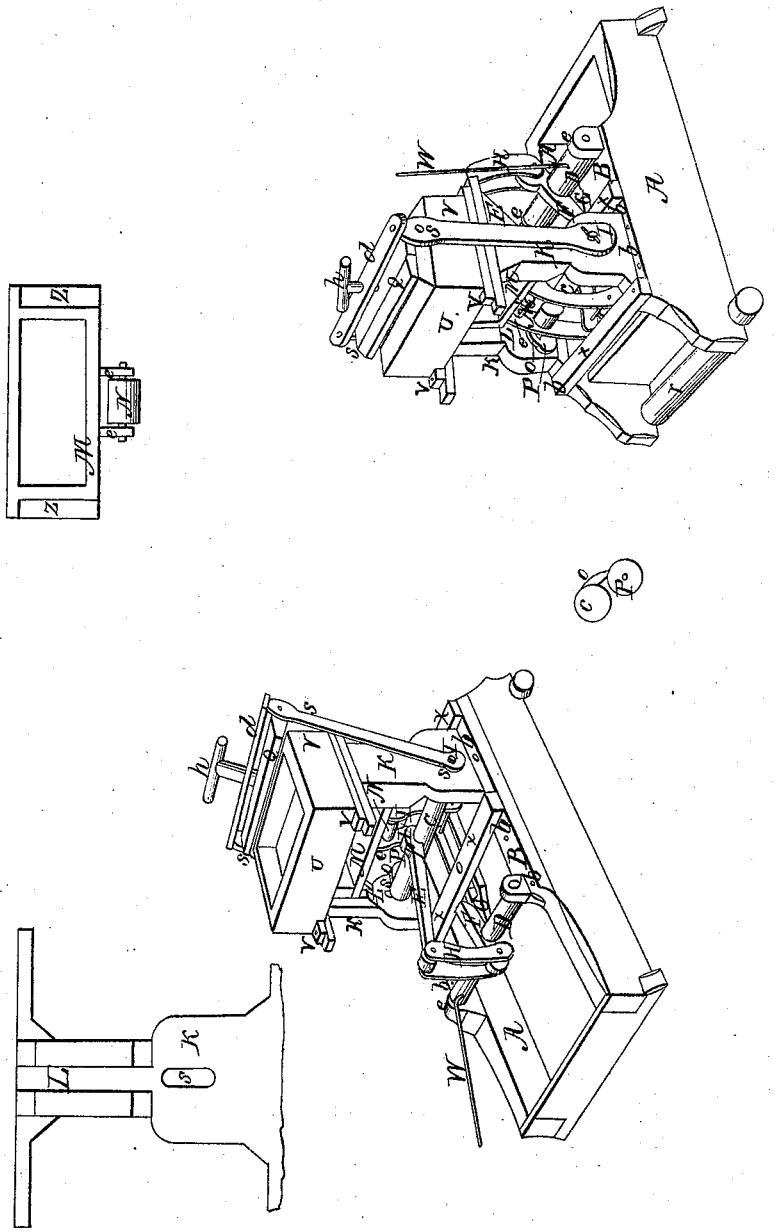
A. F. Mervine,

Brick Machine.

No. 382. Patented Sep. 12, 1837.



UNITED STATES PATENT OFFICE.

ANDREW F. MERVINE, OF ST. LOUIS, MISSOURI.

MACHINE FOR PRESSING BRICKS.

Specification of Letters Patent No. 382, dated September 12, 1837.

To all whom it may concern:

Be it known that I, ANDREW F. MERVINE, of the city of St. Louis and State of Missouri, have invented a new and useful Machine for Pressing Bricks, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

This machine consists of a strong rectangular frame, marked A, composed of suitable pieces of timber, mortised and tenoned together, having a roller *r* in front to facilitate the moving of it from place to place. Upon this frame is fixed by means of bolts *b* another rectangular frame B, of the same width as the frame A, and about two-thirds its length. In the side pieces of this frame, B, are erected two stout cheeks marked K K, for supporting the mold, and parts hereafter described, in which are cast grooves, L L, to admit a gate, or follower, M, to move up and down therein, for raising, pressing and discharging the bricks. Also oblong apertures or slots, *s*, to admit the gudgeons of the roller *c* to play therein.

The mold U in which the brick is pressed is made the size of a common brick, and is screwed on the top of the cheeks, K K, by bolts V.

The follower M for pressing the bricks on the under side is made in the shape of a common brick mold, turned on edge, having a tongue *z z* on each end moving up and down in the grooves of the cheeks, by which it is guided and made to work true within the brick molds, without the danger of wearing it smooth on the top, which presses the bricks, and furnished with two ears *e e* on the bottom, between which is placed an anti-friction roller, N, with a bolt passing through the ears and through the center of the roller—projecting sufficiently far to attach links I I, extending vertically to the end of a lever, *b*, to which they are attached by a bolt passing through the ends of the same—the fulcrum of which lever is on the under side of one of the cross pieces X of the frame B—its longer end being toward the links just mentioned.

Between the cheeks is placed a roller *c* whose gudgeons extend through the oblong apertures or slots *s* in the cheeks to which are attached two arms S S—one on each side of the frame, outside the cheeks, extending upward above the mold, connected together on the top by a cap *d*. Between the cap and mold is placed a plate Q for pressing the brick on top, having its gudgeons passing through round apertures in the arms. A handle *h* is passed through the cap and inserted into the center of the top of the plate, by which it is brought immediately over the brick, by hand, when the pressure is to be given, by which it is removed when the bricks is to be discharged.

In the center of the roller, C, is a lever E, whose larger end, or that which unites with the roller, is made in the form of a cam, *p*, and becoming the short end of the lever, whilst the roller, of which it is a part, serves as the fulcrum in bearing down the long end and raising the short end, or cam, against the anti-friction roller N under the follower, M, in order to give the brick a double pressure, simultaneously, on the top and bottom, between the follower and plate, by causing them to advance towards each other by means of the cam shaped end of the lever E, and the oblong slots in the cheeks. The long end of the lever E is connected by a link H to the end of a lever F, which is supported at its center by a vibrating roller D, whose gudgeons turn in ears *e e* erected on the side pieces of the frame B—the roller being moved by means of a bar W inserted therein for that purpose: The other end of the lever T bears upon the short end of the lever *b* for depressing it and thus suddenly throwing up the follower to discharge the brick. The plate at the same time is raised from the brick by means of two projections, *o*, from the surface of the roller, resting upon anti-friction rollers, P, turning on pins inserted into the cheeks, said anti-friction rollers serving as fulcra to lever E in throwing up the arms, S S, with the plate Q attached thereto.

The frame B and the parts supported thereon are made of iron.

The invention claimed by me the said ANDREW F. MERVINE, and which I desire to secure by Letters Patent consists—

1. In constructing the plate Q with gudgeons passing through apertures in the arms.

2. In forming grooves in the cheeks to cause the follower to work true without wearing the molds.

3. The arrangement of the levers for discharging the bricks.

4. The principle of giving the brick a simultaneous pressure from above as well as below by means of the before described combination of mechanical principles, is disclaimed.

ANDREW F. MERVINE.

Witnesses:

THOMAS WEAVER,

GEORGE MEAD.