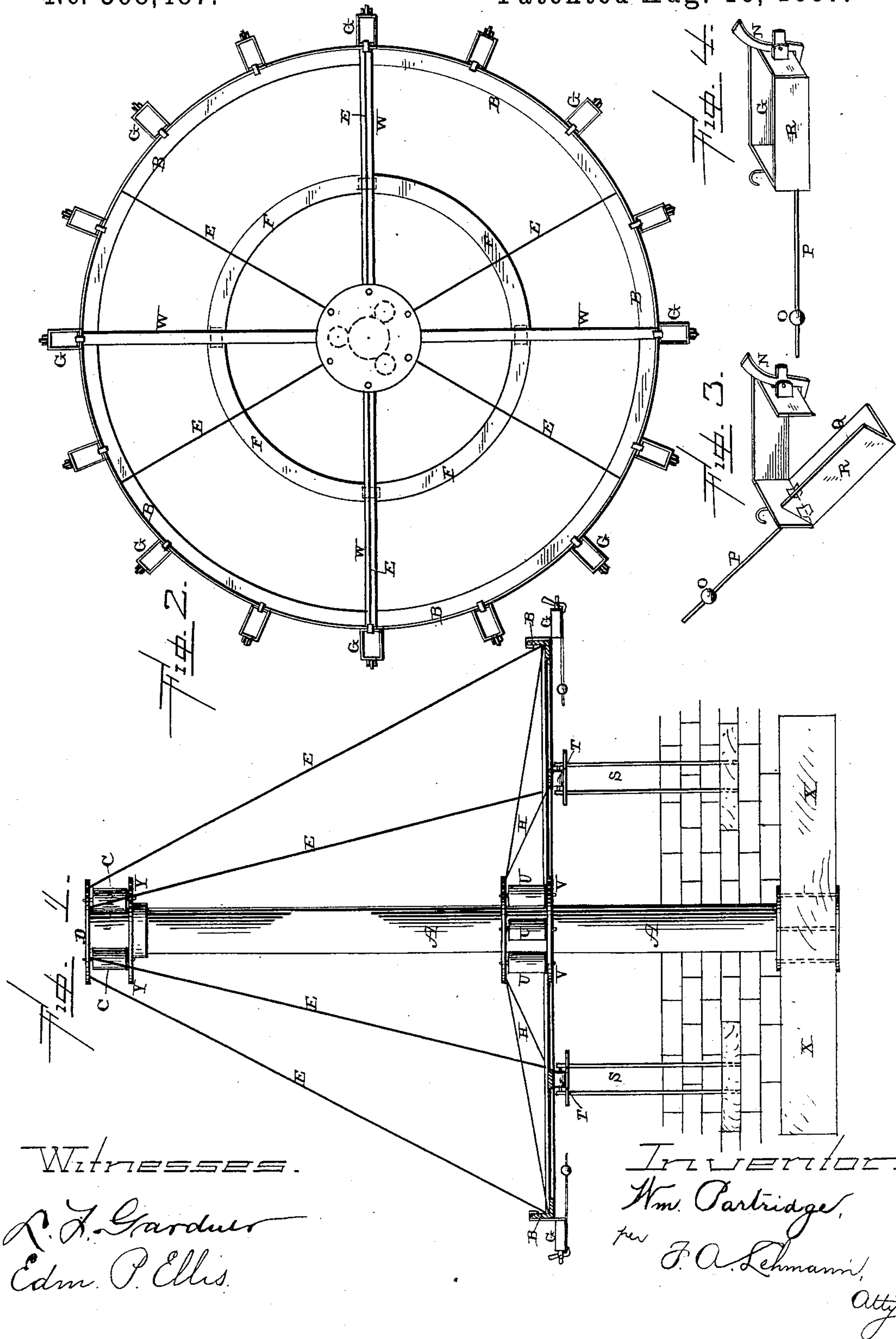


(No Model.)

W. PARTRIDGE.
MACHINE FOR MOLDING BRICKS.

No. 368,487.

Patented Aug. 16, 1887.



UNITED STATES PATENT OFFICE.

WILLIAM PARTRIDGE, OF ALLEGHENY CITY, PENNSYLVANIA.

MACHINE FOR MOLDING BRICKS.

SPECIFICATION forming part of Letters Patent No. 368,487, dated August 16, 1887.

Application filed April 25, 1887. Serial No. 236,044. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PARTRIDGE, of Allegheny City, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Molding Bricks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in machines for molding bricks and tiles; and it consists in the combination of a vertical stationary post, a revolving frame which is connected thereto, molds which are rigidly secured to the revolving frame and provided with movable bottoms and sides, a counter-weight for returning the bottoms and sides to position after having been tripped, and pivoted catches secured to the stationary parts of the molds for holding the sides and bottoms in position until they are tripped, as will be more fully described hereinafter.

The object of my invention is to produce a rotating frame, to which the molds are secured and in which the melted slag from the furnaces is molded into bricks, tiles, blocks, flagstones, and other such articles, the molds being moved away from the operator by the revolving frame as rapidly as they are filled.

Figure 1 is a vertical section of a machine embodying my invention. Fig. 2 is a plan view of the same. Figs. 3 and 4 are detail views of the molds.

A represents a stationary upright, which is rigidly secured at its lower end to a cross beam, X, which is sunk a suitable distance under the ground and which projects to any desired distance at its upper end above the ground. Upon the top of this upright A is placed a revolving cap, D, to the under side of which are secured the supporting-rollers C, which bear upon a stationary support, Y, which projects horizontally around the upper portion of the upright A. This cap D and the rollers C serve to assist in supporting the revolving frame and to hold it perfectly level. Secured to the outer edge of this cap D are a number of brace-rods, E, which extend diagonally downward and

outward, and which are secured at their lower ends to the revolving frame B, which is formed of angle-iron or any other suitable material.

Radiating from the upright A are a suitable number of horizontal rods or braces, W, which are connected at their inner ends to a suitable frame-work, V, which surrounds the upright A, and which are connected together about midway between the rim B and the upright A by a circular ring or brace, F. Placed in the frame V, which surrounds the upright A, are frictional rollers U, which bear against the sides of the upright and lessen the friction of the revolving frame of the upright at this point, and at the same time assist in holding the revolving frame perfectly level. From the top edge of the frame V extend suitable braces, H, to the rim B, and which serve to brace and strengthen the frame and support the parts securely at all points. In order to prevent the revolving frame from tilting while the molds G are filled upon one side and empty upon the other, suitable friction-rollers, T, mounted upon uprights or supports S, are placed at suitable distances apart under the ring F. These rollers T support the frame upon both sides alike and prevent any inclination of the frame to tilt upon the loaded side.

Secured rigidly to the rim of the revolving frame are a suitable number of iron molds, G, which have three stationary sides, and a movable bottom, Q, and a movable side, R, rigidly secured thereto. To this movable bottom and side R, which are formed in a single piece and hinged to the lower edge of one of the stationary ends of the mold, is a counter-weight consisting of rod P and the movable weight O, which is placed thereon. This weight O is adjusted upon the rod P to that point where the weight will cause the bottom and side Q R to instantly close as soon as they are left free to do so. Pivoted upon the outer stationary end of the mold is a catch, N, which has its lower end to project down below the lower edge of the end to which it is pivoted and catch under the outer free edge of the bottom Q, and thus support it in position until the catch N is tripped either by an operator standing beside the revolving frame or by any stationary mechanical appliance placed beside the revolving frame, so that the catches N will strike against

it and be operated thereby as the frame revolves past.

As the frame is made to revolve either by hand or any other power, the molds are successively made to pass under the point where the melted slag or other matter is discharged, and as each mold is filled the frame is revolved around sufficiently far to bring the next one into position to be filled. By the time the filled molds have been moved partially around the melted material becomes sufficiently hardened and contracts enough to allow it to be dropped out by tripping the catch N. As soon as the catch is tripped, the movable bottom and side Q R drop down into the position shown in Fig. 3, and the brick, tile, or whatever other article is being formed falls off upon the ground or into any receptacle placed to receive it. As soon as the bottom and side Q R are released, the counter-weight O instantly returns them to position, and the catch N automatically again engages with the bottom to hold it in place.

As the revolving frame carries away the molds to the discharging point, it will be readily seen that it is only necessary for the operators to regulate the filling of the molds with the melted material and to discharge the contents of the molds as soon as they reach a certain point.

Having thus described my invention, I claim—

1. The combination of the stationary upright, a frame which revolves around the upright, the molds which are secured to the revolving frame and which are provided with movable bottoms and sides, counter-weights which are attached to the movable bottoms and sides, and catches which support the bottoms and sides in position when the molds are filled, substantially as shown.

2. The combination of the upright A, the revolving cap D, placed upon its upper end, the rollers C, connected to the cap, the support Y for the rollers connected to the upright, the brace E, the revolving frame, the rollers T for supporting the frame while in motion, the molds G, which are secured to the frame, the bottom and sides of the molds being movable and provided with counter-weights, and the catches N, pivoted upon the ends of the molds, substantially as shown and described.

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

WILLIAM PARTRIDGE.

Witnesses:

JAMES A. STEELE,
VALENTINE GAST.