

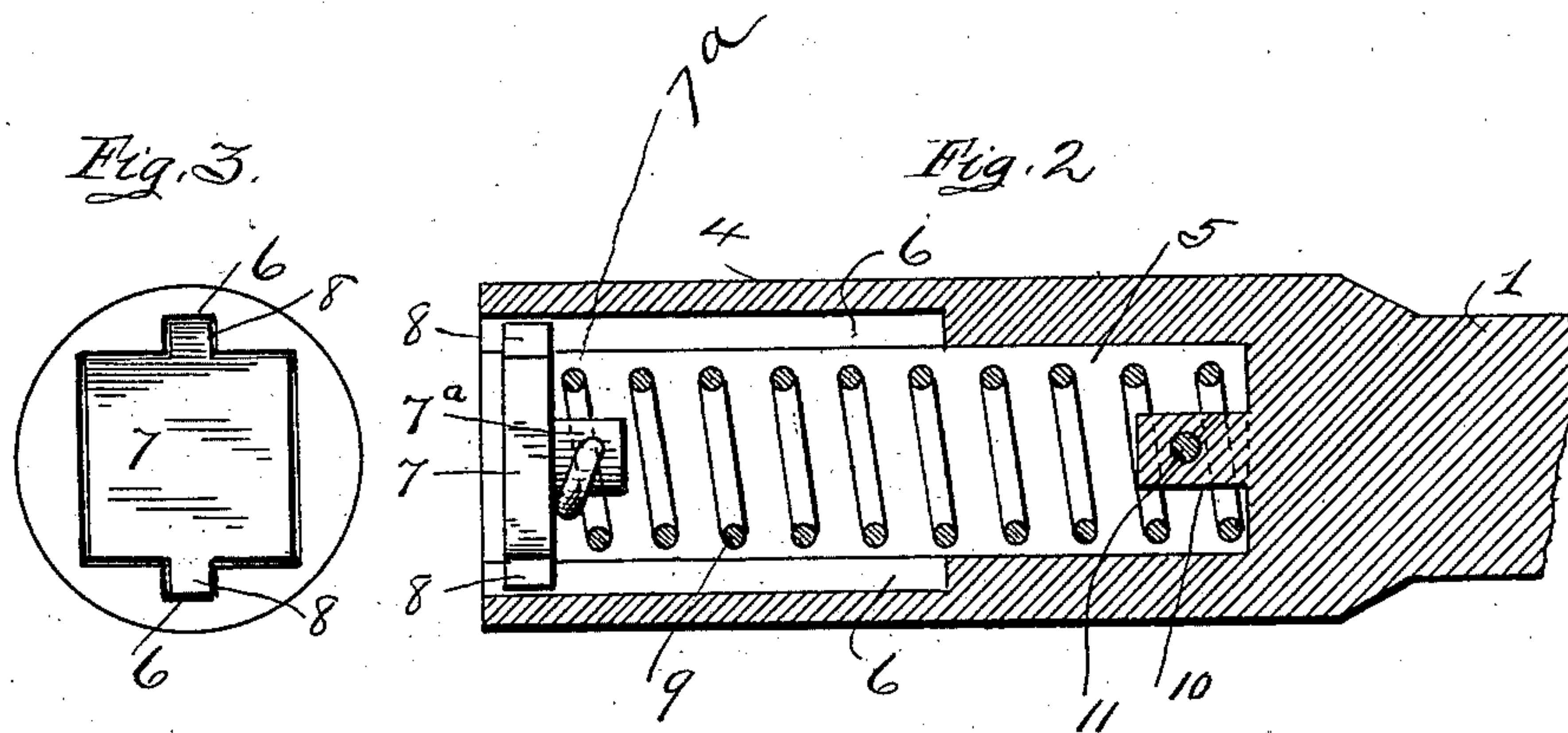
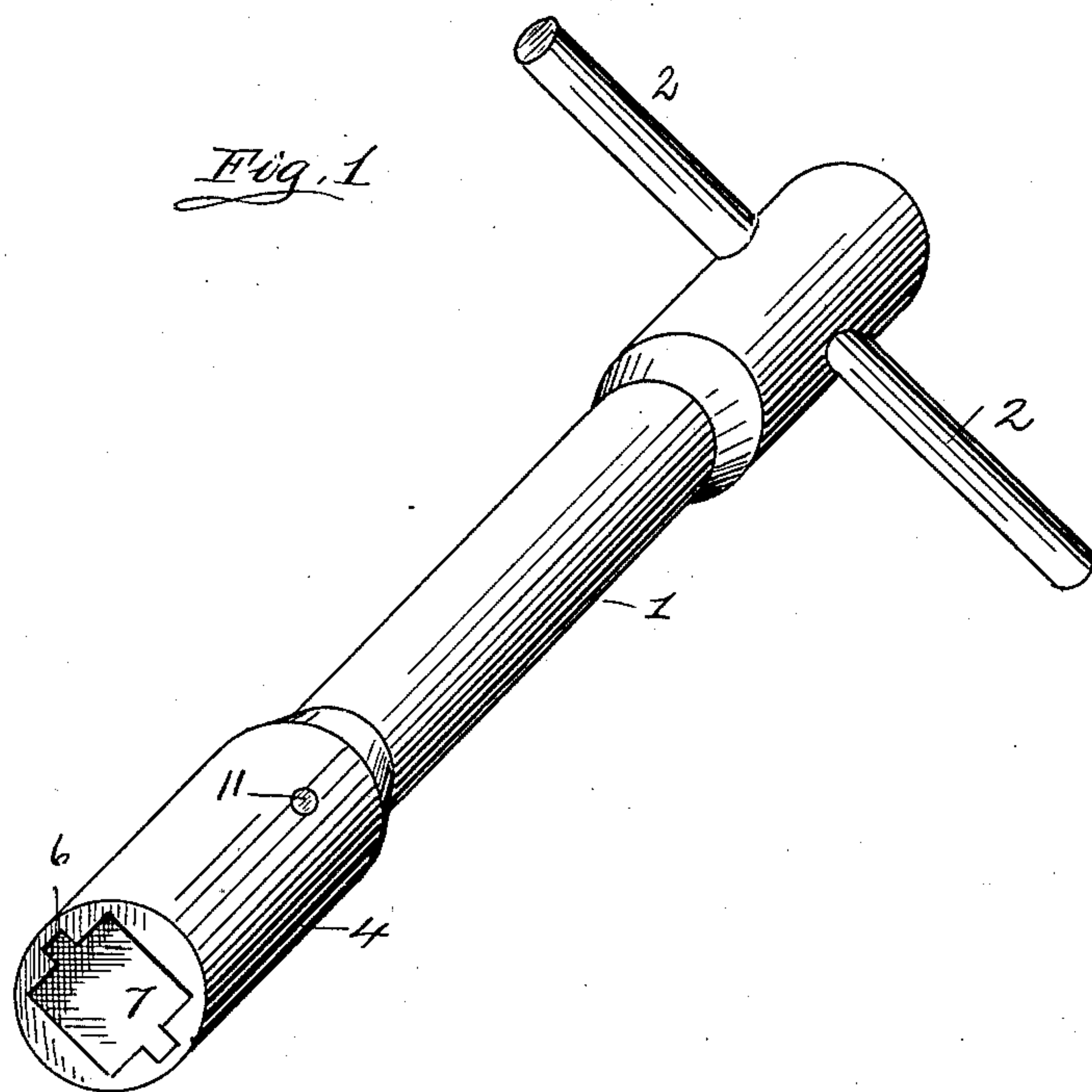
No. 671,789.

Patented Apr. 9, 1901.

C. BORGESON.
WRENCH.

(Application filed July 28, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 671,789, dated April 9, 1901.

Application filed July 28, 1900. Serial No. 25,080. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BORGESON, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and useful improvements in wrenches, and has for its object the provision of novel means whereby the wrench will be automatically disengaged from the nut, shaft, or square ends requiring a wrench for adjustment.

The invention has for its further object to construct a wrench of the above-described character that will contain comparatively few parts that are not liable to become out of order and when broken may be easily replaced.

The herein-described invention further aims to construct a device of this character that will be extremely simple in its construction, strong, durable, and comparatively inexpensive to manufacture; furthermore, one that will be highly efficient in its operation.

With the above and other objects in view my invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of my improved wrench. Fig. 2 is an enlarged longitudinal vertical sectional view of the lower or engaging end of the wrench. Fig. 3 is an end view of the wrench as shown in Fig. 2.

In the drawings the reference-numeral 1 indicates the body portion of the wrench; 2, the handle thereof. 4 indicates the lower enlarged cylindrical portion of the same, the latter being provided with a square chamber 5 and outwardly-extending guideways 6, arranged diametrically opposite each other.

The reference-numeral 7 indicates a spring-pressed follower having arranged on its rear face a shank 7^a. The said follower is further provided with guides 8, adapted to register with and operate in the guideways 6. A spiral spring 9 is arranged within the chamber 5, having its one end secured to the shank 7^a of the follower and its other end fastened to a lug 10, extending into the chamber 5, by means of a pin 11, the latter passing through suitable apertures formed in the enlarged cylindrical portion and the lug.

The parts when assembled are arranged in such a manner that the follower will almost be flush with the end of the enlarged cylindrical portion when the spring is in an expanded position.

The operation of the device is as follows: The square end of the wrench being adapted to engage the part to be adjusted in the usual manner, a slight pressure being exerted, thereby depressing the spiral spring and forcing the follower into the chamber, the guides riding in the guideways rearwardly until the pressure is released, when the follower will be forced to its normal position by the expansion of the spiral spring, which will tend to automatically free the object from engagement with the wrench.

It will be understood that the chamber and engaging end of my wrench, although shown as square for the purpose of illustrating my invention, may also be made in the shape of a hexagon, octagon, or any other desired form and that any convenient form of handle may be adopted and that other minor changes in the construction may be made without departing from the general spirit of my invention.

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

1. As an improved article of manufacture, a socket-wrench consisting of a body portion having formed therein a chamber and guideways, and provided with a spring-actuated follower and guides for operating in said guideways, substantially as specified.

2. A device of the character described, consisting of a suitable handle, a body portion having formed therein a chamber and guide-

ways, a follower carrying guides adapted to
operate in said guideways, a spiral spring ar-
ranged within said chamber having its one
end connected to said follower and its other
5 end connected to a lug extending into said
chamber, all the parts being constructed and
operating substantially as herein described
and for the purpose set forth.

In testimony whereof I have hereunto af-
fixed my signature in the presence of two sub- 10
scribing witnesses.

CHARLES BORGESON.

Witnesses:

JOHN GROETZINGER,
H. E. BECKER.