

No. 827,568.

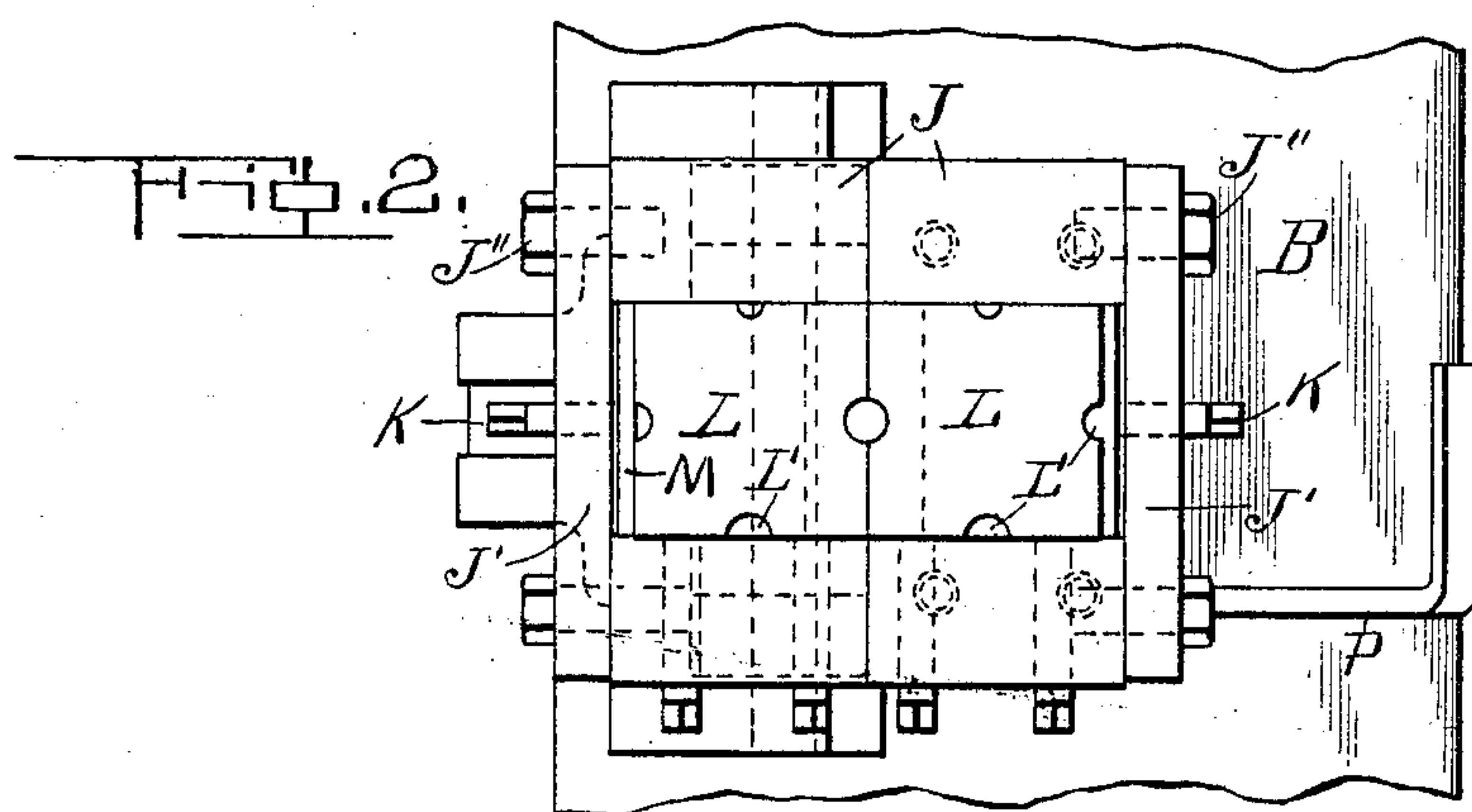
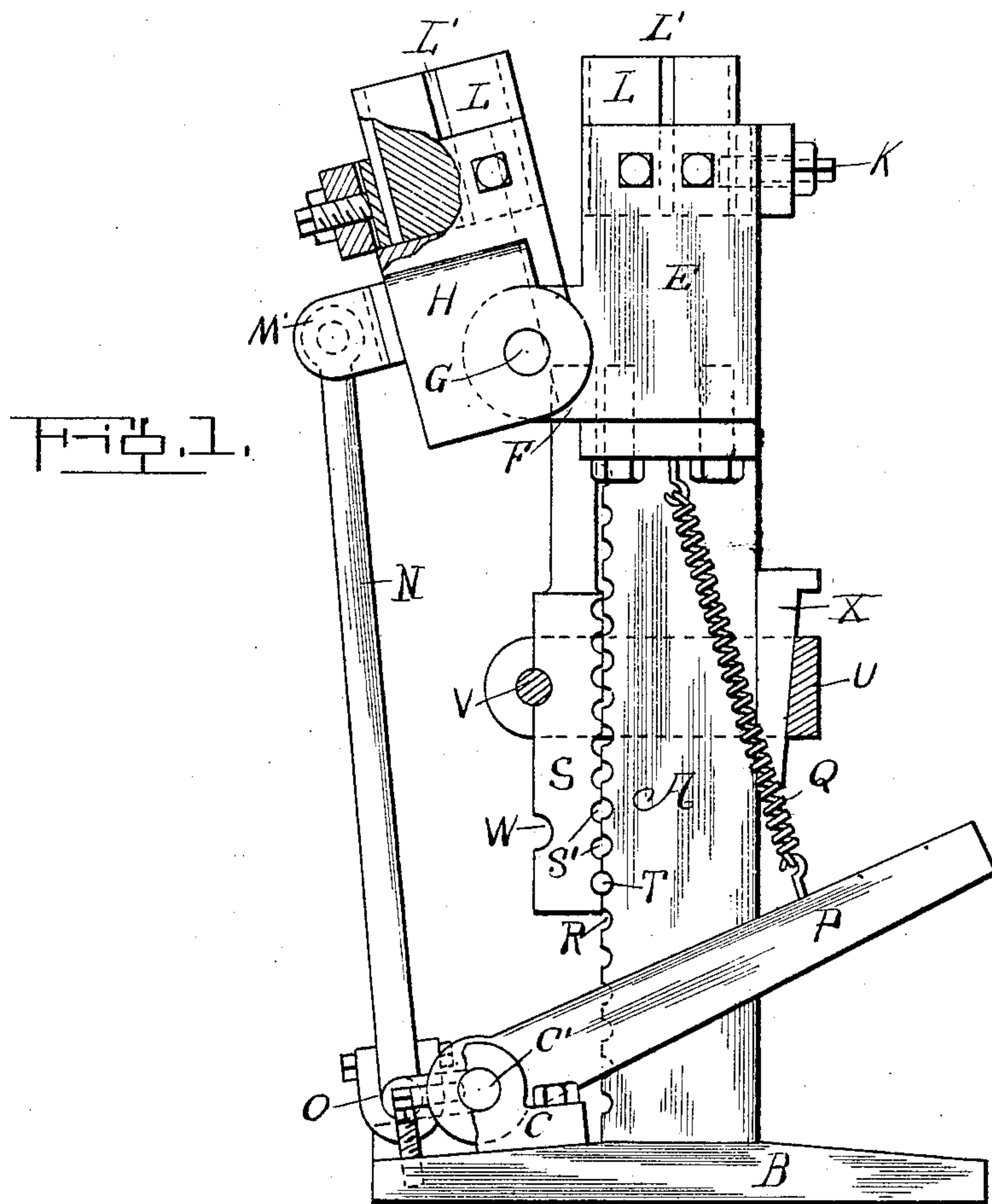
PATENTED JULY 31, 1906.

C. T. ROBERT.

BOLT HEADING AND BENDING MACHINE.

APPLICATION FILED JUNE 24, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

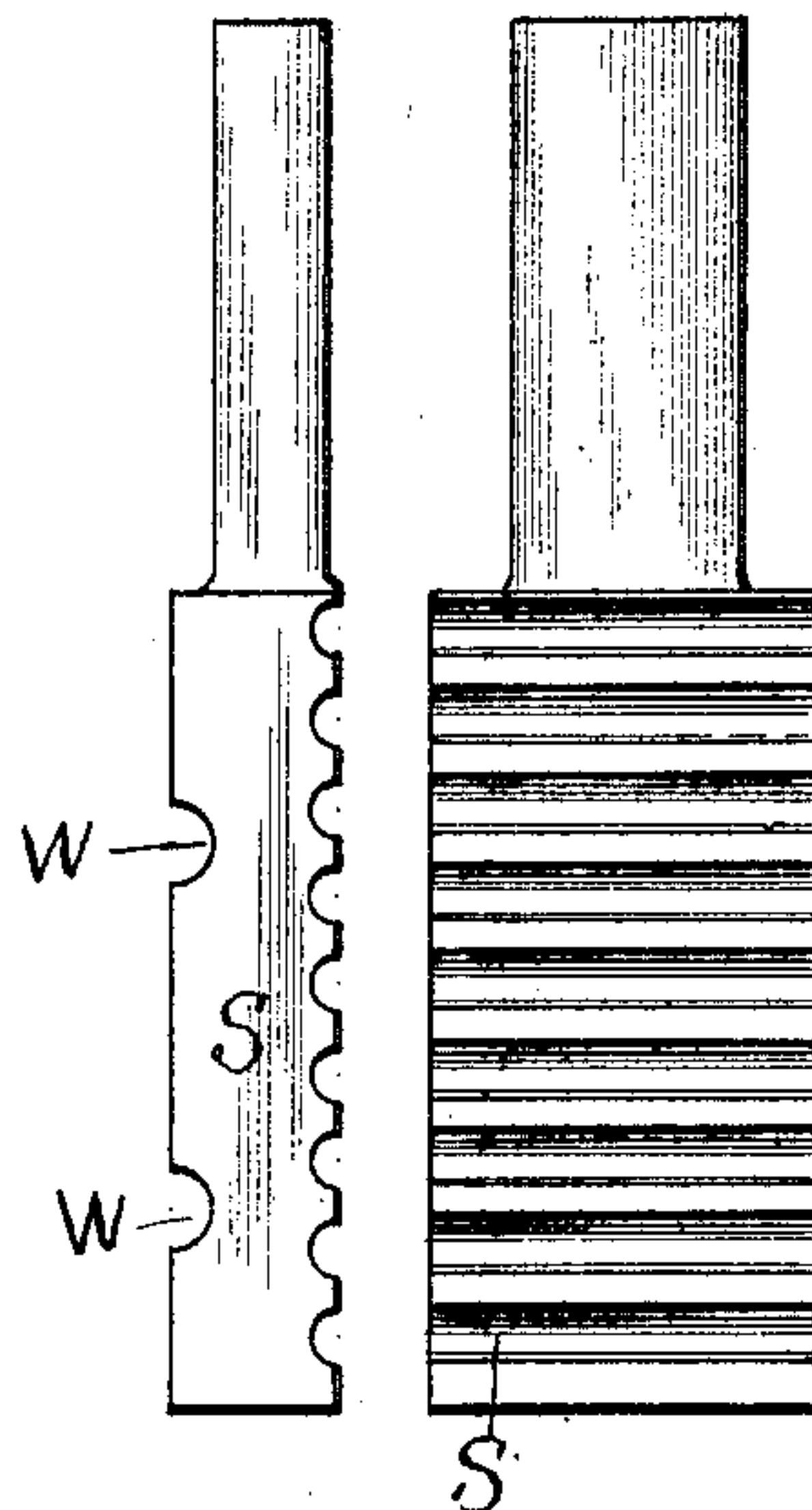


Fig. 3.

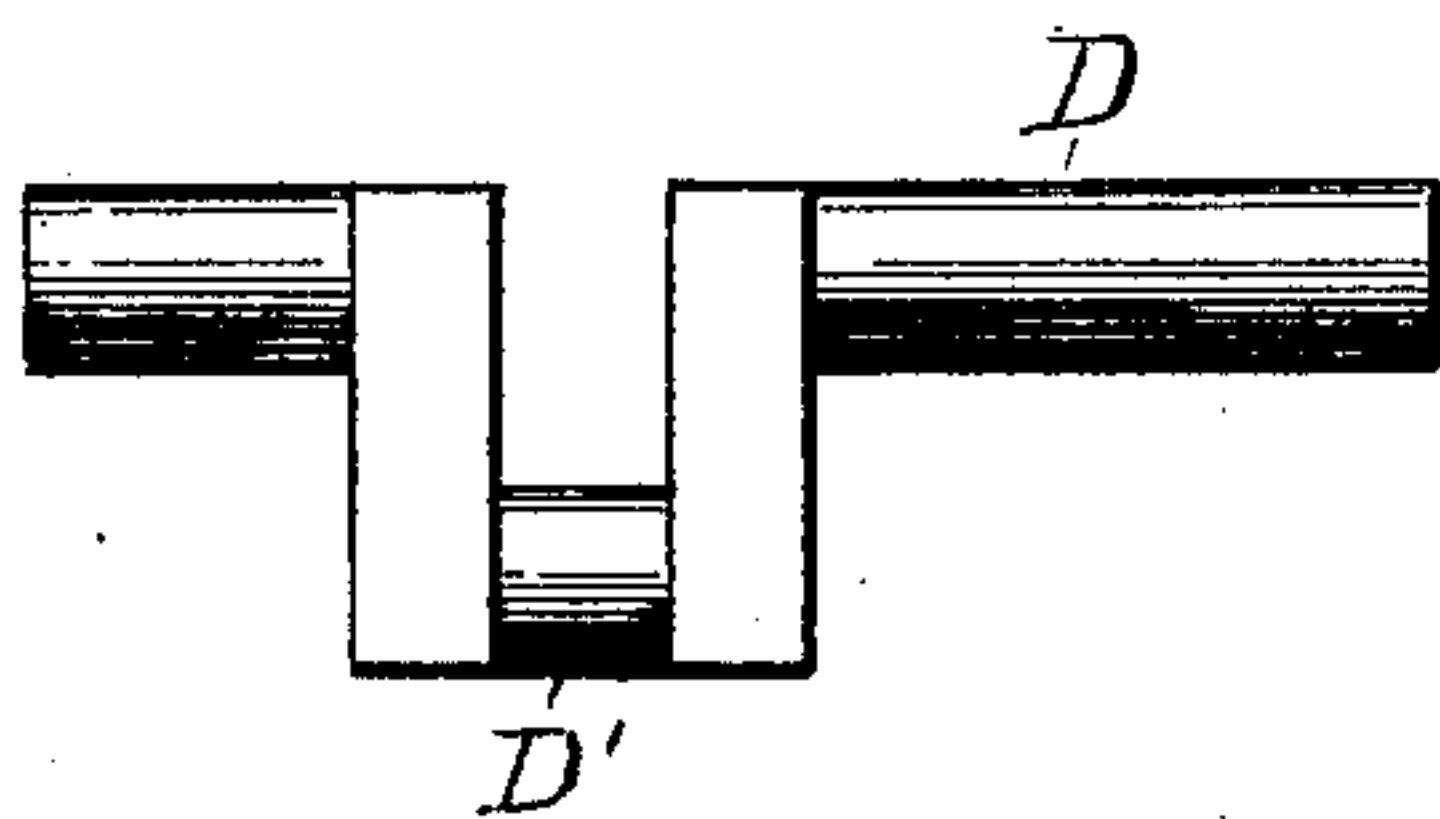


Fig. 4.

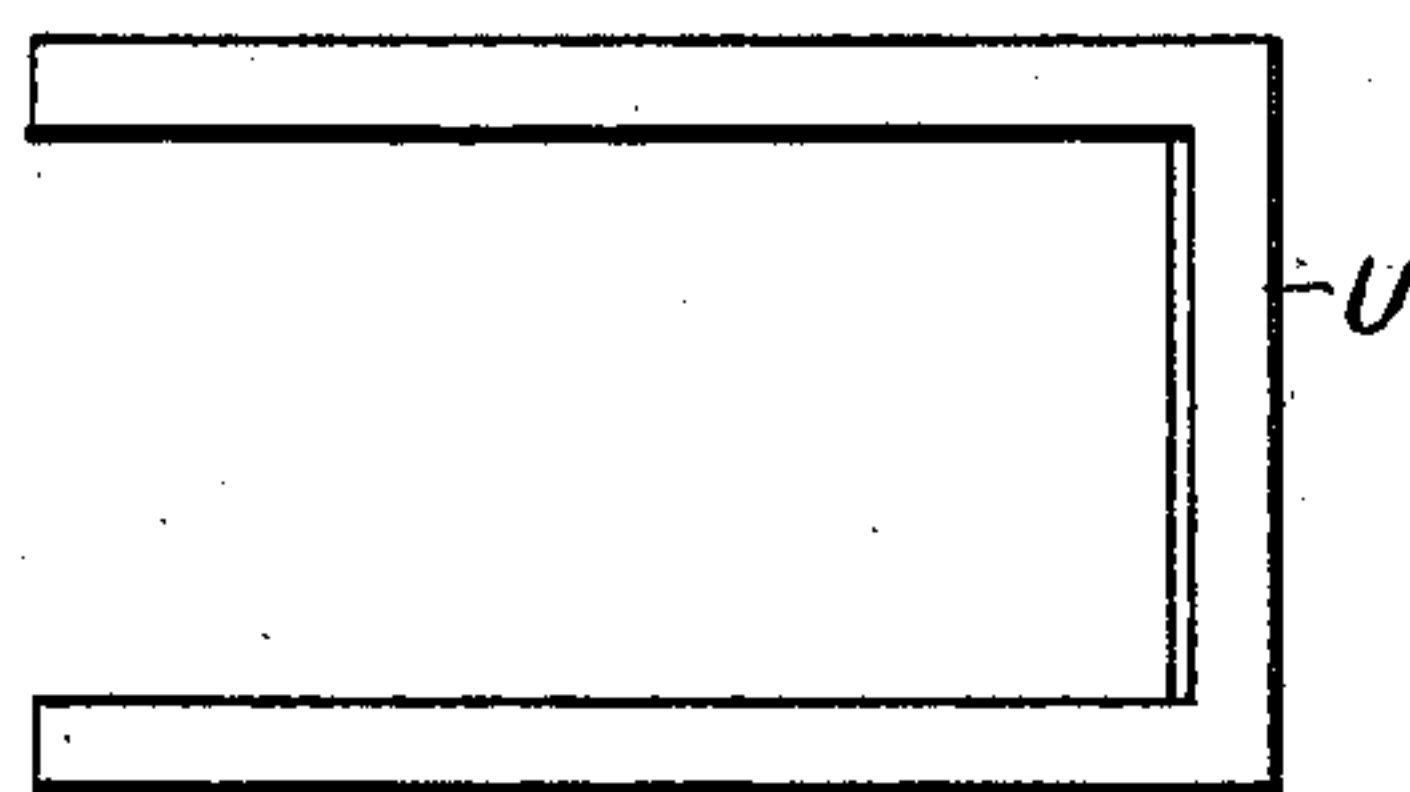


Fig. 5.

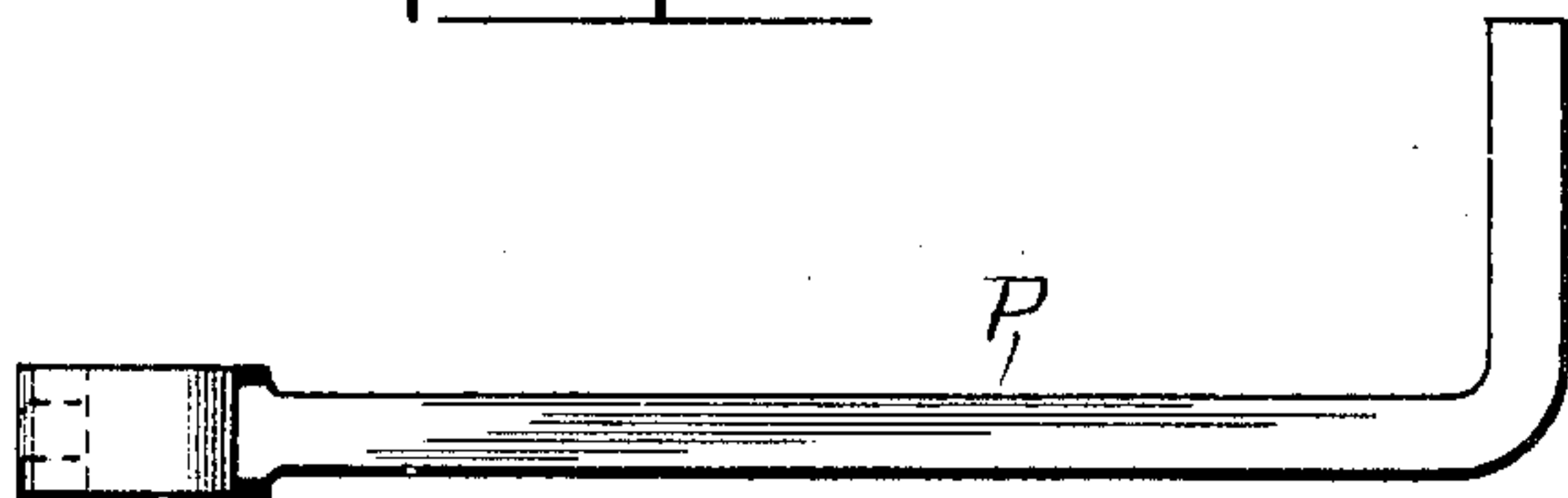
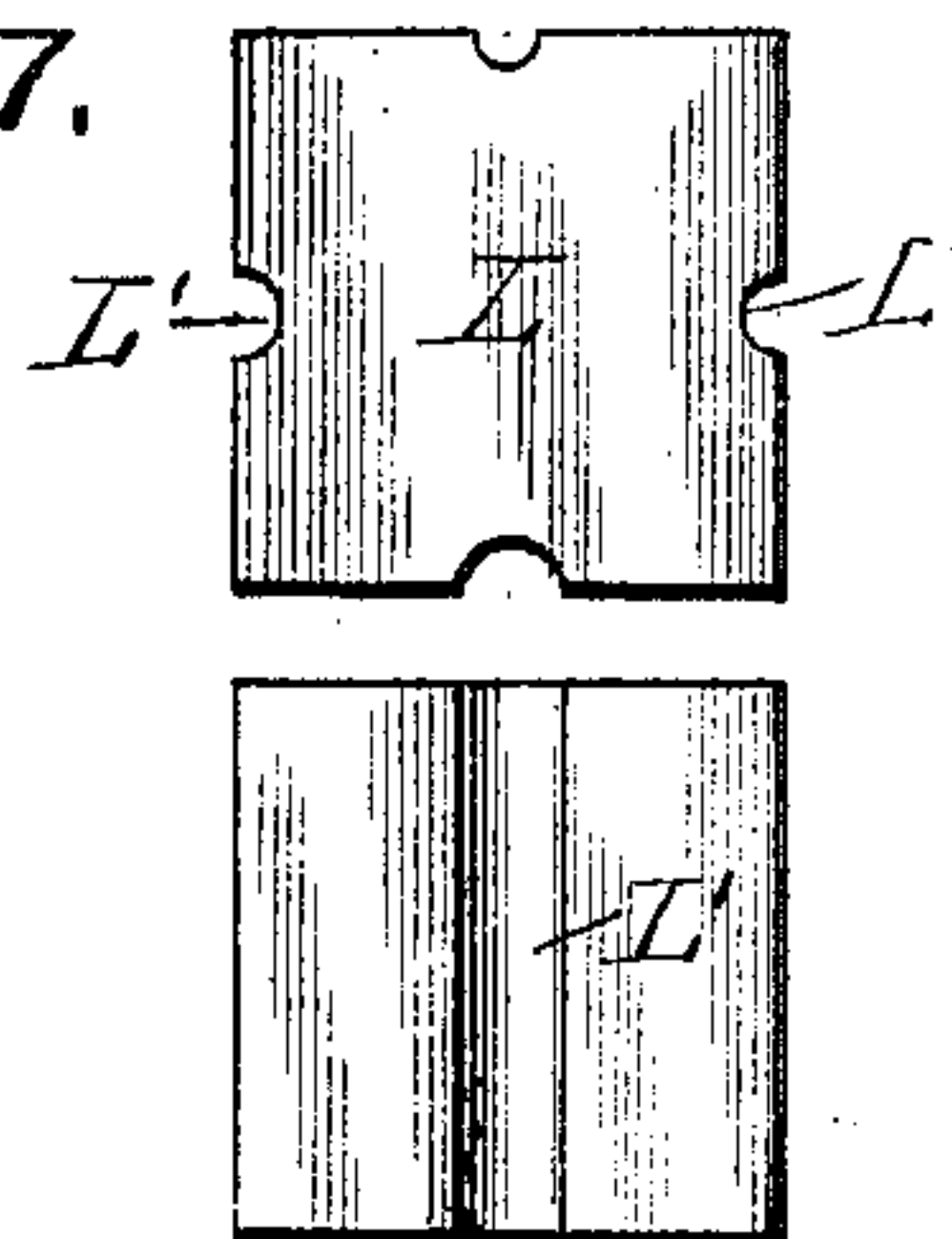


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES TREFFLÉ ROBERT, OF TURNERS FALLS, MASSACHUSETTS.

BOLT HEADING AND BENDING MACHINE.

No. 827,568.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed June 24, 1905. Serial No. 266,828.

To all whom it may concern:

Be it known that I, CHARLES TREFFLÉ ROBERT, a citizen of the United States, residing at Turners Falls, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Bolt Heading and Bending Machines, of which the following is a specification.

My invention relates to improvements in a combined bolt heading and bending machine, and refers particularly to a machine especially adapted to be used either as a bolt-heading machine or as a bending-machine and which will thereby have a wide range of work and usefulness.

One object of my invention is the provision of a device of the class described which may be used for heading bolts of various sizes and which is provided with means whereby the length of the bolt may be accurately regulated and which is so constructed as to be equally valuable also as a bending-machine in which rods or other stock may be easily bent at the proper angle.

Another object of my invention is the provision of a combined bolt heading and bending machine which is simple and durable in construction, effective in operation, and practical in every particular.

With these objects in view my invention consists of a stationary and a movable jaw, dies carried in said jaws and adapted to receive work of various sizes, means for opening and closing said jaws, and a gage for regulating the length of the work.

My invention further consists in certain other novel features of construction and combination of parts, substantially as disclosed herein.

Figure 1 represents a side elevation of my improved bolt heading and bending machine, showing the jaws open or in the position they normally occupy and the movable jaw partly in section to show the means for holding the dies in position. Fig. 2 represents a top plan view of the invention, showing the jaws in closed position and the means for holding and adjusting the dies in proper position. Fig. 3 represents a side elevation of the crank which forms the fulcrum for closing the jaws. Fig. 4 represents a detail view of the inclosing bracket or link for holding the gage in adjusted position. Fig. 5 represents a top plan view of the foot-lever which when depressed operates to close the jaws. Fig. 6 represents detail views of the gage for

adjusting the length of the work; and Fig. 7 represents detail views of the dies for use in the machine and which, as shown, adapt the machine for work of various sizes.

Referring to the drawings, the letter A designates the column or standard of the machine, which is suitably secured upon a base B of a sufficient size to insure steadiness and prevent overturning of the machine. To the base at one side of the standard are bolted or otherwise secured the brackets C, having the journal-bearings C' therein, in which is adapted to fit the crank-shaft D, formed with the crank D'. On the upper portion of the standard a head is provided consisting of the stationary member or jaw E, formed with an extension F, in which is pivoted at G the movable jaw H. These jaws consist of the side pieces J and the end bars J', secured thereto by bolts J''. Set-screws K are secured in the head to adjust the dies L in proper position, and plates M are provided to protect the dies from being bruised by the set-screws. As will be noted, these dies are square, and on four of their sides complementary grooves or notches L' are formed, so that the same dies may be used for different-sized material. On the movable jaw, on its outside face, extensions or brackets M' are formed and in which is pivoted the link N, provided on its lower end with the connecting-strap O, which connects the link to the crank D'. On the extended end of the crank-shaft is secured by set-screws or other suitable means the foot-lever P, which is normally held upward by the spring Q, thus holding the jaws normally in open position.

On the side of the standard to which the movable jaw is pivoted are formed semicircular recesses or grooves R, which are of any convenient size and are preferably spaced equidistantly. Adapted to rest against this face of the standard is the gage member S, provided on one face with semicircular recesses S' of the same size as those on the standard, but spaced differently, so that the gage may be adjusted by fractions of an inch by means of the adjusting pin or plug T, which is inserted in the hole formed by the corresponding notches. A link U is adapted to embrace the standard and the gage, and the link is prevented from slipping or moving on the gage by a pin V, passing through the link and engaging a semicircular recess W, formed in the gage. The link is made large enough so that there is a space left between

said link and the standard, and a wedge X is fitted in this opening to secure the link and gage in proper position. By means of this construction the gage is given a vernier adjustment and may be regulated to fractions of an inch, according as the grooves or recesses are spaced.

The bolt to be headed or the piece to be bent is placed in the head of the machine with its end resting on the top of the gage, and the jaw is closed by pressure on the foot-lever, and the necessary operations may then be performed with ease. To work with material of a different size, it is simply necessary to loosen the set-screws and remove the dies and replace them with the proper-sized notches corresponding. The gage may be adjusted for different lengths of work by loosening the wedge, removing the setting-pin, moving the gage upward or downward, as the case may be, and then inserting the pin in the proper hole. As before stated, the holes in the gage and standard are out of alinement, and thus the gage may be adjusted for sixteenths of an inch or less.

It will be seen that my invention forms an excellent bending-machine, as the work may be securely held and accurately bent at right angles or as desired.

From this description, taken in connection

with the drawings, it will be readily seen that I provide a machine that is equally adaptable either for bolt heading or for bending, which may be quickly adapted for various sizes of work, which is simple and durable in construction, and which is efficient and practical in every particular.

I claim—

1. In a bolt heading and bending machine, the combination with a standard having transverse grooves or recesses in one of its faces, a gage member formed with vernier recesses, a key adapted to fit the engaging recesses of the standard and gage, and a yoke carried by the standard to secure the gage thereto.

2. The combination with a standard formed with transverse recesses in one of its sides, a gage-block formed with vernier recesses, a key adapted to fit in the engaging recesses of the block and standard, of a link surrounding the block and standard, and a wedge secured between the standard and link.

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

CHARLES TREFFLÉ ROBERT.

Witnesses:

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JOHN F. SHEA.