



The Zenith and Sudden Decline of the Great Hudson River Brick Industry

George V. Hutton

This essay describes the Hudson River brick industry during the last decade of the nineteenth century and the first two decades of the twentieth century, a period which includes the beginnings of imbalances of production, the zenith of the industry's fortunes, and the collapse of over 50 percent of the industry's manufacturing base.

All of this happened when the Hudson River was the largest regional center of brick manufacturing in the world. Its only contender in America was Chicago, also with its own enormous appetite for the most essential construction material of that time. The reason for the preeminence of the Hudson River industry was that it furnished the most necessary building material to the fastest growing city in the world. New York City's increase in population, from 1880 to 1920, would exceed the growth of Greater London by almost 40 percent at a time when London was the largest city in the world—and also a user of vast quantities of bricks. In 1880, London's population was 150 percent larger than New York's, with this lead shrinking to 33 percent by 1920. The two decades 1890–1910 saw the city's population increase by two-and-one-half million. In 1910, the principal journal of the American structural-clay-products industry, *Brick*, maintained that the Hudson River industry was the largest in the world. There was nothing parochial about that judgment, since the journal's publisher was located in Chicago. In addition, the contemporary authority, Heinrich Ries, Professor of Economic Geology at Cornell University, would also state that the Hudson River clay lands supplied a brick manufacturing industry that was larger than any other in this country or in Europe. Heinrich Ries had made extensive studies of clay resources, not only in New York State, but also throughout America.¹

The tortuous problems created by the very large number of manufacturers as well as those created by technological and demographic changes determined the relationship of the New York market to the Hudson River brick industry. It was a time of equally sudden industrial climax and collapse. However, the brickmaking methods and their development, the story of individual plants, as well as the tale of large immigrations of workers into the region, are outside the scope of this writing.

The Hudson River brickmaking industry had grown rapidly since before the Civil War, roughly dividing itself into two subregions, Downriver and Upriver. Downriver included all manufacturers below the Highlands. The location of the great deposits of clay over 100 miles crowding up to the edge of a deep-channel waterway that led to a ravenous market was crucial. That waterway wound around Manhattan Island, the principal market, while also giving direct access to other major markets in Brooklyn, Queens and the Bronx. It is hard to imagine a more favorable arrangement of circumstances for providing the substance for the building of a great city.

The economic depression of the last decade of the nineteenth century brought into sudden focus the excessive numbers of manufacturers who had been attracted into the business by the rapidly increasing demand for bricks in New York. Getting into brick manufacturing, at some minimal level, had been a matter of low capital expense. In 1830, James Wood, one of the most inventive talents of the industry's earliest days, maintained that, "Brickmaking was a poor man's game, as it required no capital to start with." That was true enough of the early days of the industry, with the investment ante gradually going up. Rockland County was the great leader in brick production from 1870 until 1907, with intense activity centering on two-and-one-half miles of shoreline at Haverstraw. It was there that some of the most intractable problems of excess manufacturing capacity suddenly became manifest in 1893.

The unique conditions prevailing at Haverstraw warrant a brief description. Neither a lack of land ownership nor lack of considerable capital precluded entry into the brick business. For several decades, the leasing of clay lands, brick machinery, drying-yard, and kiln-shed facilities had been a fact of life in that business community. The average lessee engaged four brick machines and employed 40 to 50 men for the season, with the lease including access to clay deposits, drying yards, kiln sheds, and docks. The lessor-owners typically owned seven to eight machines. Some of the leases were renewed over a period of decades, while most were on a year-to-year basis by different lessees, these being men of limited means who often obtained co-investors to join their enterprise. Many of those lessees were from the large number of Irish immigrants to America who obtained their first employment in America in the Haverstraw brickyards. Initially, the lessees assumed all the risks of the market—a very good deal for the lessors who owned the land, machinery, etc. As the market suddenly tightened in the 1890s, lease terms necessarily changed in order to remove some of the most onerous risk from the lessees. By 1880, there were 26 leases on the lands of 17 Haverstraw owners, with 16 of those owners also being manufacturers on the same properties. The number of lessees would eventually go much higher, with as many as eight



Hutton Co., c. 1900, showing drying yard, brick machine buildings and boiler flu. Courtesy Hutton Co.

on the lands of one owner. In effect, the landowner-manufacturers were enabling competition against themselves, even though it provided them with risk-free income. By 1890, there were over 40 brick manufacturers (including lessees) crammed into two-and-one-half miles of the Haverstraw-Grassy Point shoreline. It was virtually a continuous sprawl of clay excavation, drying yards, and kiln sheds, with property lines under continuous survey in order to prevent encroachments. Such intense removal of a finite amount of raw material—even though seemingly inexhaustible—would eventually create critical conditions in the supply of clay.

Running a series of articles in 1893–1894, the *Rockland Messenger* described the angst and travails of the local manufacturers brought on by the general economic depression that began in 1893. At that moment, there were approximately 126 brick manufacturers on the Hudson River. Singular enough was the willingness of the Haverstraw manufacturers to reveal their concerns and the inner workings of their efforts to change the deteriorating conditions of their business in the face of the general economic depression of 1893. In 1894, the wholesale brick price had dropped 30 percent to a low of \$4.25 per thousand

bricks (the standard unit for brick pricing) for the Haverstraw product and below \$4.00 for upriver bricks. The breakeven price was generally considered to be around \$5.00 per thousand. The manufacturers expressed their mutual concerns: "In view of the low price of brick at this time, the undersigned deem it advisable to take some action whereby they may endeavor to increase the price" There were a significant number of signatories to this statement of intent, with plans made to form a permanent organization for common action, the Haverstraw Bay Brickmakers Association, with upriver manufacturers also to become members. At least two of the original Haverstraw signatories, Peck and Excelsior—two of the biggest and most prosperous—would soon go their own ways because of their size and their "willingness to be opportunistic about prices."

Newburgh's crusty Palatine Hotel (now the site of the Newburgh Free Library) was the swarming place for the industry-wide organizational meetings that moved on to present the manufacturers with three scenarios: to agree to a mutually beneficial plan of manufacturing and marketing, to join a "trust" controlled by "outsiders," or to stumble along in the manner in which they already had harsh experience. An immediate decision was made to reduce total production by delaying the yard openings from March, the customary month, depending on the weather, until May 20, 1894, with only one-half of productive capacity to be utilized after that date. Some favored the idea of a "trust" or syndicate, with all yards under central management by a manager or a board of directors. Naysayers to that idea included the Brockway interests (one mile north of what is now Beacon), whose large size enabled them to say that they wanted no part of any cooperative efforts, since they could produce bricks at \$1.00 per thousand less than other manufacturers (20 to 25 percent lower at the prevailing prices). The opinion was expressed to the effect that the manufacturers should get busy with the formation of their own trust before an "outsider" got in ahead of them. Such an "outsider" did indeed appear in the person of Charles R. Flint of New York City, "who controls more capital than any other man in the city" this person being, "satisfied that if the brick businesses can be combined, larger dividends can be obtained." Joiners would take preferred stock as payment for their facilities, with the understanding that manufacturers, "must not expect a big bank to be handed over to them at the end of the year . . . but could expect a fair dividend." Reactions from manufacturers included speculation about motives: "It seems very strange if strangers step in and are willing to put their money on businesses in which home manufacturers claim that they are losing money." The hand-wringing continued: "The brick business is being run without a head and brick are sold without discretion or consulting with manufacturers" Strongly recommended was shutting down the brickmaking business for one year, which is

exactly what two big producers—Aldridge and Ramsdell—did at Fishkill Landing (now that portion of the City of Beacon between Route 9D and the river, the site of the present Beacon railroad station). A Coeymans, New York manufacturer was willing to forego his tenants' rent if they ceased operations for a year. The predicament of pricing in the New York market was also discussed, recognizing that the brokers or "commission men" had tried to favor the manufacturers. Many of the commission men had close ties to Haverstraw, with some having previously been in the brickmaking business there. Insofar as their income was derived from the volume of brick sold, the "commission men" were forced to sell regardless of price, with knowledgeable buyers using this weakness as a means of forcing prices down in a bad economy, with no countervailing influence. "There is no force to hold the price up, other than the human voice and a self which money alone could break down." It was understood that changing the basis of the commissions, to be based on the total value of the sale, would create a better condition for the manufacturers. By December of 1894, prices had increased by \$1.00 to \$1.25 per thousand—still barely profitable—but with a surprising change in the relationship of "commission men" and buyers. Many buyers dealt directly with the manufacturers, thereby circumventing the "commission men." This foreshadowed the situation in the next decade by the operations of the John B. Rose Commission House as well as its successor, the Greater New York Brick Co.

The inability of the Hudson River manufacturers to consolidate was also observed by Heinrich Ries in his 1909 history of American clayworking industries, who notes that consolidations of brick companies had occurred in Baltimore with the 1899 formation of the Baltimore Brick Co., in Boston with the 1900 creation of the New England Brick Co., and in Chicago with the 1900 formation of the Illinois Brick Co. By 1910, Illinois Brick would own nine plants, to become the largest brickmaking corporation in the world, and would persist as a significant manufacturer well into the midtwentieth century. By 1910, there was an additional consolidation in Chicago with the formation of the Chicago Brick Co. Ries also noted that such consolidations were made in the interest of maintaining prices "at a reasonable figure."

Charles R. Flint was not alone in his efforts to consolidate the Hudson River brick business. At least one other investor had been attracted to make a full-scale effort that included risk of capital: Oakley Thorne, president of the National Switch and Signal Co. of Easton, Pennsylvania, and owner of an estate near Millbrook, New York. The plight of the Hudson River manufacturers attracted his attention. He solicited the manufacturers with a letter dated January, 1899, in which he proposed the formation of a corporation (owned by Thorne) which



Hutton Co. (Kingston), 1950. Courtesy Hutton Co.

would purchase 700 million bricks per year at a contracted rate reasonable to the manufacturers. He would thereby effectively control the price of brick on a New York market that totaled somewhat more than one billion bricks per annum.

For the advancement of his own purposes, Thorne formed the American Brick Co. on Staten Island. The local manufacturers didn't cooperate on this one either. After all, Thorne was an "outsider" to Hudson River brick circles. However, Thorne was an angel from heaven to at least two known manufacturers, both of whom sold their plants to him in the autumn of 1899, with an advance on the full purchase price having been paid. In March of 1900, one of the plants (the Hutton Co. at Kingston) was sold back to the original owner for 20 percent less than Thorne paid for it, with a similar arrangement having already taken place in the instance of the other plant (at Fishkill Landing). Both of the original owners were back in the brick business, whether they wanted to be there or not, but with an amount of money in their pockets that would have been hard to get out of making bricks at that moment. Brick prices would remain perilously low, without any real improvement, until 1904.

As though the brick business did not have sufficient problems in establishing satisfactory prices for its product during most of the 1890s, mention must now

be made of the early twentieth-century appearance of the most formidable new competitor the industry would face: the increased use of quick-setting Portland cement, which had rapidly gained acceptance in the last quarter of the nineteenth century. Heretofore a minor but growing presence, in a 1905 article in *Brick*, notice was given of the increasing volume of concrete-block production. "You all know how rapidly the use of concrete has spread. The amount of Portland cement used in this country doubles once in four years." In assessing the effects of substitution of concrete for bricks, keep in mind that one 8" (depth dimension, from front to back) concrete block replaces 12 bricks, and that concrete would also replace bricks in such mass construction as foundation walls. The American brick industry recognized the severe threat from the new competitor and made much use of the findings of preeminent testing facilities, such as the Underwriters' Association, that maintained, "Ordinary, well-burned brick of good quality is the most satisfactory fire-resisting material now used in building construction." Early twentieth-century conflagrations in Baltimore and San Francisco occasioned the testing of panels by the U. S. Geological Survey that showed those of brick to be the least affected by fire, with those of concrete being badly pitted. Testing by the New York City Bureau of Buildings produced similar indications. All of this was good news to the brick industry, and these results were widely touted.

Brick would hold its own as a principal building material in the very early twentieth century, but Portland cement grew at the prodigious rate of 18 percent per year during the first half of the century—a rate of increase that was unsurpassed by any other material in that period with the exception of aluminum. The rate of increase, just for the first decade of the twentieth century, was stunning, having increased by a multiple of eight over consumption at the beginning of the century (from 10 million to 80 million barrels per year in ten years). In addition, the very nature of construction would eventually change, beginning in the 1920s, when bricks began to lose an enormous volume of production as massive backup for facing materials of stone, and the backup function was taken up by concrete blocks. Thus, the entire basis of wall construction would rapidly change to a lighter, less massive construction.

Another variable that would adversely affect the fortunes of the brick industry was a lowering of the rate of New York City's population growth after two decades of record-breaking increase. On top of the 1890s decade increase of 1.15 million, the 1900s decade saw a 38-percent population increase of 1.33 million people, with a drop to an increase of 18 percent (850,000 people) in the following decade. Although there was a significant increase in the second decade of the century, it was clear that the years of explosive population growth were over.

During the 50 years from 1870 to 1920, the city's population had grown from 1.3 million to 5.6 million. Notably, growth began shifting away from the old population centers of Manhattan and Brooklyn with the development of the new subway lines, commencing operation in 1904 as far north as Harlem and extending into the Bronx in 1908, with further extension into the Bronx and into Queens in 1913. The new transportation system would disperse the city's population, with Manhattan experiencing an outright loss of 20 percent by 1930. A trend was being established that would most certainly affect the Hudson River brick industry with its reliance on a market that was proximal to cheap water transportation, as well as being centered on multistory, densely sited urban development requiring good fire resistance. Later decades would see the continuation of this trend in the continued dispersal of population by commuter railroads, new highways, and large-scale motorcar use. The great need for building materials to meet the pressing need to house the great population increases was matched or exceeded by the vast quantities of bricks required for commercial purposes in buildings large and small. Anyone who has been in New York City for even limited periods of time has probably had the experience of sitting in a café or restaurant that had exposed red brick walls. Insofar as 75 percent of the bricks on the New York market, in the decades 1890–1910, were manufactured on the Hudson River, it would be a safe bet (three-to-one odds) that those bricks came from Hudson River brickmakers. Note should also be taken of the large areas of red brick sidewalls and rear building walls that are so frequently visible.

Throughout the decade 1900-1910, a system of representation of the manufacturers, marketing, and sales had become well established, if overlapping and troublesome. The weak link was with the manufacturers themselves, and with additional efforts to establish a cooperative association for the control of overproduction. The real need was for a reduction in the sheer number of manufacturers, including the already described large numbers of lessees. Leasing had become a habit that the clay landowner-manufacturers were unwilling to break. The first truly functional service organization for the manufacturers, the Hudson River Brick Manufacturers Association, was formed in 1902, with a membership of 126. That association sent weekly reports on prices, yard conditions, labor relations, and other matters of importance to the membership. However, the Association became subject to strong criticism by the membership for its failure to modify the ability of the Masonry Dealers Association to fix the prices set by the "commission men"—i.e., the dealers had wrested control of Hudson River brick prices.

A principal result of the manufacturers' lack of decisive action was the appearance in 1902 of the John B. Rose Commission House, owned and operat-



Terry Brothers Yard—Ulster County (Kingston) showing brick machine buildings at left, drying yards and kiln sheds (long buildings at middle and right side of photo). Courtesy Hudson River Maritime Museum.

ed by the largest brick manufacturer on the River and also—at that time—in the world. John B. Rose was a brilliant shooting star in the firmament of brickmaking, and like such celestial appearances, of brief duration. Rose took over his father's brick business at age 22, immediately after graduating from Yale College (Class of 1897), thereafter founding the Commission House at age 27. The Rose yard was located at Roseton (obviously named after the company), two miles north of Newburgh. Roseton was also the location of another of the more interesting and progressive of the manufacturers, the Jova Brick Works. John B. Rose was unquestionably a young man of vision and decisiveness, however flawed the results of his undertakings. The Commission House was the direct result of Rose's exasperation with the manufacturers' inability to cooperate to resolve common problems of marketing. In one year, it could move 600 million brick, a number that approached one-half of the entire New York City brick market. Such volume was the result of the Commission House representing 50 manufacturers, including 11 from outside of the Hudson River region. Deliveries from the yards were made by a total of 130 barges and 10 sail-powered vessels as well as by 200 horse teams within the city. 40 barges could be simultaneously berthed at the

West Fifty-Second Street docks on the Hudson River, awaiting inspection by prospective buyers. The John B. Rose Commission House was an enormous brick bourse, probably without equal in the world.

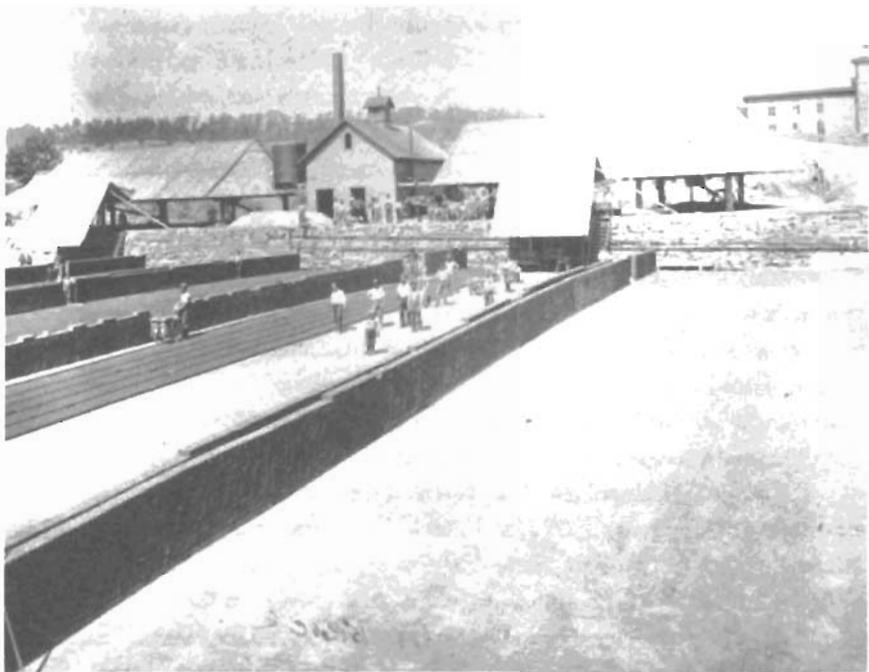
In terms of price and volume of bricks made, 1905 and 1906 were the best years in the history of the Hudson River brick industry, hitting a momentary top of \$12.00 per thousand in late '05 and early '06, with an average price of \$8.00 to \$10.00. In 1905, 1.3 *billion* bricks were manufactured by 130 manufacturers. Such a quantity is admittedly beyond comprehension, requiring some kind of exemplary equivalents. 1.3 billion bricks would provide a 32-mile, solid-brick length of the Great Wall of China (which was only faced with bricks, and filled with rubble), or a 300-mile-long (Albany to Buffalo) four-story wall (10 feet floor to floor for a total height of 40 feet) of 12-inch thickness, with no openings in the surface. The Hudson River brick industry was at the pinnacle of its existence and at the zenith of a roaring market. But there immediately followed a precipitous drop in production to 800 million bricks in 1908, with the price falling to \$5.10. The journal *Clay Record* showed 1907 prices between \$4.50 and \$5.50, with the manufacturers' cost to put the bricks on the New York City docks at \$6.00 per thousand. Such a sudden downturn in the market was the result of the national currency and banking crisis of 1907, with cement prices down by 35 percent and structural steel prices by 32 percent—all for the next five to six years. Prices would be under continuous pressure until 1915. The collapse of 1907 also marked the end of the prodigious growth of an industry that had increased its production by 50 percent in each decade over a period of 50 years. Brickmaking had become a chaotic and largely unrewarding business. It was generally failing to attract young ownership and management talent. Yet it should be noted that 1907 was the year in which Ulster County became the largest producer on the river (with over 30 yards), thereby achieving world rank as well. Ulster County's accession to leadership over Rockland County had a tragic precursor in the 1906 collapse of a portion of the Village of Haverstraw into the adjacent clay bank excavations (killing 19). The bottom of some of those excavations reached a depth of 30 to 40 feet below the river's mean-tide level.

In 1909, there was a dysfunctional relationship between the market and the brick industry, in that 1.2 billion bricks would be made at a price of \$5.28 per thousand. It would appear that the region's brick industry hadn't gotten the market's message. The journal *Brick* in 1910, stated that 60 percent of the upriver manufacturers were shipping at a thin profit margin, with some making brick at a loss. The same journal, in the same year, made the definitive statement about the Hudson River region's brick industry being the largest in the world—sounding a bit like an epitaph. Also in the same year, the same journal would show

New York State brick prices as the lowest in the United States, with the exception of Kansas. Other neighboring (New England, New Jersey and Mid-Atlantic) and Midwestern states' prices were 10 to 30 percent higher, with the largest 20 percent higher. A ruinously low yard price of \$4.54 was reported in 1910, with almost one-third of that year's production remaining as unsold inventory at the end of the season (brickmaking was seasonal, due to the freezing of the river and the clay banks). By 1911, 25 manufacturers had left the business—the first bloodletting in the ranks of the brickmakers. That was only the beginning of the reduction process, and it would take the skill and perseverance of a minority of the manufacturers to stay in the business and succeed. *Brick and Clay Record* remarked on the 1912 plight of the Hudson River manufacturers, “who had suffered more than those in other parts of the State and in the East.”

One final effort would be made to organize the manufacturers for the purpose of price stabilization, in the establishment of the Greater New York Brick Company (the “Greater New York”) of 1911. That organization was not the result of a cooperative effort among the manufacturers, but a hybrid resulting from the initiative of a handful of the brick brokers—the “commission men.” Many of those brokers were from Haverstraw and Grassy Point and were on good personal terms with the brickmakers. Prominent names among the early twentieth-century “commission men” were William Barnes, John McNamara, and Richard Morrissey (doing business as Barnes, McNamara and Morrissey into the midtwentieth century), with Barnes originally in the brick business at Grassy Point with the Farleys. A son of the latter—James—became a nominee for the United States Presidency and later Postmaster General in Franklin Roosevelt's administration. Jim Farley then became president of General Builders, a large materials dealer that also purchased the Dennings Point brick plant (opposite Newburgh) in 1946. Farley was famed for his ability to associate the faces of an enormous number of people with their names unfailingly, priding himself on instant recall. The Morrisseys were also in the brick business on the Minisceongo Creek (immediately north of Haverstraw). By the middle of the first decade of the twentieth century, the “commission men” were already working closely with the manufacturers, at times furnishing financing as well. Nevertheless, the objective was “to produce the largest number of bricks at the lowest cost.” That was the market-imposed condition for the manufacture of common bricks for the New York market and the negative effects of this inexorable pressure on the industry's profits, and consequently on investment in new technology, wages and working conditions cannot be overemphasized.

The “Greater New York” did successfully upset the conditions for market control that had been achieved by many of the building-materials dealers, who



Unknown yard, showing drying yards, brick machine buildings and boiler building (containing central steam-engine power to drive the brick machines). Courtesy Collection of John Matthews.

were not philosophical about it. The challenge brought a petition to the New York State Attorney General alleging the existence of an anticompetitive trust. The “Greater New York” people were depicted as rapacious corsairs, reputedly amassing the might of 90 percent of the manufacturers into a monopolistic juggernaut. The Attorney General ruled that the case against the “Greater New York” was insubstantial. John B. Rose would cease the operations of his Commission House in order to take over the Presidency of the “Greater New York,” which was actually effective for only a brief period (not more than two years) in a turbulent market under such relentless pressure, with some of the producers complaining of the promotion of certain brands, favoritism in the assignment of barge moorings, and the sale of favored brands to the most creditworthy customers.

1917 and 1918 were ruinous years, with only 211 million bricks made in the latter year (16 percent of the zenith production year of 1906), with those two years to witness the loss of an additional 22 percent of the manufacturers as a result of a sudden drop in construction activity that accompanied America’s entry into World War I. Those losses would include the John B. Rose Company’s

brickmaking business—the largest in the world less than twenty years before—which was sold at a bankruptcy auction by a Newburgh court in 1919. By 1922, only 52 manufacturers would remain (down 60 percent from the 1910 maximum of 130). A small number of those brickmakers seized the opportunity, presented by the booming brick market in the 1920s, to increase their productivity significantly through the modernization of their manufacturing facilities. The year 1926 would be the last time that the one-billion-bricks production quantity would be attained, with a large 1927 influx of Belgian brick causing real damage to the market. The investments of the 1920s for modernization allowed a dozen brickmakers to survive the Great Depression and to manufacture Hudson River bricks for one last round of profitability during the ten years after World War II, hitting a maximum production figure in one year of one-half-billion bricks (almost 40 percent of the maximum production of 1906 accomplished by 9 percent of the number of plants at that time).¹ By 1980, the industry was down to one manufacturer, with that remaining plant in a precarious condition today. At this writing, the once great Hudson River brick industry, in existence for over three centuries, may have perished completely.

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Notes

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2. *Brick*, October 1910, Kenfield Publishing Co., Chicago.
3. Brownell, Wayne E., *Clays and Shales of New York State*, New York State Department of Commerce in cooperation with College of Ceramics at Alfred University, 1951

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1. Engineering News Record—*Construction Costs*—annual wholesale brick and cement prices f.o.b. NYC market 1873–1935 and structural steel prices 1894–1935; *Construction Cost Index—1903–1935*—McGraw-Hill, NYC 1936.
2. *Brick*—spot prices 1870–1904—Kenfield Publishing Co., Chicago—March, 1905.
3. *Clay Record*—Jan., Feb., Mar., May, June 1908—Clay Record Publishing Co., Chicago.
4. *Rockland Messenger*—Jan. 5, July 20, July 27, Sept. 14, Nov. 30, 1893; May 12, June 28, 1894.
5. NYS Museum Bulletins—*The Mining And Quarry Industries* (series)—#47, #120, #166, #178, #273, #277.