

THE MANUFACTURE OF CLAY PRODUCTS IN THE LOWER WABASH VALLEY

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The clay industry of the Lower Wabash Valley includes the manufacture of the various kinds of bricks, drain and building tile, sewer pipe, electrical conduits, pottery, sanitary ware, and a variety of other products. However, as far as statistical measurement is concerned, the manufacture of brick and tile far surpasses all other clay working industries.

Brick yards have always operated in the vicinity of the major cities and many of the medium sized and smaller towns of the United States, but there has been a tendency to concentrate at favorable production centers. By the end of the century, this trend began to manifest itself distinctly in the eastern states but was not noticeable in southern Illinois and Indiana until the World War era. Between 1910 and 1925 those plants which were unfavorably located with respect to raw materials, transportation facilities, and markets were gradually discontinued, leaving an area of four or five counties extending north and west from Brazil with most of the important clay plants of the region. Within the last decade about one-half the remaining plants have closed and Clay County (Indiana) remains as the only important producer of clay products within the area.

An Early Period of Small Plants.—The clay industry of the Valley dates from about the middle of the last century,¹ but it was about 1900 before a large clay plant was built in the Wabash Valley.² Although brick making was almost as widely distributed as town-building, most of the plants were small and, in general, served only the immediate vicinity. (In

1880 there were thirteen brick and tile plants in Vigo County and six in Knox County.³ After 1900 the introduction of more modern brick-making machinery and the growing demand for specialized products (pressed brick, fire brick, and paving brick) encouraged a greater degree of specialization, which has continued from that time to the present decade. By the end of the century Terre Haute had only six plants, three in 1930, and only one by 1940.

Although a number of large plants followed in rapid succession after 1900, the trend away from small establishments was not yet apparent in 1913. The Clay Products Directory⁴ for that year lists more than 75 plants located in 44 cities and villages of the area. Every county except Wabash, Gibson, and Pike was represented, and Clay County continued its early leadership with 15 concerns, some of which made several different ceramic products.

Industrial Selection Within the Last Decade.—The unusual demand for drain tile in the Corn Belt of Illinois and Indiana gave special impetus to that phase of the industry. This region was within the area of Wisconsin glaciation and the postglacial epoch has been so short, geologically speaking, that the drainage of large areas had not become organized by the time of white settlement. This, in part, accounted for the development of the National Drain Tile Company of Terre Haute which was rated as the "strongest tile plant" in the state in 1931. It marketed about two-thirds of its products within Indiana and 80 per cent

¹ One of the oldest ceramic plants in the state is the Griffith Pottery at Clay City which was established in 1848 and has been operated continuously since that date. (G. I. Whitlatch, "The Clay Resources of Indiana," Indiana Department of Conservation, Division of Geology, Publication No. 123, 1933, p. 107.) The first tile made in Indiana was made by a handpower machine in 1852. (W. LeRoy Perkins, "The Significance of Drain Tile in Indiana," *Economic Geography*, Vol. 7, 1931, p. 382.)

² Brazil was an early leader in this industry and the first large plant in that area was built in 1891. (The Terre Haute Tribune, Vol. 91, No. 62, Jan. 31, 1940, Sec. G. p. 15.)

³ Tenth Census of the U. S., 1880, Manufactures.

⁴ Directory of Clay Products Manufacturers in the U. S., compiled by L. L. Longdon, 1913.

of the rest in Illinois, but the remaining sales were scattered over nine states.⁵

This industry has suffered severely in recent years. The business depression affected the farmer in numerous ways and thereby limited the sale of drain tile. When he experienced a recovery the purchase of new machinery and the upkeep of the farm buildings and fences, rather than further draining of the fields, have occupied his time and taken what money could be spared for improvements. The United States land policy of adding acreage in the irrigated west and retiring from production a similar acreage in the eastern states has tended to retard the further reclamation of wet lands. The conservation program has limited the acreage of soil depleting crops which, in general, are the crops that require well drained soils. As a result, the drain tile plants have ceased operations or, at most, are working only a day or two per week.

According to the 1930 census Illinois and Indiana ranked second and third in the manufacture of brick and tile, making about 18 per cent of the national total,⁶ however, the number of establishments has decreased consistently since 1900.

The clay plants in the Illinois portion of the Valley had decreased from 27 in 1913 to four in 1929, and three of those have since been closed. The only addition was the W. A. Case Company, a large concern manufacturing sanitary ware, which located in Robinson shortly after 1920. In Indiana the proximity of cheap fuel and a more suitable supply of raw clay were responsible for the survival of a greater percentage of the original plants. Whitlatch⁷ shows 37 plants in the area, 13 of which were in Clay County, and 14 of the remainder in Vermillion, Parke, and Vigo Counties. The recent depression has reduced this number by more than 50 per cent. In 1940 only ten firms were operating in Clay County, three in Parke, and one each in Vigo and Vermillion Counties. (Fig. 1.) Within the last two years two plants (at Newport and Brazil) have discontinued operations. It is true that economic conditions have contributed greatly to the decline of the industry, but the shift to other construction materials has also been a vital cause. Concrete and asphalt

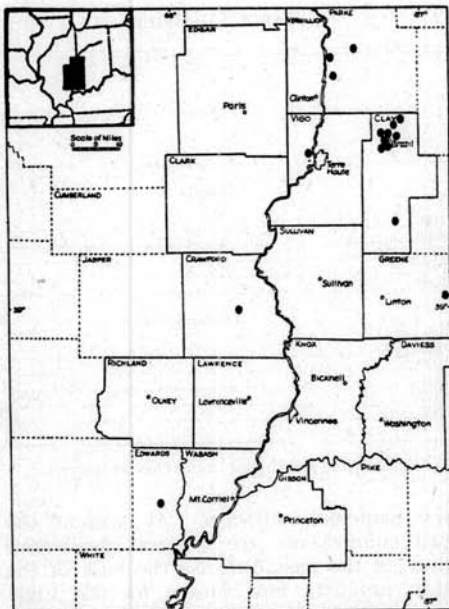


Fig. 1.—Although brick and tile plants were located in nearly every county of the area, most of the major clay products plants that remain in operation are localized in the Brazil (Indiana) district.

preparations have replaced the use of brick in road construction and the first named has become an important material in the building of city structures. It is easier and cheaper to pour a building than to construct it of brick.

Most major brick-making centers are located in the vicinity of the large cities, but the Brazil region has been able to develop a clay industry and remain an important producer despite the absence of nearby urban agglomerations. A number of factors have contributed to this success: (1) The operators have had easy access to an ample supply of raw materials. Most of the plants use underclays or shales associated with the local coal measures and in many cases their pits are located within a few hundred feet of the plant. (2) The proximity and cheapness of the fuel as well as the clay is another vital factor, and not infrequently these two major raw materials have their source in a common mine or pit. (3) The area possesses an efficient transportation system, all major plants having switching facilities from one of

⁵ Perkins, *op. cit.*, p. 380.

⁶ Fifteenth Census of the United States, 1929, *Manufacturers*.

⁷ Whitlatch, *op. cit.*, p. 68.

TABLE I.—BRICK AND TILE PLANTS OF ILLINOIS AND INDIANA¹

Date	Number of establishments	Value of products	Value added by manufacture
		Thousands	
Illinois			
1899.....	566	\$ 5,081	\$ 4,055
1909.....	340	9,765	7,274
1919.....	144	17,564	12,734
1929.....	101	23,685	17,782
1939.....	48	5,861	4,313
Indiana			
1899.....	558	\$ 2,931	\$ 2,379
1909.....	311	4,719	3,413
1919.....	151	9,881	6,444
1929.....	77	15,948	11,841
1939.....	27	3,143	2,288

¹ Data from the United States Census Reports.

the principal railways. At present the rail connections are of less importance than in the past, because the bulk of the clay products now moves on the high-ways. A decade ago Perkins⁸ noted that most of the drain tile transported within Indiana and a large part of that sent to points outside the state was carried by motor truck. (4) Skilled labor is essential for only a few positions, and the rise of the brick industry coincided with the decline of Terre Haute iron and steel production, so an adequate labor supply has always been available. (5) Efficient business connections and organizations have placed the industry on a firm basis, and some plants are units of major organizations with headquarters in St. Louis or Cleveland. (6) Some plants have developed sidelines or secondary products, and (7) during normal periods, adequate and usually vigorous markets have been available.

The products have their greatest market in Indiana or the adjacent portion of Illinois, but a limited quantity is transported to more distant parts of the country. In general, the brick and drain tile are sold principally in Indiana and

the adjacent states, while the more specialized products supply a market that extends over a wider area. The National Drain Tile Company (no longer operating) sold its product in eleven states.⁹ The two plants of the Brazil Clay Company, manufacturing face brick, serve a market extending over a radius of about 500 miles. Hollow building tile and silo blocks have been shipped to points in a half dozen nearby states. The principal market for sewer pipe is Indiana, Illinois, Wisconsin, Missouri, and Oklahoma. Fire brick and special shapes are sold in the Chicago market and fireplace bricks have an extensive sale in the southern states. The Clay Products Company, which once owned three plants near Brazil, was unique in that all of its output was shipped to points outside the state. However, the one remaining plant was recently taken over by the Arketex Corporation which now operates two plants. A decade ago floor tile was distributed throughout the United States with selling points at Chicago, New York, and Californian and Canadian cities, and the sanitary ware of Robinson has a national market, the home offices of the Case Company being located in Buffalo.¹⁰

⁸ Perkins, *op. cit.*, p. 330.

⁹ *Ibid.*

¹⁰ Whitlatch, *op. cit.*, *passim*, and personal interviews by the writer.