

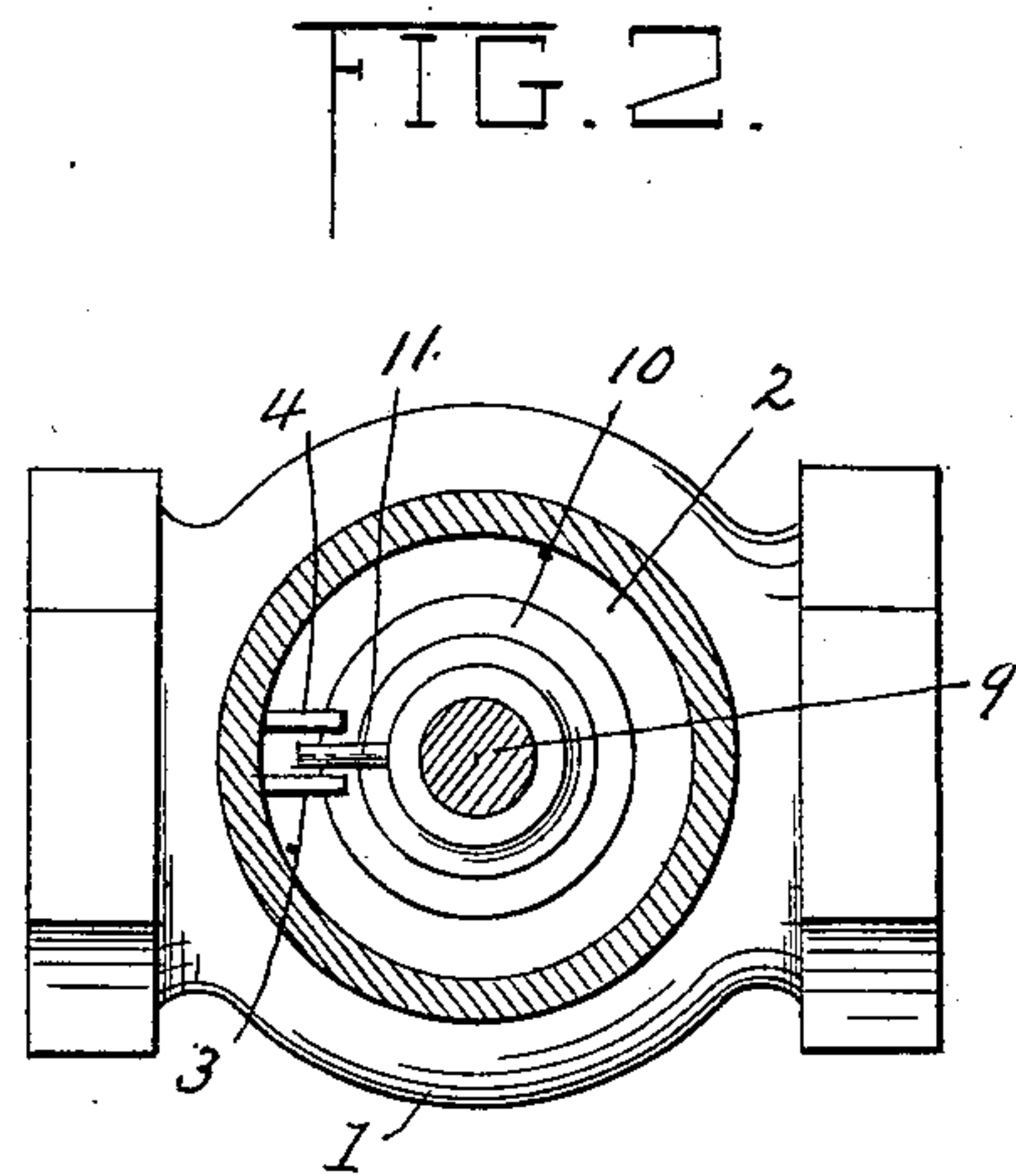
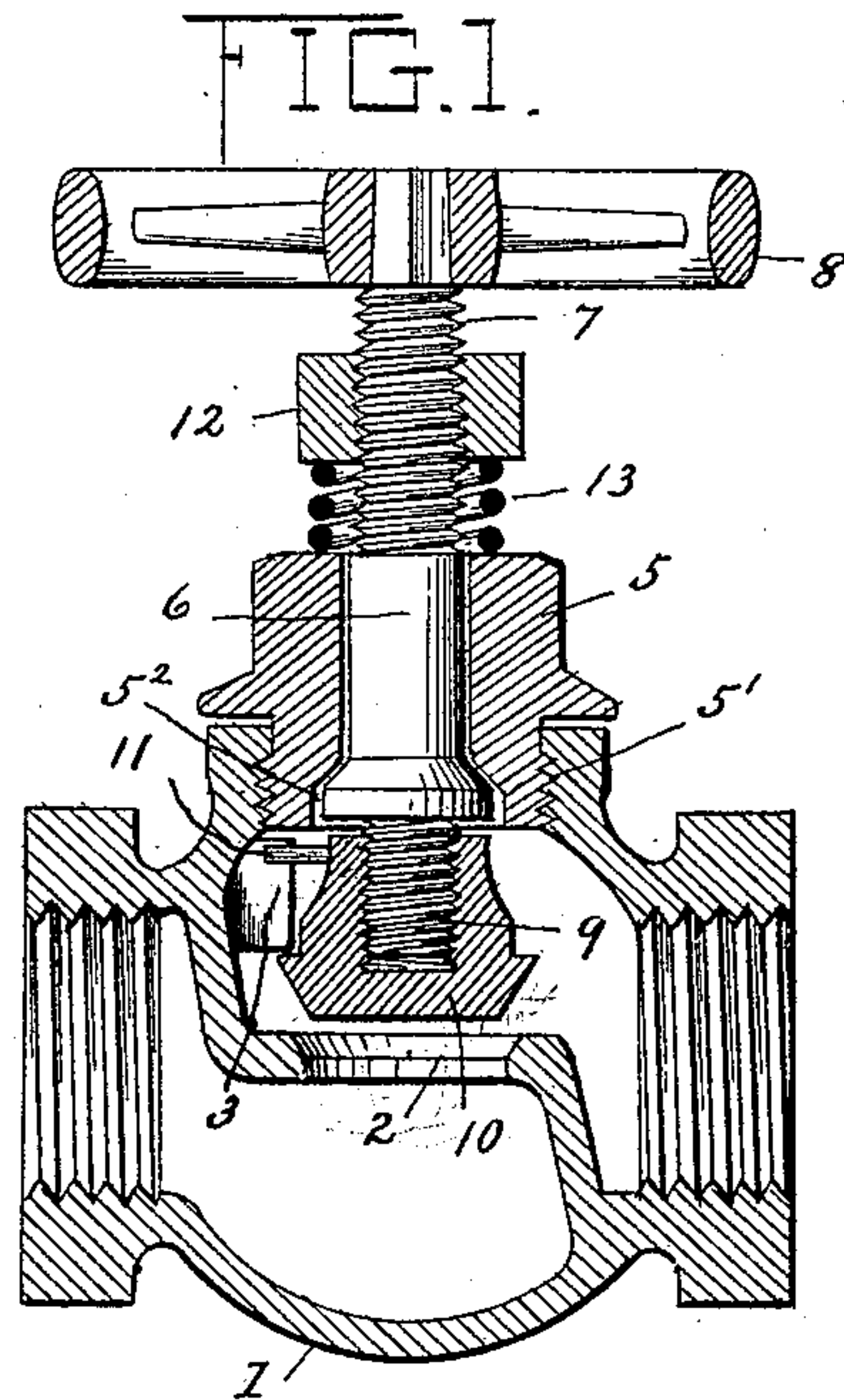
No. 613,830.

Patented Nov. 8, 1898.

G. G. WELSH.  
GLOBE VALVE.

(Application filed Apr. 13, 1897.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

GEORGE G. WELSH, OF ELLWOOD CITY, PENNSYLVANIA.

## GLOBE-VALVE.

SPECIFICATION forming part of Letters Patent No. 613,830, dated November 8, 1898.

Application filed April 13, 1897. Serial No. 631,906. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE G. WELSH, a citizen of the United States, residing at Ellwood City, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Globe-Valves; 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 globe-valves.

My object is to provide an improved valve of the class described which will be of simple and cheap construction and which will be self-packing, so that the necessity of employing packing-rings is satisfactorily obviated.

A further object is the provision of novel devices whereby the valve itself is fed directly toward and away from its seat without rotating.

Having the foregoing objects in view, the invention consists of a globe-valve comprising certain improved features and novel combinations of parts appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a central vertical section, and Fig. 2 a detail view, showing the coaction of the valve with its guides.

The numeral 1 designates the valve-casing, which is provided with a central partition, as usual, and has a seat 2.

The numerals 3 and 4 designate two guides which are secured in the casing above the seat and at one side thereof.

At 5 there is shown a cap provided with screw-threads 5', which screw into the valve-casing immediately above the seat. This cap has a nut, so that it can be easily turned. The cap is provided with a socket 5<sup>2</sup> in its lower end.

The numeral 6 designates a valve-stem having a head adapted to fit in the aforesaid socket and provided with a screw-threaded shank 7, which passes loosely through the cap.

On this stem there is fitted a hand-wheel 8. The lower end of the stem is screw-threaded at 9.

The numeral 10 designates the valve, which receives the screw-threaded portion 9. This valve has a guide-pin 11, that is received loosely between the guides, and hence the up-and-down movement of the valve is guided so that it cannot be turned.

The numeral 12 designates a nut on the stem, and 13 is a coil-spring encircling the stem and interposed between the nut and the cap. The nut is adjusted until the tension of the spring holds the head in the socket of the cap. When the hand-wheel is turned, the valve-stem is rotated in the cap, and owing to the reception of the screw-threaded end of said stem in the valve the latter is raised or lowered and un-seated or seated.

It will be observed that the valve is self-packing, this being accomplished by the head and the socket of the cap.

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

A globe-valve comprising the combination of a casing having the usual valve-seat, and having guides or guide-flanges projecting inwardly from the casing adjacent to the seat, a cap provided with a socket fitted to the casing, a valve provided with a guide pin or projection, a screw-threaded valve-stem for operating the valve, provided with a head to fit in the socket of the cap, a spring embracing the upper part of the valve-stem, and means, as a nut, for adjusting the tension of the spring to maintain a proper pressure between the socket in the cap and the head on the stem, substantially as described.

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

GEORGE G. WELSH.

Witnesses:

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