

(No Model.)

2 Sheets—Sheet 1.

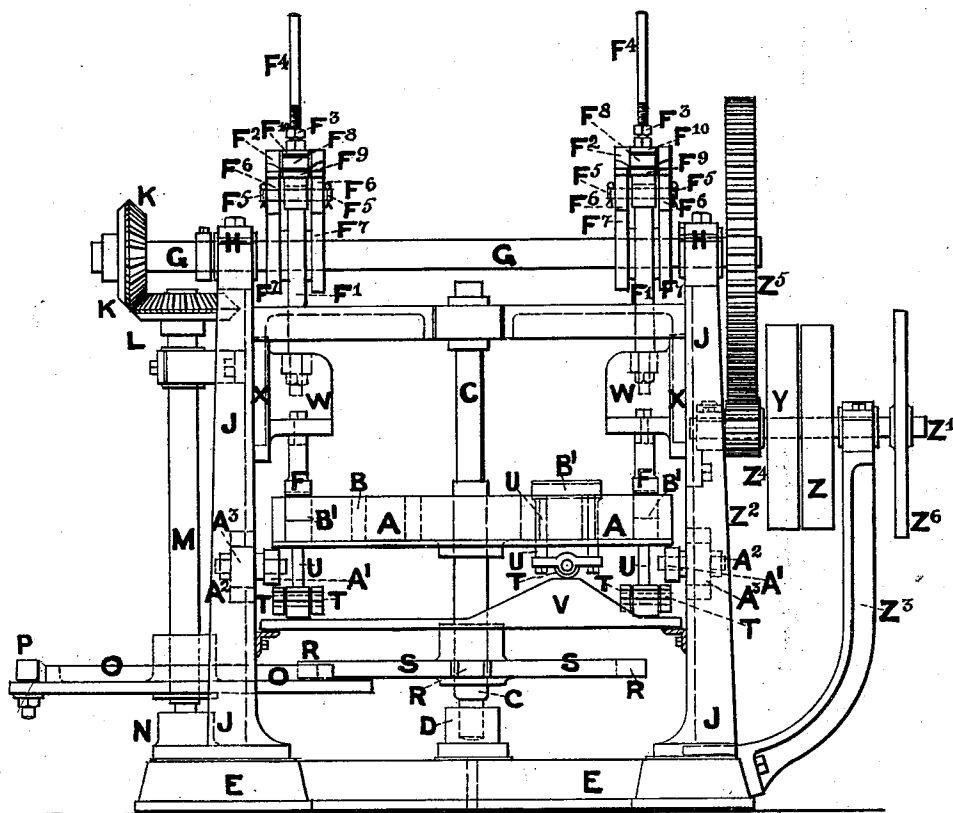
W. A. GILL.

MACHINE FOR MOLDING AND PRESSING BRICKS OR THE LIKE.

No. 544,090.

Patented Aug. 6, 1895.

FIG. 1.



Witnesses
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William Arthur Gill

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

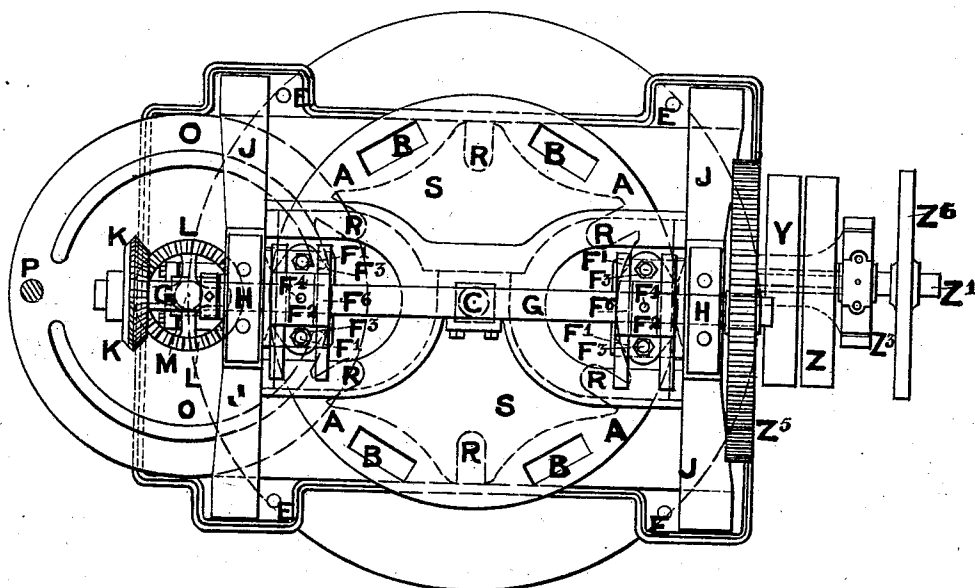
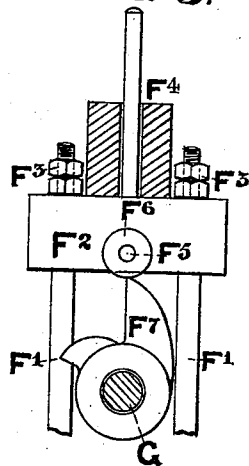


FIG. 3.



Witnesses
Herbert Quinn
Jabez Bullus

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM ARTHUR GILL, OF LEEDS, ENGLAND.

MACHINE FOR MOLDING AND PRESSING BRICKS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 544,090, dated August 6, 1895.

Application filed January 23, 1895. Serial No. 535,915. (No model.) Patented in England February 2, 1894, No. 2,301.

To all whom it may concern:

Be it known that I, WILLIAM ARTHUR GILL, a subject of the Queen of Great Britain, residing at Leeds, in the county of York, England, have invented certain new and useful Improvements in Machines for Molding and Pressing Bricks or the Like, (for which I have obtained a patent in Great Britain, No. 2,301, dated February 2, 1894,) of which the following is a specification.

My invention has reference to improved machines for molding and pressing bricks and the like.

Figure 1 is a front elevation of my invention. Fig. 2 is a plan. Fig. 3 is a detail view of cam mechanism for imparting the pressing action to the dies or presser-blocks.

According to my invention I employ a table A, having a series of molds B arranged therein. This table A is carried upon a vertical shaft C rotating in a step or bearing D at its lower end, upon the foundation-plate E of the machine. Above the said table A are the dies or presser-blocks F connected, as hereinafter explained, by shafts or rods to cranks or cams upon a horizontal shaft G supported in pedestals H upon the frame of the machine. The end of the said shaft G carries a bevel-wheel K, which gears with another bevel-wheel L upon a vertical shaft M, the lower end of which works in a step or bearing N upon the foundation-plate E of the machine. This vertical shaft M carries a pin-wheel or wheel O with a pin or pins P, adapted to engage in slots R upon a star-wheel S upon the other vertical shaft C, rotating the molding table A, so as to move the said table or bring the molds B into position for the dies or presser-blocks F to impart their pressing action, and then when the crank reverses, or the action of the cams in lieu thereof, withdraws the dies or presser-blocks F after the pressing action to allow the table A to move or turn and bring the next molds B into position for the action of the dies or presser-blocks F at the same time the panels B' of the other molds are raised by runners T, rods U, and inclined planes V, so as to bring the brick or other pressed material to the top of its bed ready for removal.

The dies or presser-blocks F are preferably carried by sliding brackets W, adapted to

slide upon the faces X of the frame J. The dies or presser-blocks F are also provided with an india-rubber or other elastic cushion, such as a rubber ring or spiral spring to compensate for or regulate the pressure according to the thickness of the substance to be pressed.

In the drawings annexed the dies or presser-blocks F are shown as operated by cam mechanism, by which means the dies or presser-blocks F receive a direct "drop" pressure by means of weights, each brick or tablet receiving a double pressure by means of the double cams at each revolution.

Referring to the said drawings, the dies or presser-blocks F are joined to the sliding brackets W, to which rods F' are also connected. These rods pass upward through blocks F² and are secured by lock-nuts F³. Upon the said blocks F² are guide-spindles F⁴, by which weights can be held upon the top of the said blocks for giving the drop pressure referred to. Passing through the said block F² is a pin or stud F⁵, upon the ends of which are runners F⁶, immediately over cams F⁷ upon the horizontal shaft G. F⁸ are rubber washers between flanges F⁹ and washers F¹⁰ to compensate for concussion on the rods F' during the pressing action.

Instead of using weights upon the blocks F² spiral springs may be arranged thereon to work against abutments, so that on the lifting up of the blocks by the action of the cams upon the runners, the said springs would be compressed, and on the cams clearing the runners the springs would expand and force the dies or presser-blocks down again to give the pressing action, or crank-motion may be employed for operating the dies or presser-blocks. In this case the shaft G is cranked and connecting-rods pass from the said cranks to the dies or presser-blocks which are joined to the sliding blocks.

In lieu of imparting motion to the dies or presser-blocks by the mechanism aforesaid, I may employ toggle mechanism for that purpose.

The machine or apparatus is driven by belt upon fast pulley Y, Z being the loose pulley. Both the said pulleys are upon a shaft Z' carried in bearing Z², bolted on the frame J and bracket-arm Z³. Upon the said shaft Z' is a pinion Z⁴, which gears with a spur-wheel Z⁵

upon the horizontal shaft G, by which motion is given to the said shaft G, and through it to the other parts.

5 A' represents runners for the molding-table A to revolve on. They are carried on pins or studs A², passing through brackets A³ on the frame J'.

10 Z⁶ is a hand-wheel upon the shaft Z' for rotating the molding-table, so that the molds are alternately brought away from the dies or presser-blocks and can have the tablets or material to be pressed placed therein.

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

15 The combination, with the vertical rods F'

and the dies F operatively connected with the said rods, and the nuts F⁸ and the washers F¹⁰ carried by the said rods; of the weighted block F² engaging with the said rods, and provided with rollers F⁶ journaled on pins projecting 20 from its sides; the cushions F⁸ interposed between the blocks F² and the said washers; and the revoluble cams arranged under the said rollers and operating to raise the said dies, substantially as set forth.

WILLIAM ARTHUR GILL.

Witnesses:

HERBERT DUNN,
JABEZ BULLUS.