

THE ECONOMIC AND SOCIAL DEVELOPMENT OF
IOWA FROM 1860 TO 1870

by

Klarize Mae Smith

A Thesis Submitted to the Graduate Faculty
for the Degree of

MASTER OF SCIENCE

Major Subject: Economic History

Signatures have been redacted for privacy

Iowa State College
1942

THE ECONOMIC AND SOCIAL DEVELOPMENT OF
IOWA FROM 1860 TO 1870
by
Klarize Mae Smith

TABLE OF CONTENTS

	page
INTRODUCTION	1
THE DISTRIBUTION OF IOWA LAND. . . ✓	12
AGRICULTURE.	20
INDUSTRY	40
TRANSPORTATION	54
MARKETS.	66
BUSINESS	77
FINANCIAL CONDITIONS	84
SOCIAL DEVELOPMENT	101
LITERATURE CITED	144
ACKNOWLEDGMENTS.	150

INTRODUCTION

A study of Iowa during the period from 1860 to 1870 should result in a more thorough understanding of the whole economic and social development of the West against the background of the Civil War.

The problems of the Iowa settler were similar to those of the settlers of other western states. The changes caused in increasing population and land distribution were common to most of the states of the West. The sources of their population were alike. Agricultural interests and industrial development were focused on the same type of products. Most of the states were deserting river transportation for railroads. The problem of finding new markets to take the place of the southern markets closed during the Civil War was shared by all the states along the Upper Mississippi River. Similar business conditions were encountered as these states developed, and the currency problem created by the national government troubled all of them. Social life in Iowa was typical of that found elsewhere in the West. All through the territory homes, schools, and churches were being established. Newspapers were circulating and entertainments, agricultural societies, and fairs were an important factor in the lives of the people.

During the Civil War decade Iowa underwent great economic and social changes. Some of these changes came as a result

of the war. Others were more directly the outgrowth of Iowa's rapid transition from a frontier stage to a settled stage of culture. The Civil War and the political difficulties which followed often appear as the only events of consequence during the decade; but the tremendous expansion of the West during the same years is quite as deserving of note.

The development of Iowa may be considered as representative of a large group of Upper Mississippi Valley states. The purpose of this thesis is to investigate the many changes in population, industry, transportation, business and other phases of society which took place in Iowa from 1860 to 1870.

POPULATION

Iowa contained 674,913 people in 1860.¹ In that year the frontier line cut across the northwestern part of the state. Thirty counties had less than two persons to the square mile.² Roughly speaking, a line drawn from Cerro Gordo County down through Carroll, Adair, Audubon, and Shelby and back up to Monona County would show the frontier. The only other county with less than two persons per square mile was Grundy County. By 1870 this line had been completely broken, and only five scattered counties, Hancock, Ida, Lyon, O'Brien, and Sioux had less than two persons per square mile.³

In contrast to the sparsely settled northwest, the eastern part of Iowa had many well-settled areas and some old towns, the river system being the great determining factor in their location. In 1860 two cities, Dubuque and Davenport, each had a population of over 10,000, while four others, Keokuk, Burlington, Muscatine, and Iowa City, had between 5,000 and 10,000.⁴ The Mississippi River was of primary importance in the development of towns, but the Des Moines, Skunk, Iowa and Cedar rivers each attracted people north-

¹Iowa. Secretary of state. Census of Iowa for 1880.
F. N. Mills, Des Moines. 1883.

²Ibid., p. 200-201.

³Ibid., p. 200-201.

⁴Ibid., compiled from p. 424-610.

westward into the interior. In 1860 twenty-five eastern counties had populations ranging from 12,000 to over 30,000. The first five of these named in order, Dubuque, Lee, Scott, Clayton, and Des Moines, were on the Mississippi River. Lynn County, ranking sixth, had the advantage of two large rivers, the Cedar and Wapsipinicon. Clinton on the Mississippi came next, then Henry County on the Skunk River, Jackson on the Mississippi, Johnson on the Iowa, Van Buren on the Skunk, and Marshall on the Iowa.

The population of Iowa grew rapidly from 674,913 in 1860 to 1,194,020 in 1870, an increase of 519,107 during the decade. This advanced Iowa from twentieth to eleventh place among the states.⁵ In average density the increase was from 12.26 to 21.69 persons per square mile. During the period Burlington, Keokuk, Des Moines, and Council Bluffs grew to over 10,000 each, while Clinton, Muscatine, Ottumwa, Cedar Rapids and Iowa City joined the 5,000 class. The growth of Iowa through the decade is apparent from the table computed from the Iowa Census of 1880.

The low figures for 1863 are explained in part by the fact that about 30,000 Iowa soldiers were in the war when the Census of that year was taken and many were not enumerated.⁶

⁵Ibid., p. 4.

⁶Ibid., p. xxii.

TABLE 1
POPULATION GROWTH^a

Year	: Total : population	: Increase over : last Census	: Average annual : increase between : Censuses
1860	674,913	---	---
1863	701,093	26,180	8,726
1865	756,209	55,116	27,558
1867	902,317	146,224	73,114
1869	1,045,025	143,708	71,854
1870	1,194,020	148,995	148,995

^aIowa. Secretary of State. Census of Iowa for 1880.
pp.170-172.

The population growth from 1865 to 1867 stimulated further immigration during the last three years of the decade. Reports of good crops attracted immigrants.⁷ More people came to Iowa in the last three years than in the first seven. The negro population also increased materially in this period. In 1860 there were 1,134 negroes in Iowa, while in 1870 there were 5,183.

The three sources of population growth during this decade were: (1) the people who emigrated from other states of the United States; (2) the people coming from foreign nations; and (3) persons born in Iowa. Of these three groups the persons born in Iowa presented the greatest proportion of the increase. There were 237,472 more native Iowans living in Iowa in 1870 than in 1860. The number of Americans from other states had increased by 183,020, and foreign born persons living in Iowa had increased by 98,615. Of the total population in 1860,

⁷Ibid., p. xiv.

28.3 per cent were born in Iowa, 55.9 per cent were born in other states, and 15.7 per cent were born in foreign countries. By 1870 the percentages had changed, with the result that 35.9 per cent were Iowa born, 46.9 per cent were from other states, and 17.1 per cent were of foreign birth.⁸

The large number of children born in Iowa was rapidly increasing the proportion of native Iowans while the foreign percentage rose only a little. By 1870 about one person in six was foreign born. Another point about the population which is frequently overlooked is that many people had already left Iowa either to return to their former homes or to go on pioneering in less settled territories. While Iowa in 1870 had 478,186 residents who had been born in other states, 89,011 natives of Iowa had settled in other states.⁹

The foreign immigration was almost wholly from northern Europe. There were 30,136 more Germans living in Iowa in 1870 than in 1860. The British Empire ranked next with an increase of 29,137 from Ireland, British America, England, and Scotland. People of Scandinavian birth were an important element showing an increase of 11,868 Norwegians, 9,331 Swedes, and 2,166 Danes.¹⁰ The Dutch born increased by 1,898 while other nationalities were almost negligible in the population.

Some foreigners were scattered throughout the state, but a few communities developed which had a preponderance of aliens.

⁸Ibid., computed from p. 169.

⁹Ibid., p. 171.

¹⁰Ibid., computed from pp. 168-171.

Large numbers of Danes and Norwegians settled in the northern counties of the state, especially in Winneshiek, Howard, Worth, and Winnebago counties. Jefferson and Boone counties contained numerous Swedes, while Dubuque, Webster, and Palo Alto had large groups of Irish.

The Dutch settled at Pella in Marion County, and in the latter part of the decade many moved to Orange City in Sioux County.¹¹ Religious persecution and poor economic and social conditions of the Separatist group in Holland caused the Pella colony to come to Iowa about 1850. Almost 600 people came from Holland under the leadership of Henry Peter Scholte, a clergyman, and by 1860 their town was a thriving city of Dutch Americans. Besides this group there were scatterings of Dutch in the larger towns of the Mississippi. Burlington and Dubuque received some, while Keokuk had about 150 foreign born Dutch in 1856.¹² By 1869 Pella was ready to branch off and form a new colony. The farm land around Pella was already settled and young men who wanted to start farming for themselves felt they must look elsewhere for land. The spot chosen was named Orange City. In 1870 about sixty-five Dutch families migrated to Orange City to begin again, as their fathers had done, in building homes on the unbroken prairie.¹³

¹¹Iowa. Board of immigration. Iowa: the home for immigrants, being a treatise on the resources, and giving useful information with regard to the state, for the benefit of immigrants and others. p. 66. Mills and Co., Des Moines. 1870.

¹²Van der Zee, J. The Hollanders of Iowa. p. 103. State Historical Society of Iowa, Iowa City, Iowa. 1912.

¹³Ibid., p. 140.

Of the American born immigrants to Iowa, Ohio had contributed the most in 1860 with Indiana, Pennsylvania, New York, and Illinois ranking next in order. In 1870 Ohio still contributed the greatest number while next in rank were New York, Pennsylvania, Illinois, and Indiana.¹⁴ Immigrants from New York and the New England States comprised the larger proportion of settlers in the northern part of the state while the settlers from Ohio, Indiana, and Pennsylvania tended to go to the southern part. There were numerous exceptions to this usual distribution. Tabor, Page, and Adams counties located in the southern part of Iowa had large groups of New England people.¹⁵

Foreign immigration into Iowa was by no means as great as might have been expected in consideration of the number of foreign immigrants to the United States. In 1860 less than one per cent of the 100,000 foreigners coming to this country settled in Iowa.¹⁶ This constituted a serious problem to a state which was anxious for settlers. Wisconsin had maintained a Commissioner of Immigration in New York from 1852 to 1855 for the purpose of directing settlers to his state. Both Wisconsin and Minnesota had generous provisions for suffrage for foreigners who would take out their first citizenship papers. Not to be outdone, Dubuque citizens organized the Emigrant Association in 1858 for the purpose of spreading

¹⁴Iowa. Secretary of state, op. cit., pp. 168-169. 1883.

¹⁵Iowa. Board of immigration. Op. cit., p. 66.

¹⁶Hansen, M. L. Official encouragement of immigration to Iowa. The Iowa Jour. of Hist. and Pol, 19:170. 1921.

information about Iowa and acting as agent in the land business. The organization made appeals to the press to publish complete descriptions of their counties and much was done along this line.¹⁷ In 1860 a State Commissioner was appointed to reside in New York. His salary was \$2400 and his term was for two years. At the end of the first term the office was closed because of the immediate problems of the Civil War.

In 1870 the rivalry for immigrants reappeared and hand-books advertising Nebraska, Kansas, Missouri, Minnesota, and Wisconsin were issued. Minnesota agents were reported to be circulating stories that the summers in Iowa were so hot that no Norwegians could live there.¹⁸ In 1870 the Iowa Board of Immigration was established by the governor. The Secretary of the Board of Immigration was to furnish publicity for Iowa and the Board was authorized to appoint and pay agents to act in the East if it saw fit to do so.¹⁹

Representatives of Germany, Holland, Scandinavian countries, and the eastern part of the United States were on the Iowa Board. Much credit is given to Mr. A. R. Fulton, the first Secretary for a series of articles he published in the Iowa State Register. Andreas, writing a few years later about the Iowa State Register said:

¹⁷Ibid., 19:162-163. 1921.

¹⁸Ibid., 19:165-166. 1921.

¹⁹Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 13th session of the general assembly of the State of Iowa. p. 34. F. W. Palmer, Des Moines. 1870.

Among the distinctive features introduced by them was the 'Tour of Iowa Counties', in which nearly every county in the State was visited, its history, description, resources and advantages fully written up and published. The benefit of this publication to the State cannot be too highly estimated. Thousands upon thousands of copies of the papers containing these sketches were circulated in the East and in Europe, and have been the means of bringing many thousands of good citizens to the State. Northwestern Iowa was settled up almost within a single year as the result of a series of sketches entitled 'Free Homes in Iowa' published in the paper.²⁰

An agreement whereby the railroads paid most of the salary for Iowa's agents was very useful. Approximately 45,000 copies of the "Tour of Iowa Counties" were published and distributed. Over 14,000 were printed in German and 2,800 in Dutch. The Norwegian copies were destroyed almost immediately in the Chicago fire in 1871.²¹

Despite Iowa's share in trying to attract settlers, Iowa was a leader in working for federal control of immigration. State encouragement and regulation resulted in many misunderstandings among immigrants because state agents were often over-enthusiastic or unscrupulous. Some eastern states began to charge a special tax on immigrants under the guise of providing hospitals or pauper relief for them. The western states and the transportation companies resented this and considered it an unfair gain on the part of the East and a deterrent to immigrants.²² In 1870 Iowa took an important part in the

²⁰Andreas, A. T. Illustrated historical atlas of the State of Iowa. p. 558. Andreas Atlas Co., Chicago. 1875.

²¹Hansen, op. cit., 19:170. 1921.

²²Ibid., 19:179. 1921.

national convention called for the purpose of taking immigration control away from the states and putting it under the national government.²³

²³Ibid., 19:181. 1921.

THE DISTRIBUTION OF IOWA LAND

One of the most important problems of the immigrant was that of location. The arrangements for securing title to land were of great importance. As early as 1856 all the good public land within fifty or seventy-five miles of the Mississippi or near the railroads had been taken.²⁴ However, unimproved land near the Mississippi could be purchased from private owners for from \$4 to \$10 per acre and improved land was priced from \$10 to \$40, or even \$50, per acre.²⁵

The public land available for settlement was all at a considerable distance from the waterways and railroads. However, back from the rivers and railroads, there was still much land unsettled and unclaimed in 1860. An article in the Clinton Herald in 1862 stated:

The Hamilton Freeman says there are 20,000 acres of choice land in Hamilton and Wright counties free to actual settlers under the Homestead Law; and better soil never lay out of doors. Mills are convenient, schoolhouses are abundant, and the public improvements most needed are built and paid for. Both counties are out of debt and their orders are just as good as Uncle Sam's "greenbacks."²⁶

As late as 1870 there were still 1,192,580.³⁶ acres of public domain in Iowa.²⁷ Government lands were surveyed as

²⁴Parker, N. H. Iowa as it is in 1855; a gazeteer for citizens, and a handbook for emmigrants. p. 67. Keen and Lee, Chicago. 1855.

²⁵Ibid., p. 67.

²⁶Clinton Herald, July 26, 1862.

²⁷U. S. General Land Office. Report of the Commissioners for 1870. p. 87. 1872.

rapidly as possible during the late fifties and early sixties. By 1861 the whole state had been surveyed and opened for distribution.²⁸ Land was offered for sale at public auction as soon as surveyed, the minimum sale price being \$1.25 per acre. There were numerous bidders for the desirable land, and the auctions were frequently exciting events. After the auction unsold land was subject to private entry for \$1.25 per acre. Pre-emption rights made it possible for the earlier settler of land to purchase it at this price also. Most of the Iowa land acquired directly by settlers was taken under the Pre-emption Act of 1841. Veterans of the Black Hawk and Mexican Wars, and, in the later part of the decade, veterans of the Civil War, could obtain title to land through land warrants. By 1870 there was very little land left undistributed in Iowa.

Nathan Parker in "Iowa As It Is in 1855" told prospective immigrants how to get their land. The first step for the settler was to go to the land office of the district in which he was interested. There he would be given maps of the townships showing all vacant or unentered lands. He could then go out to select his land, but was warned to take a surveyor or someone who understood the system to help him. Next he was to make application to the Register, receive a certificate of application which he was to present to the Receiver whom

²⁸U. S. General Land Office. Report of the Commissioner for 1861. p. 22. 1862.

TABLE 2
DISPOSAL OF PUBLIC LAND^a

	<u>Acres</u>
Quantity sold to settlers	11,916,276.26
Entered under the Homestead Law of May 20, 1862 and its supplements	714,598.28
Granted for military service	14,075,385.77
Approved under grants in aid of railroads	1,760,468.39
Quantity granted for internal improvements	500,000.00
Salines	46,080.00
Donations and grants for schools and universities	1,000,663.00
Located with Indian scrip	2,200.00
Seats of government and public buildings	3,840.00
Reserved for benefit of Indians	119,183.34
Remaining unsold and appropriated June 30, 1870	1,192,580.36

^aU. S. General Land Office. Report of the Commissioners for 1870. p. 504-507. 1872.

he was to pay in specie or with a warrant or Virginia land script. He would receive a duplicate receipt and in a year or two was to present the receipt to the same office and receive his patent from the government.²⁹

After 1862 it was possible to take out land under the Homestead Act. Under this law a settler in Iowa could get free of cost 160 acres of \$1.25 land or 80 acres of \$2.50 land,

²⁹Parker, op. cit., p. 67.

the difference in price being based on the distance of the land from the railroad. The procedure was much the same as for pre-emption except that a ten dollar fee and one per cent of the fixed cash price had to be paid to both the Register and the Receiver. Selling a homestead claim before five years had passed constituted abandonment of the claim.³⁰ After five years' settlement and cultivation the claim could be established and the government patent obtained by paying another fee of four dollars each to the Register and the Receiver. Only 714,598 acres of Iowa land were actually settled under the Homestead Act. On the other hand, very large areas were allotted for military service and swamp selections.

Another way one could obtain land was to buy it from the railroad companies. In the fifties government encouragement to railroad companies had resulted in giving them huge quantities of land. The land grant railroads might have held their lands much longer, but by 1870 they were selling it rapidly. It was to their advantage as transportation companies to get the land settled. In Iowa: the Home for Immigrants Parker said, "It is really a gratifying fact that these corporations prefer to have his vast and rich domain pass into the hands of actual settlers, who will render it productive."³¹ In 1870 the Burlington and Missouri River Railroad was offering 386,180 acres of land in southern Iowa for from \$5 to \$15 per

³⁰Iowa. Board of Immigration. Op. cit., p. 58.

³¹Ibid., p. 46.

acre depending on the distance from the road. To actual settlers ten years' credit at six per cent was offered to purchasers of over 40 acres.³² The Chicago, Rock Island and Pacific offered most of its land for from \$5 to \$10 per acre which was below the price asked for similar lands in the same neighborhood.³³ However, the Chicago, Rock Island and Pacific made a net gain of \$4,887,260 on their Iowa land.³⁴ Much railroad land was not sold until the seventies and eighties. The Cedar Rapids and Missouri River Railroad Company land was sold in 1869 to the Iowa Railroad Land Company which resold it to settlers for from \$3 to \$12 per acre. Woodlands were especially valuable and sold at \$15 to \$40 per acre.³⁵

Federal aid to the schools through land grants was well established by 1860 and considerable land was set aside for this purpose. Seven separate federal land grants were made. Some were specifically for education while others were eventually redirected into educational purposes. These grants were (1) The Sixteenth Section Grant, (2) The Five Hundred Thousand Acre Grant, (3) The University Grant, (4) The Agricultural College Grant, (5) The Saline Land Grant, (6) The Five Section Grant, and (7) The Swamp Land Grant.³⁶

The sixteenth section in each township was granted to Iowa by an act of Congress in 1845 and accepted by the General

³²Ibid., p. 48

³³Ibid., p. 51

³⁴Sanborn, J. B. Congressional grants of land in aid of railways. p. 107. Bul. of U. of Wis. No. 30. 1899.

³⁵Iowa. Board of Immigration. Op. cit., p. 56.

³⁶Buffum, H. S. Federal aid to education in Iowa. The Iowa Jour. of Hist. and Pol., 4:562. 1906.

Assembly in 1849.³⁷ Over a million acres were thus made the basis for a permanent school fund. In 1860 the control of these lands was placed with the Board of Supervisors. Throughout the seventies there was difficulty about school lands being sold too cheaply. Some school lands were sold as low as twenty-five cents per acre.³⁸ In 1864 a minimum price of \$1.25 per acre was set. This was replaced in 1870 by a minimum price of \$6 per acre except under special circumstances. No school land was to be sold until there were at least twenty-five legal voters resident in the township.³⁹ During the decade of 1860 to 1870 patents were granted on 315,772.8 acres under the Sixteenth Section Grant, the generally prevailing price being \$1.25 per acre.⁴⁰ The Five Hundred Thousand Acre Land Grant for internal improvements passed by Congress in 1841 gave the state upon its admission to the Union another big grant all of which was diverted to common schools.⁴¹ Of this amount 197,884.58 acres were patented between 1860 and 1870. The University Grant passed by Congress in 1845 allowed seventy-two sections for a university. Of this 21,501.64 acres were patented in the decade.⁴² The remainder of the Saline Grant of 1845 was diverted to the University in 1860 and under the

³⁷Ibid., 4:563-564. 1906.

³⁸Kirkman, J. C. A history of land grants used for education in Iowa. p. 23. Unpublished M. S. thesis. Library, Iowa State College, Ames, Iowa. 1928.

³⁹Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 13th session of the general assembly of the State of Iowa. p. 29. 1870.

⁴⁰Buffum, op. cit., 4:576-577. 1906.

⁴¹Ibid., 4:580. 1906.

⁴²Ibid., 4:587. 1906.

new law 24,566.87 acres were added to the school lands.⁴³ The Land Grant College Act of 1862 appropriated 30,000 acres of land for each Senator and Representative in Congress. Iowa received 240,000.96 acres for the establishment of colleges of agriculture and mechanic arts.⁴⁴ This land was formally granted to the Iowa State Agricultural College.⁴⁵ Part of the large Swamp Land Grant also went into the school fund.

The disposal of the swamp lands was an outstanding part of the Iowa land problem. Approximately two-sevenths of Iowa had been approved for swamp selection before 1870.⁴⁶ Originally the law provided for giving the land to the beneficiaries (the states) to provide them with funds to build levees and drain swampy places so that the land might be cultivated and malaria relieved.⁴⁷ Congress paid an indemnity to the states on swamp lands which had already been bought from the United States for cash and confirmed individual titles to that land under provisions of an act passed in 1855.⁴⁸ The swamp lands were disposed of by the counties at very low figures in many instances. Story County voted in 1863 to donate her remaining swamp lands to the Cedar Rapids and Missouri Railroad in return for its locating the road through

⁴³Ibid., 5:8. 1907.

⁴⁴Ibid., 5:12. 1907.

⁴⁵Ibid., 5:23. 1907

⁴⁶U. S. General Land Office. Report of the Commissioner for 1870. p. 504-505. 1872.

⁴⁷U. S. General Land Office. Report of the Commissioner for 1866. p. 36. 1867.

the central part of the county.⁴⁹ Wright County voted with only one dissenting vote to sell its swamp lands to the American Emigrant Company for \$1500. The deeds conveyed about 18,000 acres.⁵⁰

By 1870 most of the public land in Iowa had been settled. What was left was in the northwestern part and had to be taken by pre-emption or homesteading. When pre-empted the law required that the settler "inhabit and improve the land and shall erect a dwelling house thereon." Since most of the land remaining open to pre-emption in 1870 was within the railroad grants, the price was \$2.50 per acre. One man could get 160 acres. Payment of the \$2.50 per acre or the \$1.25 per acre if it were outside the railroad grants entitled the settler to full title at the end of the year.⁵¹

Especially notable is the fact that more land was granted for military service than for any other cause. While almost eleven million acres were designated as swamp land, it must not be understood that all this really was swamp land. Iowa and many other states received far more acres under swamp grants than were really justified by the lowland areas in the states.⁵²

⁴⁹Allen, W. G. History of Story County, Iowa. p. 354. Iowa Printing Co., Des Moines. 1887.

⁵⁰Covil, W. C. [Swamp lands in Wright County]. The Annals of Iowa. Series 3, 7:360. 1906. Reprint from Webster City Freeman-Tribune, July 13, 1904.

⁵¹Iowa. Board of Immigration. Op. cit., p. 58. 1870.

AGRICULTURE

Iowa covers an area of 55,045 square miles. It is approximately 300 miles long from east to west and a little over 200 miles wide from north to south. Bounded on the east by the Mississippi River and on the west by the Missouri, Iowa had the advantage of two great waterways in a period when waterways were highly important. The climate, though at times uncomfortable due to extreme heat in the summer and extreme cold in the winter, was important in the development of a farming community. The fortunate combination of temperate zone climate with millions of acres of excellent soil cannot be over-estimated in influencing settlers to come to Iowa. The surface of the state is gently rolling, the western part of the state being somewhat higher than the eastern. It is drained by numerous rivers and contains a few lakes, mostly in the northern part. The soil is fertile and the rainfall normally sufficient for the production of large grain crops.

In 1860 almost every phase of development was apparent in Iowa. The wooded territories of the eastern part of Iowa had been settled for ten or twenty years while the treeless prairies of the northwestern part were still in the frontier stage. Parts of the state already had railroads and good river transportation while other parts were without any kind or means of transportation except wagon and horses. In 1870

agriculture was still far ahead of other types of employment in Iowa. There were 210,263 persons engaged in agriculture and 58,484 in professional and personal services. There were 47,319 people employed in manufacturing, mechanical and mining operations and 28,210 in trade and transportation.⁵³

Throughout the period of the sixties the number of farms almost doubled, rising from 59,629 farms in 1860 to 116,292 farms in 1870.⁵⁴ There were 15,541,793 acres in farms in 1870 as compared with 10,069,907 acres in farms in 1860. The amount of improved land almost tripled in the decade, rising from 3,792,792 acres to 9,396,467 acres. In 1860 sixty-two per cent of the total land in farms was unimproved while in 1870 the unimproved land was only 39.5 per cent of the total.⁵⁵ Improved land means cleared land used for grazing, grass or tillage, or lying fallow. Irreclaimable marshes and large bodies of water were not included in the figures.

The following figures show the comparative sizes of farms in 1860 and 1870 and denote a trend to larger farms as the territory developed:

⁵³U. S. Census. Compendium of the ninth census. p. 594-595. 1872.

⁵⁴Iowa. Secretary of state. Op. cit., p. 244. 1883.

⁵⁵U. S. Census. Compendium of the ninth census. p. 688-689. 1872.

TABLE 3
SIZE OF FARMS^a

Acres	1860	1870
3 to 10	1.6%	3.6%
10 to 20	7.1	5.3
20 to 50	40.4	28.1
50 to 100	32.9	35.6
100 to 500	17.6	25.9

^aIowa. Secretary of state. Op. cit., p. 244. 1883.

The percentage of farms larger than fifty acres increased eleven per cent. Several things contributed to this increase in larger farms. Plenty of cheap land was available throughout the sixties, and the limit of land development was not reached before 1870. Implements were being improved and popularized. There were new implement factories in the state and the value of implements owned by Iowa farmers increased from \$5,327,033 in 1860 to \$20,509,582 in 1870.⁵⁶ Better transportation made it easier to settle the prairie land away from the rivers. It was no longer necessary to live close to wooded land to obtain fuel and shelter; so families could care for more acres since they did not have to clear the land of trees and stumps.

Train and livestock were the two main interests of the Iowa farmers. By 1860 corn led the field. Iowa produced over 42 million bushels in 1860, 48 million in 1865, 56 million in 1867 and almost 69 million in 1870.⁵⁷ Iowa rose

⁵⁶U. S. Census. 9th, 1870. Census reports. Vol. on wealth and industry. p. 86 and 146.

⁵⁷Iowa. Secretary of state. Op. cit., p. 278-280. 1883.

from seventh to second in rank among the several states in production of corn. Other grain crops showed great increase in the number of bushels through the period.

TABLE 4
WHEAT PRODUCTION^a

	1859		1869	
	Rank	No. of bushels	Rank	No. of bushels
Wheat	8	8,449,403	2	29,435,692
Oats	7	5,887,645	5	21,005,142
Barley	8	467,103	4	1,960,779
Rye	17	183,022	10	505,807

^aIowa. Secretary of state. Op. cit., p. 64-76. 1883.

For every grain there was a steady increase as shown by figures for 1860, 1865, 1869, and 1870. In totals of all grains produced Iowa rose from tenth to third place.⁵⁸

While corn ranked above all other crops in Iowa, agricultural essays of the period show clearly the difficulties of raising it without modern machinery. The combination of hand-planting, "walking cultivators," and hand-picking made corn production a hard task. Besides, many good farmers were not wholly convinced that machinery was profitable. The winner of first prize in an essay contest on production wrote in 1860, "Beware of 'big bugs'--two-horse, spring-seat armchair plows, for gentlemen farmers."⁵⁹ This writer felt that the walking

⁵⁸Ibid., p. 76. 1883.

⁵⁹Sellen, E. Essay on corn culture. Iowa State Agricultural Society Report, 7:304. 1861.

plow or harrow was the only proper implement to use. He noted that in some places corn planters were being employed. His estimates were that a man and horse could properly care for twenty acres of corn per year.

Yields of corn naturally varied from year to year, but seem quite large when one considers the difficulties of farming during the period. From 1860 to 1869 the average yield per acre was 36 bushels.⁶⁰ There was a bumper crop in 1861 when the average yield was 47 bushels per acre, and another excellent crop was raised in 1865. The two poorest years were 1864 and 1866 when the average yields were 29 bushels per acre. Adverse weather conditions account for the small yields. There was no decrease in acres planted during the war despite the fact that many of the men were away in the army.

Iowa was also important for wheat in the sixties. Production of this grain increased rapidly over the period, the yield being 8,449,405 bushels in 1860 as compared to 29,435,692 bushels in 1870.⁶¹ By far the greater proportion of this was spring wheat with the plantings of winter wheat steadily becoming smaller in comparison with the spring variety. The crop for 1861 was short and for 1862 was even less, the average yield then being eight and a half bushels per acre. These short crops were caused by the chinch bugs which did

⁶⁰Averages compiled from statements of yearly corn yields in Iowa State Agri. Soc. Rpt. from 1860 to 1870.

⁶¹Iowa. Secretary of state. op. cit., p. 284 and 287. 1883.

great damage over most of the state.⁶² Within the next few years there seems to have been little damage from them.

Methods of wheat cultivation were not advanced. According to the Iowa Agricultural Society Report for 1866 little good farming was used in producing wheat. "Thousands of acres of spring wheat are sown on corn land, without plowing, and merely by harrowing in the seed in the land."⁶³ Under this system yields tended to drop rapidly year by year and weeds multiplied. By 1867 cautious observers were noting that the high prices could not be maintained when there was so much land being planted to wheat. Diversified agriculture was proposed and it was suggested that wheat-growing should be left to the farmers on virgin soil or to those located very close to the railroads. Few farmers heeded this advice and prices in 1868 were much lower.⁶⁴

In the production of hay Iowa moved steadily forward through the decade. The 813,173 tons of hay produced in 1860 was doubled by 1870 when 1,777,339 tons were produced.⁶⁵ The production of flaxseed also increased greatly, rising from 5,921 bushels in 1860 to 86,621 bushels in 1870.⁶⁶

An interesting development of the Civil War period was the great enthusiasm for the production of sorghum cane.

⁶²Iowa State Agri. Soc. Rpt., 9:128. 1863.

⁶³Ibid., 13:17. 1867.

⁶⁴Ibid., 13:17. 1867.

⁶⁵Iowa. Secretary of state. Op. cit., p. 308-310. 1883.

⁶⁶Ibid., p. 314-317. 1883.

Sorghum was introduced in Iowa in the latter part of the fifties. There were 5,606 acres planted to sorghum in 1860, 36,667 in 1863, 21,452 in 1865, 25,796 in 1867, and 26,243 in 1869.

At the beginning of the decade high sugar prices and the fear that the Mississippi River would be closed resulted in an attempt to encourage the production of sorghum. This product had made its first Iowa appearance at the Muscatine fair in 1856.

In 1860 and 1861 the state produced enough for its own use, and in 1862 it exported large amounts to Chicago. The production for 1862 was over four million gallons. Costly mills were built to refine the cane, but a sorghum crop failure in 1863 caused large losses to the owners. Until this time sorghum had been rapidly gaining favor, but the 1863 failure gave it a temporary setback. Since sorghum requires a great deal of care, the scarcity of labor caused by the war partially checked expansion in that field. Furthermore, the attempts to make good sugar from the sorghum were not successful. In 1864 a much smaller number of acres were planted. This crop was good and in 1865 more sorghum was raised than ever before. Hopes still ran high for the production of a merchantable sugar.⁶⁷ The Iowa State Agricultural Society Report for 1869 continued to urge the production of sorghum.

⁶⁷Ibid., 16:18. 1870.

It listed the income from average yields of corn, wheat, and sorghum at \$26.93 per acre for wheat, \$22.42 per acre for corn and \$73.50 per acre for sorghum figuring Chicago prices as of January 1, 1869.⁶⁸

The production of hogs during the period under consideration also showed a remarkable increase, the number produced in 1860 being 934,820 and in 1869 being 2,409,679.⁶⁹ The quality of hogs definitely improved, and most sections of Iowa introduced blooded swine. Improved breeds were Magee, Chester White, Suffolk, and Poland.⁷⁰

Hog cholera presented a big problem in Iowa. There was a decrease of 706,748 hogs in 1865 as compared with 1863, the loss being due to this disease. Many useless patent remedies for it were sold. In 1869 the cholera losses were very large. Losses from cholera varied greatly from year to year.

Chicago prices in January 1867 ranged from \$5.50 to \$7.35 for live hogs. In January, a year later, prices ranged from \$8.25 to \$9.75.

In general hogs were raised where the transportation facilities were good. Cattle were easier to drive and were raised in greater numbers where the population was small and transportation was undeveloped. Large numbers of hogs and cattle raised in western Iowa were driven to market along the

⁶⁸Ibid., 16:18. 1870.

⁶⁹Iowa. Secretary of state. Op. cit., p. 187. 1883.

⁷⁰Iowa State Agri. Soc. Rpt., 14:10. 1868.

Missouri River. The Cedar Falls Gazette in 1862 carried this item as reprinted in the Clinton Herald:

A gentleman from Wisconsin, whose name we did not learn, passed through this place with two hundred head of cattle for his farm in Wright County, which has just been opened. The farm consists of ten thousand acres, all of which is to be turned to good use. In addition to the two hundred head of cattle he now has he wishes to purchase three hundred head more, making five hundred, which he thinks will do very well to start on.⁷¹

In 1860 cattle production was not an outstanding industry in Iowa. Capital for large herds was lacking in most places although there were some exceptions. The coming of the Civil War which closed the Southern market made the cattle price at Chicago comparatively low during the first part of the war, although near the end of 1862 the general agricultural prices began to rise. The great interest in sheep probably detracted from interest in cattle. From the close of the war till 1868 there were violent fluctuations in cattle prices with another rise in prices between 1868 and 1870.⁷²

By 1870 cattle had increased greatly in number. Throughout the decade there was an attempt to improve upon the breeds, but most people were very slow to better their herds because there was no money to buy thoroughbred stock after the necessary expenditures on machinery, buildings, fences and other farm improvements had been made. Many of the counties reported no thoroughbred cattle in 1863. A few Durham and

⁷¹The Clinton Herald. July 12, 1862.

⁷²Hopkins, J. A., Jr. Production of beef cattle in Iowa. Iowa Jour. of Hist. and Pol., 26:89-90. 1928.

Devon animals formed a beginning. Prices for blooded cattle were very high, but by 1869 there was considerable improvement as a result of bringing in some premium stock from abroad.

Milch cows increased in number during every two-year period from 1860 to 1870 so that there were over twice as many at the end of the decade as there had been at the beginning. Butter production also more than doubled, rising from 11,953,666 pounds in 1860 to 27,512,179 pounds in 1870.⁷³ Cheese production of 918,635 pounds in 1860 was increased to 1,087,741 pounds in 1870.⁷⁴

Working oxen numbered 56,964 in 1860. There were 22,058 working oxen in 1870, a decrease of over 50 per cent during the decade.⁷⁵ By 1860 horses were definitely replacing oxen. There were at that time 175,088 horses in the state and by 1870 there were about two and a half times as many.⁷⁶

One of the great interests of farmers at this period was the possibility of earning large profits from sheep. The light weight of wool made it easy to ship and was considered with great favor as transportation charges rose. Early attempts at extensive sheep raising had not been successful, but the period between 1855 and 1860 had shown some very profitable sheep raising enterprises, and by 1860 there was a definite attempt

⁷³Iowa. Secretary of state. Op. cit., p. 187. 1883.

⁷⁴U. S. Census. 9th, 1870. Census reports. Volume on wealth and industry. p. 148.

⁷⁵Ibid., p. 147.

⁷⁶Iowa. Secretary of state. Op. cit., p. 187. 1883.

to increase the herds. Newspapers contained articles such as the following:

We have been exchanging pork for cotton. That exchange being cut off, we must endeavor, in a measure to overcome the bad effects, and we see no better way than to commence paying less attention to pork, and more to wool, flax and cotton. . . . Wool must be produced, and in the farm houses the spinning wheel, which of late has been crowded aside to make room for less worthy instruments, must be again brought forward, and the rising generation of females must learn to cultivate an ear for its music.⁷⁷

In 1862 Governor Kirkwood urged Iowa farmers to produce more sheep on account of the value of wool in proportion to its bulk and weight. He called attention to the fact that transportation charges on wheat, corn, cattle, and hogs were so great as to take up a large part of their value by the time they reached New York and stated that wheat and corn could not bear the transportation costs when the lake traffic was closed during the winter months. He also urged that the production of flax and the manufacture of linseed oil be expanded.⁷⁸

Through more than half of the decade enthusiasm for sheep ran high and there was a great increase in their production. The number of sheep in Iowa in 1867 was six times as great as in 1860.⁷⁹ In 1867 there were 1,598,226 sheep shorn, but by 1870 only a little over half as many were shorn as in 1867. The number of sheep increased very rapidly from

⁷⁷Clinton Herald. Dec. 28, 1861. Reprint from the Davenport Democrat.

⁷⁸Clinton Herald. Jan. 25, 1862.

⁷⁹Iowa. Secretary of state. Op. cit., p. 362. 1883.

1860 to 1867. A large part of the early increase was made possible by bringing sheep in from other states. In 1862 about 250,000 were driven into Iowa and 63,819 were shipped in by rail.⁸⁰ Cheap pasture, high wool prices, easier transportation, and the impression that sheep were almost free from disease in Iowa helped the industry along. Spanish Merinos were very popular and very high prices were paid for them. A Wool Growers' Association was established and in 1864 a sheep-shearing festival added much to interest in sheep.

The Iowa Agricultural Society Report for 1866 warned farmers against investing heavily in sheep, although Iowa was then exporting ten times as many sheep as she was importing. So popular was the production of wool that there were at least 31 woolen factories manufacturing wool cloth in 1866.⁸¹ Although total numbers increased and many more people took up a sheep-raising program, there were large numbers of people abandoning it in 1867. The price of wool had dropped very low, diseases had appeared, shelter was a problem, foreign importers of blooded stock had often proved unreliable, and many of the farmers had found their lack of experience costly. By 1869 sheep-raising was definitely on the decline and many animals were slaughtered for their pelts.

At first the farmers of Iowa raised very little fruit.

⁸⁰Iowa State Agri. Soc. Rpt., 10:9. 1864.

⁸¹Ibid., 14:20. 1868.

There was a widespread belief that the winters on the open prairie were too cold for fruit trees to survive, and there were very few attempts to raise much fruit before 1860. An early experiment of Iowa State College was the raising of an orchard of about 400 trees. The prevailing opinion that fruit could not be raised on the prairies was disproved by this experiment.⁸² There were approximately three times the number of fruit trees in 1869 that there were in 1863. There were between five and six million trees in 1869, over four million of which were not yet in bearing condition.⁸³ Orchard products of Iowa amounted to \$118,377 in 1860.⁸⁴ By 1870 they were valued at \$1,075,169.⁹⁰ Great interest in the production of grapes was evident. In 1863 production amounted to 294,755 pounds while in 1869 there were 2,128,472 pounds.⁸⁵ Wine production increased accordingly.

Frequent attempts were made to interest the farmers in the cultivation of timber. There was considerable worry over the amount of lumber consumed by the railroads which burned about 115 cords of wood per day. Three hundred railroad ties per mile had to be replaced every year.⁸⁶ So this item, too, reached a large amount for the whole state. Attempts were made to get bounties for people who would plant and tend five

⁸²Clinton Herald. March 26, 1864.

⁸³Iowa. Secretary of state. Op. cit., p. 343. 1883.

⁸⁴U. S. Census. 9th, 1870. Census reports. Volume on wealth and industry. p. 86.

⁸⁵Iowa. Secretary of state. Op. cit., p. 342. 1883.

⁸⁶Iowa State Agri. Soc. Rpt., 14:29. 1868.

acres of trees. The Iowa State Agricultural Society Report for 1867 when discussing the proposals for bounties said:

Many counties, in our judgment, now almost without settlement--if this encouragement shall be extended--would soon be filled with a thriving and industrious population, and thus add largely to the wealth and revenue of the State. Without some aid of this nature this same region must for years remain wild and unoccupied.⁸⁷

In 1868 a law was passed exempting from taxation one hundred dollars for ten years for every acre of land planted and cultivated for timber, the trees to be not more than eight feet apart. Fruit trees planted not more than thirty-three feet apart brought an exemption of fifty dollars for every acre planted to orchard. In spite of efforts to increase timber there was a difference of only 16,775 acres in planted timber between 1867 and 1875.⁸⁸

The farmers of the sixties had a number of serious problems peculiar to that period. First among these was the situation created by the Civil War. By 1861 the markets of the Middle West were seriously feeling the effect of the closing of the Mississippi River. Europe was badly in need of foodstuffs and there was plenty in the Middle West, but all shipments had to go to the East by rail or lake, and railroad rates had jumped thirty to forty per cent. The complaint was made that the railroads were not adequate to carry the surplus

⁸⁷Ibid., 14:76. 1868.

⁸⁸Iowa. Secretary of state. Op. cit., computed from p. 346.

from the West. It was felt that wheat and corn would bring double the price if the Mississippi River were only open for navigation. The State Agricultural Society Report for 1862 charged that the farmers "have been left to the tender mercies of relentless gamblers in Rail Road stocks."⁸⁹ The report for the next year seemed more kindly disposed toward the railroads and emphasized the steady growth of Iowa in spite of the war, noting the tendency away from speculation and toward home and farm development.⁹⁰

In the report for 1864 there was emphasis on the war as a great sorrow and trial, but it was noted that even with thousands of soldiers gone, there was still great improvement in agriculture. The report said:

. . . it might be supposed that there would be some waning in the vast interest of agriculture--some abatement of the prosperity which marked our progress before the war. But the actual result is wholly different. At no time has there been so great attention paid to the importation of improved breeds of stock--especially sheep, to the purchase of labor saving machinery, and to the improvement of the home, and farm, and orchard, as during the past few years.⁹¹

The return of Iowa's soldiers after the war did not create a serious unemployment problem, for the country was expanding rapidly. The Iowa State Agricultural Society Report for 1865 stated:

The return of fifty thousand men has not disturbed the relation of employers and employed; wages are better

⁸⁹Iowa State Agri. Soc. Rpt., 9:126. 1863.

⁹⁰Ibid., 9:126. 1863.

⁹¹Ibid., 11:4. 1865.

than they have been for several years; and the supply of farm hands, mechanics, artisans, and men for every position of honorable labor, is inadequate to the demand.⁹²

The report for 1866 repeated the same idea, and further prosperity was apparent in the reports for 1867 and 1868, but the report for 1869 showed an unsatisfactory condition on account of bad weather for the production of most crops.

A second big problem of the sixties was that of breaking the prairies. Much of the prairie land was covered with a matted growth of low shrubs and hazel brush with an accompanying heavy root system which had to be cut up by the breaking plow. A breaking plow was very heavy and sometimes as many as nine yoke of oxen had to be used to pull a single breaking plow.⁹³ More often three to six yoke were used. The operator walked behind guiding the plow with the handle and gauging the depth at which to cut the roots by lowering or raising the handles. Breaking prairie was done by plowing furrows from one and a half to two inches deep.

Since the purpose was to get as many as possible of the roots to rot, the land was frequently not used the first year after it was plowed. Most of the breaking took place between the first of May and the end of July. Some people made it a business and would break prairie for from \$2.50 to \$4.50 per acre.⁹⁴ Slough land was particularly hard to break, for the

⁹²Ibid., 12:6. 1866.

⁹³Klingaman, O. E. The heavy breaking plow. Annals of Iowa, Series 3, 21:143. 1937.

⁹⁴Coffin, L. S. Breaking prairie. Annals of Iowa, Series 3, 5:450. 1902.

plough would not stay in the tough ground of the sloughs. Sod which was broken early in the spring was sometimes planted to corn which was allowed to grow without further cultivation. About half a crop could be raised. Planting was done by hand. A man would follow the line of the furrow and chop a hole with his ax. A boy coming behind would drop in three or four kernels of corn and cover them with his foot. In this manner the land was put to some use during the period while the old root system was rotting.

Another big problem of the period was that of fencing. In the early part of the decade the county judges were authorized to submit the question to the people at an election as to whether stock should be permitted to run at large or be confined. In most cases it was necessary for a farmer to fence his fields to prevent animals from neighboring farms from ruining his crops. Fences, however, cost about \$350 for forty acres.⁹⁵ Rail fences were the most common, but the scarcity of lumber made them very expensive. So scarce was lumber that some writers despaired of ever fencing the whole farm area of the state.⁹⁶ The same group felt that fencing in Iowa did not pay and that it constituted the heaviest tax on the land in the state. There was a type of wire fence but it seems to have been of little value in turning stock.⁹⁷ In 1862 J. H. Wallace, Secretary of the State Agricultural

⁹⁵Iowa State Agri. Soc. Rpt., 7:115. 1861.

⁹⁶Ibid., 7:113. 1861.

⁹⁷Neal, H. G. The fence question. Iowa State Agri. Soc. Rpt., 11:278. 1865.

Society, attributed a great deal of the slowness of immigration for the preceding five years to the fencing problem, and he strongly advocated a law to require every man to take care of his own stock.⁹⁸ He recommended special pastures for herding so that field crops need not be enclosed. In 1868 an act was passed making the owner of estrayed stock responsible for the damages it might do between the hours of sunset and sunrise. If the two parties could not agree on amount, the trustees were to assess the damages.⁹⁹ However, the law was ineffective until it had been accepted by a majority of the votes cast in an election in the county where the trouble occurred.

As the decade continued, more and more farmers became enthusiastic over hedge fences. The Osage orange became the most popular and was planted widely. From 306,728 rods of hedge in 1860, the amount increased to 3,393,061 rods in 1869 and continued to increase rapidly for some time, there being 7,396,662 rods in 1875.¹⁰⁰ The cost of the Osage orange hedge was small. In Mahaska County one person contracted ten miles of hedge fence at \$1.25 per rod for the grown hedge.¹⁰¹ Problems of care and upkeep were large, but the old type rail fence had also presented difficulties, and worry over the lumber supply in the future led people to seek a substitute.

⁹⁸Iowa State Agri. Soc. Rpt., 8:12. 1863.

⁹⁹Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 12th session of the general assembly of the State of Iowa. p. 202 and 203. 1870.

¹⁰⁰Iowa. Secretary of state. Op. cit., p. 346. 1883.

¹⁰¹Iowa State Agri. Soc. Rpt., 8:12. 1863.

Wire fences began to be used more commonly, but were still not widespread in 1870.

Along with the intense enthusiasm over sheep came considerable difficulty over dogs. The quarrels between the sheep owners and the dog owners seem a bit ludicrous but were most serious to the participants. The trouble was at its height in 1862 when the Des Moines Register, figuring that there were 120,000 dogs in the state, argued thus:

The dog and sheep account for the year would stand very much as follows:

Cost of food for 100,000 dogs at \$5	\$500,000
Yield of wool from all the sheep in the State	350,000
Difference	<u>\$150,000</u>

The result is, that it costs one hundred fifty thousand dollars more to keep the dogs of this State than the State can pay by the yield of the whole wool clip of the State. Are all the dogs in the State worth the difference?¹⁰²

The value of sheep destroyed by wolves and dogs in 1864 was \$126,148¹⁰³ and in 1868 about \$125,000.¹⁰⁴ A law passed early in the decade which required registration of dogs and allowed the killing of any dogs molesting sheep was repealed in 1862 since there was general non-enforcement in the country areas where it was needed. The number of dogs in the state increased from 86,060 in 1865 to 147,623 in 1869.

¹⁰²Clinton Herald. Aug. 9, 1862. Reprint from the Des Moines Register.

¹⁰³Iowa State Agri. Soc. Rpt., 12:12. 1866.

¹⁰⁴Ibid., 15:13. 1869.

Prairie fires were also a great problem to the early farmers. Acres upon acres of dried grass could make tremendous fires when allowed to start. Sometimes farmers purposely burned over their fields and occasionally these fires "got away." The Fort Dodge Republican for November 5, 1861 carried this account:

There have been prairie fires in all directions, for the past two weeks, which have done an immense amount of damage in some localities. As far as we can learn, the fire which occurred on the west side of the river, last Monday, extended for a distance of 25 miles down the river stripping nearly every farm of its fences.¹⁰⁵

The grasshopper, too, brought much grief for the Iowa farmers of the period from 1860 to 1870. In 1864 the area all around Sioux City was completely despoiled of its vegetation. Again the next year this area had no crops left on account of the grasshoppers. In 1867 southwestern Iowa was badly hit with numerous grasshoppers appearing as far north as Fort Dodge.¹⁰⁶ The grasshopper raids of the next decade were even more serious.

¹⁰⁵Prairie fires. *Annals of Iowa*, Series 3, 7:360. 1906.

¹⁰⁶Briggs, J. E. The grasshopper plagues in Iowa. *Iowa Jour. of Hist. and Pol.*, 13:356. 1915.

INDUSTRY

While Iowa has always been primarily an agricultural state, the manufactures of Iowa quickly became an important part of the income of the people. The most important manufactured products in both 1860 and 1870 were flour and meal, a fact not at all surprising when one considers the widespread cultivation of wheat and corn, the numerous mills, and the home market for flour and meal. The production of sawed lumber ranked next amounting to about one-third the value of the flour and meal.

The mills were of prime importance in manufacturing. They developed early for two reasons: (1) mills furnished the power for the production of two major necessities of life, food and shelter, and (2) mills could be established with a small amount of money and ready-made machinery. In some places mills were used for wool carding and wool manufacturing.¹⁰⁷ As late as 1870 when there were 900 steam engines in use, there were still 726 waterwheels in Iowa.¹⁰⁸ Many of these were small and home made. For example J. C. Smith's mill had the capacity to crack corn at the rate of two bushels per hour when the water was right. The millstones were made

¹⁰⁷Hussey, T. The story of the Bonaparte dam. The Annals of Iowa, Series 3, 7:610. 1907.

¹⁰⁸U. S. Census. 9th, 1870. Compendium of the ninth census. p. 821-822.

from boulders which had been picked up on the prairie and manufactured by Thomas Vest living near Ontario.¹⁰⁹

Mills on the small streams were much alike, the chief differences being in the dam and wheel according to the purpose for which the dam was to be used, whether for saw mill, grist mill, or combined work. Many dams were made of hewn logs laid with crossties spliced and pinned to form pens two or three feet wide. These were filled with rock and clay and covered with a plank or log roof. Secondary cribs formed reinforcements and prevented backwash. These dams were called "crib" dams and were often fourteen to sixteen feet through, eight to ten feet high, and some were as much as sixty to sixty-five feet long.¹¹⁰

Another type was the "brush" dam which consisted mainly of tree tops laid with the trunks upstream and weighted with clay and stone and then finished with planks. A low place at one end and a plank wall against the bank of the stream formed the mill race. On the early mills the flutter or breast wheel was the most popular type. Bearings had practically no lubrication which accounted for the creaking of which one hears so much. A little soft soap or a pork rind bushing often sufficed for lubrication.¹¹¹

Dependence on mills was often most exasperating. They could run only when the water was right, and frequently a rise

¹⁰⁹Allen, op. cit., p. 51.

¹¹⁰Duffield, G. C. Frontier mills. The Annals of Iowa, Series 3, 6:425-436. 1904.

¹¹¹Ibid., p. 425-436. 1904.

or fall of three feet in the stream would stop their operation. Yet, for lack of better facilities, it was the ambition of every town to get a mill. Every community wished to avoid the trouble of taking wheat long distances to be ground into flour. In 1867 Nevada was offering a bonus of \$2,000 for any responsible person who would build a good flouring mill there. The offer was not accepted.¹¹² Many of the smaller steam and water mills were used only a short time and did not do any great volume of business.

In 1860 six counties had manufactures valued at between \$500,000 and \$1,538,447 the highest figure being for Muscatine County. All of these six counties were served by short railroad lines extending into the interior, and all were on the Mississippi River, except Lynn County which had both the Cedar and Wapsipinicon rivers from which to draw power.

TABLE 5
LEADING INDUSTRIAL COUNTIES IN 1860^a

County	Important industries	Total
1. Muscatine	Provisions \$628,380 Flour and meal 397,210	\$1,538,447
2. Scott	Flour and meal 688,365	1,145,659
3. Des Moines	Flour and meal 531,180	1,099,740
4. Dubuque	Flour and meal 318,046 Lead, pig 161,000	929,751
5. Lee	Flour and meal 164,930 Machinery 151,021	656,745
6. Lynn	Flour and meal 291,416	515,408

^aU. S. Census. 8th, 1860. Vol. on manufactures. p.146-161

¹¹²Allen, op. cit., p. 382.

By 1870 manufactures had increased a great deal. There were 47,319 persons engaged in manufacturing, mechanical and mining industries in Iowa.¹¹³ The value of the products of the first fourteen counties was already large.

TABLE 6
LEADING INDUSTRIAL COUNTIES IN 1870^a

County	Total
1. Scott	\$3,455,479
2. Dubuque	3,308,339
3. Lee	2,623,135
4. Clinton	2,522,205
5. Des Moines	2,010,299
6. Polk	1,961,956
7. Wapello	1,620,285
8. Lynn	1,612,837
9. Henry	1,549,818
10. Muscatine	1,549,742
11. Jackson	1,412,703
12. Clayton	1,377,967
13. Fremont	1,090,545
14. Black Hawk	1,034,771

^aU. S. Census. 9th, 1870. Compendium of the ninth census. p. 821-822.

Most of the counties showed a definite increase in value of manufactured products. Muscatine County, however, showed only a slight increase which, when corrected for the higher price level in 1870, would indicate an actual drop in amount produced. The reason for this may be in the fact that Muscatine County relied largely on the provision trade down the

¹¹³U. S. Census. 9th, 1870. Compendium of the ninth census. p. 594-595.

Mississippi, a trade with which the Civil War greatly interfered.

The following table of the more important manufactures of Iowa at the beginning and close of the decade will indicate the extent and growth of manufactures during the decade.

TABLE 7
TOTAL VALUE OF INDUSTRIES^a

Product	1860	1870	Per cent of change ^b
Flour and meal	\$6,799,324	\$15,635,345	130
Lumber, sawed	2,124,502	5,794,284	173
Provisions, pork, etc.	756,866	---	--
Machinery, steam engines	386,925	813,657	111
Boots and shoes	364,257	1,218,480	235
Tin, copper, and sheet iron	237,106	758,011	216
Furniture, cabinet	236,289	981,691	316
Liquors, malt	232,192	992,848	328
Saddlery and harnesses	229,130	1,110,852	384
Lumber, planed	183,021	867,415	373
Leather	177,948	94,449	- 47
Lead	173,160	163,850	- 5
Printing, newspaper and job	155,100	648,152	318
Carriages	145,310	1,952,143	1246
Clothing	138,245	1,003,732	627
Iron castings	104,357	160,000	54
Blacksmithing	102,481	1,320,019	1194

^aU. S. Bureau of Foreign and Domestic Commerce. Statistical abstract for the U. S. 1936. p. 300. 1936.

^bPer cents of change are all positive except the two marked. These were computed by the author.

Except in the cases of leather and lead there was a definite per cent of increase in money value of the products manufactured. However, in comparing the manufactures of 1860 and 1870 one must consider the change in the general price level caused by

the inflation at the close of the Civil War and the deflation which followed. By 1870 the price level had fallen from its highest point but it was far from the 1860 level. The index of general wholesale prices on a 1926 basis was 61 in 1860 and 87 in 1870.¹¹⁴ This was an increase of almost 43 per cent. Using the flour and meal industry as an example one can see that while the value of the product in money increased from \$6,799,423 to \$15,635,345 or 130 per cent, the actual physical product had not increased that much because of the 43 per cent rise in the price level. Actually, in terms of 1870 dollars, the value of the 1860 product was \$9,723,175. The physical increase in production of flour and meal could then be figured from a base of \$9,723,175. Using this corrected figure there was an increase in actual production of 61 per cent.

When the figures for 1860 have been corrected as explained above, the percentages of change in physical production appear in Table 8.

In using these corrected figures one must bear in mind that the price indexes were based on general wholesale price levels rather than specific prices, and will therefore not be wholly accurate for specific products. Nevertheless, they furnish a better comparison of the physical products than do the uncorrected amounts in dollars.

¹¹⁴U. S. Bureau of Foreign and Domestic Commerce.
Statistical abstract for the U. S. 1936. p. 300. 1936.

TABLE 8
 PRODUCTION CHANGES CORRECTED FOR PRICE LEVEL^a

Product	Per cent of decrease	Per cent of increase
Flour and meal	--	61
Lumber, sawed	--	91
Machinery, steam engines	--	47
Boots and shoes	--	134
Tin, copper, and sheet iron	--	124
Furniture, cabinet	--	191
Liquors, malt	--	199
Saddlery and harnesses	--	239
Lumber, planed	--	231
Leather	63	--
Lead	5	--
Printing	--	192
Carriages	--	846
Clothing	--	458
Iron castings	--	7
Blacksmithing	--	801

^aComputed from Table 8.

During the decade under consideration the population grew from 674,913 to 1,194,200, an increase of approximately 77 per cent. If the per capita production had remained constant, one could have expected a growth of 77 per cent in the products of manufacturers. As it was, the per capita production far outstripped its earlier figures for most products. Flour and meal, machinery, iron castings, and leather and lead production were the only industries which failed to keep pace with the population growth so that the per capita production fell short of the 1860 figures.

Several conclusions may be drawn on the basis of these figures: (1) most important manufactures had increased

materially beyond the proportion which might have been expected due solely to population growth, the figures being corrected for price levels. Among these industries were lumber, boots and shoes, tin, copper and sheet iron ware, cabinet furniture, malt liquors, saddlery and harnesses, newspaper and job printing, carriages, clothing and blacksmithing; (2) the value of productions of the two prime necessities, flour and meal, and sawed lumber, had in general increased only slightly in consideration of the population growth and general price levels; (3) the increased demand for finished products beyond bare necessities showed a tendency away from the home as the almost self-sufficient unit through the increase in manufacturing of cabinet furniture, malt liquors, planed lumber, clothing, and carriages; and (4) per capita production of heavy goods industries such as machinery (steam engines), lead, and iron castings declined. This decline was probably due to the fact that better transportation facilities to other parts of the country made it cheaper to have the materials made up elsewhere and shipped to Iowa.

A study of the manufactures by counties indicates the decentralized nature of industry at the time, lack of transportation being probably the greatest cause. Likewise the shortage of large quantities of capital prevented centralization. The two most necessary items, flour and meal and sawed lumber were manufactured most widely. In 1860 fifty-three

counties each produced over \$10,000 in flour and meal, twenty-one of them producing over \$100,000 and two of them over \$500,000.¹¹⁵ The first ten counties in order were Scott, Des Moines, Muscatine, Dubuque, Jackson, Lynn, Washington, Jones, Clinton, and Appanoose, every one of which was located on a river of appreciable size, thus being afforded the necessary power.

While the total value of the lumber sawed in 1860 was only about one-third the value of the flour and meal, it exhibited some of the same characteristics. It was widespread in nature, forty-nine counties each manufacturing over \$10,000 in sawed lumber, twelve of them producing over \$50,000 in lumber. Decatur County led the list with \$138,900 in lumber products and was followed closely by Benton County. Then in order came Clinton, Muscatine, Scott, Lynn, Keokuk, Page, Black Hawk, Jones, Henry, and Bremer counties.¹¹⁶

Lumbering was a very important business in many of the Mississippi River towns where lumber was floated down the river for sawing. A great deal of lumber was also sawed from the timber along the river and a number of fortunes were made in this business during the sixties.

Lumber was very important in Clinton. The feeling that railroad transportation would create more lumber business by

¹¹⁵U. S. Census. 8th, 1860. Vol. on manufactures. p. 146-161.

¹¹⁶Ibid., p. 146-161.

hauling lumber to the interior and by consuming lumber for fuel and ties led to great optimism. The Clinton Herald observed:

This is but the beginning of a class of business which must increase as our railroad is further extended into the interior. As all heavy timbers for inland structures must come from the Mississippi, builders will find it to their interest to do their framing at this place and thus save transportation on all unnecessary lumber.¹¹⁷

At one time Clinton had the largest lumber manufacturing output in the world. The W. J. Young Lower Mill had a larger capacity than any other of its time. Clinton alone had eight to ten millionaire fortunes founded on the lumber business.¹¹⁸ Davenport, Dubuque, and other rail crossing points on the Mississippi also developed great lumber industries during the sixties and seventies.

Less important industries were more centralized, some counties gaining and keeping the advantages of an early start. The provisions industry had a definite center in Muscatine County where \$628,380 worth of provisions were manufactured in 1860. The next ranking county was Davis with only \$57,992 and Wapello with \$32,285 was third. Only two others, Pottawatomie and Clayton, produced more than \$10,000 in provisions.

Most of the machinery, largely steam engines, came from

¹¹⁷Clinton Herald. June 7, 1862.

¹¹⁸Seaman, H. W., Clinton, Ia. Personal communication to L. B. Schmidt. Nov. 16, 1924.

Lee and Des Moines counties, both of which produced nearly \$150,000 worth in 1860.¹¹⁹ Agricultural implements were also being manufactured in Iowa. Scott, Lee, Winneshiek, Dubuque, and Des Moines counties each produced from \$25,000 to \$57,290 worth of agricultural machinery in 1860. By 1870 there were 55 establishments for the manufacture of agricultural machinery in the state. In that year 25,314 plows, 3,027 fanning mills, 2,700 cultivators, 300 harrows, 300 hay and straw cutters, 200 hay forks, 25 horse rakes, 206 threshers, 8 reapers, and other products amounting to \$215,750 were produced.¹²⁰

Mining had not developed greatly in Iowa by 1860, but from that time on coal mining increased rapidly. Forty-eight thousand tons of coal were produced in 1860, most of it being mined in Wapello and Jefferson counties, although there were twenty-five counties producing some coal.¹²¹ By 1870 Iowa was producing one and a half per cent of the nation's output.¹²² In that same year 263,487 tons valued at \$374,334 were mined in Iowa.¹²³ Much of Iowa is underlaid with coal and to-day coal is Iowa's second most valuable natural resource.

The trips to the coal banks for fuel were events of real importance in the lives of the people, especially when the

¹¹⁹U. S. Census. 8th, 1860. Vol. on manufactures. p. 146-161.

¹²⁰U. S. Census. 9th, 1870. Compendium of the ninth census. p. 886-889.

¹²¹Iowa Geological Survey. Vol. 2, p. 522. Des Moines. 1894.

¹²²Stahlman, M. G. History of the Iowa coal industry. p. 12. Unpublished M. S. thesis. Library, Iowa State College, Ames, Iowa. 1938.

¹²³Iowa. Secretary of state. Op. cit., p. 189. 1883.

family lived a long way from the mine. To the men it meant a long hard trip sometimes lasting several days. To the women and children it meant staying alone and caring for the farm and stock till the father returned. The discovery of coal in many widely scattered areas did a great deal in helping spread the settlements. It was one of the factors which made it possible for the people to leave the narrow confines of the wooded river districts making them less dependent on the woodlands for their fuel.

There was some lead mining in Iowa in the sixties, although it was not a very great industry. Earlier the lead industry had been an important factor in bringing immigrants to Iowa. It had been particularly influential in the development of steamboating on the Mississippi.¹²⁴ In 1864 an act was passed to encourage lead mining. It provided that people who crained a lead mine were to share to the extent of one-tenth of the lead extracted from the mine.¹²⁵ Pig lead produced in 1860 was valued at almost \$175,000.¹²⁶ In 1870 firms produced \$50,850 worth of pig lead and \$113,000 worth of lead in other forms.¹²⁷

¹²⁴Petersen, W. J. The lead traffic on the upper Mississippi 1823-1848. Mississippi Valley Historical Review, 17:97. 1930.

¹²⁵Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 10th session of the general assembly of the State of Iowa. p. 37 and 38. 1864.

¹²⁶U. S. Census. 8th, 1860. Vol. on manufactures. p. 162.

¹²⁷U. S. Census. 9th, 1870. Vol. on wealth and industry. p. 516-517.

In 1863 the gypsum beds near Fort Dodge were discovered. It was recognized immediately that they would offer an excellent source of building material.¹²⁸ The limestone underlying many parts of the state was noted in the Geological Survey in 1870. Limestone was being quarried and used in many of the public buildings and in some of the roads. Particularly in Marshall and Tama counties beautiful stone with peroxide of iron veining was quarried and sold as "Iowa marble." This stone did not have the hardness of real marble and was not recommended for any work where it would be exposed to the weather.¹²⁹ Many quarries for building stone were located on the banks of the Mississippi River north from Keokuk for about fifteen miles. This was of a quality worth transporting, and it was used in building the Custom House and Post Office at Dubuque.

The fact that the early settlers were eagerly watching for signs of valuable minerals is exhibited in the letters of Arden A. Holcomb who settled at Boone and wrote numerous descriptive letters to his friends in the East. He reported at various times the discovery and utilization of coal, potter's clay and limestone. He mentioned in another letter his samples of black marble and in still other letters the discovery of a most valuable mineral called plumbago or mineral

¹²⁸Clinton Herald. Nov. 28, 1863.

¹²⁹Iowa Geological Survey Report. Vol. 1, p. 200. 1870.

black. The Iowa deposits later proved to be worthless. He also noted that the gold fever had struck and that there actually was gold present in the soil around Boone, but that it was insufficient to mine profitably. Mr. Holcomb also discussed a short period of great excitement over the possibility of coal oil underlying the land.¹³⁰ Thus far, with the exception of the discovery of valuable coal deposits, the early settlers' dreams of valuable minerals in Iowa have not materialized.

¹³⁰Brainard, J. M. Opening an Iowa county. Annals of Iowa. Series 3, 2:265-269. 1896.

TRANSPORTATION

The Mississippi River was the great artery of commerce for the West until 1860. People depended on it for shipping their grain and other products and for getting supplies. River transportation was cheap and the boats on the Mississippi had a large trade. Most products shipped from Iowa to the New England States went by way of New Orleans. The Civil War blocked the river traffic and suddenly forced the state to depend upon the new and not yet well-developed railroads. Traffic on the river was almost stopped except for the boats transporting troops to the South. Packet lines for 1861 included only thirteen boats plying from various points along the river to St. Paul and back. About half of these were listed as passenger and mail boats, while the others were freighters. Passenger trade on the river improved a little after the war. In 1867 nine boats belonging to the Northwestern Packet Company each averaged almost \$30,000 profits for the season.¹³¹

The Missouri River, too, was very important for a few years, and the Des Moines River was used by the steamboats for a short time before the railroads came. In 1859 the

¹³¹Petersen, W. J. Steamboating on the Upper Mississippi the waterway to Iowa. p. 378. State Hist. Soc. of Ia. 1937.

Fort Dodge Sentinel advertised that the Des Moines River Packet would make regular trips between Fort Dodge and Keokuk.¹³² However, the boating was uncertain, for almost continuous wet weather was essential to dependable navigation. By 1861 there were only three steamboats left on the Des Moines River, the Add Hine, the De Moine Belle, and the De Moine City. They made a total of thirty-four trips that season.¹³³ In 1862 the boats on the Des Moines River were used for transporting soldiers at half fare to their homes between Ottumwa and Des Moines. The same year many of the legislators found it to their advantage to take the steamboats in preference to the roads for their journeys home from Des Moines. Heavy rains had made the wagon roads almost impassable. At least sixty-six legislators went home from Des Moines by boat.¹³⁴ Legislators from the northeastern Iowa counties on the Mississippi preferred the roundabout river trip through Keokuk to the much shorter journey across country. After 1862 there was almost no steamboating on the Des Moines River. Most boats were transferred to the Mississippi and used in transporting troops and supplies South for the army.

The Missouri River steamboats held out until the railroads came. In 1865 there were at least five packets of the People's Line trading on the river, some going north as far as Sioux City.

¹³²Hussey, T. History of steamboating on the Des Moines river from 1837-1862. Annals of Iowa. Series 3, 4:376. 1900.

¹³³Ibid., 4:376. 1900.

¹³⁴Ibid., 4:378-379. 1900.

Many materials for the Union Pacific Railroad west from Omaha were brought to Omaha by boat. Included were "eighty miles of iron rail, four locomotives, an abundant supply of spikes and chains, switches and switch stands, even several passenger cars. . . ." ¹³⁵ Once the railroads were built the doom of the steamboats on the rivers was sealed.

Overland travel and transportation was most annoying. Poor roads were the rule. Whenever the weather was wet, most roads became impassable. Yet, people did cross the state when necessary. The Western Stage Company between Des Moines and Council Bluffs daily carried four to six stageloads of passengers. In 1859 it employed 1500 men, over 3000 horses, owned over 600 coaches operating in Iowa, Wisconsin, Missouri and Nebraska. ¹³⁶ There were three freight companies hauling between Council Bluffs and Boone where they met the Chicago and Northwestern Railroad.

Crossing the numerous sloughs was one of the greatest difficulties of early travelers. After first helping to unload the stage the passengers in the coaches often had to help get the coaches through the deep Iowa mud. "Ten cents a mile and a fence rail" was the joking reference to stage fare. Five cents a mile was the cheapest fare. In dry weather conditions were much better, and an average of about five miles per hour

¹³⁵Branch, E. D. Council Bluffs in 1865. Palimpsest, 10:202. 1929.

¹³⁶[Western Stage Company]. Annals of Iowa. Series 3, 8:17. 1907. Reprint from St. Charles City Intelligencer, February 17, 1859.

could be maintained.¹³⁷

An interesting attempt to better the road situation was the enterprise of building plank roads. In the early fifties at least fourteen different companies started ambitious projects in this field.¹³⁸ These were practically all abandoned by 1860 when it became obvious that the railroads were better investments. Stages lasted till about 1870 in Iowa, having been greatly helped by the special transportation demands of the Civil War and the expanding population. But, like the steamboats the stages were definitely doomed when the railroads were built.

Another plan which temporarily gained approval in north-eastern Iowa was a plan to establish horse railways. The proposal was to use a macadam base with ties far apart and with a six-foot gauge. The McGregor and Fort Atkinson Horse Railway Company was incorporated in 1862 with a capital stock to be \$500,000 in fifty dollar shares.¹³⁹ Eventually the project was abandoned.

Of all the factors influencing Iowa's growth in the sixties, the railroads were the most outstanding. They brought quick, sure transportation for imports and exports at a price people were able to pay. They brought increased prices for land and a market for products. They changed the whole direction of traffic. In local areas the railroads diverted

¹³⁷Branch, op. cit., 10:204. 1929.

¹³⁸Glass, R. J. Early transportation and the plank road. Annals of Iowa. Series 3, 21:525. 1939.

¹³⁹Quigley, I. B. Horse railways. Palimpsest, 12:36. 1931.

traffic to towns served by the railroads. For the state as a whole they made possible a great East-West movement of trade where formerly there had been a North-South movement. Luckily for Iowa the railroads came when they did. As it was, Iowa had some difficulty in transportation at the beginning of the war, but this was of comparatively short duration.

During the sixties it was the dream of all community-minded individuals to get a railroad through their town. When a chance to realize that dream appeared every one tried to help. Stock companies were organized. Large donations of land came from the government; rights of way were granted by landowners; and, even labor for grading was given to encourage the railroad companies.¹⁴⁰ For example, the Council Bluffs and St. Joseph Railroad did not have to buy any of the right of way in Pottawatomie County and only a part of it in Mills and Fremont counties.¹⁴¹ The Northwestern by using De Soto as an alternative against Council Bluffs was able to get \$36,000 in subscriptions from the latter so that the road would go through Council Bluffs.¹⁴² Political maneuvers by citizens of Keokuk helped to provide the funds for the Des Moines Valley Railroad. People of Polk County raised \$100,000 for

¹⁴⁰Iowa State Agri. Soc. Rpt., 15:7. 1869.

¹⁴¹Branch, E. D. The C. B. and St. Joe. Palimpsest, 10:208. 1929.

¹⁴²Branch, E. D. The Northwestern. Palimpsest, 10:216. 1929.

the railroad with the purpose of getting the vote of Keokuk for Des Moines to be the new state capital in 1857.¹⁴³

In 1855 there were only 68 miles of railroad in Iowa. By 1860 there were 655 miles of railroad in the state.¹⁴⁴ Comparatively short but important spurs of track leading westward connected Dubuque and Cedar Rapids, Davenport and Iowa City, Burlington and Ottumwa, and Keokuk and Ottumwa. There were no bridges across the Mississippi in 1860.

The first railroad bridge across the Mississippi was built in 1856 at Rock Island, but its existence was short and troubled. Steamboat companies could see no justification for the nuisance of dodging bridge piers and opening turntables to get through. Shortly after the bridge was completed, a steamboat, the Effie Afton, ran against one of the piers, caught fire and was completely destroyed. The wooden bridge also ignited and was thus put out of use for over four months. The steamship company sued the railroad company for damages. Trials followed wherein the bridge was declared a material and dangerous obstruction to river traffic. The Mississippi and Missouri Railroad was ordered to remove the three piers on the Iowa side of the river.

The quarrel grew worse and the federal government became involved. The case was finally appealed to the United States

¹⁴³Hussey, T. How the Des Moines Valley railroad came to Des Moines. Annals of Iowa

¹⁴⁴Iowa. Secretary of state. Op. cit., p. 127. 1883.

Supreme Court in December, 1862 when it was at last decided that bridges could be built across the Mississippi.¹⁴⁵ Within a few years there were several bridges built over the Mississippi, but it was not until 1873 that the first bridge spanned the Missouri River at Council Bluffs, thus really completing the Union Pacific.

Before the bridges were built there was a great deal of difficulty in getting freight across the Mississippi. Large ferry boats were used to take goods across to the railroads on the other side. In the winter of 1864 an ingenious device was used for taking railroad cars across at Clinton. Tracks were laid on the ice. The incline of the river's bank gave the impetus for the cars which were met on the opposite side by an engine. One loaded car or three empty ones could be sent across in one operation.¹⁴⁶ Before the bridge was completed between Fulton, Illinois and Clinton, Iowa it was costing the railroad company one dollar per ton to get freight across the river. Furthermore it was impossible to handle some of the heavy freight which was offered.¹⁴⁷ The Clinton bridge was built in 1865.

Numerous small companies were engaged in railroad building during the period from 1860 to 1870. Railroad mileage for the various years showed the continuous growth.

¹⁴⁵Parrish, J. C. The first Mississippi bridge. Palimpsest, 3:133-141. 1922.

¹⁴⁶Clinton Herald. Jan. 23, 1864.

¹⁴⁷Bridge over the Mississippi at Fulton. Merchants' Magazine and Commercial Review, 52:145. 1865.

TABLE 9
RAILROAD CONSTRUCTION^a

Year	Total mileage	Miles increase over previous year
1860	655	122
1861	701	46
1862	731	30
1863	792	61
1864	805	13
1865	891	86
1866	998	107
1867	1,283	285
1868	1,523	240
1869	2,095	572
1870	2,683	588

^aIowa. Secretary of state. Op. cit., p. 127. 1883.

Growth of railroad mileage was slowed by the war, but it was never completely stopped. As everywhere in the surrounding states, the growth was most rapid at the end of the decade. At the beginning of the period Iowa had only short spurs of road in the east and southeast, but by the end of the period there were four railroads which ran all the way across the state, and there were bridges across the Mississippi. The main roads extended between Dubuque and Sioux City, Clinton and the Missouri River, Davenport and Council Bluffs, and Burlington and the Missouri River. Iowa had an important share of the transcontinental transportation system.

The problem of the gauge of Iowa railroads brought comparatively little trouble although there were seven different widths in use in various parts of the United States. The

roads leading west from Chicago were of the four feet eight and a half inch gauge which was designated as standard in 1867. Apparently the builders of the Iowa roads had considered it possible that the roads would eventually be joined to those in Illinois, for almost all of the Iowa railroads were built of the standard gauge. Later, in the seventies, there were some narrow gauge railroads started in Iowa.¹⁴⁸ Most of them finally conformed to the standard.

The people of Iowa were quick to take advantage of the railroads once they were established. In the two weeks ending Friday, January 11, 1861 the freights eastward on the Chicago, Iowa and Nebraska Railroad alone included 38,445 bushels of wheat, 350 barrels of flour, 940,000 pounds of pork, 2,286 pounds of hides, 3,399 head of hogs, and six cars of cattle. Freight was increasing so rapidly that a special train had to be run every day to accommodate it.¹⁴⁹ As the railroads made their way across the prairies, changes in trading habits developed almost over night. The Marshall County Times said:

The business of Marshall County, and a large portion of the counties west of here, seems to be centering now at Otter Creek. We have been informed that the daily average of teams at that station now, is not less than forty. We are certain that the number of teams that go thro' this town for Otter Creek the forepart of each week are not less than ten to twenty daily, and some days we should judge the number was no less than thirty to forty. It is rather difficult now to find teams going to Marengo, when a few weeks ago

¹⁴⁸Wilson, B. H. The matter of gauge. Palimpsest, 13:135. 1932.

¹⁴⁹Clinton Herald. Jan. 12, 1861.

it was equally as difficult to find teams going to Otter Creek. The tide of trade has evidently turned.¹⁵⁰

In spite of the necessity for using the railroads because of the closing of the Mississippi River, there was much grumbling about the high rates. People who were used to water rates on hauling naturally thought railroad rates were very high. They did not always realize that the costs of equipping and operating railroads were very high. Freight rates on the railroad were from thirty to forty per cent higher in 1861, and it was felt by many that the reopening of the river was all that could save Iowa from ruin. J. H. Wallace, Secretary of the Iowa State Agricultural Society said in 1862:

Our great natural highway to the Ocean, for two years has been closed, and for the transit of our surplus products to a market, we have been left to the tender mercies of relentless gamblers in Railroad stocks. With facilities altogether inadequate to carry the marketable products of the teeming West, they have taken advantage of the necessities of the people to make one advance after another on their tariff of charges until it now costs, in some instances, three times as much to carry our grain to market as it does to produce it.¹⁵¹

The report of the Iowa State Agricultural Society for 1863 scarcely mentioned the railroads except to say that they had "shaken off the torpor which threatened to paralyze all branches of industry at the outbreak of the war. . ."¹⁵² The report for 1866 recognized the value of the railroads and spoke highly of them. The report for 1868, although still highly praising

¹⁵⁰Clinton Herald. Mar. 20, 1862.

¹⁵¹Iowa State Agri. Soc. Rpt., 9:126. 1863.

¹⁵²Ibid., 10:12. 1864.

the railroads, raised a cautious question as to whether it might not be a good idea to establish some regulations on the cost of freight.

In recognition of the fact that freight rates were high, the Merchants' Magazine and Commercial Review offered these figures to show that rates were not unduly high in consideration of other prices of the period. In explanation, it was

TABLE 10
RAILROAD EARNINGS^a

	1862	1863	1864	1865	1866
Gross earnings per mile	\$1,801	\$2,405	\$3,513	\$4,571	\$3,885

^aIowa railroads. Merchants' Magazine and Commercial Review, 58:400. 1868.

noted that as earnings increased so did expenses. Materials, labor, and other costs of construction doubled, and the bonded debt of many roads increased. After studying fourteen principal railroads, the Merchants' Magazine and Commercial Review explained that "net earnings show an average gain of \$62 per mile or 1-1/3 per cent. Virtually, therefore, the net earnings of the roads are about the same per mile as at the beginning of the war."¹⁵³

By 1869 the Chicago and Northwestern, the Chicago, Burlington and Quincy, and the Chicago, Rock Island and Pacific all crossed the state and were thus business competitors in

¹⁵³Railroad earnings. Merchants' Magazine and Commercial Review, 58:457. 1868.

areas where there was not enough population to pay reasonable revenue. Competition in rates might draw from a rival road, but there was chance for disaster in that method. Rate agreements often resulted in secret cutting and special prices. The three companies recognized their predicament and formed the Omaha Pool, a new attempt in railroad financial circles. The Omaha Pool tried to avoid the secret cutting and special prices by an arrangement where forty-five per cent of the passenger fares and half of the freight charges on all business between Chicago and Council Bluffs was to go for the operating expenses of the road collecting the money. The remainder of the income was put in a pool and divided equally between the three companies.¹⁵⁴ The books of the three companies were open to inspection by the members, but enforcement of the pool really depended on honor among the participants. For several years the Omaha Pool worked quite successfully for these railroads. By 1870 a great deal of opposition was arising against the railroads. Farmers were beginning to feel the effects of the overproduction in grain and the deflation after the war. Several attempts were made by the state legislature to regulate freight and passenger rates and to establish a railroad commission in 1870, but these laws were not passed by the Senate.¹⁵⁵

¹⁵⁴Riegel, R. E. The Omaha pool. Iowa Jour. of Hist. and Pol., 22:570. 1924.

¹⁵⁵Anderson, W. A. The Granger movement in the middle west with special reference to Iowa. Iowa Jour. of Hist. and Pol., 22:23. 1924.

MARKETS

In any new and undeveloped country agriculture is concerned mainly with producing enough goods to supply its own people and animals. Frontier farms are largely self-supporting units. The way to the markets is difficult and transportation expensive. People have little to sell and can buy only a little. Then, as civilization advances and a country gets older, agriculture becomes commercialized. Crops are produced, and animals are fattened for the market. With the money the farmers expect to pay their taxes and debts and have a substantial amount of money left over for making numerous purchases.

Iowa agriculture was in a transition period in the Civil War decade. In 1860 Iowa was sufficiently settled so that some farmers were already looking toward the commercial side of farming. Commercial agriculture includes several important characteristics. It carries the idea of raising products primarily for sale rather than for home consumption. This necessitates one of two things, increased size of operations or intensive use of smaller areas. In Iowa the tendency was toward the larger farms in the period of the Civil War. People were no longer taking up small wooded lands but were turning to the great prairies. Commercial farming of the

truck gardening type was not important since it usually requires large cities nearby to make it profitable.

Two other factors needed for commercial farming are an adequate labor supply or added machinery. During the war thousands of Iowa's young men were away and there was a definite labor shortage during the war years. At the same time few people were moving into Iowa. Because of the labor shortage farmers had to buy machinery to speed their production if they wished to raise large quantities of grain. High prices made increased production especially attractive. Once machinery was introduced it was rare that a farmer would revert to his old methods of cultivation. The war itself called for greater production to feed the North, so every effort was made to increase yields. When the soldiers returned from the war, they furnished more labor. This labor, added to the increased use of machinery pushed production forward at a great rate. Cheap land made room for the soldiers to start their own farms and numerous new settlers arrived between 1867 and 1870. They came determined to raise large crops and pay off debts on land and machinery, so that they could buy more land and build secure futures for themselves and their families. Horticultural and agricultural societies were trying to educate the farmers in better methods. Live-stock breeding was receiving more attention. Total production increased by leaps and bounds.

But increased production presents only part of the

picture of commercial farming. Equally important is the ability to sell the great crops of wheat, corn, and oats, and the hogs, cattle, and wool which commercial farming produces. Before the war the Mississippi River was the main artery of export trade for Iowa. The river towns were the markets, and in the few places where there were railroads into the interior the river towns acted as concentration points for produce which could be shipped down the river. Since there were no bridges, all goods had to be unloaded and transferred by ferryboat across the river to be reloaded on the other side if it were to continue by rail. Bulky or heavy goods such as corn, wheat or livestock was usually shipped by steamboat down the river.

The closing of the Mississippi in the early part of the war was a great shock to Western trade. Crops were being produced and the East and Europe were ready to buy them. Railroad rates were far higher than water transportation and the railroad lines had more goods than they could handle. A letter from Mr. W. H. Osborn to the president of the Illinois State Agricultural Society written on December 8, 1862 said concerning the transportation problem:

It is almost idle to extend the internal improvements of the Northwest, or to urge the farmers to produce more, while every acre cultivated adds to the volume of business which already chokes the narrow channels of the Erie Canal and three trunk lines of railway. A broad water course from Lake Erie to the Hudson, through which our lake vessels can float without breaking bulk, will cheapen the cost of transportation to a point at which we can supply the European market profitably under all circumstances. . . . The question of transportation is vital to the interests

of our agricultural State. Illinois has for two years sent away food enough to supply ten millions of people and November of each of the last two years has closed down upon a surplus of food in this state as large as that sent off in the shipping season. At this moment, only a fortnight after the close of navigation, all the lines of railways east from Chicago are blocked with beef, pork, flour, and every description of provisions. It may be said that this is exceptional in consequence of the loss of the Southern trade, but it is hardly the case. Iowa and Missouri suffer more from the loss of the trade with the South, for the grain of those States cannot afford the railway transportations from thence to the lakes. Their crops are largely in the hands of the producer, waiting for the opening of the Mississippi.¹⁵⁶

The Iowa Homestead repeatedly maligned the railroads for the increased prices of transportation and berated the federal government for failing to reopen the Mississippi, claiming that it was really to the interests of the railroads that the Mississippi be kept closed. The following indictment of the railroads appeared in the Iowa Homestead in 1862:

No person who has had occasion to deal with the Railroads, running eastward, for the last twelve months, could fail to notice the vast difference between the charges of freight one year ago, and those of the present time. One year ago, flour was shipped by railroad, from Chicago to New York, for \$1.12½ per barrel--now it costs about \$2.50; more than twice the charge of last season. The question naturally arises, why is it? The reason is plain. Last season, the West and Northwest had a Southern market and outlet to the ocean by the way of the Mississippi River. Then there was competition. Now our Southern market is cut off, and the Eastern Railroad Companies are taking advantage of the misfortunes of the farmers of the West, by charging exorbitant freight upon the produce which they are sending East, to supply the Eastern and European markets.¹⁵⁷

Meanwhile the river remained closed and there was no

¹⁵⁶Osborn, W. H. Letter. The Prairie Farmer. New Series, 10:387-388. 1862.

¹⁵⁷Railroad freight rates . The Iowa Homestead. New series, 1:29. 1862.

alternative but to use the railroads. Bridges were built across the river and the rails extended a little farther west each year. Toward the last two years of the war prices were high enough so that the farmers could realize a profit even though transportation was high. The railroads had brought a change in the method of handling grain and livestock. It was no longer necessary to deliver grain to the river towns. Dozens of markets along the railroad sprang up and distances of hauling were shortened immeasurably. Where a great deal of capital had previously been required to buy grain, it was now possible for a man with as little as a hundred dollars to start buying grain by paying for it with a sight draft on a Chicago commission house.

Data on local markets are incomplete. Of the towns located on the Milwaukee and St. Paul Railroad, the Des Moines Valley Railroad, and the Illinois Central certain towns stand out as the most important buying and shipping points. Over 100,000 bushels of wheat were shipped by each of these towns: Ossian, Decorah, Lime Springs, Fort Atkinson, Lawlet, Charles City, Ridgeway, Douds, Alpine, Oskaloosa, Cresco, Dubuque, Dyersville, Manchester, Cedar Falls, Ackley, Waverly, Mitchell, and St. Ansgar.¹⁵⁸ Independence was the most important shipping point, sending 441,200 bushels of wheat to the East. Waterloo shipped 435,540 bushels and Dubuque shipped 306,070 bushels.

¹⁵⁸Iowa State Agri. Soc. Rpt., 17:60-63, 82-83. 1871.

Partly because transportation was so expensive, meat-packing developed and the packing centers furnished a large home market for hogs. In 1863 Keokuk packed 65,000 hogs, Des Moines packed 17,000 and Council Bluffs packed 14,737.¹⁵⁹ Pork, lard, and dressed hogs shipped from Iowa amounted to 10,882,621 pounds in 1865 and had increased to 29,222,849 pounds by 1870. Pork and beef shipped from the towns on the three railroads named above went largely from Ottumwa, Eddyville, Dubuque, Dyersville, Postville, Ossian, Decorah, Cresco, Manchester, Independence, Waterloo, and Waverly.¹⁶⁰ The larger markets for live hogs were Oskaloosa, Pella, Dubuque, and Manchester. Muscatine had the largest provisions trade. Important markets for hides were Dubuque, Cedar Falls, Fort Dodge, Waterloo, Decorah, Ottumwa, Eddyville, Oskaloosa, and Pella.¹⁶¹

Before the Civil War the river towns had a great advantage in being the market places for eastern Iowa. Dubuque, Davenport, Burlington, Muscatine, McGregor and Clinton were important marketing places, for it was at these towns that the grain had to be handled, either by transferring it to a steamboat to go down the river or by reloading it and shipping it across the river by ferryboat. As soon as the bridges were built across the river, these towns lost part of the advantage

¹⁵⁹Ibid., 11:16. 1865.

¹⁶⁰Ibid., 17:60-63, 82-83. 1871.

¹⁶¹Ibid., 17:60-63, 82-83. 1871.

they had had in the grain trade although they often developed into railroad centers and gained in other ways. The towns which did not have the river crossings soon fell behind in the struggle for trade.

Chicago was by far the most important of the out of state markets for Iowa products. It was to become the leading railway center of the world. Freight on the lakes was much cheaper than by rail, so most of the heavy and bulky products were transferred to the steamboats and shipped over the lakes and Erie Canal to New York, although throughout the sixties the proportion going the whole way by rail slowly grew larger. This may be illustrated by the shipments of wheat and flour in 1863 and 1870. Wheat shipped by lake from Chicago in 1863 amounted to 10,646,552 bushels and by rail 89,861 bushels. In 1870 wheat shipped by lake from Chicago had increased to 13,429,069 bushels and by rail to 2,902,953 bushels. Even at the end of the decade only a little over a sixth of the wheat was going by rail to New York.¹⁶²

Flour shipments exhibit a different development because flour was not as bulky. In processed goods which did not take too great a transportation expense in proportion to weight, the railroads were accepted earlier. In 1863 there were 1,206,443 barrels of flour sent east from Chicago by water and only 272,126 by rail. In 1870 there were 574,393 barrels of

¹⁶²U. S. Bureau of Statistics. Report on the internal commerce of the U. S. for 1876. 1877.

flour sent east by water and 989,160 barrels by rail.¹⁶³

Because corn is cheap in comparison to its bulk, it continued to be shipped by water from Chicago although increasing quantities were shipped by rail. In 1863 only five per cent of the eastward movement of corn was on the railroads, and by 1878 only twenty-two per cent.¹⁶⁴

St. Louis received small amounts of wheat and corn from Iowa. During the Civil War the total receipts of wheat for St. Louis were around 3,000,000 bushels per year. By 1870 St. Louis received 6,638,253.¹⁶⁵

Of the grain trade which went directly to the seaboard New York received the greatest proportion. In 1872 the flour and grain delivered at New York amounted to 89,819,578 bushels while the total delivered at the six other large markets, Montreal, Portland, Boston, Philadelphia, Baltimore, and New Orleans was only 94,843,824. Until 1872 comparatively little of the grain trade from the West went to any other place but New York. Figures of exports of wheat for 1869 and 1879 show that the great inroads of other markets on the New York trade came in the seventies.

The reason for the great development of the railroad shipping to the seaboard in the seventies lies in the decline of the railroad rates so that the cost was no longer prohibitive.

¹⁶³Ibid., p. 102. 1877.

¹⁶⁴Ibid., p. 102. 1877.

¹⁶⁵U. S. Bureau of Statistics. Report on the internal commerce of the U. S. for 1879. p. 22.

The shipment of grain by direct rail routes was made possible when the railroads entered into agreements so that commodities could be shipped over connecting lines on through bills of lading.¹⁶⁶ Between 1862 and 1870 the amount of flour shipped on the Erie Canal declined from 2,102,574 barrels to 509,055 barrels.¹⁶⁷ While the Erie Canal ceased to be important for carrying coarse freights, it was important as a regulator of all freight rates. If the railroad rates advanced very far the canal got the trade.¹⁶⁸ If the railroad rates were fairly low, the people preferred the railroads. Freight rates from Chicago to New York fell from 26.6 cents per bushel of corn in 1872 to 8.6 cents per bushel in 1876, this fall in railroad rates being credited for the great increase in corn exports to foreign countries during the seventies.¹⁶⁹

During the sixties exports to Europe increased from two per cent of the total crop to fourteen per cent. England, Scotland, and Ireland took by far the largest part of the export with smaller amounts going to France and Germany. During the latter part of the war the demand for products in the East was good. For three years after the war there were very short crops in Europe and grain was needed there very badly.¹⁷⁰ In 1867 there was a great shortage of corn and wheat in the South

¹⁶⁶Ibid., p. 105.

¹⁶⁷Ibid., p. 106.

¹⁶⁸Ibid., p. 107.

¹⁶⁹U. S. Bureau of statistics. Report on the internal commerce of the U. S. for 1876. p. 157. 1877.

¹⁷⁰Prospects of the breadstuffs' trade. Merchants' Magazine and Commercial Review, 58:364. 1868.

also. Commercial farmers in the West had plenty to take care of the shortage. So the Iowa farmers continued to expand their operations. But markets could not continue to keep pace with the growing production, and prices started to decline. By 1870 they were much lower than they had been for a long time. Prices continued to fall and remained at a low level all during the seventies. Agricultural overproduction was already apparent in 1870.

By helping to industrialize the East and by bringing greatly increased production in the West, the Civil War hastened the time when overproduction was a major problem on the American farms. As prices went up farmers were even more anxious to produce great crops, and scarcity of labor caused the introduction of machines with greater rapidity than would normally have occurred. By closing the Mississippi a great impetus was given to the railroads in taking over the trade which they would have received eventually. Once accustomed to using rail transportation to Chicago, the people would not readily return to the old river trade. The new way was easier because trade could be handled directly without great amounts of capital. The trade on the river was risky and there were numerous losses. Often there were long waits for the money on shipments. Insurance rates were very high and perishables such as flour did not always fare well in the long trip on the Mississippi to New Orleans and around Florida to New York. While there was great protest about the closing of the river at the beginning

of the war, the people did not go back to it to any appreciable extent after the war was over. The trading habits of the people of the West had changed. They now looked definitely toward the East for their important markets.

BUSINESS

Where there is a growing population, there must be some means of satisfying its needs; so businesses soon arise. In the new Iowa towns representatives of all the important fields of business appeared before the towns grew very large. In 1863 Clinton had about 1600 people. Its newspaper carried advertisements for two hardware stores, a shoemaker, a photographic gallery, two justices of the peace, three physicians, a dentist, a hat and cap store, three druggists, an attorney, a machine shop, three steam gang saw mills, two grocers, a clothing store, a tailor, an undertaker, an architect, two forwarding commission merchants, two meat markets, a blacksmith and a livery stable.¹⁷¹

The patent medicine business must have been most lucrative. The same issue of the Clinton Herald advertised in pretentious spaces twelve different patent medicines glowingly guaranteed to cure any and all diseases. Advertisements for these medicines appeared week after week.

The advertisements of the Clinton Herald indicated the development of some specialized stores which would easily fit into the modern category of drug store, clothing store, and the like. Other advertisements indicate the characteristics of the

¹⁷¹Clinton Herald. Nov. 22, 1862.

general store which was common to all new communities. The diverse character of such stores is shown by the text of the following advertisement, printed in one-half a column in twenty-two different sized types:

Cheap cash store, of Petersen Brothers, Loudon, Iowa
Our motto is, 'Large Sales and Small Profits.' We inform our friends and the public generally, that we constantly keep on hand a large assortment of Dry goods, Ready Made Clothing, Boots and Shoes, Hats and Caps, Groceries and Crockery, Hardware, Cutlery, Fence Wire and Nails, Kerosene Oil & Lamps, Tinware, Yankee Notions, Farming Implements, &C. which sell at the Lowest Living Prices. We also keep a large assortment of Plows, Drills, and Corn Planters, Fanning Mills, and other Agricultural Implements, Agents for C. H. McCormick's and other Reapers, Also Agents for Pitt's Chicago and Buffalo Threshing Machines. Orders for Lumber, &C., will be received, and promptly attended to. The highest prices paid for all kinds of Grain and Produce, Petersen Brothers; Loudon, Iowa.¹⁷²

Another general store offered:

Wheat, Corn, Oats, Flour, Pork, Butter, Eggs, Potatoes, Hides &C., Taken at Cash prices in exchange for goods.¹⁷³

The development of business in Clinton was probably similar to that of most of the larger river towns in the period.

Business seemed to be going well in Clinton in 1861 although the newspaper carried frequent comments on hard times. The Clinton Herald for November 30, 1861 said:

There seems to be a greater demand for dwelling houses in this city than ever before. We hear of inquiries for them nearly every day. Notwithstanding the hard times Clinton is steadily increasing. Our merchants and dealers say their business is much better than it was a year ago and everything indicates

¹⁷²Clinton Herald. Dec. 5, 1863.

¹⁷³Ibid., Dec. 5, 1863.

a degree of prosperity, enjoyed by very few Western towns.

The same paper told of the Clinton Iron Works, saying:

S. Sisco's Foundry and Machine Shop is being driven to its utmost capacity, which is not very limited. . . . He employs about twenty-five men, and is turning out work that would reflect credit on any establishment.¹⁷⁴

In 1862 the Clinton Herald while complaining of its own business made this comment:

Though in no former years were there so many business houses in our town, and never has trade, in all branches been so prosperous and profitable as during 1862, the patronage to our paper by our dealers, has never been so limited as now.¹⁷⁵

In May 1864 the Clinton Herald stated:

While most towns of its size are indirectly suffering from the effects of the war, the present prosperity of Clinton is unprecedented. . . . Our mills and manufactories are running to their utmost capacity in filling the orders which are crowding in upon them, and our merchants are doing a thriving business.¹⁷⁶

Part of the boom was undoubtedly due to the large group working on the building of the Mississippi River bridge at Clinton, but much of the prosperity was also the result of the steady growth of the town.

The business men of the interior had other problems to face in establishing their businesses away from the more settled river district. Transportation of their goods was a great difficulty when there were no railroads. Often credit had to be extended to the pioneering settlers who were starting up on

¹⁷⁴Ibid., Nov. 30, 1861

¹⁷⁵Ibid., Nov. 22, 1862.

¹⁷⁶Ibid., May 10, 1864.

their new farms. In the sixties most of the merchants fared quite well as long as there were good crops. Just before the sixties there had been a period when too much credit was extended, and for some time thereafter the dealers were wary of credit.

Lack of communications hampered merchants in their knowledge of general price trends and sudden changes. The war, of course, brought some unusual shifts as shown in the following excerpt from the Clinton Herald:

The Maquoketa Sentinel tells how a couple of traders near there, were "sold", in consequence of not taking the papers. It says: 'A storekeeper in a neighboring town recently had a call for cotton goods, which at once cleared his shelves. The next day he ordered a fresh supply, and found the wholesale price five cents a yard more than he retailed for. A trader not far from Maquoketa came off as badly with tea. Before he heard of advance prices, he sold at fifty cents per pound, and to replenish his stock was forced to pay seventy-five cents for the same quality.'¹⁷⁷

Business in the interior of Iowa in the sixties may be described by the experiences of C. J. A. Ericson who came to Webster County in 1858 to set up a business. He arrived in Des Moines with a few articles of furniture, a barrel of flour, a Prince and Company organ, remnants of dry goods and notions valued at \$400, and less than \$100 in cash. He went to a wholesale firm and bought what he could for his remaining \$100. After thinking it over, the firm offered him credit without collateral and without references so that he was able to take

¹⁷⁷Ibid., Mar. 22, 1862.

\$120 more in goods. Upon arriving at Ridgeport Mr. Ericson did some trading and finally set up business in a sixteen by twenty-two foot store which he rented for three dollars per month. His stock amounted to about \$850 and his debt \$370.

People literally had no money; so barter was the only way to sell goods. Mr. Ericson accepted furs, dry hides, maple sugar, honey, beeswax, eggs, ginseng, and feathers as current articles of trade. After a month of trading Mr. Ericson took a team and wagon full of his collections to Des Moines where he sold them and paid his debt.

In order to get some cash Mr. Ericson encouraged the farmers to start raising hogs to sell and then contracted to buy hogs for a firm at a commission of ten cents per head, the price he paid being \$1.75 per hundred. He was able to buy 600 head the first year. He also purchased two carloads of fat cows at \$10 per head without regard to their weight. He had to drive them 150 miles to the nearest railway at Iowa City in order to sell them. Besides his other work, Mr. Ericson was postmaster, and had great difficulty getting the people to pay cash for stamps. Many of them could not understand why articles in trade were not acceptable for stamps as well as for other things.

Business increased and the store was enlarged by 1861. Then Mr. Ericson decided to start to buy butter. He first had to get firkins for it. It was necessary to hire men to cut and split the timber, cut hoop holes, and fix a drying kiln, and finally he had to import a cooper to make the tubs. He

then could buy butter and work it into the four firkins according to color and quality. Butter which was too poor for resale was put into a barrel for soap grease. The addition of the butter business doubled Mr. Ericson's merchandise sales.

Business prospered and in 1864 he went heavily into stock buying and shipping, the railroad having by this time reached his town. He made a good income for several years, but in 1867 he went into partnership with three other men in an investment of \$60,000 on 1200 head of steers to be herded between the Des Moines River and Sioux City, and misfortune overtook him. The grasshopper plague made pasture so scarce that the cattle had to be sold. The flooded market dropped a half and the final result was a debt of \$20,000 on the transaction. Two of the partners owned no property and left the country, leaving the debt to Mr. Ericson and one other partner. Eventually Mr. Ericson was able to clear up his debt and became first vice-president of the First National Bank at Boone.¹⁷⁸ To be a successful business man in interior Iowa from 1860 to 1870 entailed true versatility, judgment, and hard work.

It is difficult to make comparisons of prices of goods for this period because prices fluctuated tremendously and records are widely scattered. Table 12 shows the wholesale price index numbers of unweighted relative prices for the period using 1926 as the base. The indexes show that wholesale

¹⁷⁸Ericson, C. J. Memories of a Swedish immigrant of 1852. Annals of Iowa. Series 3, 8:6-12. 1907.

TABLE 11
WHOLESALE PRICE INDEXES^a

Year	Index	Year	Index
1860	61	1866	105
1861	61	1867	105
1862	72	1868	98
1863	90	1869	94
1864	116	1870	87

^aU. S. Bureau of foreign and domestic commerce.
Op. cit., p. 300. 1936.

prices steadily advanced from 1860 to 1865 when they were double what they had been in 1860, and then they slowly dropped back until 1870 when they were approximately 141 per cent of the 1860 price. These facts should be taken into consideration any time that prices are quoted and compared.

FINANCIAL CONDITIONS

The year 1860 was a difficult one for the farmers, but crops were good and the farmers partially recovered from the hard times of the previous years. Land speculation and crop failures had ruined many, but abundant crops in 1860 helped to bring them back to solvency. In 1861 the crops were average, but prices were very low, probably not more than half what they had been in previous years.¹⁷⁹ Definitely higher prices during the war years did much to clear up old debts. During 1863 and 1864 the farmers were most prosperous and were able to pay their past indebtedness. The Iowa State Agricultural Society reports for the years 1863 to 1869 were full of references to the good prices and farm prosperity.

Partly as a consequence of the high prices and partly because so many people were immigrants and were just starting to farm in Iowa, many farmers went heavily into debt for land and machinery in the latter part of the decade. Basing their judgment on the past five or six years they felt justified in giving heavy mortgages. Prices for wheat were as high as \$3.50 per bushel in 1866 and 1867.¹⁸⁰ Then it gradually fell

¹⁷⁹Iowa State Agri. Soc. Rpt., 8:3. 1863.

¹⁸⁰Ruggles, C. O. The economic basis of the Greenback movement in Iowa and Wisconsin. Proceedings of the Mississippi Valley Historical Association for 1912-13, 6:152. 1913.

in price and in January 1870 was worth only 77 cents per bushel in Chicago. Some farmers held their wheat for more money, but the price continued to fall and they suffered even more than those who sold out earlier.

Attempts to better the farm income by attacking cost of transportation and middlemen's commissions and efforts to increase the amount of currency in circulation indicate a tightening of the currency in 1870. The discussions of the money problem were forerunners of the Greenback movement which started in Iowa in 1876 when conditions were very much worse.¹⁸¹ In 1870 most people considered the low prices as temporary and looked forward to better prices very soon.

Finance in Iowa was greatly upset by the war. Announcements appeared to the effect that the local banking offices would not accept bills on banks whose circulation was secured by Southern stocks. The Clinton Herald said that there were twenty-seven banks in Wisconsin and Illinois whose bills would not be honored in Clinton.¹⁸²

As prices rose, hoarding silver for speculative purposes caused a great scarcity of the metal. By 1862 a general shortage of silver was apparent. The Clinton Herald stated:

The scarcity of silver coin is leading to all sorts of expedients for the purpose of breaking bank bills. Postage stamps are being used to a large extent for change, and several journals recommend their exclusive employment to avoid the somewhat mortifying issue of shinplasters.¹⁸³

¹⁸¹Ibid., 6:152-153. 1913.

¹⁸²Clinton Herald. Dec. 15, 1860.

¹⁸³Clinton Herald. July 19, 1862.

Later "shinplasters", a type of postage-stamp bills about a third the size of a treasury note, were issued in five, ten, twenty-five, and fifty cent denominations.¹⁸⁴

During the first part of the decade the State Bank was an important institution, having been authorized by the new constitution in 1857. The money system in Iowa before 1857 was deplorable. In 1851 banks of issue had been prohibited in the state because of hatred for banks and big money interests. Much real banking was done, but the right to issue money was not granted under Iowa laws. Sometimes money was issued in other states and guaranteed by Iowa stockholders who circulated it in Iowa.¹⁸⁵ In some cases county orders were put out and cities and towns often issued scrip.¹⁸⁶ Checks, bills, and coupons issued by business men served as money also, although it could not circulate far from home.¹⁸⁷ The value of all these kinds of money was a great problem since some of it was greatly depreciated and some of it was worthless. Hiram Price, a founder of the State Bank, said that the two necessary books for the business man were the Bible and the counterfeit detector.¹⁸⁸ Even the counterfeit detectors could not keep up with the changing money values, but they were a

¹⁸⁴Clinton Herald. Aug. 30, 1862.

¹⁸⁵Gallaher, R. A. Money in pioneer Iowa. Iowa Jour. of Hist. and Pol., 32:30. 1934.

¹⁸⁶Ibid., 32:31. 1934.

¹⁸⁷Ibid., 32:35. 1934.

¹⁸⁸Price, H. The state bank of Iowa. Annals of Iowa. Series 3, 1:267. 1894.

great help. An examination of the exchanges for a short time in 1856 showed that notes from over 300 banks and six kinds of local scrip were in circulation.¹⁸⁹

To remedy the situation the State Bank was set up in 1858. Every effort was made to insure its safety. The Bank was founded on an actual specie basis. All its branches were mutually responsible for each others' notes intended to circulate as money. Stockholders were individually liable to any unpaid creditors to the extent of the value of their shares of stock.

Everywhere in Iowa businessmen supported the new bank, for most people wished to get rid of the questionable currency of outside banks. The State Bank itself was not a bank of issue or deposit, but it had general supervision over the branch banks. None of the branches were to do business until five were organized and ready to start. There were to be no more than thirty banks organized in the state, and their capital stock was required to be between \$50,000 and \$300,000. At least five stockholders were required for each branch and a town had to have at least 500 population before it could open a branch. A town could have only one branch of the State Bank. Branches were required to keep twenty-five per cent of their circulation in specie.¹⁹⁰ A central Board of Directors

¹⁸⁹Gallaner, op. cit., 32:40. 1934.

¹⁹⁰Lathrop, H. W. Some Iowa bank history. Iowa Hist. Rec., 13:6. 1899.

controlled the issuance of the bank notes.

The fifteen branches of the State Bank were apparently well-managed, and in normal times they would have had no great difficulty. The Merchants' Magazine and Commercial Review for May 10, 1862 said of the yearly statement of the State Bank of Iowa, "This is certainly a very safe and conservative statement."¹⁹¹ The Clinton Herald called the attention of Easterners to the bank's statement and remarked that the Clinton Herald "would recommend that they cease prating about the insecurity of banks in the west, or at least, make a reservation in favor of Iowa."¹⁹² When the great inflation of the war period came, the State Bank was forced to suspend specie payments, but that was a result of no weakness in the bank itself.

In 1863 the federal government placed a two per cent tax on State Bank notes. "Wildcat" currency from banks in other states was being passed, and efforts were made to keep the people from accepting it. The Clinton Herald for May 21, 1864 said:

Our merchants, and farmers frequenting our town should absolutely refuse all money except greenbacks, national currency and State Bank bills. This course rigorously and persistently followed will soon drive from our midst the ragged Eastern trash which has so long flooded the country.¹⁹³

¹⁹¹State Bank of Iowa. Merchants' Magazine and Commercial Review, 47:63. 1862.

¹⁹²Clinton Herald. Sept. 20, 1862.

¹⁹³Clinton Herald. May 21, 1864.

In 1864 an Iowa law was passed prohibiting the circulating of any bank note issued by any "bank, individual or corporation in any other State", thus exempting from the law United States money or the notes of the Iowa State Bank.¹⁹⁴

The money in Iowa then changed from the wildcat type to the State Bank and federal currency. Federal currency in the form of greenbacks was issued during the Civil War, the face value of the notes of 1861 being \$50. By early 1862 denominations were as low as five dollars, and by the latter part of the year greenbacks were issued for one dollar. The federal tax on State Bank notes forced them out of circulation and legislation rid the State of the wildcat currency, so by the end of the Civil War the currency of Iowa was largely federal. In 1865 the federal tax on bank notes was raised to ten per cent in order to clear the money situation completely and to put all the money issued under federal control. The notes of the State Bank were then called for redemption and the State Bank was dissolved.

Meanwhile national banks had been started in Iowa. The lack of uniformity of money evident in Iowa in 1860 was characteristic of the South and West, and throughout the nation there were demands for reform. Secretary Salmon Chase proposed the establishment of a national bank. A banking law

¹⁹⁴Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 10th session of the general assembly of the State of Iowa. p. 56-57. 1864.

was passed in 1863 and amended in 1864. Under this law a bureau to have charge of the issue and regulation of the national currency was established in the Treasury Department.¹⁹⁵

Not less than five people with a minimum capital of \$50,000 might form a banking association in towns of less than 6,000 population. In cities of 6,000 to 50,000 population \$100,000 was required, and in cities of over 50,000 the required amount was \$200,000.¹⁹⁶ Charters were for twenty year periods and the banks were allowed to discount promissory notes, drafts and bills of exchange, to receive deposits, make loans on personal security, and issue notes, but not to hold real estate mortgages.¹⁹⁷ United States Bonds to the amount of \$30,000 and not less than one-third of the capital stock had to be deposited with the Treasurer of the United States. Notes might be issued up to ninety per cent of the bonds deposited.

Three national banks were established in Iowa in the summer of 1863 and located at Davenport, Iowa City and Lyons. By October 1864 Iowa had twenty national banks and by 1866 there were forty-five.¹⁹⁸ The banks were sound and there was only one failure in the first ten years of their operation in Iowa. The banks were a tremendous aid to the sale of the United States Bonds. The First National Bank of Davenport

¹⁹⁵Preston, H. H. History of banking in Iowa. p. 129.
State Historical Society of Iowa. Iowa City, Iowa. 1922.

¹⁹⁶Ibid., p. 129. 1922.

¹⁹⁷Ibid., p. 129-130. 1922.

¹⁹⁸Ibid., p. 131. 1922.

sold over a half-million dollars' worth of the seven-thirty notes in the first half of 1865.¹⁹⁹ Many of the former members of the State Bank became national banks and provided the people with continued good service.

There were also many private banks in Iowa through the sixties. Many of these were unincorporated and none of them were specially regulated. The capital requirements for national banks were too high for many of them. Other reasons for not joining the national bank group were that these private banks wished to loan on real estate security and disliked federal restraints.²⁰⁰ Some of these banks were incorporated under state laws and their articles of incorporation were recorded with the county recorder. After 1870 they were required to file with the Secretary of State.

When the Civil War first started and the call for troops came, there was no organized militia in the States. Volunteers reported rapidly, but there was no money to equip, care for, or pay soldiers until they were actually in the federal army. The State Bank furnished money at the outset, but on April 25, 1861 Governor Kirkwood called a special session of legislature to care for the details. Of the many things accomplished by this legislature the outstanding thing was the authorization of the issue of \$800,000 in bonds to pay for the

¹⁹⁹Preston, H. H. History of banking in Iowa. p. 132.
State Historical Society of Iowa. Iowa City, Iowa. 1922.

²⁰⁰Ibid., p. 134. 1922.

army expenses.²⁰¹ These bonds were to be issued at seven per cent with interest payable semi-annually and were to run for twenty years.

Everyone expected the bonds to sell readily and easily. Bonds were issued to the amount of \$400,000 and during the first few days \$50,000 were sold. Then, numerous articles began to appear in the New York Herald which discredited the issue and warned the people against investing in it.

The New York newspaper really had some small grounds for complaint against the State of Iowa in that the Iowa Supreme Court had held that the General Assembly had no power to authorize counties to become stockholders in railroads. This had caused the railroads considerable trouble because some counties had bought the stocks, but no one really lost any money thereby. Counties and cities paid for the bonds which had actually been sold, but all new sales of county or municipal bonds or stocks for railroads were halted even though they had once been voted. This was the basis for the statement of the New York Herald which warned would-be bondholders that Iowa did not pay her honest debts.

The New York Herald attacked the bonds from a second angle by saying that they were unconstitutional because of the \$250,000 debt limit in Iowa.²⁰² The bond issue was constitutional, however, because the bonds were voted under the

²⁰¹Pollock, I. L. The war loan of 1861. Iowa Jour. of Hist. and Pol, 15:469. 1917.

²⁰²Ibid., 15:486. 1917.

section of the constitution which gave the State additional power to raise funds to repel invasion, suppress insurrection or defend the State in War.

When the bonds were placed on sale in the New York market, they had to compete with the issues of many other states also suddenly called upon for money. The market was low, and Iowa had the handicap of unfavorable publicity although Iowa editors had done their best to answer charges that the bonds were inferior. Most of the bids for the bonds were from eighty to ninety cents on the dollar. This was about what other states were receiving for their bonds.²⁰³ There had been rumors that the bonds would be low, so the agents had been instructed to refuse bids under ninety cents on the dollar.

Only one sale to the Iowa City branch of the State Bank was made, a sale for three \$1,000 bonds at ninety-two cents on the dollar.²⁰⁴ Governor Kirkwood then made an appeal to the people of Iowa to buy the bonds, but they were very slow to act, and between July and November in 1861 only \$86,000 worth of bonds had been sold, these bringing in only \$81,269. Warrants issued already amounted to \$223,568.43.²⁰⁵

Leaders in Iowa had advanced money of their own and had borrowed large sums to pay expenses, believing that the bonds

²⁰³Pollock, I. L. The war loan of 1861. Iowa Jour. of Hist. and Pol., 15:489. 1917.

²⁰⁴Ibid., 15:490. 1917.

²⁰⁵Ibid., 15:496. 1917.

would be sold. When they failed to sell, it left these people almost helpless before their creditors. Governor Kirkwood was finally able to get \$80,000 from the federal government as an advance refund to the State. It was received in October, 1861 and helped to ease the financial situation although the State was in bad financial condition all through the year. Another arrangement with the federal government made it possible for the soldiers to be paid by the United States for the time they were serving in the State service before actually going into the United States Army. The State quit trying to furnish the clothing to the soldiers after the first three regiments were outfitted. Clothing was taken care of by the federal government much to the chagrin of patriotic Iowans. The bonds continued to be sold or exchanged for warrants till Sept. 1, 1862. The total face value of about \$300,000 was actually sold at a price of \$277,320.²⁰⁶ The financial crisis was safely passed with the aid received from the federal government.

At the same time that all the financial difficulty arose about the army, taxes were very hard to collect, and in many cases were not collected. There was great disagreement about who should administer taxation, the township or county. In 1858 the township system was introduced for the third time. The assessors were to meet once a year and classify the property for equalization of assessments. In 1860 it was decided that the board of supervisors should take charge of the

²⁰⁶Ibid., 15:500-501. 1917.

equalization of assessments, but this was not really carried out and the collection of taxes was left decentralized and in the hands of the assessors.²⁰⁷ Further decentralization came in 1862 when a law established town and city assessors as well as township assessors.²⁰⁸ This decentralization led directly to administrative difficulty with the general property tax.

State finances for general expenses were very hard to manage. Expenditures for state purposes were about \$300,000 per year for 1861 and 1862. During the four years prior to November, 1861 a delinquency of \$400,000 in State taxes had accumulated, and there were at that time \$103,645 worth of warrants drawn on the Treasury which were unpaid for lack of funds. According to Governor Kirkwood it was therefore necessary to levy taxes higher than the expense of the State required because only part of the people paid their State tax. Interest on unpaid warrants and the necessity for paying extra high prices for goods which must be paid for with warrants was costing the State much unnecessary expense. Furthermore, the tax-paying public was bearing the expenses for those who did not pay. Governor Kirkwood's suggestion lay in placing a heavy penalty for non-payment of taxes when due, and in the assurance of valid titles to purchasers of land sold at tax sales. He suggested to the Senate and House that the

²⁰⁷Brindley, J. E. The history of taxation in Iowa. Vol.1, p. 50. The State Historical Society of Iowa. Iowa City, Iowa. 1911.

²⁰⁸Ibid., Vol. 1, p. 68. 1911.

counties be required to pay to the State at set intervals during the year those taxes due to the State whether the counties had collected the tax or not. This would be a stimulus to county officers who were frequently lax in forcing collections.²⁰⁹

The great numbers of unpaid tax warrants were the source of some speculation for Easterners. The Clinton Herald told of speculation on delinquent tax lists as follows:

Pitt. Cook, Esq., of Sandusky, Ohio, has taken the entire delinquent tax list of Chickasaw county. His purchase amounts to 60,000 acres of land, the tax paid being near \$ 7,000. Investments in Iowa tax titles, under the present law are attracting the attention of eastern capitalists.²¹⁰

The tax situation of the State improved with the placing of more stringent laws on delinquents. Laws were passed requiring much more complete reports and tax lists to be sent in from the assessors. One difficulty in paying taxes was that they had to be paid in coin. Other states were not requiring coin, and county and State officers in Iowa were authorized to accept United States demand notes and notes on the State Bank of Iowa for tax payments and to use them in paying outstanding warrants in 1862.²¹¹ By 1864 the penalty for delinquent taxes was four per cent per month.²¹² Improved prices along with this more stringent law soon resulted in

²⁰⁹Clinton Herald. Jan. 25, 1862.

²¹⁰Ibid., Apr. 19, 1862.

²¹¹Brindley, op. cit., 1:59. 1911.

²¹²Clinton Herald. Jan. 2, 1864.

successful tax collections.

By 1866 differences arose as to the method of collecting taxes. Many people objected to going to the county seat to pay taxes, and a movement was started for township collectors. In 1868 a township collector system was made optional in the counties having more than 7,000 population. Compensation for the collectors was placed on a percentage basis, two per cent of all sums collected on the first \$2,000 and one per cent thereafter, except on taxes collected at tax sales for which the collector received five per cent.²¹³ Taxes collected from the counties between 1869 and 1879 amounted to \$578,759.91. In the period from 1869 to 1879 the taxes collected were almost three times as much or \$1,702,842.04.²¹⁴

Several special groups were subjected to taxation during the sixties. In 1866 a law was passed taxing shares of national bank stocks. During the next few years there was a struggle over the constitutionality of the law, and it was finally decided in 1870 that the law was constitutional.²¹⁵

Railroads, too, were a field for taxation. Before 1862 it had been established that railroad taxes were to be on shares of stock with the tax money to be distributed among the counties through which the railroad line ran. From 1862 to 1870 the tax on railroads was one per cent on the gross

²¹³Brindley, op. cit., 1:65. 1911.

²¹⁴Ibid., 1:107. 1911.

²¹⁵Ibid., 1:107. 1911.

receipts and was to be paid directly by the State Treasurer to the counties through which the road ran,²¹⁶

Insurance companies were subject to taxes on the shares of stockholders, one per cent on the premiums for State purposes, and one per cent for county purposes. An act of 1868 provided a two per cent tax on the premiums, payable to the State, the two per cent to be payment in full for all taxes upon the corporation or its shares except the taxes on real property of the company.²¹⁷ This law was superceded by one in 1872 which placed a tax of two and a half per cent on premiums plus heavy fees from the companies. The fees were intended to be retaliatory against other states and were in accord with what insurance companies organized in Iowa had to pay when operating outside Iowa.²¹⁸ From 1868 to 1870 express and telegraph companies were taxed at the same rate as personal property, the tax being figured on forty per cent of the gross receipts.²¹⁹ There were no inheritance taxes. Pedlers' licenses varied according to the items being sold.

The importance of local government in comparison to State and national government was most evident in the amounts of taxes collected by each group. A comparison of the government agencies spending money in the early sixties shows plainly how the great proportion of the spending lay with the local governments. The whole amount of taxes in Iowa in 1861 was

²¹⁶Brindley, op. cit., 2:14. 1911.

²¹⁷Ibid., 1:164. 1911.

²¹⁸Ibid., 1:164. 1911.

²¹⁹Ibid., 1:181. 1911.

\$1,702,842.04. Of this \$300,000 was for State purposes while \$1,400,000 was spent by the counties, the ratio being approximately 4.5 to 1 as between county and State. Federal taxes were an innovation brought by the Civil War. Governor Kirkwood said:

The subject of revenue and taxation assumes a graver interest and importance at this time, for the reason that our State is called upon, for the first time since its admission, to pay a direct tax for the support of the General Government. We may expect to be called on to pay during the present year, a Federal tax from \$600,000 to \$700,000.²²⁰

Federal licenses in 1862 were heavy. Under a new bill bankers had to pay \$100, wholesale liquor dealers \$100, wholesale dealers \$60, brokers \$50, jugglers \$20, brewers \$25 to \$50, auctioneers \$20, apothecaries, surgeons, livery stable owners, tobacconists, soapmakers, retailers in liquor, photographers, dentists, confectioners, and claim agents \$10. Hotel keepers paid from \$5 to \$200; it cost \$5 tax per alley to run bowling alleys and \$5 each for billiard tables.

The State of Iowa had a truly difficult time financially during the early part of the war. The failure of the State bonds to sell, the great numbers of delinquent taxes, the necessity of paying taxes in specie, low prices and many farm debts all joined to make the situation seem almost hopeless in 1860 and 1861. But as the war went on, prices rose, better laws and law enforcement forced people to pay their taxes, and the nation put money on a uniform basis. By the end of the war

²²⁰Clinton Herald. Jan. 25, 1862.

Iowa had solved her financial problems. Through the rest of the decade the financial situation of the State caused very little trouble.

SOCIAL DEVELOPMENT

In any discussion of social institutions the home is almost the first one mentioned. In 1860 outside influences were fewer and movement about the community was more difficult so the influence of the home was even more important than it is to-day. Comparatively few things were bought ready-made, and home work was far more demanding, a fact which tended to keep people at home a much larger share of the time. Cooperation in the family was essential in order that the necessary work be accomplished. Gardening, "putting down" meat, sewing, knitting, and cooking for large families took a great deal of the time which now goes for leisure time activities. Churning, skimming the milk, frying out lard, cleaning the kerosene lamps, making soap and candles, drying corn and pumping water by hand are other duties which have practically disappeared. In the sixties all this work had to be done without benefit of modern conveniences such as electricity, gas, water systems, and drained sinks.

Yet, the people were happy. By 1860 work in the homes of the settled areas was being lightened in many ways. Advertisements for several different sewing machines (and for sewing machine agents) appeared regularly in the Clinton Herald of 1861. In a news column appeared a notice signed by twenty Clinton women and six Clinton men to the effect that

they had tried and used G. W. Talhurst's Patent Washing Machine and were willing to recommend it to all.²²¹

Most of the homes in the well-settled areas were frame houses, fairly well-built, and in many cases, well-furnished. As one entered the pioneering areas, homes were less pretentious. The sod house in Iowa was not an important factor for very many years, but even as late as 1870 there were some sod houses in the northwest section of the country just being opened.

People on prairie farms far from a railroad and almost without timber had to rely for a number of years on sod houses for shelter. When the Dutch settled at Orange City their first interest was in breaking the land and raising the crops. Then, homes could be built. Sod houses usually consisted of one room which served all purposes, although some were built with more than one room. They were usually dug into the southern or eastern slope of a hill. Thick sod walls were next thrown up and a roof of long slough grass put on top. There were usually two openings, one to serve as a door and one as a window. Furniture was meager. A sod bench along the wall served for chairs, and old drygoods boxes for tables and cupboards.²²² The sod houses had the advantage of being quite warm. Water did not freeze in them even when it was very cold.²²³ The cost was practically nothing. A dugout built in Nebraska in 1872 cost \$2.79, the money spent for an 8 x 10 pane of glass

²²¹Clinton Herald. Dec. 21, 1861.

²²²Van der Zee, op. cit., p. 142-143.

²²³Petersen, W. J. The pioneer cabin. Iowa Jour. of Hist. and Pol., 36:402. 1938.

for the window, 18 feet of lumber for the front door, a latch and hanging without a lock, a pipe for the roof and three pounds of nails.²²⁴

The log cabins of the early settlers were roughly built. The cracks were chinked with mud or clay and the roofs were covered with "shakes", large slabs of roughly cut wood lapped over each other.²²⁵ Most of the log cabins had only one room, makeshift partitions sometimes being achieved by hanging quilts to mark off the sections of the house. Fireplaces usually furnished the heat. People managed with the sod houses or log cabins till such time as they were able to get lumber to build a frame house.

Food was plain, but fairly good from a nutritional point of view. Of milk, cream, eggs, meat and vegetables there was plenty in the summer. Fruit and vegetables were not so common in the winter, the fruit being particularly scarce in the newly settled areas where the trees had not had time to develop. Wild strawberries grew in abundance. Wild crab apples, haws, plums, gooseberries, raspberries, and grapes were found in many places. Numerous nuts grew in the wooded sections. Wild game was to be had for the shooting. Geese, ducks, prairie chickens, and quails abounded. Fish were plentiful in the streams.²²⁶

²²⁴Ibid., 36:404. 1938.

²²⁵Ibid., 36:407. 1938.

²²⁶Parker, op. cit., p. 197. 1855.

Pastimes in the home often centered around the more leisurely tasks which could be done as the family sat about the fire at night. Knitting mittens, socks and scarves, sewing, reading, making rag rugs and mending were tasks most often done in what might be called the "spare time." Sometimes simple games were played, or corn was popped. The evenings were not long, however. Hard work in the day, chilly rooms, and poor light at night combined to make people go to bed early in the winter. In the summer the working day was much longer and again the leisure time was all too short. Home leisure time activities were simple and plain, but important in bringing about a family loyalty and influence which is all too often lost in the twentieth century.

The church, too, had a tremendous influence over the lives of the Iowans of 1860. It was one of the first buildings in a community and was a major interest. Figures are not available on church population for 1860, but the church population for 1870 was 1,194,020 which included almost the whole population. There were 2763 churches organized by the end of the decade. Of these the Methodists ranked first and had 492 churches. Next in line were the Presbyterians with 222 churches, the Roman Catholics and Baptists with 165 each, and the Congregational with 125. The Friends had 60 churches. Other groups having between 25 and 50 churches were the Christians, Lutherans,

Episcopalians, and the United Brethren in Christ.²²⁷

The memberships of many of the early churches were very small and necessitated considerable strain on the members for upkeep. In early periods the Congregational and Presbyterian Churches joined together at least temporarily agreeing that where one existed there would be no second church of the other denomination until the first was self-supporting. By 1860 there was a tendency for churches of the older towns to break off into their own units and to be most set on supporting their own denomination to the exclusion of all others. For the most part there was an extreme loyalty to one's own church and very little visiting between churches. Great rivalry and jealousy sprang up between the different sects.²²⁸

Preachers' salaries were small making it almost necessary that they do other work besides caring for their congregations. An example may be taken from the English Lutheran Church meeting where sixteen pastors were present. Of these the salaries ranged from \$40 to \$800 per year with the total salaries for the sixteen being \$2,719.25.²²⁹ In the Lutheran churches there was considerable difficulty over language, the people from the "old country" being desirous of maintaining services in the language of their birth. Even in 1941 some churches maintained the foreign language at least part of the

²²⁷U. S. Census. 9th, 1870. Compendium of the ninth census. p. 516-517.

²²⁸Magoun, G. F. [Sermon]. Annals of Iowa. Series 1, 3:558. 1865.

²²⁹Leamer, A. B. The English Lutheran Church in Iowa. Annals of Iowa. Series 3, 11:588. 1915.

time.

The social efforts of the different churches were varied in the different communities, but examples from some of them will give an indication of their numerous contributions to the social life of the times. The Davenport Catholic Church supported a society called the Catholic Institute which met once a week in the winter holding debates and lectures.²³⁰ It had a circulating library of several hundred volumes. The Protestant Episcopal Church at the same time had a parochial library and a Sunday School Library of about 140 volumes.²³¹ Its Parochial Association met twice a month except during Lent "with a view to promoting acquaintance and sociality among the members of the congregation, and exciting a deeper interest in the welfare of the parrish."²³²

Church programs included the same type of things as they have in later years, but with better attendance. A Presbyterian Sabbath School entertainment to help pay expenses advertised that "the exercises will consist of Dialogues, Ballads, EC., in which about fifty children will take part." Single admissions were twenty-five cents.²³³ The children drew such a large crowd that many were turned away for lack of standing room. The performance had to be repeated the next evening.²³⁴

²³⁰Barrows, W. History of Scott county, Iowa. Annals of Iowa. Series 1, 1:170. 1863.

²³¹Ibid., 2:216. 1864.

²³²Ibid., 2:216.

²³³Clinton Herald. Apr. 26, 1862.

²³⁴Ibid., May 3, 1862.

By 1862 church conventions were common along the river. The Clinton County Sunday School Convention held semi-annual meetings. The railroads cooperated to the extent of allowing persons to ride on the Chicago and Illinois Railroad for half fare.²³⁵

The pioneer religious revivals of the sixties were also interesting. Little active work of the revival nature was done during the summer. Instead there were "basket meetings" which were something like Sunday School picnics except that there were two sermons, one in the morning and one after dinner.²³⁶ The emphasis at these meetings was social with the picnic dinner adding particularly to the enthusiasm.

The real revival season was in the fall and was carried on by the regular ministers rather than by imported traveling evangelists as was the custom later. The sermons dealt with the necessity for confessing one's sins and becoming a believer before the day of judgment. They were wildly emotional and calculated to work hard on the consciences of unbelievers.

At the end of the sermon came the exhortation carried on by the pastor or some chosen exhorters who were particularly talented in getting the people to come forward to the altar, called the "mourner's bench."²³⁷ The exhorter would go up and down the aisles working on the various individuals and singing

²³⁵Ibid., Mar. 22, 1862.

²³⁶Oghurn, C. The pioneer religious revival. Annals of Iowa. Series 3, 15:485. 1926.

²³⁷Ibid., 15:492. 1926.

special songs or chants for the occasion. As the people went forward, the men from the one side and the women from the other, the confusion became tremendous. Friends went up to kneel with or congratulate the "mourners" and anyone in the audience who wished could start a song which was joined wildly by the rest of the group. The shouting and emotional disturbances were so great that occasionally an individual would go into a kind of trance for hours.²³⁸ Other people were affected by hysterical laughter while still others showed their joy by weeping.

An adjunct to the religious group were the rowdies who came for the sole purpose of watching and making sport. At times they were so noisy in their actions as to be given open rebuffs by the pastor and in some few cases they were arrested although never convicted of disturbing a religious meeting of this sort.

Until 1859 schools in Iowa seem to have been run in a haphazard fashion, but in 1858 came signs of a change. The Iowa Instructor for October, 1859 said:

Now things are very differently conducted. School systems, and public schools are the absorbing themes everywhere. They enter into the platforms of parties, and fill a prominent place in all political discussions. . . . Everybody talks about the school law, and watches the workings of our public schools with intense interest.

The cause is simply this: The Legislature at its session in the spring of 1858, enacted a law which made an entire change in our school system; and so

²³⁸Ibid., 15:500. 1926.

radical was this change, that it could not fail to attract the attention of the people at large. As was to have been expected from the experience of other States, this law met with the most bitter opposition.²³⁹

Up to this time schools had been maintained largely through tuition fees, but in March, 1858 a law went into force establishing free public schools. Each civil township in the state was declared a school district and all subdistricts previously organized were to continue.²⁴⁰ The Code provided for twenty-four weeks of school of five school days to the week, in each subdistrict "for the instruction of youth between the ages of five and twenty-one years."²⁴¹ The electors of the districts were allowed to vote taxes for general school purposes provided they did not exceed five mills on the dollar in any one year for schoolhouse purposes.²⁴²

Free public schools were not yet wholeheartedly accepted in many places. Costs of schools were very low in comparison to what they are to-day. Comparison of Burlington and Davenport, towns of almost the same size, showed that over twice as many students were able to attend school in Davenport which had early voted free public schools as were able to attend in Burlington where schools were not free.

²³⁹The School law. The Iowa Instructor. p. 27. 1859.

²⁴⁰Iowa. Laws, statutes, etc. Code of civil and criminal practice as passed by the eighth general assembly of the state of Iowa, approved Mar. 29 and 30, 1860. p. 359. Mills Brothers, Des Moines, Iowa. 1860.

²⁴¹Ibid., p. 359.

²⁴²Ibid., p. 360.

Comparison was also made between the costs of the schools at Marion and at Tipton for the spring term in 1856. Of the 477 children of school age at Marion only 201 attended and the cost amounted to \$2.50 per pupil, a total of \$503.50 for the term under the private system. The cost for Tipton for the same period was \$495.00 or \$1.09 per pupil with 456 pupils or almost all the children of school age attending.²⁴³

In 1859 Tipton boasted the largest high school in the state.²⁴⁴ All twelve grades were handled by five teachers with 85 pupils in high school, 50 in grammar school, 70 in secondary school, and 90 in primary. The whole cost of the buildings in Tipton was \$9,000. There were forty weeks of school per year, the time being divided into fall and spring sessions of twelve weeks each and a winter term of sixteen weeks.²⁴⁵ At Keokuk there were seven ward schools and one central school called an "incipient High School."²⁴⁶ These schools met for nine months per year. At the same time Ottumwa's schools were run by three teachers, one group meeting in the basement of the Congregational Church and the other two in the "unfurnished and cheerless" basement of the Methodist Church in spite of the fact that Ottumwa was a thriving well-built town.²⁴⁷ Washington, Iowa had 353 pupils enrolled and six teachers. Conditions there

²⁴³Iowa State Teachers' Association. Executive Committee Report. The Instructor. p. 45. Nov., 1859.

²⁴⁴Ibid., p. 30, Oct., 1859.

²⁴⁵Ibid., p. 29, Oct., 1859.

²⁴⁶Ibid., p. 31, Oct., 1859.

²⁴⁷Ibid., p. 61, Nov., 1859.

were so crowded that there were three pupils on almost every seat.

Financial support in some districts faced a great deal of opposition. The city of Muscatine voted not to be taxed for supporting public schools.²⁴⁸ In other places the hopes and enthusiasms about the schools were very great. Superintendent Samuel Davell from Shelby County wrote to the Instructor:

Two years ago there had never been a school taught in Round Township; now there are three, and provision has been made by the District Board, for seven during the winter.

This District has been divided this season into seven Sub-Districts. There is not yet a schoolhouse in the District Township. The District meeting last March, voted a schoolhouse tax of 1 per cent. The District Board varied it to seven mills, which gives us a schoolhouse fund in this District of over \$400. There are seven schoolhouses now under contract, one in each sub-district, five of which are brick, 22 x 30 feet. Some will be completed for winter schools, others will not be completed until next summer. There has never yet been a demand in this county for teachers; but after the first of July next we will want seven experienced professional teachers; cash in the Treasury to pay them. We, here, though away back, so to speak, do not intend to live in ignorance; and if you can find a nook or corner in the State where people are working more earnestly than we, please let us know where it is. This is all the result of the happy working of the present school system.²⁴⁹

The local electors of school boards were allowed to determine the subjects to be taught and the textbooks to be used.²⁵⁰ Provision was made for the secretary of each school

²⁴⁸(Muscatine school vote). The Instructor. p. 31, Oct., 1859.

²⁴⁹Iowa State Teachers' Association, op. cit., p. 89-90.

²⁵⁰Iowa. Laws, statutes, etc. Code of civil and criminal practice. . . 1860. p. 360.

district to report to his county superintendent on the number of persons in the district between five and twenty-one, the number of shools, branches taught, average attendance in each school, length of school in days, teachers' salaries, text-books, libraries, and the like.²⁵¹ The secretary was to get his information from the directors of the sub-districts.

Teachers' qualifications consisted of the possession of a certificate signed by the county superintendent and were valid for only a year at a time. Examinations were given by the superintendent over orthography, reading, writing, arithmetic, geography and English grammar.²⁵² Certificates were dependent on passing the examinations and on having a good moral character. Certificates might be revoked by the superintendent for any cause which would have barred the applicant in the first place. County superintendents were elected for two year terms. Their pay was two dollars per day for every day "necessarily engaged in official services", and "provided, that he shall not receive a greater compensation than one-half the salary, fixed by law, of the clerk of the district court of the county in which the superintendent resides."²⁵³ The Board of Education restricted the duties of the county superintendent to the examination of teachers and making of annual reports. It was estimated that this would

²⁵¹Ibid., p. 363.

²⁵²Ibid., p. 363.

²⁵³Ibid., p. 366.

take about fourteen days per year. Visiting schools was no longer required, and this constituted a definite step backward.²⁵⁴

Among the school people themselves there was a great effort to improve the schools and the teachers most of whom were poorly trained. Between September 1, 1858 and September 1, 1859 there were county institutes held in twenty-five of the counties and over a thousand teachers attended.²⁵⁵ Most of these meetings took place in the south and east part of the state while the northwest had practically none. The institutes in general were much longer than our present ones and were really meant to be a short course for teachers. If the institute lasted for six days or longer, the state furnished \$50 toward its support.

By the Civil War period federal aid to education through land grants was large. Seven separate federal grants were received either specifically for education or eventually re-directed into educational purposes.²⁵⁶ The sixteenth section in each township was granted to Iowa by an act of Congress in 1845 and was accepted by the General Assembly in 1849.²⁵⁷ Over a million acres were thus made the basis for a permanent school fund. In 1860 the control of these lands was placed with the Boards of Supervisors. Throughout the seventies there

²⁵⁴Iowa. Laws, statutes, etc. Code of civil and criminal practice. . . . 1860. p. 367.

²⁵⁵County institutes. The Instructor. p. 253. May, 1860.

²⁵⁶Buffum, op. cit., 4:562. 1906.

²⁵⁷Ibid., 4:563-564. 1906.

was difficulty about school lands being sold too cheaply. In 1864 a minimum price of \$1.25 per acre was set. This was replaced in 1870 by a minimum price of \$6.00 per acre except under special circumstances. No school land was to be sold until there were at least twenty-five legal voters resident in the township.²⁵⁸

It is interesting to note that schools in Iowa continued to grow despite the upheaval of Civil War. Institutes for teachers numbered 32 in 1860, 33 in 1861, 56 in 1862, 60 in 1863, 63 in 1864 and 59 in 1865.²⁵⁹ The number of persons attending school increased from 210,569 in 1864 to 217,593 in 1865. Teachers' salaries increased from \$6.28 to \$7.91 per week for men and \$4.40 to \$5.70 per week for women. The total number of schoolhouses increased from 4,274 to 4,635, there being 25 brick, 306 frame, and 30 log schoolhouses built during the year.²⁶⁰

Throughout the decade there were gradual improvements in the schools. By 1865 the controversy over county superintendents visiting schools was still going on, and the practices in the different counties varied widely. The state had passed a law requiring the county superintendent to visit each school at least once a year, but had not set a specific price to be

²⁵⁸Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 13th session of the general assembly of the State of Iowa. p. 28-30. 1870.

²⁵⁹Superintendent of Public Instruction. Biennial report to the general assembly. p. 8. 1865.

²⁶⁰Ibid., p. 5. 1865.

allowed him for the visit. There was no compensation for visiting allowed in Crawford County, \$.60 per day in Adair County, \$2.00 per day in Monroe County, and the majority of counties apparently paid \$3.00 per day. Wapello County paid \$4.00. When one considers the difficulty of country travel in the period, the compensation as doled out by the supervisors was certainly not too high, although it usually was large in comparison to teachers' salaries.

The Code of 1873 records the changes that came in the early seventies. It was then permissible for a majority of electors present at a school meeting to direct that foreign languages be taught.²⁶¹ Teachers were required by law to go to the county institutes. Superintendents were then required to give examinations in physiology and history of the United States in addition to the subjects required in 1860.²⁶² The county superintendent was to visit each school in his county for at least one-half day in each term of school and his pay was set at \$3.00 per day. Stationery and postage were furnished him and he was entitled to such additional compensation as the Board of Supervisors chose to allow.²⁶³ After 1861 taxes were levied by the Board of Supervisors instead of the County Judge.

Taken as a whole one of the most noteworthy developments of the schools during the Civil War period is that the

²⁶¹Iowa. Laws, statutes, etc., Code of civil and criminal practice. . . . 1873. p. 324.

²⁶²Ibid., p. 325.

²⁶³Ibid., p. 326.

principle of the free public school became thoroughly established and accepted by the whole state. The census of 1870 shows that 7,322 out of 7,496 schools in Iowa were public schools. Except in the University and the 71 classical schools women teachers outnumbered men almost two to one. In all schools below the university level there were more girls attending school than there were boys. In the University 43.4 per cent of the enrollment was feminine. Few of the schools were graded. Slightly over 92 per cent were ungraded, a fact which undoubtedly interfered with efficiency but was unavoidable on account of the large numbers of rural schools and schools in very small towns.²⁶⁴

In the field of higher education Iowa had a good start and by 1860 had numerous private schools as well as the State University and the State Agricultural College, although the two institutions were only then getting well started. In 1858 \$3,000 was appropriated for changing and repairing the Old Stone Capitol and \$10,000 was appropriated for erecting a boarding hall and dormitory.²⁶⁵ In 1864 \$20,000 more was appropriated for the University buildings,²⁶⁶ and this was followed by a \$34,500 appropriation in 1866, \$20,000 more in 1868, and another \$25,000 in 1870.

²⁶⁴U. S. Census. 9th, 1870. Compendium of the ninth census. p. 496.

²⁶⁵Buffum, op. cit., 5:148. 1906.

²⁶⁶Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 10th session of the general assembly of the State of Iowa. p. 80. 1864.

The State Agricultural College established by law in 1858 first received an appropriation of \$10,000.²⁶⁷ Besides the sums accruing from federal land grants it was given \$20,000 in 1864, \$91,000 in 1866, \$35,750 in 1868 and \$68,500 in 1870.²⁶⁸ Besides the state appropriations 240,000 acres of land were granted to the State Agricultural College in 1864. The income from it was almost \$5,000 per year in 1865 and 1866, and for the period from 1867 to 1870 was about \$30,000 per year. The main building was completed in 1868, and the college was formally opened Mar. 17, 1869, although students were first admitted in October of 1868.²⁶⁹

By 1870 there were 21 colleges and 34 academies in Iowa, the enrollment of the colleges being 3,061 and of the academies 2,333. There was one college of law, one of medicine, four of theology, one agricultural college, five commercial colleges, and special schools for the blind, deaf and dumb. Education was already important in Iowa from 1860 to 1870.

The newspapers impress one with the general inadequacy of the medical profession of the time. Frequent epidemics occurred, and medical science was unable to cope with them.

A quotation from the Dubuque Times asserted:

A peculiar disease, known among medical men as an epidemic form of inflammation of the membranes of the brain and spinal cord, has been prevailing among the children in this vicinity for the past

²⁶⁷Ibid., 12th session. p. 27-28. 1868.

²⁶⁸Buffum, op. cit., 5:162-163. 1906.

²⁶⁹Gue, B. F. History of Iowa. Vol. 3, p. 26. 1903.

two weeks, and of nine cases attacked the first seven proved fatal within forty-eight hours from the attack. The disease seemed not at all amenable to the usual treatment when at all proportioned to the apparent severity of the attack.

From J. B. Grinnell at Grinnell, Iowa was a letter reporting an epidemic taking five persons in four days. His account ended with the inconclusive remark, "It is supposed to be a malignant typhoid."²⁷¹ The medical knowledge of the time was extremely limited. Ether and chloroform were two of the most important aids doctors possessed although they frequently could not use ether on account of its explosiveness. Kerosene lamps or range fires made it impracticable. Operations for appendicitis were as yet unknown, and decayed teeth went unfilled. If they ached too badly, the doctor pulled them, and when most of them were gone, one bought a "store set." There were no nurses.²⁷²

Keokuk College was the training school for physicians and was considered part of the University of Iowa. In 1854 there were seven people on the faculty, and fees amounted to \$5 for matriculation, \$30 for a diploma, \$5 for dissection room and demonstrations with a \$10 fee for each of one's professors. The lecture courses lasted for sixteen weeks.²⁷³ By 1868 there

²⁷⁰Clinton Herald. Mar. 22, 1862.

²⁷¹Ibid., May 10, 1862.

²⁷²Emhoff, F. L. A pioneer doctor of Marshall county. Iowa Jour. of Hist. and Pol., 31:581. 1933.

²⁷³Fairchild, D. S. History of medicine in Iowa. p. 75. Clinton, Iowa. 1927. Reprint from the Journal of the Iowa State Medical Society.

were eight on the faculty, and the fees had been changed so that a student paid \$40 for the course of lectures instead of paying \$10 to each professor.²⁷⁴

Requirements for graduation included two full courses of lectures (sixteen weeks each), the last one to be at the University of Iowa (Keokuk), or evidence of four years reputable medical practice and one course of lectures, or the study of medicine for three years under a respectable medical practitioner, an original medical thesis in one's own handwriting and the passing of a satisfactory examination. These requirements equalled the requirements in other states.²⁷⁵ There were seventy-five students enrolled in the college in 1863.

In the latter part of the decade came the attempt to inaugurate the new state medical school at Iowa City. This was heartily apposed by the faculty at Keokuk who argued:

When medical schools are wholly under state patronage, and associated with the literary and law departments, as exist in Michigan, and which the trustees of the university propose to adopt in connection with our university, it cannot but result in disaster to the school and the best interests of the profession.²⁷⁶

The new school at Iowa City was organized in 1870 and shortly the Keokuk school ceased to be identified with the University. The school at Iowa City opened with a faculty of seven instructors, and had no department library and no hospital. This situation was soon remedied with large

²⁷⁴Ibid., p. 76.

²⁷⁵Ibid., p. 79-80.

²⁷⁶Ibid., p. 89.

appropriations.

The medical college at Iowa City came perilously close to being abolished late in 1870 as the result of trouble over dissection. At that time there was no law in Iowa to legalize possession of a corpse for dissection. Mr. Irish, a trustee of the University, was awakened late one night by some medical students and was told that a grave near Iowa City had been robbed and that the cadaver was in the University dissection room. The sheriff was getting out a search warrant. Had the corpse been found there by the sheriff it would probably have meant the end of the University Medical Department, but Mr. Irish managed to have it removed by students before the sheriff arrived. The next day he made arrangements with the undertaker to have a coffin ready outside the back door at twenty minutes before midnight and to take it in at twenty minutes after midnight. The students were all notified that the body must be returned and the officers promised that no one would be disturbed when returning it. The corpse was recovered and reburied. Mr. Irish had difficulty over the incident later, but he was finally able to get a law passed legalizing dissection for medical purposes.²⁷⁷

The Iowa State Medical Society was organized early in the state's history. In June, 1850 twenty-five physicians met at

²⁷⁷Irish, J. P. Some episodes in the history of the founding of the medical college of the State University of Iowa. Iowa Jour. of Hist. and Pol., 18:127-128. 1920.

Burlington to organize and start a code of ethics. Their main problems centered on educational requirements. Need for preliminary education as well as more strictly medical education was stressed. Another big problem was that of medical quacks and patent medicines. Almost every issue of the Clinton Herald showed glowing advertisements for patent medicines guaranteed to cure almost anything. Marvelous testimonials appeared. Local organizations of physicians were established, and before 1860 there were medical societies in Lee, Polk, Dubuque, Louisa, Wapello, Johnson, Clinton, Marshall, Scott, Mahaska, and Lynn counties besides a North Iowa Medical Society in Fayette, Allamakee, Clayton, Howard, and Winneshiek counties. By 1870 Muscatine, Boone, Dallas, Warren, and Pottawatomie counties had also organized. Some of these organizations broke up or disbanded temporarily during the war when numerous physicians from Iowa were in the service, but most of them had reorganized and were strong groups by 1870.

Treatment of the insane in Iowa in the decade of the Civil War was not such a problem as in states farther east. The vast majority of the people were fairly young healthy settlers who, if they had any demented relatives, had left them in other states.²⁷⁸ The first Insane Hospital was the one at Mt. Pleasant which was finished in 1861. Board and care of patients was fixed at \$2.50 per week. Public patients were supported by their counties and private patients by relatives

²⁷⁸Fairchild, op. cit., p. 270.

and friends who applied for their admission. Provisions were made for the probate judge to appoint guardians for an insane person. A board of seven trustees appointed a medical superintendent. One or more of the trustees was required to visit the asylum every month.²⁷⁹ The first two superintendents, Dr. R. J. Patterson and Dr. M. Raney, had had considerable experience in other insane hospitals and worked on the theory that kindness was essential in treating patients.²⁸⁰ The Insane Hospital at Independence was started in 1868 but was not opened until 1873.

Prior to 1861 the county government in Iowa was under the county judge system wherein one man transacted practically all the county business, both executive and judicial. He combined in one office the numerous duties of auditor, attorney, clerk, judge and supervisors.²⁸¹ His duties as judge were largely of a probate nature, but he could hold preliminary hearings in criminal cases also.

Where the population was small, it is obvious why this arrangement was made. It had possibilities of good for the county where the judge was an honest and capable man. Where he was of a less conscientious sort the county suffered. Particularly in the northwest section of the state some of the county judges plundered the treasuries of their counties,

²⁷⁹Briggs, J. E. History of social legislation in Iowa. p. 59-60. State Historical Society of Iowa. Iowa City, Iowa. 1915.

²⁸⁰Fairchild, op. cit., p. 272.

²⁸¹Crawford, N. A. The county judge system in Iowa. Iowa Jour. of Hist. and Pol, 8:481. 1910.

so that the people were paying off the bonds for many years. In an unorganized county a small group could gather and organize by having their own election, choosing a few officers of their own and setting up machinery to let contracts and start improvements. An example of this sort of transaction was the payment to a group for draining the swamps when all that was done was to haul a ditching machine across the sloughs making a small open ditch which had no outlet.²⁸²

In 1860 the law was passed which organized the boards of supervisors who were to be chosen at elections one from each township and an additional one wherever there was a town of 4,000 inhabitants or more. The county judge was retained for almost ten years more, but his duties were changed so that they were only judicial. The provisions for a board of supervisors brought a great improvement in county government. In 1863 there was some talk of returning to the old system where the county judge controlled all questions of county administration. The river towns were well-satisfied with the supervisor system, but the sparsely settled interior felt that there was too much expense from the increased number of men used in administration under the supervisors.²⁸³

Local ordinances set up by the town governments were cared for in different ways depending on the locality and size of the towns. Justices of the peace were the first

²⁸²Crosby, J. O. The county judge system. Annals of Iowa. Series 3, 10:47. 1911.

²⁸³Clinton Herald. Dec. 5, 1863.

judicial administrators. After them mayors were elected, and in the larger towns they were assisted by marshalls.²⁸⁴ In 1858 the police court was legalized. First class cities could elect a police judge to have power and jurisdiction over violations of city ordinances and to try cases of petit larceny and other minor offenses committed in the city or within a mile of it in cases where the law did not require indictment by a grand jury.²⁸⁵

In early periods the law was not always able to care for the needs of the people. Often they felt compelled to organize their own groups to keep their property safe. Thus, the Vigilance Committees appeared in many parts of the state. They were extra-legal but had their own strict rules and by-laws, pledging members to meet and join in the search for criminals whenever there was need for swift concerted action against criminals. The purpose of the committees was the shielding of the community from "the depredations of thieves and robbers, counterfeiters, incendiaries, and all other criminal acts and to afford mutual aid in reclaiming stolen property and arresting thieves, &c., &c."²⁸⁶ In 1865 a man was captured at Council Bluffs and identified as the one who had been committing many robberies. He was turned over to the Vigilance Committee, and a few mornings later his dead

²⁸⁴Aumann, F. R. Beginnings of city courts in Iowa.

Iowa Jour. of Hist. and Pol., 30:271. 1932.

²⁸⁵Ibid., 30:271-272. 1932.

²⁸⁶Thieves, beware. Palimpsest, 13:487. 1932.

body was found hanging from the limb of a tree. Such was typical of the treatment lawbreakers might expect at the hands of the Vigilance Committees.

The Vigilance Committees were usually made up of some of the outstanding citizens who were determined to have law and order in their communities. The committees often apprehended criminals and turned them over to the courts although they did not always do so. If the justice seemed to be miscarried too frequently in a certain court or if the criminal were caught red-handed, the committees formed their own court with their president as judge, chose a jury, and held a trial of a sort. This ended with the administration of the punishment which most often was hanging.²⁸⁷

Members of the Vigilance Committees were rarely prosecuted for their part in hangings. It was recognized that they were usually justified, and community sentiment favored the committees. Judges and officers were warned against interfering with them. If the family of the deceased sued for justice, they received only a small amount if they received anything at all.

Between 1846 and 1860 seventy people were hanged by Vigilance Committees which were most active during that period. They kept on during the sixties, but as Iowa ceased to be a frontier and more county officers were provided, the committees

²⁸⁷Grahame, O. F. The vigilance committees. Palimpsest, 6:367. 1925.

died out. There were only a few left by 1870.²⁸⁸

There were also cases of plain mob violence as distinguished from the work of the Vigilance Committees. Most lynchings between 1850 and 1860 were caused from crimes of an economic or social nature. Many of the lynchings of the sixties were from political difficulties. Sixty people were lynched, i.e., subjected to great mob violence, in the period between 1860 and 1870.

The report of the warden of the state penitentiary showed that about 116 persons were confined in the state penitentiary during 1860 to 1861.²⁸⁹ On June 1, 1870 there were 397.²⁹⁰ The warden was the sole manager and was under the supervision of the governor and elected for two years by a joint ballot of the General Assembly. The governor was to visit or to send someone in his place to visit the penitentiary every three months. Prisoners might have their sentences shortened for good conduct.²⁹¹ Treason and murder were punishable by death until 1872 when capital punishment was abolished.²⁹²

From 1854 to 1864 all the prisoners except those needed for cleaning, repairing, and cooking in the state penitentiary were under contract to work inside the prison walls for John H. Winterbotham and W. D. Healy. They were to manufacture wagons, buggies, harnesses, saddletrees, mechanical

²⁸⁸Ibid., p. 370.

²⁸⁹Clinton Herald. Feb. 22, 1862.

²⁹⁰U. S. Census. 9th, 1870. Compendium of the ninth census.
p.

²⁹¹Briggs, J. E. The history of social legislation in Iowa.
p. 59-60.

²⁹²Ibid., p. 77.

and agricultural implements. The State received thirty cents per day per convict for the first years' labor and thirty-five cents per day thereafter.²⁹³ A new contract in 1864 was made with Thomas Hald and Company and limited the work to cooperage and the manufacture of agricultural implements. The pay was set at forty and a third cents per ten-hour day of labor.

Prohibition was also a troublesome problem for Iowa citizens. By 1855 there were about 150 divisions of the Sons of Temperance in Iowa.²⁹⁴ Several liquor regulation laws were enacted before 1860, the most important being the law of 1855 which prohibited the sale of liquor. The vote was very close with 25,555 in favor of the law and 22,645 opposed to it.²⁹⁵ The law was laxly enforced and by 1856 much opposition had developed because no one was really forced to observe the law. In 1857 it was amended so that people were allowed to sell liquor for mechanical, medicinal, culinary and sacramental purposes provided they were not hotel keepers, saloon keepers, or engaged in the restaurant, grocery or confectionery business. It was necessary to furnish \$100 bond that the law would be observed and to have a certificate of good moral character signed by twelve citizens of the township. Apple cider and wine were not included as "intoxicating liquors." An attempt to

²⁹³Brookman, D. W. Prison labor in Iowa. Iowa Jour. of Hist. and Pol., 32:128. 1934.

²⁹⁴Parker, op. cit., p. 260. 1855.

²⁹⁵Clark, D. E. The history of liquor legislation in Iowa. Iowa Jour. of Hist. and Pol., 6:77. 1908.

allow local option was declared unconstitutional. By 1859 dissatisfaction with the liquor law was widespread.²⁹⁶

During the Civil War general efforts toward more complete prohibition or repeal were temporarily put aside although several minor laws were passed. According to a law of 1862 any person who illegally supplied liquor to another was responsible for the cost of care for the intoxicated person and for any damage he might do while he was intoxicated.²⁹⁷

Another act limited the place at which one might sell liquor as well as the person, and licenses were limited to one year. In 1864 the sale of liquor was prohibited at any place within 160 rods of any county or district agricultural fair.²⁹⁸

After the war the question of prohibition received more attention and the Democratic Party platforms of 1866 and 1867 both carried repeal planks advocating a well-regulated license law. Long petitions of both sides of the question were presented to the legislature in 1868 and numerous bills were introduced. Two laws finally passed making it more difficult to get the permit to sell liquor by requiring the applicant to state the purpose for which he wished to sell it. At a final hearing for which the applicant had to pay the expense, any citizen could appear against him, and the judge could decide whether or not to grant a license.²⁹⁹ The other law

²⁹⁶Ibid., 6:87. 1908.

²⁹⁷Ibid., 6:340. 1908.

²⁹⁸Ibid., 6:343. 1908.

²⁹⁹Ibid., 6:347. 1908.

amounted to local option on beer, native wine and cider, not prohibited under state law, and allowed their regulation by taxes.³⁰⁰

In 1869 the prohibition group for a time threatened to form a third party but in the end did little about it. Most of its members were staunch Republicans who could not quite bring themselves to desert their party even though it was non-committal on the subject of prohibition. In 1870 a law for local option by counties was passed. This law included ale, wine, malt, and beer but it was declared unconstitutional as had a similar law in the late fifties. So the battle over liquor continued with more or less attention and not even yet has it been definitely and permanently settled.

Newspapers developed quickly in Iowa, and by 1860 there were 130 published in the state. Of these, 9 were dailies, 2 were semi-weekly, 112 were weekly, 2 tri-weekly, and 5 monthly. By 1870 there were 233 newspapers, 22 of them dailies, and 196 weeklies.³⁰¹

Most early newspapers were established through the backing of some of the citizens of the town where it was hoped that a publisher would settle. When the Hamilton Freeman at Webster City was started, the editor was given a \$500 bonus and guaranteed 500 subscribers.³⁰² The trials of printing in the

³⁰⁰Ibid., 6:347. 1908.

³⁰¹U. S. Census. 9th, 1870. Compendium of the ninth census. p. 510-514.

³⁰²Aldrich, C. A. Journalism of northwest Iowa. Annals of Iowa. Series 3, 13:513. 1923.

sixties were numerous. Supplies were hard to get, the journey for equipment to Dubuque and back to Webster City taking twenty days with an ox team. The county printing business was one important source of revenue which helped to keep the papers going. Indeed, these papers at times had a very hard time. On Nov. 22, 1862 the Clinton Herald threatened to cease publication on January 1 if there weren't more advertisements because it was impossible to exist on the revenue received.

Club groups of magazines were sold much as they are today. Popular magazines offered were Harper's Magazine, Godey's Ladies' Book, Knickerbocker Magazine, Scientific American, The Prairie Farmer, and The Genessee Farmer.³⁰³

The Wisconsin and Iowa Farmer and Northwestern Cultivator, established at Racine, Wisconsin, was the forerunner of the Iowa Homestead, the farm periodical of Iowa in the sixties. Its editor, Mark Miller, moved to Dubuque in 1856 where he established his paper under the name of the Northwestern Farmer and Horticultural Journal. The paper was published weekly and devoted to the improvement of agriculture in Iowa. It emphasized particularly the development of agricultural schools, and late in the decade it worked for the Granger movement.³⁰⁴

The Iowa State Register was well established in the sixties. It was bought by Mills and Company in December, 1866

³⁰³Clinton Herald. Dec. 8, 1860.

³⁰⁴Smith, C. R. F. The Iowa Homestead. Palimpsest, 11:231. 1930.

for \$20,000 and sold again in 1870 for \$30,000. During these four years the paper was twice enlarged, many new features were added, and large expenditures for telegraphic facilities and correspondence were made. Among the distinctive features introduced by the paper was the "Tour of Iowa Counties", in which nearly every county was visited, its history, description, resources, and advantages fully written up and published. The benefit of this publication to the State cannot be too highly estimated. Thousands of copies of the papers containing these sketches were circulated in the East and in Europe and were the means of bringing many thousands of good citizens to Iowa. Northwestern Iowa was settled almost within a single year largely as a result of a series of sketches entitled "Free Homes in Iowa", published in the Iowa State Register.³⁰⁵

A number of characteristics of the early newspapers makes them interesting. The use of puns was prevalent, and they were included in news articles as well as in jokes. There were no comic strips or cartoons, and mistakes in type, spelling and punctuation were frequent. The same advertisement appeared regularly and offered little variety except in kinds of type. It was not at all unusual to use twelve or fifteen different sizes and kinds in one advertisement. Editorial comment was often extremely sarcastic and outspoken. Town feuds were openly supported.

Entertainments in the sixties were in many ways different

³⁰⁵Andreas, op. cit., p. 558.

from what one has to-day. Comparatively little of it was of the highly commercial type so common to-day. Parties of the sixties were gay affairs. The Clinton Herald contains this account of a bob party:

Yesterday Evening, the splendid sleighing tempted some forty or fifty of our ladies and gentlemen to a trial of its qualities. Two large omnibus sleighs, each drawn by four horses, jingling with bells and gaily decked with flags of the genuine Union, 'red, white and blue' were crowded to their fullest capacity and went around town through town, and out of town in a style to make even 'Old Sobersides' sigh over the memories of more youthful days and their pleasures past. The party made a trip of ten miles, returning to the Iowa Central House, where an Oyster Supper and a dance fitly concluded the gaieties of the evening.³⁰⁶

Housewarmings, boatrides on the rivers, maple sugar parties, singing schools, reading circles, and swimming and hunting parties were varieties of entertainment offered. Apparently programs akin to Bank Nite are not so new. In 1862 a group called "Harmonians" held a Gift Concert at the Metropolitan Hall in Clinton. Tickets were \$1 each and fifty gifts ranging from \$1.50 up to \$60 were to be given away.

A history of Pottawatamie says:

Horse races, shooting matches, and theatres, interspersed with festivals, balls, and dances, filled up the leisure time of the people of Council Bluffs, and the year closed with fine sleighing, which was duly improved by all who could command a horse and sleigh for that purpose.³⁰⁷

³⁰⁶Clinton Herald. Feb. 1, 1862.

³⁰⁷History of Pottawatamie County. Annals of Iowa. Series 1, 11:426. 1873.

Council Bluffs had a Turnverein Society for the promotion of athletics. In 1867 prizes awarded for skill were a thirty dollar silver butter dish and a twenty-five dollar silver cup.³⁰⁸ The Oddfellows Lodge was organized into sixty-one Iowa lodges by 1857, and forty-seven towns had Masonic Lodges.³⁰⁹

Two new crazes swept Council Bluffs in 1869. Velocipedes appeared in Council Bluffs in April and rapidly increased all summer. A rink for instruction in bicycle riding was established, and the young men of the community hurried to learn the art.

The other new craze was baseball. Baseball was greatly popularized in the army during the Civil War and spread rapidly after the soldiers returned to their homes. Clubs were organized to play neighboring towns and in 1867 the first organized annual tournament of the Iowa State Baseball Association was held.³¹⁰ The outstanding characteristic of these early games was the very high scores. The final score of the last round was 115 to 42 in the 1867 tournament. It was won by the Hawk-Eyes of Mt. Pleasant who were playing against the Westerns of Burlington.³¹¹ Games were played in nine innings with nine men to a side. Underhand pitching was the rule and no gloves, masks or protectors were used. Large prizes were awarded, and the games were well attended. Fans began to

³⁰⁸Ibid., 11:532. 1873.

³⁰⁹Iowa. Board of Immigration, op. cit., p. 267-268. 1857.

³¹⁰Mahan, B. E. Baseball in 1867. Palimpsest, 8:177. 1927.

³¹¹Ibid., 8:180. 1927.

follow the victories of their chosen teams "with as much interest as great events in the history of the times often command."³¹²

Fourth of July celebrations were great events in Iowa in the sixties, particularly in the years just after the Civil War. The 1865 celebration in Pottawattamie County was attended by three to four thousand people. It had a procession nearly a mile long including military groups, the hook and ladder company from Omaha, and a float bearing the "Goddess of Liberty." This particular type of float was a most common one in other towns. There were religious services and toasts. The mothers and widows of deceased soldiers, the soldiers, and the firemen occupied positions of honor. Lunch was free and the celebration closed with fireworks.³¹³ A Fourth of July celebration at Webster City in 1857 began with a Grand Ball the night before the Fourth, the ball lasting till the National Salute was fired at sunrise.³¹⁴ There were processions, songs, speeches, a big dinner at the hotel, and a toast program. People in every kind of masquerade costume danced a cotillion on the public square. Special attractions for July 4 apparently were an important part of community planning. The Clinton Herald for May 31, 1862 noted:

³¹²History of Pottawattamie County. Annals of Iowa. Series 1, 11:627. 1873.

³¹³Ibid., 11:426. 1873.

³¹⁴Aldrich, C. E. The Fourth at Webster City. Palimpsest, 16:226. 1935.

Capt. McLEISS, a brother of Rev. J. McLEISS, of this place, proposes to make a Balloon ascension from Lyons on the 4th of July, if the necessary amount of money can be raised.

He has heretofore been a professional Aeronaut and has made one hundred and forty-one successful ascensions.³¹⁵

The ascension was not successful, as noted in a later issue of the same newspaper.

One of the outstanding types of entertainment was the lecture course. Lectures had been popular from the time of the earliest settlements, and by 1859 they were very popular. They had their origin in a number of motives such as moral uplift, education, desire for a money-making project for a library, entertainment, and because lectures were the fashion elsewhere in supposedly intellectual circles.³¹⁶ When the Civil War came people were so busy with war activities that the lectures almost disappeared. As soon as the war was over, the lectures were started again and became more popular than ever. The best lecture period was from 1865 to 1870. An Iowa town which could not boast of a lecture series was poor indeed. Travel, prohibition, women's suffrage, science, and history were favorite topics.

Many famous people lectured in Iowa during the period. Among the better known were Horace Greeley, Wendell Phillips, Mark Twain, Louis Agassiz, P. T. Barnum, Josh Billings, Ralph

³¹⁵Clinton Herald. May 31, 1862.

³¹⁶Hoeltje, H. H. Notes on the history of lecturing in Iowa 1855-85. Iowa Jour. of Hist. and Pol., 25:68. 1927.

Waldo Emerson, and Clara Barton. Fees paid to lecturers were good. The Dubuque Young Men's Library Association paid from \$60 to \$200 per lecture. Anna Dickinson, John Gough, and Charles Sumner each received \$200 per lecture.³¹⁷ The lecture groups made money for a number of years. They sold season tickets or single admissions. From about 1865 an association called the Associated Western Literary Society helped greatly in the outlining of lecture tours for the speakers and in making arrangements with its member societies.³¹⁸

Agricultural Societies were formed all over Iowa for the purpose of improving agriculture. After their initial organization they were widely supported by the state government and by appropriations. The county societies were required to establish awards and publish their annual lists and to send in reports to the State.³¹⁹ The State matched funds collected as dues up to two hundred dollars per year. The State Agricultural Society was given two thousand dollars per year by the State. In 1864 State aid to Agricultural Societies in the counties having receipts of \$500 was discontinued.³²⁰

The societies organized the fairs and had meetings for discussions pertaining to agriculture. The annual State

³¹⁷Ibid., 25:115-116. 1927.

³¹⁸Ibid., 25:125-126. 1927.

³¹⁹Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 6th session of the general assembly of the State of Iowa. p. 299-300. 1857.

³²⁰Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 10th session of the general assembly of the State of Iowa. p. 140. 1864.

Agricultural Society Reports are an excellent source of material for the sixties, indicating the nature of the Society's efforts and containing full discussions on the state of agriculture in general, specific farm problems and how to meet them, essays on the various branches of production, and reports from county agricultural societies, fairs, and horticultural societies.

Horticulture received a great deal of attention, and in May, 1866 the State Horticultural Society was formed after Mark Miller of the Iowa Homestead issued an invitation to interested persons to meet with him.³²¹ Exhibits were held the same fall in connection with the State Agricultural Society. Evergreens and fruit raising were the two topics most widely discussed in the report for 1867. Grape culture also received a lot of attention. Horticultural Society exhibits at the fairs showed numerous varieties. The list of state members, both men and women, included 140 people from all over the State in 1870. Their reports show a great deal of thought on the part of many of the members, and their influence in taking ideas back to the home communities was undoubtedly important.

Horticultural Societies did not always confine themselves closely to the subject of horticulture. In Cedar Falls the Cedar Valley Horticultural and Literary Society was formed in 1859 with the dual purpose of improving gardens and house lots

³²¹Iowa State Horticultural Society. Report for 1867.
p. 114. 1868.

and increasing interest in books and literature.³²² Contests and exhibitions of vegetables and flowers were frequent by the fall of 1859. The group had a lyceum, a lecture course, and plans for a library. Experiments in production were reviewed and discussed. As the war progressed topics for discussion tended to be more political. The library developed to over 300 volumes the first year of its existence. It accepted contributions of suitable books in lieu of annual dues, but reserved the right to reject volumes. In 1861 the association bought 105 books and in 1862 it bought 77. In the latter part of the war interest died down, and the society was almost crowded out by organizations such as the Soldiers' Relief Society and by the activities of the eight churches.³²³ The organization disbanded in 1865, and the Library Association was formed.³²⁴

The agricultural fairs of the sixties were also important. They were usually sponsored by the local Agricultural Society and were really far more successful in teaching the farmers about new methods than were the writings of the Society. Iowa started the State Fair in 1854 and had one every year thereafter even through the Civil War when many states temporarily abandoned their fairs.³²⁵ Main events were the cattle shows and the exhibitions and judging of stock. Winners were often required to make speeches explaining special methods they had used. Horse races as they are to-day were not allowed although

³²²Wright, L. M. The mind and the soil. Palimpsest, 17:373.1936.

³²³Ibid., 17:392. 1936.

³²⁴Ibid., 17:393. 1936.

³²⁵Ross, E. D. The evolution of the agricultural fair in the northwest. Iowa Jour. of Hist. and Pol., 24:450. 1926.

there were contests where horses ran one at a time and were judged for speed and driving qualities.³²⁶ Women's riding contests were also held and were defended against criticism by the argument that women must learn to ride well because of the danger of accidents when driving on crowded streets.³²⁷

The State Fair was never held more than three times in succession in any one city. People in various parts of the state were thus privileged to get their turns. Iowa City, Dubuque, Burlington, Clinton, and Keokuk were the favored cities which presented the Fair in the sixties. Fairs were planned to attract people from a distance. The Dubuque Times said of the Dubuque Fair in 1862:

Contracts have been perfected with the Dubuque and Sioux City, The Dubuque, Marion and Western, and the Illinois Central Railroad Companies, all centering at Dubuque, to transport over their lines visitors to and from the Fair at half their usual rates; and all stock, implements, and articles for exhibition free of charge. Favorable arrangements will also be made with the boats upon the river.³²⁸

Coming as they did before widespread agricultural education, the fairs were of great importance to the development of Iowa. It is said that "they were rudimentary colleges, experiment stations, and extension demonstrators. Rather incidentally, they also anticipated some of the recreational features that have been emphasized by the Grange and the Farm Bureau."³²⁹ These exhibitions according to the same authority,

³²⁶Ibid., 24:456. 1926.

³²⁷Ibid., 24:457. 1926.

³²⁸Clinton Herald. June 28, 1862.

³²⁹Ross, op. cit., 24:288-289. 1926.

"took the lead as agencies in the improvement of livestock, in the dissemination of information regarding new varieties of plants and better methods of cultivation, in the stimulation of the invention and the extension of the use of new machinery, and in the advertisement of the products and the productive possibilities of the State."³³⁰

In the advanced communities the theater was another outstanding place for entertainment. One famous theater was the Julien at Dubuque. The building cost \$17,000, and the first and second stories were used as offices while the theater occupied the third floor. The auditorium was twenty-five by seventy-five feet in size, and the ceiling was twenty feet high. Ventilation was very poor, and there was practically no decoration except the fancy red plush curtain. There were some box seats raised above floor level, and in the back was a gallery. About four hundred people could be accommodated.³³¹ Lighting was furnished by flickering gas lamps, and in the winter the room was often very cold. Melodrama, historical plays, Shakespeare, and risque comedies were most popular.³³²

Other popular entertainments appearing at the Julien were lectures, panoramas, minstrel shows, magicians, acrobats, and local talent shows. In the summer season rival attractions such as showboats and traveling circuses took attendance from the theaters along the river.³³³

³³⁰Ibid., 24:298. 1926.

³³¹Kintzle, C. A. The Julien Theater. Palimpsest, 15:139-140. 1934.

³³²Ibid., 15:143-146.

³³³Ibid., 15:157.

In the sixties Iowa was active in helping to provide for the poor and unfortunate. The transition from the county judge to the supervisor system changed the administration of local relief problems. Cities of the first class were authorized to provide houses of refuge for confinement of delinquent children under sixteen years. Workhouses were authorized for people over sixteen.³³⁴ In cities of the first or second class the county supervisors could appoint an overseer of the poor. With the permission of the board of supervisors they might allow a person up to two dollars per week exclusive of medical service.³³⁵ The relief could be in the form of food, rent, clothing, fuel, light or money.

To be eligible for relief one had to have legal residence in the political unit where he was to obtain the aid. The father, mother, grandparents, children or grandsons (but not granddaughters) of a poor person were held liable for a poor person's support up to fifteen dollars per month. A "poor" person was one who was unable to earn a livelihood in consequence of bodily infirmity, idiocy, lunacy or other unavoidable cause.³³⁶ County courts had the right to establish poorhouses if they felt them necessary or to furnish outdoor relief, and admission to a poorhouse was secured on order of

³³⁴Briggs, J. E. History of social legislation in Iowa. p. 58. 1915.

³³⁵Ibid., p. 69.

³³⁶Von Tungeln, M. D. Social legislation in Iowa. Unpublished M. S. thesis. p. 58. Iowa State College Library, Ames, Iowa. 1929.

the board of trustees or county commissioners.³³⁷

The Iowa Soldiers' Orphans' home was established in 1866. For a time there were three branches located at Davenport, Cedar Falls, and Glenwood, all of which were later moved to Davenport. The soldiers' orphans at the home were allowed eight and a half dollars per month for their support. The assessors were to take a census of all orphan children of deceased soldiers and the counties were to levy up to a half mill tax to support orphans not in the Orphans' Home.³³⁸

The State Industrial School had its start in the Iowa Reform School established in 1868. Its duties were to arrange for instruction and to care for the boys and girls in its charge. The Girls' Department was later moved to Mitchellville.

A School for the Blind was established in 1853 and has remained in operation since that time. The annual appropriation for the school expenses was \$5000, and this allowed the principal \$700 per year and the matron and teachers \$500 each.³³⁹ Allowance for support of the children was set at \$40 per pupil per quarter. Clothing was furnished by the State if there were no one to supply it for the child.

An institution for the deaf and dumb was provided in 1855. Appropriations for it in 1860 were \$7,000, in 1861 they were

³³⁷Ibid., p. 24.

³³⁸Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 11th session of the general assembly of the State of Iowa. p. 86. 1866.

³³⁹Ibid., p. 36. 1866.

\$7,500, and in 1863 they were only \$3,000.³⁴⁰ By 1868 they were annually \$8,000. Special appropriations were made for the buildings. Not over \$50,000 out of the total building appropriation of \$125,000 was to be drawn for the buildings in 1868.³⁴¹

By 1870 Iowa had ceased to be a pioneer state. It was rough and newly developed in the western part, but the railroads made the pioneer era there a very short one. The period from 1860 to 1870 had brought many changes. The Civil War had speeded developments in agriculture tremendously. Free education for everyone was accepted by the people and provided by general taxation. Numerous other socializing influences had appeared in the entertainments of the day. County and State care for the poor and unfortunate showed that the governmental units were taking more responsibility for the individual. Law and order was administered by the government instead of the Vigilance Committees. The economic and social development of Iowa from 1860 to 1870 had made strides beyond all expectations.

³⁴⁰Ibid., 9th session. p. 175. 1862.

³⁴¹Ibid., 12th session. p. 149. 1868.

LITERATURE CITED

- Aldrich, C. A. The Fourth at Webster City. Palimpsest, 16:226. 1935.
- Aldrich, C. A. Journalism of northwest Iowa. Annals of Iowa, Series 3, 13:513. 1923.
- Allen, W. G. History of Story county, Iowa. Iowa Printing Co., Des Moines, Iowa. 1887.
- Anderson, W. A. The Granger movement in the middle west with special reference to Iowa. Iowa Journal of History and Politics, 22:23. 1924.
- Andreas, A. T. Illustrated historical atlas of the State of Iowa. Andreas Atlas Co., Chicago. 1875.
- Aumann, F. R. Beginnings of city courts in Iowa. Iowa Journal of History and Politics, 30:271. 1932.
- Barrows, W. History of Scott county, Iowa. Annals of Iowa, Series 1, 2:170.
- Brainard, J. M. Opening an Iowa county. Annals of Iowa, Series 3, 2:265-269. 1896.
- Branch, E. D. The C. B. and St. Joe. Palimpsest, 10:208. 1929.
- Branch, E. D. Council Bluffs in 1865. Palimpsest, 10:202-204. 1929.
- Branch, E. D. The Northwestern. Palimpsest, 10:216. 1929.
- Bridge over the Mississippi at Fulton. The Merchants' Magazine and Commercial Review, 52:145. 1865.
- Briggs, J. E. The grasshopper plagues in Iowa. Iowa Journal of History and Politics, 13:356. 1915.
- Briggs, J. E. The history of social legislation in Iowa. The State Historical Society of Iowa, Iowa City, Iowa. 1915.

- Brindley, J. E. The history of taxation in Iowa. The State Historical Society of Iowa, Iowa City, Iowa. Vol. I, II. 1911.
- Brookman, D. W. Prison labor in Iowa. Iowa Journal of History and Politics, 32:128. 1934.
- Buffum, H. S. Federal aid to education in Iowa. Iowa Journal of History and Politics, 4:562-567 and 5:8-12. 1906 and 1907.
- Clark, D. E. The history of liquor legislation in Iowa. Iowa Journal of History and Politics, 6:77-87, 340-347. 1908.
- Clinton Herald, Clinton, Iowa. 1860-1865.
- Coffin, L. S. Breaking prairie. Annals of Iowa, Series 3, 5:450. 1902.
- Covil, W. C. [Swamp lands in Wright county]. Annals of Iowa, Series 3, 7:360. 1906. Reprint from Webster City Freeman-Tribune. July 13, 1904.
- Cowles, F. C. Early Algona the story of our pioneers 1854-74. The Register and Tribune Co., Des Moines, Iowa. 1929.
- Crawford, N. A. The county judge system in Iowa. Iowa Journal of History and Politics, 8:481. 1910.
- Crosby, J. O. The county judge system. Annals of Iowa. Series 3, 10:47. 1911.
- Duffield, G. C. Frontier mills. Annals of Iowa, Series 3, 6:425-436. 1904.
- Emhoff, F. L. A pioneer doctor of Marshall county. Iowa Journal of History and Politics, 31:581. 1933.
- Ericson, C. J. Memories of a Swedish immigrant of 1852. Annals of Iowa, Series 3, 8:6-12. 1907.
- Fairchild, D. S. History of medicine in Iowa. Clinton, Iowa. 1927.
- Grahame, O. F. The vigilance committees. Palimpsest, 6:367. 1925.

- Gallaher, R. A. Money in pioneer Iowa. Iowa Journal of History and Politics, 32:30-40. 1934.
- Glass, R. J. Early transportation and the plank road. Annals of Iowa, Series 3, 21:525. 1939.
- Gue, B. F. History of Iowa. Vol. 3. Century History Co., New York. 1903.
- Hansen, M. L. Official encouragement of immigration to Iowa. Iowa Journal of History and Politics, 19:170. 1921.
- History of Pottawattamie county. Annals of Iowa, Series 1, 11:426-427, 627. 1873.
- Hoeltje, H. H. Notes on the history of lecturing in Iowa 1855-85. Iowa Journal of History and Politics, 25:68. 1927.
- Hopkins, J. A., Jr. Production of beef cattle in Iowa. Iowa Journal of History and Politics, 26:89-90. 1928.
- Hussey, T. History of steamboating on the Des Moines river from 1837-1862. Annals of Iowa, Series 3, 4:376. 1900.
- Hussey, T. How the Des Moines valley railroad came to Des Moines. Annals of Iowa, Series 3, 8:126. 1907.
- Hussey, T. The story of the Bonaparteedam. Annals of Iowa, Series 3, 7:610. 1907.
- Iowa. Board of immigration. Iowa: the home for immigrants, being a treatise on the resources, and giving useful information with regard to the state, for the benefit of immigrants and others. Mills and Co., Des Moines, Iowa. 1870.
- Iowa. Laws, statutes, etc. Acts and joint resolutions passed at the 8th-13th session of the general assembly of the State of Iowa. F. W. Palmer, Des Moines, Iowa. 1860-1870.
- Iowa. Laws, statutes, etc. Code of civil and criminal practice as passed by the general assembly of the State of Iowa. Mills Brothers, Des Moines, Iowa. Code of 1860. Code of 1873.

- Iowa. Secretary of state. Census of Iowa for 1880.
Printed by order of the Eighteenth General Assembly
by F. N. Mills and George E. Roberts, Des Moines,
Iowa. 1883.
- Iowa Geological Survey. Reports. Vol. 1, 2. 1870, 1894.
- Iowa State Agricultural Society. Annual Reports. Vol.
7-17. 1860-1870.
- Iowa State Horticultural Society. Report for 1867. 1868.
- Iowa State Teachers' Association. Executive Committee
Report. The Instructor. 1859.
- Iowa railroads. The Merchants' magazine and Commercial
Review, 58:400. 1868.
- Irish, J. P. Some episodes in the history of the founding
of the medical college of the State University of
Iowa. Iowa Journal of History and Politics,
18:127-128. 1920.
- Kintzle, C. A. The Julien theater. Palimpsest, 15 :139-
157. 1934.
- Kirkman, J. C. A history of land grants used for education
in Iowa. Unpublished M. S. thesis. Library, Iowa
State College, Ames, Iowa. 1928.
- Klingaman, E. E. The heavy breaking plow. Annals of Iowa,
Series 3, 21:143. 1937.
- Lathrop, H. W. Some Iowa bank history. The Iowa Historical
Record, 13:6. 1899.
- Leamer, A. B. The English Lutheran Church in Iowa. Annals
of Iowa, Series, 3, 11:588. 1915.
- Levering, N. The Spirit Lake stockade. The Iowa Historical
Record 3:568. 1887.
- Magoun, G. F. Sermon . Annals of Iowa, Series 1, 3:558.
1865.
- Mahan, B. E. Baseball in 1867. Palimpsest, 8:177-80. 1927.
[Muscatine school vote]. The Instructor. 1859.

- Neal, H. G. The fence question. Iowa State Agricultural Society Report, 11:278. 1865.
- Ogburn, C. The pioneer religious revival. Annals of Iowa, Series 3, 15:485. 1926.
- Osburn, W. H. Letter. The Prairie Farmer, New Series, 10:387-388. 1862.
- Parker, N. H. Iowa as it is in 1855; a gazetteer for citizens, and a handbook for emigrants. Keen and Lee, Chicago. 1855.
- Parrish, J. C. The first Mississippi bridge. Palimpsest, 3:133-140. 1920.
- Petersen, W. J. The lead traffic on the upper Mississippi 1823-1848. Mississippi Valley Historical Review, 17:97. 1930.
- Petersen, W. J. The pioneer cabin. Iowa Journal of History and Politics, 36:402-407. 1938.
- Petersen, W. J. Steamboating on the upper Mississippi, the waterway to Iowa. State Historical Society of Iowa. Iowa City, Iowa. 1937.
- Pollock, I. L. The war loan of 1861. Iowa Journal of History and Politics, 15:469-501. 1917.
- Prairie fires. Annals of Iowa, Series 3, 7:360. 1906.
- Price, H. The state bank of Iowa. Annals of Iowa, Series 3, 1:267. 1894.
- Prospects of the breadstuffs' trade. The Merchants' Magazine and Commercial Review, 58:364. 1868.
- Quigley, I. B. Horse railways. Palimpsest, 12:36. 1931.
- Railroad earnings. The Merchants' Magazine and Commercial Review, 58:457. 1868.
- [Railroad freight rates]. The Iowa Homestead, New series, 1:29. 1862.
- Riegel, R. E. The Omaha pool. Iowa Journal of History and Politics, 22:570. 1924.
- Ross, E. D. The evolution of the agricultural fair in the northwest. Iowa Journal of History and Politics, 24:288-298, 450-457. 1926.

Sanborn, J. B. Congressional grants of land in aid of rail-
ways. Bulletin of University of Wisconsin, No. 30.
Madison, Wisc. 1899.

The school law. The Iowa Instructor. 1859.

Seaman, H. W., Clinton, Iowa. Personal communication to
L. B. Schmidt. Nov. 16, 1924.

Sellen, E. Essay on corn culture. Iowa State Agricultural
Society Report, 7:304. 1861.

Smith, C. R. F. An historical study of the trends in
national advertising in representative Iowa weekly
newspapers. Unpublished M. S. thesis. Library,
Iowa State College, Ames, Iowa. 1930.

Smith, C. R. F. The Iowa Homestead. Palimpsest, 11:231.
1930.

Stahlman, M. G. History of the Iowa coal industry. Un-
published M. S. thesis. Library, Iowa State College,
Ames, Iowa. 1938.

State Bank of Iowa. The Merchants' Magazine and Commercial
Review, 47:63. 1862.

Superintendent of Public Instruction. Biennial report to
the general assembly. 1865.

Thieves, beware. Palimpsest, 13:487. 1932.

U. S. Bureau of Foreign and Domestic Commerce. Statistical
abstract for the U. S. 1936.

U. S. Bureau of Statistics. Report on the internal commerce
of the U. S. for 1876, 1879, 1877, 1880.

U. S. Census. 8th, 1860. Volume on manufactures.

U. S. Census. 9th, 1870. Census reports Volume on wealth
and industry.

U. S. Census. 9th, 1870. Compendium of the ninth census. 1872.

U. S. General Land Office. Report of the Commissioners.
Report for 1861.
Report for 1866.
Report for 1870.

Von Tungeln, M. D. Social legislation in Iowa. Unpublished
M. S. thesis. Library, Iowa State College, Ames, Iowa.
1929.

ACKNOWLEDGMENTS

The author wishes especially to thank Dr. L. B. Schmidt of Iowa State College for the assistance he gave in the preparation and development of this thesis.

She also wishes to thank the library staff of the Clinton Public Library for their aid in making accessible old files of the Clinton Herald.