W. S. WALLACE.

Brick-Machine.

No. 161,580. Patented March 30, 1875.

Fig. 1.

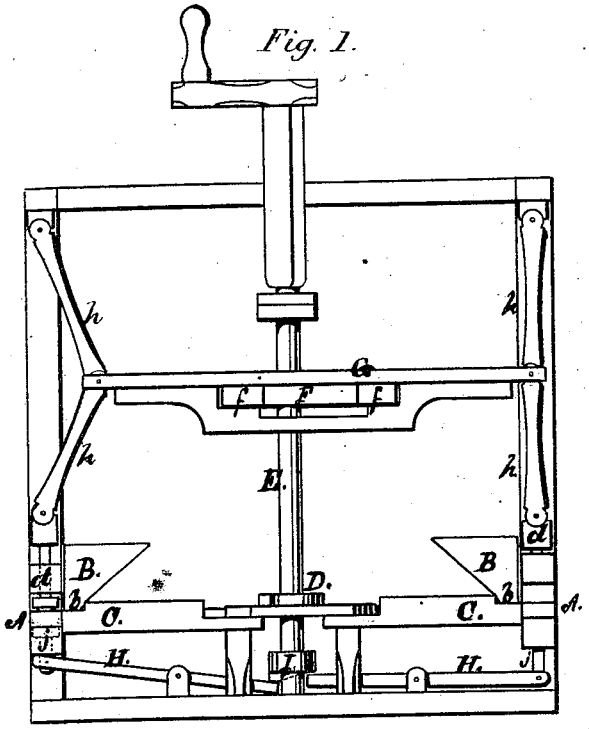



Fig. 2.

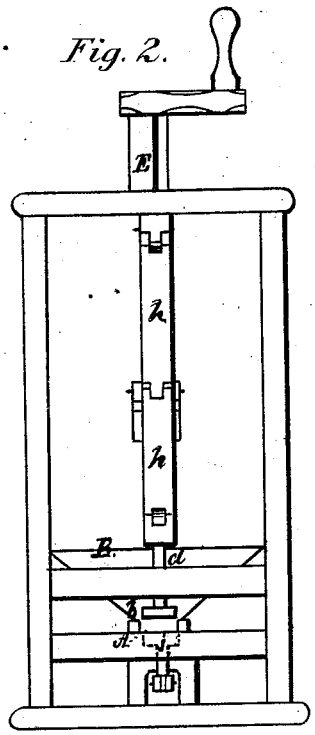



Fig. 3.

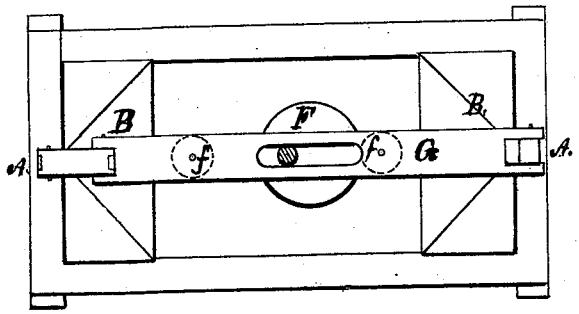
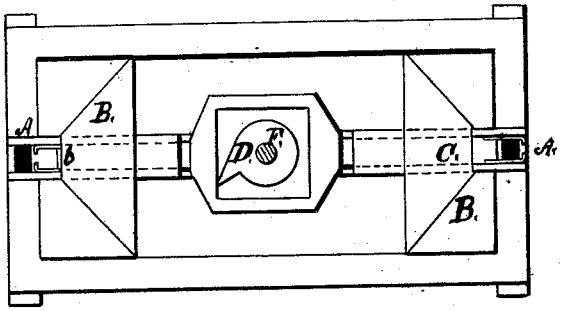



Fig. 4.




Witnesses.

Jno. R. Ergood

C. Tadaway

Inventor,

Wm S. Wallace.

By J. B. Woodruff

Attorney

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

# UNITED STATES PATENT OFFICE.

WILLIAM S. WALLACE, OF MOUNT VERNON, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIS DUFF GREEN, OF SAME PLACE.

## IMPROVEMENT IN BRICK-MACHINES.

Specification forming part of Letters Patent No. **161,580**, dated March 30, 1875; application filed December 29, 1874.

*To all whom it may concern:*

Be it known that I, WILLIAM S. WALLACE, of Mount Vernon, in the county of Jefferson and State of Illinois, have invented certain new and useful Improvements in Brick-Machines; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents a vertical side elevation of my improved brick molding and pressing machine. Fig. 2 shows a vertical end view of the same. Fig. 3 shows a plan or top view of the same. Fig. 4 is a horizontal sectional view of the same through the mold and feeding device.

My invention consists in the simplified mechanism for alternately operating two or more molds, feeding in the clay, pressing and discharging the brick.

To enable others to make and use my improved brick-machine, I will describe it in detail, referring to the drawings and the letters thereon.

I make a substantial frame of timber of suitable strength and dimensions, to which the molds A A are fitted on opposite sides; each mold being provided with a hopper, B, inside of the frame, into which the clay is put for molding, the mouth of the hopper B being directly over the feeding device C, which lies horizontally in line with the top of the mold A, and alternately slides in and out by the action of the cam D on the vertical shaft E, which is placed centrally in the frame to operate two or more molds, and all the other movements necessary to form and discharge the brick. On the shaft E, at a suitable distance above the cam D, is placed an eccentric, F, which works in a stiff sliding bar, G, against friction-rollers *f f*, the bar G connecting at both ends with the toggle-joint bars *h h*, that connect with and operate the plungers *d d*, that press the clay into the mold A to form the brick. The plungers *j* are operated by levers H, extending to the center shaft E, on the bottom of which is another cam, I, that works in time to alternately lift the brick out of the mold.

The frame of my improved brick-machine may be so constructed as to admit of from two to twelve molds, and the arrangement of mechanism, as above described, operate them all from one central shaft and set of cams. The frame may be made oblong, as herein shown, for operating two molds, and should be made square for four molds, and hexagonal, octagonal, or round for six or more molds, as may desired.

The main vertical shaft E may be driven by water-power, steam, or other motive power, which puts the whole arrangement of mechanism in motion, the force being equalized, as no two sets of the devices are doing the same thing or performing the same function at one and the same time.

Having thus fully described my improvements in machinery for making brick, what I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the vertical shaft E, eccentric F, friction-rollers *f f*, and rigid sliding bar G, connected with the toggle-jointed levers *h h*, and plunger *d*, substantially as and for the purposes herein set forth.

In testimony whereof I hereunto subscribe my name.

WM. S. WALLACE.

Witnesses:

MARK BURROUGHS,

A. C. COURTNEY.