

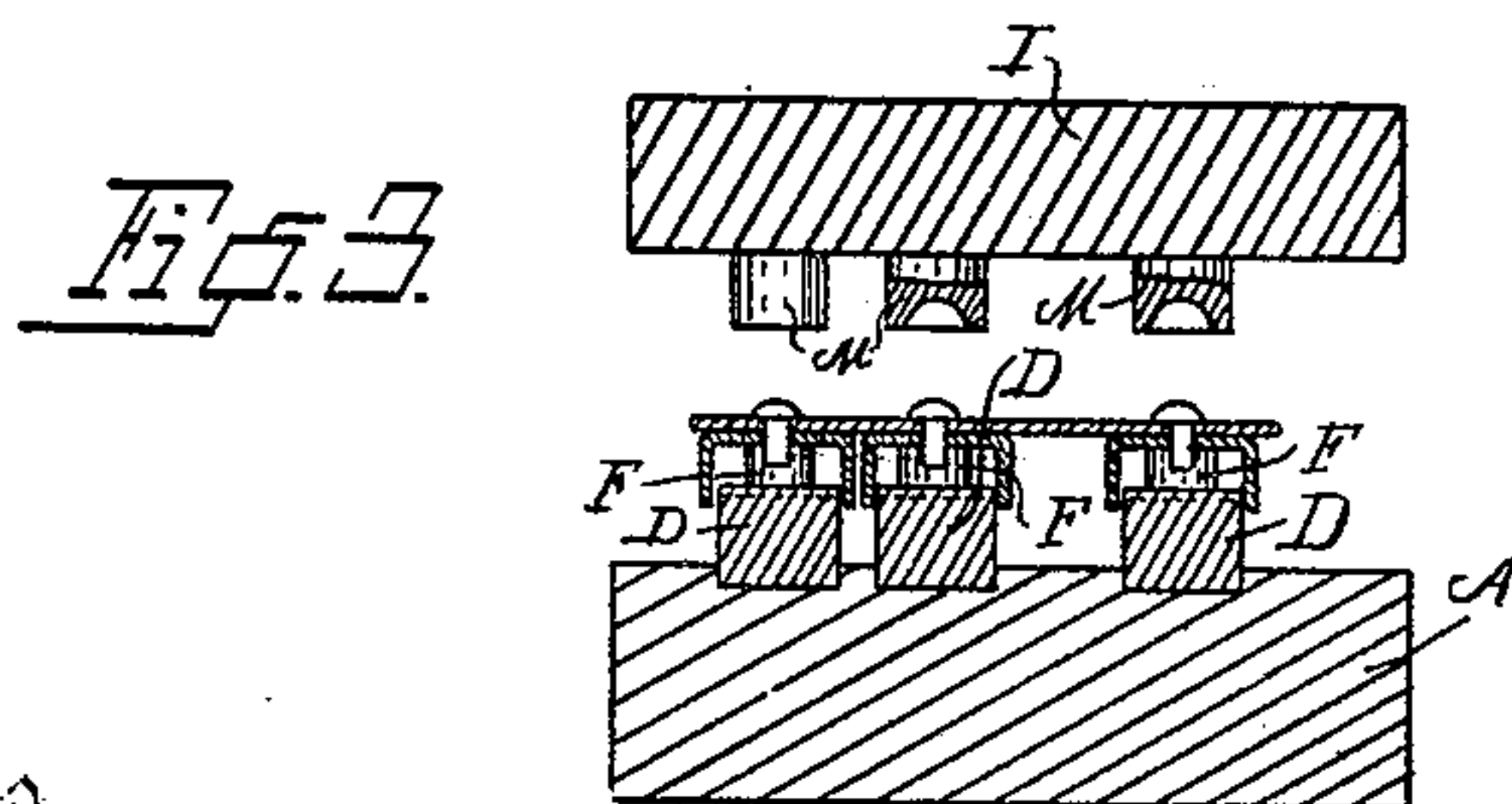
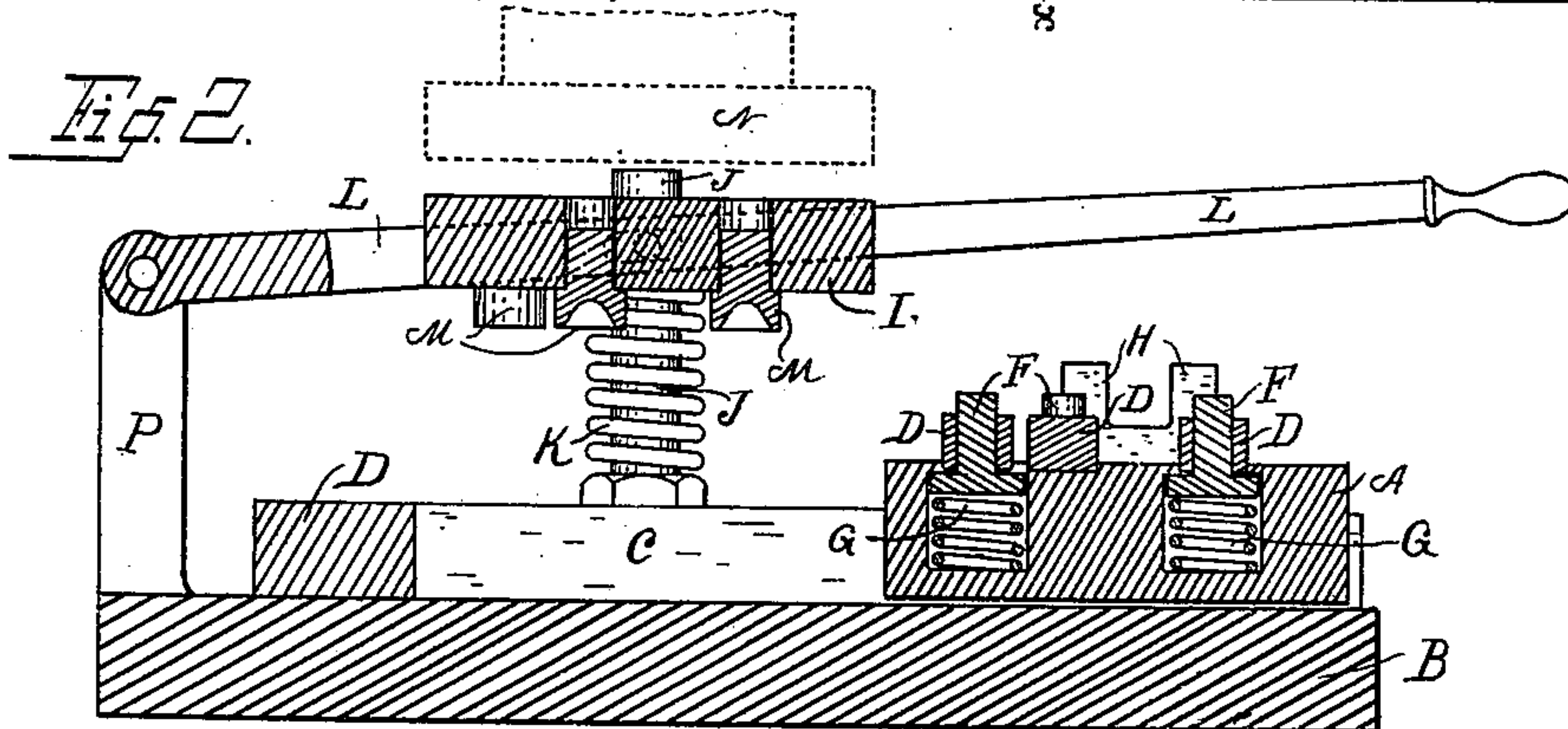
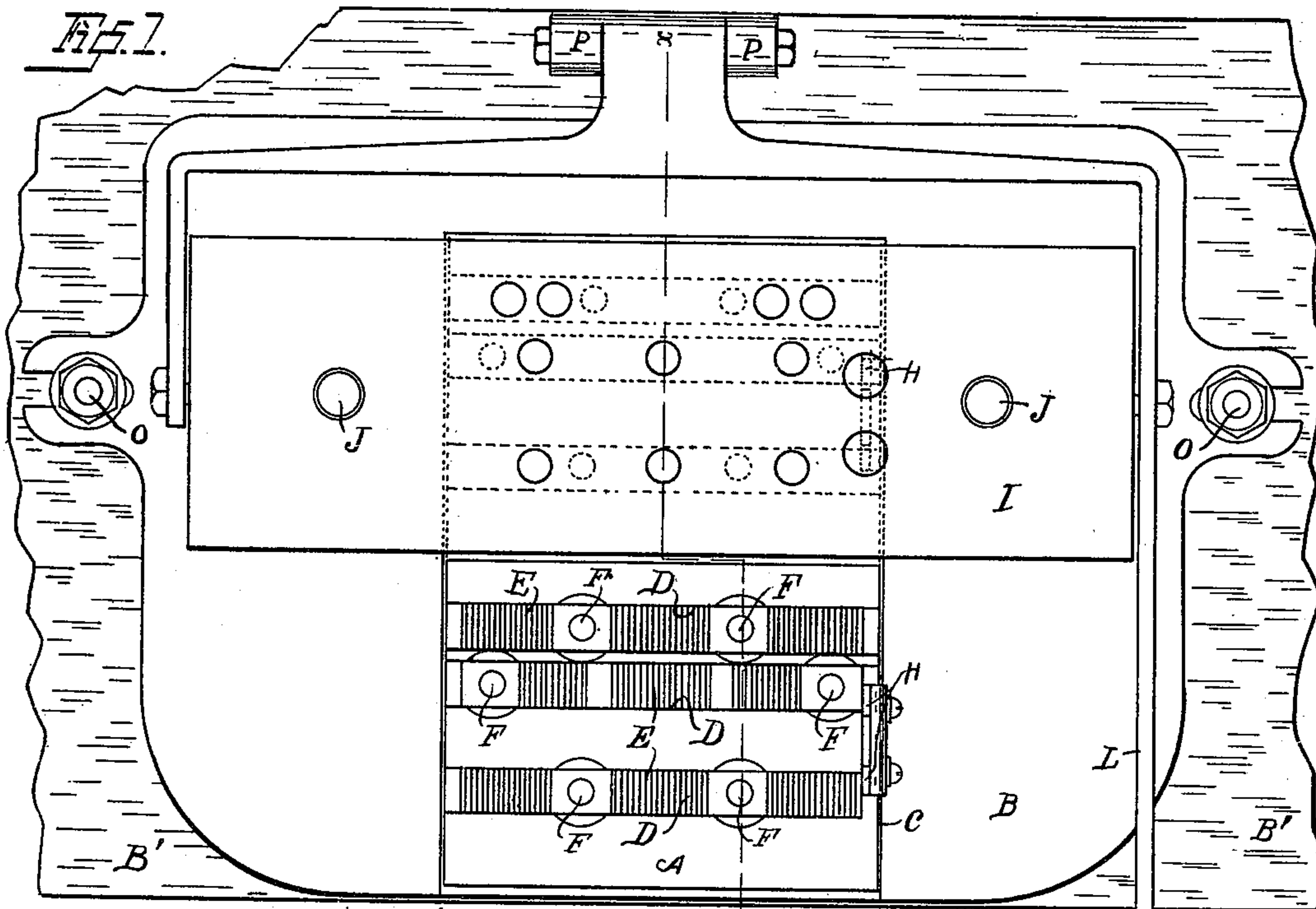
No. 644,672.

Patented Mar. 6, 1900.

J. F. JOHNSON.
RIVETING MACHINE.

(Application filed Oct. 19, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB F. JOHNSON, OF RACINE, WISCONSIN.

RIVETING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 644,672, dated March 6, 1900.

Application filed October 19, 1899. Serial No. 734,058. (No model.)

To all whom it may concern:

Be it known that I, JACOB F. JOHNSON, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented new and useful Improvements in Riveting-Machines, of which the following is a specification.

My invention relates to improvements in riveting-machines, and pertains especially to the construction of riveting-dies adapted to be used in any ordinary form of riveting or stamping machine provided with a reciprocating puncher-head.

The object of my invention is to provide means whereby all the rivets may be headed simultaneously on a given piece of work.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a top view of my invention. Fig. 2 is a sectional view of the same, drawn on line X X of Fig. 1. Fig. 3 is a detail sectional view of a portion of the bed-plate and upper die-plate, showing the material thereon in position for riveting.

Like parts are identified by the same reference-letters throughout the several views.

A is the lower die-plate or platen, adapted to slide to the front or rear upon a bed B, which is secured to the work-table B' of the riveting or stamping machine to which my invention is applied. Care guide-bars located on the bed B in a position to hold the platen A from moving laterally. Where the parts to the rivet are irregular in shape, the platen A is provided with a raised portion, such as the ribs or flanges D, which are preferably serrated or notched along their upper edges, as shown at E in Fig. 1. Buffer-pins F are supported by springs G, located in suitable sockets in the platen A, and project vertically through holes in the platen and the flanges D to a height above the flanges equal to the length of the rivets less the thickness of the material. The material is placed upon these pins and the rivets inserted in holes previously formed in the material therefor, the ends of the rivets passing through the material and resting upon the serrations E of the flanges D, as illustrated in Fig. 3. To facilitate placing the material in the proper position upon the platen, I have provided the same

with gage-fingers H, against which the material bears when in position.

An upper die-plate I is slidably supported on vertical posts J by means of springs K and is adapted to be forced downwardly into contact with the work by means of a lever L when the platen A is moved to the position indicated by dotted lines in Fig. 1. The plate I is provided with heading-dies M, preferably removable, which are adapted to contact with the heads of the rivets previously inserted in the work. When the punching-head N of the stamping or riveting machine is actuated in the usual manner, the die-plate will be forced downwardly, and as the material is supported upon the yielding pins F the rivet ends will be driven forcibly upon the serrations E, thus expanding the metal and riveting the parts of the material together.

Briefly reviewing the operation of my device, the bed-plate B is first secured to the work-table B' of the stamping-machine by bolts O, the lever L being fulcrumed to the post P in the rear. The platen A is then drawn outwardly, as shown in Fig. 2, and the material placed upon the pins L, when the rivets are dropped in place, the material having previously been perforated for the reception of the rivets. The platen is then moved backwardly under the die-plate I and the latter moved downwardly until the punches M engage the heads of the rivets, when the stamping-machine is set in motion to reciprocate the puncher-head N in the usual manner, the plate I being driven downwardly and all the rivets simultaneously set or riveted.

It will of course be understood that the platen and also the upper die are especially prepared with a view to the work to be performed, various plates and dies being provided and interchangeably used for the different classes of work. The platen and die shown in the drawings are especially adapted to be used in the construction of currycombs, the flanges or ribs D being adapted to fit into the toothed U-shaped bars, which are riveted to the under side of the back plate. Where two flat surfaces are to be riveted, the raised portions D may of course be omitted. It is also obvious that the upper die-plate may be secured to the puncher-head N, if desired,

thus dispensing with the spring K and lever I, but the construction shown is preferred.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a riveting or stamping machine, the combination with the work-table; of a platen mounted thereon, and provided with a series of elastic buffers adapted to support the material to be riveted; and a die-plate provided with a series of heading-dies, adapted to register with the rivet-heads, said die-plate being adapted to be actuated by the puncher-head of the machine, to which it is applied.

2. In a riveting or stamping machine, the combination with the work-table; a removable bed; a platen mounted thereon; a series of spring-supported buffer-pins located in sockets in the platen; and a die-plate provided with a series of heading-dies, adapted to register with the rivet-heads, said die-plate being adapted to be actuated by the puncher-head of the machine to which it is applied.

3. In a riveting or stamping machine, the combination with the work-table; of a removable bed; a platen mounted thereon; a series of spring-supported buffer-pins located in sockets in the platen; and a spring-supported die-plate provided with a series of removable heading-dies, adapted to register with the rivet-heads, said die-plate being adapted to be actuated by the puncher-head of the machine to which it is applied.

4. In a riveting or stamping machine, the combination with the work-table; of a platen mounted thereon; a gage secured to said platen; a series of spring-supported buffer-pins located in sockets in the platen; and a spring-supported die-plate provided with a series of heading-dies, adapted to register with the rivet-heads; said die-plate being

adapted to be actuated by the puncher-head of the machine to which it is applied.

5. In a riveting or stamping machine, the combination with the work-table; of a platen mounted thereon and provided with raised parts serrated or notched on their upper surfaces; a gage secured to said platen; a series of spring-supported buffer-pins located in sockets in the platen; and a spring-supported die-plate, provided with a series of heading-dies, adapted to register with the rivet-heads, said die-plate being adapted to be actuated by the puncher-head of the machine to which it is applied.

6. In a riveting or stamping machine, the combination with the work-table; of a platen mounted thereon; a series of spring-supported buffer-pins located in sockets in the platen; a spring-supported die-plate, provided with a series of heading-dies, adapted to register with the rivet-heads; and a lever for depressing the die-plate into contact with the work, said die-plate being adapted to be actuated by the puncher-head of the machine to which it is applied.

7. In a riveting or stamping machine, the combination with the work-table; of a platen slidably mounted thereon; a series of spring-supported buffer-pins located in sockets in the platen; and a spring-supported die-plate, provided with a series of heading-dies, adapted to register with the rivet-heads, said die-plate being adapted to be actuated by the puncher-head of the machine to which it is applied.

In testimony whereof I affix my signature in the presence of two witnesses.

JACOB F. JOHNSON.

Witnesses:

I. MARTIN J. GILLEN,
WM. SMIEDING, Jr.