

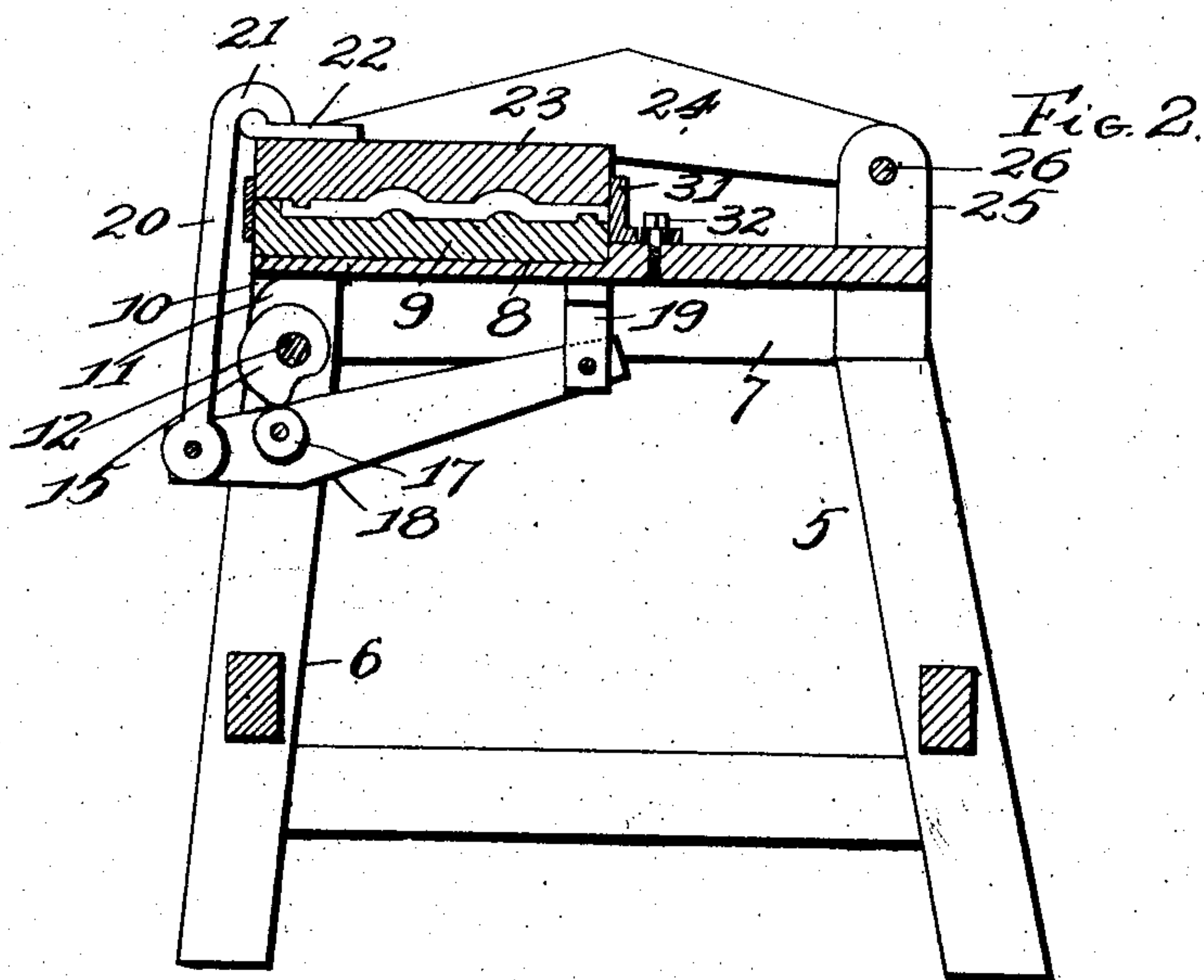
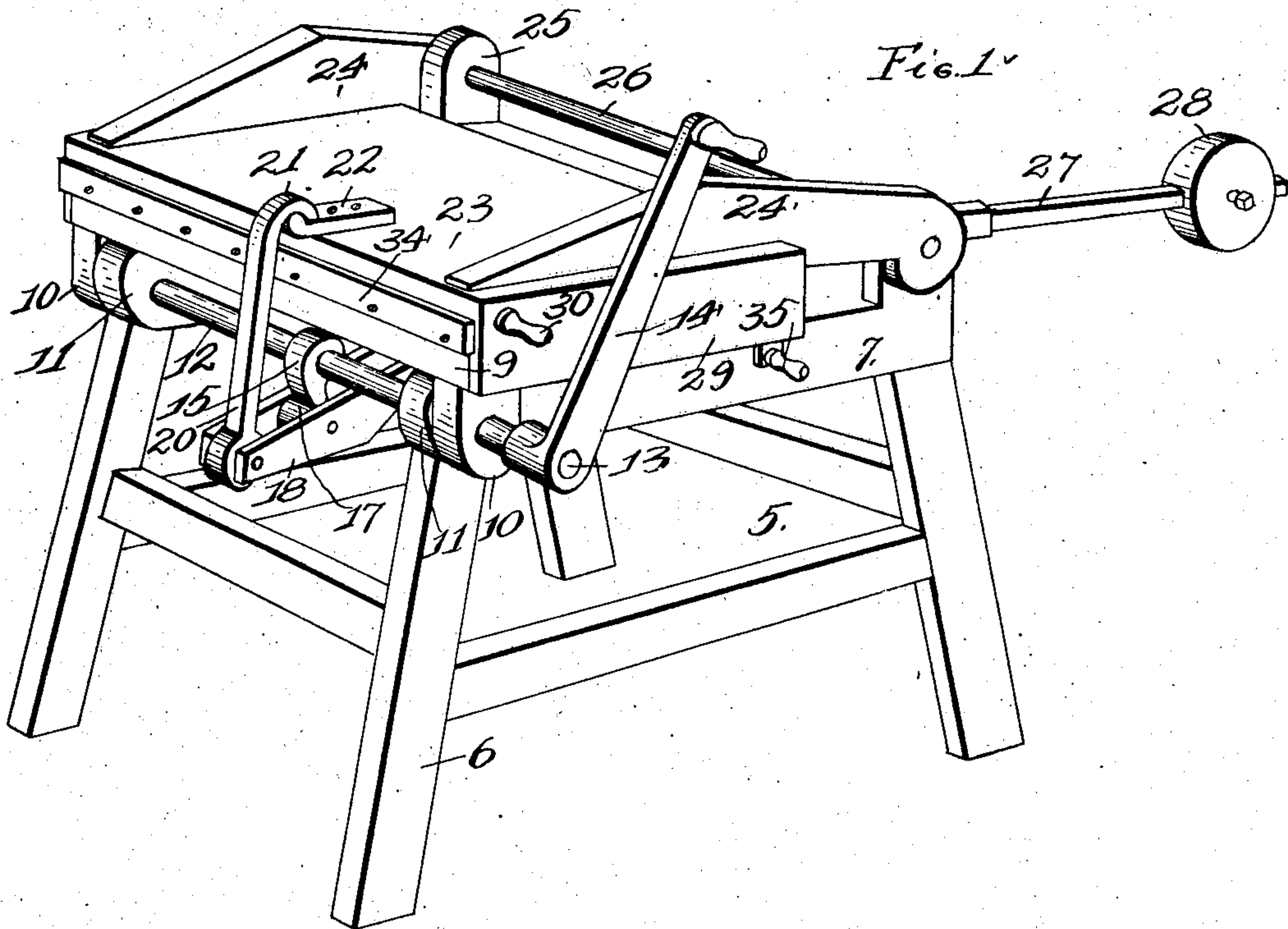
No. 833,793.

PATENTED OCT. 23, 1906.

F. MUELLER.
TILE PRESS.

APPLICATION FILED FEB. 6, 1906.

2 SHEETS—SHEET 1.



Witnesses.
W. B. Stein.
L. A. L. McIntyre

Inventor.
Friedrich Mueller
by Hopkins & Eicks Attys.

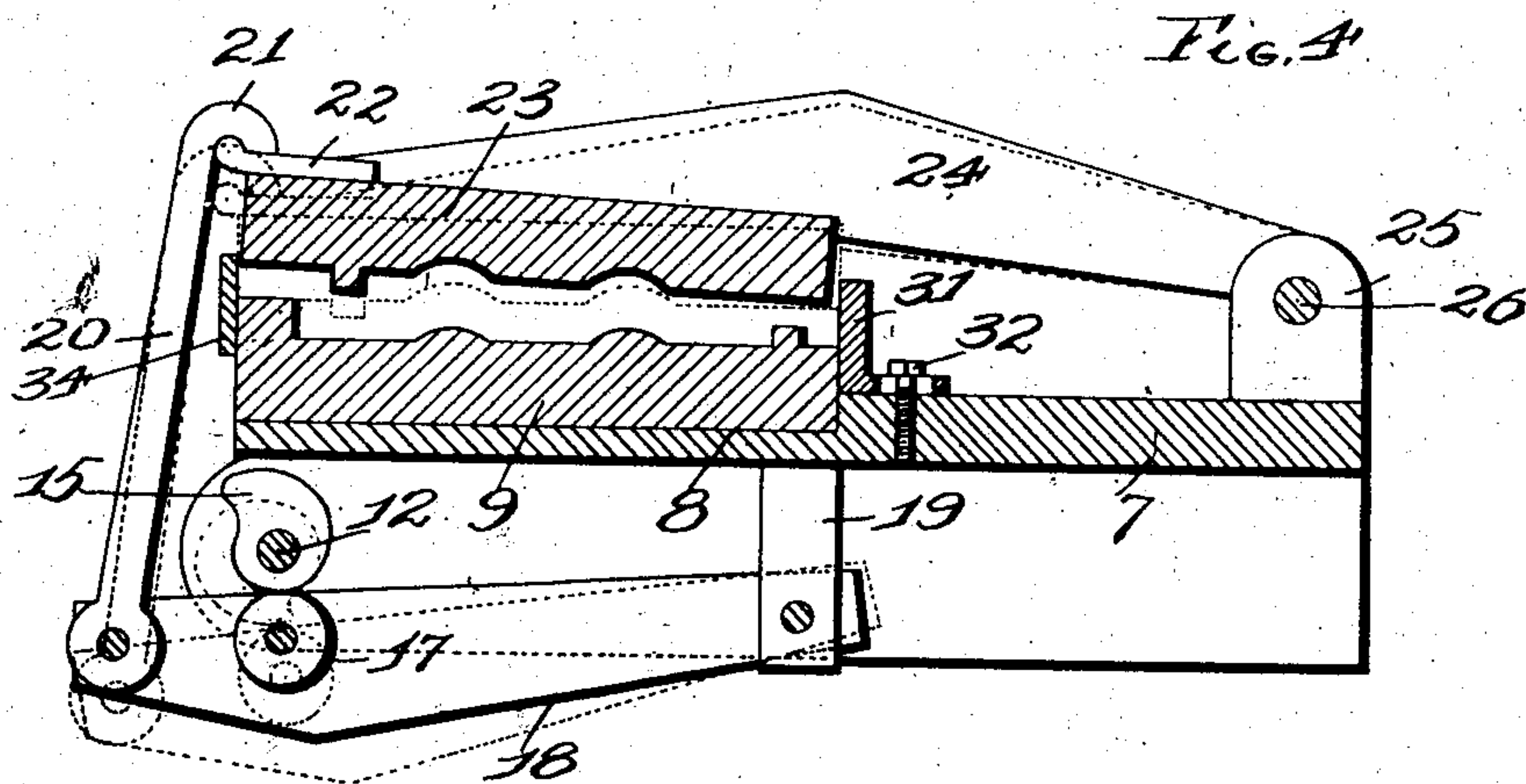
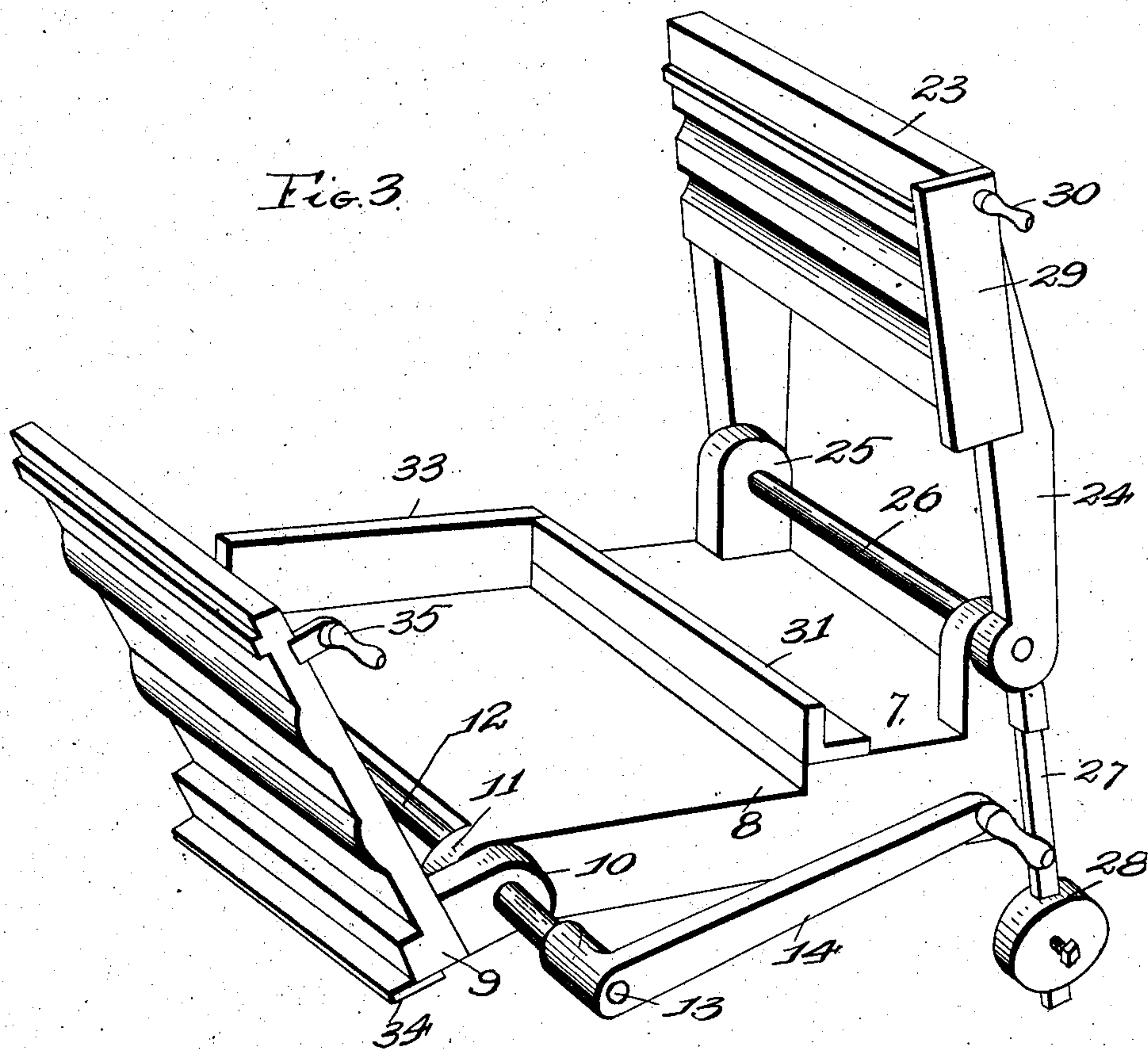
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UNITED STATES PATENT OFFICE.

FRIEDRICH MUELLER, OF ST. LOUIS, MISSOURI.

TILE-PRESS.

No. 833,793.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed February 5, 1906. Serial No. 299,658.

To all whom it may concern:

Be it known that I, FRIEDRICH MUELLER, a subject of the German Emperor, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Tile-Presses, of which the following is a specification.

This invention relates to improvements in tile-presses; and it consists in the novel arrangement, construction, and combination of parts, as will be fully hereinafter described and claimed.

The object of my invention is to construct a press having an upper and lower die, each hingedly mounted and arranged to be compressed by a cam movement operated by the hand.

In the drawings, Figure 1 is a perspective view of my complete invention. Fig. 2 is a vertical central sectional view. Fig. 3 is a detail perspective view of my invention detached from its support, showing the manner in which the die-plates are operated. Fig. 4 is an enlarged sectional view taken through mid-section, showing the dies in position ready to be compressed.

In the construction of the device as shown, I provide a supporting-frame 5, preferably constructed of four standards 6 and suitably braced together, and upon the top of the legs is provided a table 7. The table 7 is provided with an offset 8, in which is adapted to rest the lower die-plate 9, the front under surface of said die-plate being provided with a pair of downwardly-projecting ears 10, by which said die-plate is hingedly mounted upon the table 7. The ears 10 fit snugly against the sides of the projections 11, formed on the front end of the table, and through the projections 11 and ears 10 is passed an operating-shaft 12.

The projecting end 13 of the operating-shaft 12 is provided with a handle 14, by which the shaft is revolved, and upon said shaft, midway between the projections 11, is provided a cam 15, which during its revolution comes in contact with a roller 17, located between a pair of bars 18, located beneath the table and pivotally mounted to supports 19, secured to the under side of said table. The outer ends of the bars 18 carry a compressing member 20, the upper end of which is provided with a hook 21, the hook 21 being so arranged as to be brought in contact with a plate 22, located upon the top of the upper die 23.

The upper die 23 is carried by a pair of arms 24, which extend rearwardly and are pivotally connected to a pair of ears 25, extending vertically from the rear end of the table. Through the arms 24 and ears 25 is passed the shaft 26, which acts as the hinge member for the swinging of the die 23. Upon one of the arms 24 I provide a bar 27, on which is adjustably mounted a counterbalance-weight 28, the purpose of which is to counterbalance the weight of the die-plate 23 during the raising and lowering of the same.

The die-plate 23 is provided with a side plate 29, which is arranged to pass over the meeting edge of the two dies when brought together and prevent the clay from being compressed downwardly through that end. On the plate 29 I provide a handle 30, whereby the die may be raised and lowered.

On the table 7 is mounted a plate 31, which is adjustably retained in position upon the table by means of the screws 32. This plate 31 is arranged to be adjusted against the back of the dies to prevent the clay from being spread out at that end. The table 7 is also provided with a projecting plate 33 to form a side wall for the meeting edge of the dies, so as to retain the clay in position, and the front edge of the die 9 is provided with a projecting plate 34 and is of sufficient height to cover the meeting edge of the dies, which is also to retain the clay in position. The die 9 is provided with a handle 35, whereby the same may be tilted.

The operation of my invention is as follows: When it is desired to mold a tile, the die 9 is placed in horizontal position, and upon the die is placed a suitable quantity of clay, preferably of a plastic condition. The die 23 is then lowered upon the clay and will assume the position as shown by dotted lines in Fig. 4. The compressing member 20 is then placed in position so that its hook 21 engages the plate 22 and will assume the position as shown by solid lines in Fig. 4. The operator then operates the handle 14, which will operate the cam, and during its contacting with the roller 17 has a tendency to gradually depress the arms 18, and by this operation, through the agency of the compressing member 20, will draw the upper die 23 downward and press the clay between the dies. After the upper die has been drawn down to its limit and the cam released the compressing member 20 is removed from the plate 22 and by means of the handle 30 the

upper die is elevated in the position as shown in Fig. 3. The operator then in order to remove the compressed clay from the mold tilts the lower die 9 by means of its handle 35 in a position shown in Fig. 3, and in order to prevent the compressed tile from falling off of the die an ordinary piece of board the size of the tile is placed over the top and held by the left hand while the die is being tilted by means of its handle by the right hand.

Having fully described my invention, what I claim is—

1. A tile-press comprising a table, a pair of die-plates hingedly mounted upon said table and arranged to be placed one upon the other, a cam mechanism located beneath the table, and means for depressing the upper die against the lower die by the cam mechanism, substantially as specified.

2. A tile-press comprising a table mounted upon supports, a depression formed in said table, a die-plate hingedly mounted to the front end of the table and adapted to fit within the depression, a second die-plate hingedly carried to the rear end of the table and arranged to contact with the top of the first die, an operating-shaft, a cam located on said shaft, a compression member adapted to contact with the upper die, and means for depressing the compression member by a handle-lever, substantially as specified.

3. A device of the class described comprising a table provided with a depression, a die-plate hingedly mounted to the front end of

said table, a projecting plate carried by the front end of the die-plate, an adjusting-plate located upon the table to be brought in contact with the edge of the die, a second die-plate hingedly carried to the rear of the table and arranged to be placed upon the first-mentioned die, a counterbalance-weight for counterbalancing the weight of the upper die, an operating-shaft forming a hinge-pin for the lower die, a cam mounted upon said operating-shaft, a pair of arms pivotally connected to the under side of the table, a roller located between the arms with which the cam is brought in contact, a compression device carried by the arms and adapted to be brought in contact with the upper die for compressing the same by the operation of the operating-shaft, substantially as specified.

4. A device of the class described comprising a table, a pair of dies hingedly mounted upon said table, the inner surface of said dies designed to form the shape of a tile, a mechanism for compressing the clay located between the dies and suitable handles for removing the dies to remove the compressed tile, substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

FRIEDRICH MUELLER.

Witnesses:

ALFRED A. EICKS,
L. A. L. MCINTYRE.