

A. J. KRUEGER.
JEWELER'S TOOL.
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1,047,658.

Patented Dec. 17, 1912.

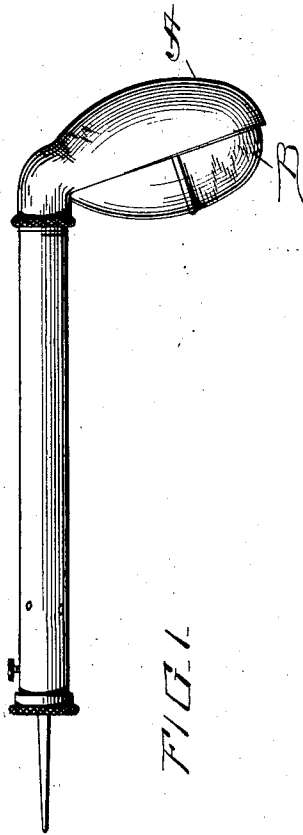


FIG. 1.

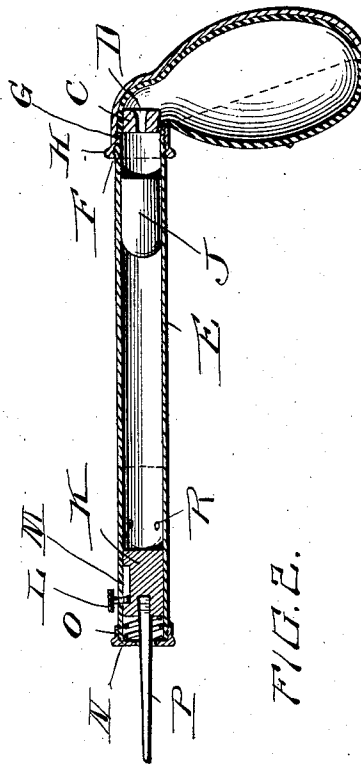


FIG. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT J. KRUEGER, OF NORTH BRANCH, MINNESOTA.

JEWELER'S TOOL.

1,047,658.

Specification of Letters Patent.

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Application filed August 27, 1912. Serial No. 717,305.

To all whom it may concern:

Be it known that I, ALBERT J. KRUEGER, a citizen of the United States, residing at North Branch, in the county of Chisago and State of Minnesota, have invented certain new and useful Improvements in Jewelers' Tools, of which the following is a specification.

My invention relates to improvements in jewelers' tools, and refers particularly to a pneumatically operated punching tool for driving out joint-wires, repairing watch cases and lockets, hammering down the claws of gem settings, cutting, chasing, riveting, punching, or marking centers for drilling, and similar work of a delicate nature where absolute control of the severity of the blow delivered must be had.

The leading object of my invention is the provision of a tool of this character in which the severity of the blow to be given the tool may be controlled and accurately regulated.

Another object of my invention is the provision of a jeweler's tool which may be held steadily and firmly in the hand during the punching operation; which tool will permit of a reliable and easy control of the blow; which will be simple and inexpensive of construction; and which will be efficient and practical in operation.

To attain the desired objects, my invention broadly stated consists of a tool having a hollow tube, a hammer slidable therein, a tool holder against which said hammer contacts, and means for actuating said hammer, the invention further consisting in certain novel features of construction and combinations of parts, substantially as shown, described, and claimed hereinafter.

Figure 1 is a side elevation of a tool constructed in accordance with and embodying the principles of my invention, a punching implement being shown in position to be operated upon, and Fig. 2 is a central longitudinal sectional view thereof.

In the drawings:—The letter A designates a shield, preferably semi-ovoid in shape and constructed of a light metal, such as aluminum or the like, in which fits a rubber bulb B in which is mounted a plug C having a horizontal bore D and opening into a hollow tube or casing E, threaded at F to engage the corresponding threads G of the shield A, which is further provided with a nut H for detaching same from the tube. From this construction it will be seen that pressure of

the bulb against the metal back or shield will cause air to pass through the bore of the plug C into the casing and impact against the hammer J sliding therein and drive the hammer forwardly along the tube against the tool holder K mounted in the forward end of said tube. This holder has a set screw L working in an elongated slot M therein, and is spaced from the closure cap N threaded onto the tube, by means of the coil spring O and surrounding the shank of a punching implement P removably carried in said tool holder. Air vents R are arranged in the tube just behind the tool holder.

In operation, when the bulb is pressed to compress the air therein, the air will pass out into the tube through plug C and impact against the hammer, driving the same along the tube against the tool holder, which will be moved forwardly by reason of its slot and screw connection, compressing the spring O and imparting a forward movement to the punching implement carried by said holder.

The air is exhausted through the vents R and the action of the spring O returns the tool holder to its normal position where it is in readiness to receive another blow from the sliding hammer, which has returned to its position after imparting the blow.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my improvements will be readily seen and understood, and it will be apparent to all that the force of the blow may be regulated accurately and easily by the pressure of the hand upon the bulb; that the device may be held firmly and steadily in the hand and in the best position for performing the desired operation; and that generally speaking I have provided a tool of the character stated which will fill a long-felt want among jewelers, opticians, and others requiring a simple, inexpensive, and thoroughly practical and efficient implement of this character.

I claim:—

1. In a jeweler's tool, the combination of a hollow tube, a hammer sliding therein, a tool holder, a shield connected to said tube, and a rubber bulb fitting against said shield.

2. A jeweler's tool, comprising a shield, a bulb, a tube connected to said shield, a plug having a bore seated in said tube, adjacent its connection with the shield, a hammer

slidable in said tube, and a tool holder near the forward end of said tube and spaced therefrom by a compression spring.

3. A jeweler's tool, comprising a shield of
5 semi-ovoid shape, a bulb fitting thereagainst, a tube detachably connected to said shield, a plug having a bore seated in said tube, a hammer sliding in said tube, a closure for the forward end of said tube, a tool holder
10 having a set screw and slot connection with said tube against which said hammer con-

tacts to move said holder, and a spring spacing the tool holder from the closure of the tube for returning the tool holder to its normal position.

In testimony whereof I affix my signature
15 in presence of two witnesses.

ALBERT J. KRUEGER.

Witnesses:

A. F. MAASKE,

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."