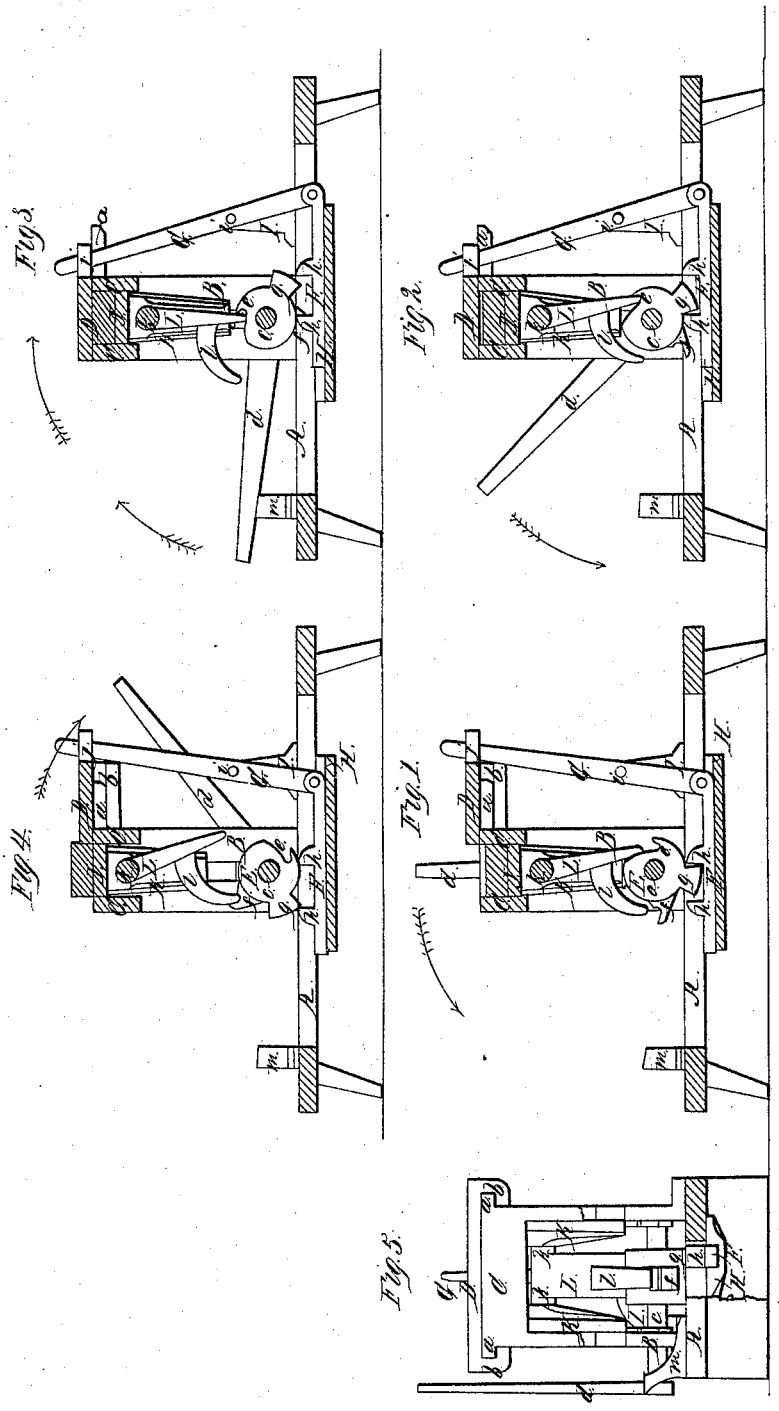
J. Smedley,

Brick Press,

No. 3,720, Patented Aug. 28, 1844.



UNITED STATES PATENT OFFICE.

JEFFERY SMEDLEY, OF COLUMBIA, PENNSYLVANIA.

BRICK-PRESS.

Specification of Letters Patent No. 3,720, dated August 28, 1844.

To all whom it may concern:

Be it known that I, JEFFERY SMEDLEY, of Columbia, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Machine for Pressing Brick; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figures 1, 2, 3 and 4 are vertical longitudinal sections of the machine, and Fig. 5 is an end elevation, in which part of the bench, &c., is removed.

Construction.—On an appropriate bench A, at or near its middle, are placed two uprights B, one on each side. They are fastened to the bench by means of screws or bolts, which pass through a flange on their lower extremities, into the former. On their upper extremities they are connected by two crosspieces C, which form the sides of the box, which receives the brick, and wherein the follower moves. There are also flanges *a* as below, but of less projection. These serve as guides for the lid D, which is furnished at each end with hooked bolts or guides *b*, which embrace the aforesaid flanges *a*. Immediately above the lower flanges of the uprights B, in appropriate bearings rests and moves the transverse shaft *c*, which is furnished on one end with the lever *d*. On this shaft, between the uprights is placed the cylinder E, which has a cam-like projection *e*, which is produced by about one quarter of the cylinder being gradually reduced. On the opposite side thereto the cylinder has a projecting cam *f*, and between them, and on the underside and on one end of the cylinder, there is another projection *g* in the shape of a dove-tail, which acts upon corresponding vertical projections *h* on the horizontal sliding-piece F, to one end of which is attached the lower end of the lever G. The piece F slides in a corresponding groove in the crosspiece H, which is fastened to the underside of the bench. The fulcrum of the lever G is at *i*, supported by the bent arm I. The upper extremity of the lever G moves in a mortise through a projecting ear *j* on the lid D. The follower J, which presses the brick, has on its underside on each extremity an arm K tending downwards, which is furnished with a tenon each, which slide in corresponding slots in the uprights B. Directly under the follower hangs the oscillating arm L, by means of gudgeons *k* in bearings in the arms K. Near the lower extremity of the said arm L projects a segmental cam *l*, which tends toward the cam *f* on the cylinder E. On the side of the bench, where the lever *d* is placed, there is near the end of it the check-block *m*.

At present I construct the bench of wood, the gudgeons, levers and bolts of wrought-iron, and all other parts of cast-iron, premising however that the materials may be changed at the option of the builder.

Operation.—The brick having been inserted in the box on the follower J, the lever *d* is moved in the direction indicated by the arrows on the drawing, until it assumes a position of about 45 degrees with the horizon, the lid D being closed by that time in consequence of the dove-tail projection *g* acting upon the hindmost vertical projection *h*, whereby the piece F slides back, carrying with it the lower end of the lever G, and the said lever moving on its fulcrum at *i* the upper end of course moves the lid D forward. By continuing to move the lever *d* downward, the cam-like projection *e* will catch the lower extremity of the oscillating arm L, and pushing it forward, brings it into a vertical position, which raises the follower, and consequently presses the brick between it and the lid with great force. The lever being every time brought down upon the check-block *m*, the bricks receive all an uniform pressure. Next, the lever is raised again and moved in a retrograding direction, the dove-tail projection *g* acts as above upon the vertical projection *h* in front, and thus reversing the motion of the sliding-piece F, causes the lid to retreat. Continuing the motion of the lever in the same direction, viz: a retrograding one, the cam *f* catches the segmental cam *l*, which raises the follower up to the upper edge of the box, and the pressed brick presents itself for removal.

What I claim as my invention and desire to secure by Letters Patent, is:

1. The arrangement of the cams (*e* and *f*) upon the rocking-shaft or cylinder (E) in combination with the follower and the segmental cam (*l*).

2. And in combination with the above, I also claim, the cam (*g*) and sliding-rod (F) for operating the lid, the whole arrangement and operation being substantially as herein above described.

JEFFERY SMEDLEY.

Witnesses:

SAML. TRUSCOTT,

JESSE R. LEWELLYN.