G. DELIMAN.

VALVE LIFTER.

APPLICATION FILED JAN. 13, 1920.

1,356,194. Patented Oct. 19, 1920.

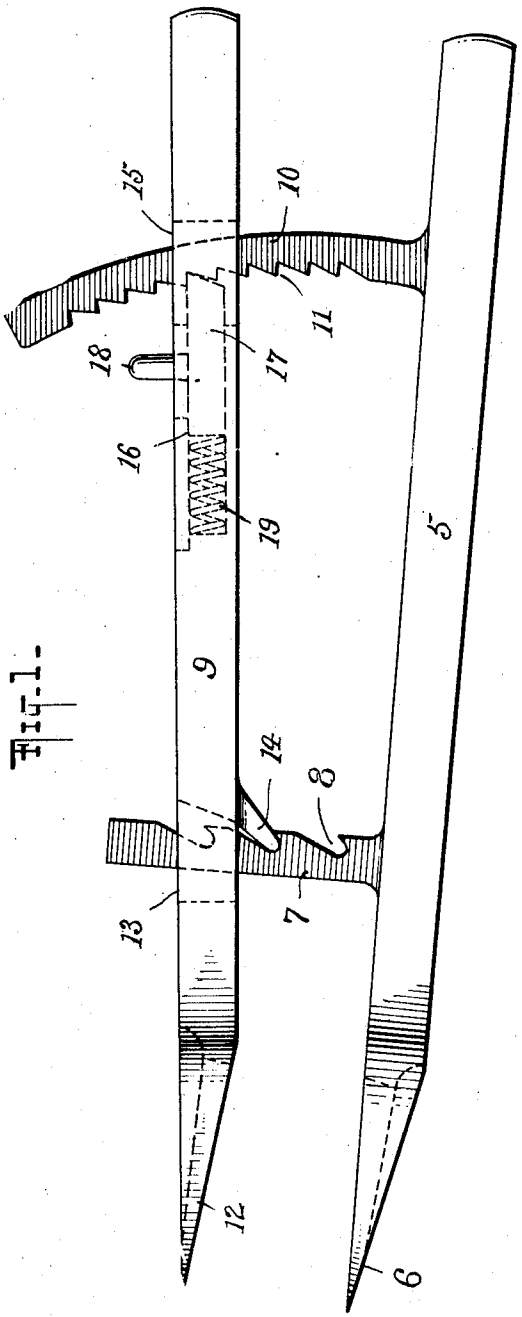


Fig. 1.

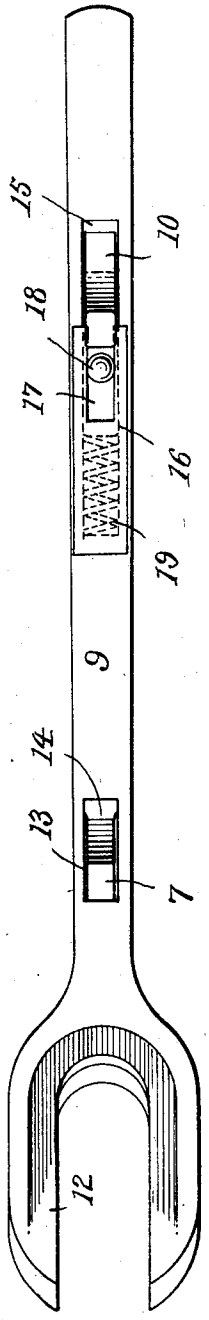


Fig. 2.

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UNITED STATES PATENT OFFICE.

GEORGE DELIMAN, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF TO MATT W. GALYA, OF FAIRFIELD, CONNECTICUT.

VALVE-LIFTER.

1,356,194. Specification of Letters Patent. Patented Oct. 19, 1920.

Application filed January 13, 1920. Serial No. 351,119.

To all whom it may concern:

Be it known that I, GEORGE DELIMAN, a citizen of Austria, and resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Valve-Lifters, of which the following is a specification.

My invention relates to certain new and useful improvements in valve lifters so-called, such as are designed to be used for compressing valve springs as used on valve stems of internal combustion engines.

The object of the invention is to provide a tool of the above class whereby valve springs in gasolene motors can readily be compressed to release the valve and whereby the same may be raised for the purpose of repairing or removing.

A further object of the invention is the provision of a device of the above character wherein the same may be readily adjusted and set in different positions to better accommodate valves of different sizes and so that the same may be handled with facility and the jaws positioned substantially parallel when in operative position to support the valve. This parallel positioning of the jaws insures a closer engagement thereof with the valve spring and valve stem support, and gives more room between the jaws in which to get at the valve stem and its pin.

With these and other objects in view the invention resides and consists in the construction and novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claim may be resorted to without departure from the spirit or sacrificing any of the advantages of the invention.

Similar characters of reference denote like or corresponding parts throughout the several figures of the accompanying drawings forming a part of this specification, and upon which,

Figure 1 shows a side elevation of my improved valve lifter complete with the levers in an operative position and with the jaws spaced apart as in the act of compressing a valve spring, and

Fig. 2 shows a top plan view of the lifter shown in Fig. 1.

Referring in detail to the characters of reference marked upon the drawings, 5 indicates the bottom lever member and 6 the forward end jaw which is designed to straddle a valve stem when inserted beneath the valve spring. This lever is provided with a post 7 having a series of notches 8 in one side, forming a series of shoulders whereby the upper lever member 9 is pivotally supported at various heights or distances from the lower lever. Upon the outer end of the handle portion of the lower lever member is also formed a post 10 which is disposed upward and forward describing an arc of a circle, and having a series of teeth 11 formed in its side adjacent to the before mentioned post 7.

The upper lever member 9 is also provided with a divided jaw end 12 which substantially corresponds in size and shape to the lower member 6 and is shaped to straddle the valve stem when in the act of compressing a valve spring. This upper lever member 9 is provided with a vertical opening 13 therethrough to receive the above mentioned post 7 and is further provided with a depending tooth 14 that is designed to engage either of the notches 8 in the post 7 in a manner to pivotally support and guide the upper lever 9 upon the said post 7 of the lower member.

This upper lever member is further provided with a vertical opening 15 through its outer or handle portion to accommodate the rack 10 before mentioned and includes a longitudinal socket 16 in which is positioned a spring actuated pawl 17 to engage the teeth of the rack. The pin 18 mounted on the pawl serves as a finger piece to release the same from the teeth against the action of the spring 19, when it is desired to operate the two jaw members of the valve lifter.

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

A valve lifter, comprising a pair of levers with jaws upon their forward ends, a post rigidly supported on one of said levers and having a series of supporting shoulders formed therein, the other of said levers

having a guide opening to receive the post and provided with means to detachably engage the shoulders of the post to form a fulcrum connection between the two members, a rack and a pawl adjustably connecting the handle portions of the levers to hold the same in position against the action of a valve spring.

Signed at Bridgeport in the county of Fairfield and State of Connecticut this 5th day of January A. D. 1920.

GEORGE DELIMAN.

Witnesses:
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