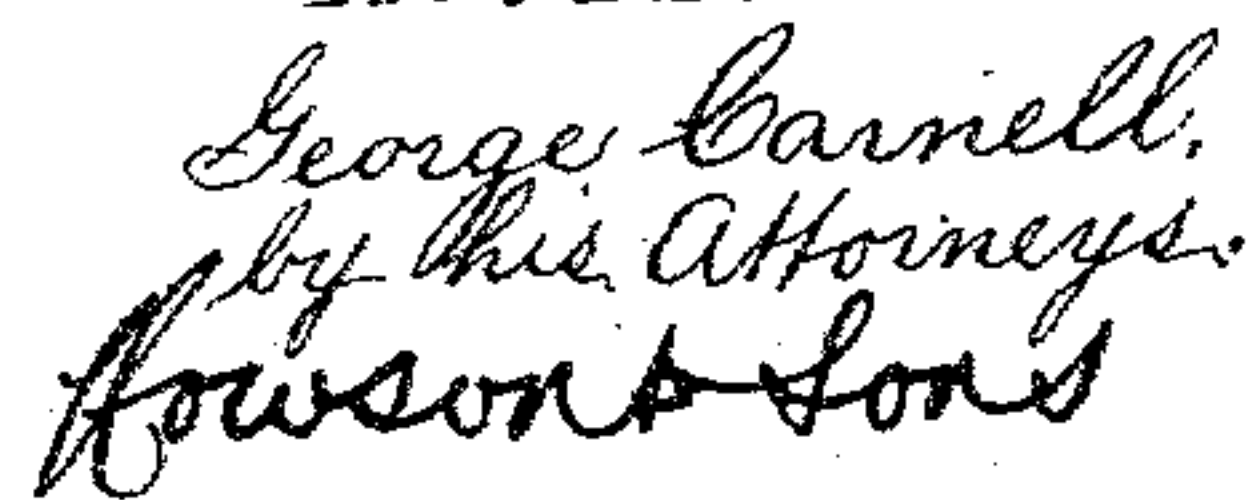


Patented Aug. 21, 1883.





# UNITED STATES PATENT OFFICE.

GEORGE CARNELL, OF PHILADELPHIA, PENNSYLVANIA.

## BRICK-PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,565, dated August 21, 1883.

Application filed April 27, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE CARNELL, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Brick-Pressing Machines, of which the following is a specification.

My invention relates to a compact and powerful machine for repressing bricks or other blocks of plastic material, the invention comprising certain details in the construction of the machine, as fully described hereinafter.

In the accompanying drawings, Figure 1 is a longitudinal section of the machine; Fig. 2, a transverse section of the same, partly in elevation, the section being on the line 1 2; Fig. 3, a transverse section of part of the machine on the line 3 4; Figs. 4, 5, and 6, views illustrating the operation of the machine; and Fig. 7, a sectional plan view of the mold.

A A are the opposite side frames of the machine, which support the table B, and have bearings for the driving-shaft D, which carries cams E, F, and G. The cam E acts upon an anti-friction roller carried by the stem *a* of the lower plunger, J, said stem being guided in bars *b* of the frame; and the plunger being adapted to an opening in the table B. The cams F act upon rollers carried by the arms *f* of the mold H, and the cam G acts upon a pivoted arm, *g*, the upper end of which is connected by a link, *h*, to the flange *i* of the charging-box K, the latter being free to slide on the table B, which is slotted for the passage of the flange *i*. (See Fig. 3.)

To a stud on the link *h* is connected one end of a cord, *j*, said cord passing over pulleys *k* on the frame, and having at the lower end a weight, *j'*.

Within the mold H is the upper or fixed plunger, M, the stem *m* of which is supported by a transverse bar, *d*, of the frame B, the upper portion of the stem being threaded for the reception of a nut, *m'*, which rests upon said bar *d*.

Between the upper end of the stem *m* and a set-screw, N, in a yoke, *n*, of the frame is a block, P, of rubber or other elastic material.

The upper and lower plungers, M and J, are detachable from their stems, so that they may be changed to suit the size of the brick to be pressed, and the mold H has detachable side

plates, *p*, and adjustable end plates, *q*, to likewise adapt it to bricks of different sizes, the end plates, *q*, being acted upon by wedges *s*, upon which bear adjusting-screws *s'*, carried by lugs *s''* of the mold, as shown in Figs. 2 and 7.

In the charging-box K is an adjustable plunger, *t*, and to the front end of said charging-box is hung a pivoted door or flap, *w*, which is free to swing outward and upward.

In pressing a brick, the mold H is lowered onto the table B, as shown in Fig. 4, and the plunger J is elevated, so as to press the brick in the mold and between the upper and lower plungers. The mold is then elevated and the plunger J depressed, as shown in Fig. 1, and the charging-box K, in which a fresh brick has been deposited, is brought forward. The hinged flap *w* strikes the pressed brick and moves the same from the plunger J onto the rear portion of the table B, as shown in Fig. 5, the forward movement of the charging-box continuing until the fresh brick has been deposited on the plunger J, when the box is retracted, the hinged flap yielding as it passes the brick, as shown in Fig. 6.

The front portion of the table B is somewhat higher than the rear portion, and the plunger J, when depressed, descends to the level of the latter portion, so that a shoulder is presented to retain the brick on the plunger when the charging-box is retracted.

The adjustable plunger *t* of the charging-box provides for the proper disposal of the fresh brick onto the plunger J, the plunger *t* being so adjusted that on the forward movement of the charging-box said plunger will coincide with the rear edge of the plunger J.

In the event of undue pressure being imparted to the brick, the upper plunger, M, will yield, owing to the interposition of the elastic block P between the stem *m* and the screw N, the latter being adjusted to regulate the pressure.

The press can be used for pressing blocks of any plastic material as well as bricks, and, if desired, an endless belt may be used to convey the rough blocks to the charging-box and the finished blocks from the table B.

Instead of permitting the mold H to fall by its own weight, cams may be used for lowering the same as well as for raising it.

I claim as my invention—



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1. The combination of the mold and plungers with the charging-box, having a hinged flap, *w*, as set forth.
  2. The combination of the mold and plungers with the charging-box, having the adjustable plunger *t*, as set forth.
  3. The combination of the mold with the end plates, *q*, and adjustable wedge-blocks *s*, as set forth.
  - 10 4. The combination of the mold, the movable plunger J, the plunger M, regulating-screw N, and elastic block P, as set forth.

5. The combination of the mold, plungers, and charging-box with the table, having one portion higher than the other, as set forth. 15

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

GEORGE CARNELL.

Witnesses:

HARRY L. ASHENFELTER,  
HARRY SMITH.