(No Model.) 2 Sheets—Sheet 1.

H. W. MEAD.

BRICK MACHINE.

No. 406,754. Patented July 9, 1889.

Fig. 1.

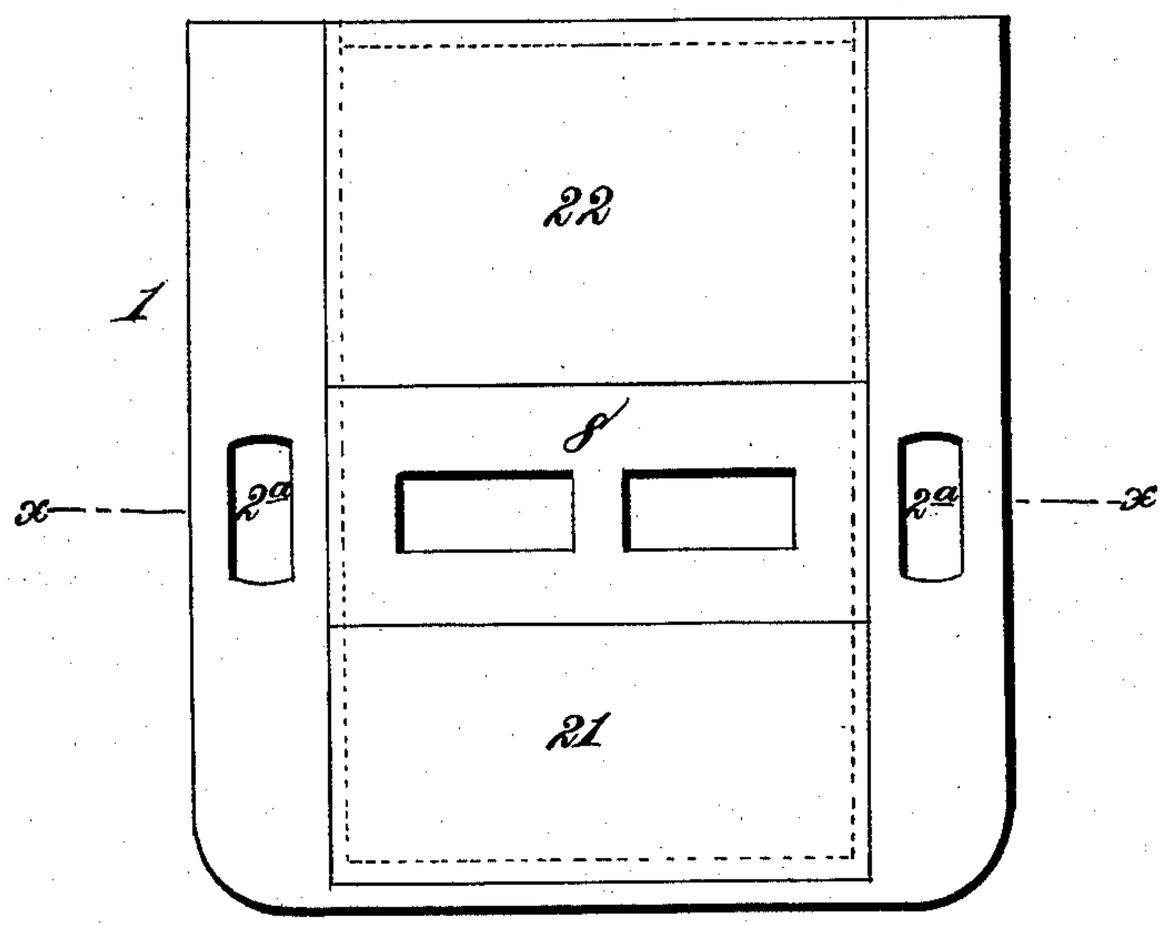


Fig. 2.

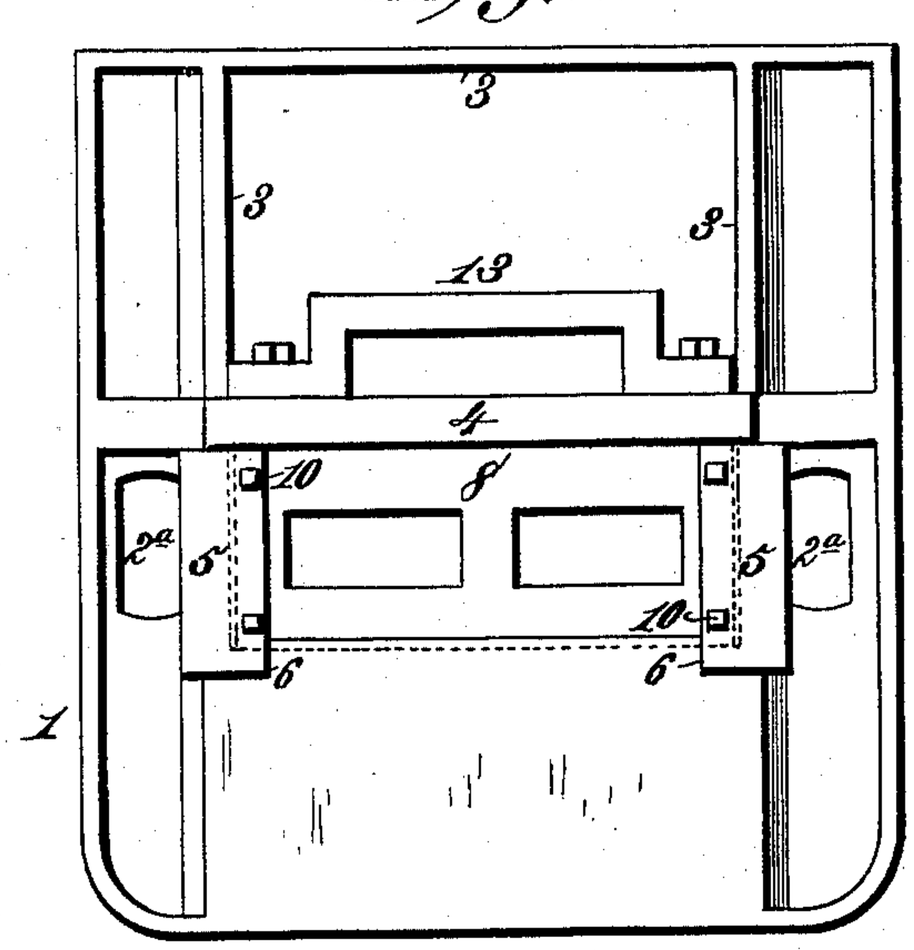
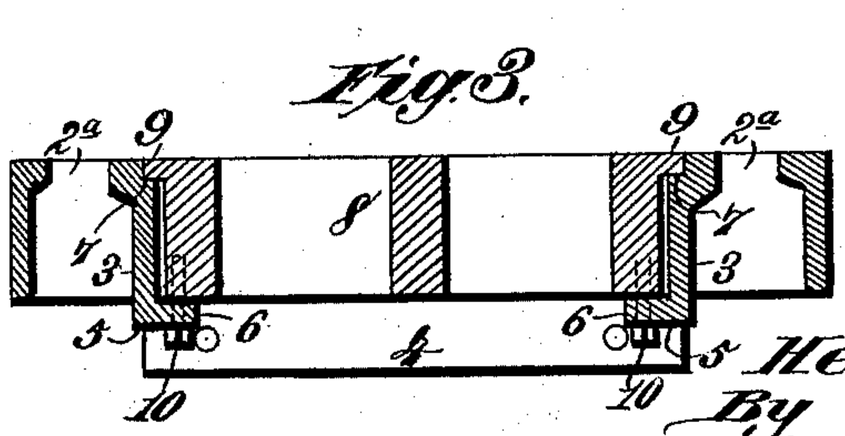


Fig. 3.



Witnesses.
Chas. Ernest.
J. A. Rutherford.

Inventor.
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By James L. Norris.
Atty.

(No Model.) 2 Sheets—Sheet 2.

H. W. MEAD.

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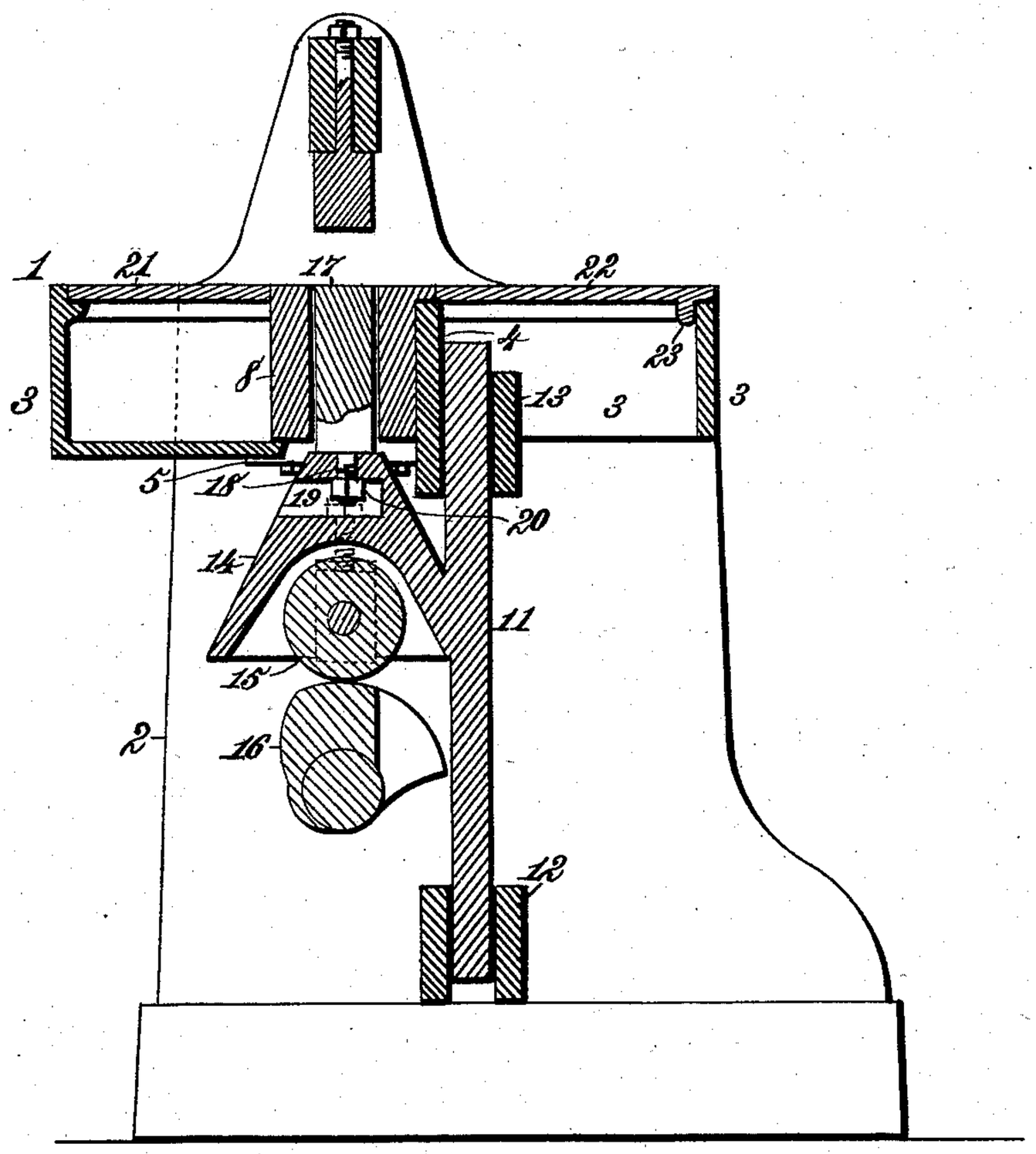
Fig. 4.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

HENRY W. MEAD, OF QUINCY, ILLINOIS.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 406,754, dated July 9, 1889.

Application filed August 2, 1888. Serial No. 281,767. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. MEAD, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented new and useful Improvements in Brick-Machines, of which the following is a specification.

My invention relates to brick-machines, the purpose thereof being to provide a simple, convenient, and inexpensive construction and arrangement of parts whereby the molds may be quickly and easily removed and a different set substituted therefor, the interchangeable molds differing in size, form, or in the means for imparting ornamentation to the brick.

My invention also includes a novel construction of the plungers and the plunger-head carrying the same, whereby plungers corresponding with the molds may be mounted in place and properly adjusted to have accurate action.

The invention consists in the several novel features of construction and new combinations of parts hereinafter fully described, and then definitely pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the mold-table of a brick-machine embodying my invention. Fig. 2 is a bottom plan view of the parts shown in Fig. 1. Fig. 3 is a vertical cross-section of the table in the line *x x*, Fig. 1. Fig. 4 is a vertical section from front to rear, showing the plungers and their construction and connection with the plunger-head.

In the said drawings the reference-numeral 1 denotes the mold-table of a brick-machine, mounted on side brackets or supports 2, which at their top enter openings 2^a in the table. Upon the four rectangular sides of the table are formed depending flanges 3, which stiffen and strengthen the table, while upon its lower surface is formed a thick transverse rib or plate 4, extending from side to side, as shown in Fig. 2. Crossing this rib and parallel with the sides of the table are formed two flanges or plates 5, provided near their middle portions with the inwardly-turned edges 6, and having upon their upper edges offsets 7, which are exposed to view by removing that portion of the table-top lying between the plates or flanges. Within the opening thus formed is arranged the removable mold-box 8, having a flange 9 at each end, resting upon the offsets 7 in such manner that the upper surface of the mold-box shall be flush with the surface of the table. Bolts 10 are passed up through openings in the flanges 6, and are screwed into the mold-box to securely fasten the latter in place, as shown in Fig. 3.

Mounted beneath the table is the plunger-head 11, having support in a bearing 12 below, and at its upper end in a bearing 13, formed by bolting an angle-plate to the transverse rib or plate 4, which is projected downward for this purpose.

Projecting from the plunger-head is the lateral plunger-support having a flat face, and composed, as shown, of a hood 14, having a friction-roll 15, resting upon the lifting-cam 16, by which the plungers are raised. Upon the hood rest the plungers 17, corresponding in number and form to the molds, and each connected to the hood by a stud 18, firmly secured to the plunger and dropping through an opening in the flat top of the hood, so as to expose the threaded end of the stud in a recess 19, whereby opportunity is afforded for applying a nut 20, by which the plunger may be securely fastened to the hood. The friction-roll 15 may be mounted in a box which is vertically adjustable upon the hood, if desired.

Within the openings in the table-top is placed upon one side of the mold-box a removable top plate 21, and upon the opposite side of said mold-box is arranged a similar plate 22, having a flange or rib 23, which engages with the edge of the rib or flange 3, surrounding the table. The edges of these plates rest against the longer sides of the mold-box and are flush with the top thereof. By means of the removable plate 22 ready access may be had to the top bearing of the plunger-head at any time.

By this invention the molds are rendered easily and speedily interchangeable, and the plungers may in like manner be readily detached and others conforming to the size and shape of the substituted molds attached to the plunger-head.

I have not fully illustrated the upper plun-

ger in this application, nor have I shown the actuating mechanism of the machine, since these parts may be of any desired construction.

By means of the upper bearing 13 for the plunger-head the molds are entirely relieved from guiding the plungers on their upward throw, and considerable wear upon said molds is thereby avoided.

What I claim is—

1. In a brick-machine, the stationary mold-table having a transverse rib 4, side standards 2, and vertical side plates 5 beside the standards, provided with offset top edges 7 and inwardly-turned bottom edges 6, in combination with the interchangeable mold-box bearing against the transverse rib, detachably secured to the inwardly-turned bottom edges and having top lateral flanges 9, resting on the offset top edges of the plates, substantially as described.

2. In a brick-machine, the stationary mold-table comprising the vertical side plates 5, provided at their upper edges with the offsets 7 and at their lower portions with inwardly-turned edges 6, in combination with the interchangeable mold-box resting at its bottom on the inwardly-turned lower edges of the plates and having its upper edge provided with lateral flanges 9, resting on the offsets of said plates, and bolts 10, passing through the inwardly-turned lower edges of the plates and detachably engaging the mold-box, substantially as described.

3. The combination, with the stationary mold-table having the transverse rib 4, provided at one side with the plunger-head guide-bearing 13, and the vertical plates 5, having inwardly-turned lower edges 6, of the interchangeable mold-box 8, resting on the said inwardly-turned edges at one side of the transverse rib, the plunger-head 11, moving in and guided by said guide-bearing at the other side of said rib and having a laterally-projecting plunger-support 14, and the interchangeable plunger 17, having a rigid stud detachably connected with the lateral support, substantially as described.

4. The combination, with the mold-table and mold-box of a brick-machine, of a plunger-head guide-bearing on the table outside the mold-box, and a plunger-head moving in said guide-bearing, and having a laterally-projecting support carrying a plunger, substantially as described.

5. In a brick-machine, a plunger-head having a lateral projecting plunger-support for the plungers, and provided with a recess into which open apertures through the support, in combination with plungers having studs passing through said apertures and receiving nuts upon their threaded ends, substantially as described.

6. In a brick-machine, the combination, with a mold-table having upper and lower bearings, of a plunger-head moving in and wholly guided by said bearings, an interchangeable mold-box, and a suitable support upon the plunger-head for interchangeable plungers, substantially as described.

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

HENRY W. MEAD.

Witnesses:

M. T. GREENLEAF,

MICHAEL PIGGOTT.