

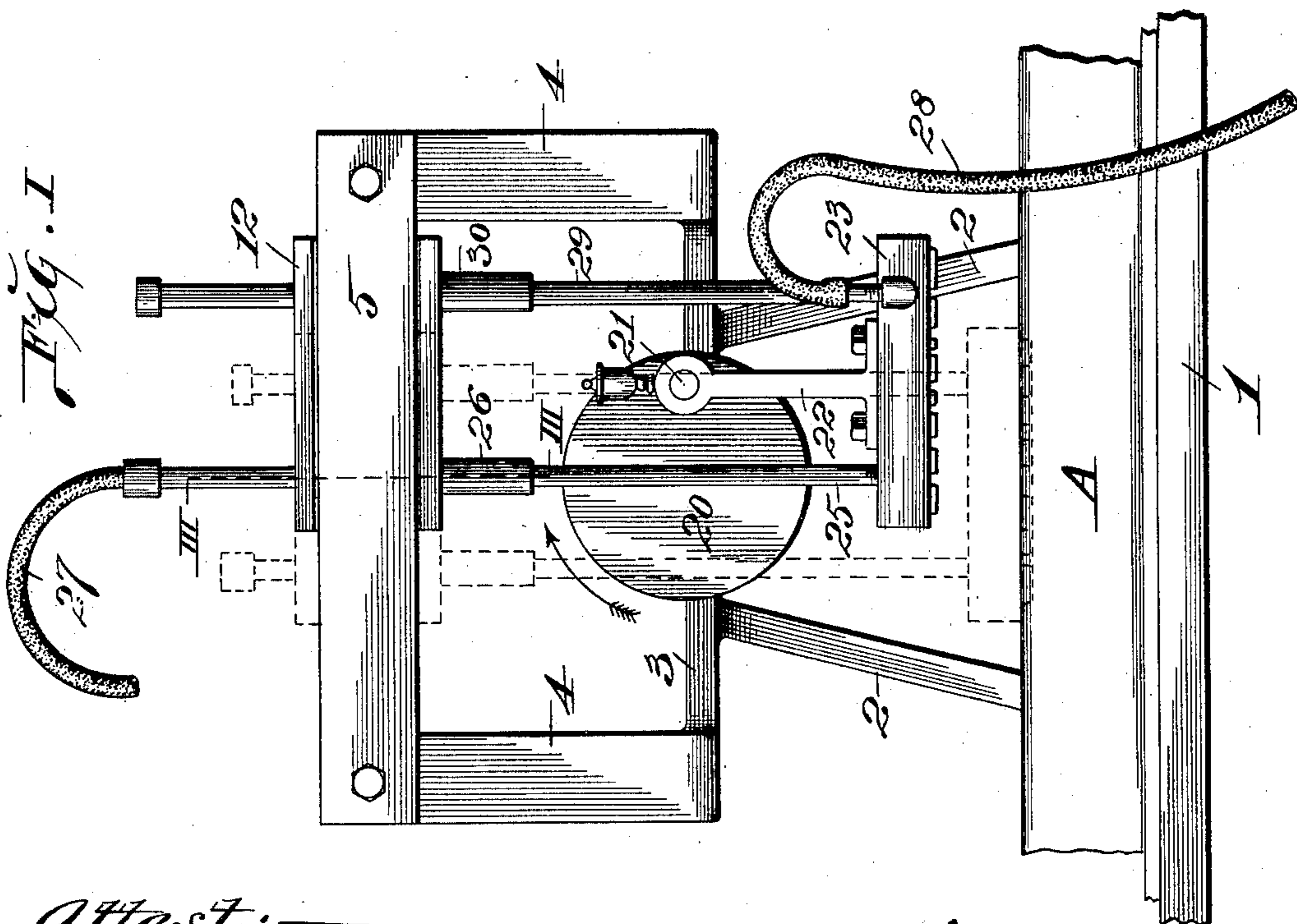
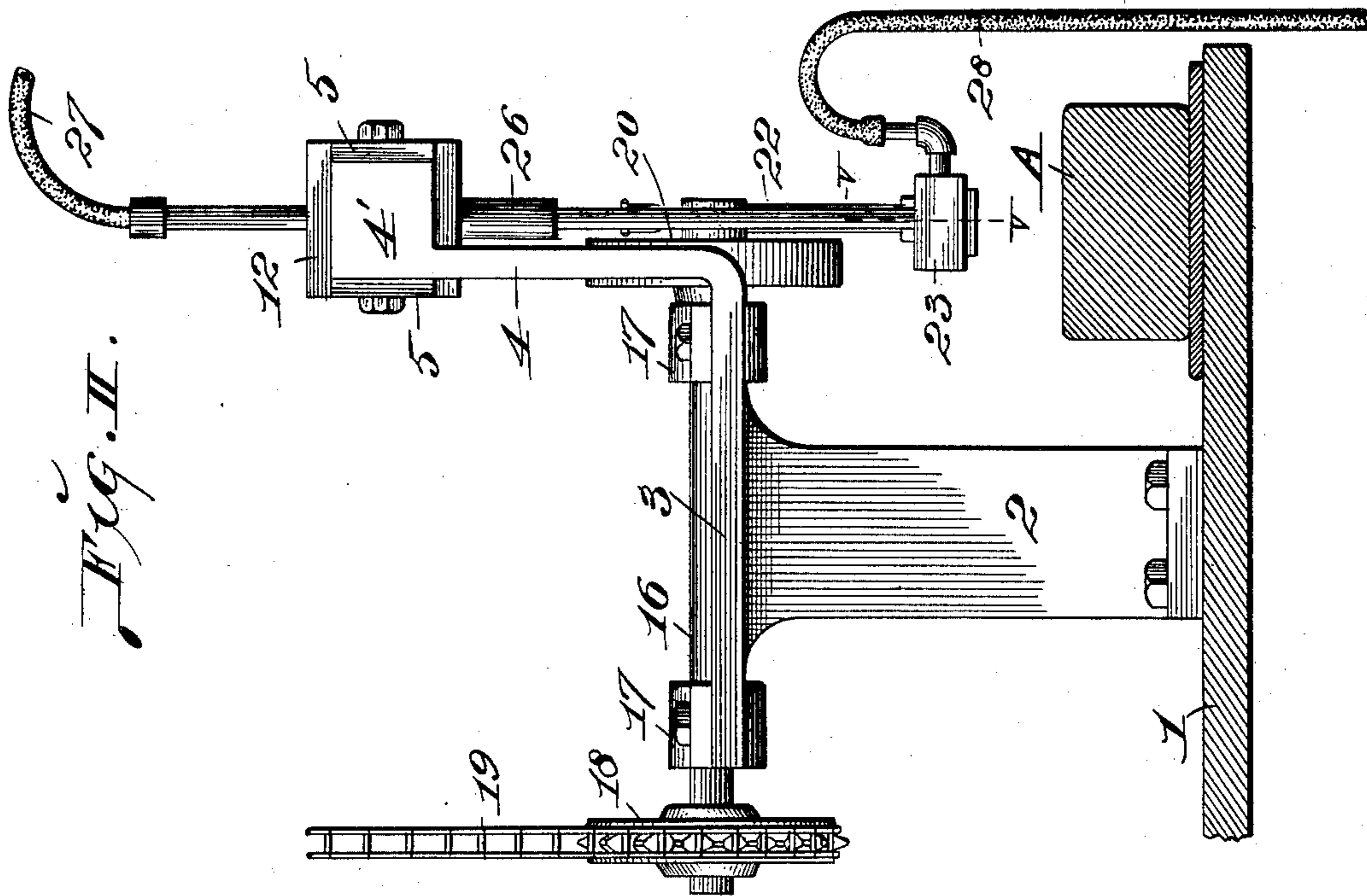
No. 756,677.

PATENTED APR. 5, 1904.

F. W. MILES.
BRICK STAMPING MACHINE.
APPLICATION FILED DEC. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Attest:—
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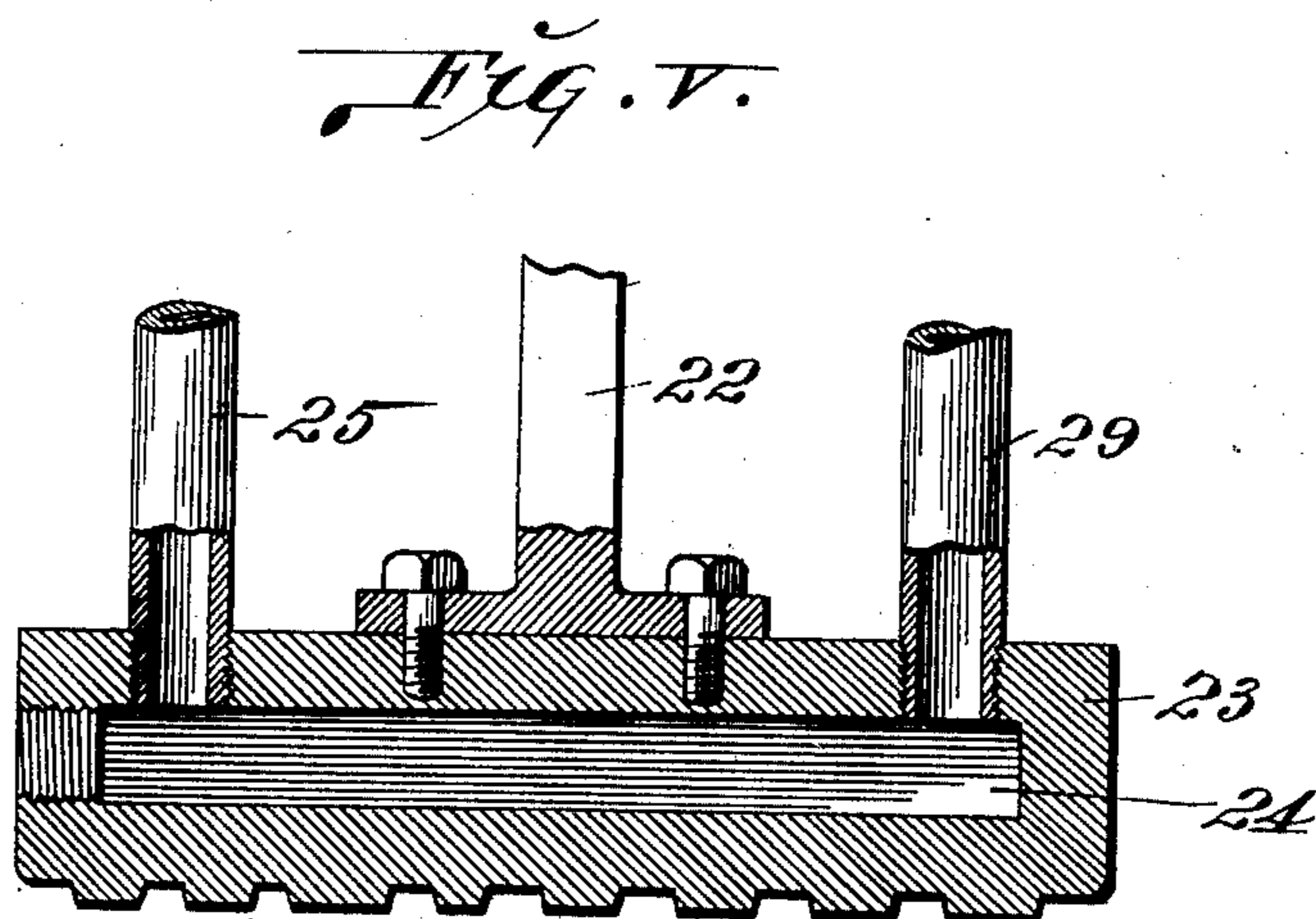
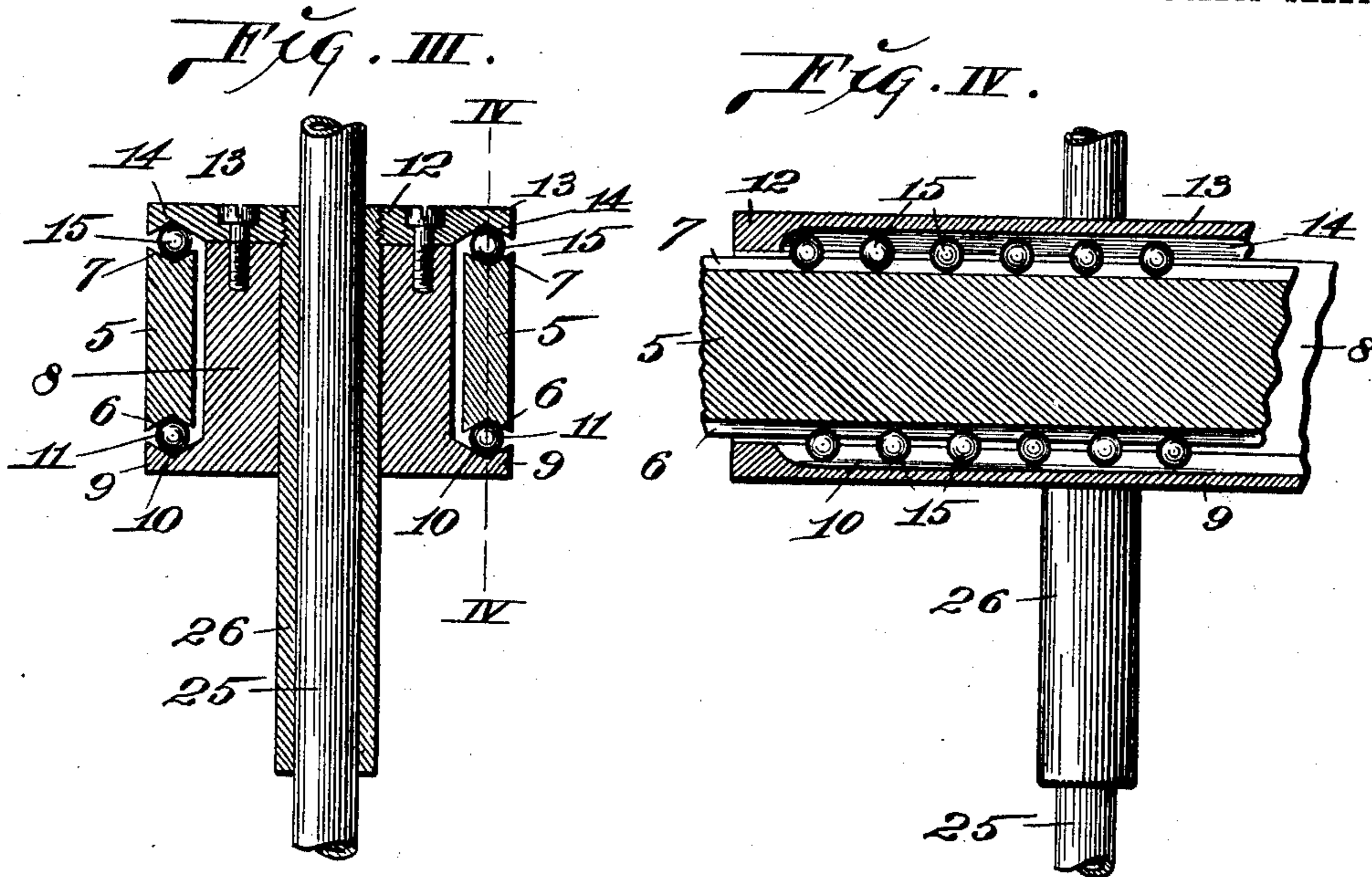
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

FRANK W. MILES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO HYDRAULIC PRESS BRICK COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

BRICK-STAMPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 756,677, dated April 5, 1904.

Application filed December 21, 1903. Serial No. 185,988. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. MILES, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have
 5 invented certain new and useful Improvements in Brick-Stamping Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 My invention relates to a machine for impressing into or upon bricks the name of the manufacturer or for marking them by a stamping operation to indicate their origin.

15 The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a front elevation of my machine. Fig. II is a side elevation. Fig. III is an enlarged vertical section taken approximately
 20 on line III III, Fig. I. Fig. IV is a vertical section taken on line IV IV, Fig. III. Fig. V is an enlarged vertical longitudinal section taken through the stamping-die of the machine on line V V, Fig. II.

25 1 designates the table of my machine, onto which the bricks to be stamped are fed.

A indicates a brick strip, which is made in a continuous form to be first impressed and afterward cut up into lengths corresponding
 30 to the size of the bricks being made. So far as my invention is concerned, however, it is immaterial whether the process of making the bricks be that stated or the bricks be first made of the required size and operated upon
 35 in my machine.

2 designates the legs or supports of my machine, which are mounted on the table 1 and are surmounted by a frame 3, having vertical
 40 standards 4.

5 designates track-rails bolted or otherwise secured to the upper ends of the uprights 4, which uprights are preferably widened, as
 45 seen at 4', Fig. II, to space the track-rails a desirable distance apart. In the lower edges of the track-rails 5 are runways 6, and in the upper edges of said rails are runways 7. (See Figs. III and IV.)

8 designates a reciprocating carriage positioned between the track-rails 5 to move to

and fro in such position, the carriage being
 50 furnished at its lower end with outwardly-projecting longitudinal arms 9, containing at their upper sides runways 10, which oppose the runways 6 of the track-rails 5. Interposed between said track-rails and runway-
 55 arms are bearing-balls 11, that serve to direct the travel of the carriage 8 and as an antifric-tion-bearing between said members.

12 is a cap secured to and forming a part of the carriage 8. This cap is furnished with
 60 longitudinal arms 13, projecting over the upper edges of the track-rails 5 and provided with runways 14. Situated between the track-rails and the runway-arms 13 are antifric-tion and guiding bearing-balls 15.

16 designates a driven shaft rotatably mounted in boxes 17, supported by the frame 3. Rotation is imparted to this shaft through the
 65 medium of a driven wheel 18, fixed to its rear end and which receives a drive chain or belt 19, that leads from a suitable source of power.

20 designates a crank-wheel fixed to the forward end of the driven shaft 16. This crank-wheel is provided with a wrist-pin 21, that
 70 projects from its front face.

22 designates a pitman journaled to the wrist-pin 21.

23 designates a die that is secured to the pitman 22 and bears at its lower side any characters which it may be desired to impress onto
 80 the bricks being stamped. (See Figs. I and V.) The die 23 is provided interiorly with a chamber 24 that renders it hollow to receive a constant supply of steam, hot air, or other heating medium. 25 is a conducting-pipe secured
 85 to the die 23 and projecting upwardly therefrom. This conducting-pipe passes through a sleeve 26, seated in the carriage 8, and to the upper end of said pipe is secured a flexible pipe 27. The heating medium, such as steam,
 90 to supply heat to the die 23 is conducted through the pipes 27 and 25 into the die-chamber and is discharged from said chamber through a flexible discharge-pipe 28, connected to the die and having communication with the
 95 chamber therein.

29 designates a guide secured to the die 23 and projecting upwardly therefrom and

through a sleeve 30, carried by the carriage 8. This guide is preferably in the form of a pipe, but may be a rod.

In the practical use of my stamping-machine the strip of brick material or bricks are fed across the table 1 of the machine beneath the die 23, so as to be in a position to receive the die when lowered thereto. In the stamping operation the driven shaft 16 is rotated, thereby communicating motion through the medium of the crank-wheel 20 and pitman 22 to the die 23. The die is thereby raised and lowered with a reciprocating motion to carry it to the material being operated upon, and during such reciprocation of the die its vertical travel is directed by the heat-medium-conducting pipe 23 and guide 29, which operates loosely through the carriage 8. As the crank-wheel 20 imparts reciprocation to the die 23 the carriage 8 is reciprocated horizontally through the medium of the pipe 25 and guide 29, operating therethrough and to which travel is imparted by the die. This horizontal reciprocation of the carriage is rendered easy by reason of the antifriction-bearings interposed between the carriage and the track-rails by which the carriage is supported and guided.

I claim as my invention—

1. In a machine of the character described, the combination of a table, a reciprocatory chambered die located above said table, a reciprocatory carriage, guiding means carried by said die operating through said carriage,

and means for reciprocating said die, substantially as set forth.

2. In a machine of the character described, the combination of a table, a reciprocatory chambered die located above said table, a reciprocatory carriage, guiding means carried by said die operating through said carriage, means for reciprocating said die, and means for conducting heating medium to said die, substantially as set forth.

3. In a machine of the character described, the combination of a table, a reciprocatory chambered die surmounting said table, means for reciprocating said die, a reciprocatory carriage, a heating-medium-conducting pipe carried by said die, and operating loosely through said carriage, and a guide carried by said die and operating loosely through said carriage, substantially as set forth.

4. In a machine of the character described, the combination of a table, a frame surmounting said table, track-rails supported by said frame, a reciprocatory carriage traveling in engagement with said track-rails, a reciprocatory die, means for imparting reciprocation to said die, heating-medium-conducting pipe carried by said die and operating loosely through said carriage, and a guide carried by said die and operating loosely through said carriage, substantially as set forth.

FRANK W. MILES.

In presence of—

E. S. KNIGHT,
BLANCHE HOGAN.