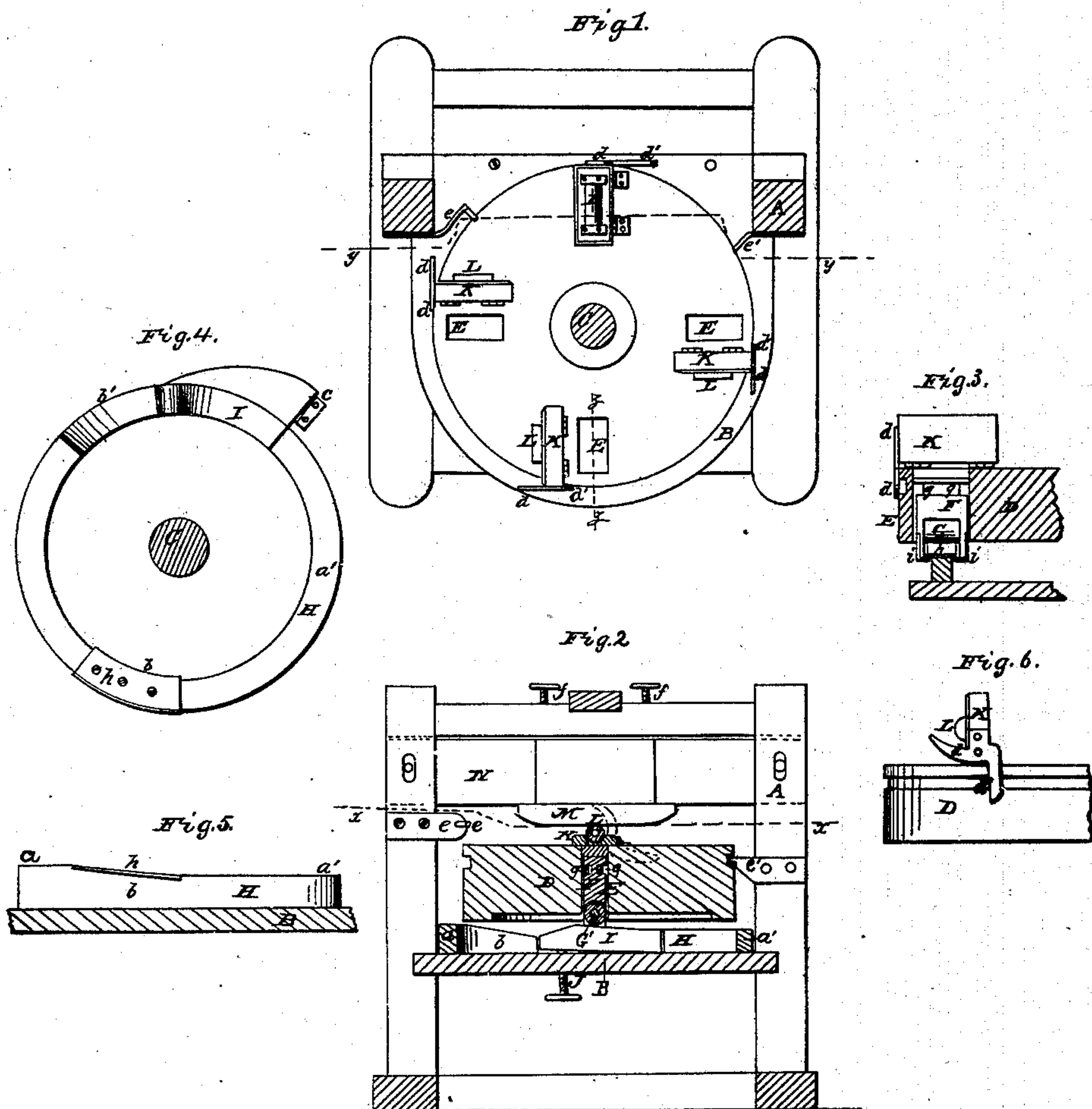


E. P. H. CAPRON.
BRICK MACHINE.

No. 49,376.

Patented Aug. 15, 1865.



Witnesses
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UNITED STATES PATENT OFFICE.

E. P. H. CAPRON, OF SPRINGFIELD, OHIO.

IMPROVED BRICK-MACHINE.

Specification forming part of Letters Patent No. 49,376, dated August 15, 1865.

To all whom it may concern:

Be it known that I, E. P. H. CAPRON, of Springfield, in the county of Clarke and State of Ohio, have invented a new and Improved Machine for Pressing Brick; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a horizontal section of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a vertical central section of the same, taken in the line *yy*, Fig. 1; Fig. 3, a vertical section of a portion of the same, taken in the line *zz*, Fig. 1; Fig. 4, a plan or top view of an annular track pertaining to the same; Fig. 5, a side view of Fig. 4; Fig. 6, a side view of a portion of a circular table pertaining to the invention.

Similar letters of reference indicate like parts.

This invention consists in the employment or use of a horizontal rotating disk or table provided with cavities which form the brick-molds, and having plungers or followers fitted within them, which are operated by inclined surfaces on an annular track or way. The cavities or molds in the disk or table are provided with hinged lids or covers, and an adjustable bearing is placed over the lids or covers to keep them firmly down while the plungers or followers are compressing the clay in the cavities or molds, the whole being constructed and arranged as hereinafter set forth.

A represents a framing, which has a horizontal bed-piece, B, attached to it, and C is a shaft which passes vertically through the bed-piece B, and has a circular table, D, secured firmly upon it, in which a series of square cavities, E, are made, said cavities extending entirely through the table and forming the brick-molds. In each of these cavities E there is fitted a follower or plunger, F, having a friction-roller, G, at their lower ends, which rest upon an annular way or track, H, on the bed-piece B, said way or track having a concentric position with the table D. The way or track H is not of an equal height all around. It has an elevated portion, *a*, with an inclined plane, *b b'*, at its ends, said inclined planes forming

the junction between the elevated portion *a* and the lower portion, *a'*. The elevated portion and its inclined planes comprise about one-half of the annular way or track H, as shown in Fig. 4. The inclined planes *b b'* are permanent or fixed, but in the lower portion, *a'*, of the track H there is an adjustable section, I, connected to the bed-piece B by a hinge, *c*, and resting at its free or disengaged end on a set-screw, J, which passes up through the bed-piece B, as shown in Fig. 2.

The cavities or molds E are each provided with a hinged lid or cover, K, in each of which a friction-roller is placed, and each lid or cover has two arms, *d d'*, attached to its outer end, as shown clearly in Fig. 6. These arms, as the table D rotates, come in contact with projections *ee'* on the framing and open and close the lids or covers K.

M represents a segment-bearing, which is attached to an adjustable horizontal bar, N, on the framing A, said bar N being regulated by set-screws *ff*. This bearing M is over and a short distance above the top of the table D, and is in line with the hinged or adjustable section I of the annular way or track H.

The plungers or followers F are grooved all around, as shown at *g*, to form oil-cavities to keep the plungers or followers properly lubricated. These grooves have pieces or strips of cloth *j*, or other absorbent material, fitted in them. (See Fig. 2.)

The inclined plane *b* at one end of the elevated portion *a* of the annular way or track has a metal plate, *h*, attached to it, the sides of which project beyond the sides of the inclined plane *b*, in order to admit of lips *i i* at the lower end of the follower catching under the edges of plate *h*. By this means the plungers or followers are drawn down in the molds as the former pass down the inclined plane *b*, and the lids or covers are thrown open previously to the plungers or followers reaching the inclined plane *b*, in consequence of the arms *d* of the lids coming in contact with the projection *e* on the framing.

The molds E are filled with clay while the plungers or followers are down and their rollers G are traveling over the lower portion, *a'*, of the way or track H, and as the filled molds pass along the arms *d'* of their open lids K

come in contact with the projection *e'* on the framing and the lids are closed. The rollers *G* of the plungers or followers, just after the lids *K* are closed, pass upon the adjustable section *I*, the upper surface of which is more or less inclined, and forces the plungers or followers upward, the lids or covers *K* being held down in consequence of their rollers *L* passing under the segment-bearing *M*. By this means the clay is compressed within the molds *E*, and the pressure may be graduated by adjusting the section *I*. After the clay is thus compressed the lids or covers *K* are thrown open in consequence of the arms *d* coming in contact with the projections *e*, and the rollers *G* of the plungers or followers pass up the inclined plane *b'*, and the plungers or followers are forced upward and the compressed clay or brick discharged from the molds. The plungers or followers are drawn down in the molds in passing down the inclined planes *b*, as previously described, the molds filled, the lids or covers closed, and the pressure given the clay, as previously set forth.

I claim as new and desire to secure by Letters Patent—

1. The rotary mold-wheel or table *D*, in connection with a bearing, *M*, and inclined adjustable section *I*, and rising and falling plungers or followers *F*, for the purpose of molding or pressing brick, as set forth.

2. The particular arrangement of the annular way or track *H*, section *I*, and the bearing *M*, as shown, whereby the lids of the molds are held down by the bearing *M*, while the pressure is given by the section *I*, as described.

3. Arranging the section *I* as shown, or in any other equivalent way, so as to render the same capable of being adjusted to regulate the pressure on the clay in the molds, as set forth.

4. The friction-rollers *G* at the lower ends of the plungers or followers *F*, and the friction-rollers *L* in the lids or covers *K*, for the purpose specified.

5. The hinged lids or covers *K*, provided with the arms *d d'*, in connection with the projections *e e'*, attached to the framing, substantially as and for the purpose set forth.

6. The lips *i i* at the lower ends of the plungers or followers, in connection with the plate *h*, or its equivalent, attached to the inclined plane *b*, for the purpose of lowering or drawing down the followers, as set forth.

7. The lubricating device for the plungers or followers, the same consisting of grooves *g* made in the plungers or followers, and provided with strips of cloth or other absorbent material, substantially as described.

E. P. H. CAPRON.

Witnesses:

E. D. STARK,
CHAS. P. CAPRON.