(No Model.)

T. LE POIDEVIN.

MACHINERY FOR MOLDING BRICKS AND TILES.

No. 271,875. Patented Feb. 6, 1883.

Fig. 2.

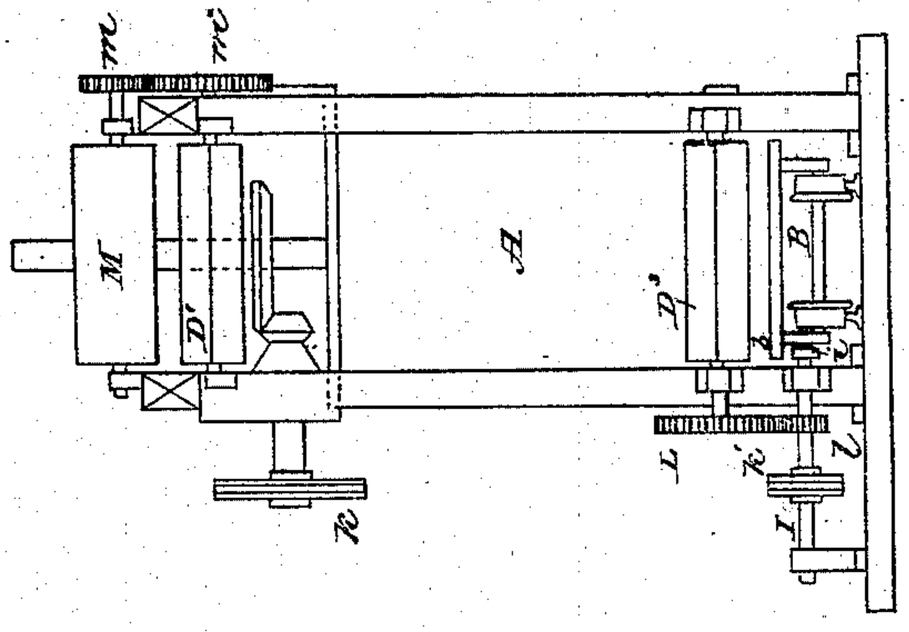


Fig. 4.

Fig. 5.

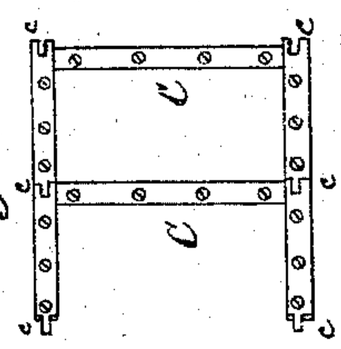


Fig. 1.

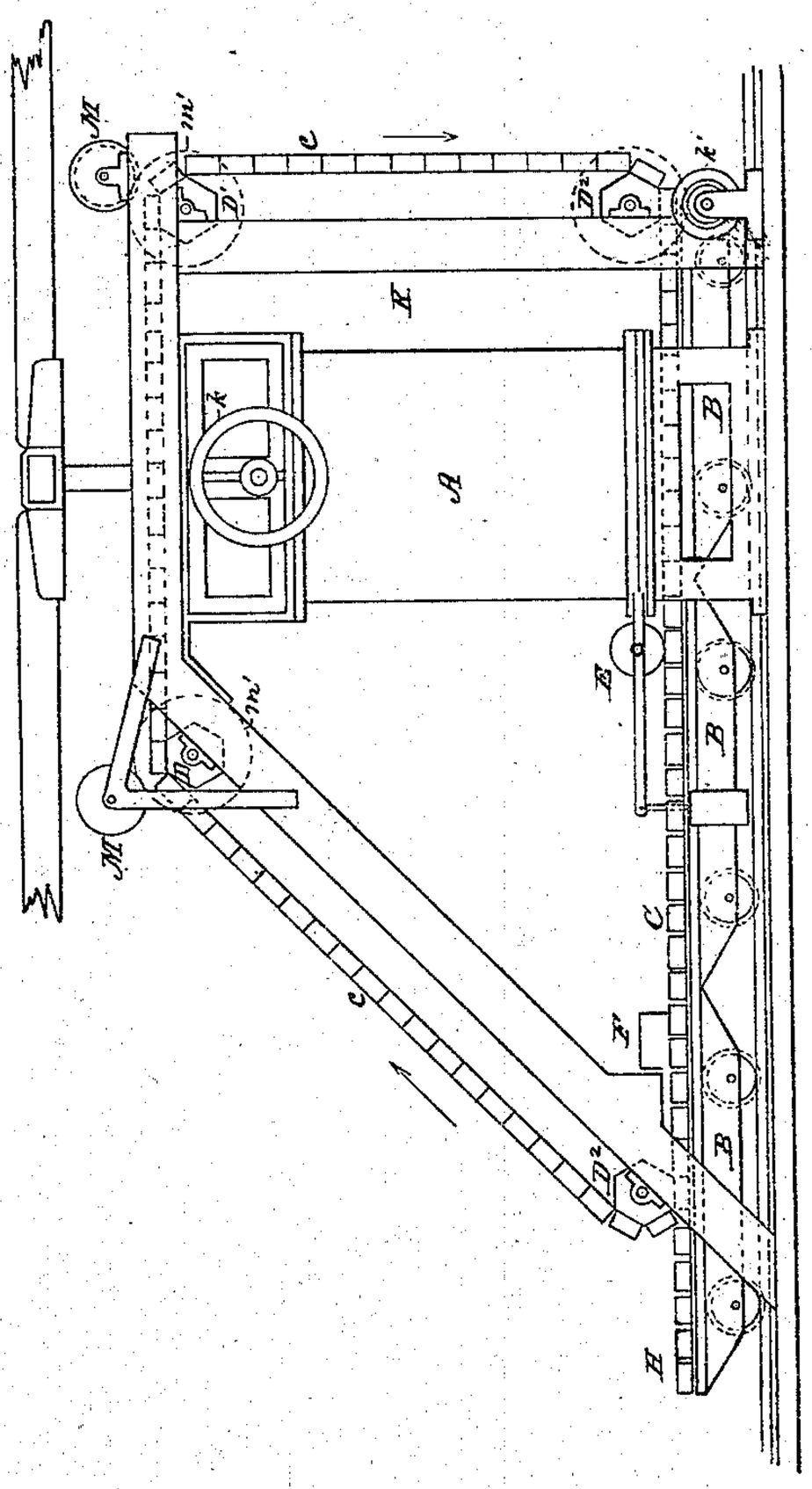
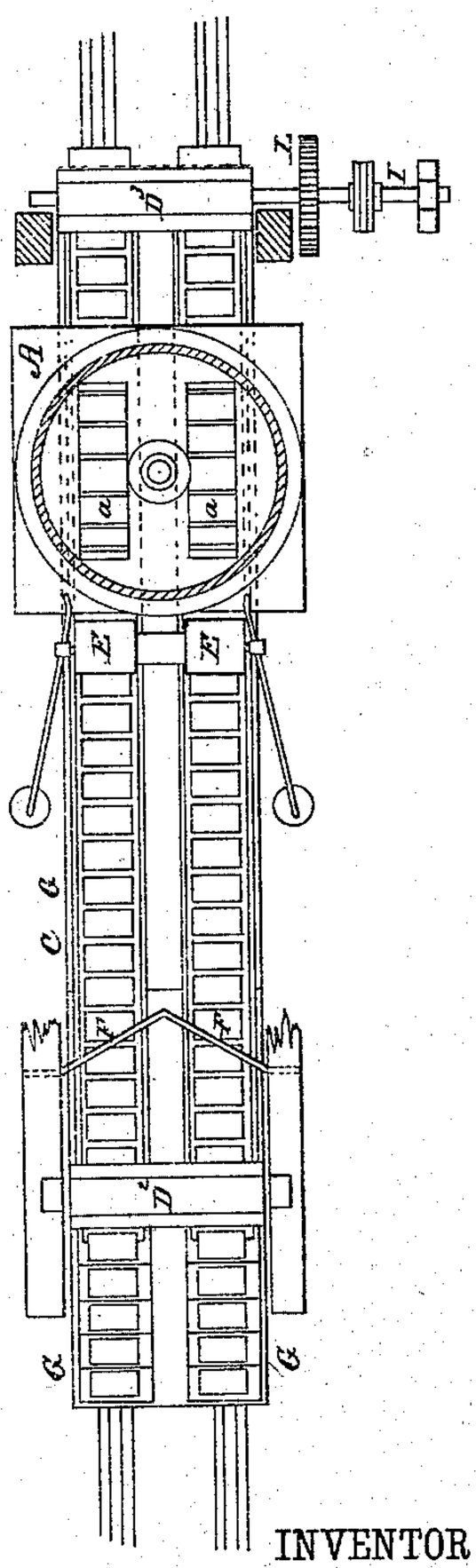


Fig. 3.



WITNESSES:

W. W. Hollingsworth

John C. Kenon

INVENTOR:

Thomas le Poidevin

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS LE POIDEVIN, OF GUERNSEY, ENGLAND.

MACHINERY FOR MOLDING BRICKS AND TILES.

SPECIFICATION forming part of Letters Patent No. 271,875, dated February 6, 1883.

Application filed October 18, 1882. (No model.) Patented in England February 28, 1882, No. 980, and in France August 26, 1882.

To all whom it may concern:

Be it known that I, THOMAS LE POIDEVIN, a subject of the Queen of Great Britain, residing at Guernsey, Great Britain, have invented certain new and useful Improvements in Machinery for Molding Bricks and Tiles, (for which I have received Letters Patent in Great Britain, No. 980, dated February 28, 1882, and in France, dated August 26, 1882,) of which the following is a specification.

My invention relates to an improved apparatus for molding bricks or tiles; and the invention consists essentially in the combination, with a pug-mill, of an endless series of molds supported on traveling platforms or trucks running on a railway beneath the pug-mill, and receiving the clay direct therefrom, the train of carriages and molds being made to travel along, as fast as the molds are filled, by gear from the pug-mill, the molded bricks being left on the trucks by the molds and conveyed to the hack by the trucks, which are returned, unloaded, by another line of rails, to again carry empty molds beneath the pug-mill. The trucks may also be employed alone for conveying the dried bricks from the hack to the kiln. The pug-mill may be placed in the clay-pits, whereby the expense of cartage is avoided.

In order that the invention may be more readily understood, I have illustrated it in the accompanying drawings, in which—

Figures 1 and 2 are side and end elevations, and Fig. 3 a horizontal sectional plan, of my improved apparatus. Figs. 4 and 5 show details of the molds.

A is the pug-mill, worked by horse or steam power. It is so constructed as to allow a train of trucks and molds to pass beneath the bottom, which is provided with two discharge-orifices, *a a*, corresponding in width to the length of the molds, through which the clay is forced by the action of the mill into the molds passing beneath it.

B is a train of trucks running on a railway beneath the pug-mill A. The trucks are low horizontal platforms on wheels or rollers, and of sufficient strength to carry a load of four hundred or five hundred dried bricks, when to be used also for conveying the bricks from the hack to the kiln.

C are two endless chains of brick-molds, running round tumblers D D′ D^2 D^3, and also passing beneath the pug-mill, the two chains running side by side, and passing over the pug-mill at either side of its shaft. The portions of the chains of molds between the tumblers D^2 and D^3 rest upon the trucks B, as shown, the molds being carried along by the trucks.

E is a weighted roller, resting on the edges of the molds at the exit side of the pug-mill, by which the clay is pressed down into the molds.

F is a striker, (which may be provided with an adjusting-screw for regulating its height,) by which the excess of clay is removed from the molds.

G are pallet-boards, which are laid down on the trucks side by side in regular order before the truck is pushed beneath the molds, so that the molds will come down truly upon them, as shown. The pallet-boards are formed with a swell or kick upon their upper surface, and they form the bottoms of the molds, (which are merely open or bottomless rectangular frames, as hereinafter described,) the bricks being thus made on the flat with the hollow underneath.

H are the molded bricks as left on the pallet-boards on the trucks by the molds.

The trucks, with the pallet-boards laid on them, are pushed up to the pug-mill by hand, after which they are successively driven beneath the pug-mill by a pinion, *i*, on a shaft, I, gearing with a rack, *b*, fixed longitudinally beneath the platform of each truck at one side, the shaft I being driven by an endless chain, K, running on chain-wheels *k k′*, operated by bevel-gear from the pug-mill shaft, as shown in Fig. 2. The truck, actually being driven, pushes those in front of it along beneath the roller and scraper, as above mentioned, until they are clear of the machine. The trucks are then pushed on toward the hack, and the bricks taken up, one at a time, by placing a plain pallet-board upon each brick, and so put on the hack in the usual way.

The correct register of the chains of molds, with the pallet-boards, may be insured by providing lugs (not shown) upon the chains at intervals corresponding to the length of the trucks, which shall project downward between the ends of the trucks, instead of the latter abutting close together, as shown.

The tumbler D^3 is driven by a spur-wheel, L, upon its axis, gearing with a pinion, *l*, on the shaft I, the other tumblers being driven by the molds.

M are drums containing sand, mounted to rotate on horizontal axes above the chains of molds, and driven by gear-wheels *m m'* from the adjacent tumblers D D'. These drums have perforations or apertures in their peripheries, through which the sand is discharged for the purpose of sanding the molds. The molds are open rectangular frames, and have each only three sides. (as shown in Figs. 4 and 5,) the fourth side being made by the adjacent mold, so as to enable the molds to open, as they pass round the tumbler D^2, to free the molded brick and leave it on the truck. These mold-frames C are jointed together in endless series by rule-joints *c*, as shown. Each mold is provided with a downwardly-projecting lug, *c'*, at each side, which come between the pallet-boards, as they lie on the truck, and as the mold rises, on turning round the tumbler D^2 these lugs *c'* push the pallet-board, with the brick upon it, onward slightly to free the brick of the mold.

Having described the nature of the said invention and the manner of performing the same, I declare that what I claim is—

The improved machinery for molding bricks and tiles, consisting of a pug-mill having suitable discharge-orifices in the bottom, of series of molds, and of trucks supporting and carrying the molds in succession beneath the pug-mill, so as to receive the clay therefrom, and of suitable devices for pressing the clay into the molds and removing the excess, all combined, arranged, and operating substantially as hereinbefore described, and represented in the drawings annexed.

THOMAS LE POIDEVIN.

Witnesses:

JOSEPH NAFTEL,
Of 5 Manor Street, Guernsey, Solicitor.

J. B. MARQUAND,
Of 29 High Street, Guernsey, Notary.