No. 661,398. Patented Nov. 6, 1900.

W. EATON & M. BOLAND.

GLUING PRESS.

(Application filed Aug. 15, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 2.

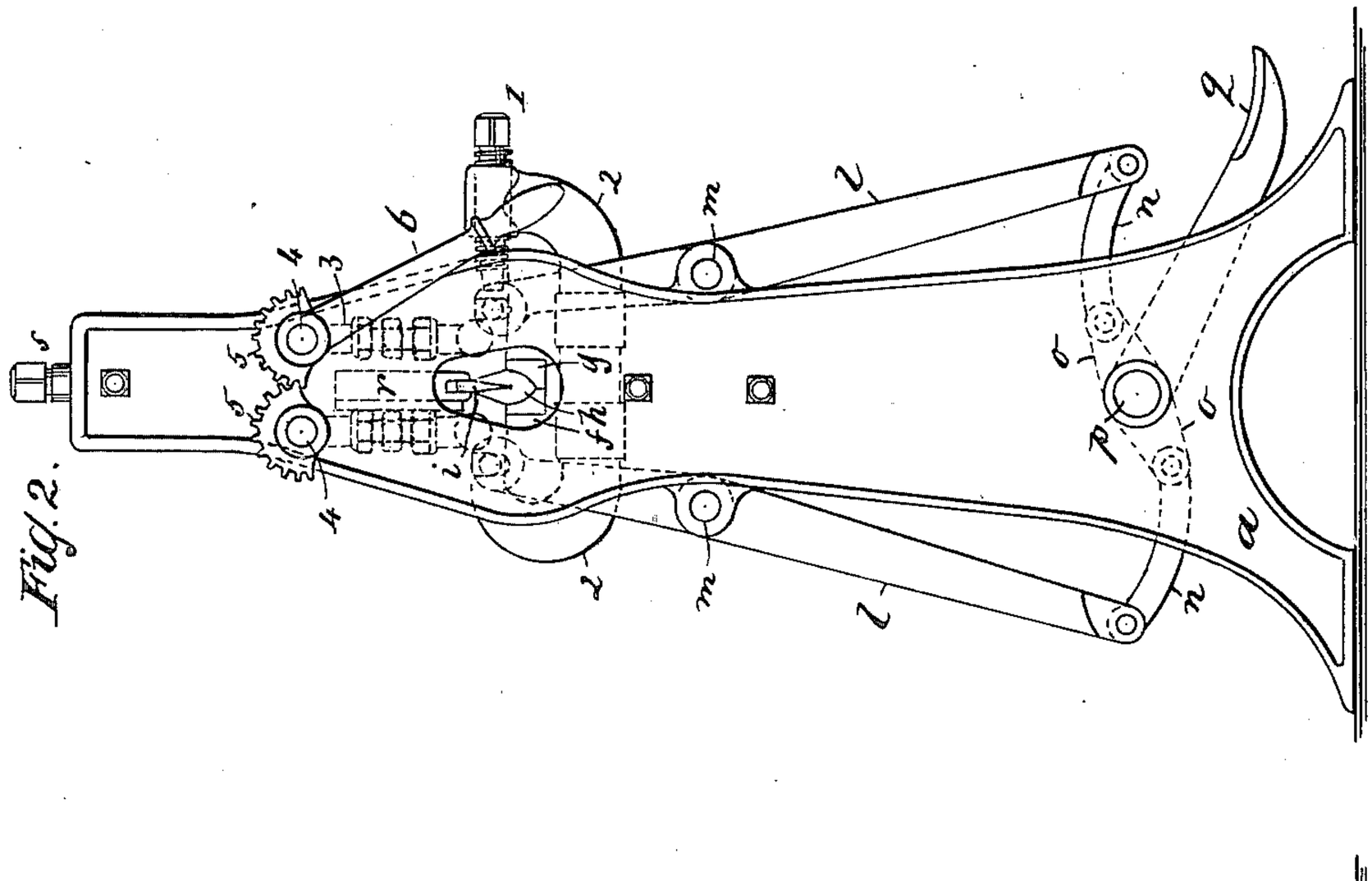
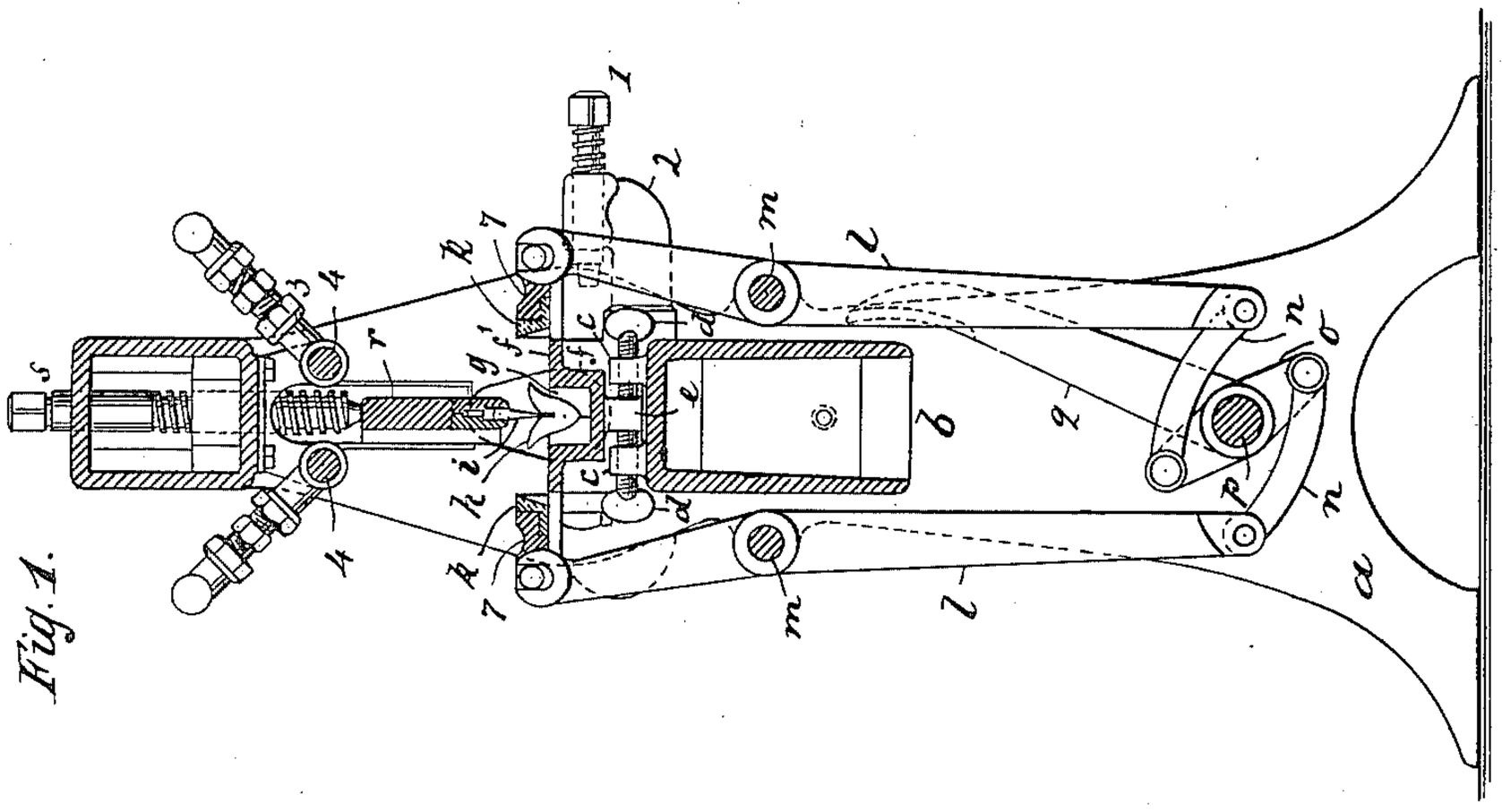


Fig. 1.



WITNESSES:

E. Wolff.

Chas. E. Brougen.

INVENTORS
Wyman Eaton
and
Michael Boland.
BY
Hauff & Hauff
ATTORNEYS

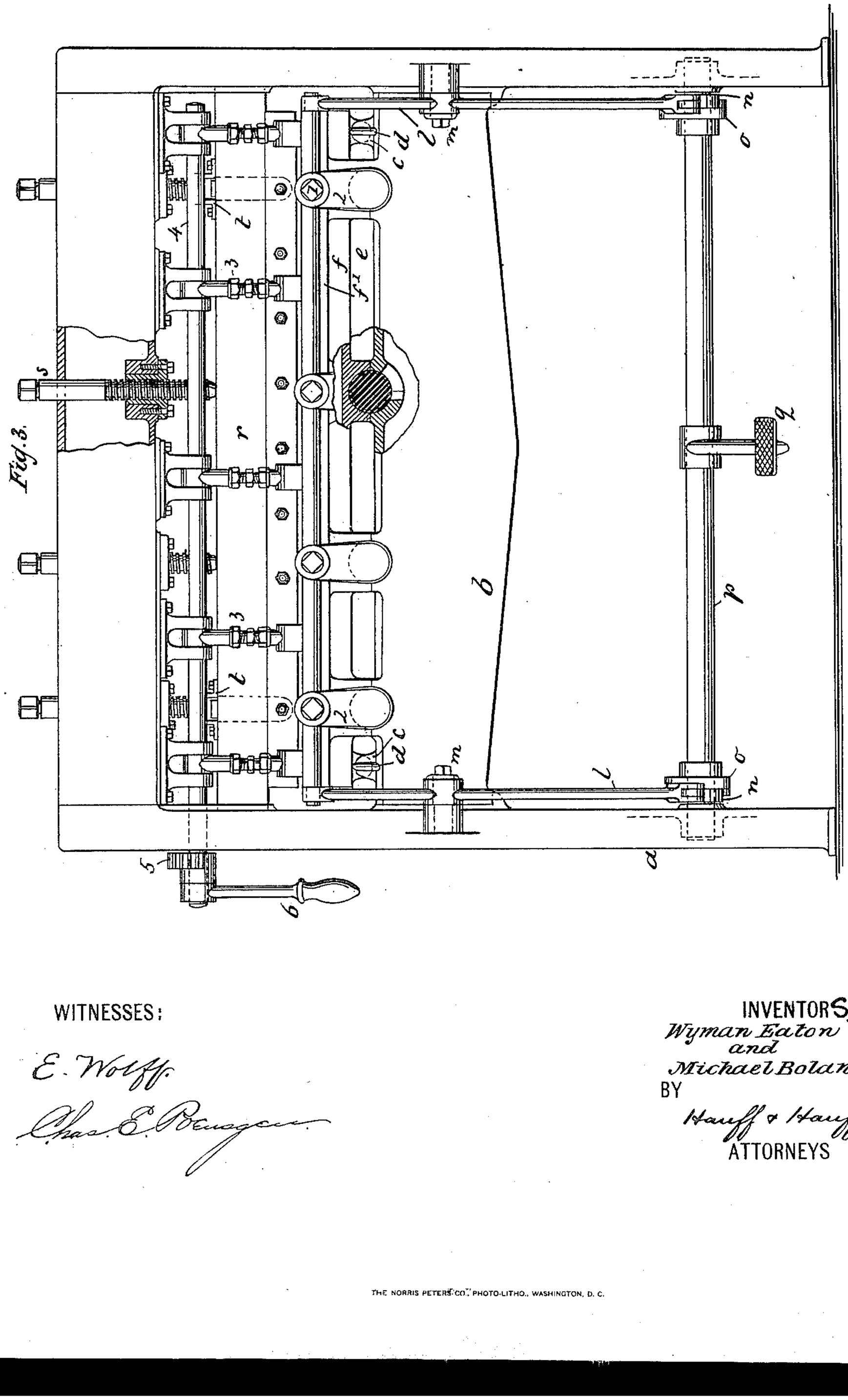
No. 661,398. Patented Nov. 6, 1900.

W. EATON & M. BOLAND.

GLUING PRESS.

(Application filed Aug. 15, 1900.)

(No Model.) 2 Sheets—Sheet 2.



WITNESSES:

E. Wolff.

Chas. E. Bowagen.

INVENTORS.
Wyman Eaton
and
Michael Boland.
BY
Hauff & Hauff
ATTORNEYS

UNITED STATES PATENT OFFICE.

WYMAN EATON AND MICHAEL BOLAND, OF DOLGEVILLE, NEW YORK, ASSIGNORS TO THE AMERICAN FELT COMPANY, OF NEW YORK, N. Y.

GLUING-PRESS.

SPECIFICATION forming part of Letters Patent No. 661,398, dated November 6, 1900.

Application filed August 15, 1900. Serial No. 26,977. (No model.)

To all whom it may concern:

Be it known that we, WYMAN EATON and MICHAEL BOLAND, citizens of the United States, residing at Dolgeville, in the county of Herkimer and State of New York, have invented new and useful Improvements in Gluing-Presses, of which the following is a specification.

By means of this press such operations as the gluing or securing of parts of piano-hammers to one another can be rapidly and effectively accomplished; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a sectional side elevation of the press when open. Fig. 2 is an end view showing the press closed. Fig. 3 is a front elevation, parts of the press being broken away.

In the drawings is shown a frame or legs *a* with cross-piece *b*, having lugs or bearings *c* for screws *d*, by which the rib *e* of holder *f* can be engaged to secure the holder in proper position. This holder is shown trough-shaped or with bottom and sides, the top being open. Said holder has upper or laterally-extended flanges, as seen at *f'*. The sections *g* of a mold placed into the holder are such as are required for the felt or head *h* of a certain piano-hammer or series of hammers—as, for example, the hammers of the treble or bass. The holder can of course be made of such length as to accommodate a complete series of hammers or felts for, say, one piano from treble to bass.

When the stem portion *i* of the hammer is pressed or held to the felt in the holder and the compression-slides *k*, Fig. 1, are made to press the felt to the sides of the stem, a glue or adhesive having been properly applied, the hammer parts are assembled or caused to adhere.

The actuating-levers *l* for the slides are shown fulcrumed at *m* and linked at *n* to arms *o*, extended from rock-shaft *p*, having treadle *q*. As the treadle is depressed the slides *k* are actuated or moved toward one another over flanges *f'* to press the sides or cheek parts of felt *h* to stem *i*. Reversing the motion of the treadle frees the hammer from the pressure of the slides.

The stem *i* is carried or held by a strip *r*, which can be pressed or moved by screws *s* toward the felt *h*. The end screws by being connected to the strip *r* by loops or like connections *t*, Fig. 3, will serve not only to press the strip toward the felt, but also to raise or hold the strip away from the felt when required.

When the slides *k* have been pressed by levers *l* to the hammer, said slides can be fixed or held in pressing position by screws 1. These fixing-screws or fastenings 1 are shown supported by arms or carriers 2, which can swing or swivel to carry the screws below or out of the path of the slides to allow the latter to move out of action. When the slides are in action or compressing, the screws 1, being swung to the level of the slides and run thereagainst, will hold or fix the latter for pressure. The carriers 2 are shown bail shape, and a screw, as 1, could be applied at each end of this bail; but one screw at one end of the bail acting against the slides butting or bracing directly against the other end of the bail has been found satisfactory in practice.

Arms 3 are provided for holding down the slides. These arms are carried by rock-shafts 4 for moving the arms into and out of action. Gears 5 connect the rock-shafts, so as to cause the arms to move together for the oppositely-located compression-slides, and the handle or lever 6 for the rock-shafts is shown in convenient position or reach of the attendant. Said arms 3 are adjustable in length, being of suitable construction for this purpose, as threaded tubular parts with connecting or screw stem and lock nuts or screws. The slides *k* are shown with seats or depressions 7, Fig. 1, for receiving or holding the ends of arms 3. When the arms 3 have been swung down or to the slides and the latter have been moved into action by the treadle *q* and fixed by screws 1, the press can be left to hold the felt to the stem or molding *i* for any required period of time.

The individual molding with felt for each hammer can be placed into the strip *r* and holder *f* or strips of molding long enough for

a set of hammers—as, for example, a bass set with corresponding strips of felt—can be pressed or glued together and then sawed into proper thickness or sections to form individual hammers.

What we claim as new, and desire to secure by Letters Patent, is—

1. A press provided with a holder and compression-slides, a treadle for actuating the slides and swinging fastening devices for said slides substantially as described.

2. A press provided with a holder and compression-slides, actuating-levers for the slides, a rock-shaft having arms linked to the levers, and a treadle connected to the rock-shaft substantially as described.

3. A press provided with a holder and compression-slides, a treadle for actuating the slides, screws or fastenings for fixing the compression-slides, swinging supports for said screws or fastenings substantially as described.

4. A press provided with a holder and compression-slides, fixing-screws or fastenings for the slides, and swinging or swiveling carriers for the screws substantially as described.

5. A press provided with a holder and compression-slides, a treadle for actuating the slides, arms for holding down the slides and swinging fastening devices for said slides substantially as described.

6. A press provided with a holder and compression-slides, a treadle for actuating the slides, arms for holding down the slides, and rock-shafts for moving the arms into and out of action substantially as described.

7. A press provided with a holder and oppositely-located compression-slides, arms for holding down the slides, rock-shafts for actuating the arms, gears for connecting the rock-shafts and an actuating handle or lever for the shafts substantially as described.

8. A press provided with a holder and compression-slides, a treadle for actuating the slides, arms for holding down the slides, and rock-shafts for moving the arms into and out of action, said arms being made adjustable in length and the slides having seats for receiving the ends of the arms substantially as described.

9. A press provided with a holder and compression-slides, actuating-levers for the slides, a rock-shaft having arms and a treadle for actuating the levers, fixing-screws for the slides, swinging supports for the screws, arms for holding the slides, rock-shafts for the arms, a strip made to coact with the holder, and actuating-screws for the strip substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

WYMAN EATON.
MICHAEL BOLAND.

Witnesses:
THEO. H. ROTH,
EDWARD DEDICKE.