

No. 624,835.

Patented May 9, 1899.

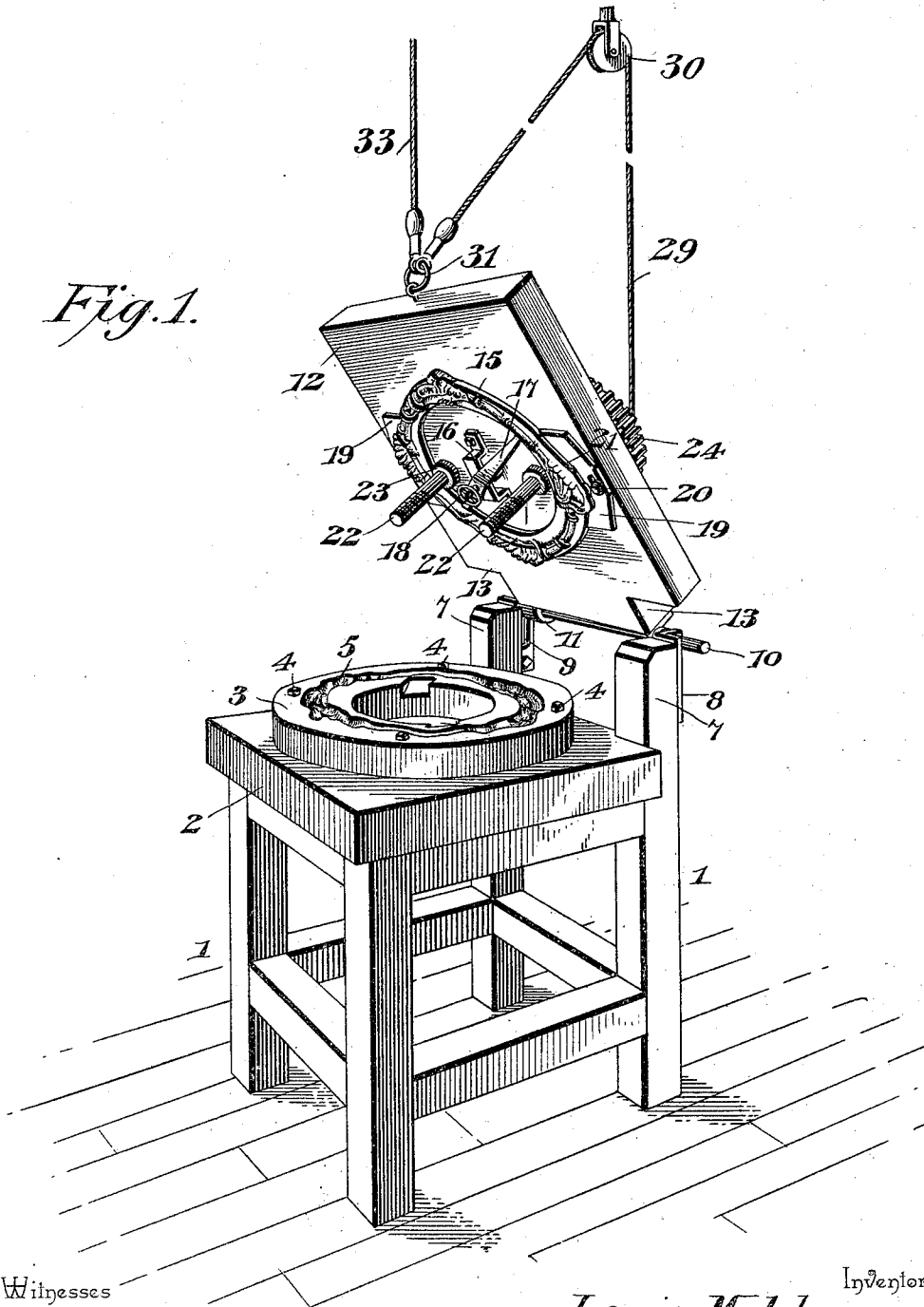
L. MALCHOW & J. MARBLE.
MOLDING PRESS.

(Application filed Jan. 12, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



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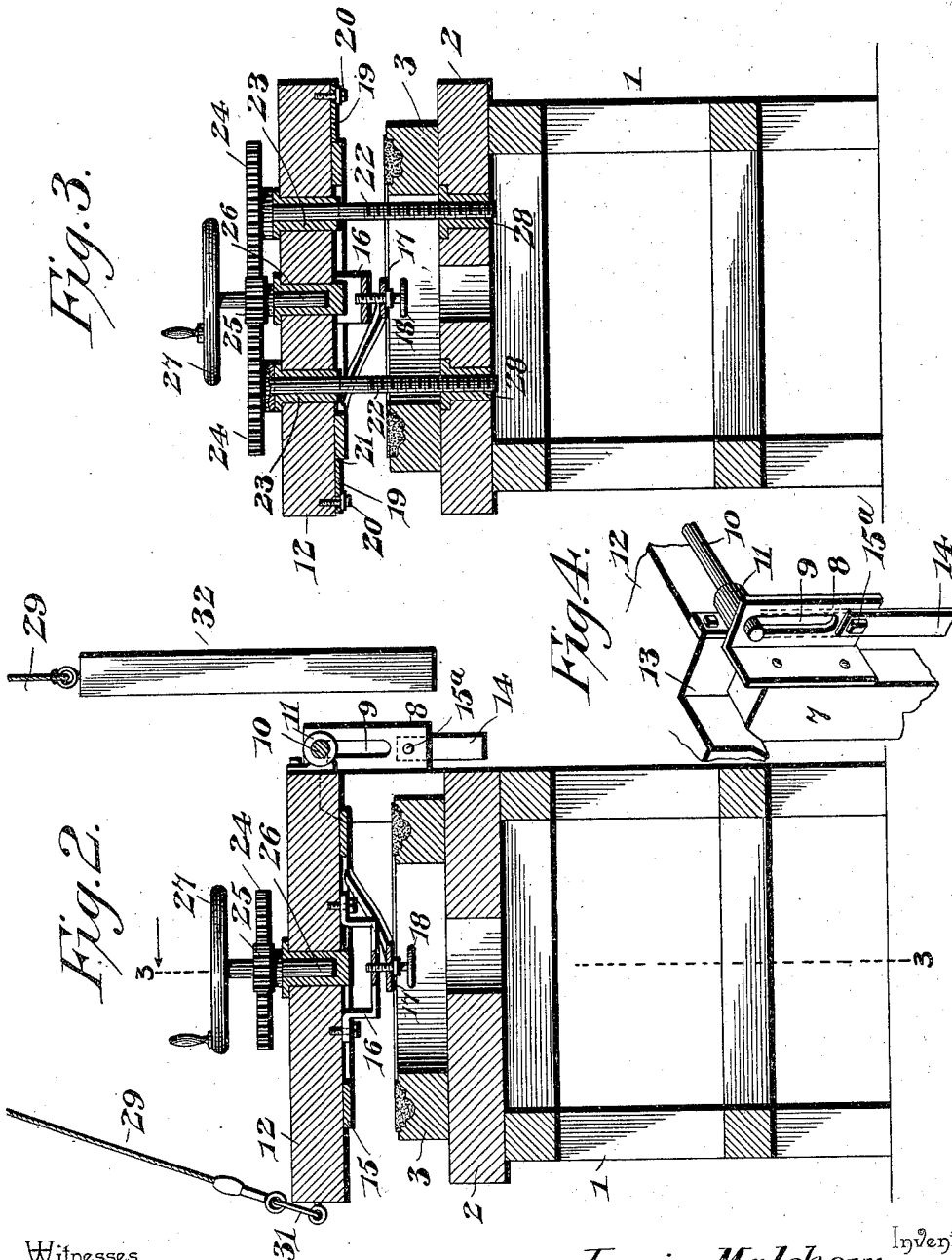
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

LOUIS MALCHOW AND JESSE MARBLE, OF CHICAGO, ILLINOIS.

MOLDING-PRESS.

SPECIFICATION forming part of Letters Patent No. 624,835, dated May 9, 1899.

Application filed January 12, 1899. Serial No. 701,977. (No model.)

To all whom it may concern:

Be it known that we, LOUIS MALCHOW and JESSE MARBLE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Molding-Presses, of which the following is a specification.

This invention relates to an improved molding-press constructed with special reference to the pressing and ornamenting of picture-frames; and it has for its fundamental object the provision of an improved construction of press having simple and efficient means for pressing out or molding the ornament of a picture-frame directly on the frame itself, whereas in the old hand process two separate and distinct operations are necessary—namely, pressing or molding out the ornament separately and subsequently gluing the same by hand to the skeleton or blank picture-frame.

With this and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully illustrated, described, and claimed.

While the invention is necessarily susceptible of a variety of modifications, the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a molding-press constructed in accordance with the present invention and showing the vertically-movable follower-platen thrown up to a position to permit the removal of the ornamented picture-frame. Fig. 2 is a vertical transverse sectional view of the press, showing the follower-platen lowered and an unornamented skeleton or blank picture-frame secured in position for being ornamented. Fig. 3 is a vertical sectional view of the machine on the line 3 3 of Fig. 2. Fig. 4 is a detail in perspective, showing the guide and pivotal support for the platen.

Referring to the accompanying drawings, the numeral 1 designates an upright stand having bolted or otherwise securely fastened thereon a flat horizontal stationary supporting-table 2, which preferably forms the supporting-bed for the composition-mold 3, which

is detachably fastened to the table by means of the bolts 4 or equivalent fastenings. The composition-mold 3 is usually of a circular form and is provided in its upper face with the mold-cavity 5, having the desired ornamentation and conforming in general outline to the contour of the picture-frame to be ornamented, and said mold-cavity 5 is designed to be filled with the composition material which forms the picture-frame ornament, and which, in the present invention, is designed to be pressed directly on the skeleton picture-frame or blank, at the same time the composition is pressed or packed into the mold-cavity to form the ornament.

The upright stand has the rear legs thereof projected above the plane of the table 2, at one side of the latter, to form the short supporting-posts 7, to the outer sides of which posts are securely fastened the angled guide-plates 8. These guide-plates 8 are provided in their offstanding flanges or portions with longitudinal vertically-disposed slots 9, which receive the extremities of the combined hinge and guide-rod 10, secured by means of suitable collars 11 to the rear edge of the vertically-movable follower-platen 12, arranged to work above the supporting-table 2 and the mold 3, secured thereon. The rear corners of the platen 12 are rabbeted or cut away, as at 13, to receive the short supporting-posts 7 and permit the free up-and-down play of the follower-platen, and it will be observed that the extremities of the rod 10 project beyond the collars 11, so as to loosely engage in the slots 9 and have a free up-and-down play therein as the follower-platen 12 is adjusted toward and away from the composition-mold 3. When the follower-platen 12 is carried to its upward limit away from the table 2, the extremities of the rod 10 will lie at the upper ends of the slots 9 of the guide-plates 8 and may be held in such position by means of the pivotal catch dogs or plates 14, pivotally fastened at one end, as at 15^a, to the outer side of the guide-plates and adapted to have their free ends turned under the projecting ends of the rod 10, thereby permitting the follower-platen 12 to be swung upward to the position illustrated in Fig. 1, and when the follower-platen is thus moved the rod 10 acts in the

capacity of a hinge and turns on the upper ends of the catch dogs or plates 14. These catch dogs or plates practically serve as supports for holding the combined hinge and guide-rod 10 at the upper ends of the slots 9 while the follower-platen is being swung upward or downward; but when the platen is in an operative position above the mold the said catch dogs or plates are swung downward out of the path of the rod 10, thereby permitting the follower-platen to be adjusted or fed downward.

To provide for the support of the skeleton or blank picture-frame 15 at the under side of the vertically-movable follower-platen 12, the latter has fastened centrally to its under side an offstanding U-shaped bracket or yoke 16, on which is arranged a fastening-bar 17. The fastening-bar 17 extends across and beyond the bracket or yoke 16 and is held to the latter by means of a wheel-clamping screw 18, passing centrally through the bar 17 and the bracket or yoke 16, and when the opposite extremities of the fastening-bar 17 are engaged with the inner edges of the blank picture-frame 15 at diametrically opposite points, as illustrated in the drawings, the screw 18 is tightened up, so as to hold the bar 17 perfectly rigid, and thereby cause the picture-frame 15 to be clamped firmly against the flat under side of the follower-platen 12. To assist in properly positioning the blank picture-frame and holding the same in place, there is employed a pair of oppositely-located retaining-plates 19, having a slot-and-bolt connection 20 with the under side of the platen 12 at diametrically opposite points. The inner edges 21 of the plates 19 are curved or irregular, so as to fit the contiguous peripheral surface or edge of the blank picture-frame, and when the latter is adjusted in place between the oppositely-located plates 19 and clamped against the follower-platen by the fastening-bars 17 the follower-platen is lowered to an operative position, so that the picture-frame may be carried against the composition material in the mold-cavity 5.

The vertical feed of the follower-platen is accomplished through the medium of a pair of feed-screws 22. These feed-screws are journaled in suitable bearings 23, fitted in the follower-platen, and have mounted on their upper ends above the platen the gear-wheels 24, between which is interposed an operating-pinion 25, mounted on a stub-shaft 26, journaled in the follower-platen and carrying at its upper end a hand-wheel 27, which when turned provides for the simultaneous rotation of the two feed-screws. The said feed-screws are designed to engage in the threaded screw-openings 28, formed in the supporting-table 2 within the circle of the mold 3, arranged thereon. By revolving the screws in the screw-openings of the table the follower-platen is fed downward, thereby carrying the blank picture-frame against the composition material in the cavity of the mold. In this

way the ornament is molded or pressed out and at the same time caused to adhere to the picture-frame, so that when the latter is carried away from the mold the ornamentation thereof is complete.

To facilitate the raising and lowering of the follower-platen 12 on the rod 10 as a hinge, the said platen is preferably balanced through the medium of a balancing-cable 29. This cable passes over a fixed guide-pulley 30, arranged in a position above the press, and is connected at one end, as at 31, to the free edge of the follower-platen, while the other end thereof has attached thereto a balancing-weight 32. When the heavy follower-platen is swung upward to the position shown in Fig. 1 to facilitate the removing and replacing of the picture-frame, it is desirable that the said platen be prevented from accidentally falling in the event of the balancing-cable or the guide-pulley giving way, so there is preferably employed a supplemental guard-rope 33. The guard-rope 33 is also fastened to the free edge of the platen and may be secured to any fixed point of attachment above the same.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described molding-press will be readily apparent to those skilled in the art without further description, and it will be understood that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention, and in this connection it may be observed that while the mold 3 is preferably secured on the table 2 and the blank picture-frame on the follower-platen it will be readily understood that these parts may have this relation reversed—that is, the mold fastened to the platen and the picture-frame to the table—without materially affecting the operation of the machine.

Having thus fully described the invention, what we claim, and desire to secure by Letters Patent, is—

1. In a molding-press, the combination of a stationary horizontal supporting-table, a vertically-movable follower-platen arranged above the table, a feeding device mounted on the platen and having engagement with the table, and a mold arranged in opposition to the blank picture-frame carried by one of the members of the press, substantially as described.

2. In a molding-press, a stationary horizontal table, a vertically-movable follower-platen arranged above the table, means for feeding the platen toward and away from the table, and the mold, arranged in opposition to the blank picture-frame carried by one of the members of the press, substantially as described.

3. In a molding-press, a stationary horizontal table adapted to support thereon a mold, a vertically-movable follower-platen arranged above the table and carrying clamping means

for the blank to be ornamented, and means for feeding the platen toward and away from the table, substantially as described.

4. In a molding-press, a stationary table adapted to support thereon a mold, a follower-platen carrying clamping means for the blank to be ornamented and means for feeding the platen toward and away from the table, substantially as described.

5. In a molding-press, an upright stand having a stationary supporting-table adapted to support thereon a mold, a follower-platen carrying clamping means for the blank to be ornamented and having a combined sliding and hinge connection with the stand above the table, and means for feeding the platen toward and away from the table, substantially as described.

6. In a molding-press, a relatively-movable table and platen, one of which parts is adapted to support a mold and the other of which parts carries clamping means for the blank to be ornamented, substantially as described.

7. In a molding-press, an upright stand having a stationary supporting-table for the mold, vertically-slotted guide-plates secured to extensions of the stand above the table, a vertically-movable follower-platen, carrying at one edge, a combined hinge and guide-rod whose extremities engage in the slots of said plates, pivotal catch dogs or plates arranged on said guide-plates, and adapted to have their free ends engage beneath the extremities of said rod, when at the upper ends of the slots, and means for feeding the platen toward and away from the table, substantially as described.

8. In a molding-press, an upright frame having a stationary supporting-table for the mold and provided therein with threaded screw-openings, a follower-platen carrying clamp-

ing means for the blank, and having a combined sliding and hinged connection with the stand, a pair of feed-screws swiveled in the follower-platen and carrying at their upper ends gear-wheels, and an operating-shaft journaled in the platen and carrying a hand-wheel and a pinion, the latter meshing with the gear-wheels for both screws, substantially as described.

9. In a molding-press, an upright stand or frame, having a stationary supporting-table for the mold, a follower-platen carrying clamping means for the blank and having a combined sliding and hinge connection with the stand, a weighted balancing-cable, connected at one end with the free edge of the platen, and a supplemental guard-rope also attached to the free edge of the platen, substantially as described.

10. In a molding-press, a stand or frame having a stationary supporting-table for the mold, a vertically-movable follower-platen arranged above the table, a pair of oppositely-located retaining-plates fitted to the under side of the platen and having edges conforming to the contour of the blank to be ornamented, an offset bracket or yoke, fitted centrally to the under side of the platen, and a fastening-bar arranged on said bracket or yoke and having a central clamping-screw connection therewith, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

LOUIS MALCHOW.
JESSE MARBLE.

Witnesses:

W. F. KIESEN,
MARK KRIKOR.