(No Model.)

J. CREAGER.

BRICK MACHINE.

No. 354,464. Patented Dec. 14, 1886.

FIG. 1.

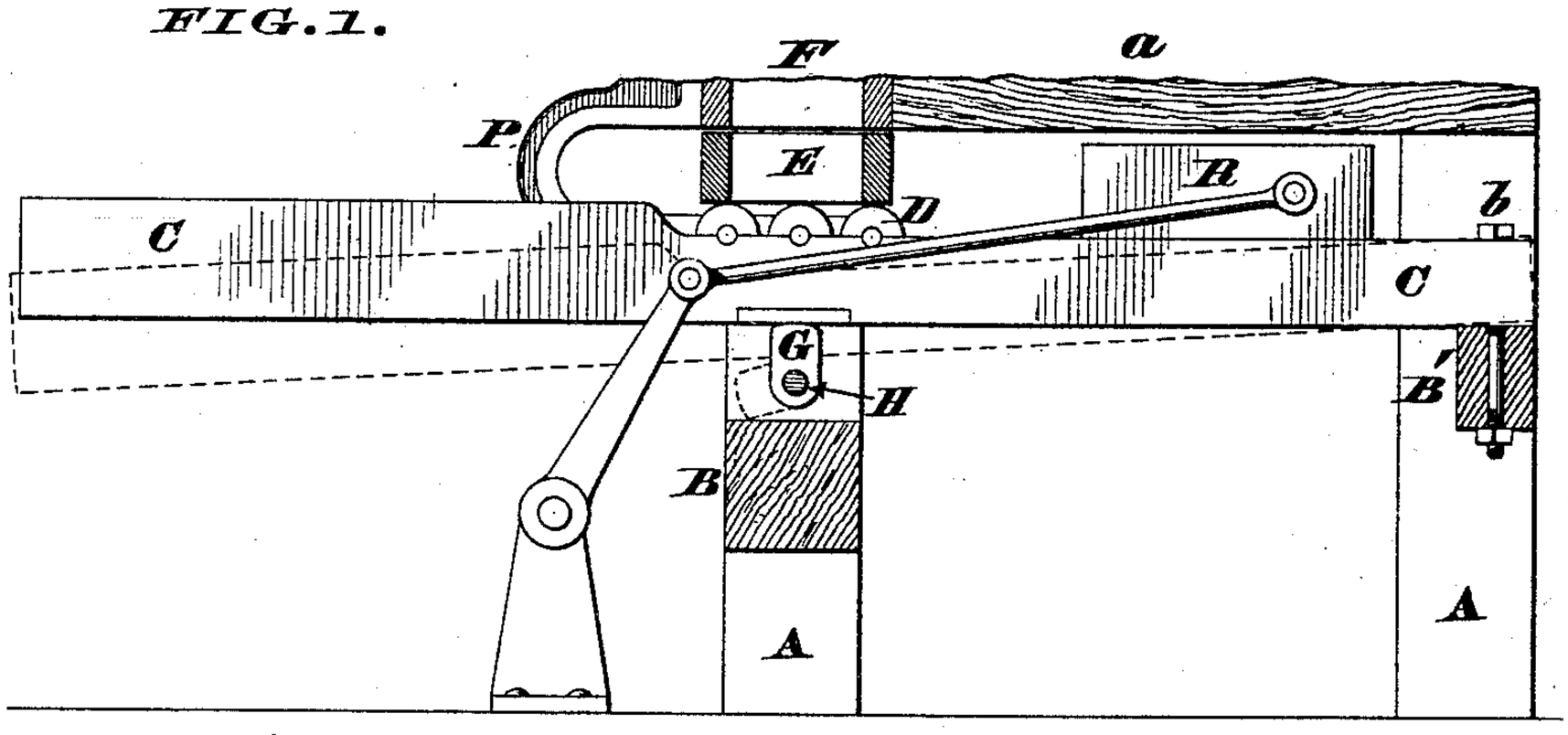
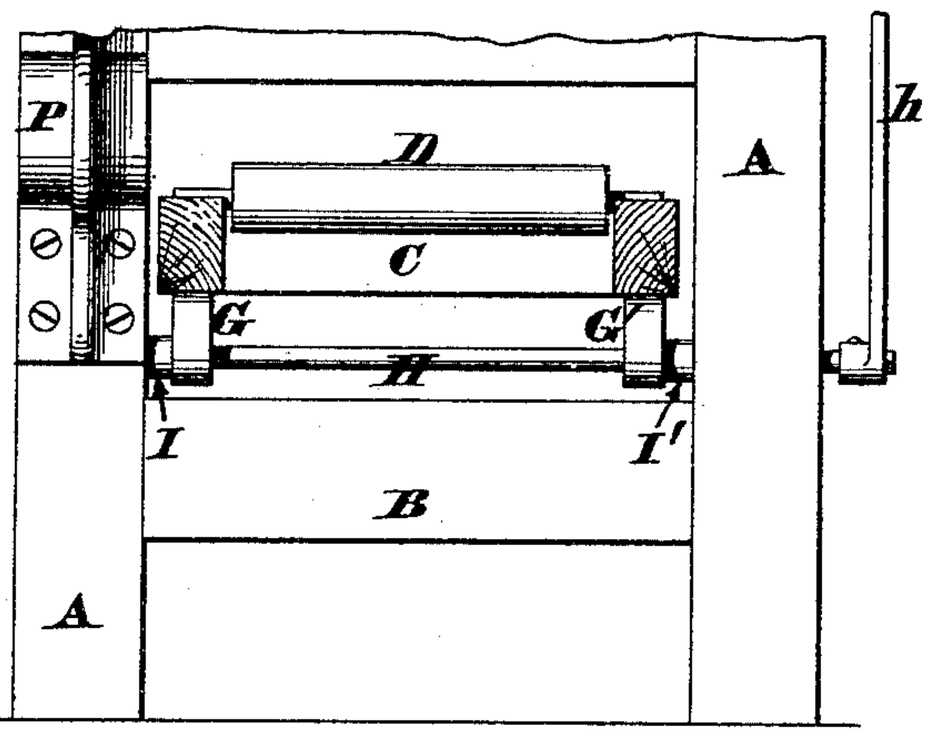


FIG. 2.

FIG. 4.



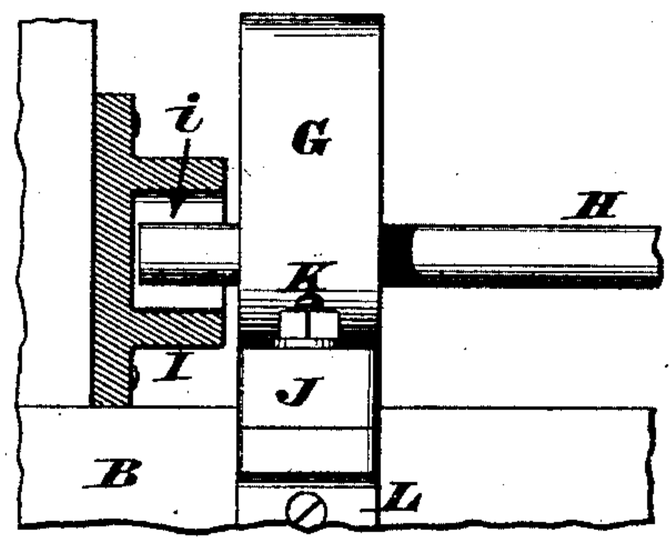
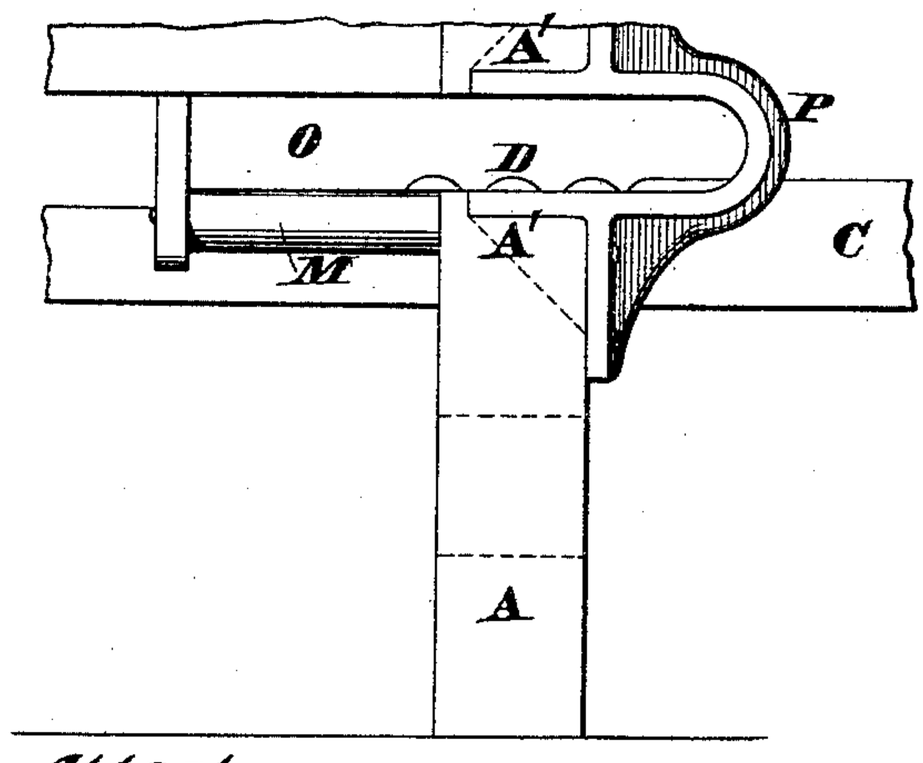


FIG. 3.

FIG. 5.



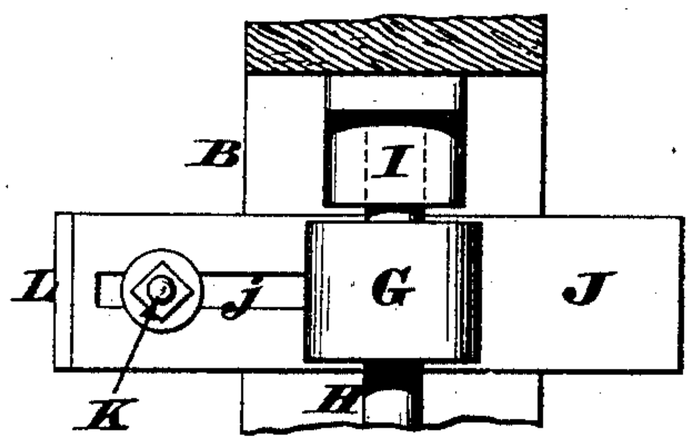
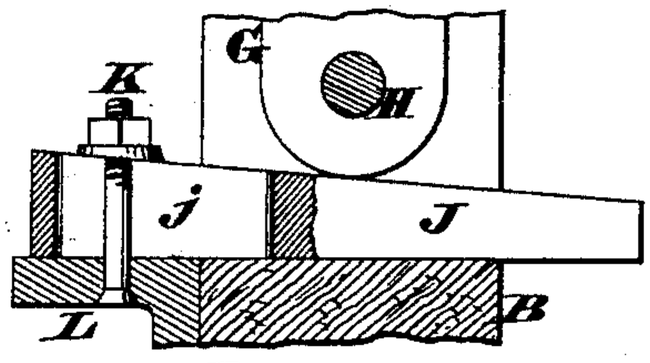


FIG. 6.



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UNITED STATES PATENT OFFICE.

JONATHAN CREAGER, OF CINCINNATI, OHIO.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 354,464, dated December 14, 1886

Application filed July 9, 1886. Serial No. 207,528. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN CREAGER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Brick-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to those brick-machines which are provided with mold-supporting frames whose outer ends can be lowered by the attendants to prevent the machine being injured by a stone or other obstruction getting jammed into the mold; and the first part of my improvements comprises a novel combination of lifters, rock-shaft, slotted boxes, shiftable wedge-block, and bolt, or other retaining device whereby the frame can be readily adjusted to permit the use of different-sized molds, as hereinafter more fully described, and pointed out in the claims.

The second part of my improvements consists in dividing one of the main posts of the machine horizontally and attaching a bent knee thereto for the purpose of admitting a limited advance of the mold, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a sectionized side elevation of the lower portion of a brick-machine embodying my improvements, the follower being retracted. Fig. 2 is a front elevation thereof, the vertically-shiftable frame being sectioned. Fig. 3 is a side elevation of that portion of the machine to which the bent knee is attached. Fig. 4 is an enlarged front elevation of one of the lifters of the shiftable frame, the box of the lifter-shaft being sectioned. Fig. 5 is a plan of said devices. Fig. 6 is a vertical section through the lower portion of the same.

A represents the main posts, and *a* the bottom of the pug-mill, of an ordinary brick-machine, said posts being united by cross-beams B B′, to the rear one of which, B′, is secured the fixed end of the vertically-shiftable frame C, that carries the rollers D. E is one of the molds resting upon said rollers.

F is the die, through which clay is forced into the mold.

The bolts or other devices, *b*, that secure the frame C to the beam B′ are so arranged as to allow the free end of said frame to swing vertically, although it is normally sustained in a horizontal position by resting upon a pair of cams or other lifters, G G′, the latter being secured to a rock-shaft, H, having a handle, *h*. This rock-shaft is journaled within boxes I I′ suitably secured to the frame of the machine, and each box is slotted vertically, as seen at *i*, in Fig. 4, to permit said shaft being shifted either up or down, as occasion may require.

It is preferred to rest each lifter upon a wedge-block, J, (seen more clearly in Fig. 6,) and slot said wedge longitudinally, as at *j*, to receive a bolt, K, projecting from an angular bracket, L, which latter is attached to the beam B.

M is a feed-roller, which supports the mold when it is inserted in the opening O at the side of the machine, the post contiguous to said opening being divided as at A′, and being supported by a bent knee, P, which is usually a stout casting.

R is the customary follower, that forces the charged molds out of the machine, which follower may be advanced and retracted in any suitable manner; but I prefer using the appliances seen in my patent previously referred to.

When the machine is in its normal condition the lifters G G′ are vertical, and are held in this erect position by the weight of frame C and its attachments, said frame being now horizontal.

The empty molds are fed into the machine at the side opening, O, and soon as the clay is forced down through the die F into the mold E the plunger R advances and drives this charged mold out of the machine, in the usual manner; but if a stone or other obstruction should get jammed into the mold and prevent it being advanced by the follower, the attendant can instantly grasp the handle *h* and swing it down to a horizontal position. This act turns down the lifters G G′ and causes them to rest upon the beam B, as indicated by the dotted lines in Fig. 1. Consequently the outer or free end of frame C must drop accordingly, as indicated by the dotted lines in said illustration, which act allows the mold E to fall sufficiently to enable the obstruction to be removed therefrom. After this has been accomplished, the handle *h* is again turned up vertically, thus restoring the lifters G G′ to their erect position and rendering the frame

C horizontal. By either advancing or retracting the wedge-block J the lifters and rock-shaft can be raised or lowered to compensate for any difference in the thickness of molds used in various brick-machines. Finally, by arranging the bent knee P to serve as an extension or prolongation of the feed-opening O, provision is made for an advance of a mold in case the follower should come in contact with the former before it had been fully inserted through said opening. When such an accident occurs with an ordinary brick-machine, the partly-inserted mold is forced against the post and crushed to pieces.

I am aware it is not new to provide brick-machines with vertically-shiftable mold supporting frames, as such frames are seen in a number of patents. Therefore my claim is not to be construed as an attempt to cover these frames, broadly, but is limited to the combination of devices herein described for adjusting such frames to permit the use of different-sized molds.

I claim as my invention—

1. The combination, in a brick-machine, of the vertically-shiftable mold-supporting frame C, lifters G G′, rock-shaft H, slotted boxes I I′ *i*, adjustable wedge-block J *j*, and retaining device K, for the purpose described.

2. A brick-machine having a post contiguous to the feed-opening O, divided transversely, as at A′, and united by a bent knee, P, which knee serves as a continuation of said opening, for the purpose specified.

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

JONATHAN CREAGER.

Witnesses:

JAMES H. LAYMAN,

SAML. S. CARPENTER.