

I O W A :

THE HOME FOR IMMIGRANTS,

BEING A

TREATISE ON THE RESOURCES OF IOWA,

AND

GIVING USEFUL INFORMATION WITH REGARD TO  
THE STATE, FOR THE BENEFIT OF  
IMMIGRANTS AND OTHERS.

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PUBLISHED BY ORDER OF THE

IOWA BOARD OF IMMIGRATION.

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DES MOINES:  
MILLS & CO., PRINTERS AND PUBLISHERS,  
1870.

S.C.F.



BINDING )  
NUMBER )  
OF 1900. ) **1902**

Checked  
May 1913

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## PREFACE.

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The Thirteenth General Assembly of Iowa passed a law authorizing the appointment of a Board of Immigration, consisting of one member from each Congressional District and the Governor, who is also President of the Board. At their first meeting, in April last, they elected their Secretary, and authorized him to prepare a pamphlet setting forth briefly the resources of the State, and containing such information as might prove useful to the immigrant. The following pages are the result of that action, and although restricted to the limit of a pamphlet adapted to general circulation, the writer has endeavored to embody in it, such information as will give to all who may desire to seek new homes in the West, a correct idea of the superior advantages which our young State offers to those who may be induced to come within her borders.

The statistical portions of this pamphlet are all derived from the latest and most reliable official sources, among which may be mentioned the census report of 1869, compiled by Hon. Ed Wright, Secretary of State; report of Hon. A. S. Kissell, Superintendent of Public Instruction, and the report of Dr. J. M. Shaffer, Secretary of the State Agricultural Society. The report of Dr. C. A. White, State Geologist, has supplied much information which will be of interest. The writer's observation and researches, made as the traveling editor and correspondent of the *Iowa State Register*, and as the writer of the series of articles published in that journal, entitled "Tour of Iowa Counties," have also greatly assisted him in the preparation of this pamphlet. That Iowa is not only destined to be, but already is, a great and noble State, these pages, it is hoped, will show to all into whose hands they may chance to come. May their plain statement of facts prove a means of inducing thousands to find homes within the borders of Iowa, to share the advantages and blessings which await all who will come and partake of them.

A. R. FULTON,  
*Sec'y Iowa Board of Immigration.*

# I O W A :

THE

## HOME FOR IMMIGRANTS.

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### CHAPTER I.

#### HISTORICAL SKETCH OF IOWA.

PRIOR to the year 1763, the entire continent of North America was divided between France, England, Spain, and Russia. France held all that portion of what now constitutes our national domain west of the Mississippi river, except Texas and the territory which we have obtained from Mexico and Russia. This vast region, while under the jurisdiction of France, was known as the "Province of Louisiana," and embraced the present State of Iowa. At the close of the "Old French War," in 1763, France gave up her share of the continent, and Spain came into possession of the territory west of the Mississippi river, while Great Britain retained Canada and the regions northward, having obtained that territory by conquest in the war with France. For thirty-seven years the territory now embraced within the limits of Iowa remained as a part of the possessions of Spain, and then went back to France by the treaty of St. Idelfonso, October 1, 1800. On the 30th of April, 1803, France ceded it to the United States in consideration of receiving \$11,250,000, and the liquidation of certain claims held by citizens of the United States against France, which amounted to the further sum of \$3,750,000, and making a total of \$15,000,000. It will thus be seen that France has twice, and Spain once, held sovereignty over the territory embracing Iowa, but the financial needs of Napoleon afforded our Government an opportunity to add another empire to its domain.

On the 31st of October, 1803, an act of Congress was approved authorizing the President to take possession of the newly acquired territory

and provide for it a temporary government, and another act approved March 26, 1804, authorized the division of the "Louisiana Purchase," as it was then called, into two separate Territories. All that portion south of the 33d parallel of north latitude, was called the "Territory of Orleans," and that north of the said parallel was known as the "District of Louisiana," and was placed under the jurisdiction of what was then known as "Indiana Territory."

By virtue of an act of Congress, approved March 3, 1805, the "District of Louisiana" was organized as the "Territory of Louisiana," with a Territorial government of its own, which went into operation July 4th of the same year, and it so remained until 1812. In this year the "Territory of Orleans" became the State of Louisiana, and the "Territory of Louisiana" was organized as the "Territory of Missouri." This change took place under an act of Congress approved June 4, 1812. In 1819, a portion of this territory was organized as "Arkansaw Territory," and in 1821 the State of Missouri was admitted, being a part of the former "Territory of Missouri." This left a vast domain still to the north, including the present States of Iowa and Minnesota, which was in 1834, made a part of the "Territory of Michigan." In July, 1836, the territory embracing the present States of Iowa, Minnesota and Wisconsin was detached from Michigan, and organized with a separate Territorial government under the name of "Wisconsin Territory."

By virtue of an act of Congress, approved June 12, 1838, on the 3d of July of the same year, the "Territory of Iowa" was constituted. It embraced the present State of Iowa, and the greater portion of what is now the State of Minnesota. Robert Lucas, who had been one of the early Governors of Ohio, was appointed the first Territorial Governor, and William B. Conway, Secretary. The latter died during his term of office, in November, 1839, and James Clarke was appointed to the vacancy. The first Legislative Assembly convened at Burlington, November 12, 1838. That place continued as the seat of the Territorial Government until the Fourth Legislative Assembly, which convened at Iowa City, December 6, 1841. The latter place continued as the capital of the Territory and State, until the permanent location at Des Moines, in 1857.

To say nothing of the title to the soil of Iowa that may once have vested in the natives who claimed and occupied it, it is a matter of some interest to glance at the various changes of ownership and jurisdiction through which it has passed within the time of our historical period:

1. It belonged to France, with other territory now belonging to our national domain.



2. In 1763, with other territory, it was ceded to Spain.
3. October 1, 1800, it was ceded with other territory from Spain back to France.
4. April 30, 1803, it was ceded with other territory by France to the United States.
5. October 31, 1803, a temporary government was authorized by Congress for the newly acquired territory.
6. October 1, 1804, it was included in the "District of Louisiana," and placed under the jurisdiction of the Territorial Government of Indiana.
7. July 4, 1805, it was included as a part of the "Territory of Louisiana," then organized with a separate territorial government.
8. June 4, 1812, it was embraced in what was then made the "Territory of Missouri."
9. June 23, 1834, it became part of the "Territory of Michigan."
10. July 3, 1836, it was included as a part of the newly organized "Territory of Wisconsin."
11. June 12, 1838, it was included in, and constituted a part of the newly organized "Territory of Iowa."
12. December 28, 1846, it was admitted into the Union as a STATE.

The word IOWA, is said to mean in the language of the Indian tribes, "The Beautiful Land." A band of Indians journeying toward the setting sun, reached the bank of the Great River that washes our eastern border, and looking across the broad water, beheld for the first time the green slopes of our beautiful prairies stretching away in the distance. Their exclamation was "IOWA!"—The Beautiful Land! It is a well attested fact that these sons of the prairie and the forest, rude and uncultivated as they are, have a vivid appreciation of the grand and beautiful in nature, and it is not unreasonable to presume that such was the origin of the name, although it comes down to us as a tradition. The name itself is a beautiful one, as most Indian names are, and it is a fitting appellation for the richest and loveliest portion of the North American continent.

The greater portion of the country embraced within the limits of Iowa, was once occupied by a tribe, or nation of Indians, known in history as the Iowas, (or Ioways,) who for many years maintained an almost constant warfare with the Sioux, a powerful rival who lived to the north of them. The Iowas were originally the Pau-hoo-chiee tribe and lived in the region of the lakes to the north-east, but nearly one hundred and eighty years ago, they followed their chief, Mau-haw-gaw, to the banks of the Mississippi, and crossing over, settled on the west

bank of Iowa river, near its mouth, and there built a village. They called the river on which they established their seat of empire, Ne-o-ho-nee, or the "Master of Rivers." For some years they prospered and multiplied, but the Sioux began to envy them the prosperity which they enjoyed, and with no good intentions came down to visit them. Sending to Mau-haw-gaw the pipe of peace, with an invitation to join them in a dog-feast, they made great professions of friendship. The Iowa chief, having confidence in their protestations of good feeling, accepted the invitation. In the midst of the feast the perfidious Sioux suddenly attacked and killed him. This outrage was never forgiven by the Iowas.

One of the most noted chiefs of the Iowas, was Mahaskah, (White Cloud,) a descendant of Mau-haw-gaw. He led his warriors in eighteen battles against the Sioux on the north, and the Osages on the south, but never failed to achieve a victory. He made his home on the Des Moines river about one hundred miles above the mouth, and must have been something of a Mormon, for it is said that he had seven wives. In 1824, he was one of a party of chiefs who visited Washington. He left his home on the Des Moines to go down the river on his way to join his party, and when near where the city of Keokuk is now located, he stopped to prepare and eat his venison. He had just commenced his meal when some one struck him on the back. Turning round, he was surprised to see one of his wives, Rant-che-wai-me, (Female Flying Pigeon,) standing with an uplifted tomahawk in her hand. She accosted him with—"Am I your wife? Are you my husband? If so, I will go with you to Maw-he-hum-ne-che (the American big house) and see and shake the hand of In-co-ho-nee," meaning the Great Father, as they called the President. Mahaskah answered—"Yes, you are my wife; I am your husband; I have been a long time from you; I am glad to see you; you are my pretty wife, and a brave man always loves to see a pretty woman." Mahaskah went on to Washington, accompanied by his "pretty wife," Rant-che-wai-me, who received many presents, but saw many things of which she disapproved. When she returned she assembled the matrons and maidens of the tribe and warned them against the vices and follies of their white sisters. This good Indian woman was killed by being accidentally thrown from her horse some time after her return from Washington. In 1834, Mahaskah was also killed about sixty miles from his home on the Nodaway, by an enemy who took a cowardly advantage of him. At the time of his death he was about fifty years of age. After his death all his surviving wives went into mourning and poverty, according to the custom of the tribe, except one named Mis-so-rah-tar-ra-haw, (Female deer that bounds over the prairies,)



who refused to the end of her life to be comforted, saying that her husband "was a great brave, and was killed by dogs," meaning low vulgar fellows.

Soon after the death of Mahaskah, his son, of the same name, at the age of twenty-four years, became the Chief of the Iowas. His mother was Rant-che-wai-me, whose tragic death is mentioned above. He also visited Washington in the winter of 1836-37, for the purpose of obtaining redress for injustice which he claimed had been done to his people by the government, in failing to keep intruders from their lands, and in disregarding other stipulations of the treaty made with his father in 1825.

The Iowas, next to the Sioux, were once the most numerous and powerful of all the tribes between the Mississippi and Missouri rivers. But before leaving the "Beautiful Land" to join their fortunes with other remnants of their race beyond the Missouri, they were reduced by wars, whisky, and small-pox, to about 1,300 souls.

It must have been about the year 1824 when the Sacs and Foxes, who had previously inhabited the country on Rock river, in the present State of Illinois, began to make encroachments upon the Iowas, under the renowned chief, Blackhawk. In a great battle fought on the east bank of the Des Moines river, near the present village of Iowaville, in Davis county, the Iowas were vanquished, and the Sacs and Foxes took possession of their hunting grounds. Then the Iowas sullenly moved toward the west, and finally passed beyond the Missouri. When civilization began to dawn along our eastern border the Sacs and Foxes were the occupants of the soil in all the eastern and southern portions of the Territory, while the warlike Sioux held undisputed possession of the Northern portion, about the head-waters of the Des Moines and the lakes. After the close of the "Blackhawk War," in 1833, the power of Blackhawk waned, and his rival, Keokuk, who had favored peace with the whites, was recognized as the chief of his nation. Many of the pioneer settlers of Iowa still remember him and his subordinates, Wapello, Appanoose, Kishkekosh, Pashepahaw and Hard Fish. Blackhawk died in October, 1838, on the Des Moines river, near the scene of his conquest over the Iowas.

Perhaps the first white man who ever had the pleasure of beholding this "Beautiful Land," was Father Louis Hennepin, a Franciscan priest, who as early as 1680, with two fur traders, ascended the Mississippi as far as the Falls of St. Anthony, which he so named. We have, however, less authentic accounts of one or two other *voyageurs* prior to this date. Soon after this the French government took formal possession of all this undefined and unknown region, and established trading posts at several points. But, for one hundred and fifty years

after this, the country remained in the hands of the natives, and almost unknown to our Anglo-Saxon ancestors, who were laying the foundations of an empire along the Atlantic sea-board. On the 22d of September, 1788, a Frenchman named Julian Dubuque, who had an Indian wife, made a purchase from the Indians, and engaged in mining and trading at the place where the important city that bears his name is now located. Others afterward engaged in mining lead at the same place, forming the nucleus of the first white settlement within the limits of Iowa. On the 30th of March, 1799, Louis Honori obtained permission from the Spanish government to establish himself at the head of the "rapids of the river Des Moines," for the purpose of trading with the Indians. This place was subsequently known as Montrose, and is situated a short distance above Keokuk. Honori built houses, planted an orchard, and cultivated a tract of land. This was the next white settlement in Iowa, if indeed that can be called a settlement, which was only a grant for the purpose of trading with the Indians.

In 1832, immediately after what is known as the "Blackhawk purchase," being the first purchase of land from the Indians in Iowa, a few white persons began to settle on the west side of the Mississippi. A military post was established at Montrose, and the place was called "Fort Des Moines." It remained a military post until 1837, when the troops were removed to Fort Leavenworth. Traces of the primitive occupancy of Iowa soil at this point by the white man are still visible, and there are those who remember the old apple trees at Montrose planted by Honori seventy years ago!

Iowa remained from 1836 to 1846 a separate Territory, during which time the office of Governor was held by Robert Lucas, John Chambers, and James Clarke. Congress made provision by an act, approved March 3, 1845, for its admission into the Union as a State, with boundaries quite at variance with those finally established. By this law the State was to extend north to the parallel of latitude passing through the Mankato, or Blue Earth river, in the present State of Minnesota, and west to the meridian of 17° 30' west from Washington. This western boundary would very nearly correspond to the line between the present counties of Ringgold and Taylor, and its adoption would have deprived our State of all that fertile portion denominated the "Missouri Slope." In October, 1844, a constitutional convention had been held at Iowa City, and a constitution framed which embraced boundaries far more extensive than those of the present State, taking in much of the southern portion of the present State of Minnesota. The people of the Territory disapproved of the reduction of these boundaries by Congress, and at the election held August 4, 1845,

rejected the constitution—the vote being 7,235 for, and 7,656 against it. In 1846, Congress proposed the present boundary lines, and another constitutional convention convened at Iowa City on the 4th of May of this year. A session of fifteen days resulted in the framing of the constitution which was sanctioned by the people at an election held August 3, 1846—the popular vote this time being 9,492 for, and 9,036 against the constitution. This constitution was agreed to by Congress, and on the 28th of December of the same year, Iowa was admitted into the Union as a Sovereign State. On the 26th of October preceding, however, the first election had been held for State officers, when Ansel Briggs was elected Governor; Elisha Cutler, Jr., Secretary of State; Joseph T. Fales, Auditor, and Morgan Reno, Treasurer. A third constitutional convention convened at Iowa City in January, 1857, and framed the present State Constitution, which was sanctioned by the people at an election held August 3, 1857—the popular vote being 40,311 for, and 38,681 against the constitution.

At the time of the organization of the Territory of Wisconsin in 1836, the entire white population of that portion of said Territory which now constitutes the State of Iowa, was 10,531. The following is an exhibit of the population, as shown by the different census reports :

In 1838.....	22,859	In 1854.....	326,013
" 1840.....	43,114	" 1856.....	519,055
" 1844.....	75,152	" 1859.....	638,775
" 1846.....	97,588	" 1860.....	674,913
" 1847.....	116,651	" 1863.....	701,732
" 1849.....	152,988	" 1865.....	754,699
" 1850.....	191,982	" 1867.....	902,040
" 1851.....	204,774	" 1869.....	1,040,819
" 1852.....	230,713		

The permanent settlement of Iowa by the whites can hardly be said to have commenced before the year 1833, and was then for a number of years confined to the counties along the Mississippi, the central and western portions remaining still in the possession of the Indians. The steady growth and development of the State in all that constitutes a great and prosperous commonwealth, so far as may be consistent with the purposes of this pamphlet, will be shown in subsequent pages.



## CHAPTER II.

## GEOGRAPHICAL SKETCH OF IOWA.

*Extent.*—Iowa is about three hundred miles in length, east and west, and a little over two hundred miles in breadth, north and south; having nearly the figure of a rectangular parallelogram. Its northern boundary is the parallel of  $43^{\circ} 30'$ , separating it from the State of Minnesota. Its southern limit is nearly on the line of  $40^{\circ} 31'$  from the point where this parallel crosses the the Des Moines river, westward. From this point to the south-east corner of the State, a distance of about thirty miles, the Des Moines river forms the boundary line between Iowa and Missouri. The two great rivers of the North American Continent form the east and west boundaries, except that portion of the western boundary adjoining the Territory of Dakota. The Big Sioux river from its mouth, two miles above Sioux City, forms the western boundary up to the point where it intersects the parallel of  $43^{\circ} 30'$ . These limits embrace an area of 55,045 square miles; or, 85,228,800 acres. When it is understood that all this vast extent of surface, except that which is occupied by our rivers, lakes and peat beds of the northern counties, is susceptible of the highest cultivation, some idea may be formed of the immense agricultural resources of the State. Iowa is nearly as large as England, and twice as large as Scotland; but when we consider the relative area of surface which may be made to yield to the wants of man, those countries of the Old World will bear no comparison with Iowa.

*Surface.*—The surface of the State is remarkably uniform, rising to nearly the same general altitude. There are no mountains, and yet but little of the surface is level or flat. The whole State presents a succession of gentle elevations and depressions, with some bold and picturesque bluffs along the principal streams. The western portion of the State is generally more elevated than the eastern, the northwestern part being the highest. Nature could not have provided a more perfect system of drainage, and at the same time leave the country so completely adapted to all the purposes of agriculture. Looking at the map of Iowa, we see two systems of streams or rivers running nearly at right angles with each other. The streams which discharge their waters into the Mississippi flow from the north-west to the south-east,

while those of the other system flow toward the south-west, and empty into the Missouri. The former drain about three-fourths of the State, and the latter the remaining one-fourth. The water-shed dividing the two systems of streams, represents the highest portion of the State, and gradually descends as you follow its course from north-west to south-east. Low-water mark in the Missouri river at Council Bluffs is about 425 feet above low-water mark in the Mississippi at Davenport. At the crossing of the summit, or water-shed, 245 miles west of Davenport, the elevation is about 960 feet above the Mississippi. The Des Moines river at the city of Des Moines, has an elevation of 227 feet above the Mississippi at Davenport, and is 198 feet lower than the Missouri at Council Bluffs. The elevation of the eastern border of the State at McGregor is about 624 feet above the level of the sea, while the highest elevation in the north-west portion of the State, is about 1400 feet above the level of the sea. In addition to the grand water-shed mentioned above, as dividing the waters of the Mississippi and Missouri, there are between the principal streams, elevations commonly called "divides," which are drained by numerous streams of a smaller size tributary to the rivers. The valleys along the streams have a deep rich soil, but are scarcely more fertile than many portions of those undulating prairie "divides."

*Rivers.*—As stated above, the rivers of Iowa are divided into two systems or classes—those flowing into the Mississippi, and those flowing into the Missouri. The Mississippi, the largest river on the continent, and one of the largest in the world, washes the entire eastern border of the State, and is most of the year navigable for a large class of steamers. The only serious obstruction to steamers of the largest size, are what are known as the Lower Rapids, just above the mouth of the Des Moines. The Government of the United States is now engaged in the construction of a canal, or channel, around these rapids on the Iowa side of the river, a work which will prove of immense advantage to the commerce of Iowa for all time to come. The principal rivers which flow through the interior of the State, east of the water-shed, are the Des Moines, Skunk, Iowa, Wapsipipicon, Maquoketa, Turkey and Upper Iowa. One of the largest rivers of the State is Red Cedar, which rises in Minnesota, and flowing in a southeasterly direction, joins its waters with the Iowa river in Louisa county, only about thirty miles from its mouth, that portion below the junction retaining the name of Iowa river, although it is really the smaller stream.

The Des Moines is the largest interior river of the State, and rises in a group or chain of lakes in Minnesota, not far from the Iowa border. It really has its source in two principal branches, called East and West Des Moines, which, after flowing about seventy miles through the

northern portion of the State, converge to their junction in the southern part of Humboldt county. The Des Moines receives a number of large tributaries, among which are Raccoon and Three Rivers (North, South and Middle) on the west, and Boone river on the East. Raccoon (or 'Coon) rises in the vicinity of Storm Lake, in Buena Vista county, and after receiving several tributaries, discharges its waters into the Des Moines river, within the limits of the city of Des Moines. This stream affords many excellent mill privileges, some of which have been improved. The Des Moines flows from north-west to south-east, not less than three hundred miles through Iowa, and drains over ten thousand square miles of its territory. At an early day, steamboats at certain seasons of the year, navigated this river as far up as the "Raccoon Forks," and a large grant of land was made by Congress to the State for the purpose of improving its navigation. The land was subsequently diverted to the construction of the Des Moines Valley Railroad. Before this diversion several dams were erected on the lower portion of the river, which afford a vast amount of hydraulic power to that part of the State.

The next river above the Des Moines is Skunk, which has its source in Hamilton county north of the center of the State. It traverses a south-east course, having two principal branches—their aggregate length being about four hundred and fifty miles. They drain about eight thousand square miles of territory, and afford many excellent mill sites.

The next is Iowa river, which rises in several branches among the lakes in Hancock and Winnebago counties, in the northern part of the State. Its great eastern branch is Red Cedar, having its source among the lakes in Minnesota. The two streams, as before stated, unite and flow into the Mississippi in Louisa county. In size, Red Cedar is the second interior river of the State, and both are valuable as affording immense water-power. Shell Rock river is a tributary of Red Cedar, and is important to Northern Iowa, on account of its fine water power. The aggregate length of Iowa and Red Cedar rivers is about five hundred miles, and they drain about twelve thousand square miles of territory.

The Wapsipinicon river rises in Minnesota, and flows in a south-easterly direction over two hundred miles through Iowa, draining, with its branches, a belt of territory only about twelve miles wide. This stream is usually called "Wapsi" by the settlers, and is valuable as furnishing good water power for machinery.

Maquoketa river, the next considerable tributary of the Mississippi, is about one hundred and sixty miles long, and drains about three thousand square miles of territory.

Turkey river is about one hundred and thirty miles long, and drains some two thousand square miles. It rises in Howard county, runs southeast, and empties into the Mississippi near the south line of Clayton county.

Upper Iowa river also rises in Howard county, flows nearly east, and empties into the Mississippi near the northeast corner of the State, passing through a narrow, but picturesque and beautiful valley. This portion of the State is somewhat broken, and the streams have cut their channels deeply into the rocks, so that in many places they are bordered by bluffs from three to four hundred feet high. They flow rapidly, and furnish ample water power for machinery at numerous points.

Having mentioned the rivers which drain the eastern three-fourths of the State, we will now cross the great "water shed" to the Missouri and its tributaries.

The Missouri River, forming a little over two-thirds of the length of our western boundary line, is navigable for large sized steamboats for a distance of nineteen hundred and fifty miles above the point (Sioux City) where it first touches our western border. It is, therefore, a highway of no little importance to the commerce of western Iowa. During the season of navigation last year, over fifty steamers ascended the river above Sioux City, most of which were laden with stores for the mining region above Fort Benton. We will now refer to the larger tributaries of the Missouri, which drain the western portion of Iowa.

The Big Sioux river forms about seventy miles of the western boundary of the State, its general course being nearly from north to south. It has several small tributaries draining the counties of Plymouth, Sioux, Lyon, Osceola, and O'Brien, in northwestern Iowa. One of the most important of these is Rock river, a beautiful little stream running through the counties of Lyon and Sioux. It is supported by springs, and affords a volume of water sufficient for propelling machinery. Big Sioux river was once regarded as a navigable stream, and steamboats of a small size have on several occasions ascended it for some distance. It is not, however, now considered a safe stream for navigation. It empties into the Missouri about two miles above Sioux City, and some four miles below the northwest corner of Woodbury county. It drains about one thousand square miles of Iowa territory.

Just below Sioux City, Floyd river empties into the Missouri. It is a small stream, but flows through a rich and beautiful valley. Its length is about one hundred miles, and it drains some fifteen hundred square miles of territory. Two or three mills have been erected on this

stream, and there are other mill sites which will doubtless be improved in due time.

Little Sioux river is one of the most important streams of north-western Iowa. It rises in the vicinity of Spirit and Okoboji lakes, near the Minnesota line, and meanders through various counties a distance of nearly three hundred miles to its confluence with the Missouri near the northwest corner of Harrison county. With its tributaries it drains not less than five thousand square miles. Several small mills have been erected on this stream, and others doubtless will be when needed.

Boyer river is the next stream of considerable size below the Little Sioux. It rises in Sac county and flows southwest to the Missouri in Pottawattamie county. Its entire length is about one hundred and fifty miles, and drains not less than two thousand square miles of territory. It is a small stream, meandering through a rich and lovely valley. The Chicago & Northwestern Railroad passes down this valley some sixty miles.

Going down the Missouri, and passing several small streams, which have not been dignified with the name of rivers, we come to the Nishnabotna, which empties into the Missouri some twenty miles below the southwest corner of our State. It has three principal branches, with an aggregate length of three hundred and fifty miles. These streams drain about five thousand square miles of southwestern Iowa. They flow through valleys of unsurpassed beauty and fertility, and furnish good water power at various points, though in this respect they are not equal to the streams in the northeastern portion of the State.

The southern portion of the State is drained by several streams that flow into the Missouri river, in the State of Missouri. The most important of these are Chariton, Grand, Platte, One Hundred and Two, and the three Nodaways—East, West, and Middle. All of these afford water power for machinery, and present splendid valleys of rich farming lands.

We have above only mentioned the streams that have been designated as rivers, but there are many other streams of great importance and value to different portions of the State, draining the country, furnishing-mill sites, and adding to the variety and beauty of the scenery. So admirable is the natural drainage of almost the entire State, that the farmer who has not a stream of living water on his premises is an exception to the general rule.

*Lakes.*—In some of the northern counties of Iowa there are many small, but beautiful lakes, some of which we will notice. They are a part of the system of lakes extending far northward into Minnesota,

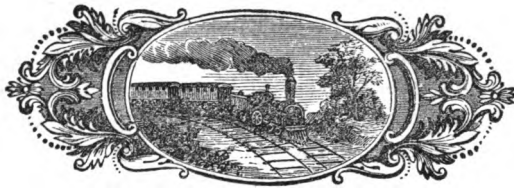


and some of them present many interesting features which the limits of this pamphlet will not permit us to give in detail. The following are among the most noted of the lakes of northern Iowa: Clear Lake, in Cerro Gordo county; Rice Lake, Silver Lake, and Bright's Lake, in Worth county; Crystal Lake, Eagle Lake, Lake Edward, and Twin Lakes, in Hancock county; Owl Lake, in Humboldt county; Lake Gertrude, Lake Cornelia, Elm Lake, and Wall Lake, in Wright county; Lake Cario, in Hamilton county; Twin Lakes, in Calhoun county; Wall Lake, in Sac county; Swan Lake, in Emmet county; Storm Lake, in Buena Vista county; and Okoboji and Spirit Lakes, in Dickinson county. Nearly all of these are deep and clear, abounding in many excellent varieties of fish, which are caught abundantly by the settlers at all proper seasons of the year. The name 'Wall Lake,' applied to several of these bodies of water, is derived from the fact that a line or ridge of boulders, extends around them, giving them somewhat the appearance of having been walled. Most of them exhibit the same appearance in this respect to a greater or less extent. Lake Okoboji, Spirit Lake, Storm Lake, and Clear Lake, are the largest of our Northern Iowa lakes. All of them, except Storm Lake, have fine bodies of timber on their borders. Lake Okoboji is about fifteen miles long, and from a quarter of a mile to two miles wide. Spirit Lake, just north of it, embraces about ten square miles, the northern border extending to the Minnesota line. Storm Lake is in size about three miles east and west by two north and south. Clear Lake is about seven miles long by two miles wide. The dry rolling land usually extends up to the borders of our lakes, making them delightful resorts for excursion or fishing parties, and they are now attracting attention as places of resort, on account of the beauty of their natural scenery, as well as the inducements which they afford to hunting and fishing parties.

*Prairie and Timber.*—One of the peculiar features of the topography of the northwest, is the predominance of *prairies*, a name of French origin, which signifies *grass-land*. It has been estimated that about nine-tenths of the surface of Iowa is prairie. The timber is generally found in heavy bodies skirting the streams, but there are also many isolated groves standing, like islands in the sea, far out on the prairies. The eastern half of the State contains a larger proportion of timber than the western. The following are the leading varieties of timber: White, black, and burr oak, black walnut, butternut, hickory, hard and soft maple, cherry, red and white elm, ash, linn, hackberry, birch, honey locust, cottonwood, and quaking asp. A few sycamore trees are found in certain localities along the streams. Groves of red cedar also prevail, especially along Iowa and Cedar rivers, and a few isolated pine

trees are scattered along the bluffs of some of the streams in the northern part of the State.

Nearly all kinds of timber common to Iowa have been found to grow rapidly when transplanted upon the prairies, or when propagated from the planting of seeds. Only a few years and a little expense are required for the settler to raise a grove sufficient to afford him a supply of fuel. The kinds most easily propagated, and of rapid growth, are cottonwood, maple, and walnut. All our prairie soils are adapted to their growth.



## CHAPTER III.

## GEOLOGY OF IOWA.

*State Geological Survey.*—In January, 1855, the General Assembly passed an act to provide for a Geological Survey of the State. Under authority given by this act, Prof. James Hall of New York was appointed State Geologist, and Prof. J. D. Whitney of Massachusetts, State Chemist. During the years 1855, 1856, and 1857, the work progressed, but was confined chiefly to the eastern counties. A large volume was published in two parts, giving in detail the results of the survey up to the close of the season of 1857, when the work was discontinued. In 1866 it was resumed under an act of the General Assembly passed in March of that year, and Dr. Charles A. White of Iowa City appointed State Geologist. A full report will shortly appear, giving the results of the investigations of the last State Geologist. From the report of Prof. Hall, and the partial report of Dr. White published two years ago, we derive much information concerning the geology of Iowa. While many facts have been developed of interest to the scientific world during the progress of these surveys, we can here only briefly refer to some matters relating to deposits of economic value to the people of the State.

*Coal.*—Every year is adding to our knowledge of, and attesting the importance and value of our vast coal deposits. In some unknown age of the Past, long before the history of our race began, Nature by some wise process, made a bountiful provision for the time when in the order of things, it should become necessary for civilized man to take possession of these broad rich prairies. As an equivalent for the lack of trees, she quietly stored away beneath the soil those wonderful carboniferous treasures for the use and comfort of man at the proper time. The increased demand for coal has in many portions of the State led to improved methods of mining, so that in many counties the business is becoming a lucrative and important one, especially where railroads furnish the means of transportation. The coal field of the State embraces an area of at least 20,000 square miles, and coal is successfully mined in about thirty counties, embracing a territory larger than the State of Massachusetts. Among the most important coal producing counties may be mentioned Appanoose, Boone, Davis, Jefferson, Mahaska, Marion, Monroe, Polk, Van Buren, Wapello, and Webster.

Within the last year or two many discoveries of new deposits have been made, and counties not previously numbered among the coal counties of the State, are now yielding rich returns to the miner. Among these, may be mentioned the counties of Boone, Dallas, Hamilton, Hardin, and Webster. A vein of coal of excellent quality, seven feet in thickness, has been opened, and is now being successfully worked, about five miles south-east of Fort Dodge, in Webster county. Large quantities of coal are shipped from that point to Dubuque and the towns along the line of the Dubuque and Sioux City Railroad. Three or four years ago it was barely known that some coal existed in Boone county, as indicated by exposures along the Des Moines river, but it is only within the last two years that the coal mines of Moingona have furnished the vast supplies shipped along the Chicago and Northwestern Railroad, both east and west. The great productive coal field of Iowa is embraced chiefly within the valley of the Des Moines river and its tributaries, extending up the valley from Lee county nearly to the north line of Webster county. Within the coal field embraced by this valley deep mining is nowhere necessary. The Des Moines and its larger tributaries have generally cut their channels down through all the coal measure strata.

The coal of Iowa is of the class known as bituminous, and is equal in quality and value to coal of the same class in other parts of the world. The veins which have so far been worked are from three to eight feet in thickness, but we do not have to dig from one thousand to two thousand feet to reach the coal, as miners are obliged to do in some countries. But little coal has in this State been raised from a depth greater than one hundred feet.

Prof. Gustavus Hinrich of the State University, who also officiated as State Chemist in the prosecution of the recent Geological Survey, gives an analysis showing the comparative value of Iowa coal with that of other countries. The following is from a table prepared by him—100 representing the combustible :

NAME AND LOCALITY.	Carbon.	Bitumen.	Ashes.	Moisture.	Equiv't Int.	Value.
Brown coal, from Arbesan, Bohemia.....	86	64	8	11	114	88
Brown coal, from Bilin, Bohemia.....	40	67	16	00	123	81
Bituminous coal from Bentheu, Silisia.....	51	49	21	5	126	80
Cannel coal, from Wigan, England.....	61	39	16	3	113	87
Anthracite, from Pennsylvania.....	94	6	2	2	104	96
Iowa coals—average.....	50	50	5	5	110	90

In this table the excess of the equivalent above 100, expresses the amount of impurities (ashes and moisture) in the coal. The analysis

shows that the average Iowa coals contain only ten parts of impurities for one hundred parts of combustible (carbon and bitumen), being the purest of all the samples analyzed, except the Anthracite from Pennsylvania.

The following table shows the number of bushels of coal raised in the several coal counties of the State for the years named, allowing the legal weight of eighty pounds per bushel :

COUNTIES.	1865	1866	1868
Adams	9140	1755	5377
Appanoose	73790	109988	152186
Boone	8395	3670	1573500
Buchanan	50		
Dallas	1700	1765	13975
Davis	15341	29727	9182
Dubuque	100	400	
Fayette			300
Franklin	10		
Greene		1200	200
Guthrie	2796	12675	24500
Hamilton	700		2540
Hardin	16025	30000	112191
Henry		10035	20300
Jasper	925	89215	219915
Jefferson	174836	358675	331645
Johnson		70	
Keokuk	36900	59000	24557
Lee	2884	5040	10650
Lucas	24586	23155	37284
Madison	108	1854	85
Mahaska	221610	638381	1181754
Marion	114790	181206	251258
Marshall			35200
Mills			1000
Monroe	24878	38684	177845
Muscatine	49089	49462	39222
Page	10500	29400	13000
Polk	27922	332769	569965
Poweshiek		100	100
Scott	82730	99200	240300
Story	278		
Taylor	990	2700	
Van Buren	29150	71170	114345
Wapello	757592	164381	68758
Warren	35784	93840	88884
Washington		4000	130
Wayne	9230	18800	280 0
Webster	3250	39593	52865
Winnebuck			19
Total	1666582	2483010	6036324

It will be seen that several of the counties named as reporting small amounts, are outside of the coal-field proper, but small quantities are thus frequently found in remote and isolated positions.

*Peat.*—During the last three or four years extensive deposits of peat, existing in several of the northern counties of the State, have attracted considerable attention. In 1866, Dr. White, the State Geologist, made careful observations in some of those counties, including Franklin, Wright, Cerro Gordo, Hancock, Winnebago, Worth, and Kossuth. Last year the writer hereof also visited the counties named, and from personal observation is convinced that the deposits of peat are as extensive as represented by the State Geologist. It is estimated that the counties above named contain an average of at least four thousand acres each of good peat lands. The depth of the beds are from four to ten feet, and the quality is but little, if any, inferior to that of Ireland. As yet, but little use has been made of it as a fuel, but when it is considered that it lies wholly beyond the coal-field, in a sparsely timbered region of the State, its prospective value is regarded as very great. Dr. White estimates that 160 acres of peat, four feet deep, will supply two hundred and thirteen families with fuel for upward of twenty-five years. It must not be inferred that the presence of these peat beds in that part of the state is in any degree prejudicial to health, for such is not the case. The dry, rolling prairie land usually comes up to the very border of the peat marsh, and the winds, or breezes, which prevail through the summer season, do not allow water to become stagnant. Nature seems to have designed these peat deposits to supply the deficiency of other material for fuel. The penetration of this portion of the State by railroads, and the rapid growth of timber may leave a resort to peat for fuel as a matter of choice, and not of necessity. It therefore remains to be seen of what economic value in the future the peat beds of Iowa may be. Peat has also been found in Muscatine, Linn, Clinton, and other eastern and southern counties of the State, but the fertile region of Northern Iowa, least favored with other kinds of fuel, is peculiarly the peat region of the State.

*Lead.*—Since the year 1833, large quantities of lead have been mined in the vicinity of Dubuque, and the business is still carried on successfully. From four to six million pounds of ore have been smelted annually at the Dubuque mines, yielding from 68 to 70 per cent. of lead. So far as known, the lead deposits of Iowa that may be profitably worked, are confined to a belt of four or five miles in width along the Mississippi above and below the city of Dubuque.

*Other Metals.*—Iron, copper, and zinc have been found in limited quantities in different parts of the State—the last named metal being chiefly associated with the lead deposits.

*Lime.*—Good material for the manufacture of quick-lime is found in abundance in nearly all parts of the State. Even in the northwestern

counties, where there are but few exposures of rock "in place," limestone is found among the boulders scattered over the prairies and about the lakes. So abundant is limestone suitable for the manufacture of quick-lime, that it is needless to mention any particular locality as possessing superior advantages in furnishing this useful building material. At the following points parties have been engaged somewhat extensively in the manufacture of lime, to-wit: Fort Dodge, Webster county; Springvale, Humboldt county; Orford and Indian-town, Tama county; Iowa Falls, Hardin county; Mitchell, Mitchell county; and at nearly all the towns along the streams northeast of Cedar river.

*Building Stone.*—There is no scarcity of good building stone to be found along nearly all the streams east of the Des Moines river, and along that stream from its mouth up to the north line of Humboldt county. Some of the counties west of the Des Moines, as Cass and Madison, as well as most of the southern counties of the State, are supplied with good building stone. Building stone of peculiarly fine quality is quarried at and near the following places: Keosauqua, Van Buren county; Mt. Pleasant, Henry county; Fairfield, Jefferson Co.; Ottumwa, Wapello county; Winterset, Madison county; Ft. Dodge, Webster county; Springvale and Dakota, Humboldt county; Marshalltown, Marshall county; Orford, Tama county; Vinton, Benton county; Charles City, Floyd county; Mason City, Cerro Gordo county; Mitchell and Osage, Mitchell county; Anamosa, Jones county; Iowa Falls, Hardin county; Hampton, Franklin county; and at nearly all points along the Mississippi river. In some places, as in Marshall and Tama counties, several species of marble are found, which are susceptible of the finest finish, and are very beautiful.

*Gypsum.*—One of the finest and purest deposits of gypsum known in the world exists at Fort Dodge in this State. It is confined to an area of about six by three miles on both sides of the Des Moines river, and is found to be from twenty-five to thirty feet in thickness. The main deposit is of uniform gray color, but large masses of almost pure white (resembling alabaster) have been found embedded in the main deposits. The quantity of this article is practically inexhaustible, and the time will certainly come when it will be a source of wealth to that part of the State. So far, it has only been used to a limited extent for paving and building purposes, if we except the recent fraud practiced upon our Eastern cousins by those who manufactured from it that great humbug and swindle of the century, the "Cardiff Giant!" Plaster-of-paris manufactured from the Ft. Dodge gypsum has been found equal to the best in quality.

*Clays.*—In nearly all parts of the State the material suitable for the manufacture of brick is found in abundance. Sand is obtained in the bluffs along the streams and in their beds. Potter's clay, and fire-clay suitable for fire-brick, are found in many places. An excellent article of fire-brick is made at Eldora, Hardin county, where there are also several extensive potteries in operation. Fire-clay is usually found underlying the coal-seams. There are extensive potteries in operation in the counties of Lee, Van Buren, Des Moines, Wapello, Boone, Hamilton, Hardin, and perhaps others.

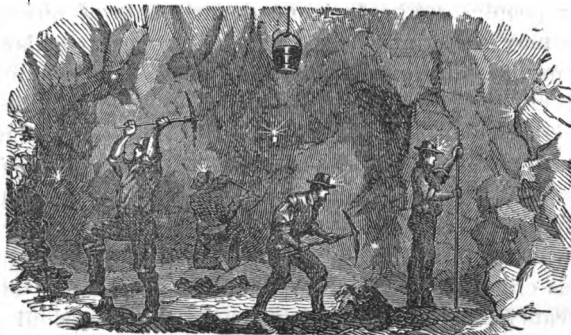
*Soil.*—It is supposed that there is no where upon the globe an equal area of surface with so small a proportion of unutilable land as we find in Iowa. The soil is generally a drift deposit, with a deep covering of vegetable mold, and on the highest prairies is almost equal in fertility to the alluvial valleys of the rivers in other States. The soil in the valleys of our streams is largely alluvial, producing a rapid and luxuriant growth of all kinds of vegetation. The valleys usually vary in extent according to the size of the stream. On the Iowa side of the Missouri river, from the southwest corner of the State to Sioux City, a distance of over one hundred and fifty miles, there is a continuous belt of alluvial "bottom," or valley land, varying in width from five to twenty miles, and of surpassing fertility. This valley is bordered by a continuous line of bluffs, rising from one to two hundred feet, and presenting many picturesque outlines when seen at a distance. The bluffs are composed of a peculiar formation, to which has been given the name of "bluff deposit." It is of a yellow color, and is composed of a fine silicious matter, with some clay and limy concretions. This deposit in many places extends eastward entirely across the counties bordering the Missouri river, and is of great fertility, promoting a luxuriant growth of grain and vegetables.

*Mineral Paint.*—In Montgomery county a fine vein of clay, containing a large proportion of ochre, was several years ago discovered, and has been extensively used in that part of the State for painting barns and out-houses. It is of a dark red color, and is believed to be equal in quality, if properly manufactured, to the mineral paints imported from other States. The use of it was first introduced by Mr. J. B. Packard, of Red Oak, on whose land there is an extensive deposit of this material.

*Spring and Well Water.*—As before stated, the surface of Iowa is generally drained by the rolling or undulating character of the country, and the numerous streams, large and small. This fact might lead some to suppose that it might be difficult to procure good spring or well water for domestic uses. Such, however, is not the case, for good



pure well water is easily obtained all over the State, even on the highest prairies. It is rarely necessary to dig more than thirty feet deep to find an abundance of that most indispensable element, good water. Along the streams are found many springs breaking out from the banks, affording a constant supply of pure water. As a rule, it is necessary to dig deeper for well water in the timber portions of the State, than on the prairies. Nearly all the spring and well waters of the State contain a small proportion of lime, as they do in the Eastern and Middle States. There are some springs which contain mineral properties, similar to the springs often resorted to by invalids and others in other States. In Davis county there are some "Salt Springs," as they are commonly called, the water being found to contain a considerable amount of common salt, sulphuric acid, and other mineral ingredients. Mineral waters are found in different parts of the State. No one need apprehend any difficulty about finding in all parts of Iowa an abundant supply of good wholesome water.



## CHAPTER IV.

## AGRICULTURE AND HORTICULTURE.

IOWA is peculiarly an agricultural State. Whatever inducements she may at present, or in the future, offer to the manufacturer, the miner, or persons engaged in the various other pursuits of life, the essential fact remains, that the true source of her rising greatness and prospective grandeur lies in the capacity of her soil to supply those staples absolutely necessary for the sustenance of man. To this, in a great measure, she owes her rapid development in all those improvements and enterprises so essential to the comfort and convenience of her people. The capitalist, foreseeing what the future is to bring forth, when her millions of uplowed acres have been brought into cultivation, hesitates not to invest his treasure in the building of railroads, and in advancing other improvements, for he knows the investment will yield a rich return in due time. The husbandman has reason for his faith in Iowa, when she so rarely fails to reward him generously for the labor bestowed in the cultivation of the soil. Always true to the confidence reposed in her, she has never failed at the return of harvest to give her people bread. In some departments of agriculture, it is true, there may sometimes be a partial failure in particular localities, but such partial failure is usually compensated by a more generous yield in other localities of the State, and in other crops. Scarcely *one-sixth* of the surface of Iowa has been brought into cultivation, and that, it may be safely said, hardly up to one-half of its producing capacity. Already we have over *two thousand miles of railroad* to carry away the surplus produce of this small fraction of the aggregate area of our State. Iowa stands to-day in population, if not in wealth, as far advanced as either New York or Massachusetts at the end of two hundred years from their first settlement! But, we shall proceed to speak of some of the leading productions of our agriculture, beginning with those which may be regarded as the staples.

*Wheat.*—This is a leading and staple crop in every county in the State, but the northern counties are best adapted to it. So far, our farmers, except in a few of the southeastern counties, have raised chiefly the spring varieties. The yield has ranged all the way up from ten to forty bushels per acre. An average of from fifteen to twenty bushels per acre, however, is not unusual, and many a man has more

than paid for his land and all expenses out of the proceeds of his first crop of wheat! In 1868 the aggregate yield was 17,963,555 bushels, of which 1,140,035 bushels were winter wheat. The crop of 1869 was still larger, though the quality was not so good, and the price less remunerative.

*Corn.*—This crop is successfully raised in all parts of the State, but the southern portion is best adapted to it. Under favorable circumstances, the yield is from fifty to one hundred bushels per acre. The figures, as returned in the census reports, always include a large number of acres of what is called in the West, *sod-corn*, and are, therefore, not a fair test of the average of our corn crops. *Sod-corn* is raised by planting the seed in the sod the first year, and although it receives no cultivation, it sometimes produces from ten to fifteen bushels per acre. In 1867, Iowa produced about 70,000,000 of bushels of corn, and in 1868 the report shows 76,507,575 bushels. This crop, as well as all others, is raised with less than half the labor usually required on the worn-out soils, or among the stones and stumps, with which the Eastern farmer has to contend. Our prairies admit of the use of all kinds of improved machinery, rendering all farm labor comparatively easy, as well as expeditious.

*Oats.*—This crop rarely fails to yield abundantly in all sections of the State, though perhaps the northern portion is best adapted to it. The yield has often been as high as ninety bushels per acre, but from forty to sixty bushels is the common crop. The yield as reported for 1868, was 18,596,625 bushels. The crop of last year was doubtless a great deal larger.

*Other Cereals.*—Our soil is well adapted to the production of buckwheat, barley, and rye, though our farmers have not given them so much attention as they have other crops. In 1868 the yield of buckwheat was 144,920 bushels; barley, 1,144,454 bushels; and rye, 496,347 bushels.

*Irish Potatoes.*—Potatoes usually yield well throughout the State; but the new counties in the northwest bear off the palm in this crop. In Buena Vista county the average yield of 1868, was 193.15 bushels per acre. It is nothing uncommon, with careful cultivation, to raise as high as three hundred bushels per acre. Our Iowa potatoes are superior in size and flavor, and the crop is becoming one of great importance. In 1868, Iowa produced 4,417,858 bushels of Irish potatoes, and the crop of last year was still larger.

*Sorghum.*—For the last ten years a majority of Iowa farmers have cultivated sorghum to a limited extent. Our soil and climate are well adapted to its growth, and so far as attention has been given to this crop, it has proved eminently successful. The following table shows

the number of acres, yield of syrup, average per acre, and value per acre for five different years since the introduction of Sorghum into Iowa:

YEAR.	Acres	Gallons of Syrup	Average per Acre.	Value per Acre.
1858.....	5606	410776	74 galls.	\$37.00
1862.....	87607	3442396	92 galls.	46.00
1864.....	21452	1543605	67 galls.	41.00
1866.....	25796	2094557	81 galls.	57.00
1868.....	26243	2592393	99 galls.	74.00

*Flax.*—This plant grows to great perfection, but is raised mostly for the seed. The breadth of the crop for the year 1868, was 17,842 acres, and the yield 96,395 bushels of seed. We have no data showing to what extent the lint was used.

*Grasses and Hay.*—Timothy, red clover, blue-grass, as well as all other tame grasses, flourish in all parts of Iowa where they have been introduced. In the newer counties of the State, the luxuriant and spontaneous growth of native grasses, renders the sowing of tame grasses unnecessary, especially as the quality of the hay made of the former is scarcely inferior to that of the latter. In 1868, the report shows 602,816 acres of tame grasses, with a yield of 677,907 tons of hay from the same. The number of tons of hay made from wild grasses the same year, was 1,059,117. The species of wild grass known as "blue-joint," is noted for its nutritious qualities, and grows luxuriantly on the prairies in the northern and northwestern portions of the State. It often yields over three tons per acre. The vast natural meadows in all the new counties of Iowa furnish every man an abundance of hay at the mere expense of cutting and saving. When in the future all these broad *free meadows* shall become cultivated farms, then the tame grasses must be resorted to, as in some of the older counties at the present time.

*Bulbous Plants.*—Onions, parsnips, carrots, beets, radishes, and all other bulbous plants common to this latitude, are easily raised and attain great perfection. In 1868, the onion crop of the State covered 995 acres, and the yield was 115,742 bushels. Of this yield, Scott county alone produced 54,334 bushels, some of her citizens having for several years made this crop a specialty.

*Salad Plants.*—All plants of this character grow to great perfection. Cabbage, lettuce, celery, spinach, and all other garden plants of this class, are easily raised, very nutritious, and attain a luxuriant growth.

*Other Plants and Vegetables.*—Sweet potatoes, melons, pumpkins, squashes, and various kinds of beans and peas, are all prolific, and

flourish in all our fields and gardens, with ordinary care and cultivation. In short, it may be truly said that there is no place on the continent where the soil is more certain to yield an ample reward for the labor bestowed upon it, than in Iowa. It demands less labor to keep it free from noxious weeds than the farmers of the Eastern States are required to bestow upon their crops.

**STOCK RAISING.**

The last report of the Commissioner of Agriculture, at Washington, places Iowa among the "seven leading stock-raising States" of the Union. In the total value of live stock she ranks the fifth; in horses, fifth; in oxen and other cattle, sixth; in sheep, sixth; and in hogs, fourth. The seven leading States referred to, are New York, Ohio, Pennsylvania, Illinois, Iowa, Indiana, and Missouri. The following is a statement of the total value of live stock, February 1, 1869, in the United States, and the seven States named :

United States.....	\$1,527,705,029
New York.....	182,765,369
Ohio.....	140,991,690
Pennsylvania.....	121,138,589
Illinois.....	120,589,917
Iowa.....	95,109,517
Indiana.....	79,782,286
Missouri.....	64,480,717

When we consider that Iowa is the youngest sister of the seven—that the moccasin marks of the Indian are scarcely yet obliterated from her soil—we can justly claim that the above comparison reflects great credit upon her, and that she has achieved an enviable rank among the great agricultural and stock-producing States of the Union.

The following is a statement of the shipments of stock, and its products, for the years 1868 and 1869, over certain leading railroads of the State, to-wit: Burlington & Missouri River; Chicago, Rock Island & Pacific; Chicago & Northwestern; Dubuque & Sioux City; Milwaukee & St. Paul; and Des Moines Valley :

ITEMS.	1868	1869
Number of cattle exported .....	82821	90141
Number of live hogs exported.....	431734	580907
Pounds of dressed hogs.....	21051187	7767202
Pounds of pork in barrel.....	8009835	9378453
Pounds of lard.....	2645829	3618042
Number of sheep exported.....	48464	57825
Pounds of wool exported.....	2061739	2956526
Number of horses shipped East .....	970	1597

This does not include all the exports of Iowa of the classes named, for the years 1868 and 1869, as large quantities were also shipped by water from the various points along the Mississippi and Missouri rivers; but it is not practicable to obtain the figures showing the amount of such shipments.

The business of stock-raising is one of great importance to Iowa. All kinds of stock always find a sure and ready market, and at remunerative prices to the producer. Our railroads afford quick and easy transportation to the best markets of the East, and the farmer in possession of a herd of cattle, hogs, or sheep, knows he can command the cash for them at any time. The farmer of southern Iowa, with judicious management, can hardly fail to become independent from the profits on his hogs and corn; while the farmer of the northern portion of the State is equally fortunate in his superior advantages for raising wheat and cattle.

The following table shows the number of different kinds of live stock in Iowa for the years named, also the amount of some of their products:

ITEMS.	1864	1866	1868
Number of hogs of all ages.....	1037117	1620089	2409679
Number of cattle of all ages.....	901831	956169	2108667
Number of milk cows.....	310137	326559	367602
Number of pounds of butter made.....	14538216	19192727	22065724
Number of pounds of cheese made.....	1000738	1403864	1188546
Number of work oxen.....	37717	27246	26726
Number of sheep.....	.....	1708958	2370106
Number of pounds of wool.....	.....	5323385	4478934
Number of horses of all ages.....	316702	425055	482786
Number of mules and asses.....	14303	22037	28420
Value of stock sold in 1868.....	.....	.....	\$ 20549977

Of late years, increased attention has been given to improving the the breeds of stock of all kinds. For this we are indebted in a great measure to the stimulus imparted by the annual exhibitions of our State Agricultural Society, as well as by the competition incited by the numerous County Societies—there being now in the State some sixty-five of the latter organizations, all doing good and working successfully. Our State Society was organized some sixteen years ago, with Dr. J. M. Shaffer, of Fairfield, as Secretary, who has continued to serve in that position ever since, except for an interval of one or two years. His elaborate and well written reports furnish a flattering record of the growth of Iowa in the departments of agriculture and horticulture.

*Bee Culture.*—Iowa has long been celebrated as peculiarly adapted to the apiary—no State being more nearly a literal illustration of the Scriptural “land flowing with milk and honey.” The marvelous

profusion of flowers during the spring and summer months supplies the sweets, wherewith

"The little busy bee  
Improves each shining hour,  
And gathers honey all the day  
From every opening flower."

But to descend from poetry to statistics, we state that for the years 1864, 1866, and 1868, the average number of bee hives reported was 85,135, and the average number of pounds of honey taken annually, was 888,287. In 1864, we had the extraordinary yield of 1,128,399 pounds.

### FRUITS.

*Apples.*—This is the king of all our fruits, and every year is demonstrating that the soil and climate of Iowa are adapted to its successful culture. In competition with fruits exhibited from various sections of the Union, our horticulturists have received the highest awards of merit for size, beauty and flavor of the productions of Iowa orchards. Since our nurserymen have learned the varieties suited to our climate and soil, we have discovered that there is no difficulty in raising all the apples we need. The yield of 1868 was 666,148 bushels. The following figures for certain years indicate our progress in this branch :

ITEMS.	1865	1867	1869
Number of fruit trees in bearing . . . . .	636458	1075177	1539943
Number of fruit trees not in bearing. . . . .	2523905	3629789	4100207

*Grapes.*—This delicious fruit has proved successful wherever it has been tried in Iowa. Certain varieties, however, are peculiarly adapted to the climate. The Concord is hardy, delicious, and with us, a prolific and certain bearer. The Hartford Prolific, Delaware, Clinton, and many other kinds do well. Capt. James Mathews, of Knoxville, and many other Iowa grape-growers, have succeeded in raising many excellent varieties.

*Cherries.*—The Early May (or Richmond) and the Morello, are the cherries that succeed best—the former rarely failing to yield an abundant crop.

*Peaches.*—We occasionally have a crop of peaches in certain portions of the State, but we cannot claim that this fruit with us is a success.

*Plums.*—Several varieties of plums are raised, but the crop is not regarded as a certain one, except as to two or three kinds. Some of our

numerous varieties of native plums are very delicious, and are improved by cultivation.

*Pears.*—This fruit is somewhat subject to blight, but with care, and when planted on clay soil, often succeeds well.

*Currants.*—The Red Dutch and several other varieties invariably succeed. Sometimes a late frost may shorten the yield, but they rarely fail to produce abundantly.

*Gooseberries.*—This fruit, like the currant, is easily and abundantly raised all over the State.

*Strawberries.*—The owner of a few square feet of ground, with little labor and expense, may supply his table. Perhaps the best varieties for our climate are Wilson's Albany, Downer's Prolific, McAvoy's Superior, and Jenny Lind. Some others are claimed as having superior merits.

*Raspberries.*—Many kinds of this delicious fruit are cultivated successfully.

*Wild Fruits.*—Our groves yield many native, or wild fruits, among which are grapes of several varieties, plums of between thirty and forty different kinds, crab-apples, cherries, gooseberries, raspberries, blackberries, and strawberries. In localities where tame fruits have not yet been cultivated, the native fruits serve the settler as an excellent substitute. In the spring of the year many of the groves bordering our small streams present scenes of the most enchanting loveliness, where clumps of native plum trees mingle their snowy crowns with the dashing red blossoms of the wild apple. Such landscapes are not only grateful to the eye of the beholder, but a delicious fragrance fills the air, which impresses the mind with a sense of a realization of its fondest ideal of the "land of flowers."

#### CLIMATE AND HEALTH.

Prof. T. S. Parvin of the State University, and Dr. J. M. Shaffer, Secretary of the State Agricultural Society, have for years given considerable attention to the climatology of Iowa. The average, or mean temperature, from a series of observations taken at different points and in different years, is found to be 40°. The temperature of our winters is usually somewhat lower than that of the States east of us, but that of the other seasons higher, so that all vegetation is forced forward rapidly to maturity. We have a somewhat less average amount of rain than that which falls in the States bordering on the Atlantic. The quantity which falls yearly in Iowa is found to average about 40½ inches, and of snow 30 inches—equivalent to three inches of rain, making a total of 43½ inches. We occasionally have a season which



greatly exceeds the average in the fall of rain, but never one marked with such extreme drought as to occasion a failure of crops.

The opinion may prevail to some extent that the climate, especially of Northern Iowa, is rigorous, and the winters long and severe. It is true that the mercury usually sinks lower than in the States further south, but at the same time the atmosphere is dry and invigorating, and the seasons not marked by the frequent and sudden changes which are experienced in latitudes further south. The winters are equally as pleasant and more healthful than in the Eastern or Middle States. Pulmonary and other diseases, arising from frequent changes of temperature, and miasmatic influences, are almost unknown, unless contracted elsewhere. Winter usually commences in December and ends in March. The spring, summer, and fall months are delightful. Iowa is noted for the glory and beauty of its autumns. That gorgeous season denominated "Indian Summer," cannot be described, and in Iowa it is peculiarly charming. Day after day, for weeks, the sun is veiled in a hazy splendor, while the forests are tinged with the most gorgeous hues, imparting to all nature something of the enchantments of fairyland. Almost imperceptibly, these golden days merge into winter, which holds its stern reign without the disagreeable changes experienced in other climes, until spring ushers in another season of life and beauty. And so the seasons pass, year after year, in our beautiful and healthful Iowa.



## CHAPTER V.

## EDUCATION, STATE INSTITUTIONS, AND RAILROADS.

*Common Schools.*—While Iowa is fostering and building up many excellent institutions of a higher order, the glory of her educational work consists in her admirable system of common schools—her peoples' colleges. The Superintendent of Public Instruction is the highest school officer of the State, and exercises a general supervision over its educational interests, so far as relates to the public schools. Each county has a county superintendent, who examines applicants for teachers' certificates, visits the schools, reports annually to the State Superintendent, and exercises a general charge over the schools of the county. Each civil township constitutes what is called a district township, which is divided into sub-districts, and each sub-district elects a sub-director. The several sub-directors in the district township constitute a Board of Directors. In towns and cities we have independent districts, which elect officers to manage their affairs independently of the district townships.

The public schools are supported by funds arising from several different sources. In the first place, the sixteenth section of every congressional township was set apart by the Government for school purposes—being *one thirty-sixth* part of all the land in the State. Congress also made to the State an additional donation of 500,000 acres, and an appropriation of 5 per cent on all the sales of public lands in the State. The State also gives the proceeds of the sales of all lands which escheat to it. The money derived from these sources constitutes our *permanent school fund*, and, including the proceeds of the land still unsold, will amount to over *four millions* of dollars. The interest on this fund is apportioned by the State Auditor semi-annually to the several counties of the State, in proportion to the number of persons between the ages of five and twenty-one years. The counties also levy an annual tax for school purposes, which is apportioned to the several district townships in the same way. A district tax is also generally levied for the same purpose. The money arising from these several sources constitutes the support of our public schools, and is sufficient to enable every sub-district in the State to afford from six to nine months school each year.

The following statement, derived from official sources, will show the condition of our public schools at the date of October 5, 1869:

District townships, including independent districts.....	1,462
Sub-districts .....	6,778
Persons between the ages of 5 and 21 years .....	418,168
Schools during year.....	6,788
Graded schools.....	221
Pupils attending public schools .....	296,138
Average attendance.....	178,329
Male teachers employed .....	4,479
Female teachers employed.....	7,515
Average wages of male teachers per week .....	\$ 9.24
Average wages of female teachers per week.....	6.79
Aggregate amount paid teachers for the year.....	1,488,964.04
School houses—Brick.....	527
Stone.....	229
Frame.....	5,192
Log .....	459—
	6,407
Value of school houses.....	\$5,295,364.45
Volumes in school libraries.....	8,932
Value of school apparatus .....	\$79,178.05

Each year our public schools are attaining a higher standard of excellence. Our school-houses are generally good and comfortably furnished—many of them being edifices which cost from \$10,000 to \$75,000. The number is rapidly increasing, over four hundred having been erected last year. The most marked improvement, however, is in their character, as a large proportion of them are costly and substantial buildings, provided with all the modern improvements and conveniences.

In addition to the public schools, we had last year fifty-three colleges and academies, with four thousand seven hundred and twenty-eight students attending them; and, also, seventy-two other private and denominational schools, with four thousand two hundred pupils attending them. In our colleges, academies, and private schools, three hundred and twelve teachers were employed.

*State University.*—This institution is located at Iowa City, the former capital of the State. Early in the history of the State Congress made a munificent appropriation for its endowment, and the University was created by an act of the General Assembly during the session of 1846-7. In June, 1869, its permanent productive endowment amounted to \$212,396.28. The unsold lands, and estimated value of buildings and grounds, amounted to the further sum of \$175,049.28. The State has

made liberal provision, by appropriations from time to time, for building up an institution which is an honor to Iowa, and will prove a blessing to all its sons and daughters who may avail themselves of its privileges, for both sexes are entitled to its advantages. It is now under the control of a Board of Regents elected by the General Assembly of the State, and is designed to be an integral part of that liberal system of education, of which the common school is the foundation. Last year four hundred and sixteen students were in attendance.

*State Agricultural College.*—In 1858 the General Assembly made an appropriation of \$10,000 for purchasing a tract of six hundred and forty acres of land for an Agricultural College and an experimental farm. The selection of the land was made in Story county, about thirty miles north of the capital of the State. In July, 1862, Congress made a donation of land to the several States for endowing Agricultural Colleges, and under this grant Iowa received 240,000 acres. This will constitute a magnificent endowment, and place the institution on a permanent basis. The State has erected a costly and beautiful edifice, and made other extensive improvements on the farm. The farm and college are delightfully situated on the line of the Chicago & Northwestern Railroad, near the pleasant and thriving town of Ames. The first college year commenced in March, 1869, preparatory and college departments being then organized. During the year one hundred and ninety-two students were in attendance, about one-fourth of whom were young ladies. A system of manual labor is connected with the college—the labor of the students being credited to their expense accounts. The college is under the control of a Board of Trustees appointed by the General Assembly.

It will thus be seen, that with her 6,788 common schools, her State University, and her Agricultural College, together with 53 other colleges and academies, and 72 private and denominational schools, Iowa has provided ample facilities for the education of her youth. Nor should we forget her newspaper press, the great medium of popular and general education. She has 19 daily newspapers, 206 weeklies, and 16 other periodicals, making a total of 241. In ability of management and mechanical execution, her press may challenge comparison with that of any other State.

*Hospital for the Insane.*—Iowa is not behind other States in making a benevolent and liberal provision for the afflicted and unfortunate among her citizens. Fourteen years ago the State commenced the erection at Mt. Pleasant of a building for the care and treatment of the insane. In size, finish, and completeness of arrangement in all its parts, it is not second to any other building designed for a similar

purpose in the United States. It is of sufficient capacity for the accommodation of nearly four hundred patients. Since it was opened nearly fifteen hundred patients have been treated—many of them being from other States and Territories. Another Hospital of a similar character is now in process of erection at Independence, Buchanan county.

*Institution for the Blind.*—The State has also made ample provision for this unfortunate class by the erection at Vinton, Benton county, of a fine cut stone edifice of ample size and imposing appearance. Like the Hospitals for the Insane at Mt. Pleasant and Independence, this building is constructed of a fine quality of building stone, obtained in the immediate vicinity. Since the establishment of this institution about two hundred pupils have enjoyed its advantages.

*Institution for the Deaf and Dumb.*—Years ago the State provided for the education of the deaf and dumb, and established at Iowa City a temporary institution for that purpose. Two years ago a liberal appropriation was made to commence the erection at Council Bluffs of a building which, when completed, will be a monument worthy of the humane policy of the State. The edifice is beautifully located a short distance below the city of Council Bluffs, on an elevation commanding a view of that city, and also of Omaha and the grand valley of the Missouri.

*Orphans' Homes.*—It is not to be presumed that Iowa, after sending seventy thousand of her best citizens to defend the Union, should neglect to provide for the orphans of those who fell in the cause. By timely and generous appropriations of money, three Homes were established for soldiers' orphans, located respectively at Davenport, Cedar Falls, and Glenwood. At these Homes nearly thirteen hundred children have received that education and support from the State to which they were no less than justly entitled.

*The Penitentiary.*—Iowa has less than the average per centage of crime, but as society is no where exempt from the moral evils incident to the race, the State at an early day found it necessary to protect itself from crime and its consequences, and therefore established a penitentiary at Fort Madison, Lee county. The number of convicts has never exceeded 230 at any one time, which is not an unfavorable showing for a State of over one million of souls.

*Reform School.*—This institution, also located for the present in Lee county, was established two years ago, and is designed for juvenile offenders. The inmates are subjected to a system of moral, religious, and intellectual training, which it is believed, will result in much practical good to themselves and to society.

*State Historical Society.*—This is justly entitled to be considered one of the State institutions, inasmuch, as several years ago the State

received it under its protecting and fostering care. It is placed under the auspices of the State University, at Iowa City and managed by a Board of Curators. The primary object is to collect and preserve, as far as possible, the past and current history of the State, and for this purpose it publishes a quarterly historical periodical, entitled "Annals of Iowa." The State has very properly made appropriations from time to time to assist in carrying out the objects of the Society, and to enable it to collect and preserve so much that will be of great interest and value to the future generations of Iowa.

*Central Location of Iowa.*—The location of Iowa centrally in the great valley of the Mississippi, between the two east and west extremes of the country, and between the two great navigable rivers of the continent, is peculiarly favorable. It is not dependent on the East alone to furnish a market for its surplus produce, for the mines of the Rocky mountains and the regions west will send down to us their demand for meat and bread, and Iowa will be, in one sense at least, their Egypt. We will take their gold and send them our corn. Our railroads connecting with the Union Pacific and its branches, will furnish the means of transportation, and already the western portion of the State is deriving great benefits from the market of the mining districts. This choice of markets will always result in great advantages to Iowa. When there is a demand at the East, and prices of provisions are high, Chicago, Milwaukee, and other markets in that direction, will reach out their iron arms towards us. Nor is it likely that we shall long remain without a choice of the means of sending our surplus produce to Eastern markets, for the day is not distant when in all human probability we shall have direct water communication from Iowa to the Atlantic by the proposed improvement of the Wisconsin and Fox rivers, opening a grand commercial channel to the great lakes, and thence to the sea-board. The South is also easily accessible, both by river and rail, so that Iowa may take advantage of a market in that direction when there is a scarcity there.

#### OUR RAILROAD SYSTEM.

In 1856, Congress made a munificent grant of lands to the State to aid in the building of railroads. The State donated the lands to various companies for the construction of *five great trunk lines* crossing it from east to west. The great financial crash immediately following this grant, and the civil war which succeeded, of course tended to delay the building of railroads in Iowa, as well as in other States. Since the return of peace, however, our lines of railway have multiplied and lengthened with wonderful rapidity. Four great trunk lines are already completed from the east to the west boundary, and another

year will probably suffice for the completion of the fifth. All of these roads form connections with roads leading to Chicago and the great markets of the East, and also, either directly or indirectly, with the great Union Pacific Railroad, which has its eastern terminus in Iowa, at Council Bluffs. The four grand east and west trunk lines now completed, and the one not yet completed, we will notice separately.

*Burlington & Missouri River Railroad.*—This road has its eastern terminus at Burlington, and its western at Pacific Junction, opposite Plattsmouth, Nebraska. It passes through the eleven counties in the second tier from the south line of the State. At Burlington it connects with the Chicago, Burlington & Quincy Railroad, by means of a splendid bridge over the Mississippi. From its western terminus on the Missouri river, the same company is extending a line through Nebraska to connect with the Union Pacific at Fort Kearney. They are also building a branch from Red Oak Junction, in Montgomery county, down the valley of the Nishnabotna river to Nebraska City. The main line now connects with the Union Pacific at Council Bluffs, over the St. Joseph & Council Bluffs railroad.

*Chicago, Rock Island, & Pacific Railroad.*—This is the next east and west road north of the one just described, and crosses the State from Davenport to Council Bluffs, passing through the city of Des Moines, where it connects with the Des Moines Valley railroad. A branch extends from Wilton Junction, in Muscatine county, to the city of Muscatine, and thence to Washington, in Washington county. This branch is now being continued under the name of the Chicago & Southwestern railroad, to Fairfield, Jefferson county. From the latter point, where it will connect with the Burlington & Missouri River railroad, it will be extended through the counties of Davis and Appanose to Cameron, Missouri, where it will connect with other lines leading to Kansas City, and ultimately forming a great iron highway to Galveston, Texas. At Council Bluffs the Chicago, Rock Island & Pacific railroad forms a direct connection with the Union Pacific. It also connects with roads in Illinois over a substantial bridge spanning the Mississippi at Davenport.

*Chicago & Northwestern Railroad.*—This is the name by which the road running from Clinton to Council Bluffs is generally known. It embraces the two lines legally designated as the *Chicago, Iowa, and Nebraska*, from Clinton to Cedar Rapids, and *Cedar Rapids and Missouri River*, from Cedar Rapids to Council Bluffs. The two roads are now operated as one, and was the first to be completed across the State. It passes through the middle tier of counties, and connects with Illinois roads by a fine bridge over the Mississippi at Clinton.

*Dubuque & Sioux City Railroad.*—This road, like the one last described, was constructed by two different companies. From Dubuque to Iowa Falls it is known as the *Dubuque and Sioux City* railroad, and west of Iowa Falls as the *Iowa Falls and Sioux City R. R.* This road was completed the present year, and makes the fourth great trunk line across the State. At Sioux City it connects with the Sioux City and Pacific railroad, running down the valley of the Missouri river on the Iowa side. West of Fort Dodge, in the counties of Webster, Calhoun, Pocahontas, Buena Vista, Cherokee and Plymouth, it passes through a comparatively new and unsettled portion of the State. It is, however, rapidly settling up, as the broad prairies here are of unsurpassed fertility, and a market communication already provided for the thousands of pioneer farmers who one year ago accepted *free homes* from a generous government. Near the line of this road, it is true, all the lands are now taken, but many thousands of acres are held by second parties subject to sale at reasonable prices, and on easy terms. This road too, has connection with roads leading to Chicago over a fine bridge across the Mississippi at Dubuque.

*McGregor & Missouri River Railroad.*—This road is to be completed the present year as far west as Algona, Kossuth county, and next year it is expected that it will be extended to its western terminus, connecting with the St. Paul and Sioux City railroad in O'Brien county. It will open to settlement and cultivation a vast and fertile area of our State which is still in a condition of nature—where few white men have even yet been, save the surveyor, the hunter, and the land-seeker, but from which the Indian long since departed. The greater portion of the line of this road passes through the second tier of counties from the north line of the State. West of Cerro Gordo county the country through which it passes is sparsely timbered, but the soil is deep, rich and productive. At Algona, the line passes through some good bodies of timber on the east bank of the Des Moines river, and also at the crossing of the west branch in Palo Alto county. West of this, in the counties of Clay, O'Brien and Sioux, the route is through a broad expanse of undulating prairie country, with only an occasional cluster of trees to be seen bordering the margin of some quiet little lake, and a small grove or two on the Little Sioux river in Clay county. The completion of this and the St. Paul and Sioux City Railroad will develop a portion of Iowa that is now attracting great attention on account of its beauty and fertility, but of which, until recently, comparatively little has been known.

Another east and west road is projected, and will probably be built in due time, running through the south tier of counties from Keokuk



to Nebraska City. This is known as the Iowa Southern Railroad. In addition to the great lines of railway running east and west, we have numerous roads projected and in course of construction in other directions across the State. We mention some of these important lines.

*Des Moines Valley Railroad.*—This road has its south-eastern terminus at Keokuk, and runs up along or near the valley of the Des Moines river to to the north line of the State. It is now completed to its junction with the Iowa Falls and Sioux City Railroad near Fort Dodge a distance of about two hundred and fifty miles, and will be extended rapidly forward to the north line of the State, crossing all the great east and west roads. This road, built chiefly by Iowa capital and enterprise, is one of the most important in the State, and its extension above Fort Dodge along the valley of the Upper Des Moines, will tend to develop the resources of a portion of the State of inexhaustible fertility. Of the lands now in the market belonging to this road we shall speak elsewhere.

*Sioux City & Pacific Railroad.*—This road runs from Sioux City down the great valley of the Missouri river, a distance of seventy-five miles, to Missouri Valley Junction, where it connects with the Chicago & Northwestern railroad. A ride along this road affords the passenger a fine view of that wonderfully rich "Missouri bottom," varying in width from ten to twenty miles. He is never out of sight of that long and sinuous line of "bluffs" looming up in the distance along the eastern border of the valley, scalloped and carved by the hand of time into a thousand weird looking and fantastic shapes; while glancing to the west, the groves of giant cottonwoods, and the gently rising slopes of Nebraska, form part of a most charming picture. All the intervening miles between the two extremes are made up of groves, farms, and broad expanses of "bottom prairie," covered with native grass and flowers, and awaiting the coming hand of cultivation.

*St. Joseph & Council Bluffs Railroad.*—From Council Bluffs this road extends down the Missouri valley through the counties of Pottawattamie, Mills, and Fremont, a distance of over fifty miles in Iowa. It connects all the western parts of Iowa with St. Joseph, Kansas City, St. Louis, and other important points south. The Missouri valley is not so wide below as above Council Bluffs, but the soil is of the same character as to fertility.

*Central Railroad of Iowa.*—This promises to be one of the very important north and south roads of the State. That portion of the line between Ackley, Hardin county, and Marshalltown, Marshall county, is now completed and running, thus connecting two of the great east and west roads. From these points the work of construction is rapidly progressing both ways, and the road when completed, will tap all the

important east and west lines. It will also pass through a portion of the State rich in mineral and agricultural resources.

*Cedar Falls & Minnesota Railroad.*—This road runs from Cedar Falls, where it connects with Dubuque & Sioux City railroad, up the fine valley of Cedar river to Austin, Minnesota. It passes through a beautiful and prosperous portion of the State, with such fine towns on the line as Janesville, Waverly, Nashau, Charles City, Osage, Mitchell, and St. Ansgar.

*Burlington, Cedar Rapids, & Minnesota Railroad.*—This road will run from Burlington to Cedar Rapids, and thence to Waterloo *via* Vinton. It is already finished from Burlington to its junction with the Wash-ton branch of the Chicago, Rock Island, & Pacific, in Louisa county and also from Cedar Rapids to Vinton, being an aggregate of about seventy miles. This road, in connection with the Cedar Falls & Minnesota railroad, will make another great north and south line across the State.

*St. Louis & Cedar Rapids Railroad.*—This road has its southern terminus at the State line, near the south-east corner of Appanoose county, where it connects with the North Missouri railroad, running to St. Louis. It is now completed to Ottumwa, Wapello county, a distance of forty-two miles, crossing the Des Moines river at the latter place on a fine and substantial bridge just finished. It passes through the counties of Appanoose and Davis, and the thriving towns of Moulton and Bloomfield.

*Keokuk & St. Paul Railroad.*—This line extends from Keokuk to Fort Madison, a distance of about twenty-five miles.

*Burlington & Southwestern Railroad.*—This road is finished from Burlington to Fort Madison, where it connects with the road last mentioned, uniting by rail the two important cities of Burlington and Keokuk.

*Dubuque & Southwestern Railroad.*—The northern terminus of this road is at Farley, Dubuque county, on the line of the Dubuque & Sioux City railroad. From this point it runs south-west fifty-five miles to Cedar Rapids, on the line of the Chicago & Northwestern railroad. It passes through the fine towns of Monticello, Anamosa, and Marion.

*Dubuque, Bellevue, & Sabula Railroad.*—The last General Assembly, in the distribution of lands granted to the State for railroad purposes, appropriated about forty thousand acres to aid in the building of a railroad down the Mississippi river from the City of Dubuque, to Sabula, in Jackson county. The work is now under way.

*St. Paul & Sioux City Railroad.*—This road is provided with a liberal grant of lands, and when finished, will be of vast importance to the rich but sparsely timbered northwestern part of our State. It will afford

access to the lumber regions of Minnesota and Wisconsin, and thus prove a great blessing in the settlement of our northwestern counties. It will probably pass through the counties of Osceola, O'Brien, Sioux, Plymouth, and Woodbury, its southwestern terminus being Sioux City.

*Sabula, Ackley, & Dakota Railroad.*—A company has recently been organized for the building of a railroad to commence on the Mississippi at, or near Sabula, Jackson county, and thence to run in a north-westerly direction near the town of Ackley, to some point on the Big Sioux river in the northwestern part of the State.

Several roads are projected, connecting Des Moines, the capital of the State, with important points south, south-west, and north-east. About sixty of the several county seats now have railroad connection, directly or indirectly, with the capital. Wherever railroads go telegraph lines also follow. We are not only joined to the commercial world by more than two thousand miles of iron track, but the live lightning of our thought, responding to the great heart-throbs of humanity, flashes across our prairies over as many miles of wire!



## CHAPTER VI

## THE LAND GRANT RAILROADS AND THEIR LANDS NOW IN THE MARKET.

Superior facilities for acquiring cheap lands in Iowa are now offered to actual settlers by several of the land grant railroad companies. Knowing that the business of their roads depends upon the development of the country through which they pass, they have wisely brought their lands into the market, and upon such terms as must result in their speedy sale and settlement. In this chapter we propose to give further information in regard to the railroad lands now offered for sale, and of the roads to which they belong. It is really a gratifying fact that these corporations prefer to have this vast and rich domain pass into the hands of actual settlers, who will render it productive. This liberal policy will result, not only in great advantage to the thousands who may thereby become land owners, but to the corporations themselves.

## THE BURLINGTON &amp; MISSOURI RIVER RAILROAD, AND ITS LANDS.

This is the most southerly of the great east and west land grant roads of Iowa. It passes through the eleven counties in the second tier from the south line of the State, to-wit: Des Moines, Henry, Jefferson, Wapello, Monroe, Lucas, Clarke, Union, Adams, Montgomery and Mills. Its entire length from Burlington on the Mississippi to Pacific Junction in the Missouri valley, is two hundred and seventy-five miles. Nearly one hundred miles of this line were built in 1869, and the present season will witness its completion to Lincoln, the capital of Nebraska, fifty miles from Plattsmouth. The road passes through a country rich in agricultural resources, and cuts the great bituminous coal belt of the State in the counties of Jefferson, Wapello, and Monroe. Other counties along the line also yield considerable quantities of coal, and, as the mines are developed, the supply will doubtless be found practicably inexhaustible. Some of the counties, as Des Moines, Henry, Jefferson, Wapello, and Monroe, are also well supplied with building stone of good quality. The first one hundred and thirty miles, reaching from Burlington to Chariton, Lucas county, is generally alternating forest and prairie. Beyond this, for one hundred and twenty-five miles, the country is more open, the broad

prairies rolling away in wavy undulations on all sides. Narrow belts of timber skirting the numerous streams, however, are never out of sight. It requires no prophetic inspiration to behold here in the near future a rich and populous portion of our State. The soil is deep, of exhaustless fertility, and must become a great fruit and grain producing region, as its grazing resources are now unlimited.

Passing along the line of this road, we get some idea of the drainage of Iowa. Between Burlington and Ottumwa, 75 miles west, three principal streams are crossed—Big Creek, Skunk River, and Big Cedar Creek. Near Ottumwa we cross the Des Moines, and in Monroe county another Cedar Creek, and passing on, we cross the White Breast in Lucas county. The next stream of considerable size is Grand River, which we cross in Union county, with a succession of smaller streams tributary to it. Near the west line of Union county we cross the head of Platte, and a few miles beyond enter the valley of East Nodaway, following down the same twenty miles to Nodaway Station, in Montgomery county, two hundred and twenty miles west of Burlington. Here we cross the East Nodaway, and passing on four or five miles further, cross the Middle and West Nodaways, near the beautiful town of Villisica. In the same county, a little further on, we cross the two Tarkios, and reach the East Nishnabotna at Red Oak, two hundred and forty-one miles west of Burlington. Here a branch road starts, and will soon be completed down this magnificent garden valley of Southwestern Iowa, a distance of fifty miles to Eastport in the Missouri Valley, opposite Nebraska City. A few miles beyond Red Oak we cross Walnut Creek, and soon enter the pleasant little valley of Indian Creek, descending it eight miles to Emerson, where we cross the West Nishnabotna, two hundred and fifty miles west of Burlington. The next stream is Silver Creek, passing through the finest portion of that splendid county of Mills. At the beautiful town of Glenwood, a name suggestive of the poetry of its sylvan surroundings, we reach a dashing little stream known by the less poetic name of Keg Creek, two hundred and seventy-one miles west of Burlington. Regretting that we cannot stop here to tell of the historical reminiscences which gave this stream its name, we pass on down its winding, wooded valley four miles further, and emerge into the great valley of the Missouri at Pacific Junction, two hundred and seventy-five miles west of Burlington, and four hundred and eighty-two miles west, or rather south-west, of Chicago.

*Lands of the B. and M. R. R. Co.*—Under the grant of lands made by Congress to the State of Iowa for the building of railroads, the Burlington and Missouri River R. R. Company received nearly four

hundred thousand acres. These lands are situated in twenty-nine different counties, as follows :

COUNTIES.	ACRES.	COUNTIES.	ACRES.
Montgomery.....	97,800	Adair.....	2,680
Mills.....	49,560	Decatur.....	2,200
Page.....	45,480	Wayne.....	1,890
Adams.....	40,360	Davis.....	1,160
Taylor.....	26,800	Marion.....	560
Fremont.....	24,480	Des Moines.....	520
Cass.....	16,520	Keokuk.....	360
Union.....	14,480	Wapello.....	320
Pottawattamie.....	13,120	Washington.....	280
Monroe.....	11,880	Jefferson.....	160
Clarke.....	10,500	Louisa.....	160
Lucas.....	10,280	Henry.....	40
Kinggold.....	4,280	Van Buren.....	40
Madison.....	3,160		
Warren.....	3,120	Total.....	386,180
Appanoose.....	2,680		

These lands are now in the market for sale, at prices ranging from \$5 to \$15 per acre, depending upon quality and local advantages. The cheapest lands are back from the railroad, mostly within ten, and none over twenty miles from it. The average quality of the distant land is as good as that of the land nearer, and for stock raising might be preferred, because there is a wider range for grazing purposes.

The company, actuated by an enlightened self-interest, are anxious to develop the resources of the country along their line as speedily as possible, and are therefore offering their lands to actual settlers at reasonable prices, and on very easy terms. They will sell in lots of 40 acres or more, on ten years' credit, with six per cent interest. If full payment is made at the time of purchasing, 20 per cent is deducted from the *long credit* price. They also have a *short credit* system, the price being the same as for cash, that is, 20 per cent less than on long credit. In this case one-third is paid down, and the balance in two years, with ten per cent interest. All will readily see that these several methods of disposing of these lands adapt themselves to the circumstances of all—to men of limited means, as well as those who have the ready cash. Availing himself of the advantages of the *long credit* terms, the poor man may secure a home, and long before the expiration of the ten years, pay for it, after having supported his family and improved his farm. He gets really a loan of so much money-value, for which the land itself is security. Those who are desirous of obtaining full information in relation to the lands of the B. & M. R. R. Company now in the market, should address George H. Harris, Land Commissioner, Burlington, Iowa.

*Immigrants' Home.*—In this connection, it is well to refer to the fact that the B. and M. R. R. Company have erected at Burlington a large and comfortable edifice for the gratuitous accommodation of immigrants and land-buyers. It is arranged in apartments to suit the various nationalities, and meets a want that has been sorely felt by strangers in a strange land. Here they are protected from knaves who would take advantage of their inexperience, and may make inquiries of agents familiar with their own language. The upper story of the same building is occupied by the Land Commissioner, where information can be obtained in regard to the lands of the Company. It was a humane and noble conception which led to the building of this immigrants' retreat, and many of them will doubtless have cause to remember it, as the oriental wanderer calls up the pleasant memories of the oasis in the desert.

#### THE CHICAGO, ROCK ISLAND, AND PACIFIC RAILROAD, AND ITS LANDS.

This Company's railroad extends from Chicago to the Missouri river at Council Bluffs, with branches to Peoria, Illinois; and Washington, Iowa. Its line in Iowa in part consists of the road formerly owned and operated by the Mississippi and Missouri Railroad Company, which had built from Davenport, on the Mississippi, as far as Kellogg and Washington in 1866, when its property and franchises were purchased by the present company. Since the purchase the railroad has been finished across the State to a junction with the Union Pacific Railroad at Council Bluffs, and two express trains have been daily running during the past year between Chicago and the Missouri river.

The lands owned by the company were granted by Congress by acts approved May 15, 1856, and June 2, 1864; the former giving the company the odd numbered sections otherwise undisposed of, within fifteen miles of its road; and the latter extending the limits of the grant to twenty miles, and granting *all* the unentered lands within that distance.

The number of acres received by the company under the act of 1856, was 446,808.89-100. The selections under the act of 1864 have not yet been entirely adjusted (some few pieces awaiting further action at the General Land Office); making an estimate for unadjusted claims, the number of acres under the latter act will be 159,516.48-100; making the entire land grant about 606,325.35-100. The quantity of land is very much less than the length of its road would have entitled the company to receive, were it not for the fact that its line passed through many of the earliest and most closely settled counties in the State, and therefore

through lands which were even at that early day, already occupied and improved. The greater portion of its lands, for this reason, are situated west of the city of Des Moines, in a portion of the State which, at the time of the passage of the original land grant, was far removed from any then existing lines of communication, but whose rapid growth, since the completion of the four trunk lines of railway which now cross the whole breadth of the State, has far exceeded the expectation even of those familiar with the history of the wondrous development of Eastern Iowa.

The lands of the company are situated in the counties of Scott, Clinton, Muscatine, Louisa, Washington, Cedar, Johnson, Iowa, Poweshiek, Mahaska, Jasper, Marion, Marshall, Story, Polk, Dallas, Warren, Madison, Adair, Guthrie, Audubon, Cass, Shelby, Crawford, Harrison, Mills, and Pottawattamie. The counties in which the heaviest bodies of lands are situated are as follows, (using round numbers):

Guthrie .....	40,000 acres
Audubon.....	160,000 acres
Shelby .....	160,000 acres
Crawford.....	8,000 acres
Harrison .....	45,000 acres
Pottawattamie .....	95,000 acres
Cass.....	30,000 acres

In these last-named counties the company owns large contiguous tracts of land: in some cases whole townships of six miles square, (excepting, of course, the sixteenth section, reserved for school purposes); and can, therefore, present great and peculiar inducements for colonies, or parties of friends desiring to purchase adjoining farms.

In so large a body of land there exists, of course, some diversity in quality, but it is believed that in the entire grant there is not an acre which is not susceptible of profitable tillage. The general description of Western Iowa is a vast rolling prairie, intersected by numerous rapid rivers and creeks, on the banks of which are to be found considerable groves of timber. The soil is excellent; that of the upland, though sometimes its surface appears too undulating to those accustomed to the flat, wet prairies of Illinois, is extraordinarily fertile and lasting. In ability to withstand both long continued drought and heavy rains, it has proved itself unsurpassable. Last year, (1869) a time of unusual rain, its crops were hardly damaged, while in many localities further east they were seriously affected.

The natural groves of the country, and the large deposits of coal on



or near the Des Moines river, furnish cheap and abundant supplies of fuel. The railroad company is rapidly perfecting arrangements for the delivery of an excellent article of fuel at its stations at economical rates.

Since the completion of the railroad west of Des Moines, numerous towns have sprung into vigorous life on its line. Among these may be mentioned, as already affording the advantages of good markets for the purchase and sale of all articles needed or produced in the country, De Soto, Dexter, Earlham, Stuart, Casey, Atlantic, and Avoca. All these towns are but a year or two old, but they already are thrifty and enterprising communities. The lands of the company lying on both sides of its railroad, and being bounded on the north by the Chicago and Northwestern Railroad, and on the south by the Burlington and Missouri River Railroad, are in an eminently advantageous position for easy and rapid communication with the great eastern markets; and also have the command of the large and increasing demand for farm produce arising from the mineral regions of the far west, *via* the Union Pacific Railroad and the Missouri river.

The company has already in market some of the best of its lands, and will have all of them prepared for sale during the current year. Its policy is to restrict its sales to actual settlers alone; with such it is ready to treat liberally. The prices range from \$5 to \$10 per acre, with some few tracts at higher figures. The prices are now low, below those asked for similar lands in the same neighborhood.

The land office of the company is at Davenport, Iowa. Communications should be addressed to Ebenezer Cook, Land Commissioner, at that place.

#### THE CEDAR RAPIDS AND MISSOURI RIVER, AND THE IOWA FALLS AND SIOUX CITY RAILROAD, AND THEIR LANDS.

As before stated, the road from Clinton to Council Bluffs is commonly known as the Chicago and Northwestern. That portion of it west of Cedar Rapids was known as the Cedar Rapids and Missouri River Railroad. Over a million of acres of the lands granted in 1856 to the State to aid in the building of railroads, were donated by the State toward the building of a railroad near the 42d parallel of north latitude. The company having complied with the conditions of the grant, the lands have been certified to them by the State. In September, 1869, the Cedar Rapids and Missouri River Railroad Company sold all their lands to a corporation known as the Iowa Railroad Land Company. The stockholders of this Land Company are the owners of the railroad, and are interested in its earnings, and the development and increase of its business. The line embracing the two roads named

starting at Clinton, passes through the counties of Clinton, Cedar, Linn, Benton, Tama, Marshall, Story, Boone, Greene, Carroll, Crawford, Harrison, and Pottawattamie. The lands of the company are located in thirty different counties, as follows :

COUNTY.	NO. OF ACRES.	POPULATION 1860	POPULATION 1869
Scott.....	88	25,959	27,615
Clinton.....	922	18,938	31,952
Jackson.....	544	18,493	20,579
Cedar.....	120	12,949	18,230
Jones.....	747	13,306	18,113
Linn.....	633	18,947	27,467
Benton.....	685	8,496	19,420
Tama.....	2,220	5,285	14,224
Grundy.....	610	793	3,850
Marshall.....	945	6,015	15,514
Hardin.....	10,069	5,440	11,007
Polk.....	1,422	11,625	26,408
Story.....	13,275	4,051	9,347
Hamilton.....	9,504	1,699	4,268
Dallas.....	6,110	5,244	10,306
Boone.....	58,333	4,232	13,912
Webster.....	22,577	2,504	7,812
Guthrie.....	466	3,058	5,219
Greene.....	31,284	1,374	3,494
Calhoun.....	36,206	147	944
Audubon.....	139	454	1,032
Carroll.....	103,273	281	1,450
Sac.....	175,439	246	849
Shelby.....	180	818	1,744
Crawford.....	133,484	383	1,640
Ida.....	173,162	43	144
Pottawattamie.....	1,195	4,968	10,974
Harrison.....	13,483	3,621	7,411
Monona.....	128,123	832	2,679
Woodbury.....	115,140	1,119	Not returned.
Total.....	1,030,389	181,220	327,613

The lands embraced in this grant are situated on both sides of the same parallel of latitude which constitutes the boundary line between New York and Pennsylvania. It is a splendid grain-producing and stock-raising portion of Iowa, while it is also rich in other resources. The stone and marble quarries of Tama and Marshall counties, and the coal mines of Boonsboro and Moingona, are on the line of the road which passes through these lands.

*Terms of Sale.*—The Company are now ready to sell their lands either on time, or for cash, to suit purchasers. They have adopted three plans of sale, to wit: for *cash*, on *short time*, and on *long time*.

On the *short time plan*, the purchaser pays one quarter cash, and the balance in one, two, and three annual payments, at six per cent per annum interest, payable annually in advance.

On the *long time plan*, the purchaser pays two years' interest on the purchase money, at ten per cent per annum, at the time of purchase, and nothing more until the end of two years, when he pays one quarter of the principal, and the balance in one, two and three years, with ten per cent per annum interest, payable annually in advance. Under this plan sales are only made to actual settlers, and are limited to 160 acres to any one person.

On the *cash plan*, ten per cent is deducted from the regular price, and the whole amount is paid down by the purchaser, who receives at the time a perfect title.

*Prices.*—The lands offered by this company, vary in price from three dollars per acre to twelve dollars per acre. At the latter price persons can secure very choice locations, within two to four miles of important stations. A few tracts nearer stations are held at still higher figures. By going further from the stations, as good land as can be had in the West, may be obtained at from seven to ten dollars per acre. The company has large tracts of good land at five and six dollars per acre. The distance from the railroad to these lands varies from six to twenty miles.

The price of timber land varies much, according to location and quality, from \$15 to \$40 per acre.

It will be seen by reference to the table showing the counties in which the lands of this company are situated, that over 250,000 acres are in the counties of Harrison, Monona, and Woodbury, through which the Sioux City & Pacific Railroad runs. This road passes from Sioux City down the great valley of the Missouri, which embraces many thousands of acres of as productive land as any in the world. The prices of these lands range from \$5 to \$10 per acre. Along the line of this road from Sioux City to California Junction, being a distance of seventy-five miles, there are nine regular stations, all situated in the great Missouri valley. The managers and stockholders of the Iowa Railroad Land Company were the builders, and are now the principal owners, of the Sioux City & Pacific Railroad.

W. W. Walker, Vice-President of the Iowa Railroad Land Company, of Cedar Rapids, Iowa, is the agent for the sale of all these lands, and upon application to him, will give full information in regard to location, quality, terms, and prices.

*Town Lots.*—W. W. Walker of Cedar Rapids will also give any desired information as to the prices and terms of sale, of town lots in the following places on the line of the Cedar Rapids & Missouri River Railroad, viz:

Fairfax,	Colo,	Missouri Valley,
Blairstown,	Nevada,	Carroll,
Belle Plaine,	Ames,	West Side,
Chelsea,	Boone,	Vail,
Tama City,	Moingona,	Denison,
Orford,	Ogden,	Dowville,
East Legrand,	Jefferson,	Dunlap,
State Centre,	Scranton,	Woodbine,
	Glidden,	

Also on the line of the Sioux City & Pacific Railroad, at the following places, viz:

Sargent's Bluffs,	Blencoe,	Blair, Nebraska,
Sloan,	River Sioux,	Kennard "
Onawa,	Mondamin,	Belle Creek, Nebraska,
	Fremont, Nebraska,	

Also on the line of the Iowa Falls & Sioux City Railroad, at the following places, viz:

Williams,	Duncombe,	Remsen
Blairsburg,	Hazard,	Le Mars,
Webster City,	Marcus,	

And several other points where towns will be laid out the present season.

Mr. Walker is also the agent for the lands belonging to the Iowa Falls & Sioux City Railroad Company, a magnificent grant embracing about 700,000 acres, situated principally in the counties of Buena Vista, O'Brien, Clay, Sac, Cherokee, Plymouth, Sioux, and Woodbury. These lands are on either side, and within fifteen miles of the railroad. The terms of sale are the same as for the lands belonging to the Cedar Rapids & Missouri River Railroad grant.

#### THE DES MOINES VALLEY RAILROAD AND ITS LANDS.

At an early day in the history of this State the General Government made a grant of lands to the State of Iowa for the improvement of the navigation of the Des Moines river. By consent of Congress such of the lands as had not been disposed of were subsequently diverted to the purpose of building a railroad up and along the Des Moines valley. Of the progress of the road we have spoken in a previous chapter. The greater portion of the lands now offered for sale are situated in the counties north of the present terminus of the completed line, but are soon to be penetrated by it, and also by the road from McGregor to

Sioux City, now nearly finished to Algona, Kossuth county. The lands of this road amount to about 466,000 acres. They are now offering for sale to actual settlers some of the finest in the State, situated in different counties, as follows :

COUNTIES.	POPULATION IN 1869.	ACRES.
Palo Alto.....	535	75,349.77
Emmet.....	990	58,729.29
Lyon (not organized).....		38,845.19
Kossuth.....	1949	38,823.67
Sioux.....		25,387.10
Humboldt.....	1810	23,643.54
Dickinson.....	562	22,776.29
Clay.....	450	19,280.00
Osceola (not organized).....		14,408.80
Pocahontas.....	687	14,040.01
O'Brien.....	51	11,840.58
Plymouth.....	179	6,917.22
Buena Vista.....	242	4,576.15
Ida.....	144	3,843.96
Cherokee.....	459	3,385.48
Sac.....	840	760.00
Webster.....	7812	391.18
Total.....	16,660	362,997.73

A great portion of these lands are situated in the valley of the Des Moines river from Webster county north to the State line nearly one hundred miles, and embrace some of the finest soil in the world, ready for the plow! The river here is a clear, swift, and beautiful stream, affording fine water power for manufacturing purposes. The bottom lands are nearly all above inundation, rising from the river in gentle slopes to the beautiful, undulating prairie stretching away in the distance. There are many fine living springs, and numerous sparkling brooks find their way down through the tall grass to the Des Moines river. In some places the river is skirted with timber, and then again it may be seen for miles sparkling in the sunlight, with but few intervening trees to obstruct the view.

The greater portion of the lands of the company are in alternate sections, so that many of them are in the midst of settlements. The population of the several counties named, in which the lands are located, now far exceeds the figures given above, owing to the rapid settlement since the taking of the census of 1869. Those who may purchase the railroad lands will find in many places, mills, churches, and school-houses already built. Within the limits of the grant are a number of thriving towns, among which is Fort Dodge, a young city with a population of over three thousand. Further north are Springvale, Dacota City, Rutland, Emmetsburg, Estherville, and the rapidly

rising young city of Algona, on the line of the McGregor and Sioux road.

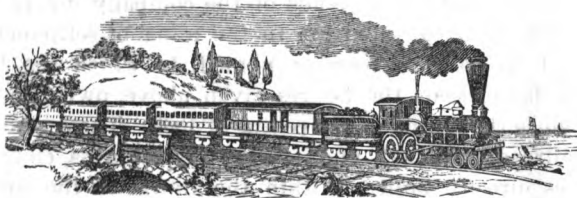
*Prices and Terms of Sale.*—The prices at which the company propose to sell their lands range from \$4.00 to \$12.00 per acre, averaging about \$8.00 per acre. They will sell to actual settlers on a credit of *ten years*—only one-tenth to be paid down at the time of purchase, and no payment the second year except the interest. After this, *one-tenth* is to be paid each year, with annual interest at the rate of eight per cent. A payment of all cash at the time of purchase will entitle the purchaser to a reduction of ten per cent from the long credit price.

The excellent quality of these lands would very soon enable the purchaser to pay for his home from the products of the soil. It has often been demonstrated in Iowa that the first crop of wheat, at \$1.00 per bushel, will pay for the land at \$10 per acre, as well as for breaking and fencing.

The principal land office of the company is located at Des Moines, where any information may be obtained by addressing Hon. John A. Elliott, Land Commissioner. Local agents have been appointed in the parts of the State where the lands are situated, who are authorized to show the same to persons desiring to purchase, and also to make sales, subject to approval at the principal office.

#### THE TITLE TO RAILROAD LAND.

In buying real estate the question of title is always one of vast importance to the purchaser. All the lands sold by the railroad companies have been either conveyed directly to them by the Land Department at Washington, or to the State, and then by the State patented to the companies. The chain of title being so direct, there are no chances for any complications in this respect.



## CHAPTER VII.

## GOVERNMENT LANDS.

All the government lands yet remaining to be taken in Iowa, are situated in the northwest part of the State, and may be estimated at a quarter million of acres. The larger portion of them are in the counties of Osceola, Lyon, Sioux, and Plymouth. They are only in the market to be taken by pre-emption, or as homesteads. This is a wise arrangement, for if they were subject to "private entry," speculators would soon have them. As it is, they must pass from the government into the hands of actual settlers. We give the substance of the laws relating to pre-emption and homesteads, with some instructions as to the manner of proceeding to obtain title to government lands under those laws:

## PRE-EMPTION.

Where a party desires to pre-empt a tract of government land, he must file at the District Land Office his declaratory statement as to the fact of his settlement on the land within *thirty* days from the date of said settlement, and within one year from that date he must appear before the Register and Receiver at the District Land Office, and make proof of his actual residence on, and cultivation of the land. He then secures the land by paying *cash*, or by filing a warrant duly assigned to him. Should the settler die before establishing his claim within the period limited by the law, the title may be perfected by the executor, administrator, or one of the heirs, by making the requisite proof of settlement and paying for the land. In this case the entry will be made in the name of "the heirs" of the deceased settler, and the patent issued accordingly. Any person is entitled to the privileges of the pre-emption law who is the head of a family, or widow, or single man over the age of twenty-one years, and being a citizen of the United States, or having filed his declaration of intention to become a citizen, as required by the naturalization laws. Where there should from any cause be a vacancy of either the office of Register or Receiver, or both, so as to render it impossible for the pre-emptor to comply with any of the requirements of the pre-emption laws, such vacancy does not operate to the detriment of the party claiming; but the requisition

of the law must be complied with within the same period after the disability has been removed as would have been allowed the claimant had such disability not existed.

As to the kind of settlement and improvement the pre-emptor is required to make, the words of the law are—that he shall “inhabit and improve the land, and shall erect a dwelling house thereon.” Recent instructions from the General Land Office at Washington, require the strictest compliance with the spirit and intention of the law in this respect, so that none but *actual settlers* may enjoy its benefits. Under the former liberal interpretation of the law there were many *bogus* pre-emptions made by parties for mere speculation.

The right of pre-emption extends to *one hundred and sixty acres*. As nearly all the lands remaining in Iowa subject to pre-emption are situated within the limits of railroad land grants, the price to be paid at the time of “proving up” is \$2,50 per acre. For lands outside of those limits the price is \$1,25 per acre.

Where two or more persons have settled on the same quarter section, the right of pre-emption will be with the person who made the *first* settlement, provided such person has complied with the provisions of the law. All questions as to rights arising between different settlers, are adjusted by the Register and Receiver at the District Land Office, after hearing the evidence. Their opinion, however, is subject to revision by the Commissioner of the General Land Office at Washington. In pre-emption cases the Register and Receiver are *each* entitled to a fee of one dollar. Payment for the land at the end of *one year* from settlement entitles the pre-emptor to a complete title. He then becomes owner of it in fee.

#### THE HOMESTEAD PRIVILEGE.

The original homestead law of the United States was approved May 20, 1862. It entitles any person who is the head of a family, or has arrived at the age of twenty-one years, and is a citizen of the United States, or filed a declaration of his intention to become such, to the right of a homestead on any surveyed government lands not previously disposed of. This right extends to *one hundred and sixty acres* of \$1,25 land, or *eighty acres* of \$2,50, except in the States of Alabama, Mississippi, Louisiana, Arkansas, and Florida. In those States the law restricts homestead entries to *eighty acres* at the minimum price, and *forty acres* at the *double* minimum price. In Iowa, as before stated, nearly all the government land remaining is within the limits of railroad land grants, and the price being *double* minimum, only *eighty acres* can be taken as a homestead.



To obtain a homestead, the party must, in connection with his application, make an affidavit before the Register or Receiver that he is over twenty-one years of age, or the head of a family; that he is a citizen of the United States, or has declared his intention to become such, and that the entry is made for his exclusive use and benefit, and for actual settlement and cultivation. It is not, however, always absolutely necessary to go to the Land Office to make this affidavit. When the applicant is prevented by bodily infirmity, distance, or other good cause, from personal attendance at the District Land Office, the affidavit may be made before the Clerk of the Court for the county in which the applicant is an actual resident. For such cases the following is the regular form of affidavit:

I.....of..... county,....., having filed my application No..... for an entry under the provisions of the Act of Congress, approved May 20, 1862, entitled "An Act to secure Homesteads to actual settlers on the Public Domain," do solemnly swear that I am over twenty-one years of age,.....that I am a citizen of the United States,.....that said application No.....is made for my exclusive benefit; and that said entry is made for the purpose of actual settlement and cultivation, and not directly or indirectly for the use or benefit of any other person or persons whomsoever, and that I am unable to attend at the Land Office by reason of.....and have made this application before the Clerk of the Court.

STATE OF..... }  
County of..... } ss.

Sworn to and subscribed by..... before me, Clerk of the District Court of.....county, .....and ex-officio Clerk of the said county, this.....day of..... 18....., and I also certify that said affiant is a resident of..... County,.....

In testimony whereof, I have hereunto set my hand and affixed the seal of the said Court this.....day of..... A. D. 18.....

An act of Congress, approved May 21, 1864, also relaxes the requirement of personal attendance at the District Land Office, so far as relates to persons in the military or naval service, where the party's family, or some member of it, is residing on the land he desires to enter as a homestead, and upon which a bona fide improvement and cultivation had been made. In such cases the law allows the beneficiary to make the

affidavit before the officer commanding in the branch of the service in which he may be engaged. The homestead application and the affidavit may be filed with the Register by the wife, or other representative of the absentee. The claim will take effect at the date of filing, if the required fees accompany the application and affidavit, but immediately after his discharge the applicant must enter upon the land and make it his home, as required by the law of 1862.

At the expiration of five years settlement and cultivation, or within two years thereafter, upon proof to the satisfaction of the Register and Receiver of such settlement and cultivation, and the payment of the final commissions, the Register will issue his certificate, and make return to the General Land Office. A patent, or complete title, will then issue to the homestead settler, and he becomes the owner of the land in fee. Lands obtained under the homestead laws are exempted from liability for debts contracted prior to the issuing of the patent therefor.

*Adjoining Farm Homesteads.*—There is a class of homesteads known by this name. A person already *owning* and *residing* on a farm, may, under the homestead laws, enter other land lying contiguous thereto, provided it shall not, including such farm, exceed the aggregate of *one hundred and sixty acres*. For example, a party owning and occupying *eighty acres*, may enter *eighty acres* additional of \$1,25 land, or *forty acres* of \$2,50 land. Or, suppose the applicant to own *forty acres*, then he may enter *one hundred and twenty acres* additional of \$1,25 land; or *forty* of \$1,25 land and *forty* of \$2,50 land, if both classes should be found contiguous to his original farm. In all such cases the settler must in his affidavit describe the land he owns and is settled upon as his original farm. Actual *residence* on the additional land entered is not required, but *bona fide* improvement and cultivation must be shown for the period required by law.

No person is entitled to more than *one* homestead privilege, and a settler relinquishing or abandoning his claim cannot thereafter make a second homestead entry. If the homestead settler does not wish to remain five years on his tract, he may pay for it with cash or warrants, upon making proof of settlement and cultivation from the date of entry to the time of payment. This proof must be the affidavit of the party made before the Register of the District Land Office, and corroborated by the testimony of two credible witnesses.

*Fees and Commissions.*—For *one hundred and sixty acres* of \$1,25 land, or *eighty acres* of \$2,50 land, a fee of ten dollars is required to be paid, and also one per centum each of the cash price fixed by law for the land applied for, to the Register and Receiver, as their commissions. The fee and commissions above mentioned are to be paid *at the time of entry*, and amount to fourteen dollars. At the end of five years, when

the claim is finally established and the patent issues, the Register and Receiver are each entitled to receive the same commissions, making four dollars more.

Should the homestead settler die before perfecting his claim, his heirs may continue the settlement and cultivation, and upon making the requisite proof, obtain title to the land at the proper time. Should both parents die, leaving minor heirs, the homestead is required to be sold for cash for the benefit of the heirs, and the purchaser will receive title from the United States. The sale of a homestead claim by the settler before completion of title, vests no interest or title in the purchaser, but is regarded as evidence of abandonment. Under the strict regulations now enforced, it is useless for any person to attempt to avail himself of the benefits of the homestead law, unless he intends in good faith to comply with its requirements.

*Practical Suggestions.*—Before going out to make examination and select his homestead, the party should determine upon certain townships or localities to be visited, and procure at the Land Office plats of such townships, showing the vacant lands in them. These plats, being transcribed from the original surveys, will afford him a good idea of the general character of the country. All the counties in Iowa are now settled to some extent, and the settlers are generally accommodating to those in search of vacant lands for making homesteads or pre-emptions, and are ready to render them every needed assistance. The lands still vacant in Northwestern Iowa are nearly all of excellent quality, and will not long remain remote from completed lines of railway. At present, the greatest inconvenience to be overcome arises from the scarcity of timber in some of the counties of that part of the State. This difficulty will in a great measure be overcome by railroads, which will bring to the settlers the material for building and fencing.

Most of the government land in Iowa is situated in what is called the Sioux City Land District. That district embraces the counties of Woodbury, Plymouth, Sioux, Lyon, Osceola, O'Brien, Cherokee, Ida, Sac, Buena Vista, Clay, Dickinson, and the west range of townships of Emmet, Palo Alto, Pocahontas, and Calhoun. The Government Land Office is located at Sioux City, the rapidly rising metropolis and great railroad center of that portion of Iowa. It is the initial point of a line of steamers, which run in connection with the railroads, carrying large quantities of freight on the Upper Missouri to the head of navigation, nearly two thousand miles above.

The Land Office for the district embracing the northern portion of the State, is located at Fort Dodge. There is but a small quantity of land remaining vacant in that district. This little city is also rapidly becoming a place of importance, and is accessible by rail from the east, west, and south.

## CHAPTER VIII.

## SUNDRY RIGHTS AND LEGAL PROVISIONS.

Under our constitution all political power is inherent in the people, and all men are declared to be by nature free and equal. No law can be enacted respecting the establishment of religion, or interfering with the free exercise of the same. No person can be compelled to pay tithes, taxes, or other rates to support any religious system in which he does not believe, and no religious test can be required as a qualification for holding any office of public trust, or for the exercise of any of the rights of citizenship. Every person is allowed to speak, write, and publish his sentiments on all subjects, being responsible for the abuse of that right, and no law can be passed restraining the liberty of speech, or of the press.

All foreigners who are residents of Iowa have the same rights in respect to the possession, enjoyment, and descent of property, as native born citizens, which rights are secured to them by the State constitution. By legislative enactment a still more liberal policy has been adopted toward foreigners. A recent law abolishes all distinction between citizens and resident and non-resident foreigners, in reference to the acquisition, possession, and enjoyment of property, real and personal, by gift, devise descent, or in any other manner. All property, real and personal, situated in this State, belonging to a foreigner, if not disposed of by will, after the death of the owner, descends to the heirs of such foreigner, whether they reside in the United States, or in any foreign country—the rules of descent being the same as apply to the heirs-at-law of native born citizens. Under these liberal provisions it is very rare that any property acquired by foreigners in Iowa can escheat to the State.

*Naturalization.*—Congress passes all laws on the subject of naturalization. The present law requires a foreigner to reside in the United States five years before he can be admitted to citizenship. It also requires good moral character in all cases as a qualification for citizenship. An alien, to become a citizen, must go before some court of record at least two years before his admission, and declare under oath his intention to become a citizen of the United States, and must renounce all allegiance to any foreign prince, potentate, State, or sovereignty whatever. At the time of admission a similar oath is to be taken, with the additional obligation to support the Constitution of

the United States. The Court makes a record of the proceedings, and gives the person naturalized a certificate which entitles him to all the rights of citizenship in any State or Territory of the United States. The naturalization of the father makes all his children citizens who reside in the country, and are under the age of twenty-one years at the time of the parent's naturalization, even though they may have been born in a foreign country. A foreigner, after being naturalized, has all the rights of a native born citizen, except that he is not eligible to be President or Vice-President of the United States. In Iowa he is eligible to any office, from Governor down to the lowest. Our public schools are open and free to his children as soon as he settles within the borders of our State, and he and his family receive the protection of our laws in the security of person and property. We should also say that if an alien has borne any title of nobility in the country from whence he came, he must renounce such title before he can be made a citizen of the United States. Under our republican system of government, each citizen is, to some extent, a sovereign, and therefore, mere titles of nobility are regarded as below the standard of dignity, which properly attaches to every citizen of this Republic.

*Suffrage.*—Every male citizen of the United States, of the age of twenty-one years, not an idiot or insane person, or convicted of any infamous crime, who shall have been a resident of this State six months, and of the county in which he claims his vote sixty days, next preceding the election, is entitled to vote at all elections authorized by law. For the information of the ladies especially, it may be well to state, also, that the last General Assembly of our State took the first step necessary for amending the Constitution so as to confer the right of suffrage upon woman. The issue of the proposition depends upon the action of the General Assembly in 1872, and a vote of the people.

*Taxes.*—In Iowa the taxes of each year are due and required to be paid without interest, from the second Monday in November to the first day of February following. As between vendor and purchaser, taxes become a lien upon real estate the *first day* of November of each year. It is the duty of every person subject to taxation to attend without solicitation at the office of the County Treasurer at some time between the dates above specified, and pay his or her taxes. On the first day of February the unpaid taxes of the preceding year become delinquent, and draw interest, as follows: One per cent a month for the first three months; two per cent a month for the second three months; three per cent a month for the third three months, and four per cent a month for all after nine months. In computing this penalty nothing is reckoned or collected therefor, if the tax is paid before the first of March, nor after that, except for a full month. After giving

four weeks notice in some newspaper published in the county, if there be any, and if not, then in the newspaper nearest the county seat published in the State, he is authorized to offer at public sale on the first Monday in October in each year, all lands and town lots on which the taxes for the preceding year or years remain due and unpaid, such sale to be made for and in payment of the total amount of all taxes, interest, and costs due and unpaid on such real property. Real estate sold for taxes may be redeemed at any time before the expiration of three years from the date of sale, by payment of the amount for which the same was sold, and a penalty of thirty per centum, together with ten per cent interest per annum on the whole amount thus made from the day of sale. If, before redemption, the purchaser pays the taxes for any subsequent years, the amount, including interest and cost, is also added. If the taxes for such subsequent year or years, were not paid until they became delinquent and the property sold for said taxes, then the penalty of thirty per centum again attaches. The owner of the property may pay all subsequent taxes as they become due, and thus prevent any further accumulation of interest, penalty, and costs.

The laws of Iowa exempt from taxation the sum of one hundred dollars of the valuation of the real and personal property of each taxpayer, for *ten years*, for each acre which he may plant and cultivate in forest trees for timber; also fifty dollars for *five years* for each acre of fruit trees planted and cultivated. The county authorities of each county are authorized by law to make similar exemptions from taxation (except for State purposes) for shade trees planted along public highways, and for hedges, not to exceed five hundred dollars for each mile of the former, and for each *half mile* of the latter.

As compared with other States, the rates of taxation are low in Iowa—the levy for all State purposes being but *two mills* on the dollar. In some counties, or districts, the people voluntarily impose additional taxes upon themselves for building school-houses, and various other local improvements which enhance the value of their property, and by which they are directly benefitted. The financial condition of Iowa is not equalled by any other State in the Union.

*Husband and Wife.*—Under the laws of Iowa no distinction is now made between the husband and wife in the possession and enjoyment of property. One-third in value of all the real estate of the husband, in case of his death, goes to the wife as her property in fee-simple, if she survive him. The husband inherits one-third of the wife's real estate in the same way, in case he survives her. Each is entitled to the same right of dower in the estate of the other, and a like interest descends to their respective heirs.

Neither the husband nor wife is liable for the debts of the other incurred before marriage, nor is either liable for the separate debts of the other. Family expenses, including expenses incurred in the education of children, are chargeable upon the property of both husband and wife, or either of them, and in relation thereto they may be sued jointly, or the husband separately. Contracts may be made by the wife, and liabilities incurred, and the same enforced by or against her to the same extent and in the same manner as if she were unmarried. A married woman may sue and be sued without the husband being joined in the action, except in cases where the cause of action is common. If a husband, being a father, has deserted his family, the wife, being a mother, may defend in his name any action or suit which he might have prosecuted or defended, and has the same powers and rights therein which he might have had. Under like circumstances, the same right applies to the husband upon the desertion of the wife.

*State Government.*—Iowa has a republican form of government, with three distinct departments—Legislative, Executive, and Judicial. The Legislative Department consists of a Senate and House of Representatives, which together are called the General Assembly; its regular sessions are held biennially, commencing the second Monday of January. When important legislation is demanded extra sessions may be called by the Governor. Senators are chosen for four years, and Representatives for two years.

The Executive Department consists of a Governor, Lieutenant-Governor, Secretary of State, Auditor of State, Treasurer of State, Register of the State Land Office, and Superintendent of Public Instruction; all of whom are elected by a plurality vote of the people.

The Judicial Department consists of a Supreme Court, District Courts, Circuit Courts, and Justices' Courts—the officers of each being elected by the people. The Attorney-General of the State, and the District Attorneys, are officers in this department.

*County and Township Organization.*—At present the State is divided into one hundred and one counties, all but three of which are fully organized for civil and judicial purposes. The county officers consist of a Board of Supervisors, Auditor, Clerk, Treasurer, Recorder, Sheriff, Superintendent of Common Schools, Surveyor, and Coroner. The counties are sub-divided into civil townships, each of which elects three Trustees, a Clerk, Justices of the Peace, Constables, and Road Supervisors.

## CHAPTER IX.

## GENERAL INFORMATION AND PRACTICAL SUGGESTIONS.

*Character of Population.*—In the last decade the population of Iowa has almost, if not quite doubled. During that time, New England and the Middle States have doubtless contributed most largely to swell the population, while there has also been a considerable influx of foreign citizens, especially from the various German States, Scandinavia, Holland, and the British Islands. We have no data showing the various nationalities represented more recent than the Federal Census of 1860. The Teutonic and Celtic elements are diffused more or less throughout the State, while the Scandinavian is represented in large settlements of Danes and Norwegians in several of the northern counties, as in Winneshiek, Howard, Worth, and Winnebago. There are also considerable settlements of Swedes in several of the counties, as in Jefferson and Boone. In Dubuque, Webster, Palo Alto, and other counties, there are thrifty settlements of Irish farmers, many of whom are largely engaged in stock raising, and some of their herds of fine cattle have attracted much attention at our annual fairs. "Bonnie Scotland" and "Merrie England" have their representatives in most of the counties, and the sublime creations of Burns and Shakspeare, are revered in many households; transplanted from the banks of the old Clyde and Thames to the new green prairies of Iowa. At Pella, in Marion county, there is a flourishing settlement of Hollanders, and a large colony of the same people has, this year, been established in Sioux county. They have secured extensive tracts of land, and laid out a new town, called Orange City. The location is a desirable one, and they will soon build up a wealthy community, with a fine and prosperous town. Henry Hospers, Esq., of Pella, has been chiefly instrumental in establishing this new colony.

The following tables, showing the nativities of the population of Iowa, are compiled from the Federal Census Reports of 1850 and 1860. This year, another census is being taken, and the result will doubtless exhibit a marked contrast with the figures below, in the increased ratio of population from the Eastern and Middle States of the Union.



## NATIVE BORN.

STATES.	1850.	1860.
New England States.....	5,585	25,040
New York.....	8,184	46,058
New Jersey.....	1,190	4,114
Pennsylvania.....	14,744	52,156
Ohio.....	30,713	99,240
Indiana.....	19,925	57,555
Illinois.....	7,247	26,696
Other Western States.....	1,351	10,371
Southern States.....	31,392	54,856
Born in Iowa.....	50,380	191,148
At sea and unknown.....		1,603
Total native born.....	170,620	568,832

## FOREIGN BORN.

COUNTRIES.	1850.	1860.
England.....	3,785	11,522
Ireland.....	4,885	23,072
Scotland.....	712	2,895
Wales.....	352	913
German States.....	7,253	38,555
Holland.....	1,108	2,615
Scandinavia.....	611	7,814
France.....	382	2,421
Other European countries.....	281	2,303
British America.....	1,756	8,313
Other foreign countries and unknown.....	519	158
Total foreign born.....	21,594	106,081

A large proportion of the people of the northern counties of the State are from New York and the New England States, while Ohio, Indiana and Pennsylvania are more largely represented in the southern counties. There are, however, many flourishing settlements of people from New England in the southern counties, as at Tabor, Fremont county; Amity, Page county, and Nevinville, Adams county. One of the largest and most successful colonies of people from the Eastern States is at Grinnell, Poweshiek county. This place is noted as the seat of Iowa College, one of the best educational institutions in the West.

*Religious Organizations.*—Nearly all the religious denominations are represented in Iowa, the Methodist Episcopal being the largest numerically. Among the leading Protestant churches having organizations generally throughout the State, we also mention the Presbyterian,

Baptist, Congregational, Lutheran, Episcopal and Christian. The Universalists have strong organizations at many points, as at Marshalltown, Des Moines, and Clarinda. The Catholics are largely represented in nearly all the towns and cities. The Society of Friends embraces an influential and wealthy class of our citizens, with settlements at various points, as at Salem, Henry county; Pleasant Plain, Jefferson county; Oskaloosa, Mahaska county, and New Providence, Hardin county. This Society is now erecting a College at Oskaloosa, which will not only be an ornament to the town in which it is located, but an honor to its founders. Neat, substantial, and in many cases, costly church edifices, have been erected by the various religious denominations in most of the towns, and the settled portions of the country. Persons coming to Iowa now find but little difficulty, except in the new counties, in connecting themselves with some organized religious church or society adapted to their sympathies.

*A. Word to the Landless.*—During the year ending June 30, 1869, the Government of the United States disposed of to individuals, 5,989,574.21 acres of the public land, a large proportion of which was entered by settlers under the homestead law. Of these lands, 348,148.58 acres were located in Iowa. Thus, by the operation of our beneficent land system, not less than *sixty thousand* farms were in one year added to the agricultural freeholds of the United States—nearly double the entire number of land owners in England, according to the British Census of 1861. We now have in the United States an aggregate of over *five and a half millions* of land owners, not less than *four millions* of whom are agricultural freeholders. In no other country in the world have so large a proportion of the citizens an absolute interest in the soil, and indeed, history furnishes no parallel. This distribution of the landed proprietorships of the nation places in the hands of a free people the complete control of their own political and social destiny. In Iowa there is still room for many thousands more who may see proper to come and secure new homes at low prices on our broad rich prairies, with every reasonable assurance of health, wealth, education, and freedom for all who will only exercise ordinary industry. There is still in Iowa uncultivated land enough for *three hundred and sixty thousand* farms, of eighty acres each! If the toiling millions of the East who are doomed to incessant labor and the practice of the strictest economy to secure the absolute necessities of life, could only behold the millions of acres of rich untilled Iowa prairies, they would certainly spare no effort to place themselves in positions of independence. The immortal bard has said—

“There is a tide in the affairs of men,  
Which, taken at the flood, leads on to fortune.”

Now is the golden opportunity for young men of the crowded East, where the avenues of manly independence are already closed against them, to secure with the limited means which they may command, homes on the virgin soil of Iowa, where in a few years they may become wealthy, influential, and independent farmers. Remaining where they are, the great majority of them must live out their days as dependent laborers on the lands of others. It is for such now to choose whether it is best to remain tenants under exacting landlords, or become independent freeholders on far better farms of their own. Very little capital, as we have shown, will suffice to begin with now, but it will not do to wait long. It should be the ambition of every young man in this country to own at least a small tract of land. If he be inclined to agricultural pursuits, he should at least secure forty acres, which in Iowa may cost him two or three hundred dollars now, but that amount *in land*, will in the end prove better to him than a thousand dollars in greenbacks, or even in gold! Some may deny the proposition, but the world will have it so, nevertheless, that land parchments are patents of respectability, if not of nobility, and entitle their owners to special consideration. Young men of the East, clerking in stores, or toiling on other men's farms, look around you and see if this is not the case. Under the feudal system, William the Conqueror, divided the lands of England among his favorite chieftains, and a record was made in the Domesday Book of all the landed estates of the realm. To-day, less than *one six hundredth* of the population of England own all the land, and the number of her land owners is constantly diminishing. Long ago the Domesday Book was closed in that country, and before many years it will also be practically closed to the man of limited means in this. We therefore say to the landless, do not wait.

*When to come West.*—This depends much upon the circumstances of the party emigrating. It is generally best for those who have means for providing a comfortable subsistence to come in the fall, say in September or October. They will then have time to select their locations, build houses, and make other necessary preparations before winter. During the winter months they can do much in the way of fencing and preparing for work in the spring. Those who come in the spring, say in April, by commencing immediately, may still have time to do much towards opening a farm. A small house, that will do for summer, may be built in a few days. Some breaking may be done, and a crop of "sod corn" planted, which may yield from ten to twenty bushels per acre, besides a good supply of fodder for stock. When breaking is done early, the corn is planted by dropping it in the furrows after the plow, or by cutting into the sod with an axe or

hatchet, dropping the seed into the crevice and covering by stepping upon it. It requires no further attention until it is harvested, and then rarely fails to repay amply for the labor of planting. Prairie should be broken between the end of winter and the first of August, so that the sod may have time to decay, and be ready for the next year's crop. The last General Assembly of Iowa passed a herd law, which authorizes the people of any county, by vote, to prohibit stock from running at large. This law will, doubtless, be adopted by the counties not favored with good supplies of timber for fencing, and in this case no enclosures will be needed, except barn-yards.

*Necessary Farm Outfit.*—The following figures will give a general idea of the necessary outfit for working a farm of forty acres :

Team (oxen or horses) .....	\$150 to	\$300
Wagon and yoke or harness.....	100 “	150
Plow.....	20 “	30
Cultivator and harrow.....	20 “	40
Other necessary implements.....	10 “	20
	<hr/>	<hr/>
	\$300	\$540

For farming on a larger scale, a combined mower and reaper would be necessary. A good reaper is sufficient for cutting the grain on from 150 to 200 acres each season. It is usual for neighbors to unite in the purchase of a reaper and mower, and use it in common.

Persons coming to Iowa need not bring with them any of the machinery or implements necessary for farming, as everything in that line can be obtained here more cheaply than they can have them shipped from the East, and of a quality much better adapted to Iowa farming. The plow used by the Eastern farmer would not answer in the West. In every town here there are agents and dealers in all kinds of agricultural implements and machinery, from a threshing machine down to a hand-rake or garden hoe.

If it is contemplated to locate in a new and sparsely settled portion of the State, it may be advisable to bring a supply of choice garden and flower seeds. The good judgment of those coming West will suggest the propriety of introducing such varieties of grains, fruits, vegetables, shrubs, flowers, and useful plants as may be easily brought along, not forgetting those things which will ornament and beautify their new homes. In grappling for wealth, or for the substantial of life, the finer sensibilities are not to be ignored.

*Houses and Building Material.*—Since railroads have penetrated to nearly all parts of the State, the difficulties of procuring building material have, in a great measure, disappeared. If the settler has his

family with him, the first thing to be done, after securing his land, is to provide shelter for them. The manner of doing this, of course, depends upon circumstances. If he should locate where he can procure suitable timber, he may build a temporary cabin of logs; or, he may obtain pine lumber and nails at the nearest railroad station, and put up a small house in less than a week, at a cost of from \$50 to \$100. A cheap, but durable kind of thatched roof has just been invented and introduced by Mr. Lionel Foster, of Burlington, Iowa, which promises to diminish very materially, the expense of building in our prairie country. It dispenses with all lumber in the roof, except rafters, the other materials used being straw or prairie grass, and a composition, of which coal tar is the principal ingredient. The cost of the material is said not to exceed \$1.75 per square of 100 feet. Cheap houses are also supplied ready made, in Chicago, and shipped over the several lines of railroad to the various stations in Iowa.

The following may be taken as nearly the average rates for pine lumber in Iowa: Dressed flooring, \$30 to \$40 per M; dressed siding, \$20 to \$26 per M; rough barn siding, \$23 per M; fencing, \$22 to \$25 per M; joists and scantling, \$23 per M; shingles, \$3 to \$5 per M; lath, \$3.50 per M. In towns near the Mississippi river the prices are somewhat lower; while at some points in the western parts of the State they may be somewhat higher than the above figures. The prices of lumber, as of other commodities, also vary according to the supply and demand.

*Wages.*—The wages for farm labor vary in different localities in Iowa. There is nearly always a demand for this class of laborers. This year farm hands are paid from \$18 to \$25 per month. Day laborers in the towns and cities, boarding themselves, command \$2 per day; teams with hands, \$3.25 to \$3.50; plasterers, \$3.50; brick and stone masons, \$3 to \$4; carpenters, \$2.50 to \$3.50. These figures are about an average, but vary according to circumstances.

*Fuel.*—Cord wood delivered in the towns and cities rarely exceeds in price \$5.50 for the best. In most parts of the State it may usually be bought at from \$3.50 to \$4 per cord. In counties where coal is plenty it is delivered at from \$4.50 to \$5.00 per ton.

*Literature.*—If anybody who proposes to come West, and especially to Iowa, expects to be obliged to settle down among a set of unsophisticated ignoramuses, perhaps he may as well get rid of that illusion before coming. Our people are principally educated, energetic, and wide-awake people from other parts of the Union, and from the Old World. They sustain nearly two hundred and fifty newspapers and periodicals of their own, while they also contribute not a little to sustain the Eastern press. Among our periodicals are several publications

of high standing, and wide reputation, especially those devoted to our agricultural, horticultural, and stock-raising interests. The "Iowa Homestead" published at Des Moines, by Gen. W. D. Wilson, sustains an influential position among the agricultural papers of the country. The "Western Pomologist," published by Mark Miller, Esq., of Des Moines, an experienced fruit-grower, is doing good service in educating our people in the science of pomology. We also have a monthly periodical published at Sigourney, Iowa, by J. H. Sanders & Co., called the "Iowa Stock Journal," which ranks with the best of that class of publications. The "Iowa School Journal" published by Mills & Co., Des Moines, is a monthly compendium of the wisdom and experience of the best educators of the country; while the "Western Jurist," issued monthly from the same publishing house, stands high with the legal profession in this and other States. The people of Iowa are a reading and educated people, although some of her men of professional and scientific attainments may be holding the plow or wielding the axe, and her most accomplished women busily engaged with the cares of the household. Many of the latter are as competent to write a treatise on some abstruse subject, requiring thought and research, as they are to discharge the duties incumbent upon them in the kitchen, the nursery, or the drawing-room. What other woman in America has attained the reputation of Mrs. Ellen S. Tupper, of Brighton, Iowa, as a writer on bee-culture? Indeed, Iowa is not behind any of the Eastern States in the general intelligence of her people, while some of her eminent scholars have already attained enviable reputations.

*Statistics.*—In the closing pages of this pamphlet, we give various carefully compiled tables, illustrating the resources and the development of Iowa. We commend these tables of statistics to the careful study of the reader, and close this chapter by saying—

*To all Working Men*, who live by honest toil, and would thereby contribute their part toward the development of a free and prosperous State;

*To all Landless Men and Women*, of both the Old World and the New, who desire beautiful homes in the fairest portion of the green earth;

*To all Good Men and Women*, who aspire to independence, either for themselves or their children after them, and who will contribute, either of mind or muscle, to carry Iowa forward to her grand and glorious destiny, this little book, with the information it imparts, and the counsel it gives, is respectfully offered, at the request of the General Assembly, the Governor, and the Board of Immigration.

# STATISTICS.

*Table showing the date of organization, and the population of the several counties of Iowa, for the years named.*

COUNTIES.	WHEN ORGANIZED.	POPULATION.				
		1860	1863	1865	1867	1869
Adair.....	1854	984	900	1071	1594	2312
Adams.....	1853	1533	1638	1818	2317	3302
Allamakee.....	1849	12237	13465	13957	16003	16766
Appanoose.....	1846	11931	11866	10748	13064	14625
Audubon.....	1855	451	388	510	790	1032
Benton.....	1846	8496	9561	11245	14772	15420
Black Hawk.....	1853	8244	10014	12306	16036	18961
Boone.....	1849	4232	4607	5236	9861	13912
Bremer.....	1853	4915	5404	7224	9337	11358
Buchanan.....	1847	7906	8294	10037	12231	14973
Buena Vista.....	1858	57	.....	.....	151	242
Butler.....	1854	3724	4142	5006	6542	8139
Calhoun.....	1855	147	170	224	546	944
Carroll.....	1856	281	297	400	688	1400
Cass.....	1853	1612	1623	1895	2479	3604
Cedar.....	1836	12949	13274	14041	16076	18239
Cerro Gordo.....	1855	940	1007	1311	1988	2466
Cherokee.....	1856	58	20	64	209	459
Chickasaw.....	1853	4336	4397	5355	6220	8513
Clarke.....	1851	5427	5693	5716	6244	8027
Clay.....	1858	52	.....	.....	369	450
Clayton.....	1838	20728	21235	21922	22879	25832
Clinton.....	1840	18938	19821	22405	27234	31952
Crawford.....	1855	383	456	574	1070	1640
Crocker.....	Not organized.	.....	.....	.....	.....	.....
Dallas.....	1847	5244	5088	5886	7538	10361
Davis.....	1844	13764	13959	13123	13517	14921
Decatur.....	1850	8677	8373	8052	8501	10339
Delaware.....	1840	11024	11667	12508	14463	15557
Des Moines.....	1834	19611	21213	19894	23444	25986
Dickinson.....	1857	180	189	309	509	562
Dubuque.....	1834	31164	30839	33078	38860	36946
Emmet.....	1859	105	.....	368	708	990
Fayette.....	1850	12073	12739	13124	14992	16391
Floyd.....	1854	3744	4018	4886	6731	8465
Franklin.....	1855	1309	1448	1899	2321	3075
Fremont.....	1849	5074	4778	5698	7013	8051
Greene.....	1854	1374	1416	1659	2353	3494
Grundy.....	1856	793	1024	1332	2119	3850
Guthrie.....	1851	3058	3205	3249	3906	5219
Hamilton.....	1857	1699	1602	2023	3154	4268
Hancock.....	1858	179	240	292	357	572
Hardin.....	1853	5440	5376	6813	9345	11007
Harrison.....	1853	3621	3663	4265	5836	7411
Henry.....	1836	18701	16780	17816	20110	20971
Howard.....	1855	3168	3382	3871	4401	5149

## ORGANIZATION AND POPULATION OF COUNTIES—CONTINUED.

COUNTIES.	WHEN OR- GANIZED.	POPULATION.				
		1860	1863	1865	1867	1869
Humboldt.....	1857	332	394	606	1307	1810
Ida.....	1858	43	.....	.....	90	144
Iowa.....	1845	8029	8544	10258	12390	14738
Jackson.....	1838	18493	19158	19097	19970	20579
Jasper.....	1846	9883	10627	12095	16239	20148
Jefferson.....	1839	15038	14649	14772	16420	16772
Johnson.....	1838	17573	17184	18778	21641	23948
Jones.....	1839	13306	13495	14376	16228	18113
Keokuk.....	1844	13271	13412	13996	15429	17280
Kossuth.....	1855	416	365	794	1573	1849
Lee.....	1837	29232	29523	28063	31417	34127
Linn.....	1839	18947	18700	20754	24549	27467
Louisa.....	1839	10370	10673	10948	11885	12319
Lucas.....	1849	5766	6257	6352	7746	9185
Lyon.....	Not	organi	zed.	.....	.....	.....
Madison.....	1850	7379	7834	8214	9764	11817
Manaska.....	1844	14816	16249	17082	18693	20076
Marion.....	1845	16813	17318	18719	20181	23440
Marshall.....	1850	6015	7550	8759	11513	15514
Mills.....	1851	4481	6287	5218	6994	6935
Mitchell.....	1854	3409	3375	4176	6150	7288
Monona.....	1854	832	931	1096	1664	2679
Monroe.....	1851	8612	9322	9435	10208	11990
Montgomery.....	1858	1256	1218	1535	2072	2892
Muscatine.....	1838	16444	16989	17241	20699	24336
O'Brien.....	1860	8	.....	.....	20	51
Osceola.....	Not	organi	zed.	.....	.....	.....
Page.....	1851	4419	4662	5211	6025	7843
Palo Alto.....	1857	132	142	216	413	585
Plymouth.....	1858	148	93	105	214	179
Pocahontas.....	1859	105	122	215	453	637
Polk.....	1846	11625	11956	16473	22630	26408
Pottawattamie.....	1848	4968	4737	5388	8733	10974
Poweshiek.....	1848	5668	6370	7796	9888	12936
Ringgold.....	1855	2923	3039	3089	3888	5029
Sac.....	1858	246	234	304	595	840
Scott.....	1838	25959	26327	28474	34362	37615
Shelby.....	1853	818	828	900	1213	1744
Sioux.....	1860	10	.....	.....	18	.....
Story.....	1853	4051	4368	5918	6888	9347
Tama.....	1854	5285	7027	7882	11165	14254
Taylor.....	1851	3590	3757	4299	4546	5591
Union.....	1853	2012	2420	2528	3010	3821
Van Buren.....	1837	17081	15862	15599	16292	10839
Wapello.....	1844	14518	16729	18794	18930	20672
Warren.....	1849	10281	10932	11150	13162	15810
Washington.....	1839	14235	15003	15739	17675	18648
Wayne.....	1851	6409	6522	6327	7657	9566
Webster.....	1853	2504	2858	3772	5631	7812
Winnebago.....	1857	168	204	298	785	1072
Winneshiek.....	1851	12942	15421	15421	19302	21047
Woodbury.....	1853	1119	1106	1295	1970	.....
Worth.....	1857	756	895	1143	1543	2135
Wright.....	1855	653	693	908	1332	1765
Total.....		674913	701732	754699	902040	1040819



TABLE

Showing the population of the several incorporated Towns and Cities of Iowa, as returned by the Census of 1867 and 1869.

TOWNS AND CITIES.	COUNTIES.	POPULATION.	
		1867.	1869.
Adel.....	Dallas.....	543	704
Agency City.....	Wapello.....	588	632
Albia.....	Monroe.....	964	1284
Anamosa.....	Jones.....	1763	1893
Andrew.....	Jackson.....	299	357
Bellevue.....	Jackson.....	1182	1542
Bentonsport.....	Van Buren.....	515	454
Birmingham.....	Van Buren.....	549	619
Bloomfield.....	Davis.....	613	755
Boonsboro.....	Boone.....	1624	1747
Buffalo.....	Scott.....	.....	367
Burlington.....	Des Moines.....	10616	12034
Camanche.....	Clinton.....	561	721
Cedar Falls.....	Black Hawk.....	3391	3206
Cedar Rapids.....	Linn.....	2925	3367
Chariton.....	Lucas.....	992	1193
Clarence.....	Cedar.....	488	734
Clinton.....	Clinton.....	4336	6307
Council Bluffs.....	Pottawattamie.....	4832	5793
Davenport.....	Scott.....	17550	20065
Decorah.....	Winneshiek.....	1675	1958
Des Moines.....	Polk.....	10511	12379
De Witt.....	Clinton.....	1449	1839
Drakeville.....	Davis.....	247	218
Dubuque.....	Dubuque.....	21222	18084
Durant.....	Cedar.....	.....	346
Eddyville.....	Wapello.....	1255	1142
Fairfield.....	Jefferson.....	2033	1789
Farmington.....	Van Buren.....	712	657
Grinnell.....	Poweshiek.....	993	1277
Guttenberg.....	Clayton.....	836	1007
Independence.....	Buchanan.....	2468	2717
Indianola.....	Warren.....	1042	1378
Iowa City.....	Johnson.....	6418	6583
Jefferson.....	Greene.....	.....	703
Keokuk.....	Lee.....	10489	11754
Keosauqua.....	Van Buren.....	688	858
Knoxville.....	Marion.....	1106	873
Lansing.....	Allamakee.....	1538	1966
Le Claire.....	Scott.....	1313	997
Lyons.....	Clinton.....	3470	3632
Manchester.....	Delaware.....	.....	1375
Maquoketa.....	Jackson.....	1386	1348
Marengo.....	Iowa.....	1051	1215
Marion.....	Linn.....	1868	1893
Marshalltown.....	Marshall.....	2279	3172
Mechanicsville.....	Cedar.....	.....	581
McGregor.....	Clayton.....	2046	2294

## INCORPORATED TOWNS AND CITIES—CONTINUED.

TOWNS AND CITIES.	COUNTIES.	POPULATION.	
		1867.	1869.
Montana .....	Boone .....	1107	2117
Montezuma .....	Poweshiek .....		482
Monticello .....	Jones .....		1274
Montrose .....	Lee .....	638	734
Morning Sun .....	Louisa .....		279
Moscow .....	Muscatine .....		331
Mt. Pleasant .....	Henry .....	4337	4425
Muscatine .....	Muscatine .....	7765	10178
New London .....	Henry .....	499	465
Newton .....	Jasper .....		1679
Onawa .....	Monona .....		404
Oskaloosa .....	Mahaska .....	2721	2942
Ottumwa .....	Wapello .....	2954	4557
Pella .....	Marion .....	1833	1847
Princeton .....	Scott .....	578	525
Sabula .....	Jackson .....	629	817
Salem .....	Henry .....	515	510
Sigourney .....	Keokuk .....	905	918
State Center .....	Marshall .....		469
Tabor .....	Fremont .....		831
Tipton .....	Cedar .....	1376	1292
Toledo .....	Tama .....	505	943
Wapello .....	Louisa .....	782	851
Washington .....	Washington .....	2514	2605
Waterloo .....	Black Hawk .....	2334	3662
Waverly .....	Bremer .....	2120	2633
West Liberty .....	Muscatine .....		768
West Point .....	Lee .....	833	833
West Union .....	Fayette .....		1049
Wilton .....	Muscatine .....	987	1009
Winterset .....	Madison .....	1359	1560

The following do not appear as incorporated towns and cities in the census report, but are places of considerable size and importance, and most of them now incorporated. We give an estimate of the population of each :

TOWNS AND CITIES.	COUNTIES.	POP.
Atlantic .....	Cass .....	1500
Ackley .....	Hardin .....	1000
Afton .....	Union .....	1200
Algona .....	Kossuth .....	1200
Batavia .....	Jefferson .....	800
Bonaparte .....	Van Buren .....	1000
Belle Plaine .....	Benton .....	1000
Blairstown .....	Benton .....	1000
Brooklyn .....	Poweshiek .....	1500
Brighton .....	Washington .....	1200
Charles City .....	Floyd .....	2000
Clarinda .....	Page .....	1500
Clear Lake .....	Cerro Gordo .....	1000
Centerville .....	Appanoose .....	1500
Eldora .....	Hardin .....	1500

UNINCORPORATED CITIES AND TOWNS—CONTINUED.

TOWNS AND CITIES.	COUNTIES.	POP.
Fort Dodge.....	Webster.....	3000
Glenwood.....	Mills.....	1500
Hamburg.....	Fremont.....	1500
Hampton.....	Franklin.....	1000
Iowa Falls.....	Hardin.....	1500
Leon.....	Decatur.....	1200
Mason City.....	Cerro Gordo.....	1200
Mitchell.....	Mitchell.....	1200
Monroe.....	Jasper.....	1200
Moulton.....	Appanoose.....	1000
Nevada.....	Story.....	1200
Osceola.....	Clarke.....	1500
Osage.....	Mitchell.....	2000
Prairie City.....	Jasper.....	1200
Red Oak.....	Montgomery.....	1200
Sioux City.....	Woodbury.....	4000
Sidney.....	Fremont.....	1200
St. Ansgar.....	Mitchell.....	800
Tama City.....	Tama.....	1500
Vinton.....	Benton.....	2500
Webster City.....	Hamilton.....	1500

Above we give a list of over one hundred incorporated towns and cities, besides which, there are in the State about one thousand additional post-offices, many of which are situated in thriving villages, not included in the above list.

TABLE

Showing the number of Acres of Land in cultivation, the number of Bushels of Spring Wheat, Winter Wheat, Corn, Oats, and Irish Potatoes harvested in the several Counties, for the year 1888; also the number of Miles of Railroad completed in each County, January 1, 1870.

COUNTIES.	No. of acres of land in cultivation.	No. of bushels of Spring wheat.	No. of bushels of Winter wheat.	No. of bushels of corn.	No. of bushels of oats.	No. of bushels of Irish potatoes.	No. of miles of railroad.
Adair	10504	19119		165767	22393	19690	81½
Adams	14073	28442	176	216452	27519	15992	261½
Allamore	93698	709668	2617	647309	313486	73684	4
Appanoose	92263	12790	50038	1312754	321022	15076	7
Audubon	4639	9262		67395	6327	7974	
Benton	139390	1131410	284	1381979	400833	93596	37
Blackhawk	123801	1168107		848801	477379	97599	34
Boone	46886	29802		423731	35283	84010	23½
Bremmer	64520	454734	29	504345	362182	71405	19½
Buchanan	98094	761466	17	804068	453044	107273	24½
Buena Vista	812	1094		5365	1047	2514	
Buena Vista	60232	151023		471677	230407	47178	25
Calhoun	4364	6299		31895	7372	6428	
Carroll	5164	38510		51485	4120	7371	25½
Cass	16973	42183		306680	38034	27691	27½
Cedar	182356	792454	2478	2304394	591782	69312	33
Cerro Gordo	11959	75367		96207	96692	19611	9
Cherokee	1012	1257		9930	155	2956	11
Chickasaw	41378	260919		291393	228694	43621	33
Clarke	46283	101503		775069	119717	26444	26½
Clay	1682	3800		11862	3359	3749	
Clayton	143967	1034502	29060	1349051	535065	130595	22½
Clinton	217934	1066721	980	2146099	725811	94208	38½
Crawford	8953	15622		96542	9661	13472	31½
Crocker	Not organized						
Dallas	58309	47343		719531	78068	55292	53½
Davis	109317	101672	101814	1365505	281099	11053	15½
Decatur	53672	75774	14342	699235	158325	25638	
Delaware	110978	696102	628	1150429	573188	105991	32½
Des Moines	124314	176344	112178	1888149	278526	63485	47½
Dickinson	1505	5865		7522	6912	5092	
Dubuque	133185	600597	1206	1616484	683720	119366	37½
Emmet	2823	12554		17870	5955	8193	
Fayette	99793	658107	488	882183	499869	103639	
Floyd	52045	349587		328592	254585	46457	44½
Franklin	22527	132773		135252	87723	23740	1
Fremont	40812	52314	205	1030917	57640	35854	26
Greene	14471	15386		206690	20563	25837	44½
Grundy	49575	310136		144279	136518	23349	
Guthrie	29961	61270		490207	50714	42622	19½
Hamilton	15643	52957		242111	29715	32757	23
Hancock	2402	15627		23030	20039	4869	
Harold	61549	434106		68456	250577	58331	53
Harrison	32479	41449		421269	50887	39015	62½
Henry	123980	205782	79448	2080095	267518	48750	19½
Howard	29906	242442		147875	186573	25956	26½

NUMBER OF BUSHELS OF GRAIN HARVESTED IN 1868—CONTINUED.

COUNTIES.	No. of acres of land in cultivation.	No. of bushels of Spring wheat.	No. of bushels of Winter wheat.	No. of bushels of corn.	No. of bushels of oats.	No. of bushels of Irish potatoes.	No. of miles of railroad.
Humboldt	7185	21229	.....	78354	15399	24800	.....
Ida	900	Not reported	.....	.....	.....	.....	.....
Iowa	101269	556426	377	1198037	269827	77856	25 $\frac{1}{4}$
Jackson	137069	606667	6982	1483213	698338	79336	.....
Jasper	131509	1367485	875	2108566	301129	161939	54
Jefferson	24071	156693	110793	1639252	251336	16756	25 $\frac{3}{4}$
Johnson	158076	575904	9267	2902278	195217	76192	37 $\frac{1}{4}$
Jones	127104	564745	321	1733062	632468	91785	19 $\frac{3}{4}$
Keokuk	122032	365729	40194	1799067	248448	35462	.....
Kossuth	9437	28923	.....	71917	50583	2467	.....
Lee	142206	260652	58276	1644601	311521	33479	63
Linn	158089	758266	3066	2064749	637863	114187	63
Louisa	101890	231883	99305	1679563	181480	39505	28
Lucas	48295	135092	1115	796818	186257	33972	26 $\frac{1}{4}$
Lyon	Not organized	.....	.....	.....	.....	.....	.....
Madison	69419	134434	101	1018369	101887	76818	8 $\frac{1}{2}$
Mahaska	136613	440594	17994	2187663	255373	78449	20
Mario	129904	596140	12334	2363664	302707	123487	16
Marshall	114116	928986	.....	1201182	279361	108514	40 $\frac{1}{2}$
Mills	42724	52517	65	807697	56300	29135	48 $\frac{1}{2}$
Mitchell	40213	393314	73	189814	296387	48408	22 $\frac{3}{4}$
Monroe	11227	26130	.....	89589	19387	20254	25 $\frac{1}{2}$
Monroe	72975	161943	52099	1041961	195518	31013	27 $\frac{3}{4}$
Montgomery	13850	26778	.....	236308	19087	11347	26 $\frac{3}{4}$
Muscatine	127216	454478	4572	1717065	342150	75687	45 $\frac{1}{4}$
O'Brien	300	522	.....	875	830	190	.....
Osceola	Not organized	.....	.....	.....	.....	.....	.....
Page	40899	36712	111	796790	88710	23972	.....
Palo Alto	2087	5596	.....	20256	7241	11760	.....
Plymouth	1276	4866	.....	1295	1415	830	35
Pocahontas	3355	3233	.....	21830	2260	9220	.....
Polk	78058	221185	828	1734785	119425	153561	51 $\frac{3}{4}$
Pottawattamie	26750	35967	.....	345081	48702	42854	76 $\frac{1}{2}$
Poweshiek	98676	633586	.....	1232569	171109	59635	25 $\frac{1}{2}$
Ringgold	24651	24482	10	426840	51401	18432	.....
Sac	5279	9833	.....	39199	11103	8618	.....
Scott	185632	925571	1454	2006139	482695	164545	13 $\frac{1}{2}$
Shelby	7620	9217	.....	85110	12041	14689	6 $\frac{1}{2}$
Sioux	Not reported	.....	.....	.....	.....	.....	.....
Story	44492	141198	233	664400	85913	78938	24 $\frac{1}{4}$
Tama	101995	860019	2000	913537	256699	62402	25 $\frac{1}{2}$
Taylor	29700	38681	.....	499072	77293	21627	.....
Union	17041	23798	56	330658	36861	20338	26
Van Buren	108096	118567	206624	1259070	282225	9880	30
Wapello	113784	210303	80350	1508391	190529	33981	56 $\frac{3}{4}$
Warre	95170	305391	5890	1898804	198652	94983	.....
Washington	147479	512358	23636	1988507	336919	25517	11
Wayne	57443	103493	11916	829302	179830	19839	.....
Webster	29147	31150	.....	267901	19469	46096	40
Winnebago	2048	15272	.....	12895	10207	8213	.....
Winneshiek	144789	1420749	230	816658	690393	65920	56
Woodbury	Not reported	.....	.....	.....	.....	.....	28 $\frac{1}{2}$
Worth	7612	65267	.....	45316	48904	15283	.....
Wright	8992	47435	.....	107430	47118	16656	.....
Total	6109743	16823520	1140085	76507575	18596625	4417858	2118 $\frac{1}{2}$

## LIST OF NATIONAL BANKS IN IOWA.

NAME.	PLACE.	COUNTY.	CAPITAL.
First National Bank of.....	Bloomfield.....	Davis.....	\$ 55,000
*First National Bank of.....	Burlington.....	Des Moines.....	100,000
National State Bank of.....	Burlington.....	Des Moines.....	100,000
City National Bank of.....	Cedar Rapids.....	Linn.....	100,000
First National Bank of.....	Cedar Rapids.....	Linn.....	50,000
First National Bank of.....	Centerville.....	Appanoose.....	50,000
Clinton National Bank.....	Clinton.....	Clinton.....	60,000
First National Bank of.....	Council Bluffs.....	Pottawattamie.....	50,000
Pacific National Bank.....	Council Bluffs.....	Pottawattamie.....	100,000
*First National Bank of.....	Davenport.....	Scott.....	100,000
*Davenport National Bank.....	Davenport.....	Scott.....	200,000
Citizens' National Bank.....	Davenport.....	Scott.....	100,000
First National Bank of.....	Decorah.....	Winnesheik.....	75,000
First National Bank of.....	Des Moines.....	Polk.....	100,000
*National State Bank of.....	Des Moines.....	Polk.....	100,000
*First National Bank of.....	Dubuque.....	Dubuque.....	300,000
Merchants' National Bank of.....	Dubuque.....	Dubuque.....	200,000
First National Bank of.....	Fairfield.....	Jefferson.....	50,000
First National Bank of.....	Fort Dodge.....	Webster.....	50,000
Fort Madison National Bank.....	Fort Madison.....	Lee.....	75,000
First National Bank of.....	Grinnell.....	Poweshiek.....	50,000
First National Bank of.....	Independence.....	Buchanan.....	50,000
First National Bank of.....	Iowa City.....	Johnson.....	75,000
*Iowa City National Bank.....	Iowa City.....	Johnson.....	100,000
State National Bank of.....	Keokuk.....	Lee.....	150,000
First National Bank of.....	Lansing.....	Allamakee.....	50,000
First National Bank of.....	Leon.....	Decatur.....	60,000
First National Bank of.....	Lyons.....	Clinton.....	100,000
First National Bank of.....	Marion.....	Linn.....	67,000
First National Bank of.....	Marshalltown.....	Marshall.....	100,000
First National Bank of.....	Maquoketa.....	Jackson.....	50,000
First National Bank of.....	McGregor.....	Clayton.....	100,000
Muscatine National Bank.....	Muscatine.....	Muscatine.....	100,000
Merchants' Exchange National Bank.....	Muscatine.....	Muscatine.....	50,000
*First National Bank of.....	Mt. Pleasant.....	Henry.....	75,000
National State Bank of.....	Mt. Pleasant.....	Henry.....	100,000
First National Bank of.....	Newton.....	Jasper.....	50,000
Osage National Bank.....	Osage.....	Mitchell.....	50,000
First National Bank of.....	Ottumwa.....	Wapello.....	60,000
First National Bank of.....	Vinton.....	Benton.....	50,000
First National Bank of.....	Washington.....	Washington.....	50,000
First National Bank of.....	Waterloo.....	Black Hawk.....	50,000
National Bank of.....	Winterset.....	Madison.....	50,000

Those marked with a star (\*) are public depositories of the United States.

LIST OF MONEY ORDER OFFICES IN IOWA—AUGUST 1, 1870.

OFFICE.	COUNTY.	OFFICE.	COUNTY.
Ackley.....	Hardin.....	Fayette.....	Fayette.....
Adel.....	Dallas.....	Fontanelle.....	Adair.....
Afton.....	Union.....	Fort Dodge.....	Webster.....
Agency City.....	Wapello.....	Fort Madison.....	Lee.....
Algona.....	Kossuth.....	Garnaville.....	Clayton.....
Albia.....	Monroe.....	Glenwood.....	Mills.....
Anamosa.....	Jones.....	Grinnell.....	Poweshiek.....
Atlantic.....	Cass.....	Guttenburg.....	Clayton.....
Bedford.....	Taylor.....	Hampton.....	Franklin.....
Belle Plaine.....	Benton.....	Homestead.....	Iowa.....
Bellevue.....	Jackson.....	Hopkinton.....	Delaware.....
Birmingham.....	Van Buren.....	Independence.....	Buchanan.....
Blairstown.....	Benton.....	Indianola.....	Warren.....
Bloomfield.....	Davis.....	Iowa City.....	Johnson.....
Bonaparte.....	Van Buren.....	Iowa Falls.....	Hardin.....
Boonsboro.....	Boone.....	Janesville.....	Bremer.....
Brighton.....	Washington.....	Jefferson.....	Greene.....
Brooklyn.....	Poweshiek.....	Jessup.....	Buchanan.....
Buckingham.....	Tama.....	Keokuk.....	Lee.....
Burlington.....	Des Moines.....	Keosauqua.....	Van Buren.....
Calmar.....	Winneshiek.....	Knoxville.....	Marion.....
Cascade.....	Dubuque.....	Lansing.....	Allamakee.....
Cedar Falls.....	Black Hawk.....	Le Claire.....	Scott.....
Cedar Rapids.....	Linn.....	Leon.....	Decatur.....
Centerville.....	Appanoose.....	Lewis.....	Cass.....
Chariton.....	Lucas.....	Lisbon.....	Linn.....
Charles City.....	Floyd.....	Lowden.....	Cedar.....
Clarence.....	Cedar.....	Lyons.....	Clinton.....
Clarinda.....	Page.....	McGregor.....	Clayton.....
Clinton.....	Clinton.....	Magnolia.....	Harrison.....
Clermont.....	Fayette.....	Malcolm.....	Poweshiek.....
Columbus City.....	Louisa.....	Manchester.....	Delaware.....
Corydon.....	Wayne.....	Maquoketa.....	Jackson.....
Council Bluffs.....	Pottawattamie.....	Marengo.....	Iowa.....
Conover.....	Winneshiek.....	Marion.....	Linn.....
Cresco.....	Howard.....	Marshalltown.....	Marshall.....
Davenport.....	Scott.....	Mason City.....	Cerro Gordo.....
Decorah.....	Winneshiek.....	Mechanicsville.....	Cedar.....
Denmark.....	Lee.....	Missouri Valley.....	Harrison.....
Des Moines.....	Polk.....	Mitchell.....	Mitchell.....
De Soto.....	Dallas.....	Moingona.....	Boone.....
De Witt.....	Clinton.....	Monroe.....	Jasper.....
Dexter.....	Dallas.....	Montezuma.....	Poweshiek.....
Dubuque.....	Dubuque.....	Monticello.....	Jones.....
Durant.....	Cedar.....	Mount Ayr.....	Ringgold.....
Dyersville.....	Dubuque.....	Mount Pleasant.....	Henry.....
Eddyville.....	Wapello.....	Mount Vernon.....	Linn.....
Eldora.....	Hardin.....	Muscatine.....	Muscatine.....
Elkader.....	Clayton.....	Nashua.....	Chickasaw.....
Fairfield.....	Jefferson.....	Nevada.....	Story.....
Farmington.....	Van Buren.....	New London.....	Henry.....

## LIST OF MONEY ORDER OFFICES—CONTINUED.

OFFICE.	COUNTY.	OFFICE.	COUNTY.
New Oregon.....	Howard.....	Strawberry Point..	Clayton.....
Newton.....	Jasper.....	Tabor.....	Fremont.....
Osceola.....	Clarke.....	Tipton.....	Cedar.....
Oskaloosa.....	Mahaska.....	Toledo.....	Tama.....
Ossian.....	Winneshieki.....	Victor.....	Iowa.....
Ottumwa.....	Wapello.....	Vinton.....	Benton.....
Panora.....	Guthrie.....	Wapello.....	Louisa.....
Pella.....	Marion.....	Washington.....	Washington.....
Postville.....	Allamakee.....	Waterloo.....	Black Hawk.....
Prairie City.....	Jasper.....	Waukon.....	Allamakee.....
Quincy.....	Adams.....	Waverly.....	Bremer.....
Red Oak Junction..	Montgomery.....	West Liberty.....	Muscatine.....
Richland.....	Keokuk.....	West Point.....	Lee.....
Sabula.....	Jackson.....	Webster City.....	Hamilton.....
Salem.....	Henry.....	West Union.....	Fayette.....
Shellsburg.....	Benton.....	Wheatland.....	Clinton.....
Sidney.....	Fremont.....	Wilton Junction..	Muscatine.....
Sigourney.....	Keokuk.....	Winterset.....	Madison.....
Sioux City.....	Woodbury.....	Wyoming.....	Jones.....

## WEIGHTS AND MEASURES.

*The following is a statement of the number of pounds of various articles required to constitute a bushel of the same, as fixed by the statutes of Iowa.*

ARTICLES.	Pounds	ARTICLES.	Pounds
Barley.....	48	Irish Potatoes.....	60
Beans.....	60	Lime.....	80
Bran.....	20	Millet Seed.....	45
Buckwheat.....	52	Osage Orange Seed.....	32
Blue Grass Seed.....	14	Onions.....	57
Broom Corn Seed.....	30	Oats.....	33
Corn—shelled.....	56	Rye.....	56
Corn in the cob.....	70	Salt.....	50
Clover Seed.....	60	Stone Coal.....	80
Castor Beans.....	46	Sweet Potatoes.....	46
Dried Apples.....	24	Sand.....	130
Dried Peaches.....	33	Sorghum Seed.....	30
Flax Seed.....	56	Timothy Seed.....	45
Hemp Seed.....	44	Wheat.....	60
Hungarian Grass Seed.....	45		

A "perch" of mason work, or stone, consists of twenty-five feet cubic measure.



TABLE

Showing the number of the various kinds of Live Stock in the several counties of Iowa, January 1, 1869; also the value of Stock sold during the year 1868.

COUNTIES.	No. of Horses of all ages.	No. of Cattle of all ages.	No. of Hogs of all ages.	No. of Sheep of all ages.	No. of Mules and Asses of all ages.	No. of Milch Cows.	No. of Work Oxen.	Value of Stock sold during the year 1868.
Adair.....	1492	2849	2527	4090	52	906	114	51547
Adams.....	1399	3499	3235	5598	202	1189	228	55569
Allamakee.....	5779	14846	18458	10836	42	5691	1208	199039
Appanoose.....	7610	17365	30683	41455	608	4975	543	388213
Audubon.....	662	1775	882	1804	137	855	48	25608
Benton.....	9567	19268	24562	11826	367	6746	513	322051
Black Hawk.....	8532	16958	12549	8482	225	5783	353	197579
Boone.....	4553	9753	9079	10846	256	3267	452	145553
Bremer.....	5072	12015	8811	9350	58	4208	272	123189
Buchanan.....	6530	15813	12489	16123	161	5660	564	211619
Buena Vista.....	68	305	85	170	...	106	73	332
Butler.....	4427	9173	7692	5817	117	3256	296	135022
Calhoun.....	335	1056	379	1045	24	331	189	7406
Carroll.....	435	941	912	801	21	329	112	11818
Cass.....	2138	4823	2593	4258	114	1460	84	67379
Cedar.....	12082	27849	39092	25720	505	8489	144	629073
Cerro Gordo.....	1297	3115	1199	2583	24	1152	155	26429
Cherokee.....	146	728	79	18	6	177	108	7976
Chickasaw.....	3444	11089	5312	6152	66	3866	700	90215
Clarke.....	4742	8747	14503	16558	308	2523	126	181011
Clay.....	143	606	144	126	6	231	127	2096
Clayton.....	9548	21589	28185	14765	327	8827	893	373040
Clinton.....	15617	33687	38288	15260	357	11370	88	598125
Crawford.....	719	2429	886	2504	19	687	249	20517
Dallas.....	5120	9773	12570	16534	466	3350	265	232302
Davis.....	8398	19878	31560	46896	1668	5637	261	372542
Decatur.....	5544	11738	19204	31764	466	3556	433	239691
Delaware.....	8696	22388	24578	18044	366	7705	287	327662
Des Moines.....	9462	19178	32082	21181	811	5989	50	399556
Dickinson.....	185	672	86	119	....	215	135	3544
Dubuque.....	11009	27355	37275	14914	289	11165	354	427959
Emmet.....	269	1590	229	1187	8	452	237	9489
Fayette.....	7845	19025	18256	21277	200	6690	726	272410
Floyd.....	4278	8617	5907	9183	90	3061	356	94288
Franklin.....	1788	3490	2371	2769	19	1175	139	53872
Fremont.....	4067	11144	21164	10505	478	4496	272	264836
Greene.....	1657	3223	2884	4320	64	1079	173	88490
Grundy.....	2489	4725	3357	4990	73	1785	169	67897
Guthrie.....	2837	5234	6060	10879	118	1844	186	110343
Hamilton.....	2006	4798	2531	3533	45	1672	200	66435
Hancock.....	299	726	206	702	10	251	62	3252
Hardin.....	5636	10148	11652	9063	166	3550	149	194538
Harrison.....	3484	10206	8923	6588	136	3359	276	162551
Henry.....	9573	19957	31136	52321	767	6482	152	460892
Howard.....	2251	6891	2769	2206	42	2446	433	59687
Humboldt.....	791	2057	572	992	14	830	274	14330

TABLE—CONTINUED.

COUNTIES.	No. of Horses of all ages.	No. of Cattle of all ages.	No. of Hogs of all ages.	No. of Sheep of all ages.	No. of Mules and Asses of all ages.	No. Milch Cows.	No. Work Oxen.	Value of Stock sold during the year 1868.
Ia. ....	96	307	33	88	....	....	....	....
Iowa .....	7416	19434	22119	15173	412	6245	690	\$ 310287
Jackson .....	10988	28009	33481	18680	154	9401	257	583082
Jasper .....	10247	20090	34288	31502	704	6616	366	523912
Jefferson .....	9209	18809	35296	45879	748	6326	115	460073
Johnson .....	11261	28691	40181	29711	667	8675	427	597329
Jones .....	10026	26451	35532	21143	301	8842	257	503994
Keokuk .....	9982	22168	34717	38791	739	6846	302	471923
Kossuth .....	909	2792	870	814	28	993	270	21670
Lee .....	10659	23744	28336	36363	1032	7991	108	347076
Linn .....	12353	32496	44094	27189	478	10205	334	545260
Louisa .....	7572	19238	29986	21085	450	5595	134	445324
Lucas .....	4627	9991	15134	20417	394	3040	154	204582
Lyon .....	....	....	....	....	....	....	....	....
Madison .....	6194	12453	19987	30171	548	3816	270	329225
Mahaska .....	11720	28117	41433	59139	991	6506	533	704882
Marion .....	10541	23986	48218	44580	860	7306	415	521376
Marshall .....	7879	15098	16467	14661	372	4713	270	275873
Mills .....	4248	11197	8527	5223	452	2910	224	150602
Mitchell .....	2927	7591	3042	4380	60	2780	525	76522
Monona .....	1354	4902	2372	5207	31	1352	285	41990
Monroe .....	5576	14404	23187	29596	418	4172	530	375362
Montgomery .....	1514	3344	4099	5546	93	1096	232	60454
Muscatine .....	10316	22726	27857	15001	669	7603	67	442193
O'Brien .....	34	94	19	1	4	18	2	625
Osceola .....	....	....	....	....	....	....	....	....
Page .....	4494	10747	16055	12872	330	3012	138	222976
Palo Alto .....	205	1582	296	132	7	533	162	8906
Plymouth .....	71	394	31	2	4	107	39	2680
Pocahontas .....	269	1180	292	23	4	362	167	8438
Polk .....	8075	16720	24765	18271	696	5901	170	433732
Pottawattamie .....	3578	7373	4270	4679	213	2987	98	159594
Poweshiek .....	7417	14424	20344	10470	457	4821	266	351952
Ringgold .....	2659	5961	9362	10577	204	1795	116	142206
Sac .....	453	1005	326	1362	2	321	213	11725
Scott .....	11258	23929	30713	9106	948	9682	78	416231
Shelby .....	990	1932	1462	3598	63	676	71	34108
Sioux .....	....	....	....	....	....	....	....	....
Story .....	4792	12160	9283	8529	153	3954	231	142890
Tama .....	7804	14582	15625	9324	287	6239	618	222652
Taylor .....	3128	10930	10891	11773	216	2207	180	179200
Union .....	1818	3514	4614	6607	217	1068	111	75391
Van Buren .....	8518	17767	23529	14989	676	5817	145	340175
Wapello .....	8555	17474	25322	44010	860	5760	291	389873
Warren .....	8438	17940	31284	35259	506	5219	249	461303
Washington .....	9856	24792	38128	41159	727	7658	372	585363
Wayne .....	5058	11969	17615	27172	479	3285	191	246723
Webster .....	2804	7570	3986	6538	88	2526	661	73896
Winnebago .....	233	1335	338	801	7	435	201	4632
Winneshiek .....	9013	21944	17576	10065	129	8413	1407	193588
Woodbury .....	....	....	....	....	....	....	....	....
Worth .....	686	3722	1208	2076	10	1164	388	30296
Wright .....	945	2498	1092	1218	7	840	149	29749
Total .....	482786	2108667	1409679	2370106	28420	367602	26726	20549977

## CLIMATOLOGY OF IOWA.

*Table showing the Monthly and Annual quantity of Rain and Snow (reduced to water) in inches, from 1848 to 1869, inclusive. The greatest, least, and mean, amounts are also given.*

YEARS.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	For the year.
1848.....	1.20	1.60	2.10	.70	3.40	2.50	5.70	9.10	3.00	4.30	1.40	1.29	36.29
1849.....	2.82	1.30	2.41	4.70	4.70	12.20	1.40	12.20	5.00	4.80	6.60	1.14	59.27
1850.....	4.62	.80	2.08	3.30	3.70	3.50	5.00	13.00	3.90	2.70	3.59	2.87	49.06
1851.....	1.55	5.34	3.03	3.60	12.60	14.30	8.60	14.00	3.50	1.40	3.63	2.95	74.49
1852.....	2.52	1.00	8.60	5.30	6.50	2.20	3.70	2.80	8.30	7.60	5.76	5.11	59.49
1853.....	.43	.90	.70	11.80	4.60	6.40	6.60	1.70	6.20	.21	4.92	.32	45.78
1854.....	.40	1.80	1.22	1.76	6.21	.66	2.22	3.33	1.13	4.22	.19	.51	23.35
1855.....	1.68	.70	1.87	2.55	1.94	4.75	2.35	6.51	1.84	2.86	2.18	2.15	28.38
1856.....	.12	4.46	.51	3.44	4.39	2.86	2.74	1.36	2.45	5.21	4.35	6.25	38.17
1857.....	.61	5.80	3.33	5.09	2.75	.90	4.67	6.00	1.80	1.95	4.77	1.85	39.52
1858.....	1.60	2.00	2.20	2.00	8.40	6.70	7.30	4.12	6.10	4.90	4.54	1.82	51.28
1859.....	.94	1.72	5.01	1.05	7.49	5.82	2.93	1.70	1.80	.85	1.53	1.81	32.65
1860.....	1.17	.43	.55	1.67	1.42	3.66	4.03	2.30	2.76	1.00	2.09	4.02	25.10
1861.....	.28	3.91	2.30	4.40	2.95	.40	2.70	4.07	9.92	9.16	2.93	2.87	47.89
1862.....	.29	.38	4.06	5.30	3.65	6.07	3.10	7.30	6.10	2.49	2.29	2.75	44.78
1863.....	3.40	3.02	2.58	.55	4.56	.21	.80	2.44	4.44	4.10	4.11	3.53	33.75
1864.....	2.30	.67	5.64	3.97	3.60	5.70	5.00	7.60	2.12	4.55	4.82	1.60	51.57
1865.....	.30	3.15	3.57	9.31	2.72	6.96	7.30	1.35	3.75	6.35	.25	.33	45.34
1866.....	4.19	.79	.83	2.92	1.59	4.76	6.55	6.85	6.53	4.61	1.41	2.34	43.37
1867.....	1.26	4.76	1.90	.95	10.60	3.94	3.94	4.45	4.62	3.06	1.97	.73	42.18
1868.....	.17	1.51	6.31	4.92	7.20	1.28	6.15	4.67	5.17	.33	4.38	.81	46.00
1869.....	1.56	2.65	.43	3.16	4.06	7.42	7.42	11.43	3.09	2.07	3.42	.....	.....
Mean.....	1.52	2.21	2.78	3.79	4.95	4.59	4.68	5.69	4.24	3.65	3.27	2.34	44.27
Least.....	.12	.38	.43	.55	1.42	.21	.80	1.36	1.13	.21	.19	.32	23.35
Greatest.....	4.19	5.80	8.60	11.80	12.60	14.30	8.60	14.00	9.92	9.16	5.76	6.25	74.49

By this table it will be seen that the greatest fall was in 1851—74.49 inches, and the least in 1854—23.35 inches. August is the month in which the greatest amount falls, and in January the least. This table was compiled by Prof. T. S. Parvin of the State University, from observations made by him at Muscatine and Iowa City. To him we are under obligations for this and the following tables illustrating the Climatology of Iowa.

TABLE.

Showing the Monthly and Annual quantities of Snow in inches, for the years 1848, to 1869, inclusive, according to records kept by Prof. T. S. Parvin, at Muscatine, and Iowa City.

YEARS.	JAN.	FEB.	MAR.	APR.	OCT.	NOV.	DEC.	FOR THE YEARS.
1848.....	1.10	.10	2.10	.00	.00	3.51	29.52	36.33
1849.....	3.22	.32	1.12	.00	.00	.00	4.75	9.41
1850.....	2.22	.00	.81	.20	.00	.92	3.71	7.90
1851.....	.50	8.41	.30	6.00	.00	1.30	1.50	18.00
1852.....	3.20	.00	5.50	.00	.00	30.00	11.40	50.10
1853.....	1.00	2.00	2.00	.00	.11	8.00	3.20	16.30
1854.....	4.00	5.50	1.00	.00	.00	1.00	1.00	12.50
1855.....	17.50	7.00	6.50	.00	.50	1.50	13.00	46.10
1856.....	12.20	12.00	.51	.00	.00	5.20	19.00	54.40
1857.....	6.11	3.00	8.97	5.03	.00	8.50	3.50	35.10
1858.....	.00	18.00	.00	2.00	.00	5.40	12.01	37.40
1859.....	.40	4.10	4.00	1.05	.10	2.00	8.10	34.82
1860.....	17.65	.30	.10	.00	.00	6.00	28.00	52.05
1861.....	18.05	16.75	1.10	.00	.00	3.30	6.25	45.45
1862.....	24.25	2.75	16.15	.10	.00	5.30	.10	48.65
1863.....	2.92	8.70	2.34	.00	4.10	2.40	25.00	45.46
1864.....	3.15	1.10	6.67	.00	1.00	2.10	4.25	18.27
1865.....	3.15	5.90	3.57	1.00	3.00	.00	2.11	18.73
1866.....	5.75	5.59	5.20	.10	.00	1.00	12.00	29.64
1867.....	12.63	27.00	16.00	.00	.11	.13	6.10	61.97
1868.....	1.12	7.00	1.00	1.00	.00	1.10	8.99	19.33
1869.....	6.30	12.55	1.60	.20	.00	10.66		
Means.....	6.70	6.73	3.93	.76	.40	4.73	9.21	33.23
Least.....	.00	.00	.00	.00	.00	.00	.10	7.90
Greatest.....	24.25	27.00	16.15	6.00	4.10	30.00	29.52	61.97

From this table it will be seen that the greatest fall of snow in any one month was in December, 1848, 29.52 inches, and the greatest for any year, was in 1868, 61.97 inches. The least, was in 1850, when only 7.90 inches fell. The most, it will be seen, usually falls in December, the average in this month, for the years above given, being 9.21 inches.

The records of Prof. Parvin, show that the earliest fall of snow during the time embraced in his observations, was October 17th, 1859; and the latest, April 29th, 1851. The greatest fall was December 21st, 1848, 20.50 inches.

TABLE

Giving the monthly Thermometrical results in degrees for the years 1868 and 1869—the observations being made at the door of the State University, Iowa City, by Prof. T. S. Parvin.

MONTHS.	1868.						1869.					
	7	2	9	Monthly mean.	Maximum.	Minimum.	7	2	9	Monthly mean.	Maximum.	Minimum.
	A. M.	P. M.	P. M.				A. M.	P. M.	P. M.			
January.....	6.4	24.4	13.3	13.37	50	-16	18.9	34.1	24.9	26.02	48	-14
February.....	14.6	32.1	21.1	25.29	55	-27	19.9	34.7	27.4	27.00	62	- 8
March.....	33.3	48.4	43.0	42.69	75	3	22.3	39.2	29.7	30.26	72	-12
April.....	36.2	52.2	44.0	44.69	78	18	39.4	55.6	45.3	47.09	80	20
May.....	54.7	71.0	61.7	61.69	84	46	52.8	69.8	62.3	60.01	82	40
June.....	63.8	78.5	69.3	70.75	92	47	60.3	75.2	65.1	66.07	85	44
July.....	75.6	99.1	79.5	80.79	96	53	64.7	78.3	70.0	70.86	86	55
August.....	60.9	78.7	68.4	69.12	92	48	68.8	80.6	74.9	74.36	93	57
September.....	52.2	66.2	57.6	58.76	81	32	56.1	72.7	62.3	63.23	88	33
October.....	42.9	58.4	48.3	49.84	73	30	34.7	53.1	40.8	42.72	78	16
November.....	33.2	43.9	36.6	37.97	63	18	27.5	38.3	30.6	32.12	70	5
December.....	15.1	28.2	20.9	21.19	50	-18	21.6	29.9	25.3	25.46	46	- 2
Sums.....	488.9	673.1	563.7	576.15	889	234	487.0	691.5	557.0	565.20	890	234
Means.....	40.7	56.1	46.9	48.01	74	19	40.6	57.6	46.4	47.10	74	19

TABLE

Showing the average, or mean temperature of the seasons, for the years 1839 to 1869, inclusive; also the mean temperature of the months nearest thereto, and the extremes of temperature.

SEASONS.	TEMPERATURE.	MONTHS NEAREST SEASONS
Spring.....	47° 44'	April..... 48° 50'
Summer.....	70° 37'	August..... 70° 70'
Autumn.....	44° 52'	October..... 49° 50'
Winter.....	23° 37'	December..... 23° 25'
Year.....	47° 57'	.....

RANGE OF TEMPERATURE.

Highest.....	99° 00'	August 31st, 1854.....
Lowest.....	-30° 00'	January 18th, 1857.....
Range.....	129° 00'	.....

Prof. Parvin says that during a residence of more than thirty years in central eastern Iowa, he has never seen the mercury rise to 100 degrees, nor fall below 80 degrees. The observations upon which the above figures are based, were made by him at Muscatine and Iowa City. Times of observation, 7 A. M., 2 P. M. and 9 P. M.



1865	0	3	8	5	3	7	13	1	7	...	12	...	13	...	5	...	11	...	11	...	3	2	0	1	5	68	24
1866	3	8	1	7	3	5	7	1	7	...	12	...	7	...	11	...	13	...	8	...	0	3	1	4	4	79	26
1867	0	6	2	5	2	10	7	0	13	...	12	...	9	...	6	...	6	...	5	...	1	3	1	1	5	66	28
1868	2	4	1	2	9	2	9	2	15	...	5	...	6	...	6	...	13	...	3	...	0	6	3	1	8	76	21
1869	3	3	5	10	5	7	8	2	7	...	15	...	14	...	15	...	6	...	2	...	0	4	8	...	...	...	...
Greatest	9	14	11	10	11	10	12	4	17	...	21	...	15	...	15	...	14	...	14	...	3	11	8	8	9	111	28
Least	0	0	0	0	0	0	2	0	3	...	2	...	2	...	3	...	2	...	1	...	1	0	1	0	1	54	12
Mean	2.4	3.8	3.0	3.8	5.2	3.3	7.3	0.7	9.6	...	8.5	...	8.5	...	7.5	...	7.9	...	6.5	...	0.7	4.9	3.1	2.6	4.4	74.3	19.4

From this Table it will be seen that during a period of thirty-one years no snow has fallen in either of the months of May, June, July, August, or September; while there have been but few years without more or less rain in each month. This Table was compiled by Prof. T. S. Parvin, of the State University, from observations made by him at Muscatine and Iowa City.

TABLE

Showing the dates of the earliest and latest Frost and Ice for the years 1839 to 1869, inclusive; also, the time of disappearance and depth of frost, and the thickness of ice from 1856 to 1869, according to records kept by Prof. T. S. Parvin, at Muscatine and Iowa City, Iowa.

YEARS.	FROST.				ICE.		
	Latest.	Earliest.	Disappearance.	Depth— inches.	Latest.	Earliest.	Inches thick.
1839	April 17	Sept. 12	.....	.....	Mar'h 25	Nov. 7	.....
1840	April 27	Sept. 28	.....	.....	April 18	Oct. 3	.....
1841	April 12	Sept. 11	.....	.....	April 14	Oct. 17	.....
1842	May 4	Sept. 17	.....	.....	April 28	Oct. 19	.....
1843	May 2	Oct. 8	.....	.....	May 1	Oct. 8	.....
1844	May 21	Oct. 10	.....	.....	Mar'h 30	Oct. 16	.....
1845	May 25	Sept. 21	.....	.....	April 8	Oct. 5	.....
1846	April 15	Oct. 2	.....	.....	April 13	Oct. 18	.....
1847	May 26	Oct. 9	.....	.....	May 4	Oct. 14	.....
1848	May 10	Sept. 23	.....	.....	April 26	Oct. 1	.....
1849	May 1	Oct. 8	.....	.....	April 20	Oct. 13	.....
1850	April 23	Sept. 7	.....	.....	April 23	Sept. 29	.....
1851	May 5	Sept. 28	.....	.....	May 1	Oct. 15	.....
1852	May 20	Sept. 26	.....	.....	April 22	Sept. 26	.....
1853	May 25	Sept. 10	.....	.....	May 13	Oct. 2	.....
1854	May 2	Oct. 5	.....	.....	May 2	Oct. 15	.....
1855	May 6	Sept. 27	.....	.....	May 6	Oct. 25	.....
1856	April 19	Sept. 24	April 10	29	April 19	Sept. 24	27
1857	May 20	Oct. 14	May 5	14	May 12	Oct. 20	12
1858	April 26	Sept. 12	April 1	12	April 16	Oct. 7	10
1859	April 23	Sept. 2	April 1	11	April 23	Oct. 6	10
1860	May 1	Sept. 11	Mar'h 20	11	April 2	Oct. 24	11
1861	May 4	Oct. 23	Mar'h 12	20	April 16	Sept. 24	21
1862	April 24	Oct. 11	April 1	20	April 6	Oct. 25	20
1863	Aug. 25	Aug. 29	April 2	18	April 8	Oct. 7	20
1864	May 11	Sept. 19	April 17	18	April 14	Oct. 18	20
1865	May 11	Oct. 2	April 10	20	April 6	Oct. 15	18
1866	May 2	Sept. 21	May 7	20	April 6	Oct. 31	24
1867	May 6	Oct. 23	May 23	18	April 6	Nov. 4	18
1868	April 5	Sept. 17	April 15	20	April 8	Nov. 1	22
1869	May 19	Sept. 26	April 7	21	April 13	Oct. 13	20
Latest	May 26	Oct. 23	May 23	29	May 13	Nov. 7	27
Earliest	April 5	Aug. 29	Mar'h 12	11	April 2	Sept. 24	10
Mean	May 4	Sept. 24	April 10	18	April 18	Oct. 15	18

The year 1863 was very cold, not only in Iowa, but throughout the country, and there was frost in every month of the year. It has only once or twice in thirty years seriously injured the corn crop. When the spring is late the fall is generally lengthened, so that the crop has time to mature.



# STATEMENT

*Of Surplus Agricultural Products shipped from the State of Iowa by the different Railroads therein, during the year ending April 30th, 1869.*

NAME OF RAILROADS.	No. of Horses.	No. of Cattle.	No. of Hogs.	No. of Sheep.	Dressed Hogs, Lbs.	Lard and Pork, Lbs.	Wool, Lbs.	GRAIN.				Other Agricultural Products, Lbs.	Flour and other Agricultural Products, Barrels.	Flour, Barrels.	Animal Products not otherwise specified, Lbs.	
								Wheat, Bushels.	Corn, Bushels.	Other Grains, Lbs.	Other Grains, Bush.					
* Milwaukee and St. Paul Railway, Iowa Div.	10	1548	6666	51	20756830	360621	488000	12844683	79687	241048	5636980	40242	562470			
Cedar Falls and Minnesota Railroad.....		785	8487	75	690200	2400	58000	584900	31850	122260	.....	.....	122600			
Dubuque and Sioux City Railroad.....		56	4588	29874	685	3919300	161800	2139710	261570	584020	.....	93775	379400			
+ Chicago and Northwestern Railway.....		1110	14175	71658	7687	8431875	578528	2668211	698486	667455	6097369	.....	2744291	59620		
Chicago, Rock Island and Pacific Railroad.....		301	20157	121955	13629	2951801	4229397	572907	1681113	3126378	.....	.....	1372257	81877		
Burlington and Missouri River Railroad.....		91	30836	162077	25043	348720	2328897	1209601	398318	623383	4559870	.....	1658309	49349		
† Des Moines Valley River Railroad.....		60	8181	22039	5313	.....	249881	257400	267104	.....	8162717	.....	3787920			
Carried Eastward from Keokuk by the T. P. and W., and C. B. & Q. Railroads, and not received from the D. V. Railroad, for six months, ending Oct. 31, 1868.....			72	651	.....	5417	60678	34844	17886	29886	25854	.....	335854	890		
<b>Total.....</b>		1628	90281	412357	52738	13417726	7582579	2649045	92968579	2210438	35476788	27608768	134017	10963101	190736	

\* "Other Agricultural Products" include Flour, Potatoes, and Beans; and "Animal Products not otherwise specified," include Eggs, Butter Tallow, and Hides.  
 † Includes shipments both Eastward and Westward. The shipments by the other Roads are Eastward only.  
 ‡ "Animal Products not otherwise specified," include Pork, Beef, Lard, Tallow, Hides, Eggs, Butter, and Poultry; and "Other Agricultural Products, Lbs.," include Flour, Meal, Grass-seeds, Hay, Potatoes, Roots, and Green Fruits.

NOTE.—The above amounts do not include shipments Eastward from McGregor or Dubuque; an important item not reported. The shipments over the Des Moines Valley Railroad are for six months only—ending June 30, 1868.

## TO THE READER.

After reading this pamphlet, lend it to your neighbor, or send it to some friend in the East who may be benefited by the information which it contains. Copies of it may be obtained to send to persons in the Eastern States, Great Britain, or her Provinces, by applying to the undersigned. All letters requesting further information about Iowa will receive prompt attention. The present English edition of this pamphlet is 35,000 copies. We also print in German 15,000 copies; Norwegian, 6,000 copies; Swedish, 4,000 copies, and Holland 5,000 copies.

A. R. FULTON,  
*Secretary Iowa Board of Immigration.*

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#### ERRATA.

In the last sentence on page 48, the name of the Land Commissioner of the Burlington & Missouri River Railroad, should read "George S. Harris," not "George H." as printed.

On page 65, seventh line from the bottom, read "one hundred counties," not "one hundred and one," as printed.

