may stop to dine. A boarding house is also located near the hotel.

A little farther on is the Lake View House, kept by T. B. Carman, where the steamers also land passengers to dinner.

The excursion is made daily by from three to five steamers, which gives passengers nearly three hours for dinner at Hotel Harrow, the Chapman House, or Lake View House, or for pic-nic-ing at Spring Park, or at any pleasant point where they may choose to land.



HOTEL ST. LOUIS.

Hotel St. Louis, illustrated on page 86, is one of the most complete summer resorts in the Northwest, and one of the many new features and improvements that has placed Minnetonka among the leading pleasure resorts of the American continent. It was the first first-class hotel to be built on Lake Minnetonka, having been begun in Jan-

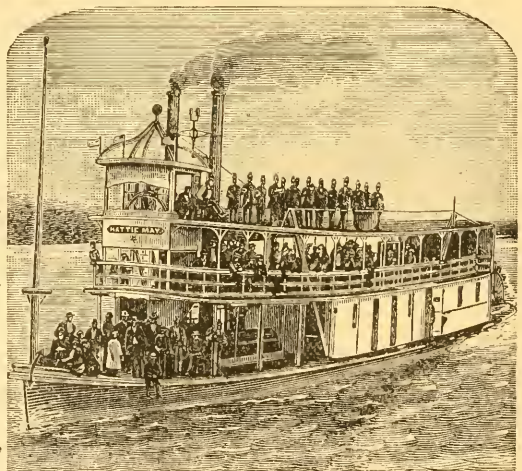
uary 1879, and opened in the next July. It is very complete in all its departments, having capability of caring for 400 guests, with a location affording the most extensive views of the lake and surrounding country, and accessible by carriage road from the city. The Minneapolis & St. Louis railway line passes but a little distance in the rear of the hotel, so that tourists from the South may be set down here without being compelled to go to Minneapolis. The patronage of last season from the South was very large, and the house opens this year with the promise of a large increase in the business, caused mainly by the excellent manner in which it was kept last season, and by the attractiveness of Lake Minnetonka as a health and pleasure resort.

MINNETONKA LAKE PARK HOTEL.

The largest tract of land included in the grounds laid out for a park at any summer resort in the West, is that embraced in what is known as Minnetonka Park. It is located on a peninsula of 250 acres, with a lake shore frontage of about five miles, including that portion of the tract lying along the Narrows. This shore is nearly all hard beach. Nearly the entire tract was covered by large forest trees when purchased by the association in 1879, but has since been cleared out to make room for carriage ways, building the hotel and cottages, and to give free passage for the lake breezes. Something over \$60,000 has been expended during the past two years in surveying and laying out the grounds, grading roadways, building docks and boat houses, and in erecting the immense hotel. J. W. Hutchinson, the lessee of this hotel, has made it one of the most popular hotels in the Northwest.

HOTEL HARROW.

Shady Isle, in Upper Lake, where Hotel Harrow is located, is well known as one of the very pleasant spots of Lake Minnetonka. The hotel was first opened last season, and has since been considerably enlarged and many conveniences added. Maj. Harrow, its proprietor, is a well-known hotel man from the south, to whom the honor belongs of building the first strictly first-class hotel on Lake Minnetonka, viz., Hotel St. Louis, which was the dawn of the new era, which has since brought us the Lake Park Hotel, the Arlington, and Hotel Harrow, and in the

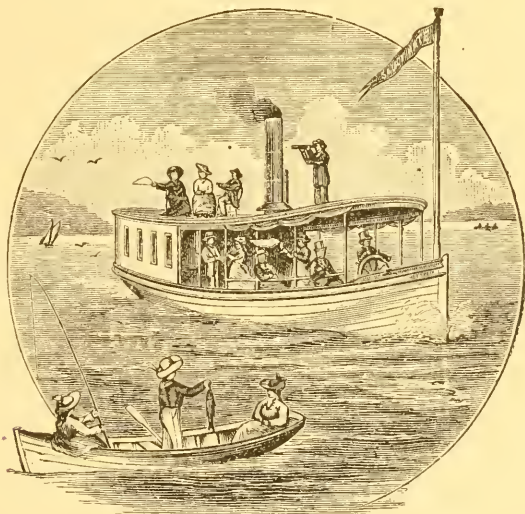


train of events vastly improved the business of caring for tourists from abroad. With a location second to none for beauty, immediately on the steamer route, and in the midst of the best lake fishing in America, Shady Isle surely has rare attractions.

There are many hotels and boarding houses, boat fleets, business houses, etc., on Lake Minnetonka, worthy of description, but as it would largely encroach on the space to which this work is limited, we are compelled to omit it, and instead present the following directory, taken from the current season's numbers of the *TOURIST AND SPORTSMAN*, for which it was compiled :

HOTELS.

Arlington House, Wayzata, 100 rooms, G. G. Hyser, proprietor. Chapman House, Mound City, 40 rooms, S. M. Chapman, proprietor. Excelsior House, Excelsior, 50 rooms, H. F. Wait, proprietor. Hotel Harrow, Shady Isle, 40 rooms, T. A. Harrow, proprietor. Hotel St. Louis, Carson's Bay, 125 rooms, Eginton, proprietor. Lake View House, Upper Lake, T. B. Carman, proprietor. Minnetonka Park Hotel, 150 rooms, J. W. Hutchinson, proprietor.



PROPELLER SAUCY KATE.

BOARDING HOUSES.

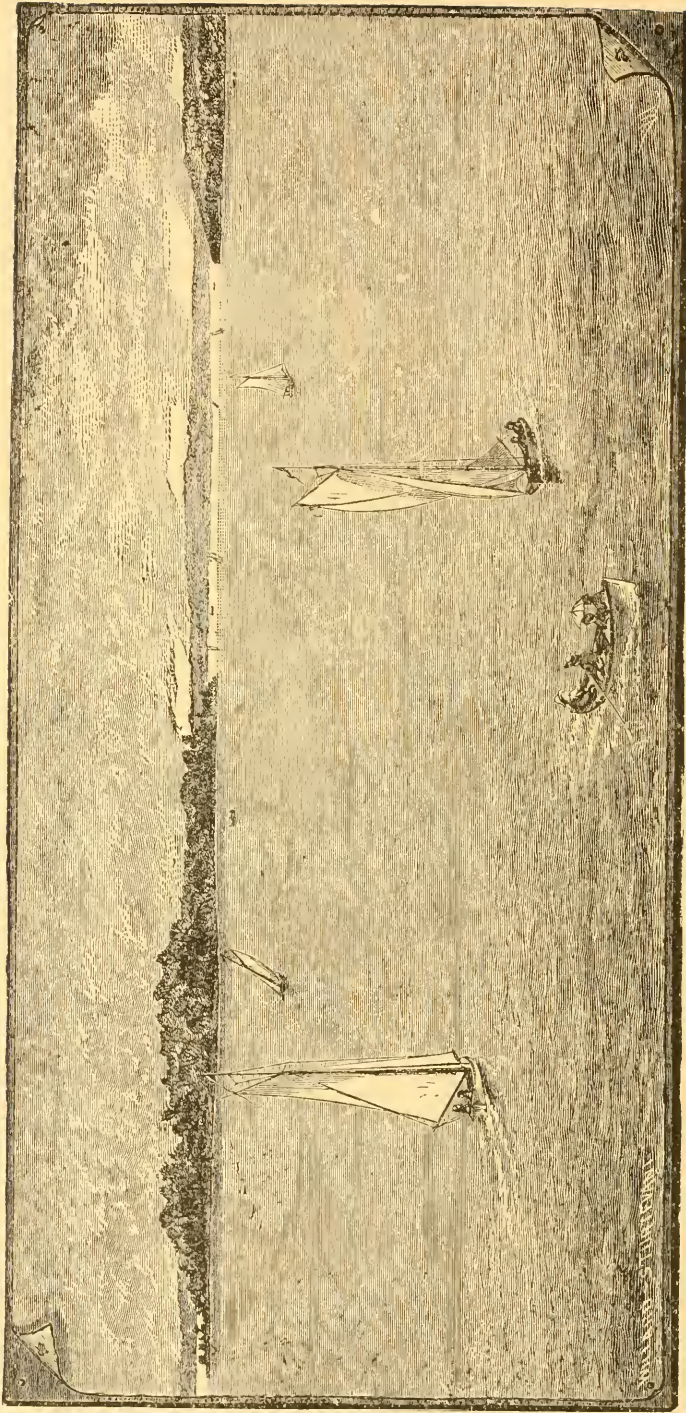
Appledore, H. H. Beers, proprietor, Excelsior. Central House, G. S. Slater, proprietor, Excelsior. Clark House, J. H. Clark, proprietor, Excelsior. Harrington's, $\frac{1}{2}$ mile from Wayzata, J. S. Harrington, proprietor. Long View House, D. Connor, proprietor, Excelsior. May Place, Mrs. C. May, proprietor, Excelsior. Mound City House, Mound City, Seymour A. Chapman, proprietor. Pleasant Grove, E. H. Page, proprietor, Excelsior. Pleasant View Cottage, Howard's Point, H. C. Keith, proprietor. Summit House, Mrs. M. H. Jones, proprietor, Excelsior. White House, Wm. Simpson, proprietor, Excelsior.

BOARDING RATES.—Prices of board range from \$8 per week upward, according to rooms selected. Transient rates \$1.50 to \$3 per day. At leading hotels \$2.50 per day is the lowest.

PASSENGER STEAMERS.

Steamer City of St. Louis, side-wheel, with capacity for 800. Steamer Hattie May, stern-wheel, with capacity for 350. Propeller Lotus, with capacity for 250. Propeller City of Minneapolis, with capacity for 200. Propeller Nautilus, with capacity for 50. Propeller Saucy Kate, with capacity for 50. Propeller Mercury, with capacity for 75.

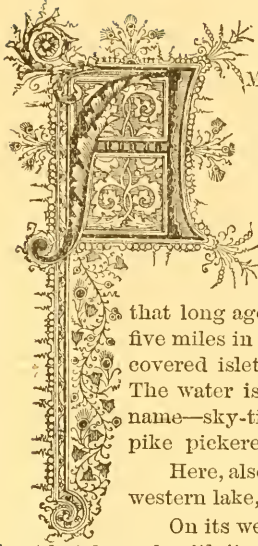
A supply steamer, called the Jennette, has been put on by A. Thompson, of Excelsior, which carries a complete stock of groceries and provisions, to fill orders of campers and persons occupying villas about the lake. It makes daily trip around the lake to supply customers and take orders.



WHITE BEAR LAKE.

W. H. STURGEON

WHITE BEAR LAKE



AMONG the numberless pleasure resorts of the Magic Northland, none have attained a greater popularity than White Bear Lake, which is located at the junction of the St. Paul & Duluth and Minneapolis & St. Louis Railways, about twelve miles from Minnesota's largest cities: Minneapolis, St. Paul and Stillwater.

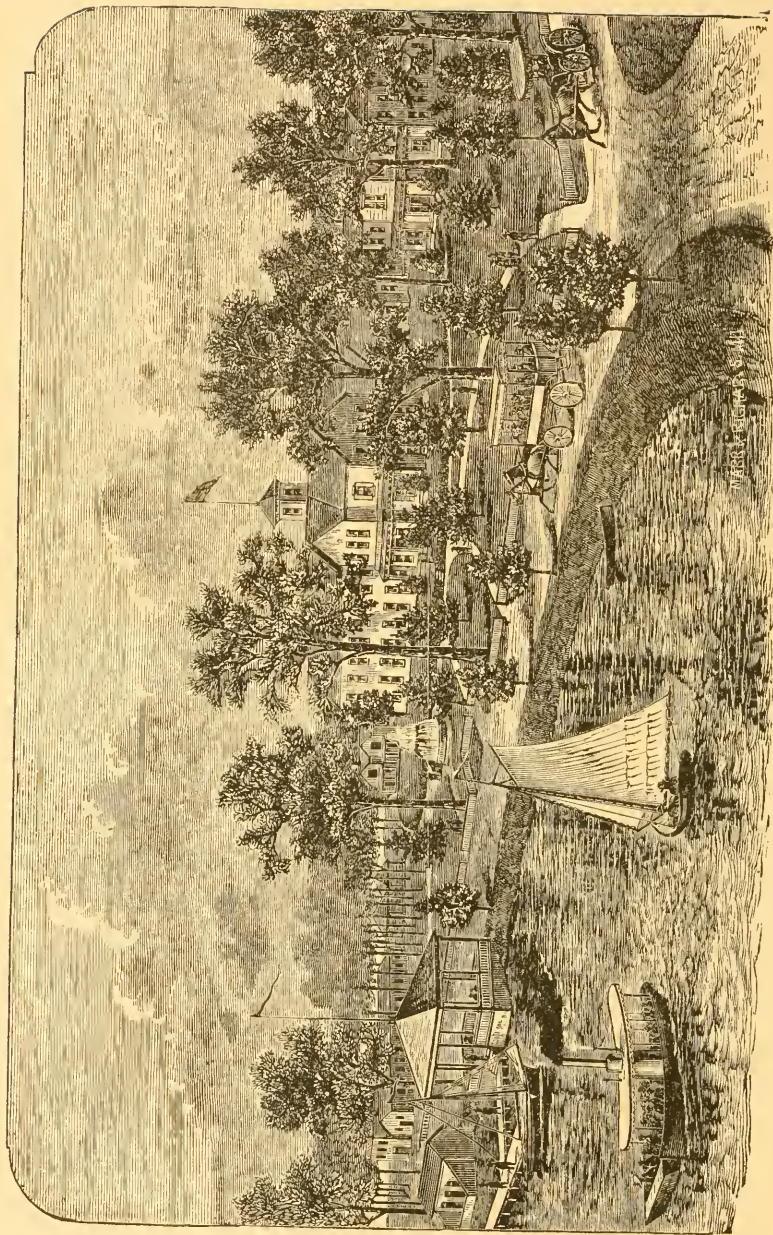
Covering a surface of about 4,000 acres, with banks covered with the finest of forest trees, and beaches of pebble and sand, White Bear presents a combination of scenery that long ago gave it the title of Minnesota's gem. It is about four or five miles in length, and is nearly divided lengthwise by a long, forest-covered islet, located nearly midway between its east and west banks. The water is transparently pure, of the color that gave to our state its name—sky-tinted—and from its depths the angler tempts the wall-eyed pike pickerel, black bass, red-eye or rock bass, croppy and perch.

Here, also, floats the largest fleet of sailing yachts to be found on any western lake, and many of them of elegant model and costly finish.

On its western and southern banks are to be found large and well-kept hotels, each with its modest cottages and handsome villas for the use of guests. On its western bank are a large number of elegant villas, owned by wealthy business men of St. Paul, who send their families here to reside during the summer, and join them each evening after the close of business.

Some of these villas are models of simplicity and taste, while others are more pretentious models of elegance, but all built with a view to harmony with the beautiful surroundings of lake and forest, and for securing to their inmates the greatest amount of comfort and pleasure. There is a noticeable absence of everything showy or tawdry, the owners seeming to have studied the convenience and pleasure of their families, rather than to have made an effort at show.

White Bear is the oldest summer resort in the State, and consequently is far advanced in many of the conveniences required by fashionable people who do not care to indulge in the wild and sometimes inconvenient modes of life found at our less developed watering places. Camping out at lakes remote from the cities is accompanied by many inconveniences and discomforts, which are submitted to and borne as a necessary accompaniment of a nomadic life. But here at White Bear we find it reduced to a science, and see encampments large enough to be called villages; the tents being as comfortably and even luxuriously furnished as their bed-rooms and living-rooms at home. While these camps present all that is elegant and tasteful and luxurious in their furniture and fittings, there are many at other parts of the lake where fun and frolic and wild life are all taken in the old original way, with a tent for shelter, a blanket on the ground for a bed, a fire-place of three or four stones and a log or two, and a stick laid across two forked stakes for cooking the "grub;" tin pans and cups and iron spoons and knives, and abundant supplies of fresh fish, caught



HOTEL LEIP AND COTTAGES, WHITE BEAR LAKE, TWELVE MILES FROM ST. PAUL AND MINNEAPOLIS.



GOOSE LAKE, ADJOINING WHITE BEAR LAKE.

for each meal; and perhaps the Arabs who thus let the natural inclination of man have its full sway enjoy it quite as much as the more refined occupants of the dainty tents on the west shore.

The recesses of "Spirit Island," and the eligible spots on "Camp Point," as well as the shady nooks of the "Peninsula," all have a liberal display of whitetents. The bays and favorite resorts where the fish are supposed to congregate, are haunted by fishermen and fisherwomen, who know "just where to catch 'em," from early morn until evening, and music and laughter are heard at all parts of the lake.

Being so near the large cities, with railways running from four to six trains a day for the express accommodation of pleasure-seekers and the business men who live in cottages, it is no wonder that White Bear has attained its present popularity. One can here enjoy all the benefits of refined society, religious services on the Sabbath, society entertainments of all kinds, even to the inevitable strawberry and ice cream festival once a week, for the benefit of the heathen in the neighborhood, lectures, readings and private theatricals—the latter an indispensable adjunct to watering place amusements; "music by the band" once or twice a week—"regatta concerts" they call them—winding up with a good, old-fashioned, rollicking dance in the pavilion or dining room, or a more stately affair in the parlor, are all on the list of amusements.

We have omitted the pic-nics and sails on the lake, but with so many shady spots on the banks, and sail-boats on the lake, they follow as a matter of course.

White Bear is a popular place for pic-nics; they come from all the cities, and settle down on one of the many pleasant places devoted to this purpose, and find all the enjoyment that the average pic-nic can yield.

The encampment of the Knight Templars of St. Paul will probably be one of the great attractions here during August.

In the vicinity are numerous lakes where fishing and duck hunting are profitable pastimes, and two railway lines furnish facilities for reaching the St. Croix, Chisago Lakes and Lake Superior resorts.

From four to six trains a day are run between White Bear Lake and St. Paul, and two between the Lake and Minneapolis, the round trip from either city costing but fifty cents. Board at the lake ranges from \$8 to \$14, according to accommodations.

The village of White Bear has a population of about two hundred, and included in its business establishments are three hotels, viz: Hotel Leip and cottages, the Williams House, and the White Bear House; several good private boarding houses; a large and well-filled general store, kept by Getty & Son; meat markets, restaurants, and the well-known Leaman boat yards. Hotel Leip and the Williams House have large fleets of row and sail boats connected with them, and a large fleet is kept at Lake Shore Park.

In the country surrounding White Bear are numberless smaller lakes, some of which possess attractions for camping parties, while others are sought for fishing and duck hunting. Adjoining White Bear Lake, and separated from it by a very narrow strip of land, is Goose Lake, which is a favorite resort of old sportsmen, who make Hotel Leip their headquarters. The hotel grounds lie between the two lakes, and it is but a few steps to the shores of either.

Bald Eagle Lake, a lovely sheet of water, full as handsome as White Bear, but not so large, lies a mile west of the latter. It is full of fish, and has high, picturesque shores. A few cottages have been built there by summer residents. A splendid mineral spring is one of the attractions for invalids. It was walled up with marble, and a handsome pavilion erected over it, some years since, by Dr. Post, a St. Paul physician, since deceased, who also built a summer residence near by. This lake is much



GREEN LAKE, NEAR WHITE BEAR LAKE.

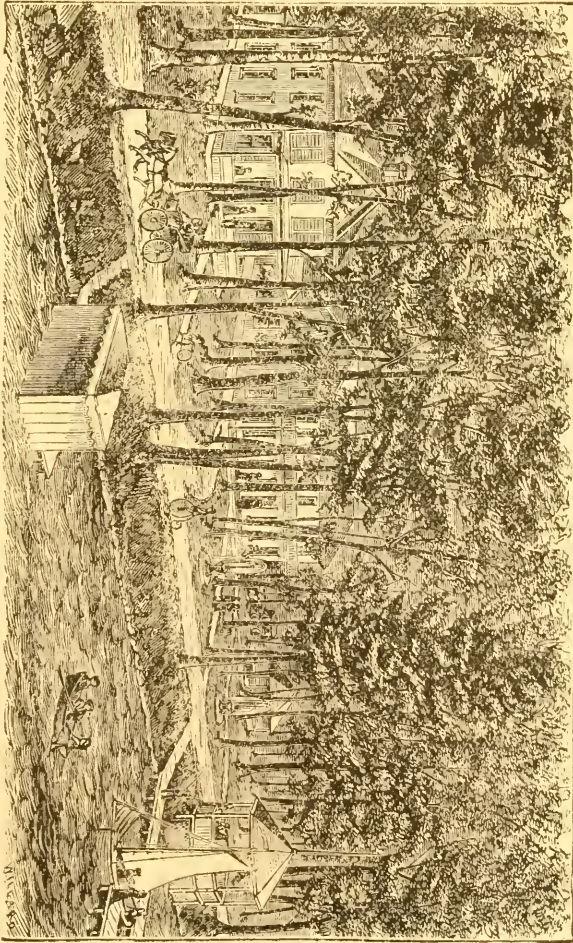
frequented by camping parties from the city, who find it a pleasant resort, and by many White Bear visitors.

Rice Lakes, a few miles from White Bear, furnish, probably, the best sport in wild fowl shooting that can be found in the West.

By the St. Paul & Duluth and Minneapolis and St. Louis railways, which have their junction here, tourists have an opportunity to reach Stillwater, on Lake St. Croix, where the steamers connect with trains for points on Lake St. Croix, or for the Dalles of St. Croix.

By the same lines they may visit Forest Lake, the Chisago Lakes, and the Dalles of the St. Croix at Taylors Falls. Another trip by the same lines is to the Dalles of the St. Louis river and Duluth, where connection is made with steamers for lake ports. From four to six trains between St. Paul and White Bear, and two between Minneapolis and White Bear, afford opportunities for visiting the cities, or reaching Lake Minnetonka, Fort Snelling, Minnehaha, Lakes Calhoun and Harriet, Lake Elmo, and other resorts.

WILLIAMS HOUSE, WHITE BEAR LAKE.



BETWEEN MINNEAPOLIS AND ST. PAUL AND THE DALLES OF THE ST. CROIX AND LAKE SUPERIOR.



ABOUT as attractive a trip as can be found on the American continent is that which includes White Bear Lake, Forest Lake, the Chisago Lakes, Taylors Falls, the Dalles of the St. Croix, the Dalles of the St. Louis, Duluth and the resorts of Lake Superior. It is a trip that should be made leisurely, so that all the points not passed by the railroads may be included in the visit. The country presents a pleasing variety of wild and picturesque scenery, including vast stretches of fine forest and tamarack wilderness, prairie and openings, numerous lakes, and magnificent views of cataracts, rapids and rivers.

Taking the trains of the Minneapolis and St. Louis railway at Minneapolis, or the St. Paul & Duluth railway at St. Paul, we first visit White Bear. From thence the traveler has choice of two routes to Taylors Falls and the Dalles of the St. Croix. If the journey is

to include a trip to Duluth and other points on Lake Superior, the best route is by rail to Stillwater, and thence by steamer to Taylors Falls, which enables one to see the interesting points of the St. Croix Valley, including the Dalles and rapids at Taylor's Falls. From the latter station by rail to Chisago Lakes; thence to Wyoming, where we take the train for Duluth, which passes through an interesting but comparatively unsettled region, and along the famous St. Louis river of Lake Superior, to the city of Duluth, where the tourist may pleasantly pass considerable time in visiting the many interesting places to be found in the vicinity. Here will be found the elegant steamers of the various transportation lines, which make regular trips to all points about the lake.

FOREST LAKE.

Forest Lake is twenty-five miles distant from Minneapolis and St. Paul, on the St. Paul & Duluth and Minneapolis & St. Louis railways, and is a favorite resort. It is famous for its fishing, but has not the necessary accommodations for large parties. It is a popular camp ground for St. Paul people, many of whom take advantage of the facilities for reaching it, to pass their vacations in tents on its banks.

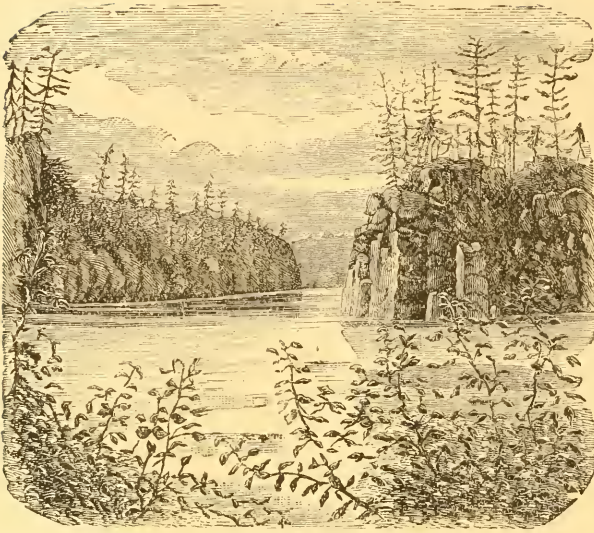


CHISAGO LAKES

On the Taylors Falls branch of the St. Paul & Duluth and Minneapolis & St. Louis railway, about thirty-five or forty miles from Minneapolis and St. Paul, are located the Chisago Lakes. These lakes are of very irregular formation, being composed of some five or six large bays, joined together by straits. The shore line is variously estimated at from sixty to eighty miles, the extreme length of the lakes about nine or ten miles. These lakes are higher than the surrounding country, and consequently have no streams flowing into them, but are supplied by the rain and snowfall. There is an outlet, when the lakes are full, but for most of the year there is no water flowing through it. The banks are mostly prairie, although there are many fine groves of timber, which are carefully preserved with a view to erecting summer hotels in them. Since the opening of the new railroad, towns have become numerous on the lakes, and it bids fair to be a strong competitor of White Bear and Lake Minnetonka, for the tourist business. As it has much that is beautiful, and as the fishing is equal to that of any lake in the country, it will stand a fair show of success. It abounds in wall-eyed pike, black bass, croppies, and pickerel.

As the country is quite level about the lake, and well settled, it presents many advantageous features for those who are fond of driving, as well as boating and fishing.

THE ST. CROIX VALLEY.



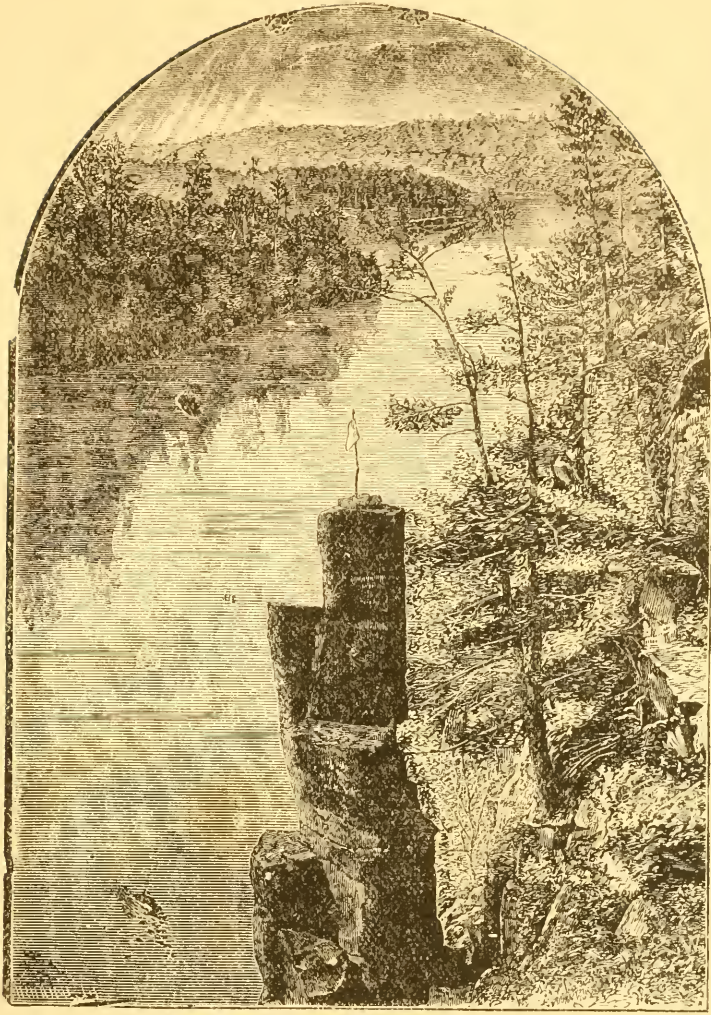
ENTRANCE TO THE DALLES OF ST. CROIX.

AFTER a time passed at the Minnesota Lake resorts, it affords a pleasing change from the pastoral beauty of smooth water, and rural landscapes, to climb the crags and rock-bound bluffs of our river valleys. Hence, a trip along the banks of the Mississippi, to the valley of the St. Croix, or the wild and rocky banks of the St. Louis river will be found most pleasant, each having characteristics unlike the other. A visit to the St. Croix, if the tourist can afford the time to enjoy it leisurely, should be

made by rail to Stillwater, and thence to Taylors Falls by steamer, returning by rail *via* the Chisago Lakes. The trip can be made by rail to Taylors Falls, and thence down the river by steamer to Stillwater, but we think the first mentioned route preferable, as one thus has an opportunity to enjoy the rugged and magnificent views in the Dalles, after having passed much that was beautiful along the way, which, if seen last would lose in interest. The St. Croix river and lake form the boundary line between Minnesota and Wisconsin. The distance from Stillwater to Taylors Falls, is thirty miles; a thirty mile panorama of beauty that varies constantly as we pass



SCENE NEAR THE DALLES OF ST. CROIX.



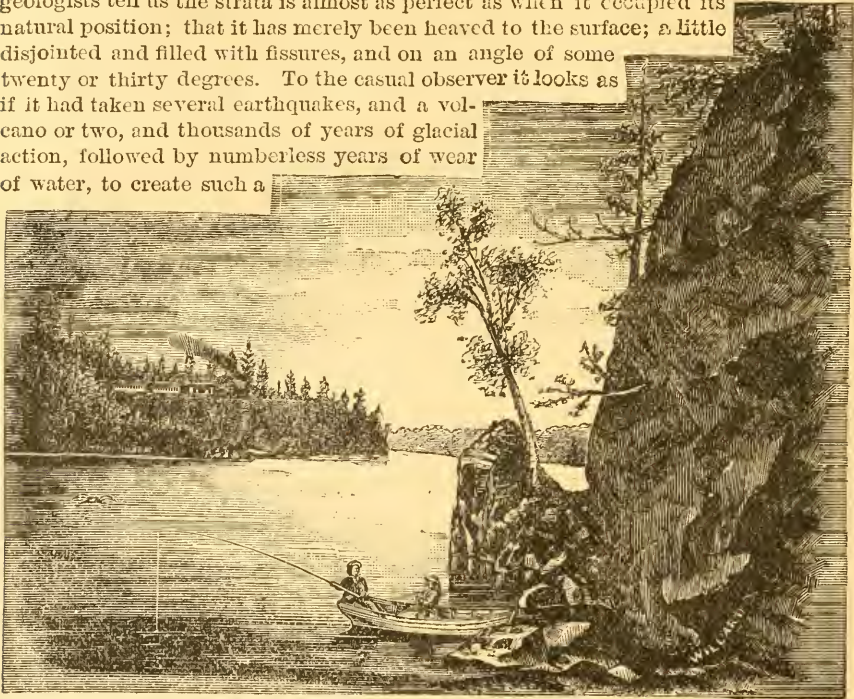
DEVIL'S CHAIR, DALLES OF THE ST. CROIX.

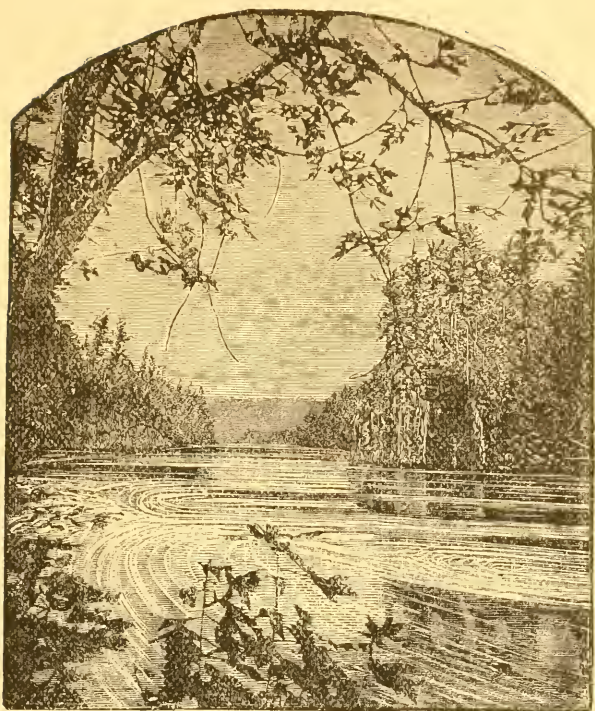
slowly along. Now it is formed by perpendicular cliffs, worn and scarred by the waters of ages ago; again by fields of golden grain, or by a few tall pines which have escaped the general destiny of being sent down the river to be made into lumber; or by the clean white cottages of some thriving villages. Numerous islands covered with willows, and a never-ending succession of logs, either afloat or stranded along the shores, are passed on the journey, and at one place, perched on the pinnacle of a rocky height, two hundred feet above the river, is an old church—calling to mind the legends of Jesuit missionaries who came into the country when it was a howling wilderness of savages. It is not far from this church where the pilot will show you the hoof-prints of Satan's horse, left there ever so long ago, and believed to be imperishable. They have been there for the past—but that depends upon who the pilot is who points them out, and we will not spoil the story. It is the point where the divid-

ing line was supposed to be between the Sioux and Chippewa nations, and its legend is interesting. There are many thriving towns on the St. Croix, and by getting on good terms with the pilot or captain, you will learn much that is interesting about them all. One of the notable points is that called the Lime Kilns, which have been in operation, to some extent, for the past thirty years. The lime is made from a natural deposit of almost pure silicate, which has formed from the drippings of water from the banks above, and makes a valuable lime for blast furnaces. A short distance above the Lime Kilns is the St. Croix Mineral Spring, which bursts out at the foot of a precipice in a deep gorge a few rods from the river and yields water enough to cure the nation of all the ills that flesh is heir to—but most especially diseases of the kidneys and blood. A handsome hotel stands on the bluff above, some 200 feet above the water. A stairway leads from the ravine to the top, and the view up the valley is well worth the climb to see.

A little further on is Osceola, where the boat may stop long enough to allow you to walk up a beautiful little glen for a couple of hundred yards, to see its beautiful cascade,—Osceola cascade,—handsomer than Minnehaha. The village of Osceola has attractions of its own which should make it one of the most popular of summer resorts. Picturesque surroundings, healthful locality, with trout streams and ponds, and the mineral springs near by, and a class of people who are generous and hospitable; what more need one desire? Nothing but good hotels.

A few miles above Osceola we enter the Dalles. Our engravings will say more for the scenery than we could write. For a distance of some three or four miles the scenery is remarkable for its rugged character, huge piles of rock rising on each side to a height of some two or three hundred feet. The foundation is mostly trap rock, thrown up by some mighty effort of nature, in apparently confused masses. But the geologists tell us the strata is almost as perfect as when it occupied its natural position; that it has merely been heaved to the surface; a little disjoined and filled with fissures, and on an angle of some twenty or thirty degrees. To the casual observer it looks as if it had taken several earthquakes, and a volcano or two, and thousands of years of glacial action, followed by numberless years of wear of water, to create such a





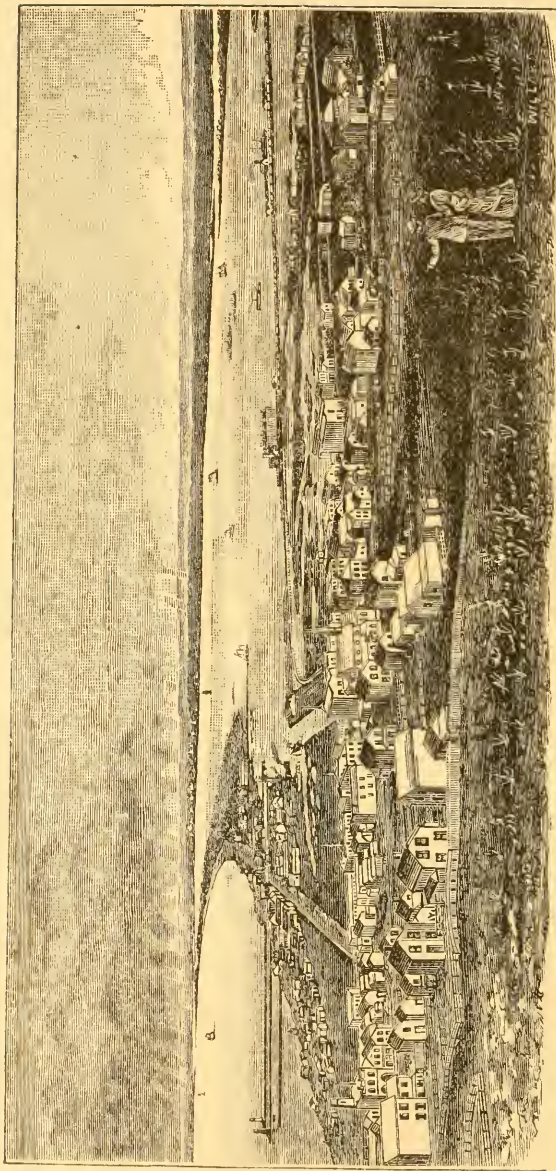
BIG EDDY, DALLES OF ST. CROIX.

chaotic mass. It is chaotic in the highest degree, except where worn into perpendicular walls or deep wells by the water. The latter are curiosities that are worth a few days examination. The walls are circular, with sides worn as smooth as a revolving stone can wear them, and vary in depth from a few inches to fifty or seventy-five feet. The people have named many of the wells, and, as is usual in such cases, have made the devil a most prominent feature in the christening. The "Devil's Kitchen" is frequently filled by guests who take advantage of his satanic majesty's absence to broil their dinner, and eat their lunch on the rocky tables he has provided, and the "Devil's Chair" is frequently visited by adventurous youngsters who do not seem to have much fear of its owner's return.

There is considerable copper in the rock in this vicinity, and the visitor who takes any interest in it can hunt up the copper mines, which are now being worked, though not to a very great extent. The rocky formation that begins at the foot of the Dalles, and forms the falls above, is the beginning of the copper-bearing strata which extends to Lake Superior, and there is little doubt that it will be found in years to come, a profitable mining district.

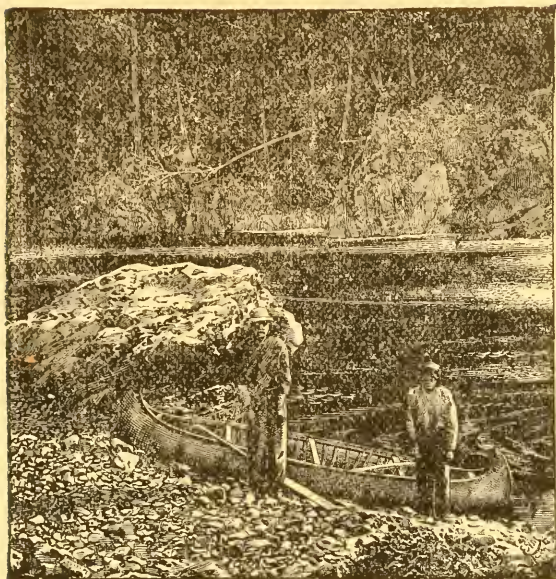
Taylor's Falls has pleasant surroundings, and the attractions of the falls and rapids, and of the brooks—which are all filled with trout—and good hotels, make it a favorite point for passing the summer months. A great many invalids visit it for the benefit of the pines, which are quite plentiful along the river.

• The Dalles House, H. Netterfield, proprietor, has long been a favorite resort, and there is a probability that a fine new hotel will be built soon, of which Mr. Netterfield will be manager.



DULUTH MINNESOTA.

DALLES OF THE ST. LOUIS RIVER OF LAKE SUPERIOR.



DALLES OF THE ST. LOUIS RIVER AT THOMSON.

White Bear, and thence for nearly a hundred miles the track runs through a comparatively level country, made up of "openings," prairie and marsh lands, and immense tracts of tamarack swamps.

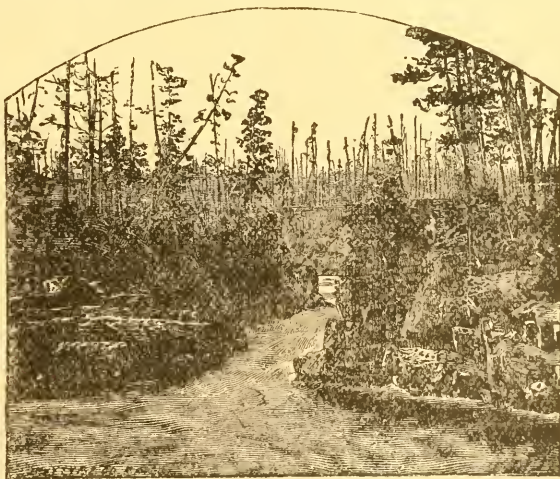
Thirty miles from the city we stop at Forest Lake, a favorite resort for camping and excursion parties, and sportsmen generally, where it is worth while to spend a day in fishing.

Among the twenty villages on the route are Rush City, Pine City, Hinckley, Thomson, Fond du Lac and Oneota, the first four named villages being noticeable points which are growing rapidly, and present many attractive

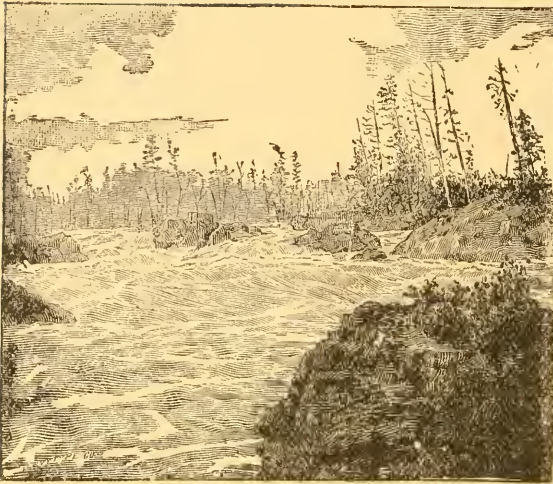
THE route to Lake Superior over the line of the St. Paul & Duluth and Minneapolis and St. Louis Railways gives the traveler an opportunity to view the various phases of frontier life, in a country where prairie and forest, tamarack swamps and oak openings, lakes and rivers, barren wastes and fertile farms are strangely intermingled, and where the log cabin of the woodman, comfortable farm buildings and thriving towns follow each other in rapid succession.

The distance from Minneapolis and St. Paul to Duluth is 156 miles, in which we pass about twenty stations.

Taking the train at either of the cities named, we reach



IN THE DALLES OF THE ST. LOUIS.



RAPIDS OF THE ST. LOUIS RIVER.

features for either business, pleasure or health. The lumber interest of the region along the railway from Pine City to Duluth is growing to enormous proportions, the rivers affording facilities for driving the logs, and the railway for shipping ties and wood. It is a good country for stock breeding, and many large farms have already been established. Some of the finest stock exhibited at our state fairs was bred in this district.

For fall and winter sports there is no part of the country better than that between Rush City and Duluth;

and for fishing and duck hunting it is unequalled. Rush City is about $4\frac{1}{2}$ miles from the St. Croix river, along which, on the Wisconsin side, are numerous trout streams. The lakes and rivers are abundantly supplied with fish, and pheasant, aquatic fowl, deer, bear, and many of the fur-bearing animals, are numerous; so that one may find occupation or amusement nearly all the year.

At Thomson we reach the valley of the St. Louis River of Lake Superior, and from that point the railroad passes along the banks of the river for most of the way to Duluth, 23 miles distant. For the first ten miles we have a succession of magnificent scenery. Between pine-covered hills of some three or four hundred feet in height, we get glimpses of cascades and rapids, chaotic piles of rock, and picturesque vales, which form a most attractive picture. One is never satisfied with the glimpse we get of it from the car; so, after resting at Duluth, we come back for a more leisure view of its beauties, and, perhaps, a climb among the rocks.

One of the finest cascades in the Northwest is near Thomson, where "improvements" are being made in the river for logging purposes.

One cannot fail to notice the extent of operations at this point, and look with surprise upon the amount of labor expended in overcoming the obstacles in the rugged and rocky valley, through which the railroad opens an outlet for freight to the lake.



DALLES OF THE ST. LOUIS RIVER.

THE CITY OF DULUTH,

With a population of four thousand inhabitants, is the terminal point of the St. Paul & Duluth, Minneapolis & St. Louis and Northern Pacific Railways on Lake Superior, from which the products of the great farms of the Northwest reach the markets of the world. There are many entertaining visits to be made, and picturesque places to see in and about Duluth, before embarking on the steamers for other lake resorts, but our limited space precludes their mention. Chester creek, about a mile distant, offers some beautiful scenery, equal, almost, to that of the St. Louis river, and many a pleasant day may be passed in excursions on the lake or into the country in the vicinity.

The rapid increase in business, by additional railway facilities, has greatly enlarged the demand for more vessels on Lake Superior, and to meet this demand the steamer lines have added largely to their fleet of steamers, by which tourists may enjoy the pleasures of the most delightful trip on the American continent.

Of the agricultural capabilities of this section of Minnesota, we quote the following from the Geological Report for 1879, by N. A. Winchell, Professor of Geology at Minnesota University :

In last year's report allusion was made by the State Geologist to the agricultural resources of Northeastern Minnesota. Further observations and inquiries by this expedition tend to confirm the views therein expressed, so far as they relate to the agricultural capabilities of that part of the State lying immediately along the lake shore. The soil on the hillsides sloping towards the lake appears for the most part to be thin, and the even contour of the surface leads to the belief that were the forests cut away the earth would, in a few years, be carried down into the water by heavy showers, and thus leave a long and almost uninterrupted line of barren rocks from Duluth to Pigeon Point. But when the summits of this ridge skirting the lake are reached, a beautiful country of gently rising hills, separated by spacious valleys, extends inland as far as the eye can reach. From the summit of Carlton's Peak, one of the highest points in the northern part of the State, a landscape of surpassing beauty lies before the beholder. The valley of the Temperance river, a considerable stream which flows past the base of this mountain and shoots into the lake from a narrow and remarkable gorge, can be traced as it winds among the hills for many miles inland, and the range can be seen, which probably lies beyond this long and narrow lake, in which both the Temperance and the Brule are said to take their rise. From summits above Caribou Point, Terrace Point, and the mouth of the Devil's Track, as well as from the highest peaks in the Grand Portage Indian Reservation, landscapes of almost equal beauty and attractiveness can be seen.

The wooded and broken character of the country is often mentioned as highly favorable to the development of a wheat-producing region, as the danger of loss from wind storms is thereby materially lessened. The proximity of the lake would have a tendency to keep the temperature low during the season when the wheat berry is forming and ripening; so it seems hardly possible that such a discouraging blight as swept over the southern part of the State in 1878, could ever afflict St. Louis and Lake counties. Oats and barley should by no means be omitted if one were to make out a list of those cereals whose successful cultivation here has been placed beyond a doubt.

Two hundred bushels of potatoes per acre is called a small yield. More than this, the potatoes are of the finest quality. It is claimed in Duluth that in the Chicago market the deliciousness of the Lake Superior potatoes is appreciated so highly as to make them preferred above those from any other locality in the West or Northwest.

But it seems after all as if this part of the State is to be a stock-raising rather than a cereal-producing territory. The peculiar character of the soil adapts it especially to grass, and without the least apparent difficulty the wild species give way to the cultivated. From one and a half to two tons per acre is the usual yield with scarcely any care, and there are many unusually fine meadows in the counties just named. The hillsides, when cleared of the timber now covering them, will afford unsurpassed pasturage, while countless springs and rivulets and larger streams will give a never failing supply of the purest water—a condition that must never be overlooked in locating a stock or dairy farm. Convenience to market is another advantage which is here possessed. Cheap transportation by way of the lakes to the great centers of the wholesale trade of the country can be relied on for seven or eight months of the year, and the provident farmer will make his sales to fit the season of prevailing high prices. Hay, live stock, beef, butter, and all farm products can be transported to Chicago and New York as well as can wheat and oats and barley.

THE "PARK REGION."



TAKING the morning train on the St. Paul, Minneapolis & Manitoba railway at St. Paul or Minneapolis, a ride of six hours transports us to the centre of the great "Park Region" of Minnesota. It is a land that Nature has been generous with. In laying out the grounds for this great natural park, the old dame seems to have forgotten herself, and abandoned the regularities, for she has scattered the lakes and forests and prairies about with such a lavish hand, that the most fastidious of tourists, or the most exacting of farmers, could not fail to find something here to please them.

The journey, after reaching a point about fifty miles northwest of Minneapolis, passes through a prairie and brush country for some distance, when it strikes the "Big Woods" and the "Park."

Passing by many attractive scenes and thriving towns, we reach

OSAKIS LAKE,

distant one hundred and thirty miles from St. Paul, time, five hours, and take dinner at the "Lake House," a very good hotel a few steps from the depot, and kept by Mr. W. Adley.

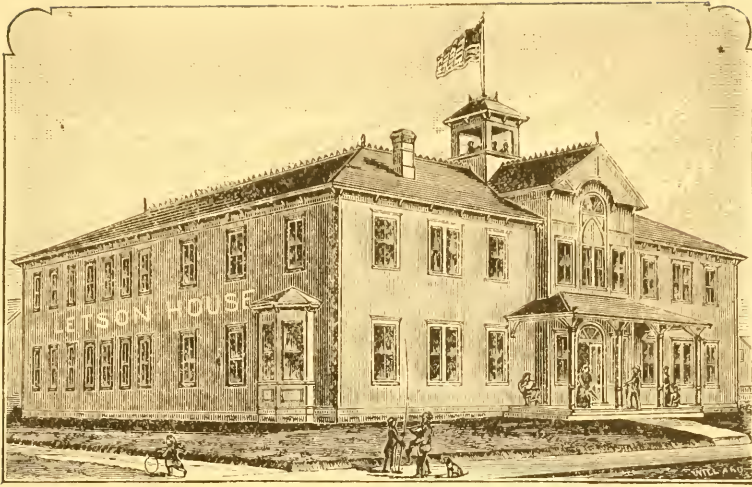
It would be a difficult matter for one traveling for pleasure, to resist the temptation of seeing more of Osakis Lake and its surroundings, so we are not long in concluding to stop and explore its wood-girt banks. The guide tells us that Osakis Lake is about thirteen miles long, and nearly six miles in width at its widest point.

From the village front we see spreading away before us for at least seven miles, a broad sheet of blue water, sparkling in the bright sunlight, and we straightway begin to think of fishing; and we ask about the chances for sport. Osakis is noted for its grand sport—we had heard that before. Its waters are filled with black bass, red-eye, wall-eyed pike, pickerel, whitefish, and some claim to have ght muscalonge.

The shore of Osakis, measuring about thirty-five miles, is a smooth, pebbled beach, with occasional patches of boulders, the banks being generally some ten or fifteen feet above the water, and covered with large hard-wood timber—oak, maple, basswood, etc. The lake lies mostly in Todd county, a small portion only being in the county of Douglas. The country surrounding Osakis affords considerable attractions during the summer, as it is near the chain of lakes which cover so much of Douglas and Tod counties. There is considerable prairie land, most of which is under cultivation, while in the timber are many clearings. The agricultural capacity of the immediate neighborhood may be judged of from the fact that over a hundred thousand bushels of wheat have been shipped from the railway station, and its trade in railway ties amounted to some \$60,000 last winter. The village of Osakis contains about 400 inhabitants, and is growing rapidly.

AS A SUMMER RESORT,

Osakis offers much that cannot be found at the older watering places, in the way of quiet enjoyment. The Fairview House has just been opened by Mr. H. D. Benedict,



LETSON HOUSE, ALEXANDRIA.

and twelve cottages built on the grounds looking out upon the lake. The hotel is not large, as it is expected to provide cottages sufficient to supply the demand for lodging, no matter how great it may be, meals being served in the hotel. As the hotel and cottages have but just been completed, the grounds have not yet been laid out, but work is going on as fast as possible. We can say, however, that everything in the hotel and cottages is new, of the most desirable modern style, and "neat as wax." Boats have already been sent up from a St. Paul boat yard, so that sailing, rowing and fishing may be enjoyed by the guests; bath houses are being built on one of the prettiest beaches imaginable; a number of single and double carriages, with good teams, are owned by the proprietor, and will be ready for driving out pleasure and hunting parties.

During the hunting season, beginning with the 1st of September, and ending December 15th, sportsmen will find in the immediate vicinity myriads of pheasants, water fowl, prairie chickens, deer and bear, besides a few of the fur bearing animals. Otter are frequently taken in the neighborhood. Probably the finest deer shooting is to be found at Osakis, and around the lakes about Alexandria, a few miles distant.

ALEXANDRIA.

In the county of Douglas there are no less than one hundred and sixty lakes; what there is of land is mostly covered with timber, a patch of prairie being visible occasionally. What a country this will be in the days to come, when the land has all been converted into grain fields and stock farms, and the banks of the lakes filled with summer homes for tourists! What a wonderful country it is now for the traveler seeking recreation and rest, or the sportsman who wishes to find abundance of game!

In casting about, recently, for an undiscovered country where the thousands who visit Minnesota might find something worthy of their notice, we wandered into this great "Park Region" on the St. Paul, Minneapolis & Manitoba Railway, being mainly induced by the following from the *Alexandria Post*, descriptive of the county of

Douglas: "Scarcely more than a fourth of a century has passed since the first permanent settlement by the white man was made in Minnesota, and much of the country comprising this young and prosperous commonwealth remains yet unshorn of its primitive beauty. Douglas county, of which Alexandria is the seat of justice, is situated in the heart of the great "park region" of the State; a region famous for its handsome scenery, abounding in picturesque lakelets, beautiful native groves and undulating prairie lands, comprising the happiest blending of nature's handiwork alike valuable and admired by the agriculturist, sportsman or representative of industrial art. Here in this beautiful "park region" of the Northwest has nature been most lavish in the distribution of her gems, and here is food and material upon which the student and lover of nature may feast until the senses become intoxicated with enthusiasm such as only nature's beauty can inspire. Amid scenes like this is situated Douglas county, and as a central figure, around which cluster numerous inland lakes, with their clear waters sparkling like liquid silver in the sunlight, with shores fringed with beautiful forest groves, forming, as it were, a framework of rustic beauty, and separating them from the areas of undulating prairie, close upon the margin of lakes Agnes and Winona—two of the most beautiful of all this region—stands the beautiful and enterprising young city of Alexandria."

Alexandria, with a population of about twelve hundred, is one of the most enterprising and important towns on the line of the St. Paul, Minneapolis & Manitoba line, and is surrounded by a good agricultural region, as is proved by the fact that 300,000 bushels of wheat has passed through its two elevators since last harvest, and considerable flour has been shipped from its mill. Considerable stock has also been shipped, and it has been for some time made the headquarters of cattle buyers, who ship by the car-load to the British Possessions.

The town is very handsomely located on high ground, overlooking two beautiful lakes—Lakes Winona and Agnes—the railway line passing across the inlet connecting the two sheets of water.

We have not the space to enter here on a description of the town and its business, our purpose being to call the attention of tourists and sportsmen to its advantages as headquarters during their summer visit. It has a first-class hotel in the Letson House, which was first thrown open to the public during the past winter, and has already acquired the reputation among travelers of being the "best kept house on the line." Mr. J. H. Letson, the proprietor, was formerly the proprietor of the Excelsior House, Minnetonka, and in his new home has brought his experience to good use in building and furnishing a house that is fully equal to any of the hotels at that famous resort, with the single exception of size, which the present business did not seem to warrant.

Within a circle of eighteen miles, which includes all of Douglas, and parts of Todd, Otter Tail, Pope and Grant counties, there are over three hundred lakes, the most important of which are Osakis Lake, thirteen miles distant; Lake Whipple, eighteen miles; Lakes Darling, Latoka, Mary, Lobster, Le Homme Dieu, Carlos, Ida, Chippewa, Christina, Red Rock and Oscar, varying from two to ten or twelve miles from Alexandria. Many of these are connected by creeks or inlets, so that it is estimated that one may make a trip of over one hundred miles through some twenty or thirty lakes, which empty their waters into the Sank river. These lakes are all filled with fish, and the purity of the waters is unsurpassed, being largely supplied by springs which bubble out from the banks surrounding them. The forests and prairies surrounding them afford the hunter the best of shooting, prairie chickens, pheasants, squirrels, jack rabbits, deer and bear abounding in great quantities. As an instance of the abundance of deer, we may state that one of the business men of Alexandria, during the past winter shot sixty-five deer in his hunting expeditions.

The advantages of the Park Region for permanent settlers are not surpassed in any other section of the Northwest. The land is fertile, and adapted to wheat, corn, and all the vegetables, as well as to stock raising. The farmer may readily imagine what a country it must be that can supply wood, water and hay in unlimited quantities, with a market for all he can produce within a few miles drive from his home, and also where land is cheap.

To aid in bringing this region within the reach of land seekers, tourists and sportsmen, the St. Paul, Minneapolis & Manitoba Railway Company will make liberal rates for round trip tickets from St. Paul and Minneapolis to Alexandria and Osakis during the summer.

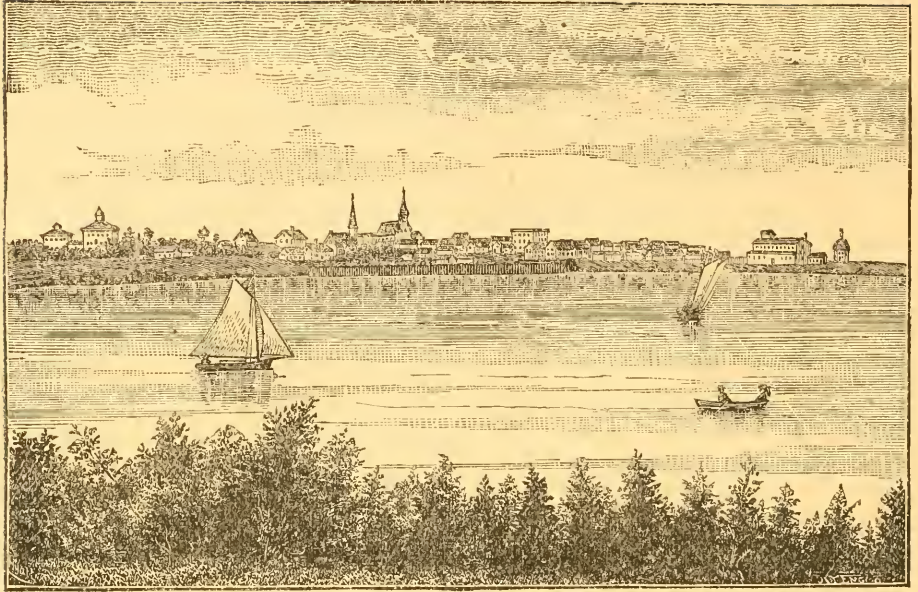
Parties visiting Alexandria for the purpose of locating in business or in quest of land, should call on F. B. Van Hoesen, at the Bank of Alexandria, W. S. Moles, or J. A. McKay, who will furnish all needful information about the country for miles around.

Tourists and sportsmen stopping here, after interviewing the obliging station agent, Mr. Geo. H. Rowe, who is always ready to impart what information he can, should make the acquaintance of Mr. J. H. Letson, of the Letson House, Messrs. Geo. Robards, John Cowing, G. B. Ward, Dr. Vivian, and C. Schultz, the gunsmith, who are all ardent sportsmen, old residents, and good fellows, who would ask nothing better than to talk shooting and fishing with visitors; and do not forget to take in the gentle editors of the *News* and *Post*, two of the best newspapers west of Minneapolis; and when you need an accommodating and good natured man to transport your baggage and "traps" to any place, call on Frank Kent, the 'bus man.

We would refer sportsmen who desire to pass a short time at Osakis, to H. D. Benedict, of the Fairview House; Mr. Kneutson, Dr. C. M. Long, Mr. Scott, the Osakis photographer, or Wes. Mann, the "wild hunter." All are well posted in sporting matters, and will cheerfully give full information in regard to the best places for gam



SCENE IN THE "PARK REGION."




WORTHINGTON, NOBLES COUNTY, SITUATED ON LAKE OKABENA.



PLOWING ON THE KENDALL FARM OF 5000 ACRES. NEAR HERON LAKE.

“THE LAND OF PROMISE.”



 F the leading resorts of the Northwest, none, perhaps, are more worthy of notice than those lying along the route of what is called the Chicago, St. Paul, Minneapolis & Omaha Line (formerly known as the St. Paul & Sioux City route), composed of the Sioux City & Pacific and St. Paul, Minneapolis & Omaha Railways.

Passing through a country famed for its fertility and bountiful agricultural resources, and interspersed with large tracts of timber and prairie lands, with numerous lakes and rivers diversifying its scenery, we can imagine no country offering greater attractions to the farmer, business man, or health and pleasure seeker, than this. Noticeable among the attractive places on this route is

HERON LAKE,

which is situated 160 miles from St. Paul, at the junction of the Black Hills branch with the main line. This lake is one of the largest and finest sheets of water in Southern Minnesota, and has long been an attractive resort for tourists and sportsmen. It is some ten miles long, and one to four miles wide, and abounds in fish and water fowl, while prairie chicken are to be found in great abundance within a short distance.

A large new hotel, the Chapman House, offers excellent accommodations, and furnishes livery, boats, etc., for its guests.

Within a radius of ten miles about the hotel there are twelve lakes, among them the noted Graham Lakes.

Among the leading points on this line is the village of

SIoux FALLS, DAKOTA,

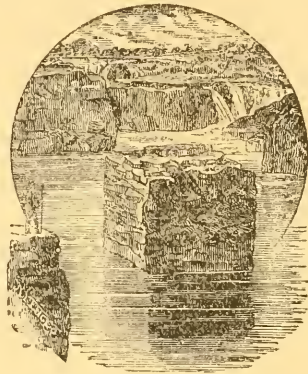
of which the official guide, published by the land department of the company, has the following, quoted from the *Pioneer Press*:

"Nestled in the valley of the Big Sioux River, and climbing the hillside and crowning the hill top in the southeastern portion of Dakota, lies the village of Sioux Falls. Ransacked by the Indians a few years ago, and completely deserted by the whites, it was little more than an Indian trading post, until, in the onward push of settlers for the free lands of Dakota, it suddenly began to assume importance, when the St. Paul & Sioux City Railroad started a spur from Worthington, Minnesota, and the Dakota Southern, looking northward from Sioux City each sent their engineers to discover a practical route to the frontier village of about 500 inhabitants. With sudden impulse the embryo city assumed a self-importance which events have since justified beyond the hopes of the confident 500, who at that time hauled their produce by wagons 63 miles to Worthington.

"In 1878 the whistle of the locomotive first reverberated in the Big Sioux Valley, and the 700 people of Sioux Falls welcomed the first train of cars July 1, 1878. I write to-day, and the busy hum of industry from 2,100 people chords to the music of the waterfalls, and I know of no other place making such rapid strides upon what has the appearance of solid and enduring groundwork.



SIoux FALLS, D. T.



SIoux FALLS, D. T.

"This brings me to the most important feature of Sioux Falls. The falls are veritable falls, and the water power within a half a mile of the heart of the business center is second only to the power of Minneapolis. A heavy volume of water for a large portion of the year, and a liberal volume for the remaining portion, falls 70 feet in one-half mile, and affords a scene of bewitching beauty full of promise to the future of Sioux Falls, when its 2,500 horse power shall have been utilized.

"A year ago eighty acres of ground went begging for a buyer. It embraced about all of the available power, and included an island of ten acres covered with a forest of giant trees, the like of which is not to be seen within 200 miles. As trustee of the Sioux Falls Water Power Company, J. H. Drake, of the Sioux City Road, now holds the deeds for this magnificent property, and with W. H. Bailey, formerly of New York, as directing manager, 100 men have been at work during the past six weeks, and a monstrous stone structure 100x80 feet is rising from its rocky foundation, and will, one year hence, be turning out 500 to 600 barrels of flour daily. A linseed oil mill, a starch and farina factory, a woolen mill, and a plow manufactory are in contemplation, and the Sioux Falls Water Power Company, whose stock can hardly fail to be valuable, was one of the chief motors to extravagantly elevate the hopes of these wide-awake, sanguine people."

The improvements spoken of above have been completed, with many others of equal importance, bringing a considerable addition to the population, as well as the business of the town.

Along the line are many important towns, which, with the rapid settlement of the agricultural regions surrounding them, have been rapidly growing in import-



MINNEOPA FALLS.

ance. Many noteworthy farms have also been opened in the prairie districts, among which may be mentioned the "Warner Rock County Farm" of 23,000 acres, which of itself is a great attraction.

MINNEOPA FALLS.

Located near this line of railroad, 180 miles from St. Paul and Minneapolis, is one of the handsomest falls in the country, which, by many visitors, is pronounced equal to Minnehaha, and well worth seeing.

LAKE CRYSTAL,

located in Blue Earth county, 98 miles from St. Paul, is quite a noted lake, and presents many attractions.

Lack of space only prevents a long description of the numerous places on this favorite route from the southwest, which need only be visited to draw forth enthusiastic praise from travelers.

WORTHINGTON, MINNESOTA.

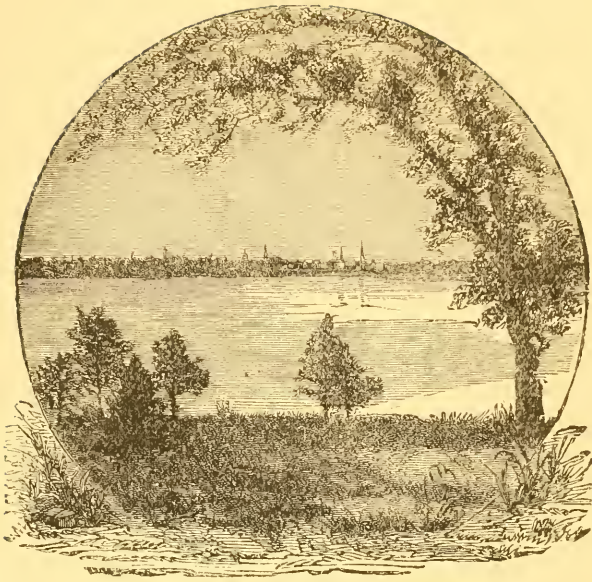
Worthington, Nobles county, is one of the thriving towns of Southern Minnesota. It is located on Lake Okabena, near the junction of the Sioux Falls branch of the Chicago, St. Paul, Minneapolis & Omaha railway, 178 miles from St. Paul and Minneapolis.

LAKE ELMO.

Of the noted resorts of Minnesota, Lake Elmo occupies a prominent place, as well as a most popular one. It is located 12 miles east of St. Paul, on the St. Paul, Minneapolis & Omaha Line, and a fine hotel, with 150 acres of woodland and lawn, offers to visitors a pleasant place to pass their season of rest. The house accommodates 250, and fourteen trains a day between St. Paul, Elmo, Stillwater and Hudson, gives every advantage for visitors to the surrounding towns.



SCENE ON LAKE ELMO, TEN MILES FROM ST. PAUL.



ALBERT LEA.

ONE of the pleasantest points in Southern Minnesota for tourists and sportsmen to visit, is Albert Lea, the county seat of Freeborn county, at the junction of the Burlington, Cedar Rapids & Northern, Minneapolis & St. Louis, the Fort Dodge extension of the Minneapolis & St. Louis, and the Southern Minnesota railroads. Three beautiful lakes, whose banks are covered by timber, lie on three sides of it, and it lies in the midst of a magnificent and fertile country, that is made attractive to visitors by fine drives among well-cultivated farms, interspersed with numerous lakes.

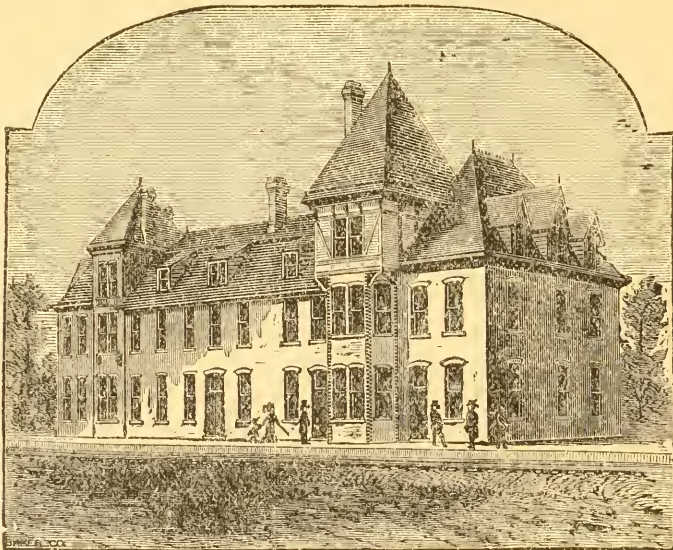
Its lakes are filled with fish, and the prairies abound with prairie chickens; in fact, it is one of the favorite resorts for hunters during the fall. The opening of the Fort Dodge extension, last fall, through a country that has never been much hunted over, and consequently is well filled with game, offers an additional inducement to lovers of this sport. There are two good hotels at Albert Lea; one of them, the Hall House, being noted for its excellent management and pleasant surroundings. The Winslow House, located near the railroad depot, is one of the best railway dining houses in the United States.

• The attractions of its surroundings has made Albert Lea a popular resort for tourists, and the business has been gradually increasing as the facilities for reaching it have been improved. It has many handsome private residences, and many of them are enlivened during the hot months by summer visitors.

Between Albert Lea and Minneapolis there are many points attractive to the tourist, where hunting and fishing are profitable pastimes. Numberless fine lakes offer inviting spots for camping on their banks, and the lowlands along the Minnesota river furnish good duck shooting, while woodcock are quite plentiful at some points. About Waterville, and on the prairies between that village and Minneapolis there is good work for dog and gun.

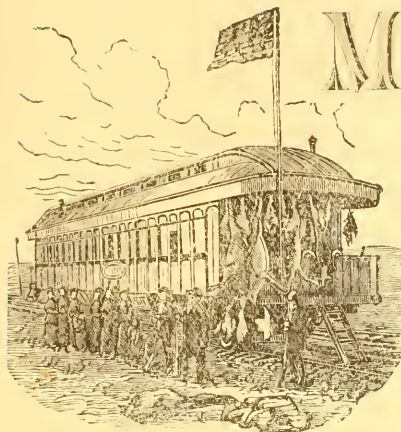
The scenery on this part of the line is peculiarly attractive and pleasing, there being many fine views on the Minnesota river.

Riley's Lake is a delightful little body of water, covering about 2,000 acres of ground, with something like ten miles of shore, gorgeously decorated with forests of white maple trees. It is situated about seventeen miles from Minneapolis, on the line of the Minneapolis and St. Louis Railroad. Two passenger trains each way daily pass within a rod of the eastern shore of the lake, and the gentlemanly conductors on this excellent and well managed road will always be willing to let parties off or pick them up at the crossing. The scenery about the lake is varied and picturesque, and will well repay a visit. The lake abounds in fish—principally pickerel and bass—which can be caught in unlimited quantities, and with very little labor. The water in portions of the lake is very deep and clear—so clear that one can see into it quite distinctly to a depth of from fifteen to twenty feet. And the true disciple of Isaac Walton can find no higher enjoyment than to have a wrestle with a four or five pound bass, after having seen him take the hook and swim gracefully away. As yet Riley's Lake is not a place of popular resort with tourists, and is therefore free from the "hoodadoodas" consequent thereon, which is one of its chief attractions to parties loving a quiet time.



WINSLOW HOUSE, ALBERT LEA.

HOME OF THE SPORTSMAN.



MANY of the tourists who visit Minnesota during their vacation, do so with the anticipation of having a good time in the hunting fields and in fishing. The latter pastime may be engaged in profitably at any of our eight thousand lakes, which, with the exception, perhaps, of a few small bodies of water located near the large cities, all afford abundant supplies of black and rock bass, pickerel, pike, cripies and sunfish. Some of the lakes also contain whitefish, and muscalonge are found in those having outlets in the Upper Mississippi. The State hatchery has supplied most of our lakes with California salmon, so that it will be but a year or two before that gamey fish will produce exciting sport. There is no doubt that they have already attained sufficient size to make it profitable pastime; but as our people have yet to learn its habits, the California salmon is almost a stranger in the strings that are brought in by anglers. The writer was informed

in a recent conversation with the Superintendent of the State hatchery, that in some of the lakes quite large schools may be seen at any time, but they do not take the bait that is offered them, paying no attention to that usually successful in enticing our native fish, or to artificial flies.

Fish may be lawfully taken at all times in our lakes and streams, except in the lakes of Ramsey and Hennepin counties, by spearing, shooting, or angling with hook and line. Netting is allowed in a few of the lakes in unsettled districts only. Spearing is prohibited, in the lakes of the two counties named, during the spawning season. Spearing is prohibited by a special law in Lake Minnetonka at all times, under penalty of not less than \$5 or more than \$50 for each offence.

Brook trout are to be found in nearly all streams along the east side of the Mississippi below the St. Croix river, and in a few on the west side, but for profitable fishing the tributaries of the St. Croix river, on the Wisconsin side, must be sought.

Trout may be taken in Minnesota from the 1st of April until the 1st of October; and in Wisconsin from the 15th of April until the 15th of September. The most profitable trout streams of easy access from Minneapolis and St. Paul are the following: Trout brook, Dakota county; take C. M. & St. P. railway to Hastings, and thence 10 miles by private conveyance. The Trimbelle, near Prescott, Wis., C. M. & St. P. railway to Hastings, and thence by private conveyance to the stream. The Killikinnic, which empties into Lake St. Croix a few miles above Prescott, can be reached from Prescott or Hudson. Rock creek, about $4\frac{1}{2}$ miles from Taylor's Falls, and Osceola creek, about 6 miles from Taylor's Falls, afford a little sport during the early part of the season. There are also several trout ponds in that vicinity, where those who wish to fish for the sake of getting a good supply without much trouble, can be gratified by paying at the rate of 25 cts. a pound for what they catch.

FISHING AND HUNTING ON THE UPPER ST. CROIX.

There is probably no section of the Northwest that affords better hunting and fishing than that in the valley of the Upper St. Croix, and certainly none that can be so easily traversed, or that is so accessible. Starting from Taylor's Falls, on the Minnesota side of the St. Croix river, there is considerable forest affording good shooting, and after reaching a point perhaps twenty miles up the river, several good trout streams. On the Wisconsin side, however, there is as good sport as the most ardent worshiper of the nimble and toothsome trout, or wild flavored grouse, deer and bear, could desire. The country back of St. Croix Falls for a few miles, and along the east side of the valley, stretching northeasterly for a hundred miles or more, is a series of hills

and valleys, covered with hardwood and pine timber, interspersed with occasional patches of dense underbrush, that has grown up in the place of the forest trees that have been destroyed by fire. On these hills, and in the ravines, there is the best of cover for game of all kinds. The country is furrowed by ravines and valleys, down which the water from bubbling springs comes singing and rippling along, to seek an outlet in the river that sweeps along to the sea. In the tiniest thread of a rivulet that winds silently and gently on, under the branches of overhanging trees, as well as the noisier brook that comes foaming down over rocks and rapids, we find the speckled trout in its wildest, gamiest state and truest flavor, and we have only to drop the tempting fly or seductive worm to secure a prize that will send a thrill through the bosom of the angler, that is never experienced over the capture of any other fresh water fish. As we think of the May-days passed in the midst of these grand old forests, where the silence is only broken by the rustling of branches moved by the winds, the singing of innumerable birds, or babbling of brooks, save when harshly broken by the signal shot of a companion or the crack of a rifle, we look with envy upon the life of the hunters and fishermen who gain their livelihood from these recesses. This section has been visited by but few sportsmen from abroad, and hence its value is not generally known except to residents in the valley or along the St. Paul & Duluth and Northern Wisconsin Railways.

In the vicinity of St. Croix Falls, the trout streams are both numerous and well stocked with trout, and the disciples of the rod and reel can here find good sport. Close's creek, about four miles south of the village, although pretty well fished, still affords the skillful angler many a fine mess for his table. North of the village there are four trout brooks, not yet dignified by names, before reaching Big Rock creek, the mouth of which is not over two and one-half miles from St. Croix Falls. On this creek there is good free fishing for a distance of about three miles before reaching Blanding's mill, and the mill pond is so full of trout, that parties who wish to spend a day there must provide themselves with plenty of accommodations for caring for spoils; here, however, the fish have to be paid for at the rate of twenty-five cents per pound for what are taken away. Above the pond there is good free fishing, but the fish are not so large as below the dam. At Wolf creek, about twelve miles above the falls, and at Cowan's brook, and other tributaries of Trade river, trout in large quantities—and good size—can be caught at all times in season. Clam river and tributaries are the finest trout streams in the State beyond doubt, and, although about thirty miles northeast of St. Croix Falls, will amply repay the journey to any one who enjoys a trip through the primitive wilds of the forest, and only just removed from the advancing hosts of civilization. Convenient to all of these trout streams, are farm houses and stopping places, where food and lodging can be had for those who do not desire to camp out.

Besides the fine fishing on these streams, the scenery is beautiful; water falls, cascades and placid pools are to be met with every few steps, while from many a sharp bluff along their course, fine views of the surrounding country are to be obtained.

Trouting in the Lake Superior region needs but a bare mention here, as it is well known to most sportsmen to be equal to any in the country. To be thoroughly enjoyed, the sportsman must go prepared to encounter fatigue, to walk, wade and climb, and to endure all the trials, as well as to enjoy the pleasures incident to the trip, which should always be engineered by a good guide, who will row the boat, prepare the food, attend to fires, look after the luggage, and keep an eye to your general welfare,—at about \$1 a day, which will include boat hire and all necessary services. Guide books to Lake Superior can be procured of the ticket agents.

There are few sections in the Union that afford better sport with gun and dog than the prairies and forests of Minnesota. The Big Woods, a belt of hardwood timber 180 miles long, and from 15 to 40 miles wide, extending across the State, and the immense tracts of pine, covering about 21,000 square miles, afford abundant supplies of deer and bear, and many of the smaller animals, and ruffed grouse; the numerous lakes abounding with ducks, brant and geese. The boundless prairies, now being rapidly turned into wheat farms, breed myriads of prairie chickens, which increase in numbers as the country is improved and furnishes them better food.

The shooting grounds are readily reached by rail from Minneapolis or St. Paul. The favorite resorts are those affording good sport with least trouble of getting to them. The vicinity of Albert Lea, on the M. & St. L. and B., C. R. & N. railways, the country along the newly opened Fort Dodge extension of the M. & St. L. Ry, and the prairies along the line of the M. & St. L. railway, between Albert Lea and Minneapolis, are favored by many of our local sportsmen. Vermilion prairie, on the line of the Hastings & Dakota division of the C. M. & St. P. road, in Da-

kota county, offers good chicken shooting, and there is excellent sport along the H. & D. road in Renville county. The main and branch lines of the St. Paul, Minneapolis & Manitoba railway offer as good sport as can be found in the West, the park region, in the neighborhood of Alexandria, Osakis, Euclid and Hallock being famous for a bountiful supply of game.

Pheasants, or pinnated grouse, abound in the Big Woods, and in the country along the St. Croix Valley, in the wilderness along the St. Paul & Duluth road, and, in fact, are plentiful in all parts of the State, where there is shelter for them. And in these wooded districts, also, the little "cotton tail" and jack rabbits are plentiful.

The Big Woods have a fair supply of gray and black squirrels, and at some places along the St. P., M. & M. road are so numerous as to be a pest to the farmers.

Deer shooting, which begins November 1st and closes December 15th, is excellent in the upper part of the St. Croix Valley, along the line of the M. & St. L. railway from Rush City, through the pineries, to the shores of Lake Superior. The hunter can also have abundant success along the main line of the St. P., M. & M. road at almost any point north of Minneapolis. An item in one of the local papers mentioned the shipment of 65 saddles from a station on that line, during one day of the last deer season, and yet that was but a small portion of the number killed. Bear are also found in the wooded districts. The pineries in the vicinity of Snake river, Moose Lake, Kettle river, Hinckley, Mission creek, Pokegama Lake, and on the head waters of the St. Croix, afford the best of sport, both for deer and bear.

For aquatic fowl, it is not necessary to travel far to get a fair day's sport. Any of our lakes or streams, a few miles from town, will yield a good supply of ducks. But those who wish big sport—to slaughter birds at wholesale—should seek the lakes in the country north of St. Paul, on the St. P. & D. railway, or those on the main and branch lines of the St. P., M. & M., where ducks, geese, brant and sand hill cranes are to be found in countless numbers. We have seen ducks rise from some of these lakes in incredible quantities, resembling the flight of flocks of pigeons from a roost. The lakes of Douglas, Todd, Kandiyohi and Otter Tail counties are famous for wild fowl.

Woodcock shooting is not a remunerative sport, except for a little while during the early part of the season, and then only in a few localities. The river bottom near St. Paul and on the Minnesota river are the only places of any note where they are to be found in quantities; fortunately the number of hunters who like the style this bird has of getting away is not great, so it leaves enough for the few who do. The St. Paul sportsmen usually set apart the 4th of July for a visit to "Pig's Eye," and Woodcock in that locality are kept on the zig-zag until they are pretty well tired out—or the shooters are—for their number is not materially decreased. A few woodcock are to be found about Osakis lake, and a dozen or two might be bagged in a morning's hunt.

To the lovers of nature and the seekers after health and pleasure, the country through which the St. Paul & Manitoba road passes, offers attractions unequalled in the world. It has been but a few years in the possession of white men, and still preserves all of its natural features. Eastern Minnesota is covered with a dense forest, in which an immense number of lakes are concealed. These lakes vary in size from that of Lake Mille Lacs, the largest and finest sheet of water within the State—it being twenty-eight miles long—to the prettiest little grove-bordered pond imaginable. These lakes abound in fish, and as many of them are connected, long journeys can be taken by water through the great forests. In this section the sportsman can, with his guide, guns, dogs and camp equipage, indulge in a hunt, and be as likely to come in contact with civilized humanity, as he would were he in the heart of Africa, although still within the sound of the engine that darts through the forests followed by palace cars. Deer, bear, lynx, rabbits, ruffed grouse and woodcock are among the variety of game, with pickerel, pike, perch, muscalonge, bass and white fish to vary the rustic bill-of-fare in camp.

West from the timbered country comes the beautiful Park Region, a succession of open prairie and wooded spots, the undulated surface dotted with myriads of lovely lakes, surrounded in some parts by groves of stately trees, in others rippling at the base of a smooth lawn-like prairie, and in still others having picturesque bluffs rising from their pebbly beaches.

The great prairies of Dakota prove very attractive to many. In the harvest time thousands pay a visit to the great wheat fields, and watch the army of workmen and animals securing the golden grain. It is a sight worth a journey from the seaboard to witness. On this vast expanse of prairie the hunter finds elk, deer, antelope, jack-rabbits, all varieties of brant and duck, snipe, swan, crane, plover, grouse and prairie chicken. The best way to reach these is via the St. Paul, Minneapolis & Manitoba railway.

SYNOPSIS OF GAME LAWS.

MINNESOTA.

The game laws of Minnesota prohibit the killing, and transportation and sale of game and brook trout except during the following dates:

Woodcock,	July 4 to November 1.
Aquatic fowl,	September 1 to May 15.
Quail or partridge, ruffed grouse or pheasant,	Sept. 1 to December 1.
Pinnated grouse or prairie chicken,	September 1 to December 1.
Elk and deer,	Nov. 1 to December 15.
Brook trout,	April 1 to October 1.

It is unlawful to break up or destroy the nests or eggs of game birds and all harmless birds, except wild pigeons and black birds; also the taking of game of any kind in any manner except shooting with a gun.

Spearing of fish in the lakes of Hennepin and Ramsey counties is prohibited.

No fish except whitefish may be taken in any other way than by angling with hook and line, shooting with a gun or by the use of a spear, except in the waters of Lake Superior, the Mississippi, Minnesota and St. Croix rivers.

If game is found in the possession of individuals or transportation companies out of season, it is considered sufficient evidence for conviction of violation of the game laws.

Exportation from the State of all game birds except pheasants is prohibited.

Hunters are forbidden to enter fields containing growing crops, not their own, with hunting implements or dogs, without permission of the owner of the premises, under penalty of punishment for trespass.

NOTE—In most sections of the State, permission is easily obtained by observing the courtesy due the owners of land, and requesting permission. The exceptional cases occur where the privilege has been abused, and the rights of property trespassed upon.

WISCONSIN.

It is lawful to kill game in Wisconsin during the following dates:

Woodcock,	July 10 to January 1.
Quail or partridge,	Aug. 25 to January 1.
Pheasant or ruffed grouse,	Aug. 25 to January 1.
Prairie chicken or pinnated grouse,	Aug. 25 to January 1.
Aquatic fowl,	Aug. 25 to January 1.
Deer,	Sept. 15 to January 1.
Otter, mink, martin, muskrat or fisher,	November 1 to May 1.
Brook trout,	April 15 to Sept. 15.

The taking of fish in any manner except by angling with hook and line is prohibited in all waters of the State except Lake Michigan.

The law forbids the use of a net, snare, trap or spring gun, pivot or swivel gun in killing game birds, and the use of any float, sneakboat, sail or steamboat, floating box or similar device, and the chasing of deer with dogs; also the disturbing of any game birds—including pigeons—in their nesting, or breeding places. The law also prohibits the carrying out or exportation of game birds or animals, except wild pigeons and fur bearing animals.

IOWA.

The Iowa game law makes it unlawful to take game except during the following dates:

Prairie chicken,	Sept. 1 to Dec. 1.
Woodcock,	July 10 to Jan. 1.
Quail or pheasant,	Oct. 1 to Jan. 1.
Wild turkey,	Oct. 1 to Jan. 1.
Wild duck, snipe or brant,	Aug. 15 to May 1.
Deer and elk,	Sept. 1 to Jan. 1.
Beaver, mink, otter and muskrat,	Nov. 1 to April 1.
Bass and wall-eyed pike,	June 1 to April 1.
Salmon and trout,	Feb. 1 to Nov. 1.

It is unlawful for any person to kill for traffic any pinnated grouse or prairie chicken, snipe, woodcock, quail, ruffed grouse or pheasant, or for any one person to shoot or kill during one day more than twenty-five of either of said named birds, or to have in possession more than that number at one time, unless lawfully received for transportation.

Snaring, netting or trapping any birds or animals named (except fur bearing animals), or destroying eggs or nests of birds are unlawful.

Exportation of game birds and animals is prohibited.

The catching of fish in any manner except with hook and line, snare, gun or spear is unlawful.

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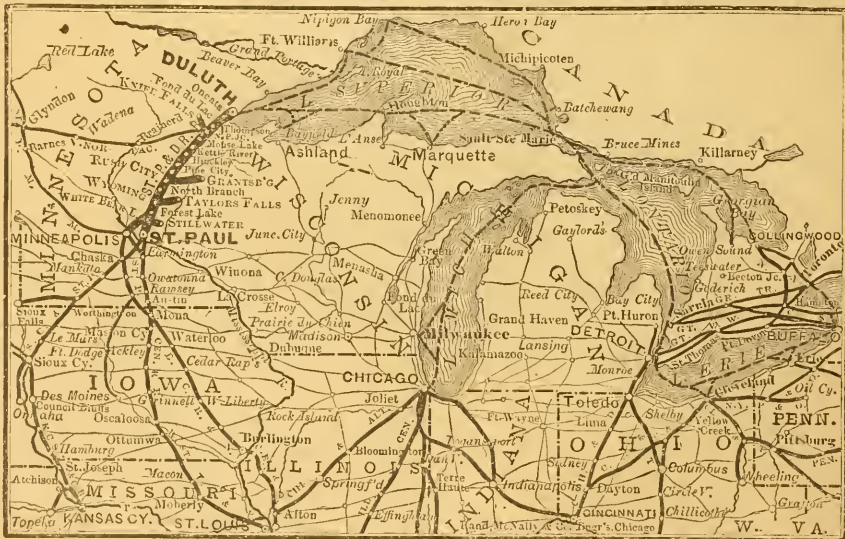
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