THE INFLUENCE OF THE MINNEAPOLIS FLOUR MILLS UPON THE ECONOMIC DEVELOPMENT OF MINNESOTA AND THE NORTHWEST[1]

In the *St. Anthony Express* of October 8, 1852, there appears the following news item: "A new Grist Mill has just been erected by Mr. Rogers, adjoining the Saw Mills, next to Main St. It is to be put in operation at once, Mr. R. having gone below for the machinery. This will be a great advantage to our village and the adjoining country, as there has been a large quantity of grain raised this season in this vicinity. Let it be understood that we can make good flour, and production will be so stimulated, that we shall have no need to import any more flour." This mill of Richard Rogers, together with the old government mill on the opposite side of the river, then operated by Calvin Tuttle, marks the beginning of the far-famed Minneapolis flour mills. Almost three-quarters of a century has passed since that day. In that time the number of mills has grown to more than a score and they produce fully one-seventh of the total American flour output.

To deal exhaustively with the subject of this paper, it would be necessary to write an economic history of the Northwest. Scarcely any industry or economic group has remained uninfluenced by the milling industry. The present discussion will therefore be confined to those economic developments most directly and deeply influenced by it. The following topics will be considered: (1) flour milling in relation to the lumber industry, (2) the millers and the development of transportation, (3) the flour mills and the organization of the grain trade, (4) flour milling and financial organization, (5) the growth of related manufactures, and (6) the millers and agricultural development.

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LUMBER

Four years before Richard Rogers built his gristmill, Franklin Steel had dammed the east channel of the Mississippi just above the Falls of St. Anthony and erected a group of sawmills. St. Anthony was soon a thriving village. Tributary to it were many logging camps. To the north and east were scattered farmers and traders. All these required to be supplied with flour and feed. The *St. Anthony Express* of January 21, 1853, complains of a shortage of teams in the pineries of the Rum River, "there not being farmers enough here to supply what is consumed in the Territory. All the provisions that go into the pineries have to be brought from points on the Mississippi, some hundreds of miles below, then landed at St. Paul, and trucked to St. Anthony, at which place the logging teams now obtain their supplies."

We may say then, that it was the local market provided by the lumber industry, together with the water power of St. Anthony, which caused the building of the first flour mills. In 1854 a larger mill was built, but its owners found so little wheat being raised in Minnesota that they had to bring supplies in by steamer from Illinois and Iowa. Nevertheless they persevered in their efforts and in 1859 were ready to send flour out of the state. By that time farmers were coming to St. Anthony from as far north as St. Cloud and as far south as Mankato and camping out on the island below the site of the Pillsbury A Mill, waiting for days to have their grain ground.

As the possibilities of profit in flour milling revealed themselves in the following decades (1860–80), many of the pioneer lumbermen shifted over to the milling industry, bringing large supplies of capital as well as great business ability with them. The very rapid growth of the flour mills in that period would have been impossible otherwise. The names of only a few of these can be mentioned here. There were J. C. Berry, who operated the old City Mill, once the old government sawmill; Leonard Day, who built the Zenith and the Palisade flour mills; Governor John S. Pillsbury, who purchased the Anchor Mill and first fitted it out as a flour mill; Curtis H. Pettit of Pettit, Robinson, and Company; William P. Ankeny of the Galaxy Mill; and John Martin, first president of the Northwestern Consolidated Milling Company. Then there were Joel B. Bassett, builder of the Columbia Mill; Dorilus Morrison, who built the Standard and the Excelsior mills; and William D. Washburn, builder of the Lincoln Mill at Anoka. Governor Cadwallader C. Washburn, founder of Washburn-Crosby Company, was also a lumberman, though his activities in that line were confined to Wisconsin. By 1876 probably a majority of those who were operating flour mills in Minneapolis had had previous experience in lumbering. This does not mean that lumbering was the sole source of capital for the early flour mills. There were many others, some of which will be discussed in another connection. The close relationship between the two industries, however, needs to be emphasized. The lumbermen helped to build up flour milling first, by providing a local market at the start; second, by providing supplies of capital as expansion became desirable; and third, by combining with the millers to secure favorable transportation and banking conditions for their products.

Transportation

The great growth of the flour mills came during the period from 1870 to 1890. At the beginning of the period the mills were producing perhaps two hundred thousand barrels of flour annually — at the end, seven million. By 1890 Minneapolis was the leading milling center not only of the United States, but of the world. Such an expansion of production called for a corresponding extension both of the area from which raw materials were drawn and of that to which the finished product was sold. This extension involved two great economic developments — the organization of a wheat-marketing system which would draw the wheat of the entire Northwest to Minneapolis, and the development of a transportation system which would supply adequate service both eastward to the great consuming centers and westward into the wheat fields.

At first the millers were concerned mainly with the problem of transportation to the eastern markets, and they attempted to get steamships to come up the river to the falls, instead of stopping at St. Paul. Even after rail connections with Milwaukee and Chicago were completed in 1867 these efforts did not cease, for the millers wished to play off the St. Louis commission men against those of the lake ports. The *Minneapolis Daily Tribune,* in its issues of May 6 and 7, 1869, argued for the need of lines of river steamers as a defense against railroad monopoly. These should include not only ships to carry the flour down the Mississippi so that there would be a choice of several routes to the East, but also boats on the St. Croix and the Minnesota to bring in the wheat. But the popular enthusiasm for steamship service died down when it was learned that the steamship owners were combining with the railroads to fix rates. In any case the direct rail connection with Chicago provided a service that the river steamers could not equal. After that was established, though there seem to have been occasional river shipments as late as 1880, the Milwaukee-Chicago shipments went mainly by rail.

Long before that the millers had turned their attention to the Lake Superior route. A railroad had been completed from St. Paul to Duluth in 1870. The millers tried to get the southern terminus at St. Anthony, and, failing in that, built a line of their own to a connection with the Duluth line at White Bear (the beginning of the Minneapolis and St. Louis line). As soon as this was done they began to direct shipments to the Lake Superior route, and they put steamers on the lake. George Christian, who at that time operated the Washburn mills, stated in 1872 that the millers were shipping three-fourths of their flour to the eastern market by way of Duluth. Probably the proportion was not always so great, but they could and did use this alternative route as a club over the Chicago lines to extort lower rates.

The Chicago lines fought back as best they could. If the millers did not give them a fair share of the business, they offered lower rates to the East on wheat than on flour; or they sent their own buyers into the wheat fields, bought up the wheat, and let the millers have it only on condition that they shipped their flour via Chicago. In any case, the lake was frozen a good part of the year and during those months the millers were at the mercy of the railroads.

It was this situation which resulted in the building of the Soo Line. Governor Israel Washburn of Maine as early as 1873 urged its construction in an address to the Minneapolis Board of Trade. It would free Minneapolis from the dominance of the Chicago railroads, which were hostile to the milling interests; it would give a shorter route to the Atlantic coast; and it would open up a rich territory in Wisconsin and Michigan naturally tributary to Minneapolis. The flour export trade was not yet developed, hence he did not mention the advantage of a shorter route to Europe with a choice of ports and steamship lines which would assure competitive rates. The *Northwestern Miller* ridiculed the plan in an editorial published in its issue for June 13, 1879, under the title, "The North Pole Railway." But in 1887 the line was completed to Sault Ste. Marie; through service to Boston and Montreal was inaugurated with the Canadian Pacific Railroad, and in its second year the Soo Line carried more flour to the East than any other railroad. There can be no question that it was a millers' enterprise. W. D. Washburn was its first president and most of the directors were prominent millers.

In the building of the railroads leading into the wheat fields, there is not the same clear evidence of conscious effort on the part of the millers. The westward expansion of the Soo Line was doubtless largely due to their efforts. The building of the Minneapolis and St. Louis Railroad seems to have been a combined millers and lumbermen's enterprise — on the millers' part a desire to intercept wheat supplies that were going to Milwaukee and Chicago mills. Here too, the first board of directors was largely made up of millers. And while they seem to have had no such dominant part in the westward expansion of the Great Northern, the Northern Pacific, and the Milwaukee railroads, yet their organization of the grain trade tended to draw the wheat of the Northwest to Minneapolis and the railroads were compelled to build accordingly. Summarizing, we may say that in the growth of the Twin Cities as a railroad center, the Minneapolis milling business was a prominent factor; and in the cases of the Soo Line and the Minneapolis and St. Louis, the millers had a dominant part in the building of the roads and benefited directly by their success.

Grain Marketing

The westward extension of the railroads was both cause and effect of an expansion of the wheat-growing area which raised new problems of marketing, financing, and storing. The growth of the elevator system lagged behind the advance of the wheat area. As late as 1879 when the mills were using seven million bushels annually, there were only two elevators in Minneapolis, storing only 215,000 bushels. In part this was due to the fact that the mills took almost all the wheat, and only a small quantity was shipped east. But the mills had little storage space of their own. They preferred to go into the country districts and buy the wheat as they needed it. In doing so they often faced severe competition with one another and with Milwaukee-Chicago buyers, especially in the spring of the year when supplies were low. To get around this, they organized the Minneapolis Millers' Association. The date of its formation is unknown, but certainly it was organized before 1869. In 1876 it was formally incorporated. Essentially it was a buying pool of all the Minneapolis mills, with William H. Dunwoody as the active head. He controlled the buyers at all interior points and dictated the prices they should pay. He parcelled out the wheat to the different mills on its arrival in Minneapolis. For a time the association had a practical monopoly in most of Minnesota. "It is well understood," writes a contributor to the St. Paul and Minneapolis *Pioneer Press* for October 5, 1878, "that the Millers' Association will not let any outside buyers come in to compete with them, that they will run up the prices on them so as to drive them out." The farmers therefore began to complain of low prices for their wheat. Their principal complaint, however, was over the system of grading by which, they claimed, their number 2 wheat was being graded down to number 3 or number 4 by the swindling brass tester.

The differences between millers and farmers came to a head in the "brass-kettle" campaign of 1878. W. D. Washburn was the regular Republican candidate for Congress from the large district which included Minneapolis. The farmers supported Ignatius Donnelly against him. Donnelly made the fight on the Millers' Association. The farmers demanded first, that the brass tester be done away with; second, that the millers pay for the wheat according to its milling value; and third, that the inspectors of grain be independent of the Millers' Association. The millers could hardly deny that they were monopolizing the wheat, but they did deny that they were depressing prices unduly and claimed that they had nothing to do with the grading, as that was taken care of by the elevator men.

The farmers were beaten in the election, but the episode led to the establishment of a state system of grading and inspection in 1885. In the meantime the millers, mindful of the fact that the misdeeds of the elevator men were laid at their door, began to build or otherwise acquire elevators of their own — both chains of country houses and terminal elevators in Minneapolis. Thus a very considerable increase in elevator capacity occurred in the eighties. The millers were then in a position to buy the farmer's wheat in the fall when he was eager to sell.

New conditions were making the millers' monopoly untenable, however. For one thing the millers found that they could no longer rely solely on spring wheat. As early as 1880 complaints were made that Minnesota wheats were deteriorating in quality and yield. The farmers tried to increase their yields by planting softer varieties, but these, the millers claimed, were of poor milling quality. They tried to raise standards by offering a premium on Red Fife, but with little success. On the other hand, the advance of milling technique had taught them the advantages of blending many different varieties of wheat. Consequently they began to purchase in widely separated sections of the country. And finally the opening up of the Dakotas brought in more wheat than the millers could use.

By this time there had arisen a class of grain merchants in Minneapolis who bought wheat for eastern mills. At first they were handicapped by lack of storage facilities and by the opposition of the millers. This led them to organize the Minneapolis Chamber of Commerce in 1881. At first the millers opposed this organization, but it did not take them very long to see its advantages. The Millers' Association was dissolved and the millers went over to the chamber. From 1883 to 1894 all the presidents of the chamber were selected from the milling interests.

Meanwhile changes had been taking place with regard to the country elevators. While the fight against the Millers' Association was on, many farmers' elevator companies had been started, but they were badly organized and badly managed and most of them failed. For a time the field was controlled by the line elevator companies. Having large capital, they controlled both terminal elevators and country houses. They owned seats on the exchange and could dispense with the services of brokers. Often they had financial connections with the railroads and could secure special rates. In one way or another they drove out the independent elevator men and then had the farmers at their mercy. They dictated prices to them and also were accused of manipulating grades to secure illegitimate profits. This led to a new rebellion of the farmers, a drastic regulation of elevators in 1892, and a renewed building of farmers' coöperative elevators. In recent years the farmers' elevators have gained ground so rapidly that they now market almost half of the wheat in Minnesota. They sell it, however, largely on the Minneapolis Exchange. On the whole, farmers, grain merchants, and millers are coming closer together and there are hopes of a better understanding among them.

During the years from 1880 to 1900 the Minneapolis Chamber of Commerce became the chief grain market of the Northwest. The great line elevator companies made their headquarters there. At first it was purely a cash market, but after 1890 future sales developed greatly. By 1901 it ranked second to Chicago among the grain exchanges of the country. Up to 1881 — the year the Chamber of Commerce was established — practically all the wheat shipped to Minneapolis was milled there. In no year up to that date were more than two hundred thousand bushels shipped out. In 1882 two million bushels were shipped; in 1884, four million; in 1886, six million; in 1888, twelve million; in 1891, twenty-one million. At the same time there was a large increase in elevator storage capacity. In 1883 it was two and a half million bushels; in 1885, nearly ten million; and in 1890, sixteen million. By that date the city claimed to be the greatest primary wheat market of the world.

On the whole the millers have benefited by the growth of this new marketing organization. Now that they buy their wheat on the exchange, where they must meet the competition of the outside millers and the grain-shippers, they can, of course, no longer control prices. On the other hand, they have a wider choice in wheat buying; they need no longer confine themselves to the wheat of a particular area and risk having to shut down when the crop in that area is bad. Moreover they know that they are dealing with responsible people and run no risk of legal difficulties over the grain they buy. They can buy over a larger area and thus are freer to blend their wheats to best advantage. Thus they are perfectly willing to depend on the Chamber of Commerce.

FINANCIAL ORGANIZATION

The development of Minneapolis as the chief grain market of the Northwest was an important factor in making it also the financial center. The mills now grind normally about seventy-five million bushels of wheat each year. About forty million more are received and shipped by the elevators. Much of this wheat is rushed to the market in the months following the harvest, and therefore the millers and grain men must purchase and store the grain until it is needed for grinding. Since they must pay for it in cash, they require seventy-five or a hundred million dollars of working capital during those months to finance operations.

Naturally they turn first to the Minneapolis banks. As early as 1883 Minneapolis bank clearings averaged four or five million dollars higher during the last four months of the year than during the other eight. Most of this increase was due to the financing of the grain movement. By 1913 this expansion of clearings for the months after the harvest averaged ten million dollars a week. The millers and grain merchants sell their grain paper to the banks — perhaps borrowing on the warehouse receipts as collateral — and with the proceeds purchase more grain. The bank in turn rediscounts the millers' notes with eastern banks and thereby draws more money to Minneapolis with which to purchase more grain. As millers and grain merchants become nationally known their grain paper is purchased by commercial paper houses all over the United States. Thus enormous financial resources are concentrated in Minneapolis during these months. As early as 1889 the *Annual Report* of the Chamber of Commerce contains the statement that " nearly all the money paid for grain in the interior is sent from this city by elevator companies and millers to their agents in the country. Thus, Minneapolis is not only the market to which the grain is shipped, and where it is sold, but the financial center from which the money is sent to purchase and move the grain crops of the Northwest."

The millers, therefore, have been a very important factor in the growth of Minneapolis as a banking center. The principal banks have been largely organized and controlled by the milling interests of the city. The First National Bank, for example, originated in the private bank of J. K. Sidle, whose firm owned and operated the old Northwestern Mill. Since its organization as a national bank in 1864 the principal milling firms have all been represented on its board of directors. The same thing is true of the Northwestern National Bank, organized in 1872, the Hennepin Savings, the Farmers and Mechanics Savings, and various other banks. The millers' sales of short-term commercial paper were aided by the establishment of a number of strong commercial paper houses in the Twin Cities. Minneapolis is also said to be the chief farm mortgage center in the United States. Doubtless it was this financial leadership which induced the organization committee of the Federal Reserve system to locate the ninth district bank in Minneapolis. That leadership seems to have grown directly out of the milling leadership of the city.

MANUFACTURES

When an industry develops to the size and importance of Minneapolis flour milling, it is bound to affect, in some degree, almost all the other industries of the city. Minneapolis is the jobbing center of the Northwest, primarily because the Northwest's wheat is sold there. Though the sawmills no longer operate, Minneapolis remains the lumber market of the Northwest, not because of its former eminence in lumber manufacture, but because the Northwest must buy where it sells. The same reasoning explains why the city has taken such a lead in the farm tractor industry.

Certain industries, however, are more directly the creation of the milling industry, either because they supply its needs or because they use its products as raw materials. Take for example the bag and barrel factories. In the olden days shipments to the eastern markets were made mainly in barrels. Then the export trade brought in the jute bag, and the increasing cost of the barrel caused the substitution of cotton and paper bags. Next to St. Louis, Minneapolis leads in the bag industry, and from two-thirds to three-fourths of its product is taken by the flour mills. In the manufacture of milling machinery the fact that there were old, well-established firms at Milwaukee (E. P. Allis), Indianapolis (Nordyke-Marmon), and Buffalo (John T. Noye) limited the growth of Minneapolis. There is only one notable firm in this business in the city.

Turning to the industries for which the flour mills provide raw materials, we note first the manufacturing of biscuits and crackers. This is a business suited to large investments and large-scale production. There are at least two important factories in Minneapolis as well as several in the Midway district, but they seem to have located in the latter place mainly because of distributive advantages. The spring wheat flour, being primarily a bread flour, is not so well adapted to the making of biscuits and crackers, hence these firms are said to secure most of their supplies from the millers in the winter wheat area. Minneapolis has, however, attained considerable importance in the manufacture of breakfast foods, beginning with the establishment of the Pettijohn California Breakfast Food Company in 1893 (afterwards absorbed by the Quaker Oats Company), the Fruen Cereal Company in 1894, and the Cream of Wheat Company, which came to Minneapolis in 1897. All of them to a greater or less degree are dependent on the flour mills for their raw materials. At first the flour mills themselves kept out of this line of business, since the breakfast-food manufacturers increased sales by attacking white flour. The millers, of course, retaliated by showing up the weaknesses of breakfast foods. Naturally they could not, with good grace, go into the manufacture of breakfast foods themselves. But after the war-time food administration forced them into the manufacture of a great variety of other flours,— whole wheat, rye, and barley, for example,— it was easier for them to enter the breakfast-food field and they are engaging in this industry to a considerable extent.

Agriculture

When it comes to the question of the relations of the millers to agriculture there is not much we can say. The immediate effect of their activities was to create a cash market for wheat and so to encourage one-crop farming. And yet the early millers generally stood for progressive farming. Before 1880 they were alarmed at the declining yields and quality of Minnesota wheat crops. They advised the bringing in of selected Red Fife wheat from Canada for seed and opposed the introduction of the softer varieties. In the next decade they attempted to increase the sale of mill feeds by advocating live stock growing. After 1900 they opposed the introduction of durum wheat because of its poor milling qualities. In recent years they have joined in the fight against the black stem rust. In general, they do not fear a proper diversification of crops, because smaller acreage in wheat may be compensated for by larger yields per acre. Available evidence seems to show that, on the whole, they have stood for a progressive type of agriculture.

Summary

An attempt has been made to show how the lumber industry of the Falls of St. Anthony influenced the growth of Minneapolis flour milling and how the millers, in turn, influenced the economic development of the Northwest. The flour mills required wide markets and raw materials from a wide area. Hence the millers pushed the building of railroads eastward to the consuming centers and westward into the wheat fields. The wheat of the Northwest came to Minneapolis only because the millers organized a system of marketing grain which came to center in the Chamber of Commerce. The mills helped to make the Twin Cities the distributing center of the Northwest because the farmer had to buy where he sold. The flour mills brought to Minneapolis many other industries — barrel and bag factories, breakfast-food factories, factories for making milling machinery. And, lastly, although the millers have been accused of exploiting the wheat farmers, they have generally stood for the farmers' true interests — diversified farming. The fundamental importance of the Minneapolis milling leadership in the agricultural development of the Northwest must be recognized.

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