(No Model.)

L. W. NUEBLING.

TILE PRESS.

No. 457,924. Patented Aug. 18, 1891.

FIG. 1.

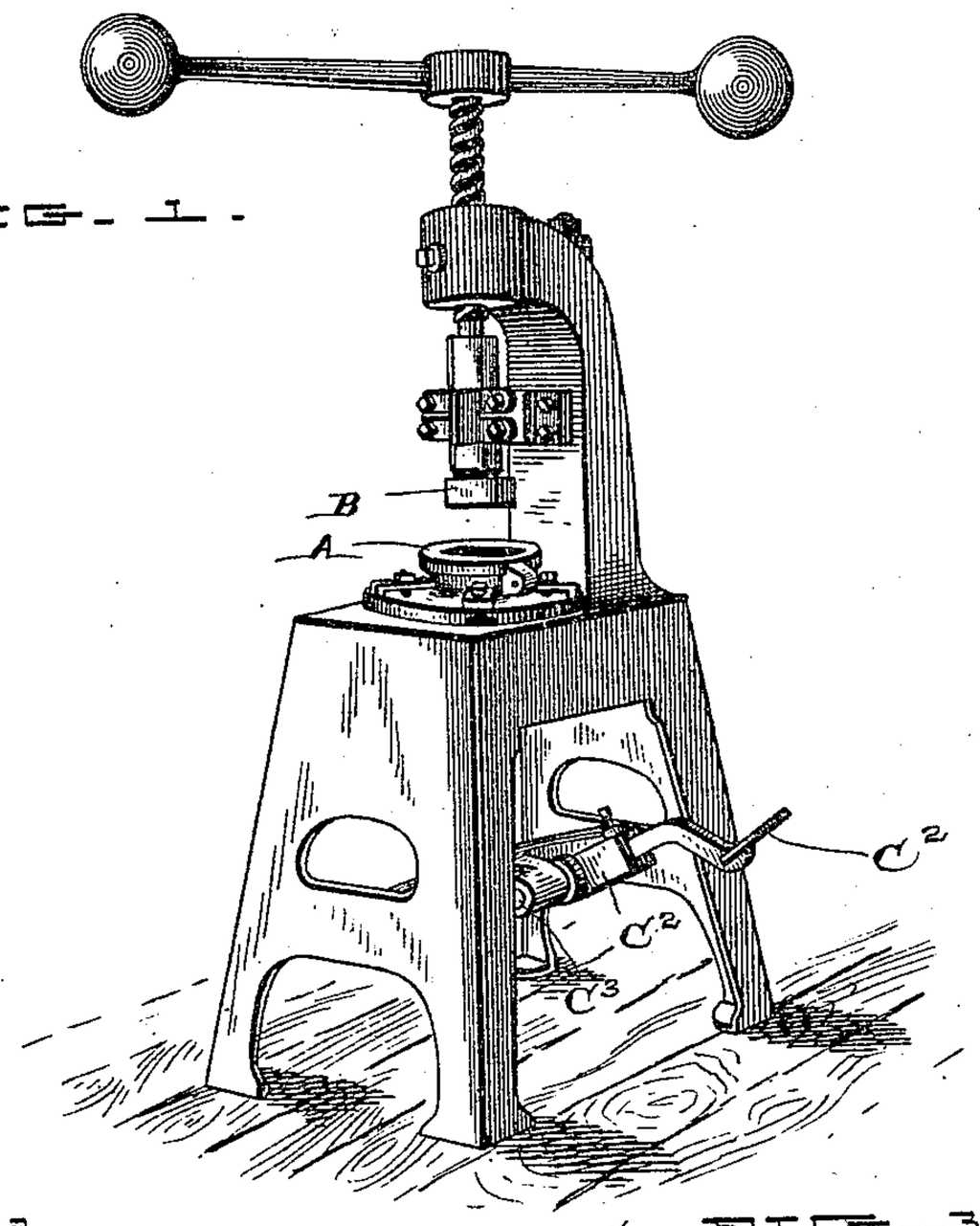


FIG. 2.

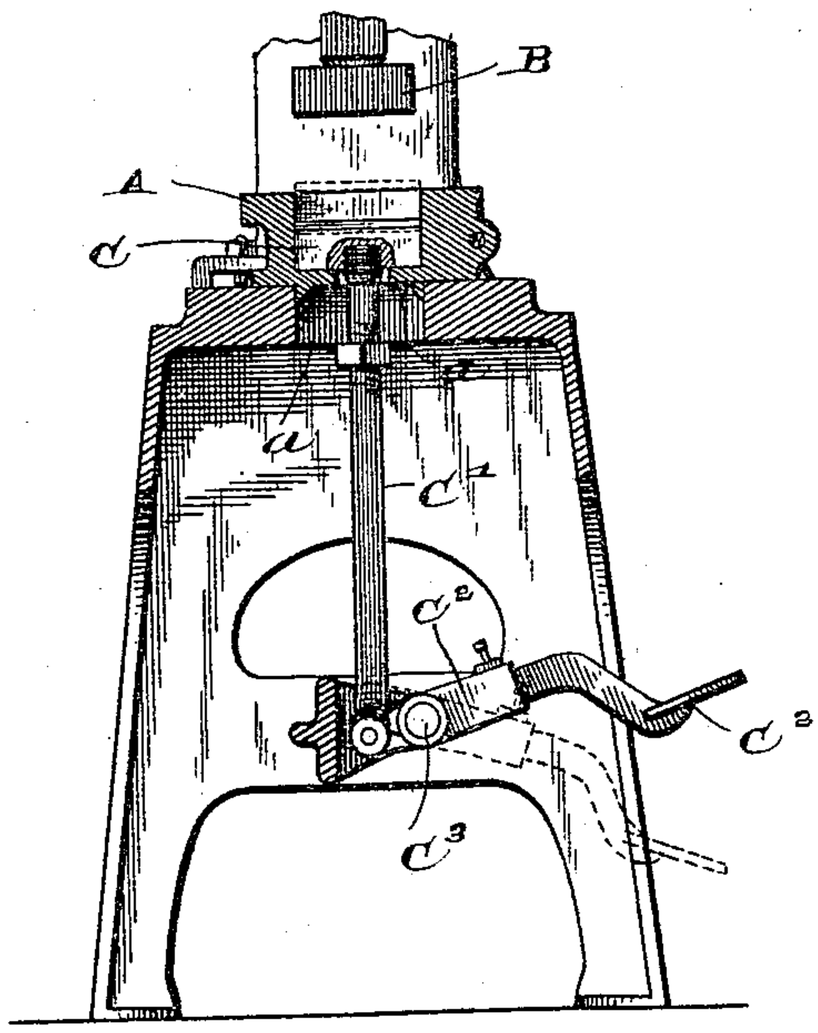


FIG. 3.

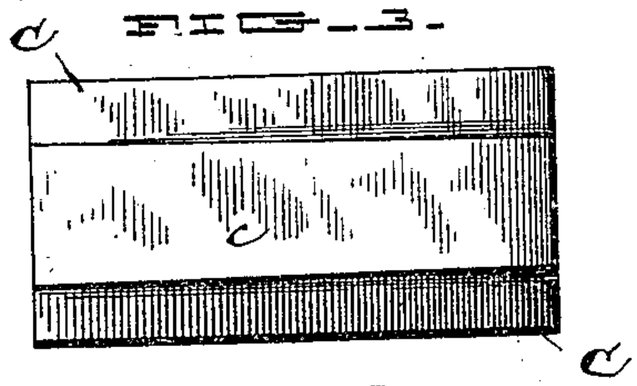


FIG. 4.

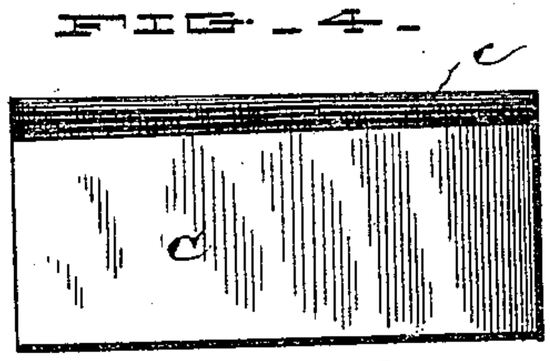
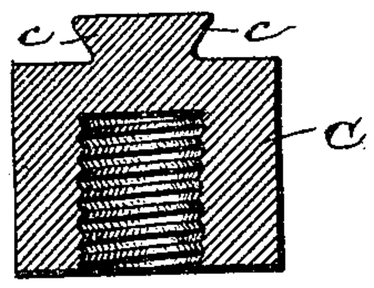


FIG. 5.



Witnesses

H. D. Healy.

Frank L. Ashbrook.

Inventor

Louis W. Nuebling,

By his Attorneys.

C. H. W. Bradford.

UNITED STATES PATENT OFFICE.

LOUIS W. NUEBLING, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE UNITED STATES ENCAUSTIC TILE WORKS, OF SAME PLACE.

TILE-PRESS.

SPECIFICATION forming part of Letters Patent No. 457,924, dated August 18, 1891.

Application filed September 13, 1890. Serial No. 364,860. (No model.)

To all whom it may concern:

Be it known that I, LOUIS W. NUEBLING, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Tile-Presses, of which the following is a specification.

The object of my said invention is to produce a press in which the dies will form a tile (or other clay structure) having a dovetail groove in one side and at a single operation. This I do by forming a dovetailed rib upon the top surface of the plunger which forms the bottom of the die, which rib is slightly tapered from one end to the other and projects above the plane which is the ordinary surface of the plunger, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a tile-press of a suitable form to embody my invention; Fig. 2, a central sectional view of the lower portion thereof; Fig. 3, a top or plan view of the plunger separately; Fig. 4, a side elevation of the same, and Fig. 5 a transverse vertical section thereof.

In said drawings the portions marked A represent the lower or female die of the press; B, the upper or male die, and C the plunger.

The dies A and B, as well as the frame-work of the press, are or may be of an ordinary and well-known construction and need no special description. Upon the lower side of the die A, or upon the frame-work immediately under said die, are projections or cross-bars *a*, upon which the plunger C lies when at rest, forming the bottom of said die A, and whereby said plunger is always held to exactly the same horizontal plane when thus at rest. These projections *a* or cross-bars may obviously be of any desired form or character so long as they embody sufficient strength and rigidity to sustain the plunger C when it rests upon them.

The plunger C, as shown, is of the same form and size as the dies and is adapted to fit within the female die A and form the bottom thereof. As before stated, it rests upon projections or cross-bars *a*, which sustain it in the position it occupies when at rest. It is adapted to be moved vertically by being mounted upon a vertical rod C′, which is pivoted to a foot-lever C^2, which foot-lever is usually mounted upon a rock-shaft C^3. This arrangement is shown most plainly in Fig. 2. The arrangement is such, as indicated by the dotted lines in Fig. 2, that the main upper surface of this plunger when operated by means of the foot lever and rod will just rise to a level with the upper surface of the die A, while the rib *c* projects above said surface. This rib *c* is tapered slightly in both directions, as shown most plainly in Figs. 3 and 4, and thus the tile, after being pressed by the dies and raised by the plunger to the position just described, may be easily pulled off the plunger by moving it lengthwise of the rib in the direction from the larger to the smaller end thereof, which movement, when said plunger is raised to the position described, brings the tile off onto the flat surface of the die A, or that of the table which usually surrounds it when set up in operative condition.

The operation of my improved machine may be briefly stated as follows: When the upper die is raised and the plunger is in its lower position, as indicated by the dotted lines in Fig. 2, the open space in the die A is filled with the clay to be molded and the upper die brought down, firmly compressing it to the required consistency. The upper die is then raised, after which the plunger is thrown up by stepping on the foot-lever C^2, bringing the main upper surface of the plunger into the same horizontal plane as that of the die A, as before described, when the tile is pulled off, as before stated, and the operation is repeated to any extent desired. This machine I have usually used in making tiles, in which the clay, after being properly compounded and pulverized, is molded in a dry state. When first molded, the tiles are quite fragile, and in order to do rapid and efficient work the arrangement of parts before specified is important. I may state that these dovetail grooves are formed in the tiles for the purpose of securing them more firmly in the cement, particularly where the tiles are used for wainscoting and such like purposes.

Having thus fully described my said inven-

tion, what I claim as new, and desire to secure by Letters Patent, is—

1. In a tile-press, in combination with the dies thereof, a plunger arranged (in operation) within the female die and provided upon its upper surface with a tapered dovetailed rib, substantially as and for the purposes set forth.

2. The combination, with the dies of a tile-press, of a plunger arranged within the lower or female die and provided upon its upper surface with a tapered dovetailed rib, and mechanism whereby said plunger is raised, so that its main upper surface is in the same plane as the upper surface of said female die, and which when released descends upon fixed points of rest, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 8th day of September, A. D. 1890.

LOUIS W. NUEBLING. [L. S.]

Witnesses:
FRANK W. WOOD,
E. W. BRADFORD.