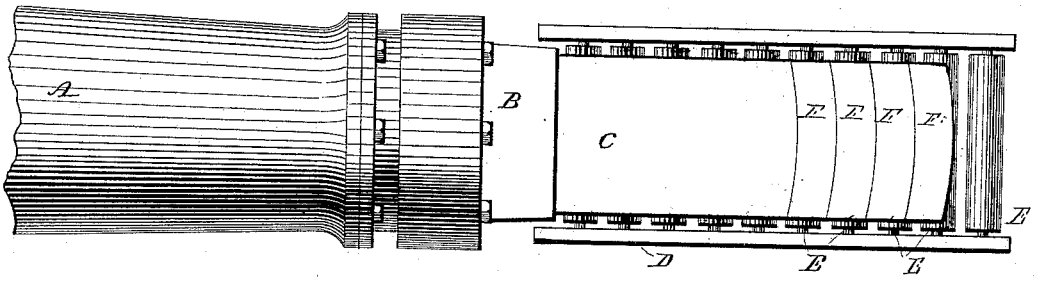
(No Model.)

J. F. CLARK.

METHOD OF MANUFACTURING BRICK.

No. 382,866. Patented May 15, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JAMES F. CLARK, OF MORENCI, MICHIGAN.

METHOD OF MANUFACTURING BRICK.

SPECIFICATION forming part of Letters Patent No. 382,866, dated May 15, 1888.

Application filed July 19, 1886. Renewed October 14, 1887. Serial No. 252,372. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. CLARK, a citizen of the United States, residing at Morenci, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in the Method of Manufacturing Bricks, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to a new and improved method of making brick from tempered clay.

In the drawing I have shown a top view of the machine and column of clay with some of the bricks cut therefrom.

The object of my invention is to cut, mold, or otherwise shape the brick, so that their sides and edges will be parallel and true when dried and burned, instead of being warped and uneven, as is common in making brick from wet tempered clay; and to this end my invention consists in cutting, molding, or otherwise shaping the brick so that one side will be convex while the other side will be concave, so that by the contraction incident to the drying and burning of the brick the sides will be brought straight and perfectly-true brick produced. In the manufacture of brick from wet tempered clay it is the usual practice to force the clay from a pugging or tempering cylinder or box through a die or former in a continuous column or stream, from which the bricks are cut into the desired size by knives or wires, which pass through the column of clay at right angles to the length of said column, thus producing brick in their wet state with parallel sides and edges; but in the drying and burning of such brick it frequently happens that the brick are warped or distorted to such an extent that they are unfit for building or other purposes and have to be thrown away.

To more clearly describe my invention, I have shown in the drawing, in plan view, the end of a pugging-cylinder having the usual forming or shaping die, the column or stream of clay issuing from said cylinder, and rollers for receiving the column of clay, and on which the column of clay is cut into the desired lengths to form brick; and while I have shown and will describe a machine by which my invention can be put into practical use, I do not wish to limit myself to any particular machine, as it is obvious that bricks can be formed embracing my invention by other machines or devices.

Referring to the drawing, A indicates the pugging-cylinder, in which is mounted a shaft carrying the usual mixing and screw blades, which mixes the clay into a homogeneous mass and forces it through the die B, secured to the end of the cylinder, the function of said die being to give the proper shape to the column of clay C.

D is a frame located at the end of the pugging-cylinder, in which are mounted a series of rollers, E, on which the column of clay is moved and supported as it leaves the pugging-cylinder.

The column of clay C, as it is supported on the rollers E, is cut into bricks or blocks F, as shown, by means of suitable wires or knives, and instead of cutting the column of clay straight across, as is the usual custom, I make the cut in a curved line, as shown, which makes the bricks slightly convex on one side and slightly concave on the other. The bricks, after being made in the form shown and described, are stacked in the yard to dry, and are afterward burned in a kiln in the usual manner.

As before stated, bricks made from a continuous stream of clay as it is forced from the machine and cut off at right angles to the column of clay are very liable to warp and become distorted in the drying and burning operations. This defect may be due to the unequal density of the clay in the column, caused by the frictional contact of the sides and edges of said column on the die, and the compacting pressure of the expelling-screw on the center of the column of clay, or from other causes; but I have discovered that by cutting the brick from the column of clay in a curved direction, so as to make one side of the brick slightly convex and the other side slightly concave, when dried and burned the brick will be perfectly straight and true in all its parts.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An improvement in the art of making brick, which consists in cutting the brick from a column of clay as it emerges from the machine in a curved direction, so as to form one side convex and the other concave, and then straightening the sides of the brick by subsequently drying and burning the same, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES F. CLARK.

Witnesses:
E. B. RORICK,
GEORGE FLINT.