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Flour Milling at Rochester

By BLAKE McKELVEY

With four abundant water falls within its borders and a fertile valley beyond, Rochester was an ideal site for flour mills. The only uncertainty at the start was where the town would be centered. Ebenezer Allan, who built the pioneer mills on the Genesee in 1789, chose the west bank at the small upper falls as the safest and most convenient location. Charles Harford, who arrived shortly before the final destruction of the Allan mill in 1807, chose the west bank at the main falls because of the more abundant supply of power available there. Others considered the east bank at the two upper falls or at the lower and middle falls because of their proximity to shipping on the lower Genesee. But when Messers Rochester, Fitzhugh, and Carroll from Maryland examined the site in 1803 they recognized the superior advantages of the Allan location and purchased his hundred-acre tract as the proper site for a milltown.

The Pioneer Mills at the Falls

The site of Rochester had several noteworthy assets. Although the ten-foot drop at the upper falls could not rival the 96-foot height of the main falls, it was less hazardous and fully ade-

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quate to the needs of pioneer mills. Moreover the low west bank, where a branch of the river spilled over a ledge of rock a few rods beyond its main course, provided both a natural raceway and a convenient docking place for rafts and boats transporting logs and grain down from the upper valley. Unfortunately neither the Indians, who had moved farther west into the Buffalo Creek area, nor the scattered pioneers who had located around Avon and Geneseo were able to keep the mills busy. To raise the heavy frame of the mill in November 1789, Allan had assembled fourteen white men from up the valley and from the crew of a lake schooner, which also supplied a keg of rum for the celebration that followed. Additional pioneers arrived every year but still in limited numbers, and few visited the mills on the Genesee. The restless Allan soon left them in charge of his brother-in-law Christopher Dugan. Josiah Fish soon succeeded Dugan as miller at the falls, and the mill lot passed through three sales before Colonel Rochester and his partners acquired title in 1803.

Colonel Rochester, who was on a prospecting trip on that occasion, returned to Maryland before Charles Harford arrived in 1807 to build a second grist mill at the falls, this time on the high west bank at the main cataract. Several hundred families had reached the Genesee by this date, and although at least four other mills had appeared on Irondequoit Creek and other small streams in present Monroe County, the Harford mill attracted enough business to prompt the Brown brothers to purchase it in 1810, together with its 200-acre tract at the main falls, as the site for their projected Frankfort. It was from the Brown mill that the first settlers on Col. Rochester's adjoining 100-acre tract secured their flour in 1812 when the sale of his lots commenced. In fact Hamlet Scrantom, the first permanent resident in the village of Rochester, became the principal miller for Francis

Brown three years later, thus proving that the two settlements could grow into one village.

Meanwhile Elisha and Hervey Ely and Josiah Bissell, Jr., had arrived from Connecticut and purchased a lot near the Allan ruins for a new mill on the 100-acre tract. Built of wood in 1815 and painted red, it was equipped with four run of stones and was for several years the most productive mill in the area. Several others made their appearance, however. Shortly after Elisha Johnson, promoter of the east bank, blasted a raceway from the upper falls to Main Street on that side in 1817, William Atkinson erected the first mill on the east side and painted it yellow. The Cleveland brothers also built a frame mill on that race before the end of the year, while Elisha B. Strong laid the foundations of another two miles farther north on the flats above the lower falls. Completed the next spring, the Strong mill ground the grain brought by lake schooners to the docks below. A fire had destroyed the old Harford-Brown mill, which had previously ground Canadian wheat brought up from Hanford's landing on the west side, and its destruction helped to turn the lake trade from the west- to the east-side landing. The Brown brothers, hastening to rebuild, erected the first four-story stone structure on the old site. Appropriately named the Phoenix mill, it was equipped at the start with four run of stones, which were increased to six when the construction of the Brown race made additional power available.

The competition between the east side and the west side was mounting that year, as well as that between the proprietors at the several falls. Samuel G. Andrews soon matched the Phoenix mill with another stone mill at the brink of the main falls on the east side. At least three of these mills equalled the Ely mill in capacity, but none could rival its output. Indeed, because of its location in the heart of the bustling town, the Old Red Mill, as

it was soon distinguished, also served as a favorite gathering place for villagers as well as farmers who often sat around late into the evening swapping stories while the millstones slowly ground their grain.

The crucial importance of mills on the American frontier has long been taken for granted but merits analysis. The first task of the pioneer after the location of his lot was to make a sufficient clearing to provide logs for a crude shelter and to open a plot in which he could scatter some seeds for a first harvest. Corn and wheat, easily planted on rough cleared ground and harvested with the aid of a sickle, supplied ideal crops, but both had to be converted into grist or flour and sent the pioneer trudging to the nearest mill at least once or twice a year. The number of frontier mills was legion, most of them crude structures somewhat comparable to Ebenezer Allan's mill with its single pair of stones. But the settlers had a second task, once they had erected a cabin and provided the basic necessities for existence, and that was to produce a surplus to meet necessary expenses. Most settlers secured their titles with down payments and promises to pay the balance in three or five years. To meet these obligations they had to produce for export something that could readily be transported to market. In the Genesee Country and on many American frontiers, the crop that could most easily be produced in abundance and marketed was grain, provided it could be ground and barreled and transported with economy. Milling towns with access to river or lake boats sprang up on all frontiers and performed a real service to their regions. Shipments of flour from the Genesee port in 1820 totaled 67,468 bbls. as reported by the collectors, who recorded the arrival of 158 boats during the year.

At any other time or place six grist mills in a settlement of less than 2000 inhabitants would have appeared more than ade-

quate, but not at Rochesterville in 1819. The state had decided two years before to build the Erie Canal from Albany on the Hudson to Buffalo on Lake Erie and to carry it across the Genesee River on an aqueduct located between the small upper and the main falls. Work on the project commenced in 1819 and brought a surge of optimism to the village, which had secured its charter two years before. The prospect of shipping flour by canal boat to Albany prompted the launching of several new enterprises. Several lumbermen established boat yards, which made Rochester the principal builder of boats on the canal. Jonathan Child, son-in-law of Col. Rochester and destined to become the first mayor, opened a basin at the west end of the projected aqueduct, which would serve as the town's principal harbor. Harvey Montgomery, another son-in-law, joined his brother Thomas H. Rochester in building a second mill on the site of Allan's old ruins. Also painted red and known as the New Red Mill, it demonstrated the family's mounting confidence in the settlement. Two additional mills, one on the east and one on the west side made their appearance before the canal was officially opened in 1825.

By cutting the shipping costs to the east by approximately 90 per cent, the Erie Canal gave a great boon to Rochester's trade. Shipments of flour, which had previously been hauled by ox cart over rough roads to Hanford's landing below the lower falls, could now be loaded onto boats in the heart of town for easy transport to Albany and New York. Increasing numbers of rafts laden with wheat and other produce unloaded at the rapids above the upper falls for delivery to the west- or east-side mills. Several enterprising men from neighboring settlements hastened to locate at the falls in order to participate in Rochester's booming growth. Three of the more energetic newcomers were Warham Whitney who built his first mill on Brown's

race in 1826, Benjamin Campbell who soon acquired and enlarged a mill erected that year on the island south of the west end of the aqueduct, and General E. S. Beach who built the large 6-story stone Aqueduct mill on the north side of the canal at that end. General Beach and his partners had engaged Robert M. Dalzell the leading millwright to construct the Aqueduct mill, and its location adjoining the canal at Child's basin prompted Dalzell to install a bucket elevator to lift grain out of boats or wagons at its base to the top floor where it passed by gravity and belts through successive separators and grinders until it reached the barrels on the loading platform. That ingenious device was adapted in a grain elevator erected by Warham Whitney the next year and provided the model for later elevators in Buffalo and the new western grain centers in the years ahead.

The Erie Canal not only provided an ideal route to market but served as an import artery as well. Hervey Ely, who was the first in 1828 to bring a boat load of grain from the west, tapped that market in order to supply his new mill erected that year at the eastern end of the aqueduct. Equipped with nine run of stones, it was second in size only to the Aqueduct mill of Beach and Kempshall and sometimes produced 100,000 bbl. of flour in a single year. But while the canal proved a convenient and profitable artery for flour and grain shipments, freight charges on bales of cotton were so high that the promoters of a new cotton factory on Brown's race could not import an adequate supply, and Silas O. Smith, one of its backers, hastened to convert the factory into a flour mill and equipped it with eight run of stones. H. P. Smith erected a fourth mill on Brown's race in 1831, and Erasmus D. Smith built the fourth on the Rochester, Fitzhugh and Carroll race, matching the four on Johnson's race east of the river.

The untimely death early in 1928 of Francis Brown during a trip to Florida in a vain search for improved health prompted the sale of his Phoenix and Frankfort mills and of several undeveloped mill sites along the Brown race. Several new men assumed positions of leadership in the milling industry of Rochester at this point, among them were Henry B. Williams, Thomas Emerson, Joseph Field, and Charles J. Hill.

Rochester's flour mills, which numbered 15 in 1831 if those at the lower falls are included, had made it the leading contender to Baltimore as the flour capital of America. Its "merchant millers," as Beach and Ely and a few others styled themselves, not only offered cash for wheat but maintained an active demand for barrels and other accessory products that promoted the town's rapid growth. Not least was the demand for canal boats to carry the 200,000 to 300,000 bbl. of flour to market, and four boat yards were soon busy at their production. But Rochester's millers faced two grave hazards that frequently brought disaster—the sudden fluctuations in flour prices at New York, which could, however, bring an unexpected windfall as well as bankruptcy, or an outburst of fire that could destroy the mill and all its contents. Benjamin Campbell suffered such a blow in 1831 when lightening struck and consumed his mill on the island south of the aqueduct, leaving it in ruins that were buried in gravel and not again uncovered until the excavation for the War Memorial 120 years later revealed the long forgotten arches on which his mill had been erected. Campbell soon acquired another mill and recouped his fortune, only to lose it again in 1842 when a sudden drop in the price of flour after he had invested heavily in wheat caught him short and forced him to sacrifice the beautiful mansion he had built at the corner of Troup and Fitzhugh Streets. Hervey Ely suffered a similar loss of his classical mansion near the western end of Troup Street.

At least five of the six original frame mills were destroyed by fire and two stone mills were severely gutted before the end of the thirties.

The Flour City

Yet misfortunes, rather than checking Rochester's growth, hastened its application for a city charter and inspired other urban developments. The village had supplied its several volunteer fire companies with hand engines, but their utility was limited by the lack of a water system, which only a properly chartered city could provide. Rochester got its city charter in 1834 but deferred the construction of a water works for another four decades perhaps because the mills and other industrial buildings were all located along an open mill race where ample water was available most of the time. Meanwhile the mounting demand for flour in the cities of the East and of Europe encouraged those who lost their mills because of fire to rebuild on a grander scale and brought enterprising newcomers onto the scene. Rochester's output surged past that of Baltimore and made it for a decade or so the leading Flour City of the entire world.

Two new mills on Brown's race and two at the upper falls increased Rochester's flour mills to 21 by the close of 1835 when Henry O'Reilly described them in his *Daily Advertiser* as follows:

There are now within the City of Rochester twenty-one mills, with ninety-six run of stones, capable of manufacturing five thousand barrels per day. Twenty thousand bushels of wheat are daily required for these mills when in full operation. . . .

In the year ending on the first of August, 1835, 18 mills with 78 run of stones manufactured about 460,000 barrels of flour; and the annual product with the late improvement and increase of mill-power (21 mills with 96 runs) will not probably be less than six hundred thousand barrels worth between three and four millions of dollars.

The Millers and runs of stone are as follows:

Thomas Kempshall	10	Warham Whitney	5
Chappell & Meech	4	G. McCracken	2
H. B. Williams	3	Joseph Field	4
J. & M. Strong	5	Hooker & Co.	4
R. Bemish	2	O. E. Gibbs	3
J. K. Livingston	4	H. N. Curtiss	2
E. H. S. Mumford	8	Hill & Bates	3
Wm. Allcott	3	Hill & Bates	4
Benj. Fish	3	Williams & Allcott	6
Hervey Ely	9	Emerson & Graves	8
T. Emerson	4		—
		TOTAL	96 Runs

The water-power of the two Great Falls is estimated as equal to 1920 steam-engines of 20 horse-power. The total value of this water-power, calculated according to the cost of steam-power in England, is almost incredible to those unacquainted with such subjects, amounting, as it would, to nearly ten millions of dollars, for its annual use! . . .

Robert Dalzell the millwright had built ten of the largest of these mills, and the task of repairing their machinery and remodeling those ravaged by fire kept him steadily employed. A gradual increase in the number and efficiency of the mill stones in operation expanded the city's productive capacity to 500,000 bbl. by 1840 and to over 600,000 bbl. by 1847, which proved to be an early peak year. Yet the city's output seldom reached its capacity, for despite the hardships suffered by millers during occasional dry spells, when the water in the races proved insufficient to keep the machinery in operation, the more serious shortage was generally in the supply of wheat, for new millers in the west were grinding most of the grain of that area for shipment down the Ohio.

Yet despite its many handicaps, the milling industry retained its leadership in Rochester for several more seasons. The number of men engaged as millers or mill hands was never very large,

seldom over three hundred, but the accessory employment of coopers, boat builders, and other craftsmen, who produced the supplies needed to operate the mills, numbered more than a thousand, while the capital involved in milling, both as fixed capital and as working capital, exceeded that in any other Rochester industry. The value added to its product was not as great as that in the wood and metal working industries, but the mills supplied the principal exports and not only kept the canal boats in operation but also brought in the greatest supply of cash. Several millers held important municipal offices from time to time, and four served as mayor, notably Thomas Kempshall and John Williams, both of whom also served a term in Congress. They supplied the largest number of trustees to the Rochester banks and provided several including Gideon Burbank for the new University of Rochester established in 1850.

The high reputation of Rochester's flour was enhanced by the obvious pride its millers took in their product. Not only did Chappell & Co. send three bbl. of fine flour to Queen Victoria in 1847, packed in specially milled barrels, each wrapped in canvas, but Charles J. Hill and three other Rochester millers despatched a shipment of Rochester flour for exhibit in the Crystal Palace at the first World's Fair in London in 1851. One Rochester miller, long regarded as a fanatic, ultimately acquired a measure of respect for his special brand of flour and for the dietary and recreational aspects of the regimen that won Sylvester Graham the title of doctor and brought additional renown to Rochester flour. Although he removed his headquarters to New York in 1840, a succession of Rochester mills produced Graham flour to his specifications during the thirties and forties.

Several British and other European travelers helped to spread the fame of Rochester flour by including descriptions of its mills

in their travel journals. Hervey Ely, whose stone mill on the eastern bank stood south of the first aqueduct and north of the second one when completed in 1844, frequently paused to conduct such visitors through his mill. Thus in July 1835 he led a party that included the noted Frenchman, Michael Chevalier, who recalled the visit briefly in his book on *Society Manners & Politics in the U. S.*, and also the Spanish botanist, Don Ramon de la Sagra, who described it with the precision of an observant scholar as translated by Dr. Watt Stewart of Albany as follows:

I visited in the company of Mr. Chevalier the great flour mills. The grain comes to them by the river, from which it is brought up to the top floor of the building by a simple mechanism, moved by the same principal water wheel, and with admirable speed, in the quantity of 500 to 600 bushels per hour. The grain is cleaned of its outer film between perforated metal plates of conic form, and falls to the stones where it is ground. Four and three-quarter bushels of wheat usually yield a barrel of flour. . . . The flour of first quality is sold at 6 dollars and a half per barrel. In one of the mills which we visited, nine stones were operating simultaneously, which on the average in twenty-four hours, grind 450 barrels of flour, and can grind as much as 550. The harvesters who bring their wheat to be ground receive a barrel of flour for each five bushels and ten pounds of wheat, that is to say, for each 310 pounds which they turn over, and the mill gives the barrel which is valued at 30 cents.

The flour just ground falls to the coolers, where crossed bars spread it out, and forming spirals in its turn, it enters a central opening from which it passes to the fans and sieves which separate the brans. The transference of the flour from the stones to the coolers, and from these to the sieves, etc., is done by very large spirals, in the fashion of screws of Archimedes, now horizontal which pass from one room to another, now vertical, which descend from the upper floors. Finally, the flour reaches the room where it is put into barrels, with the aid of an hydraulic press, and I believe it is unnecessary to say that all of these operations are executed by the action of a great water wheel, modified in its rapidity and force by the ingenious and well calculated mechanisms

which I have explained. By this interesting combination, it follows that the flour descends smoothly from the stones which have ground it, is spread out properly in the coolers, and passes to the sieves in the quantity suitable to their respective capacity and effect, from which it goes out purified to the barrels. A very small number of operators assist in the operations that require them, that is to say, at the regulating of the stones and the heading of the barrels, for in the other departments of the manufactory is not found a single individual. However, I believe I have already remained too long in this mill of Mr. H. Ely, who had the goodness to give us all the explanations which we asked of him.

Further evidence that the millers of Rochester were interested in the development of ingenious devices to assist in the manufacture of flour was supplied as a dozen applications were filed in the 1840's for patents on smut machines and other means of cleansing and sifting the wheat. A new Haxall process for grinding wheat was introduced to improve the product. But the invention that proved most beneficial to Rochester millers was the telegraph, which not only made the latest information on flour prices at New York instantly available to millers on the Genesee, after the completion of the first line to Albany and New York in 1846, but also removed much of the speculative character from the grain trade. Several Rochester millers invested a few thousand dollars in the telegraph lines that Henry O'Reilly and later Hiram Sibley were extending into the West, but few hung on long enough to share the fortunes ultimately realized. And meanwhile the new western millers gained access to the same intelligence on shifting prices and, because of the greater supplies available to them, progressively pulled ahead of their Rochester competitors in the 1850's.

Rochester millers faced several new hazards in the fifties. A succession of dry spells early in that decade cut the output of wheat up the valley, but reduced the flow of water in the raceways still more drastically and forced several mills to stand idle

most of the day. One ingenious miller at the main falls decided to install a second mill wheel under his old one in order to use the same water twice, and when that plan worked, others followed, and at least two installed a third or bottom wheel to catch and develop the last portion of the water fall. With the introduction of the turbine wheel a few years later, other millers endeavored to extract the full value of their 96-foot fall. Several rainy seasons in the middle fifties slowed this search for a more efficient instrument of power but caught the wheat harvest in the fields and caused it to sprout. After the almost total loss of the 1855 crop, a series of insect plagues hit the fields in successive years, depriving the Rochester millers of the Genesee wheat on which their reputations had been built. Large imports from the West and from Canada helped to tide some millers over but many failed and Rochester lost its position as the leading flour producer to Oswego for one year and then to St. Louis, to Minneapolis, and finally to Buffalo as the decades advanced.

A heated debate developed in the late fifties over the merits of shipment by water or by rail. Rochester's leading scholar, Lewis H. Morgan expressed himself rather positively on this matter in a report to the United States Commissioner of Patents:

But for the Erie Canal the transportation of the enormous product of these mills to tide water would be impossible. A few words will illustrate this. By the regulations of the New York Central Railroad, whose means of transportation are greater than any other Railroad in the United States, I believe, not excepting the Erie, the freight car is limited to 8 tons of merchandise or produce. Twenty cars make a full train, for a single engine, thus giving 160 tons to each full freight train. If these figures are correct, it would be impossible for the entire locomotive power and freight cars of the company to carry to Albany the daily manufacture of these mills. The larger mills load a boat of 80 tons burden per day, and two such loads would make a train. It is entirely safe to say that the six largest mills would require three such trains per day, and the

remaining sixteen would load four more, making seven freight trains per day of 20 cars each. This illustrates the superior advantage of floating, rather than rolling heavy produce to market, the advantage consisting in economy as well as greater facilities to do the work.

Milling as a Business

Although milling lost its primacy in Rochester after the Civil War, it retained a measure of prestige that some more important industries failed to achieve. An increased stability displaced its earlier speculative character and strengthened the ties of the millers to the banks. Although most of the sons of the pioneer millers had sought other and less hazardous callings, a number of the sons of the second generation of millers followed in their father's footsteps. Thus although Hervey Ely's nephews George H. & Samuel P. Ely operated a mill briefly in the mid-fifties, his own sons followed other courses, but a decade or so later the sons and son-in-law of Warham Whitney formed one of the leading milling families of Rochester. George J. Whitney, at one time the second most wealthy man in the city, if the income tax record of 1865 as published in the local press can be trusted, lost not only his mill but also his grain elevator in the first flurry of the panic of the 1870's, yet he quickly regained a sure footing and his brothers and nephews continued as millers for another two decades or more. The Motley family, headed in Rochester by George Motley who arrived in 1857, was a late comer on the Genesee, but it soon acquired a secure place in the industry. Thus, following the early death of George Motley, his three sons and four sons-in-law engaged in milling and banking or some related field for two more decades. One daughter, Maude, later wrote a full account of "The Romance of Milling" for publication by the Rochester Historical Society in 1931.

George J. Whitney made a comeback in the seventies as a

railroad man and flour merchant rather than as a miller, but the Rochester millers by this time had practically all abandoned the canal for the railroads. Whereas Rochester's shipments by canal boat to the east had totaled 588,000 bbl. in 1847, when the railroads carried only 20,000 bbl. (and another 82,000 bbl. were consumed in the Rochester area), the railroads steadily increased their shipments while those on the canal declined, especially after the consolidation of the New York Central in 1854 prompted the rebuilding of the road bed, the use of heavier cars, and provided through carriage to the New York shipping docks. By 1856 the New York Central alone slightly exceeded the total carried on the canal, while the Erie Railroad, with a smaller load, swelled the total transported by rail. With increased competition from the western milling centers, the Rochester millers had to dispatch their flour to New York by the speediest route. The flour shipped from Rochester by canal dropped from 9,941 tons in 1870 to 158 tons five years later, and to 3 tons in 1880, as the bulk of the city's output of flour was increasingly carried by train.

Despite the declining importance of the flour industry in Rochester and of the city's relative position in the nation, its actual output was mounting in the late seventies and after. Two improvements were largely responsible—the increased use of turbines in place of water wheels, and the shift from mill stones to rollers for grinding purposes. George Motley had experimented with a metal roller as a wheat-splitter in the early seventies, and on learning of the development in Europe of a porcelain roller as a substitute for mill stones he journeyed to Switzerland where the process had first been introduced. A Minneapolis miller had preceded him and successfully introduced it at that new flour milling capital in 1874, but Motley brought the roller to Rochester four years later and installed

the new device in the Moseley-Motley B. Mill on Brown's race. Several of his competitors soon followed suit.

Most of the Rochester millers, like those of Minneapolis, relied on water power. A few, however, notably Hervey Ely, installed steam engines to provide auxiliary power in dry seasons. That policy proved more effective than a resort to the courts to compel the State to reimburse the millers for the losses they sometimes suffered when the feeder drew off part of the river's flow to maintain the canal's normal level. Such suits generally rewarded the lawyers rather than the millers, and their disappointing outcome helped to drive several men from the milling business. Those who turned to steam rather than litigation had the additional advantage of being able to continue operations not only through the dry seasons but into the winter months as well, which became more desirable as shipments by rail replaced the former reliance on the canal.

Shipments by rail as well as the use of steam power represented additional expense, but to the most energetic they seemed worth the cost. To hold the charges for freight within reasonable bounds the millers took a leading role in the repeated efforts to maintain a Rochester Board of Trade. George C. Whitney served as chairman in the middle sixties and again in the early seventies, convening meetings that despatched resolutions to Albany protesting preferential long-haul rates, but without tangible effect. When finally in 1879 the legislature created a committee to investigate preferential freight rates, several Rochester millers testified to the disadvantages they suffered from the favors extended to the western millers. Other Rochester merchants, who perhaps benefited from other preferential rates, appeared to testify on the opposite side, a circumstance that possibly explained the collapse of the Board of Trade under the lead of millers earlier in the decade.

The final blow for several millers came in the eighties when, amidst a general revival of local industry, the Rochester millers discovered that preferential freight rates on western flour made it cheaper to ship a barrel of flour to New York from Milwaukee than from Rochester. When, shortly after, the depression closed some of the mills, their owners hastened to convert them to other uses. Several of the Rochester millers were former Englishmen, and some apparently welcomed an offer by British capitalists to buy them out in the early nineties, but the blighting effect of the depression halted that attempt to form a milling monopoly and enabled the local electric company to buy up most of their water-rights for the development of electric power.

The declining influence of the millers was evident in their absence from the leadership that finally brought the Chamber of Commerce into being in 1888. Instead of millers, its early presidents were a patent medicine king, a tobacco manufacturer, a shoe manufacturer, and a nurseryman; three others held that post before the businessmen of Rochester thought it proper to elect Angle, a miller, to the presidency. And Charles E. Angle, son-in-law of George Motley, was in 1898 more actively engaged in banking than in milling, though he was treasurer and manager of the Moseley-Motley Milling Company for three decades.

Although the number of Rochester's millers had dropped to thirteen at the turn of the century, their output had increased and reached a million and a half barrels in 1901. Only the most efficient had continued in operation, and the vigorous men in charge did not hesitate to order shipments of grain by rail in order to keep their mills busy. The competition was increasingly stiff, however, as Buffalo at the eastern end of the lake-shipping lines developed modern steam-driven mills that began to challenge those of Minneapolis in the 1920's and finally pulled

ahead during the depression. Rochester millers were gradually over-shadowed as this contest progressed. Only three of its mills survived the regulations enforced during the First World War, and two of these succumbed in the early years of the depression. Only the Van Vechten Milling Company on Smith Street survived the depression and the Second World War before Rochester's hold on its first primary industrial function was finally broken.

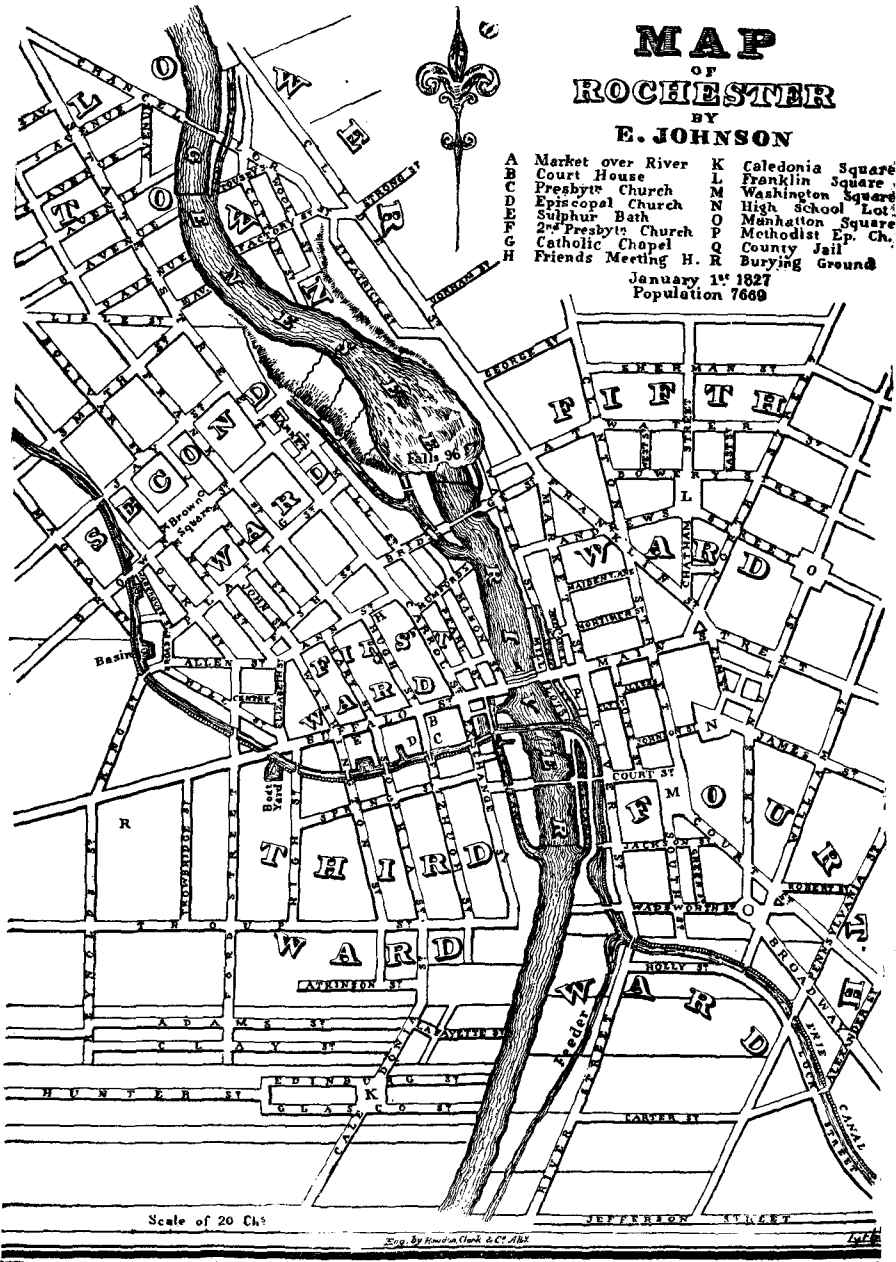
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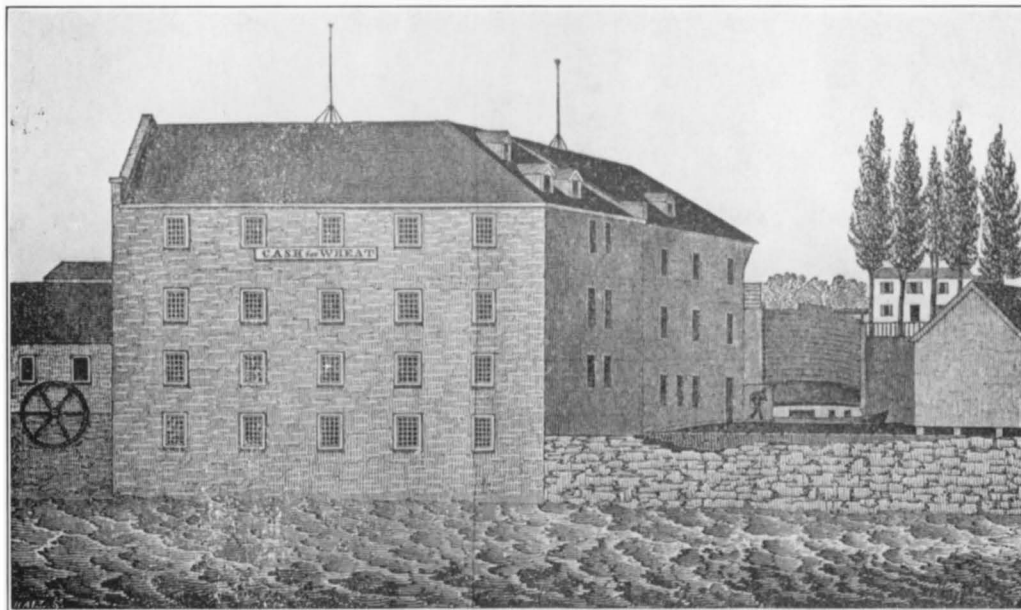
The most extensive account of flour milling in Rochester was written by Maude Motley for publication in the first volume of the *Centennial History of Rochester*. Her title, "The Romance of Milling: With Rochester the Flour City," suggests the quality of her approach, which gives much attention to the personalities and struggles of the millers involved, several of them her own relatives. Her 92-page article provides the major contribution of that 1931 volume, which is also Volume X of the Rochester Historical Society *Publication Fund Series*. A collection of water Power Documents, published in Volume XXIII of that series, includes two by Lewis H. Morgan, "The Water Power and Flour Mills at Rochester," and "The Flour Mills and Flour Manufacture of Rochester" with extensive tables, and six additional documents describing the water power at the several Genesee falls.

MAP OF ROCHESTER BY E. JOHNSON

- | | | | |
|---|--------------------------------|---|-------------------|
| A | Market over River | K | Caledonia Square |
| B | Court House | L | Franklin Square |
| C | Presbyte Church | M | Washington Square |
| D | Episcopal Church | N | High School Lot |
| E | Sulphur Bath | O | Manhattan Square |
| F | 2 ^d Presbyte Church | P | Methodist Ep. Ch. |
| G | Catholic Chapel | Q | County Jail |
| H | Friends Meeting | R | Burying Ground |

January 1st 1827
Population 7669





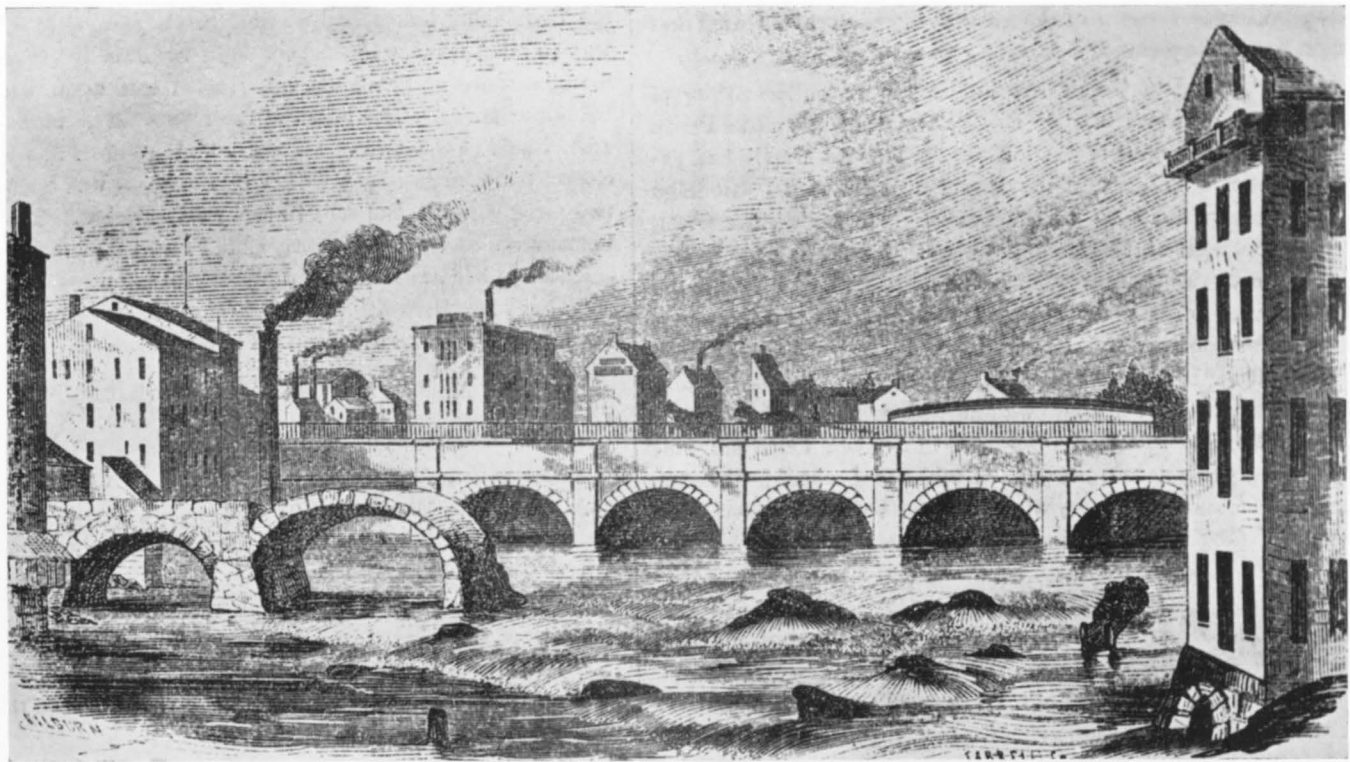
HERVEY ELY'S MILL, 1838

Situated on the east side at the small upper falls this mill was built south of the original Aqueduct, but the second and larger Aqueduct passed it on the south side. The view is reproduced from a wood engraving by Alexander Anderson for Henry O'Reilly's *Sketches of Rochester* (1838).



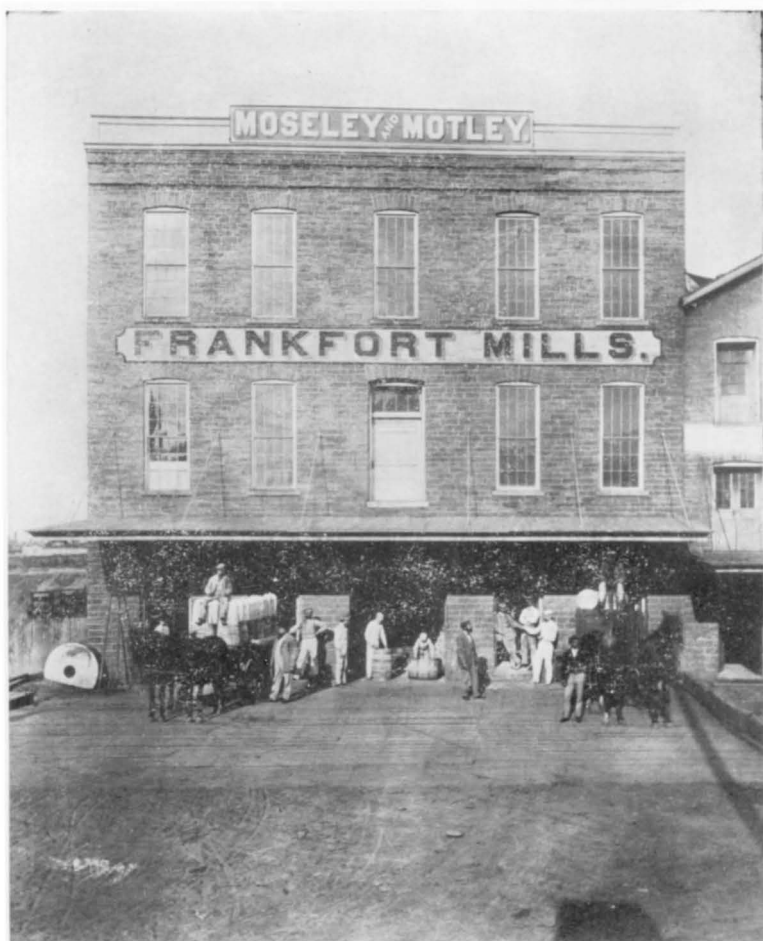
MILLS NEAR THE MAIN FALLS OF THE GENESEE

From an engraving in J. H. French's *Gazeteer of the State of New York* (1860). The nine flour mills shown in this view are: 1, the Genesee Falls Mills on the east bank; 2, the Cotton Factory; 3, Achilles' Custom Mills; 4, Revere Mills; 5, Granite Mills; 6, Phoenix Mills; 7, New York Mills; 8, Richardson's Mills; 9, Silas O. Smith's Mills. The west side mills are on Brown's Race, which continued beyond the Smith Mills and served eight additional mills not shown in this picture.



MILLS NEAR THE ROCHESTER AQUEDUCTS, 1855

The Ely mill on the left stood south of the old Aqueduct, crumbling, in the foreground, but north of the second Aqueduct; the sketch emphasizes the fact that it also possessed steam power. The Aqueduct mill on the right was the birthplace of the mechanism for the pioneer grain elevator.



THE FRANKFORT MILLS OF MOSELEY AND MOTLEY

From a large photograph of 1868, courtesy of Rochester Historical Society. The view is from the west and the timber floor seen in front of the mill covers Brown's Race which extends to the left to serve the 16th and last mill on this side.