

EARLY FLOUR MILLING HISTORY OF WICHITA

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by

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CHAPTER I  
INTRODUCTION

Kansas has long been referred to as the bread-basket of the United States. This description of Kansas resulted from the fact that the state has been and is the leading producer of hard, winter wheat, the type of wheat used in the bread-making process. Simultaneous with the production of wheat as a major crop was the development of the first flour mills in the state. Both of these industries have been modified drastically during the past century as labor-saving machinery has been invented and improved. The purpose of this thesis is to describe the growth and development of one aspect of these industries, the flour mills of Wichita.

In order to visualize Wichita at the time of the initial appearance of flour mills, it is well to sketch the growth of the town. The city of Wichita was named after the Wichita Indians; who resided in the locale in the middle 1860's. Probably the first settler who built within the limits of present-day Wichita was a half-Indian and a half-white trader and scout named Jesse Chisholm. Numerous frontiersmen and hunters frequented his trading post until the late 1860's when pioneer settlers began to settle in the valley. One of the early settlers was Doc Lowellen who



purchased the trading post from Chisholm in 1867.<sup>1</sup> Another trader was E. H. Durfee who established a trading post which became known as Durfee's Ranch. In the same year D. S. Munger moved to the site and was given credit for building the first house in Wichita at what is now 901 North Waco Avenue.<sup>2</sup>

By 1870 Munger, Durfee, and a few others began talking about staking out a townsite, and finally Munger was able to obtain the land. The land was subsequently surveyed and plotted into town lots. Soon after, a charter company was formed in Topeka for the purpose of incorporating the settlement as a village. By 1871 Wichita was a third class city and by 1872 was made a city of the second class. Furthermore, the population of Wichita increased proportionately. For example, the population was 50 in 1870, then 300 in 1871, and by 1872 it had increased to 2,000. In fact, throughout Wichita's early history the population continued to increase at a very rapid rate. By 1880 it had increased to 4,911, then by 1890 to 23,853 and by 1900 to 24,671.<sup>3</sup>

In the spring of 1872 the city of Wichita was a growing community. With its excellent location on the Chishold Trail

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<sup>1</sup>Dick Long, "A Brief History of Wichita," Wichita People (Wichita, 1946-1947), p. 6.

<sup>2</sup>O. H. Bentley, ed., History of Wichita and Sedgwick County (Chicago, 1910), Vol. I, pp. 6, 443-445.

<sup>3</sup>Long, "A Brief History of Wichita," Wichita People, p. 122.

and Santa Fe railroad, it became the stop-over point for travelers, Also, in 1872 Wichita became the principal headquarters in Kansas for the Texas cattle business. Thus, due primarily to the rail connections, two million dollars exchanged hands in the cattle traffic at Wichita that year.<sup>4</sup> Dance halls and gambling places to get the cowhand's money sprang up at once, and "Large sign boards were posted up at the four conspicuous entrances into town, bearing the strange device, 'Everything goes in Wichita. Leave your revolvers at police headquarters, and get a check. Carrying concealed weapons strictly forbidden'."<sup>5</sup> Furthermore, Otto Weiss, an early Wichita miller, stated in an interview:

When they (cowboys) reached Wichita they were paid off and they immediately indulged in a rip-roaring spree. Mostly, they would spend their entire wages for a year on one night of gambling and drinking. But Wichita had very few killings. Nearly every other frontier town around there, Newton, Caldwell, and Emporia, had more killings in one night than Wichita altogether.<sup>6</sup>

The years 1873 and 1874 saw the decline of the cattle market in Wichita, but by the 1880's Wichita again began to boom. The prosperous years continued throughout much of the 1880's although by 1887 it had reached a peak:

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<sup>4</sup>Dick Long, Cradle Days of a Midwestern City (Wichita 1945), p. 6.

<sup>5</sup>A. T. Andreas, History of Kansas (Chicago, 1883), p. 1390.

<sup>6</sup>Wichita Beacon, November 1, 1925. The writer questions the validity of the quotation and whether Emporia should be classified with Wichita, Newton, and Caldwell.

During this boom, which was a wild unreasoning craze, men lost their reason, went into the wildest speculations, projected new lines of railway, built new buildings mostly on mortgages and borrowed capital, turned stores and business houses into real estate offices, and acted the fool generally.<sup>7</sup>

Furthermore, all sorts of new improvements were demanded and built; new school houses for the children, bridges and a waterworks for the city. The boom continued to grow, wave on top of wave until the boom burst, and the lean 1890's emerged. Although even while beseiged by less than prosperous years, Wichita was here to stay. The railroad attracted new industries while old ones recovered and re-emerged stronger than before the depression. One of the refurbished industries was the milling industry, an industry destined to make Wichita the fourth largest flour producing city in the nation.

In this thesis the writer proposes: (1) to examine the early flour mills of Wichita, their structure and achievement; (2) to present the growth of the milling industry and changes that occurred during its growth; and (3) to attempt to describe the impact the flour milling industry had on the growth of Wichita. To accomplish this task, chapter two is concerned with the factors influencing the development of the flour milling industry in Kansas. Included within the chapter are: (1) a brief history of flour milling in Kansas: (2) a description of the milling processes used in flour mills; (3) a discussion of hard winter wheat and its effect on the

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<sup>7</sup>Bentley, ed., History of Wichita and Sedgwick County, Vol. I, pp. 443-444.

milling industry; and (4) a discussion of the decline of the small flour mill. Chapter three concentrates on the grain trade and flour milling industry up to approximately 1900. Chapter four emphasizes the establishment of flour mills that propelled Wichita to national prominence as a flour milling center. This chapter will conclude in approximately 1925, after the major milling industries have been established and achieved major significance. The final chapter discusses the effect of the flour milling industry on Wichita's growth as a major city.

The limitations and difficulties encountered in writing about the Wichita flour mills can readily be understood. It has been over one hundred years since the first mill was established in Wichita and within that span of time the mills have either ceased to exist, or have changed owners. At any rate, the records have been destroyed or lost, and the individuals originally connected with the mills are deceased. Very few articles of any substance have been written concerning the mills, forcing this writer to rely primarily upon various newspaper accounts of them. The danger of this has been obvious, since many of the newspaper accounts were written without proper research, and this has led to inconsistencies and duplication of erroneous facts. Nevertheless, this writer has made an earnest effort to check the validity of information by following the progress of an event through reading continuous issues of the newspaper, and by consulting numerous sources in hopes of establishing historical fact.

The sources used in this investigation were many and varied. Primary sources included newspaper accounts, state and federal publications, including State Board of Labor, Board of Agriculture, and a bulletin from the Federal Trade Commission.

Secondary sources include: The Wichita Magazine; Kansas State Historical Society publications; W. H. Seiler, "Industry and Mining in Kansas" in John D. Bright, ed., The First Century, Vol. II (1956); A. E. Janzen, The Wichita Grain Market (1928); Francis W. Schruben, Kansas in Turmoil (1969); C. B. Kuhlmann, Development of the Flour Milling Industry in the United States (1929); Wichita An Illustrated Review Progress and Importance (1886); Dick Long, Cradle Days of a Midwestern City (1945); A. T. Andreas, History of the State of Kansas (1883); Carl Cabe, Flour Milling (1958); Dick Long, Wichita People (1946-1947); and O. H. Bentley, ed., History of Sedgwick County (1910).

## CHAPTER II

### GROWTH OF THE FLOUR MILLING INDUSTRY IN KANSAS

Among the first needs of pioneer settlers arriving in an underdeveloped territory was to provide for their survival. This included the erecting of shelter, the sowing of grains, and ultimately the establishing of means for refining the raw products. Thus, the grain and saw mills became one of the first manufacturing enterprises built within a locale. Efficiency-minded early pioneers required mills that would not only grind grain, but also would saw timber into usable lumber. To be sure, the early pioneer mills had a dual capacity that would last until the streams of eastern Kansas were stripped of available timber.<sup>1</sup> Little record was kept of the early grist mills, since they served a purpose and then were dismantled.

The first mills in Kansas were built by the government for the use of the Indians. This was done to encourage the migration of the Indians from the eastern states to the midwest. Other mills were built by church bodies at the

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<sup>1</sup>W. H. Seiler, "Industry and Mining in Kansas," in John D. Bright, ed., The First Century, II (1956); A. E. Janzen, The Wichita Grain Market (1928).

Indian missions established at different points.<sup>2</sup> Furthermore, the Emigrant Aid Company concentrated its efforts in establishing grist and saw mills in Kansas. In attempting to populate Kansas they established nine mills, located at Lawrence, Topeka, Manhattan, Osawatomie, Burlington, Wabaunsee, Atchison, Vatcheller (Milford) and Claflin (Mapleton).<sup>3</sup>

One of the first water-powered mills on record was built in 1852 by Matthias Splitlog, an Indian. Although this was a rather crude affair, a more advanced mill was built in 1858 by John McAlpine and James Washington. These two men erected the first steam flour and saw mill, located in Wyandotte County.<sup>4</sup> Primarily, the early mills were water-powered, located along the Neosho, Kaw, Missouri, and Smoky

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<sup>2</sup>Carl Cabe, Flour Milling (Kansas Industrial Series No. 2, School of Business Bureau of Business Research, Lawrence, Kansas, University of Kansas Press, June, 1958), p. 8.

<sup>3</sup>The Kansas City Times, July 29, 1937.

<sup>4</sup>Leslie A. Fitz, "Development of Flour Milling Industry in Kansas," Collections of the Kansas State Historical Society, 1911-1912, XII (Topeka, 1912), p. 54. Note concerning the romance of milling in Kansas, Wichita Eagle, June 14, 1943: "Away back a hundred years or so ago Isaac Cody, born in Canada, came to the United States and in the course of time (1853) located on a claim in northeastern Kansas. He loved to make a speech and he could make a good one. He was a Free State man and once at a meeting his eloquence so got on the nerves of a Pro-slavery man in the audience that the auditor mounted the stage and cut up Cody with a bowie knife. While farming his claim on Salt Creek, Isaac Cody received a call to come to the Falls on Grasshopper River (then Grasshopper Falls, now Valley Falls) to build a saw-mill. He was engaged in that task when his wife back on the farm heard that his political opponents had plotted to wipe him out. It

Hill rivers, or any creek across which dams could be built and waterwheels constructed to utilize the fall.

Furthermore, the mills were of three types representing progressive stages of development in the industry: (1) the custom; (2) exchange; and (3) the merchant mills. The custom mill extracted a toll of from one-eighth to one-twelfth of the grain. If this were not done a fee of from twenty-five cents to thirty-five cents per bushel was charged. On the other hand, the exchange mill would trade with the farmer thirty-two to thirty-five pounds of patent flour for each bushel of wheat received. In this case the miller would retain the by-products and lower grades to dispose of as he wished. The merchant mill was different from the two previous types in that the grain the farmer brought to the mill was bought and then the flour and by-products were sold in the quantities desired by the customer. This type of mill was more representative of modern mills than either of the other two types.<sup>5</sup>

During the early years, progress in the milling business was impeded in several ways. For example, Kansas

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was necessary for her to warn him posthaste. She imparted the message to her third son little Billy, and he set out on one of the most exciting rides in Kansas history - thirty-five miles. The plotters took after the boy, but he beat them to Grasshopper Falls and delivered his message. It was little Billy's first demonstration of skill in a saddle.... And generations paid money in after years just to see little Billy as Buffalo Bill. It was not known whether or not the saw mill also became a flour mill, but it was the practice at that time."



had only 40 miles of railway in 1865, and it was not until 1869 that there were as much as 600 miles of railroad. With the limited amount of railroad track, the difficulty in transporting grain to the mills and finished product to markets became obvious. By 1872 railway construction had increased rapidly and about 2,063 miles of road were in operation.<sup>6</sup>

Another factor that impeded the growth of the flour milling industry was the lack of population. By 1860 only 107,206 people resided in Kansas, but by 1870 the population had tripled, reaching 364,399.<sup>7</sup> Naturally, as population increased, the milling industry also prospered due to an increase in demand for its products. In addition, a third factor would be the availability of vast quantities of wheat. For example, in 1860 there were only 168,527 bushels of wheat produced, in 1870 there were 2,343,000 bushels, and in 1875 there were 13,209,403 bushels of wheat produced in Kansas.<sup>8</sup> Thus, to an industry that relied upon local supplies of raw products, the increase in wheat production contributed greatly to the growth of the flour milling industry in Kansas.

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<sup>6</sup>Cabe, Flour Milling, p. 12.

<sup>7</sup>Nyle H. Miller, Edgar Landsdorf, and Robert W. Richmond, A Pictorial History of Kansas (Topeka: The Kansas Centennial Commission and the State Historical Society, 1961), p. 56.

<sup>8</sup>"Wheat in Kansas," Report of the Kansas State Board of Agriculture for the Quarter Ending September 1920 (Pub. Quarterly by the K.S.B. of Agriculture, Topeka, Kansas), XXLX, No. 155, p. 7.

The increase in the number of mills paralleled the growth of the above mentioned factors. Since census reports represented the only available source of information concerning the number of mills, the first census of Kansas territory in 1860 showed only thirty-six flour and grist mills. The average capital invested was given as a little over \$3,000, and the value of the products was almost \$300,000. By 1870 the number of flour and grist mills had practically tripled, and the industry was assuming stable proportions. There were 158 flour and grist mills reported in the state of Kansas in 1875, with an average capital investment of \$11,000 each, or almost four times that of fourteen years previous.<sup>9</sup>

With the improvement of transportation, increased migration of people, and production of wheat, flour milling within the state of Kansas became the leading industry. This position was challenged by the meat packing industry in the late 1880's but was maintained throughout much of the early 1900's.

At this period of time the flour mills were small, few of them being above 150 barrels capacity, and they averaged much less. Exportation of flour was unheard of, and only the amount of wheat was made into flour that the population of the state demanded. In fact, it was difficult to build flour mills of any consequence on account of the uncertainty of the wheat crop.

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<sup>9</sup>Richard L. Douglas, "A History of Manufactures in the Kansas District," Collections of the Kansas State Historical Society, 1909-1910, XI, (Topeka, 1910), p. 149.

Characteristically, the pioneers grew varieties of wheat with which they were familiar, and these included both soft spring and soft winter wheat. Until the 1880's production of soft wheat had steadily increased, giving the millers an adequate supply of wheat to mill. With the advent of the middle 1880's adverse weather clearly revealed the susceptibility of soft varieties of wheat. Where the winter weather was severe, and where the drought interfered with the best growth of the crop, the yield of soft varieties declined markedly. Since much of Kansas suffered from adverse weather occasionally, a new strain of wheat was needed.<sup>10</sup>

The introduction of a hard winter wheat, Turkey Red, was responsible for starting Kansas as a wheat growing state on a sound basis. In the 1870's a colony of Russian Mennonites who emigrated to the south central part of Kansas, and settled in a group of counties along the Santa Fe railroad, planted a small quantity of Turkey Red wheat. At first only the Mennonites made extensive use of this type of wheat, but by the 1880's other individuals became convinced of the great superiority of the new wheat as a crop producer. Gradually, larger quantities of it was imported, and sold to the farmers as seed.<sup>11</sup> In turn, farmers accepted the wheat but millers resisted, due to the difficulty in milling the new variety.

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<sup>10</sup>"Wheat in Kansas," Kansas State Board of Agriculture, p. 184.

<sup>11</sup>F. W. Blackmar, Kansas, A Cyclopedia of State History (Chicago, 1912), II, pp. 903-904.

Nevertheless, the use of hard winter wheat persisted and millers reluctantly accepted it, primarily due to the wheats quality. In actuality, millers found that hard winter wheat milled well and the percent of flour obtained normally ran higher in hard varieties rather than soft.

There is a subtle something stored within the cells of the wheat kernel, and by reason of the presence of this characteristic substance the flour is able to absorb and hold a relatively large amount of moisture and to produce a large, light loaf of even, thin-walled texture and delicious flavor. We usually refer to this substance as gluten....<sup>12</sup>

Although Kansas millers accepted hard wheat, the old established milling centers throughout the country were slow to recognize its virtues. Due to the disfavor, hard winter wheat and the products of Kansas mills sold at a discount on every market. Eventually this very discount encouraged cost conscious bakers to try the flour; they found that it made more loaves of bread per barrel than any other flour. Thus, both the baker and the miller profited from the use of hard wheat. Naturally, millers everywhere shared interest in the growing popularity of the product from Kansas fields, but full acceptance was slow to come.<sup>13</sup> Originally the name "Kansas" printed on a sack was enough to condemn the flour untried. Under these circumstances Kansas millers sometimes resorted

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<sup>12</sup>"Wheat in Kansas," Kansas State Board of Agriculture, p. 200.

<sup>13</sup>Ibid., pp. 176-183.

to marketing their product under a Missouri label.<sup>14</sup> Under this disguise the flour was pronounced excellent, to the surprise of the buyer when told the truth. Finally, even the Northwest began to concede the value of hard winter wheat and turned from concealment to advertising that they ground Kansas wheat. Unfortunately, full acceptance of Kansas wheat was not the only problem, another was developing a milling process that would grind hard winter wheat.

Up until the 1870's there had been very few changes in the flour milling process since the introduction of the water wheel and steam power. Using existing techniques, an acceptable grade of flour could not be made from hard winter wheat. The aim of the early flour milling process was to reduce the wheat to flour in one grinding. This was a very simple operation starting with the grain being poured into a revolving cylinder covered with a wire screen. Subsequently an air blast through the cylinder was to get rid of all dust and foreign particles from the grain. Then the grain went to the millstones where as much flour as possible was ground. As the wheat was ground, it dropped into another hopper below the stones and from there on to the bolting reel. The machine for bolting was usually a hexagon frame of wood covered with cloth of different degrees of fineness. The frame was slightly tilted so the grindings would pass through.

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<sup>14</sup>"Annual Report," Kansas Bureau of Labor and Industry (Topeka, 1900), p. 178.

The bolting reel would sift out the flour and other tailings, with the flour passing on to packaging.<sup>15</sup>

This was considered the low grinding process and was used with little variation in most mills. Any difference in quality was due to the quality of the wheat, the "dress" of the millstone and the exactness of running. Naturally the skill of the millstone dresser was critical, and resulted in a wide range of flour quality from one mill to another.

With the acceptance of hard varieties of wheat the low grinding process became obsolete. The wheat kernel was very hard, necessitating the millstone to run at a high speed to grind the wheat satisfactorily. This in turn generated heat that discolored the flour and injured its keeping qualities. Furthermore, an additional problem arose from the fact that the thin husk of the hard wheat kernel would crumble, making it difficult to sift the flour from the bran. Thus, under these conditions, most consumers preferred flour made from soft wheat.<sup>16</sup>

In the face of the above mentioned adversities, a new milling process was developed. This process called for the substitution of high grinding for low, crushing the berry in a way that very little flour was made in the first grinding.

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<sup>15</sup>C. B. Kuhlmann, The Development of the Flour Milling Industry in the United States (New York, 1929), pp. 93-94.

<sup>16</sup>Cabe, Flour Milling, p. 43.

This was accomplished by using a smoothly dressed millstone, that ran at a slower speed. Furthermore, the first grinding yielded approximately an equal portion of bran and middlings. Soon after, a machine was constructed to purify the middlings so that they could be reground into flour. Thus, the mills were overhauled and the "new process" system replaced the old. Although the entire use of rollers had been established in many European mills, in this country the mills continued to use the old buhrs, or a combination of rollers and buhrs.<sup>17</sup>

Gradually the proponents of the "roller process" gained prevalence, again subjecting the mills to a cleaning out, and a full equipment of rolls supplanted the millstones. The advantages of the rolls were numerous, they required less power, could operate for several months without being redressed and generated less heat.<sup>18</sup> Thus, the old millstones, so long a part of milling, made way for advanced technology and were finally consigned to the scrap heap.

The modern mill was still far removed from the primitive early roller mills. "Many changes have taken place in terms of wheat blending, wheat cleaning and preparation, a gradual reduction process using corrugated and smooth rolls, and a variety of sifting techniques."<sup>19</sup> The subsequent page

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<sup>17</sup>Kuhlmann, The Development of the Flour-Milling Industry in the United States, pp. 115-120.

<sup>18</sup>Cabe, Flour Milling, p. 45.

<sup>19</sup>Ibid., p. 46.

contains a diagram of the flour making process used in modern roller mills. As portrayed in the diagram, the roller mills of the 1900's were very complicated, and with their introduction, the milling industry became equally complex.

The early milling growth in Kansas was based upon the small mill. Up until the 1880's it claimed certain advantages over larger establishments. The small mill had lower operating costs, labor was cheaper, and it had no difficulty securing the machinery necessary to produce a product. Being a small mill and serving primarily a local area, it was not subject to loss from price fluctuations as was the larger mill. Under a system of low grinding, many of them could have produced a good quality of flour cheaply. However, the introduction of the roller changed the picture markedly.<sup>21</sup>

Beginning in the 1880's there was nearly a revolution in the milling industry. Three-fourths of the manual labor, once necessary to the manufacture of a barrel of flour, had been dispensed. Nation-wide merchant milling on a large scale had caused the abandonment of hundreds of neighborhood mills.

According to the millers directory for 1884 compiled by Col. E. Harrison Cawker, of Milwaukee, there were at this time 22,940 mills in the country - a decline of 1,398 from the census figure of 1880. But this is a slight loss as compared with that of the two years from 1884 to 1886, if we may rely upon Col. Cawker's biennial directory. He finds that the number of milling establishments has declined to 16,856 - a loss in two years of 6,084 or more than 26 percent."<sup>22</sup>

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<sup>20</sup>Wichita Eagle, October 31, 1954.

<sup>21</sup>Kuhlmann, The Development of the Flour Milling Industry in the United States, p. 129.

<sup>22</sup>Wichita Eagle, January 17, 1888.

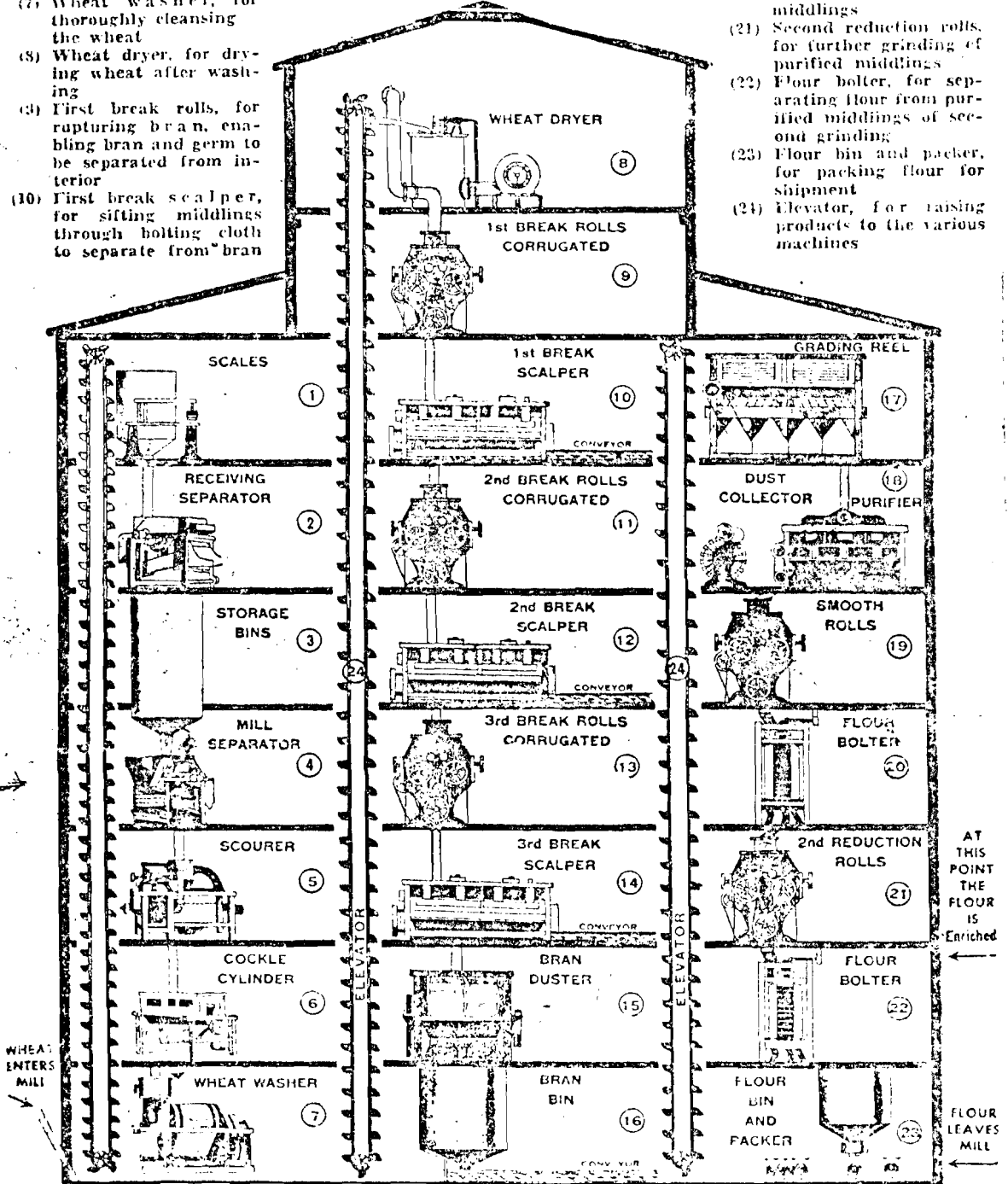


# Diagram of Flour Making Process

- (1) Scales, for weighing wheat as it is received
- (2) Receiving separator, for separating other kinds of seeds from wheat
- (3) Storage bins, for reserve supply of wheat in advance of mill requirements
- (4) Mill separator, for further separating foreign seeds from wheat
- (5) Scourer, for removing dust from wheat kernels
- (6) Cockle cylinder, for removing all round seeds
- (7) Wheat washer, for thoroughly cleansing the wheat
- (8) Wheat dryer, for drying wheat after washing
- (9) First break rolls, for rupturing bran and germ to be separated from interior
- (10) First break scalper, for sifting middlings through bolting cloth to separate from bran

- (11) Second break rolls, for further loosening the middlings from bran
- (12) Second break scalper, for separating more middlings from bran
- (13) Third break rolls, for further loosening middlings from bran
- (14) Third break scalper, for final separation of middlings from bran

- (15) Bran duster, for separating low grade flour from bran
- (16) Bran bin, for packing bran for shipment
- (17) Grading reel, for separating middlings by sifting through various sizes of bolting cloth
- (18) Dust collector and purifier for cleaning and purifying middlings by air and sifting
- (19) Smooth rolls, for grinding purified middlings very fine to flour
- (20) Flour bolter, for sifting flour from purified middlings
- (21) Second reduction rolls, for further grinding of purified middlings
- (22) Flour bolter, for separating flour from purified middlings of second grinding
- (23) Flour bin and packer, for packing flour for shipment
- (24) Elevator, for raising products to the various machines



**CHART OF MILLING PROCESS**—The manufacture of flour is a complicated process unless it is thoroughly understood. The above cross-section of a mill shows the steps necessary to change the wheat berry into flour for the homemaker and the baker.

In Kansas the financial difficulties of the late 1880's and the depression in all lines of industry for several years afterward were felt as well by the flour mills as any other line of manufacturing. The Sixteenth Annual Report of the Kansas Bureau of Labor stated that:

"Our investigation for 1900, covering ninety-two percent of the counties of the state, which we feel is sufficiently complete to justify the presumption that it is far more extensive and more nearly representative than any heretofore made shows that there are only about 225 flouring mills in the state, or a decrease of thirty percent in the number of mills within the last twelve or fourteen years."<sup>23</sup>

The city of Wichita also reflected this decline, for the City Directory listed six flour mills in 1885, while in 1894 only one was still producing flour.<sup>24</sup> The other mills either ceased production or were converted over to feed producing mills. By the early 1900's, as shown on the following table, the number of mills in Kansas decreased.<sup>25</sup>

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<sup>23</sup>Kansas Bureau of Labor and Industry, 1900, pp. 182-183.

<sup>24</sup>Wichita City Directory (Wichita, 1885), p. 234; Wichita City Directory, 1894, p. 467.

<sup>25</sup>Cabe, Flour Milling, pp. 34, 35.

Number and Production of Flour Mills by Size of Capacity,  
 Kansas (Capacity and Production listed in sacks)

Number of Mills in	Less than 196 Sacks	196-392 Sacks	392-980	980-1960	1960 and over	Total
1908-1909	73	62	63	28	13	239
1914-1915	36	42	54	30	15	177
1924-1925	33	27	30	40	29	159
1934-1935	20	14	21	24	28	107

These facts reflected the national trend and had been caused by the concentration of the flour producing industry into as efficient unit as possible.

Furthermore, with the advent of the roller process, the superior advantages of the larger mill became even more apparent. There was economy of construction and operation in a large mill as compared with a smaller one. The roller process required more capital and in many cases the construction of a new mill. Of course the cost was prohibitive for a small mill owner, although a larger company could secure the capital and construct the new facility. The large mill could employ a better manager and more superintendents. As to the buying of wheat, its larger capital and larger demand enabled it to buy over a larger area. Thus, it was independent of

local fluctuations in quantity and quality of wheat, whereas the small, local mill, when faced with a poor crop in its own immediate locality, usually had to shut down. Then, the large mill was able to experiment with new machines and new methods in a way that was impossible to the small mill. In the same way the widely extended market to which it sold its products gave it advantages over the smaller mill. In marketing its product, the larger mill could send out traveling salesmen and advertise its product, while the small mill was limited by a restricted budget.<sup>26</sup>

Moreover, the larger mill also had advantages of transportation. The railroads offered the milling-in-transit privilege originally designed to help the interior territory. For example, if the mill was in "line of transit" a miller could ship the wheat to his mill, mill it, and ship the flour on to market at the rate charged for wheat. Shipments which were approximately 120 miles out of line were charged, in addition to the milling-in-transit rate, an extra fee. Naturally, this practice encouraged the growth of milling centers along railroad routes at the expense of small centrally located neighborhood mills. Wichita is an excellent example of a milling town that profited from the milling-in-transit practice.<sup>27</sup>

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<sup>26</sup>Ibid., pp. 33, 34, 36

<sup>27</sup>A. E. Janzen, The Wichita Grain Market (The University of Kansas School of Business, Kansas Studies in Business, No. 8, June, 1928) pp. 47-53.

Again, in the late 1800's the growth of the flour milling industry was based upon soft winter wheat. Predictable, the bases of this industry was originally very unstable. For example, soft winter wheat proved susceptible to the climate of Kansas, causing a shortage of wheat at inopportune times. In addition, the lack of railroad facilities limited both the marketing of finished products and the delivery of raw products. In time both of these limitations were remedied, with disastrous results for the small flour mill.

The remedies were in the form of hard winter wheat and expanded railroad service. Of the two, hard winter wheat had the greatest immediate impact upon the milling industry. For example, the wheat was more reliable, thus enabling mills to operate at near capacity for longer periods of time, and a new roller process was initiated to grind the hard kernal wheat.

The introduction of hard winter wheat was given credit for the growth of the exportation of flour from the state. A letter from Chas. V. Brinkman, flour miller from Great Bend, Kansas, stated: "The first flour exported direct by the mills from Kansas was sometime between 1884 and 1887, and was made from hard wheat; it was really the hard wheat of Kansas that made it a wheat raising and flour manufacturing state of any importance."<sup>28</sup> Thus, with each innovation flour production

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<sup>28</sup>Douglas, "A History of Manufactures in the Kansas District," Collections of the Kansas State Historical Society, 1909-1910, p. 151.

increased and the small flour mill faded away. Today their primary purpose is to produce specialty flours, or feed.

### CHAPTER III

#### DEVELOPMENT OF THE GRAIN TRADE AND EARLY FLOUR MILLS IN WICHITA

The Period from 1872 to 1895

Wichita was originally known as a cowtown and a market for buffalo hides. In 1872 the Wichita and Southwestern railroad was built, connecting Wichita with the Santa Fe at Newton. With the completion of this railroad, added emphasis was placed on Wichita as a cattle market. Gradually, the railroad built further west and the cattle trade decreased, leaving Wichita with a Santa Fe rail connection and an increased population. As the community grew, farms and elevators were opened, shifting additional influence away from cattle to the grain market.<sup>1</sup>

In an interview printed in the Wichita Beacon, Otto Weiss, an early miller, reflected back to the wagon grain market time when he declared:

It is a day in early fall. Douglas Avenue, as yet unpaved is choked with wagons and teams from a hundred miles about. It has been this way for weeks and even months. Harvest is ended and the farmers are bringing in their wheat for shipment over the Santa Fe which has come so far and no further. Fifty years ago.... it was the largest wagon wheat market in the country

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<sup>1</sup>A. E. Janzen, "The Early Cattle and Wagon Wheat Markets," The Wichita Magazine (September, 1927), p. 5.

and nearly 800 loads of wheat were brought in every day to its ten elevators and one flour mill.... Farmers camped outside of Wichita, Mr. Weiss, new president of his own milling firm here, explained, or they put their wagons and teams in a livery barn and stayed at a hotel over night, in order to be the first ones in line for the bidding next morning. When they drove in from a distance they would sometimes stop for the night at ranchers or trading posts like Haysville, Derby (then called "El Paso"), Bitter Creek Ranch (new Mulvane), the ten-mile post west of town on the Cowskin, and Payne's Ranch....<sup>2</sup>

Another account came from J. T. Holmes, an early pioneer of Wichita who stated:

Those farmers, with their ox teams generally, but with an occasional horse or mule team, hauled all their wheat to Wichita and Mr. Holmes says he has seen hundreds of these loads of wheat standing in line waiting to be weighed. There were at that time five sets of wheat scales in the vicinity of the Santa Fe, which was the only railroad, and it took three policemen during the wheat hauling season to keep the men in line and prevent them from fighting to get ahead of one another."<sup>3</sup>

The wheat was brought in such quantities that unloading and shipping facilities were overtaxed. Grain elevators ran day and night and yet were unable to care for the increased amount of wheat. Approximately 30,000 bushels of wheat were unloaded on many days, and about 2,000,000 bushels of wheat a year were hauled to Wichita between 1875 and 1880. Before the railroads began to branch out, two train loads of

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<sup>2</sup>Wichita Beacon, November 1, 1925.

<sup>3</sup>O. H. Bentley, ed., History of Wichita and Sedgwick County, II, pp. 459-460.



wheat a day were shipped out of Wichita to St. Louis, Chicago, and New York.<sup>4</sup> For three months, ending January 1, 1879, Wichita shipped grain on a par with any city in the United States. For Example:

"For the month of November one thousand and twenty-five cars, of four hundred and twenty bushels to the car, or 430,500 bushels of wheat were shipped, representing a cash value of a quarter of a million dollars. To deliver that amount of wheat in the twenty-six days of that month required 14,350, or an average of 552 wagon loads for every day. For the three months ending November 30th there were run out 2,978 cars of wheat, measuring one million two hundred and thirty-three thousand nine hundred and sixty bushels."<sup>5</sup>

The immense quantity of wheat was due partially to the fact that Wichita was the shipping point for all of Sedgwick, Sumner, Cowley and part of Butler County.

Therefore, with the increased amount of wheat raised in Kansas, railroads realized their opportunity to profit and built additional lines throughout Kansas. "The Santa Fe built east and west through the counties of Cowley and Sumner, and the Frisco and Florence branch of the Santa Fe have crossed Butler County from east to west and from north to south."<sup>6</sup> Thus, Wichita lost part of their grain trade to the nearby towns of Eldorado, Augusta, Derby, Caldwell and Wellington.

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<sup>4</sup>Wichita Eagle, October 3, 1920.

<sup>5</sup>Ibid., January 9, 1879.

<sup>6</sup>Ibid., March 29, 1883.

As the railroad expanded it played a dual role in Wichita, being both a retardant and yet a catalyst. The distinction of being the greatest wagon wheat market in the United States had ended. But in its place, Wichita was transformed from merely a shipping point into a wholesale grain market. Wichita had begun to handle grain shipped by rail from a territory much larger than originally. Grain changed hands by car load rather than by wagon load. Instead of decreasing the amount of grain that came to Wichita, an increase was experienced, leaving the town in need of additional storage and milling facilities.<sup>7</sup>

Obviously, Wichita was an energetic and opportunistic city. When Wichitians had realized the growth potential of the grain market, they responded by building elevators, mills, and other related industries. This in turn stimulated the grain market and encouraged ambitious individuals to take a chance and build in Wichita. Thus, the making of a major milling center were here, with only the unexpected left to retard its development.

It has been difficult to ascertain exactly when the first flour mill was built in Wichita. Presumably, the mill was built in the early 1870's but the exact time and location remained elusive. Henry Schweiter, early Wichita farmer, recalled that a little steam powered flour mill was located

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<sup>7</sup>"From Wagon Market to Board of Trade," The Wichita Magazine (August 12, 1929), p. 12.

on south Santa Fe Avenue. He remembered that it burned down one night and he and a few others formed a bucket brigade and fought the flames. Mr. Schweiter believed that the old mill was built in 1873, and burned down shortly afterward.<sup>8</sup>

Mr. Imboden, pioneer miller in Wichita, said that there was an old mill east of the Santa Fe track, between Douglas Avenue and First Street. He continued by saying that it was built out of an old elevator that had stood there.<sup>9</sup> In addition, he asserted that the first flour mill of record was the old water mill built in 1872 or 1873. The mill was located on the Chisholm Creek, east of the city.<sup>10</sup>

Upon further research, this writer found that the above mentioned water mill was not completed until approximately October 7, 1875.<sup>11</sup> The Wichita Eagle first referred to the water mill on February 18, 1874, when it stated that the walls were up and construction was progressing on the new grist mill on the Chisholm.<sup>12</sup> Therefore, since the water mill that was referred to as being the first, and the mill mentioned in 1874, had the same location and owners, this writer assumed that it was completed in 1875, not 1872

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<sup>8</sup>Wichita Eagle, October 3, 1920.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid. The City Mills represented the first mill this writer could find reference to in a primary source written at the time of the event.

<sup>11</sup>Ibid. October 7, 1875.

<sup>12</sup>Ibid. This area is now located within the city near Linwood Park.

or 1873. Thus, the distinction of being the first mill in Wichita lies with another, in this case the Wichita City mills.

With the growth of the grain market, a need for a first class flour mill became obvious. A August 7, 1873, article in the Wichita Eagle recognized the need and asked "When will we have a first class mill?"<sup>13</sup> The question was answered in May 1874, when D. S. Shellabarger and William Bowers of Decatur, Illinois, arrived in Wichita. Their purpose was to finish final details in building a new grist mill and store house in Wichita.<sup>14</sup> Up until this time ads for Soden's mill, located in Emporia, appeared frequently in the Wichita Eagle. The ads encouraged farmers to transport their grain to Emporia for grinding into flour. With the absence of any significant competition from this area, there could be no doubt that some farmers responded to the ads. With the advent of a mill in Wichita, Soden's appeal decreased, and so had the prospective ads.

The Wichita City Mills were built by G. F. Hargis, and by H. Imboden and Company, which was composed of Hargis, Imboden, D. S. Shellebarger and William Bowers, all from Illinois. The Wichita City Mills Company was introduced to Wichita by

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<sup>13</sup>Ibid., August 7, 1873.

<sup>14</sup>Ibid., May 28, 1874.

Isaac Shellebarger, an uncle of D. S. Shellebarger.<sup>15</sup> This company represented experienced millers, owning mills in Illinois and Kansas. For example, in Kansas they owned the Shawnee County Mills in Topeka, and now the City Mills in Wichita. It appeared that Shellebarger and Bowers financed the operation, while in the case of Wichita, Hagriss and Imboden built and operated the mill. Both Hagriss and Imboden had established residence in Wichita and Imboden had a reputation as being a first class miller.<sup>16</sup>

Then, by September 1874, the City Mills had bought up to 8,000 bushels of wheat and waited only for construction to be completed.<sup>17</sup> One month later the mill was finished and started production as a merchant mill. Its location was at the southwest corner of Douglas and Santa Fe Avenues, where it stood until 1879. The basic building was 45 by 50 feet, later increased to 45 by 150 feet with the addition of an elevator. The walls were built of limestone and were five feet thick at the base and two feet thick at the top. The engine room was 22 by 45 feet, made of the same material,

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<sup>15</sup>Ibid., October 3, 1920. Isaac Shellebarger was a pioneer in the lumber yard business starting numerous yards in Kansas. He started building in Topeka and followed the Santa Fe as it expanded west. He located yards in Emporia, Cottonwood Falls, Florence, Newton and Wichita.

<sup>16</sup>Ibid., October 22, 1874. The Shellabargers legitimately claim straight line descent from millers who established themselves in Pennsylvania in 1776. Members of the Shellabarger family operated mills in Illinois and Salina, Kansas, although no reference was given to the Topeka or Wichita mills.

<sup>17</sup>Ibid., September 10, 1874.

with a smoke stack seventy-six feet high.<sup>18</sup> The building was four stories high with a separate office building. "It is filled up with four run of stone (buhrs), eight merchant reels, scourers, smutters, cleaners, coolers and all that go to making a first class modern mill."<sup>19</sup>

The City Mill was steam powered by a eighty horse-power engine, with brass heads and finishings. The engine turned a driving wheel twenty feet in diameter and weighed 6,500 pounds. It was built by the Union Iron Works of Decatur, Illinois, and was considered very advanced at that time.<sup>20</sup> The mill and elevator were valued at \$75,000 with a production capacity of 160 barrels of flour and 500 bushels of corn per day. The capacity of the elevator was listed as 38,000 bushels in 1875.<sup>21</sup> Later, this capacity was increased to 50,000 bushels in 1876.<sup>22</sup>

The City Mills would not be considered the average first year flour mill for 1874. A majority of the new mills

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<sup>18</sup>Ibid., October 22, 1874.

<sup>19</sup>Ibid., April 1, 1875. For a complete floor by floor description of the Wichita City Mills consult, Wichita Eagle, October 22, 1874.

<sup>20</sup>Ibid., October 22, 1874.

<sup>21</sup>Ibid., April 1, 1875, April 6, 1876.

<sup>22</sup>Ibid., April 6, 1875. Considering the number of buhrs, 160 barrels per day would be considered an optimistic estimate.

began as custom mills, only achieving merchant status after proving their success. Furthermore, most new mills were owned by an individual, or group of individuals who possessed limited resources. By contrast, the City Mills were operated by a company that possessed milling knowledge gained from operating mills throughout the nation. In addition, a larger organization could plan ahead, keeping abreast of the changes occurring within the milling industry. Armed with this knowledge, they could accumulate the necessary capital to make improvements, without over-extending the company.

To be sure, the City Mills proved to be successful, and thus stimulated the grain trade in Wichita. As soon as the City Mills started production, farmers from the surrounding counties increased their production and began hauling wheat to Wichita. Up until this time the market around Wichita was unsure, causing farmers to haul to Newton and points further east. With a mill using up to 800 bushels per day, plus numerous elevators, and railroad connections, the grain trade expanded and encouraged related industries.

The City Mill owners recognized the need to keep pace with the expanded market and up-dated their mill by replacing the existing engine with a 120 horse Corliss engine.<sup>23</sup> Even though the added power helped increase production, it proved to be insufficient, and in 1880 the mill was completely overhauled.

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<sup>23</sup>Ibid., August 1, 1876.  
Ibid., October 3, 1878.

At the beginning of June 1880, a set of metal rollers was put in motion and an age-old method of grinding wheat was definitely on the way out. Nothing remained of the old mill built in 1874 except the solid walls and metallic roof. All new machinery was installed by F. O. Labb of Detroit, Superintendent for the millright John Webster. The innovations consisted of two "heavy horizontal case hardened, polished iron cylinders."<sup>24</sup> Actuality, the change was on a modest scale, being auxiliary to eight "run of stone." Also included were bolting chests, middling purifiers, bran cleaning machine, and a bran dust collector room. The dust collection room, a new innovation, was located at the top of the mill, and represented an attempt to collect the highly flammable bran dust. The mill machinery was modern for that period of time, as testified to by Mr. Ladd: "The new Wichita City Mills surpasses in completeness any mill in this section of the West and that nothing in the state of Kansas will compare with them."<sup>25</sup> Detail of construction was equally impressive: "... the basement is taken up with heavy shafting and immense cog wheels that move without jar or noise in a manner that is surprising.... On the second floor all wood work, exclusive of machinery, has been thoroughly painted with white lead and the dark woods and machinery varnished or oiled."<sup>26</sup> Industries

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<sup>24</sup>Wichita Eagle, June 3, 1880.

<sup>25</sup>Ibid.

<sup>26</sup>Ibid.



of this era were a far cry from the concrete and glass edifice which dawned in the 1900's.

The improvements made by the City Mills in 1880 initiated the "New Process" or high grinding techniques in Wichita. This increased production from little over 100 barrels of flour to 200 barrels using 1,000 bushels of wheat every twenty-four hours. The resulting increase in production yielded additional flour that promoted sales of flour throughout the nation. Hence, City Mills flour was marketed as far east as Boston and Philadelphia and west as far as Santa Fe and Albuquerque, New Mexico.<sup>27</sup> Thus, in 1880 the City Mills represented one of the most active merchant mills in Kansas.

In 1884 additional changes were made at the City Mills, enabling it to keep abreast of advancing technology and the Wichita grain market. The mill was overhauled and reconstructed with the installation of fourteen sets of chilled iron rolls. This conversion marked the introduction of the "roller process" to Wichita, while also increasing production to 350-400 barrels per day. Paralleling the increased production had been a decrease in waste tailings that resulted in the introduction of two additional grades of flour. This brought a total of six grades of flour ranging from the top grade, Imperial (roller patent) to the bottom, Clipper (XX).<sup>28</sup>note

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<sup>27</sup>Ibid.

<sup>28</sup>Wichita Eagle, June 19, 1884. Note: For a floor by floor description of the mill improvements consult Wichita Eagle, June 19, 1884.

Naturally, the increased production resulted in an increased marketing area and an over-all expansion of the total operation.

The changes in ownership and style of the old City Mills was interesting. The original firm was D. S. Shellabarger and William Bowers of Decatur, Illinois, and G. F. Hargis and H. Imboden of Wichita. In 1875 William Bowers sold his interest to Isaac Shellabarger, who was in the lumber business here with A. W. Oliver. In 1879, (1880), G. F. Hargis sold his interest to A. W. Oliver and the name of the firm was changed to Shellabarger, Imboden, and Oliver. In 1883 the interests of D. S. Shellabarger was purchased by the other members of the firm. The firm at that time was incorporated under the name of Oliver and Imboden Company. Why Isaac Shellabarger's name was not included in the new companies name was not expressed, although he remained a partner in the business.<sup>29</sup> It was of interest to this writer that changes in ownership occurred primarily in expansion years. For example, in 1880, a year of major rebuilding, Hargis sold out, and in 1883, a year leading to further modernization, D. S. Shellabarger retired from the business. It appeared that the descenting partners was always bought out

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<sup>29</sup>Ibid., June 19, 1884, October 3, 1920, The Wichita Eagle, October 3, 1920, lists 1877 as the date Bowers sold his interests to I. Shellabarger.

by the more ambitious partners. Obviously, this was one reason for the continued early success for the business.

The years that followed 1884 were far from prosperous for the milling industry in Wichita. The country was beginning to feel the grips of a depression that threatened to envelop every aspect of business. This, coupled with good crops in England and increased import duties on flour in other European countries, considerably decreased the export of American breadstuff.<sup>30</sup>

The Wichita milling industry, like most of the mills in Kansas, experienced local problems that had decreased flour production. For example, they experienced a lack of grain, a decrease in water supply (affecting water mills) and the unique difficulties associated with converting to the roller process.<sup>31</sup> Although the roller process was more efficient, the initial cost of installation was very high. Severe financial problems arose when high initial cost had been coupled with the income lost due to the mill being closed during installation. Naturally, if poor grain producing years followed, a scarcity of good milling grain would result. In 1884 well over 48 million bushels of grain were produced, but in 1885 under 11 million bushels were produced.<sup>32</sup> In

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<sup>30</sup>Annual Reports of the Board of Labor and Industry, 1886, p. 15.

<sup>31</sup>Ibid, 1888, p. 95.

<sup>32</sup>"Wheat in Kansas," Kansas State Board of Agriculture, p. 7.

fact, wheat production would not return to a level of high stable production until the late 1890's. Thus, the scarcity of grain and its high price, in relation to the prevailing market for flour, led numerous mills to stop production. By 1894 the Wichita City Directory listed only one mill still producing, the Wichita City Mills; but by the late 1890's even the City Mills had faltered.<sup>33</sup>

The story of Wichita's first mills would not be complete without describing what was probably the most picturesque mill of this early time, the Wichita Water Mill. The mill was built in 1874-1875, by B. L. Wheeler and L. G. Sheets, and was located about one-half mile east of the city on the Chisholm Creek. The structure was of wood, being four stories high, built upon a foundation of masonry fifteen feet high. The masonry rested upon heavy piling driven ten feet down below the bottom of the stream.<sup>34</sup> The mill was a grist mill, originally with one pair of stones and one bolt driven by two turbine water wheels.<sup>35</sup> What made the mill unique was the sufficient water supply which was maintained only by diverting water from the Arkansas River down a five mile raceway to the Chisholm Creek. By locating a dam at the head of the raceway, a sufficient water supply was maintained which allowed the mill to operate. Originally, the mill operated

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<sup>33</sup>Wichita City Directory, 1894, p. 467.

<sup>34</sup>Wichita Eagle, April 6, 1894, p. 467.

<sup>35</sup>Ibid., October 7, 1875.

only in daytime, as water was collected above the dam at night, allowing sufficient water supply to operate the mill the following day.<sup>36</sup> In contrast to the City Mills, the Water Mill represented a small grist, custom mill, grinding the grain of farmers who lived near the city. In this form the Water Mill closely represented many of the early mills built within the state. But while remaining a custom mill, profits were quite small, contributing to the instability of the company.

As was the case of the City Mills, ownership of the Water Mill passed from one individual to another. Originally the mill was built by Wheeler and Sheets, although in 1876 W. A. Thomas, and Company, one of the older grocery firms in the city, acquired Sheets' interests in the mill. Under the ownership of Thomas, Wheeler and Company, the mill achieved a degree of stability that initiated an expansion of the mill. Therefore, in 1876 new machinery was installed that included four sets of buhrs, four bolts, and other necessary machinery.<sup>37</sup> Accompanying the mill improvements was that of the raceway, allowing the mill to operate night and day.

In contrast to the City Mills, expansion did not bring success for the little mill on the Chisholm. Toward the end of the 1870's, Wichita was outgrowing its need for small custom mills. With the expansion of the grain trade,

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<sup>36</sup>Ibid., October 3, 1920.

<sup>37</sup>Ibid., April 6, 1876.

wheat became even more of a cash crop. Farmers were increasing their production of wheat and then selling the wheat to elevators or merchant mills. With the cash received from the grain sale, farmers would purchase necessities for existence. As their reliance upon an exchange or custom mill decreased, farmers would use part of their grain money to buy flour, probably from the general store. Although the Water Mill increased production, it was not significant; moreover it did not substantially increase the grain storage capacity. Thus, it could not buy excess grain beyond a day's production needs. When grain was not readily available, it was forced either to slow down or shut down completely. Hence, the Water Mill was not put on an economically sound basis.

Early in 1877 the Water Mill failed and went into receivership. The mortgage was held by the Farmers and Merchants Bank, H. W. Lewis, president. In 1878, H. W. Dunning passed the receiver's deed on to Lewis giving him control.<sup>38</sup> H. W. Lewis and the bank retained the deed, although the mill was operated by different companies. For example, in 1878 the operation of the mill passed from Rouse and Company, to Ellis and Company, who operated the mill until approximately 1880.<sup>39</sup> Under Ellis' direction the mill was said to have a

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<sup>38</sup>Will Von Benthaysen, "The Old Mill," Sedgwick County P.W.A. Files, Wichita State Library, Box 14, No. 51.

<sup>39</sup>Ibid., April 4, 1878, September 5, 1878.

production of 120 barrels per day, with ample water power to operate a paper mill and other machinery.<sup>40</sup> Unfortunately, in 1880 the old mill fell victim to one of millings greatest perils, fire, and burned to the ground.

The original mill site comprised five acres of land, the dam and what was left of the old mill. In 1881 H. W. Lewis, owner of the mill site, announced that he was entering a co-partnership with the Deffenbaugh brothers, owners of a mill in Ottawa, Illinois.<sup>41</sup> The purpose of the partnership was to reconstruct a new mill from the ashes of the old. Thus, a new water-powered mill was born, at the cost of \$28,500. Power was developed by a new Victor turbine, that turned a combination of four "run of stone" and several smooth-surfaced cylinders that produced 125 barrels of flour per twenty-four hours. Along the mill was an elevator with 12,000 bushel capacity.<sup>42</sup> The new facility, now called the Hydraulic Mills, entered the flour milling community as a merchant mill. Fortunately, the timing was accurate, for the early 1880's represented prosperous years for the flour mills in Wichita. There was ample grain available in Kansas, the flour market had expanded and the cheapness of fuel and abundance of water-power enabled the flour mills to realize a profit. Prosperity encouraged the Wichita mills, and in

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<sup>40</sup>Ibid., June 9, 1879.

<sup>41</sup>Ibid., March 24, 1881.

<sup>42</sup>Ibid., December 8, 1881.

1884 the Hydraulic Mill, as well as the City Mill, installed the "roller process."

As previously mentioned, converting the full rollers involved a complete conversion within the plant. For example, the Hydraulic Mill was closed for three months during which time the old machinery was torn out and replaced with new. The mill re-opened boasting a complete roller system consisting of seventeen sets of rolls with five distinct brakes. The capacity of the mill had been increased from approximately 125 barrels to 200 per day.<sup>43</sup> Also, the increased production, coupled with an expanded product line, enabled the Hydraulic Mill to compete with any mill in this part of the State. Unfortunately, worsening economic conditions lay around the corner, spelling disaster for Wichita's mills.

By the late 1880's, shortages of grain, unfavorable freight rates, and decreasing market had severely affected the Hydraulic Mill. Accordingly, the Hydraulic concern passed the mill on to the Cowgill, Hill and Lewis Milling Company in 1891. Unfortunately, they too failed and on July 22, 1892, new owners acquired the mill.<sup>44</sup> Thus, the latest company, Wichita Milling Company, also failed and by 1894, the Wichita City Directory did not list the mill, bringing to an end

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<sup>43</sup>Ibid., March 20, 1884, December 27, 1885.

<sup>44</sup>Von Benthaysen, "The Old Mill." Sedgwick County W.P.A. Files, Wichita State University Library, Box 14, No. 51.



Wichita's most picturesque mill.<sup>45</sup>

This writer was unable to ascertain the fate of the mill machinery with any degree of certainty. One account mentioned that Ira F. Elliott, an early miller, acquired the plant. The account continued by stating that he moved some of the machinery to his feed mill, while also selling part of it.<sup>46</sup> Another account discussed the attempts of Mr. Skelton, president of the bank of Blackwell to buy the equipment and move it to Oklahoma.<sup>47</sup> This writer was unable to substantiate either account, leaving the mills ultimate fate in doubt.

Although the City and Hydraulic mills had contributed greatly to Wichita's early milling period, they were not alone, three yet smaller flour mills existed at that time. By the 1880's, the wholesale grain market had dominated business activity in Wichita. This encouraged far-sighted individuals to become part of the activity and build additional mills and elevators. Thus, three additional mills emerged upon the scene in 1882; the Diamond Mill, Zephyr Mill and the Farmers and Merchants Mill.

The largest of the three was the Diamond Mill, owned by Ed Dorsey, H. C. Smeltzen, D. P. Alexander and John Tucker. These individuals purchased the Grange Elevator and converted it into a small grist mill, doing custom business. The building

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<sup>45</sup>Wichita City Directory, 1894, p. 467.

<sup>46</sup>Wichita Eagle, October 3, 1920.

<sup>47</sup>Ibid., January 8, 1898.

was a three-story affair, containing three sets of grinding buhrs, corresponding bolts and related machinery. In addition, a small elevator was nearby as well as an engine house. The power was supplied by a 50 horse-power steam engine.<sup>48</sup> In 1884, this mill also installed the roller process, enabling its product to be competitive with flour produced in any other mill.<sup>49</sup> Still, economic conditions that affected both the City and Hydraulic mills also affected the Diamond Mills, and by 1886 the mill had ended production.<sup>50</sup>

The Zephyr Mill followed a similar pattern, although it never obtained the competitive milling capacity necessary to succeed in the middle 1880's. The Zephyr was built in approximately 1882 and was owned by J. S. Dean.<sup>51</sup> It was a custom, steam-powered grist mill that produced a maximum of 80 barrels of flour per day. In 1885 the ownership changed and J. W. Hawn, George P. Glaze, and B. T. Churchward, all from Ohio, became the proprietors. At the same time the Zephyr Mill was converted into a feed producing mill and grain elevator.<sup>52</sup> The mill building was of a substantial nature, being three stories high, covering an area of 30 by

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<sup>48</sup>Ibid., January 12, 1882.

<sup>49</sup>Ibid., May 15, 1884.

<sup>50</sup>Wichita City Directory, 1886, p. 272.

<sup>51</sup>Ibid., March 29, 1883.

<sup>52</sup>Ibid., October 29, 1885

118 feet. Furthermore, an elevator connected with the main building, and held 80,000 bushels of grain.<sup>53</sup> In the late 1880's, flour mills converted over to milling feed while also functioning as a grain elevator. This enabled the smaller mills to continue operating and producing a profit, hence it was favored over closing down entirely.

The third mill, Farmers and Merchants Mill, came into existence also in 1882. The mill was owned by York, Williams and Company. It followed the same pattern of being a small, steam-powered grist flour mill. The flour production varied between 40 and 80 barrels per day depending partially upon the availability of grain.<sup>54</sup> This mill also failed, and in 1885 the machinery was moved to Clearwater, and the old original building was converted into a feed store.<sup>55</sup>

All three flour mills were small, steam-powered grist mills that represented half-hearted attempts to enter the flour producing industry. Nevertheless, the Diamond Mill attempted to break away from that stereotype and installed the roller process. Unfortunately, the economic climate that existed in 1885 negated the attempt, and by 1885 all three mills were unable to compete effectively within the flour producing arena which existed in Wichita. Adverse freight

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<sup>53</sup>Wichita: An Illustrated Review of its Progress and Importance (Enterprise Pub. Co., Wichita, August, 1886), p. 67.

<sup>54</sup>Ibid., March 29, 1883.

<sup>55</sup>Ibid., September 24, 1885.

rates, high cost of grain, and a decreased market for flour made the industry highly competitive, ultimately eliminating the inefficient mills. Thus, only the City Mills and for a short period of time, the Hydraulic Mills, were able to ride out the lean years and be part of the rebirth of flour milling in Wichita.

To gain an additional insight into the early flour mill, perhaps a look at the labor statistics would be beneficial. In 1889 the Annual Kansas Bureau of Labor and Industry listed labor statistics for an merchant mill in Sedgwick County:

...one mill employed 12 men; 2 salesmen 100 dollars per month each, 1 bookkeeper at 65 dollars and 1 clerk at 65 dollars, 1 first miller at 3.83 dollars and 1 second miller at 2.50 dollars per day, 1 engineer at 3.10 dollars, 1 teamster at 2 dollars and 4 laborers at 1.42 dollars per day each; hours, 10 per day.<sup>56</sup>

To have a labor force of this size would require a flour mill that produced between 250-300 barrels of flour per day. The Wichita City Mills represented a mill of that size, although by 1889 their peak years were behind them. The Hydraulic mill represented this type of mill only after converting to the roller process. Furthermore, Charles E. Diehl, who in the 1880's was an early laborer for the City Mills, said that he worked for \$8.50 a week, working 12 hours per day, six days a week. His job consisted of loading and unloading box cars by hand; then when finished, changing the cars. "Pretty hard work..." replied Mr. Diehl. In the early

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<sup>56</sup>Annual Kansas Bureau of Labor and Industries, 1889, p. 86.

1900's Diehl worked as a flour salesman, driving a buggy or walking as he peddled his flour. Mr. Diehl stated:

"It was I who introduced the smaller packages of flour here which are now generally used. First of all the orders I took would be for a ton or so to a store, and the 48 pound sack was the smallest around that could be bought retail. Then came the 24 pound packages and finally I found a big demand for 12 and six pound bags."<sup>57</sup>

H. W. Darling was the city salesman for the old Hydraulic Mill from 1888 to 1891. He traveled over the rough roads in a two-wheeled buckboard earning \$75 per month. In addition to being a salesman, Darling was the manager and right-hand man until the mill closed.<sup>58</sup> When considering the economic condition of the mill after 1888, it is easy to understand Darling's combination of roles.

Moreover, the flour milling industry paid their workers competitively, although they expected long hours per day, six days a week. Since flour milling was primarily a mechanical operation, the cost of labor was never mentioned in connection with the failure of a flour mill. On the other hand, the milling industry attracted few new settlers to Wichita. Other industries, for example, the meat packing interests and later the aircraft industry, attracted a large number of people to this area. Nevertheless, flour milling contributed greatly to the stability of Wichita, especially after the cattle craze ended in approximately 1875. In

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<sup>57</sup>Ibid., January 3, 1926.

<sup>58</sup>Ibid., October 3, 1920.

addition, flour milling contributed to the growth of the grain market, prosperity of the railroad, expansion of the farming industry, and growth of the elevator industry, thus providing economic stability for Wichita.

The Wichita City Mill deserved much of the credit for introducing flour milling to Wichita on a sound basis. This mill typified the average merchant mill existing at that time. They kept pace with technological changes, along with growing as the market expanded. The Hydraulic Mill followed closely behind but was never able to achieve the stability of the City Mills. Changes in ownership, breakdowns, shortages of elevator facilities, lack of water power and a timely fire contributed to shutdowns that tarnished their reputation among patrons. Even with expansion and modernization they still experienced difficulty in achieving the status of becoming a merchant mill. Perhaps, they lacked capital to market aggressively, or a conservative management hindered their development; in any case the mill never achieved the prosperity of corresponding industries.

A similar fate befell the other small grist, custom mills within Wichita. In a short time, they had either moved to another community, or were converted into a feed mill. A small outlying community still had a need for the custom mill, but in a community that possessed a developed grain market, competition drove them out of business. In the Wichita area, farmers began producing wheat as a cash crop, thus the small flour mill had no choice but to become merchant mills or

increase their milling of feed or corn.

In addition, the financial difficulties of 1888 and the depression in all lines of industry for several years afterwards were felt as well by the flour mills as any other lines of manufacturing. From the late 1880's until the early 1900's there was little progress within the flour milling industry in Wichita. No new flour mills were built in Wichita until the late 1890's, and in fact, no mill of significance was able to keep producing throughout the depression. The possibility existed that as the depression worsened in Wichita, a small custom mill could increase its share of the business, although by that time the Diamond, Zephyr, and Farmers and Merchants Mills had stopped producing flour, thus the City and Hydraulic Mills were negated to the status of a custom mill. Unfortunately, both of these mills had too great of a capital investment, and could not produce profitably in small quantities; then, they too went out of business.

## CHAPTER IV

### RE-BIRTH OF THE FLOUR MILLING INDUSTRY IN WICHITA

The Period from 1895-1927

By the late 1880's Wichita had become the greatest wholesale wheat market in the United States.<sup>1</sup> Yet, Wichita's flour mills were going out of business. However, these two statements appear to contradict each other, although when reduced to component parts, there were many factors that determined the success or failure of a flour mill. For example, the availability of transportation, the market for flour and the price of grain, helped determine the success or failure of a flour mill. During the late 1800's the country was in the grips of a depression that severely curtailed the milling industry in Wichita. Millers recognized the attributes of Wichita, but remained dormant until economic conditions became more favorable. Finally, by the late 1890's conditions began to improve and potential mill owners started to scurry around.

One of the first was J. H. Howard, who in 1895 built a small flour mill on Oak Street. The mill, first known as the Union Mill and later called the Howard Mill, produced

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<sup>1</sup>"Wichita's High Position in Milling Industry," The Wichita Magazine, September 27, 1927, p. 5.



approximately 100 barrels of flour per day.<sup>2</sup>note Very little had been written concerning the small mill, although it was likely a steam-powered grist mill doing custom work. Apparently the only milling technique that the little Union Mill was known for consisted of a plan-sifter system of bolting the flour. This system produced a flour of an even granulation, not possible with other systems.<sup>3</sup> In the early 1900's Howard built a new mill on West Douglas. This facility used the roller process and produced approximately 300 barrels of flour per day.<sup>4</sup> In contrast to the old Union Mill, this plant functioned as a merchant mill.

J. E. Howard was not noted for the flour mill he owned, but rather for his efforts to promote the growth of flour milling in Wichita. Howard was responsible for the establishment of Watson's flour mill in Wichita and played an active role in the establishment of the Red Star Milling Company. In fact, Howard was the first manager of the Red Star Company. Furthermore, his hobby had been freight rates and the removal of discrimination against the transportation interests in Southwest Kansas. Howard was also a member of the executive committee of the National Interstate Commission

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<sup>2</sup>Souvenir, Wichita of Today (Wichita Public Library, 1902-1903), p. 21. Note: The Wichita City Directory first lists Union Mill in 1900.

<sup>3</sup>F. A. Sowers, "The Building of a City, 1839-1918," Carter's Monthly, p. 332.

<sup>4</sup>Bently, ed., History of Wichita and Sedgwick County, pp. 808-809.

Law Convention, and at its dissolution he was active under the Hepburn Law.<sup>5</sup> Acting in this capacity, he deserved credit for equalizing freight rates between the established milling centers and the inland fledglings. Howard remained a unique mill owner in Wichita by encouraging competition when most businessmen tried to limit competition from like establishments. He remained convinced that Wichita would become the Minneapolis of Kansas, producing more flour than any city in this part of the nation.<sup>6</sup>

Even though he pursued numerous interests in Wichita, he at different times operated both the Red Star Mill and the Howard Mill until 1913. In that year the Pond Creek Mill and Elevator Company leased the Howard Mill and operated it until 1914.<sup>7</sup> The Pond Creek Company later built a large mill in Wichita that became known as the Wichita Flour Mill. In 1914 the Howard Mill was sold to the Vilm Milling Company from Winfield. At the time of the sale, the Howard Mill produced 260 barrels of flour per day in a plant built in the early 1900's.<sup>8</sup> In the meantime, Wichita had witnessed the construction of numerous flour mills and each produced well

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<sup>5</sup>Bently, ed., History of Wichita and Sedgwick County, pp. 808-809.

<sup>6</sup>Wichita Eagle, March 12, 1901. Howard was a native of Ohio, born in 1848. He moved to Burton, Kansas, in the fall of 1874, where he resided until moving to Wichita in 1901.

<sup>7</sup>Ibid., August 6, 1913.

<sup>8</sup>Ibid., June 25, 1914.

over 800 barrels per day. This rendered Howard's old mill rather insignificant. Under the ownership of the Vilm Milling Company, the mill contributed little to the milling industry in Wichita, finally burning to the ground a short time after Vilm purchased it.<sup>9</sup>

In the summer of 1897, Hiram Imboden, who had been for many years associated with the City Mills, built a new roller mill. Since the old City Mills had been declining for some years, Imboden decided that it was better to build a thoroughly modern facility, rather than continue producing in a plant built in 1884. Thus, Imboden built a steam-powered roller mill capable of producing 200 to 250 barrels per day. The mill was located on the corner of English and Fifth Avenues and consisted of a three-story building that cost \$25,000. The mill building was large enough to accommodate additional capacity when the need arose. An elevator with a capacity of 10,000 bushels, along with a storage house capable of storing 8,000 barrels of flour, was also part of the original facility.<sup>10</sup>

Within a very short time the mill had become too small for the demand, necessitating Imboden to increase the capacity until it produced 300 barrels per day. The mill continued to be powered by a one hundred horse-power Hamilton-Corlis steam engine, although a Wheeler-Admiralty surface condenser had been added which increased the power by twenty-five percent.

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<sup>9</sup>Wichita Eagle, January 19, 1919.

<sup>10</sup>Ibid., September 15, 1901.

The plant contained 25 pairs of rollers, plus all other machinery necessary for a first class mill. At that time Imboden also updated the machinery by installing new rotary bolters. This new type of bolter had proven superior to the older revolving types, primarily because the new type required less time to complete the operation. Also included within the milling expansion was an increased storage and elevator capacity. The new elevator came complete with a steam shovel and steam car puller that increased the efficiency of the operation. An interesting note was that with each new plant and technical innovation within the milling industry, labor was becoming a decreasing factor in the success of the total operation.

By 1901, Imboden's mill could be considered the model merchant flour mill located in Wichita. The varieties of flour produced enjoyed a world-wide reputation having already been exported to England and the European Continent.<sup>11</sup> The products of the Imboden Mill included Imperial flour, Imperial Graham flour, Imperial corn meal, Imperial Breakfast food, Imperial bran and Imperial corn chop. Flour mills generally produced not only flour, but in many cases, pancake mix, cake mix, breakfast food corn products and many grades and blends of flour.<sup>12</sup>

Then in 1905 Imboden again increased the elevator

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<sup>11</sup>Wichita Eagle, September 15, 1901.

<sup>12</sup>Ibid., September 22, 1920.

capacity to 65,000 bushels. The new elevator was of the steel tank type 40 feet in diameter and 40 feet high.<sup>13</sup> By 1905 this type of elevator represented the modern method of storing grain. It was not until after 1910, with the development of the "daylight" mill, that concrete elevators became popular. Not only did Imboden keep abreast of the modern milling technology, but he also recognized the necessity of adequate grain storage facilities. For a mill to operate at maximum capacity twenty-four hours per day, a continuous supply of grain had to be available. Thus, large storage facilities had to be available to draw from when adequate grain supplies could not be purchased on the market. By doing this, the old City Mill and the Imboden Mill operated when other mills were forced to close.

The Imboden Mill continued to contribute to Wichita until 1917 when it passed into the hands of the Steven Scott Grain Company. After one year they disposed of it, and beginning in 1918 it was operated as the Imperial Flour Mill Company.<sup>14</sup>

In 1920 the Imperial Mill had a daily milling capacity of 450 barrels of flour and 100 barrels of corn meal. The elevator capacity remained at 65,000 bushels. Furthermore, the mill employed twenty people with a total weekly average pay of \$600 for the plant. The company also employed two

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<sup>13</sup>Wichita Eagle, May 12, 1905.

<sup>14</sup>Janzen, The Wichita Grain Market, June, 1928, p. 31.

traveling salesmen and one local salesman. Thus, in 1920 this mill represented a good middle-sized merchant mill.<sup>15</sup>

The mill continued operation under the name of the Imperial Milling Company until 1925 when it was destroyed by fire. The exact cause of the fire was never determined, although the loss was totally insured. Wheat dust, the primary cause of flour mill fires, was eliminated as a factor, because the mill was closed for repairs that day. Then faulty wiring was suspected, but unblown fuses disclaimed that theory. Finally, the authorities claimed that spontaneous combustion caused the fire. In any case, the loss was insured with the old mill's owners collecting over \$70,000.<sup>16</sup>

After the fire, the remaining property was acquired by the Edward Kelly Grain Company, who installed equipment for a whole-wheat and Graham flour mill. At that time, the mill became known as the Commerce Milling and Elevator Company.<sup>17</sup> Although the Commerce Milling Company did produce Graham flour, the company was principally known as a feed mill.

In 1901 Wichita received its first big flour mill, called the Watson Mill. Before moving to Wichita, W. R. Watson owned a 700-barrel flour mill in Jersey City, New Jersey. Then he became interested in locating a mill nearer the raw product, wheat. Upon being asked why he located in Wichita, Watson

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<sup>15</sup>Wichita Eagle., September 22, 1920.

<sup>16</sup>Ibid., December 9, 1925.

<sup>17</sup>Janzen, The Wichita Grain Market, June 1928, p. 31.

replied "... that he found here the supply of wheat which enabled a miller to attain and maintain that golden mean standard of gluten content in flour, not too much and not too little..."<sup>18</sup> Moreover, grain trade was not the only factor that influenced Watson's decision because the joint railroad facilities also played a significant role. At first it appeared to be a close race between Kansas City and Wichita to determine which city would get the mill. Apparently it was through the efforts of J. E. Howard, of the Howard Mills, who armed with crop reports and railroad statistics, convinced Watson to build in Wichita.<sup>19</sup>

Watson responded by building one of the largest roller mills in the Southwest, a 1000-barrel roller mill that was located at 640 East Seventeenth. The mill could not be considered one of the most beautiful to look upon, being rather unorthodox and quite compact. While many mills had the steam engine located adjacent to, or in a separate building near the mill, Watson located the Corliss steam engine in the basement.

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<sup>18</sup>Wichita Eagle, August 9, 1937.

<sup>19</sup>Ibid., January 29, 1901. W. R. Watson came from a milling family, although involved with a woolen and cotton mill, not a flour mill. The Woolen Mill was located at Frankfort, Virginia, and was destroyed or captured by the Union army. When Watson grew up, he went into the manufacture of spokes and felloes. Although he was doing a fine business, some friends introduced him to flour milling in Indianapolis, and it was there that Watson opened his first mill in 1880. Flour milling appeared to have more advantages, after all, people could not eat spokes and felloes. After Watson left Indianapolis, he tried milling at Knoxville, Tennessee, and then at Jersey City, New Jersey, before coming to Wichita. Wichita Eagle, August 9, 1937.

Furthermore, Watson located the old-fashioned porcupine boiler in the backyard. The remaining machinery was modern and reflected the prevailing technology for that period of time. Even though the mill evoked comments from spectators, the equipment ground out well over 500 barrels of flour a day and those who came to laugh went away praising the mill.<sup>20</sup>

Actually, when Watson built the mill he made provisions for its enlargement. His goal was a 1000-barrel mill; thus, the mill was built large enough to accommodate that production. When the mill opened, all the machinery was crowded in the east side of the mill, while the west side was empty. It remained that way until the middle 1900's, when expansion filled both sides.

With the advent of Watson's mill, the flour trade grew so fast that Watson had difficulty keeping up with the trade. Not only did he have a brisk trade within the United States, but also in Europe. For example, Watson sold flour in England, Ireland, Germany and even to the borders of Russia. Moreover, he reversed the general trade practice and concentrated on the European market, sending high grade flour overseas. Previously, the European market had been used as a dumping ground to keep the price of flour high, eliminating the excess flour in the United States.<sup>21</sup>

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<sup>20</sup>Wichita Eagle, October 3, 1920.

<sup>21</sup>Ibid., July 27, 1902.



Responding to the demand, Watson expanded his capacity and gradually increasing production until in 1907 he produced 1000 barrels per day.<sup>22</sup> As production increased, he realized that the existing elevator facilities were insufficient. Thus, in 1905 plans were made for the erection of an additional 70,000-bushel elevator. The elevator consisted of a steel tank 55 feet high and 45 feet in diameter, and cost approximately \$15,000. With the additional capacity Watson kept producing when grain deliveries were short. This factor, realized by successful millers, proved to be invaluable in the operation of a large mill. In addition, Watson maintained elevators along the lines of the Santa Fe, Missouri Pacific, Rock Island, and the Frisco railroads. When considering that a box car of wheat could be emptied at 10 minutes, this string of elevators represented a very real advantage over other competitors.<sup>23</sup>

However, in 1913 Watson decided to sell the mill to the Red Star Mill and Elevator Company.<sup>24</sup> This decision was prompted by his increasing age, and the rapid pace necessary to keep up with the competition. Nevertheless, Watson had a very illustrious carrier in Wichita. Not only did he build the largest flour mill in Wichita, but also his mill represented the dawning of a new age of flour milling. Furthermore,

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<sup>22</sup>Janzen, The Wichita Grain Market, June 1928, p. 26.

<sup>23</sup>Wichita Eagle, December 30, 1906.

<sup>24</sup>Ibid., September 5, 1913.

Watson had been a past-president of the Board of Trade and the first president of the Wichita Business Association.

In 1905, a new milling company was organized that was destined to become the largest flour milling concern in Wichita. The company was backed partially by new capital in the milling trade and became known as the Red Star Mill and Elevator Company. The company was capitalized at \$50,000 subject to be increased upon need. The incorporators of the new firm were: A. R. Clark, Coats, Kansas; W. E. Clark, Sawyer, Kansas; C. Q. Chandler, Medicine Lodge, Kansas; J. W. Berryman, Ashland, Kansas; J. M. Hellings, Coats, Kansas; W. S. Fallis, Garnett, Kansas; and J. E. Howard, Wichita. The officers of the company were: J. E. Howard, president and general manager, W. E. Clark, vice-president; and A. R. Clark, secretary and treasurer. The mill was located on Emporia Avenue, North of Eighteenth Street.<sup>25</sup>

Among the group of investors one name stands out alone, J. E. Howard, already a well known flour miller in Wichita. Since arriving in Wichita, Howard had been very active in promoting flour milling. Not only had he operated his own mill in Wichita, but he was responsible for the establishment of Watson flour mill in this city. Still, he had promoted and secured new investors and built a roller, steam-powered, flour mill in the north part of the city.

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<sup>25</sup>Wichita Eagle, March 22, 1905.

Moreover, from 1895 through 1905 only the Imboden Mills had escaped Howard's direct influence.

The Red Star Mill consisted of a five story building, the tallest flour mill building in the state, an elevator approximately 60 feet north of the building, plus an engine room north of the elevator. The elevator had an estimated capacity of 75,000 bushels and the mill approximately 500 barrels. The mill building was of sufficient size to enable the capacity to be doubled upon demand.<sup>26</sup>

Unfortunately, under the direction of Howard, the Red Star Mill experienced indifferent success. Then, in 1907 the directors replaced Howard with L. R. Hurd and a turning point was reached. Hurd acquired a large financial interest in the enterprise and applied his 30 years experience in the milling business to the plant. Within a few years Hurd had expanded production to 1,250 barrels per day, with an increase in the original investment to several hundred thousand dollars.<sup>27</sup>

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<sup>26</sup>Wichita Eagle, July 1, 1905. The Red Star Elevator and Flour Mill capacity varied depending upon the Source. For example, the Wichita Eagle, September 18, 1931, listed its capacity at 125,000 bushels with a milling ability of 350 barrels daily. A. E. Janzen, The Wichita Grain Market, p. 27, listed its capacity at 60,000 bushels with a milling ability of 350 barrels daily. The Wichita Eagle, July 1, 1905, listed its capacity at 75,000 bushels with a milling ability of 500 barrels daily.

<sup>27</sup>Ibid., September 18, 1931. L. B. Hurd started employment as a minor employee of what was known as the Allis-Chalmers Company. Then he sold mill machinery for them, finally being put in charge of an experimental, commercial mill at Milwaukee. From that point on, Hurd operated flour mills, most recently the Southwestern Milling Company in Kansas City.

In 1913, trade had expanded to a level that the Red Star Mill anticipated building another plant. Then, in September 1913, the Red Star Company reversed itself and purchased the Watson Mill, located only a few blocks from its mill. The purchase cost the Red Star \$50,000, a rather small sum for a successful, fairly modern, 900-barrel flour mill.<sup>28</sup> After purchase, the old Watson Mill was improved slightly, which increased production to over 1000 barrels per day. In addition, the storage and elevator capacity was increased, followed in 1914 by further expansion. At that time the elevator storage capacity was increased to 600,000 bushels. This was accomplished by building twenty concrete tanks adjacent to Watson's old mill. The increased capacity enabled the mill to keep going for 60 days on stored wheat alone, using 10,000 bushels per day.<sup>29</sup>

With the purchase of Watson's old mill, the Red Star Company was faced with the dilemma of how to refer to the two mills. After all, they could not continue to call their second plant, the "old Watson Mill." Ultimately the problem was solved by distinguishing between the two mills with letters. The original plant became known as mill A and Watson's old mill became mill B. The two mills were connected by intercommunicating telephone systems, enabling them to keep abreast of the others' activities. Nevertheless, each mill

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<sup>28</sup>Wichita Eagle, September 5, 1913.

<sup>29</sup>Ibid., June 6, 1914.

was operated as much as possible separate from the other. Thus, all the company's brands of products were produced at each plant.

With the acquisition of plant B, progress did not stop but appeared to accelerate. In 1914, mill B was converted to electricity by the installation of a 300 horse-power electric motor that weighed 25,000 pounds.<sup>30</sup> Within a short time the elevator capacity was again increased until in 1917 they possessed capacity to store one million bushels. At that time, flour production for the two mills were listed at 2,400 barrels per day.<sup>31</sup>

In 1921 the Red Star Milling Company had built its crowning achievement, plant C. This mill had been considered the world's finest and most economical flour mill for that period of time. All the proven ideas of the milling science were incorporated in the mill, enabling it to produce 2,250 barrels per day.<sup>32</sup>

In 1921 plant C was considered the largest flour mill in Kansas housed under one roof. The mill was of the new daylight type, being built of concrete, steel, and wired glass panels.<sup>33</sup> The building was nine stories high and covered an area of 60 by 160 feet. It followed the prevailing

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<sup>30</sup>Wichita Eagle, June 16, 1914.

<sup>31</sup>Janzen, The Wichita Grain Market, June 1928, p. 26.

<sup>32</sup>Wichita Eagle, September 18, 1913.

<sup>33</sup>The daylight mill will be discussed in more detail when examining the Wichita Flour Mills.

practice of building a plant large enough to allow production to be increased when deemed necessary. In addition to the new mill, a storage elevator was constructed of monolithic concrete. The elevator consisted of five concrete tanks with a combined storage capacity of 300,000 bushels. A unique feature consisted of covered dumping pits, which were designed to facilitate the unloading of railroad cars. These pits enabled the company to unload 60,000 bushels of wheat from the railroad cars in a day's time. Furthermore, the completed mill and elevator cost \$750,000.<sup>34</sup> This figure represented the largest amount spent on a single mill in Wichita until that time. With the added mill, total production increased to 4,600 barrels. In 1927, storage capacity had increased to 3,000,000 bushels total capacity. Also the total investment for the three mills was \$2,672,000, and the annual business amounted to \$7,700,000.<sup>35</sup>

However, by 1928 another change was in the making that would represent another first for the flour milling industry in Wichita. The problems usually associated with growth and size of an industry involved difficulty in merchandising and operating a mill efficiently, which thus resulted in the Red Star Company being acquired by General Mills Incorporated.<sup>36</sup>

Furthermore, with the organization of General Mills

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<sup>34</sup>Wichita Eagle, October 3, 1920.

<sup>35</sup>Janzen, The Wichita Grain Market, June 1928, p. 26.

<sup>36</sup>Wichita Eagle, September 18, 1931.

in 1928, much of the milling industry in the United States came under the control of a common company. General Mills had acquired companies in Minneapolis, Buffalo, Kansas City, and in fact every milling center in the nation. "General Mills represented common interests of greater magnitude than has ever existed in the history of the milling industry."<sup>34</sup> Each milling company it acquired had behind it years of successful independent performance. Thus, the Red Star Company became part of an organization that controlled, to a large extent, the flour milling interests within the United States. In addition, the Red Star Company became a distributor and producer of the General Mills' products. For example, Gold Medal flour, Washburn pancake flour, and Wheaties breakfast food were produced in Wichita.<sup>35</sup>

Presumably, General Mills became interested in the Red Star Company for the same reasons that attracted numerous other milling concerns to Wichita. Milling the grain into flour within a close proximity to grain production was more efficient than shipping it back north for milling.<sup>36</sup> Under the direction of General Mills, the mill continued to prosper, although the period of rapid expansion had passed. The plant could not be operated in an efficient manner however, and in 1964 it was closed.<sup>37</sup>

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<sup>34</sup>Wichita Eagle, September 18, 1931.

<sup>35</sup>Ibid., January 1, 1929.

<sup>36</sup>Ibid., September 18, 1931.

<sup>37</sup>Ibid., June 29, 1966.

Within one year after the Red Star Mill A was built, the second permanent milling company was formed in Wichita. Thus, the Kansas Milling Company was organized in 1906 by C. M. Jackman, Henry Lassen, and H. D. Yoder. Although the company located in Wichita in 1906, the history of the company stretched back to the 1890's. At that time, Jackman and Lassen started a small mill at El Reno, Oklahoma. With some \$15,000 borrowed capital, the owners were able to construct a mill with a 150-barrel capacity, and obtained elevator space. Gradually the mill had prospered drawing the grain and flour trade from the surrounding territory.<sup>38</sup> Needless to say, the mill became a success, which enabled Lassen and Jackman to accumulate a sizeable nest egg. Soon the mill and elevator was organized into the Canadian Mill and Elevator Company, which in turn continued to prosper until the business had outgrown the territory it served. The owners realized this, and Lassen set out to find a suitable site for a larger mill, nearer to the available grain market. At first Kansas City appeared to be the likely location, being already a milling center of some note. Then, gradually the undeniable advantages of Wichita became apparent. Lassen was impressed with the railroad facilities, grain trade, and the aggressive business community that existed in Wichita. In 1906 he responded to the advantages and purchased five acres of land south of Thirteenth Street and between the Santa Fe and Rock

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<sup>38</sup>Janzen, The Wichita Grain Market, June 1928, pp. 28-29



Island railroads.<sup>39</sup>

The third member of the organization, H. D. Yoder, was lured by Lassen from Kansas City. Originally Yoder had been an official of the burned-out Kansas City Milling Company. While Lassen visited Kansas City, Yoder had attempted to persuade him to locate there. Ultimately he failed, and Lassen, the senior member of the firm, convinced him to join their company and locate in Wichita. Thus, the Kansas Milling Company was organized with Henry Lassen the president, H. D. Yoder the vice-president, and C. M. Jackman, the secretary and treasurer. The company was incorporated with a quarter of a million dollars, the exact cost of the original facility.<sup>40</sup>

In 1906 the company built its first plant, a steam-powered roller mill that incorporated the best technology of that day. The original mill was not of the new daylight type, although it was quite large and produced 1200 barrels per day. This plant was considered the largest flour mill in Kansas with the exception of J. B. M. Kehler's old Rex Mill in Kansas City. In 1909 the original facility was expanded by adding 500 barrels to the flour production, and increasing the elevator capacity to 650,000 bushels of grain. Then, in 1913 a 350-barrel mill was acquired at St. John, Kansas. Later this mill was expanded to 500 barrels and became known as the

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<sup>39</sup>Wichita Eagle, January 20, 1906.

<sup>40</sup>Ibid., December 30, 1906.

"Mill of the Trail."<sup>41</sup>

In 1913 the company had a milling capacity of 2,000 barrels of flour. The plant officers remained the same with the exception of Yoder, who had been replaced by A. C. Jobes. Approximately 60 people worked at the mill and thus it represented a small labor force when compared with the value of the product produced. Furthermore, the primary product, Wichita's Best flour, had been marketed around the world. For example, the flour had been sold in Central and South America, England, Scotland, France, Germany, Russia, and some of the Far Eastern countries.<sup>42</sup> In 1913 the Kansas Milling Company marketed a larger percent of their flour around the world than any flour mill in Wichita.

In 1920 the Kansas Milling Company completed a major addition to their facility. This addition was of the daylight type being six stories high and constructed of concrete, glass and steel.<sup>43</sup> The mill was equipped with modern machinery from Nordyke and Morman, who were considered the leaders in manufacturing mill machinery. In fact, all of the Kansas Milling Company additions had been equipped with this type of machinery, thus ensuring a uniform grade of flour produced in each addition. After completion of the new facility, flour production was listed as being 4000 barrels produced per day which doubled the original plant's production. Accompanying

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<sup>41</sup>Janzen, The Wichita Grain Market, June 1928, pp. 26-29.

<sup>42</sup>Wichita Eagle, May 18, 1913.

<sup>43</sup>Ibid., October 3, 1920.

the expanded mill production was that of the labor force which increased from approximately 60 to 125 men. This resulted in an annual payroll of more than a quarter of a million dollars.<sup>44</sup>

Moreover, the company continued to produce the original brands of flour. Their top grade was called Wichita's Best, then Lassen's Perfection, Rose of Kansas, and Imperial. Along with the primary grades lower grades of flour and corn meal were produced.<sup>45</sup> The company continued to export a large amount of flour. In 1927 thirty percent of the flour produced was exported around the world. By contrast, the Red Star Milling Company exported only five percent of its total production even though Red Star produced 4,600 barrels as compared with 4,000 barrels per day for the Kansas Milling Company.<sup>46</sup>

The Kansas Milling Company became known for its consistently good top grades of flour. Probably a major factor that contributed to this reputation was the use of controlled laboratory techniques in the making of flour. In fact, it was the first flour mill in Kansas to employ chemists. The function of the chemists was to analyze and bake each grade of flour made every day. The chemists analysed all incoming wheat before it could be unloaded. This gave them not only

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<sup>44</sup>Wichita Beacon, March 13, 1921.

<sup>45</sup>Ibid.,

<sup>46</sup>The Wichita Magazine, September 27, 1927, p. 22.

a check on the quality of raw product but also on the finished product. Naturally this practice enabled them to keep a uniform quality product.<sup>47</sup>

Taken as a whole, the Kansas Milling Company experienced three periods of expansion, and with each expansion the total flour production increased along with the elevator capacity. Actually, their elevator capacity increased faster than did total production. In 1922 only 650,000 bushel storage capacity existed but by 1927 the capacity had risen to 1,650,000 bushels. This represented an increase of a million bushels in a period of five years. However, this was not necessarily unique for the flour mills in Wichita. To operate at peak efficiency a major mill had to be able to run continuously and this required immense elevator capacity, a capacity that each of the large mills possessed. In fact, all the major flour mills in Wichita possessed over one million bushels storage capacity. The Kansas Milling Company was able to operate effectively until 1962 when it ceased to exist as a corporation and became a division of Ross Industries, Incorporated.<sup>48</sup>

The third major flour mill that directly participated in the development of the flour milling industry in Wichita was built in 1914. This was the first year of World War I, and soon a howl went up from Europe for bullets and bread.

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<sup>47</sup>Wichita Beacon, March 13, 1921.

<sup>48</sup>Wichita Eagle, June 29, 1966.

Three families responded to the call and formed the Wichita Flour Milling Company. The members of the company included W. H. Kinney and Miss Nettie Kinney, Mr. & Mrs. J. H. Moore, and Mr. and Mrs. G. M. Lowry, all from Wichita.<sup>49</sup> Actually, the three male members of the company were owners of the Pond Creek Milling Company located at Pond Creek, Oklahoma. Unfortunately, early in 1914 fire destroyed their 450-barrel flour mill that was valued at \$100,000. Soon after the fire, Messers. Moore, Kinney and Lowry leased the Howard Mill and operated it through 1914 at which time the lease expired.<sup>50</sup>

In the meantime, the Wichita Flour Milling Company proceeded to build the first daylight mill located in Wichita. The mill was unique for that day and age, being built entirely of concrete, glass, and steel. The mill building was five stories high, accompanied by a storage warehouse two stories high. All machinery within the mill was operated by electricity, each machine operated by its own electric motor. This represented an expensive innovation since each electric motor cost \$10,000. Naturally the facility was a roller mill that specialized in grinding wheat and corn.<sup>51</sup>

The daylight mill represented the most modern and efficient mill in the Southwest, and in fact only three mills in the United States were of this type. The total frame was

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<sup>49</sup>Wichita Eagle, November 29, 1913.

<sup>50</sup>Ibid.

<sup>51</sup>Ibid., March 25, 1914.

built of steel with no wood used in the structure. The basic building was constructed of reinforced concrete, Mavajo brick, and immense steel sash windows. The windows were of such size that the sun shown in every corner of the building. Furthermore, if the putty used to seal the windows were stretched out in a straight line, it would be five miles long and an inch wide. The original plant represented a capital investment of about \$250,000 and processed 4,500 bushels of wheat into 1,000 barrels of flour per day. This represented 1,408,560 bushels of wheat worth \$1,281,735 per year.<sup>52</sup> Also included as part of the original structure was a concrete elevator with capacity for 125,000 bushels of grain.<sup>53</sup>

Upon examination of the Wichita Flour Mills, it appeared that their top brand of flour "Kansas Expansion" was accurately named since the history of the company had been one of continual expansion. In fact, the firm grew so rapidly that in 1918 it was necessary to add a second unit with a 1,500 barrel capacity. The addition cost \$100,000 and when finished, the mill represented the largest flour mill under one roof in the state of Kansas. The addition was also of the daylight type, built along the same pattern as the original mill. Furthermore, the machinery was supplied by Allis-Chalmers, with each machine powered by its own individual electric motor.

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<sup>52</sup>Wichita Eagle, May 24, 1914.

<sup>53</sup>Janzen, The Wichita Grain Market, June 1928, p. 30.

Total flour production jumped to 2,500 barrels per day accompanied by an increase in the work force from 30 to 50 employees.<sup>54</sup> In addition, new grain storage tanks were built in 1925 and again in 1926. These additional tanks increased total storage capacity to over 1,000,000 bushels; thus, the Wichita Flour Mills represented the third mill to possess elevator capacity over one million bushels.<sup>55</sup>

Moreover, the Wichita Flour Mills had expanded throughout the state. For example in 1924, Moore and Lowry took over the Kansas City Milling Company of Kansas City, and have since operated it as the Moore-Lowry Flour Mills. This mill had a capacity of 1,500 barrels per day and storage capacity for 400,000 bushels of grain. In 1926 the company took over a 700 barrel plant at Abilene, Kansas. In Topeka they purchased the Willis-Norton mill, a 1,200 barrel per day plant.<sup>56</sup> The company sold flour throughout the world, exporting thirty-three percent of its total production.<sup>57</sup> Thus, they represented the most aggressive flour mill located in Wichita.

Although it was beyond the scope of this paper, an interesting novelty was the participation of Miss Kinney and the wives of Moore and Lowery in the management of the company. At a time when women's outside activities were confined to

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<sup>54</sup>Wichita Eagle, July 12, 1918.

<sup>55</sup>Wichita, Price Current, Clippings file "Flour Mills," Wichita Public Library, April, 1929.

<sup>56</sup>Ibid.

<sup>57</sup>Wichita Magazine, September 27, 1927, p. 22.

special issues, this represented an interesting deviation. Even though Nettie Kinney was vice-president of the company, this writer was unable to find a newspaper article that concentrated on her accomplishments. Reasons for this could range from the possibility that an article could have been overlooked, to the possibility that she played a very minor role in the actual management of the firm. In any case, she represents an interesting research topic for a related paper.

The Wichita Flour Mills continued to produce and market effectively until 1964 when they suffered a \$5,000,000 fire. Fortunately, they rebuilt after the fire and installed entirely pneumatic equipment that increased their total milling capacity to 8,500 cwts.<sup>58</sup> The company operated as a family enterprise until the early 1970's when Merrill bought out Moore thus ending a three generation family involvement in the milling industry in Wichita.<sup>59</sup>

For a short period of time, Wichita benefited from the prestige attributed to the Kansas Flour Mill Company.<sup>60</sup>

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<sup>58</sup>Wichita Eagle, June 29, 1966. In the 1940's, measurement of flour milling capacity changed from barrels to sacks or hundredweight (cwts).

<sup>59</sup>Milling and Banking News, Clippings file, "Flour Mills," Wichita Public Library, July 3, 1973.

<sup>60</sup>Wichita Eagle, April 6, 1912. Do not confuse the Kansas Flour Mills Company with the Kansas Milling Company. In fact, the Wichita Eagle reported that the Kansas Milling Company had filed an injunction against the Kansas Flour Milling Company because of the confusion resulting from the similarities between the two names. This confusion resulted in mixed correspondence between the two companies and confusion concerning the flour brand sale. Evidently the suit was dropped, for this writer was unable to find further reference to it.



In 1911 a group of prominent individuals throughout Kansas organized the Kansas Flour Mills Company with a capital of \$9,000,000. Originally the company controlled the following mills: Moses Brothers, Great Bend; Kingman Milling Company, Kingman; C. Hoffman Milling Company, Enterprise; Pratt Mill and Elevator Company, Pratt; New Era Milling Company, Arkansas City; and the Anthony Milling Company, Anthony.<sup>61</sup> Gradually the company increased its scope of operation until it operated nine mills and 150 elevators throughout Kansas and Oklahoma. An article in the Wichita Eagle stated:<sup>62</sup>

"The purpose of the organization is to standardize these mills and any others it may control later into making the same grade of flour, to economize in management, purchasing and selling power and create a stronger and better market for Kansas hard wheat flour..."<sup>63</sup>

In 1912 the Kansas Flour Mill Company initially decided to build a 1,000-barrel steel and concrete mill in Wichita. In addition, an elevator would have been constructed with the capacity of 250,000 bushels. The total cost would have exceeded \$200,000, which included the new facility and repairs to mills they owned throughout the state. Unfortunately, the plan for a new facility never materialized although the fate of the repairs to already existing mills

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<sup>61</sup>Wichita Eagle, December 5, 1911.

<sup>62</sup>Ibid., October 3, 1920.

<sup>63</sup>Ibid., December 5, 1911.

were not determined.<sup>64</sup> The company never did build or own a flour mill in Wichita, and finally in 1914 decided to move its general office to Kansas City.<sup>65</sup> The decision was made primarily because of a lack of elevator facilities that existed in Wichita and banking difficulties experienced by the company.<sup>66</sup> Although this writer was unable to authenticate the fact, the possibility existed that branch offices were re-opened in Wichita in approximately 1920. In any case, the company never owned a flour mill in Wichita, although it did make extensive use of elevators within the city.

Taken as a whole, the early 1900's witnessed the birth of the type of flour mills that brought national prominence to Wichita. The mills were large and by the 1920's all three major milling companies possessed daylight mills. Not only had the mills themselves changed, but the milling techniques had also. With each expansion, the mills became increasingly complex, until the average unskilled worker was all but replaced by the laboratory technician. In 1920 many mill workers drew salaries of \$5,000 a year, and the minimum wage of a mill worker was approximately six dollars per day. Thus, when compared with other industries, this represented a respectable income for that day.<sup>67</sup>

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<sup>64</sup>Wichita Eagle, March 6, 1912.

<sup>65</sup>Ibid., December 15, 1914.

<sup>66</sup>Ibid., June 15, 1912.

<sup>67</sup>Ibid., October 3, 1920.

## CHAPTER V

### CONCLUSION

Wichita achieved the enviable position of being the fourth ranking milling center in the United States within a period of 20 to 25 years. In 1900, Wichita produced approximately 600 to 700 barrels of flour daily. In 1912, approximately 5,700 barrels were produced per day, and in 1922 the amount increased to 11,000 barrels. This rapid increase represented a gradual shift in the milling industry from the Northwest to the Southwest. For many years, Minneapolis had dominated flour production primarily because of its proximity to the great wheat producing areas of the Northwest. Furthermore, cheap water power obtained by harnessing the water of various falls in the Mississippi gave Minneapolis her first start in flour milling. Also, the availability of water transportation over the Great Lakes brought about a freight rate situation that gave the city a tremendous advantage over smaller producing centers less favorably located. Taken as a whole, the country became accustomed to eating bread made from soft varieties of flour produced primarily in Buffalo, New York, and Minneapolis, Minnesota. For many years the public knew of no other and would not readily accept change.

However, with the introduction of Turkey Red varieties

of wheat, the situation was destined to change. Ambitious Southwestern millers waged a never-ending campaign to make known the attributes of hard winter wheat. Through flour milling improvements, millers were able to grind hard varieties of wheat in sufficient quantity and quality that it could be introduced to the world. Naturally, the realization of the superiority of Turkey Red wheat was slow to come; but finally the major milling centers were forced to accept it and bakers and housewives alike became aware of its baking qualities.

Actually, the early use of hard wheat came when flour millers mixed it with other soft varieties in their attempt to raise the quality of the finished product. Slowly the use of hard wheat increased, thus encouraging farmers to break out and plant virgin soil into wheat. While thousands of new acres were being planted in the Southwest, wheat production in other areas declined. The spring wheat producing centers had seen their day, and farmers on high priced land with small acreages that did not permit the utilization of large scale farming techniques found that they could not compete with the Southwest. As expected, wheat production declined in the older spring wheat producing centers, and they became increasingly more important as a consuming market. Furthermore, these areas became industrialized, population increased, and in some cases they developed into urban centers.

As the Southwest became more important as a grain producing area, flour millers started to realize the advantages of locating near the source of the wheat. Profit

conscious millers realized that it was uneconomical to ship wheat long distances to be milled, then ship it back to be sold. Thus the trend was to locate near the raw product in the Southwest.

At first this area lacked adequate transportation facilities, and this resulted in most of the early flour mills doing custom business. Then the railroad built into this area, changing Wichita from a county shipping point into a wholesale grain market. Along with this change came an additional expansion of the grain market. For example, small elevators sprang up along the railroad lines, enabling farmers to have an easy accessible market for their grain. Farmers were able to spend more time in their fields, thus increasing production.

As the above mentioned changes unfolded, one major stumbling block remained that retarded the development of large merchant flour mills in Wichita. The retardent was the cost of transporting grain and flour to and from Wichita. For a considerable time, primary markets such as Minneapolis and Kansas City maintained freight rate advantages over interior market areas. The establishment of a parity or an equalization of the cost of transportation between the two markets tended to stabilize the milling industry, but the problem was far from solved.

In general, the early 1900's recognized Galveston as a natural shipping point for products being sent from this section to Europe. At first, Kansas City experienced a

freight rate advantage, but by 1908 the rates were changed to an extent that Wichita exercised an advantage over Missouri River points. Thus, grain could be shipped to Galveston and New Orleans at a cheaper rate through Wichita which increased the grain and grain products business in Wichita.<sup>1</sup> C. M.

Jackman of the Kansas Milling Company stated that:

It is at a great deal of benefit to the millers of this city and this section of the country. We ship all of our export flour by way of Galveston as we are now getting a good rate. It enables us to do business on a much better basis than formerly when Kansas City had a decided advantage in Gulf states. The present rate went into effect last summer just after harvest. While the manufacture is benefited the farmers is also benefited.<sup>2</sup>

Actually, the difference in rates between the two cities were quite small, being only 27 cents per hundred pounds from Wichita as compared to 31 cents from Kansas City. The difference between the two appeared to be a small amount, but it added up quickly when considering the number of tons shipped in a year. For example, A. E. Helm, the attorney who represented the claims of the Wichita millers and grain men to the Interstate Commerce Commission stated:

That the increased amount of milling and grain business of Wichita is not surprising in view of the fact that this city is getting better rates to the gulf than Missouri River points. It is no longer possible for the grain dealers and millers of Missouri River points to ship grain from such points as Great Bend to Kansas City and then on to the gulf at a lower rate than the millers and grain men here .... I expected to see Wichita do almost all of the business in grain in this section of the Southwest.

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<sup>1</sup>Wichita Eagle, March 25, 1908.

<sup>2</sup>Ibid.

This city certainly now offers inducement for investment of that sort that are not offered by other shipping centers.<sup>3</sup>

Millers did build in Wichita and in a short span of time national prominence had been achieved. As the mills grew they also changed, and Charles E. Diehl, a noted flour salesman in Wichita, reflected upon these changes:

A great many changes have come to the milling industry since the days of my first connection with it - most of them in the form of improved machinery, of course. Today most of the power used is electric instead of steam or water power, too, there is much less hard work, and the men who do work are paid more highly and work shorter hours. As a matter of fact, I think eight hours is the regular day and I suppose \$3.50 is about as little as any man earns each day. Quite a difference from the \$8.50 per week of six 12 hour days at which I started in the business.... The testing of incoming grain with samples from each carload that comes to the mill, is one of the latter developments of milling practice. Having discovered the protein content, the carload is stored in a special bin kept from that grade. A standard grade of flour is maintained by blending the different grades from the different bins in proper proportions. The blend is also tested, and every few hours a sample is examined to see that the quality is the same.<sup>4</sup>

Naturally, along with the technical changes, the milling industry expanded, increasing the size of its plants and its capacity. In 1907 Wichita produced approximately 600,000 barrels of flour. In 1917 production had increased to 1,400,000 barrels of flour, then in 1926 to about 2,460,000 barrels per day. This represented a maximum total that was not surpassed until 1932 when a high point of 2,481,559 barrels

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<sup>3</sup>Wichita Eagle, March 25, 1908.

<sup>4</sup>Ibid., January 3, 1926.

of flour were produced.<sup>5</sup> It was not until the war years that this total was again exceeded.

Neither Wichita nor Kansas followed the national trend in flour production. The nation as a whole had experienced a decrease in flour production. This was due, in part, to less consumption of cereals, while also accompanied by an increase in the consumption of meat and vegetables. In addition, the 1930's witnessed new and richer dough mixes that enabled the baking industry to produce 150 pounds of bread from 100 pounds of flour, as compared with 137 pounds of bread produced from 100 pounds of flour in 1900. Furthermore, European exports had declined, not to be increased until World War II.<sup>6</sup> Even so, by the 1930's Kansas had taken the lead in flour production in the United States. The number of sacks of flour produced in 1936 was over three million more than the 26,475,000 milled in 1934. After that, production steadily rose until by 1950 Kansas milled over 35.1 million sacks, far more than second ranked Minnesota and third ranked New York.<sup>7</sup>

The contribution of the flour milling industry to the city of Wichita was a little more difficult to measure. Again, Mr. Diehl, early flour salesman, stated:

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<sup>5</sup>The Wichita Magazine, September 27, 1927, p. 16.

<sup>6</sup>Francis Schruben, Kansas in Turmoil (Columbia University of Missouri Press, 1969), pp. 9-10.

<sup>7</sup>Ibid., p. 173.



I think that milling was the first industry to start in Wichita and the main cause of its first growth, with the help of the converging railroad lines here. With the boom days the packing houses added a great deal to the permanent prosperity, but still I would say that flour mills are as important as anything...<sup>8</sup>

Moreover, other interesting facts concerning Wichita's flour production further clarified the picture. The mills together in one week's work could provide more than enough flour to meet the local needs for a year. In addition:

Between 50 and 55 carloads of mill products leave the city every day, of which output probably 30 percent is exported. Approximately 11,400 barrels of flour are turned out every day by the various mills together. Allowing five bushels of wheat to the barrel this makes some 57,000 bushels a day which at the average price per bushel makes 94,000 dollars paid out to farmers and elevator companies every day and this makes around 20,000,000 dollars a year. In addition to this money that is going back to the wheat growers and their agents, about one dollar per barrel of flour can be counted as cost of manufacturing, in other words some 11,400 dollars is spent right in the city of Wichita every day, which makes over 4,000,000 dollars per year.<sup>9</sup>

In 1926 this represented a considerable amount of money, much of it spent within the community. Gradually, as the milling industry expanded, the amount of money injected into the community increased. Thus, the milling industries' primary contribution was financial. To clarify further, the milling industries required hundreds of items that were either shipped into Wichita, or supplied by industries within the city. The Bemis Bag Company was formed that produced cloth

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<sup>8</sup>Wichita Eagle, January 3, 1926.

<sup>9</sup>Ibid.

and paper bags. Practically the total production from this company was consumed by the different mills.<sup>10</sup>

As the mills grew, a corresponding need was established for elevator capacity. A large percent of the elevator capacity was provided by the mills themselves. In 1927 the Red Star Milling Company possessed capacity for 3,000,000 bushels, the Kansas Milling Company had a 1,650,000 bushel capacity and the Wichita Flour Mills had capacity for 1,000,000 bushels. Prior to 1917 the elevator capacity outside of the mills never exceeded twenty percent of the total storage capacity. Up to 1917 much of the grain came in intervals allowing the mills time to dispose of existing grain and making room for new deliveries. However, a new situation was created with the extensive use of the combine harvester and thresher. These new innovations quickened the harvesting process, flooding the grain market. In addition the mills needed a continuous supply of grain, creating a situation that called for additional elevator capacity.<sup>11</sup>

In response to this condition the Wichita Terminal Elevator Company was organized in 1917. This firm supplied vast fireproof storage facilities, plus furnished grain, and handled accommodations at regular rates to the buyers of grain. In 1927, this company had an elevator capacity of

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<sup>10</sup>The Wichita Magazine, January 3, 1935, p. 20.  
Wichita Eagle, January 3, 1926.

<sup>11</sup>The Wichita Magazine, September 27, 1927, p. 17.

2,000,000 bushels, and could unload grain at a rate of 100 cars per day. Furthermore, in 1927 the total elevator capacity outside of the mills had reached 2,132,000 bushels, or up to 37 percent. Thus, the total elevator capacity had reached 7,857,000 bushels, which ranked Wichita fourth behind Kansas City, Omaha, and St. Louis in grain storage capacity.<sup>12</sup>

Another organization that developed hand-in-hand with the flour milling industry was the Wichita Board of Trade. The exchange was organized in 1903 and represented the first grain exchange to be formed in Kansas. The original charter provided for fourteen members who paid \$25 each for the privilege of belonging. The board consisted of people who sold grain on commission, those who dealt on their own account, and buyers for milling companies. The local board of trade handled strictly a cash business, dealing in no futures or speculations. Although each original member paid only \$25 for his membership, in 1910 it had become worth \$1,000 and was destined to become worth more in the future. Paralleling the growth in value of individual memberships was the activity of the exchange. For example, in 1907 there were 10,875 cars of grain handled by the exchange. This increased to 22,000 cars in 1909, and gradually crept upward until in 1927, 26,759 cars had been handled. Although the grain exchange would have existed without the flour milling industry in Wichita, the two

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<sup>12</sup>The Wichita Magazine, September 27, 1927, p. 17.

complimented each other very well.<sup>13</sup>

Another organization that resulted primarily because of the milling industry was the Wichita Terminal Association. This association consisted of the Santa Fe, Rock Island, Missouri Pacific, and Frisco railways. The purpose was to facilitate the handling of railway cars going to or coming from the local industries. This association became very important during periods of car shortages, in fact setting a record for the delivery and return of cars during one harvest period.<sup>14</sup> Moreover, the railroad industry had benefited greatly from the grain trade and milling industry, with thousands of grain or flour carrying cars moving into and out of Wichita. In the early days the railroad relied heavily upon the grain and flour trade. In more recent years the situation has reversed itself, although both have benefited mutually from the association.

To be sure the milling industry had contributed greatly to the growth of related industries and the general state of the economy. As previously discussed throughout the paper, the milling industry directly contributed very little to the population of Wichita. On the other hand, it played a major role in enhancing the national reputation of Wichita.

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<sup>13</sup>Wichita Eagle, November 25, 1937; The Wichita Magazine, September 27, 1927, pp. 5, 16.

<sup>14</sup>Wichita Eagle, November 25, 1937. In 1927 grain was shipped in a larger railroad car thus accounting for the conflict between the 1909 and 1927 statistics.

In the early 1920's, Wichita ranked fourth nationally in both flour production and elevator capacity. Flour made in Wichita had been sold throughout the world. The milling industry had led the Southwest in many milling improvements which ranged from the daylight mill to the use of laboratory science. Withitans were noted for their efforts in promoting fair freight rates for the interior markets. Thus individuals and businessmen came into contact nation wide with the growing city in the midwest, and in turn considered locating in Wichita.

Furthermore the owners of Wichita flour mills were active in promoting the community. A. W. Oliver, associated with the old City Mills, was an early director of Wichita's National Bank and president of the Board of Trade. He was also the first president of the Wichita Chamber of Commerce. J. E. Howard became noted for his efforts to stir up public interest in the commission form of city government in Wichita. After its adoption, Howard participated by being both a city and county commissioner. Another early flour miller, W. R. Watson was active in the business arena, being both a president of the Board of Trade and the first president of the Wichita Business Association. G. H. Lowry, part owner of the Wichita Flour Mills, had been a vice-president of the Chamber of Commerce in Wichita. In fact, all the mill owners were men of vision; men like Imboden, Watson, Howard, Jackman, Moore and Lowry. The milling industry offered a needed facility in the building of the city. That facility, milling flour,

was used to establish a financial basis for the beginning of a new era in the history of the city. The early history of many plains cities parallels the happenings in Wichita, but few of them were to reach the heights to which Wichita ascended.

## BIBLIOGRAPHY

### NEWSPAPERS

- Kansas City Times, 1937.  
Wichita Beacon, 1906-13.  
Wichita Eagle, 1873-1966.

### PRINTED SOURCES

- "Annual Report" Kansas Bureau of Labor and Industry.  
(Topeka: State Printing Office, 1886, 1888, 1889, 1900).  
"Wheat in Kansas" Report of the Kansas State Board of  
Agriculture for the Quarter Ending September 1920.  
(Pub. Quarterly by the K.S.B. of Agriculture, Topeka:  
Kansas State Printing Plant), XXXLX, No. 155.

### SECONDARY

- Andreas, A. T., History of Kansas. Chicago: A. T. Andreas,  
Pub., 1883.  
Bentley, O. H., ed. History of Wichita and Sedgwick County.  
Chicago: C. F. Cooper and Company, I.  
Blackmar, F. W., Kansas A Cyclopedia of State History.  
Standard Publishing Company, II.  
Cabe, Carl, Flour Milling. Kansas Industrial Series No. 2,  
School of Business - Bureau of Business Research,  
Lawrence, Kansas, University of Kansas Press, June, 1958.  
Janzen, A. E., The Wichita Grain Market. The University of  
Kansas School of Business, Kansas Studies in Business,  
No. 8, June, 1928.  
Kuhlmann, C. B., The Development of the Flour Milling Industry  
in the United States. New York: Houghton Mifflin  
Company, 1929.

- Long, Dick, Cradle Days of a Midwestern City. Wichita: McCormick Armstrong Company, 1945.
- Schruben, Francis, Kansas in Turmoil. Columbia: University of Missouri Press, 1969.
- Miller, Nyle H., Langsdorf, Edgar, Richmond, Robert W., A Pictorial History of Kansas. Topeka: The Kansas Centennial Commission and the State Historical Society, 1961.
- Seiler, William H., "Industry and Mining in Kansas," in John D. Bright, ed., The First Century. New York: Lewis Historical Publishing Company, 1956, II.
- \_\_\_\_\_. Souvenir, Wichita of Today. Wichita Public Library, 1902-1903.
- \_\_\_\_\_. Wichita: An Illustrated Review of its Progress and Importance. Enterprise Publishing Company, Wichita: Eagle Printing House, August, 1886.

#### PERIODICALS

- Douglas, Richard L., "A History of Manufactures in the Kansas District." Collections of the Kansas State Historical Society, 1909-1910, XI (Topeka: Kansas State Printing Plant, 1910).
- Fitz, Leslie A., "Development of Flour Milling Industry in Kansas." Collections of the Kansas State Historical Society, 1911-1912, XII (Topeka: Kansas State Printing Plant, 1912).
- Janzen, A. E., "The Early Cattle and Wagon Wheat Markets." The Wichita Magazine (Wichita Chamber of Commerce, September, 1927).
- Long, Dick, "A Brief History of Wichita." Wichita People (Wichita, Chamber of Commerce, 1946-1947).
- Sowers, F. A., "The Building of a City 1839-1918." Carter's Monthly (Special Collections, Wichita Public Library).
- Von Benthaysen, Will, "The Old Mill." Sedgwick County W.P.A. Files (Wichita State Library, Box 14, Vol. 51).
- \_\_\_\_\_. "From Wagon Market to Board of Trade." The Wichita Magazine (Wichita Chamber of Commerce, September 27, 1927).
- \_\_\_\_\_. Milling and Banking News. Clippings file, "Flour Mills" (Wichita Public Library, July 3, 1973).



\_\_\_\_\_. "Wichita's High Position in Milling Industry."  
The Wichita Magazine (Wichita Chamber of Commerce,  
September 27, 1927).

\_\_\_\_\_. Wichita, Price Current. Clippings file,  
"Flour Mills" (Wichita Public Library, April, 1929).