

(No Model.)

G. W. BISSETT.
DEVICE FOR REMOVING CYLINDER HEADS.

No. 597,136.

Patented Jan. 11, 1898.

Fig. 1.

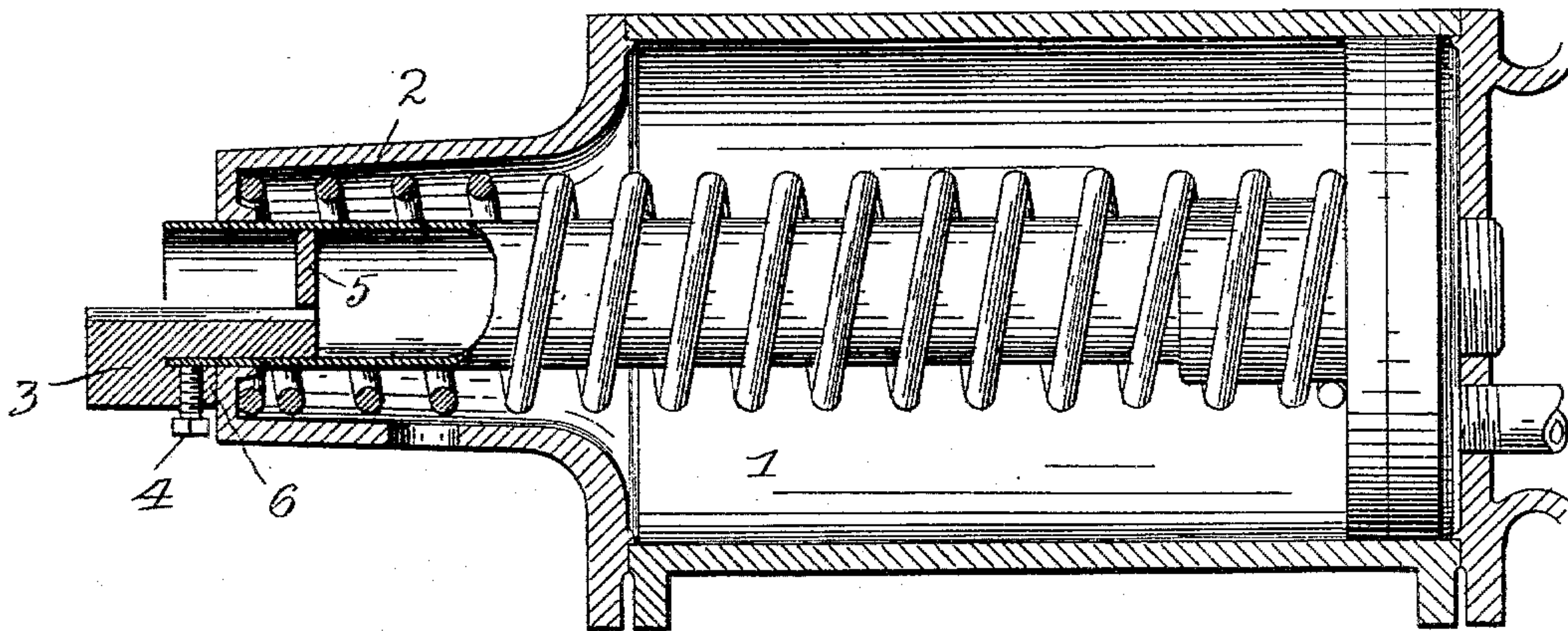


Fig. 2.

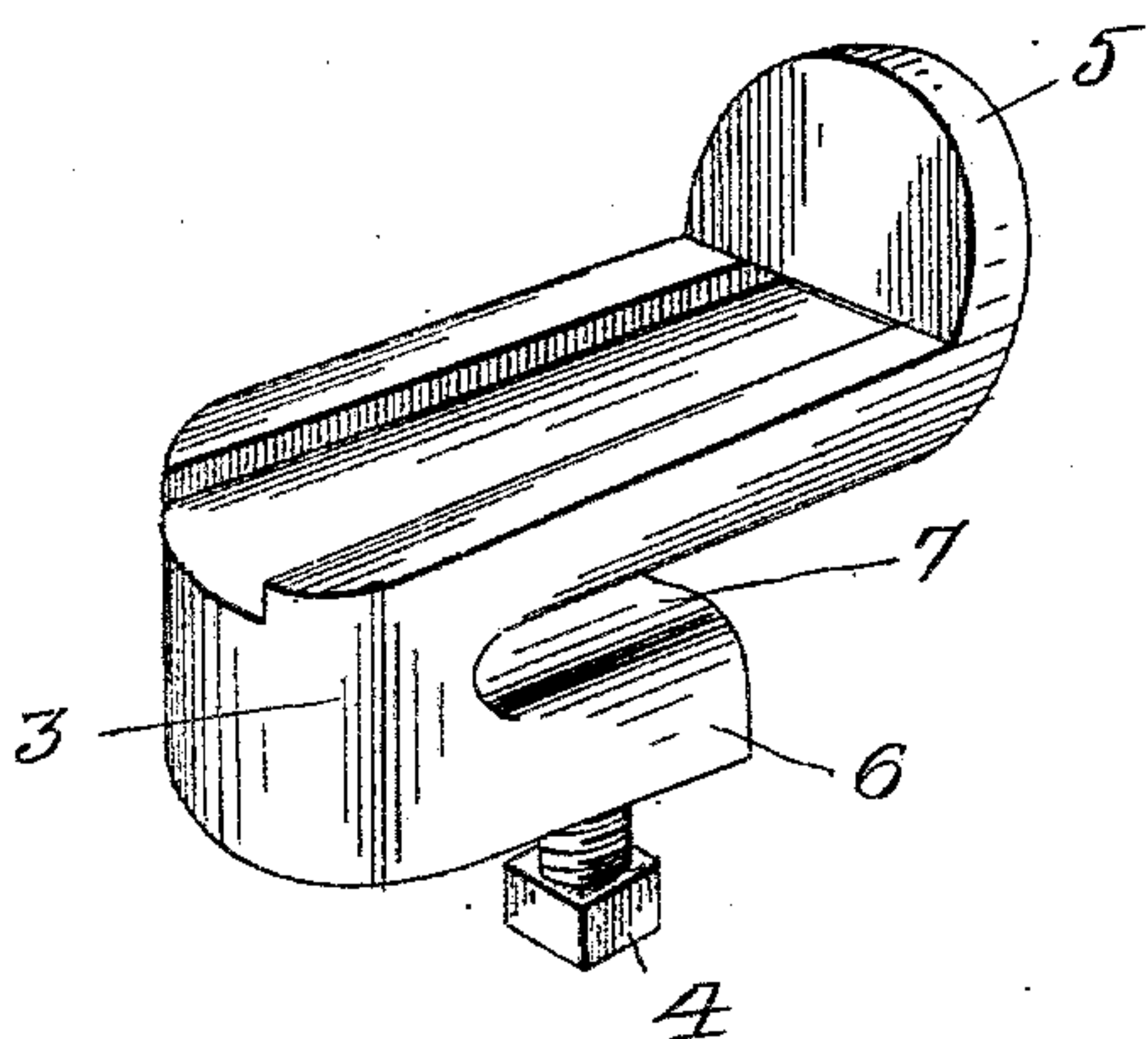
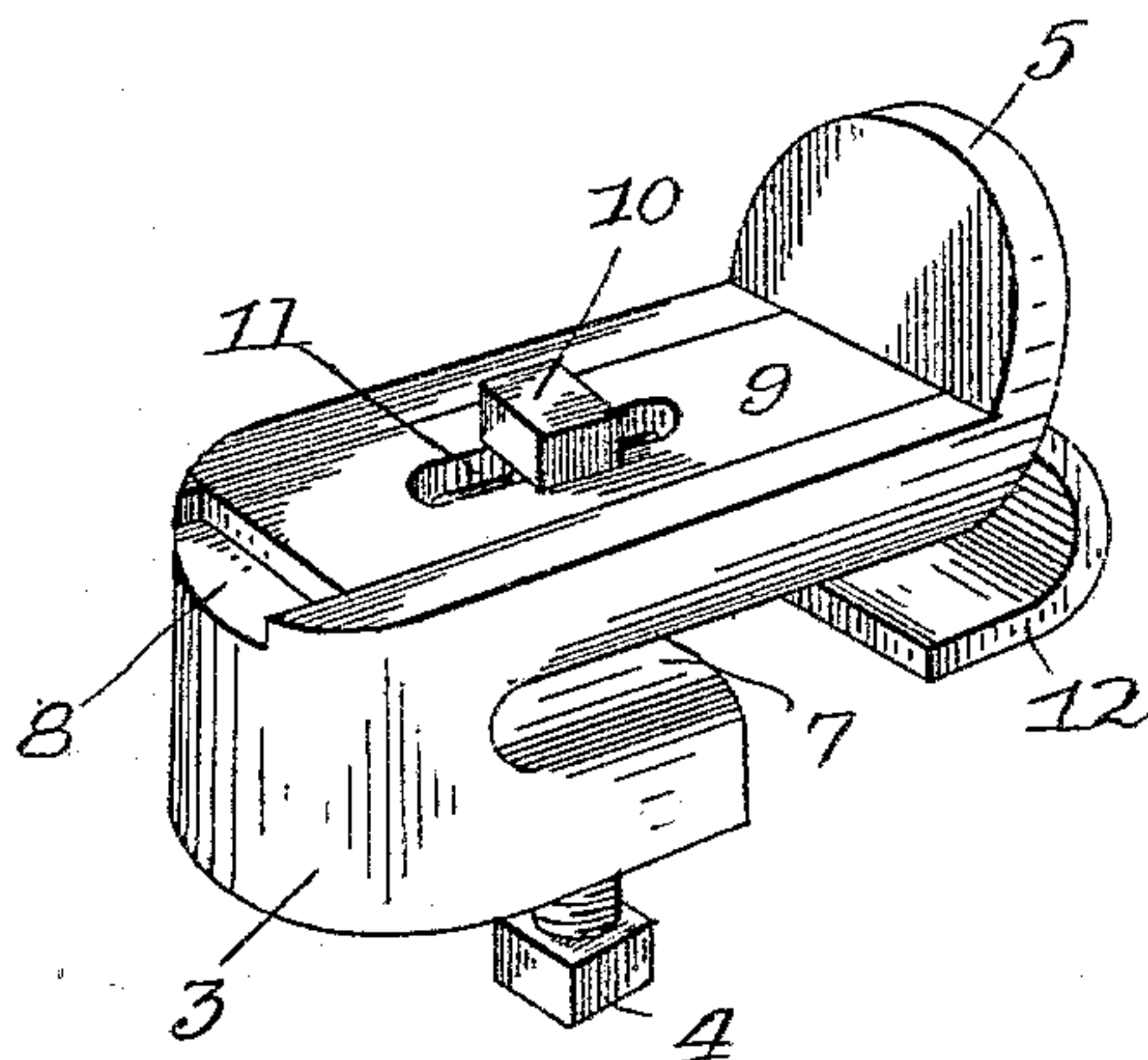


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. BISSETT, OF BRUNSWICK, MARYLAND.

DEVICE FOR REMOVING CYLINDER-HEADS.

SPECIFICATION forming part of Letters Patent No. 597,136, dated January 11, 1898.

Application filed August 12, 1897. Serial No. 648,029. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BISSETT, a citizen of the United States, residing at Brunswick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Devices for Removing Cylinder-Heads; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a device for removing cylinder-heads from the automatic-brake mechanism used in connection with cars; and it consists, essentially, of a clamp embodying a set-screw which acts as an auxiliary in securing a positive application of the device.

The invention further consists in the details of construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

The object of the invention is to provide a labor-saving device for removing heads from cylinders of automatic brakes for the purpose of cleaning and oiling the machinery and to hold the parts so that a disconnection may be had, thereby dispensing with the necessity of employment of a number of men as now required to accomplish this work.

In the accompanying drawings, Figure 1 is a sectional elevation of a portion of an air-brake mechanism, showing the improved device applied thereto in relative position. Fig. 2 is a detail perspective view of the improved device. Fig. 3 is a similar view of a modified form of construction.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numeral 1 designates a part or cylinder of air-brake mechanism having a plunger with a stem surrounded by a coil-spring and the covering-head 2 removably applied at one end.

The improved device consists of a doubled-over clamping-plate 3, having a set-screw 4 extending through a portion thereof, and at one end the said clamping-plate, as shown by Figs. 1 and 2, has an upwardly-projecting head 5 for sustaining the device in proper

position relatively to the part to which it is applied. The part of the clamp carrying the set-screw 4 extends under the main body of said clamp, as at 6, and between the two parts a space 7 is left for a purpose which will be presently set forth.

When the clamp is applied, it will be seen by reference to Fig. 1 that the longer portion or body thereof is extended into the hollow stem of the plunger, with the head 5 bearing against an opposite part of said stem, and the edge of the stem lies in the space 7 and is held in this position by means of the said screw 4. The end of the doubled-under portion 6 bears against the adjacent end of the head of the cylinder, and when the said head is released the plunger and stem, together with the spring, is held intact with the said head and the said spring prevented from flying off of the said stem, as would be the case if the head were removed without any holding device applied thereto.

In Fig. 3 the construction is simply varied, and in this instance a groove 8 is formed in the upper or top portion of the body, in which a flat spring 9 is held by a set-screw 10, passing through a slot 11 in said spring. The spring passes out from the body under the head 5, similar to that heretofore set forth, and said spring after leaving the body is bent in curved form, as at 12, and is in alignment with the space between the doubled-under portion of the clamp and the main body of the latter. This construction of the device provides for creating a tension between the head at one side and the spring itself at the other side and is adapted to be inserted in devices of varying diameter, as it may be in some instances that the stems will vary, and in application the same operation is pursued as in the use of the device heretofore described. The spring 9 also assists by means of its curved portion 12 in establishing a frictional engagement with the stem under ordinary circumstances and where the said stems may be of equal diameter.

The device set forth is exceptionally simple and cheap in its construction and may be readily carried in a tool-kit, and it will be understood that various changes in the form, proportion, and minor details of construction

may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. A device of the character described, comprising a clamping-plate having one end bent under and into substantially parallel relation with said plate and having at its opposite end an extension substantially at a right angle to the clamping-plate, and upon the side opposite the bent-under portion, the upper edge of said extension being curved longitudinally, and a set-screw in the under portion of the clamping-plate, substantially as specified.

2. A device for the purpose set forth, comprising a clamping-plate having at one end a bent-under portion with a space and its other end extended at substantially a right angle thereto in an opposite direction and the set-screw adjustably mounted in the bent-under portion, the upper face of the body portion

being provided with a longitudinal groove and a spring adjustably held in said groove, substantially as described.

3. A device for the purpose set forth, comprising a clamping-plate having at one end a bent-under portion with a space and its other end extended at substantially a right angle thereto in an opposite direction and the set-screw adjustably mounted in the bent-under portion, the upper face of the body portion being provided with a longitudinal groove, and a spring adjustably mounted upon the upper face of the body portion with one end passing out through the body portion under the head and curve, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE W. BISSETT.

Witnesses:

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