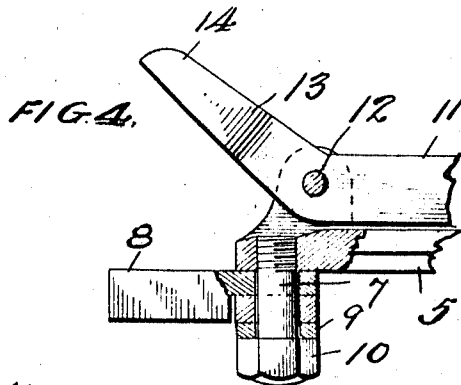
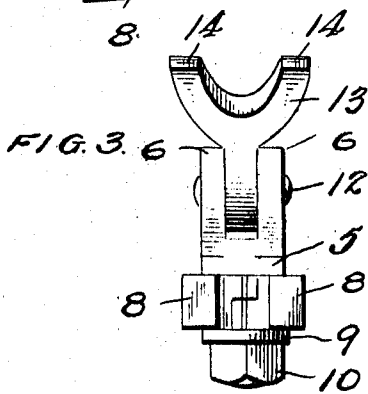
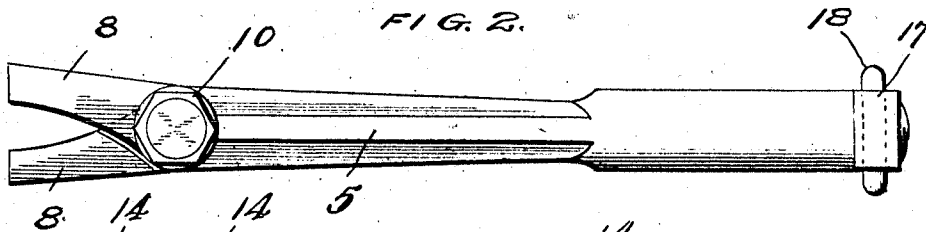
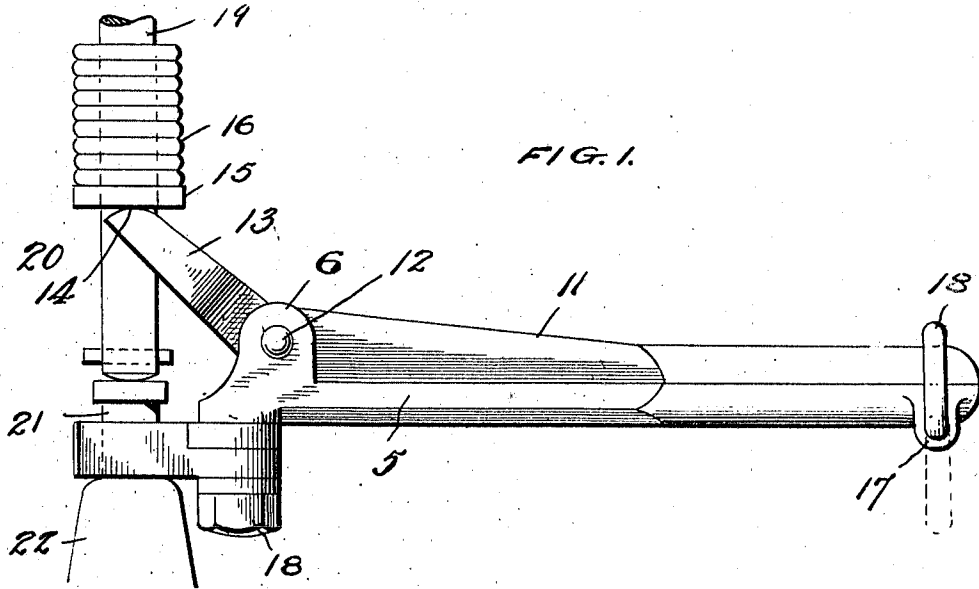


W. H. SHIMPF.
 SPRING HOLDING DEVICE FOR VALVES.
 APPLICATION FILED JULY 5, 1910.

982,539.

Patented Jan. 24, 1911.



WITNESSES
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UNITED STATES PATENT OFFICE.

WALTER H. SHIMPF, OF NEW YORK, N. Y., ASSIGNOR TO C. R. TEABOLDT, OF NEW YORK, N. Y.

SPRING-HOLDING DEVICE FOR VALVES.

982,539.

Specification of Letters Patent.

Patented Jan. 24, 1911.

Application filed July 5, 1910. Serial No. 570,383.

To all whom it may concern:

Be it known that I, WALTER H. SHIMPF, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Spring-Holding Devices for Valves, of which the following is a specification.

The present invention relates to means for holding valve springs in compressed relation in order to permit the convenient removal of the valves, and the object is to provide a very simple device that can be kept in a repair kit, and can be readily applied to practically any form of valve mechanism for the above described purpose.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the device, showing the same in operative position. Fig. 2 is a bottom plan view of the same. Fig. 3 is an end elevation. Fig. 4 is a detail sectional view.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, a base lever 5 is employed having a pair of upstanding ears 6 at one end, and furthermore having a clamping bolt 7 threaded into said end transversely of the lever. Mounted on this bolt are a pair of relatively swinging bearing jaws 8, the upper jaw engaging the under side of the lever, and a washer 9 being interposed between the lower jaw and the head 10 of the bolt.

An operating lever 11 is fulcrumed, as shown at 12, to and between the ears, the portion of the lever that projects over the jaws 8 being disposed in angular relation to the main arm of said lever and formed into a spring-pressing yoke 13. The ends of the yoke are rounded, as shown at 14, so as to have a sliding bearing against the washer 15, against which the spring 16 of the valve bears. The free end of the lever 5 is provided with an eye 17, and a holding link 18 swingingly mounted in this eye, is adapted to be swung over the free end of the lever 11, when said levers are together, thus hold-

ing the yoke 14 in spaced relation to the jaws 8, as will be evident by reference to Fig. 1.

The operation of the structure is substantially as follows: A portion only of the valve mechanism is shown, the valve stem being designated 19 and having the spring 16 and washer 15 slidably arranged thereon. This washer 15 is ordinarily against a pin 20 that passes through the end of the valve stem. The usual valve rod is shown at 21, and projects through a guide 22. In applying the device, the jaws 8 are adjusted so as to embrace the rod 21 and bear upon the guide 22. The free ends of the yoke 13 are then placed behind or beneath the washer 15, the levers 5 and 11 being disposed in spaced relation. Said levers are then brought together, and the link 18 is swung to the position shown in Fig. 1, whereupon the washer 15 will be raised from the pin, and the spring 16 compressed. The parts will be held in this position so that the pin can be readily removed, after which the valve can be easily abstracted.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to within the limits of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. A device of the character set forth, comprising coacting levers and a bearing member carried by one of the levers and comprising relatively adjustable jaws, the other lever having a spring pressing portion.

2. A device of the character set forth, comprising a lever, adjustable bearing jaws pivotally mounted thereon, another lever fulcrumed to the first lever, and a spring-pressing yoke carried by the other lever.

3. A device of the character set forth, comprising a lever, a depending clamping

bolt carried by the lever contiguous to its fulcrum, relatively swinging bearing jaws pivotally mounted on the clamping bolt, another lever fulcrumed on the first mentioned lever and having a spring-pressing yoke disposed in angular relation thereto and arranged adjacent to the bearing jaws, and a holding link pivotally mounted on one of the levers and capable of swinging into
10 and out of embracing relation with the other

lever to hold the yoke and jaws in separated relation.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WALTER H. SHIMPF.

Witnesses:

A. J. INDERRUDEN,
G. M. ERWIN.