Nov. 29, 1927. 1,651,258

C. S. DEFFENBAUGH

TOOL

Filed May 6, 1926

Fig. 1.

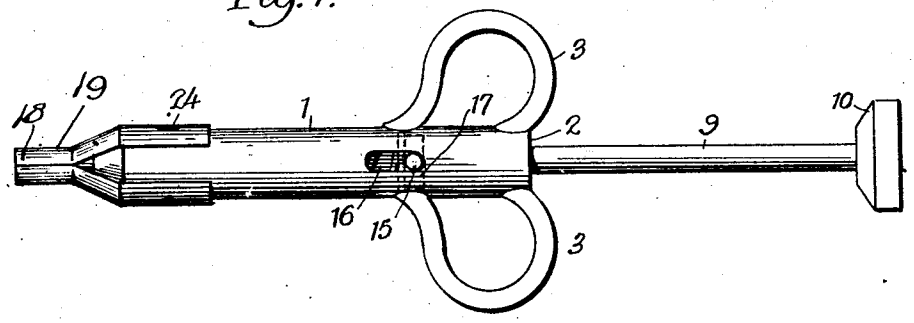


Fig. 2.

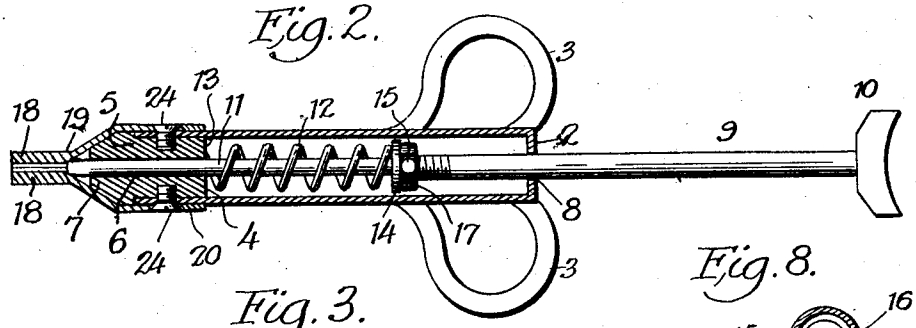


Fig. 3.

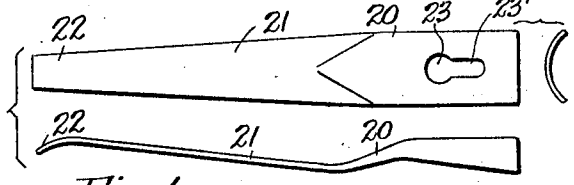


Fig. 8.

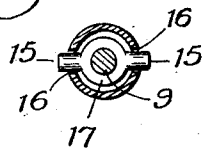


Fig. 4.

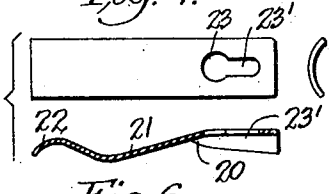


Fig. 5.

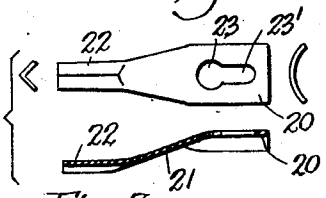


Fig. 6.

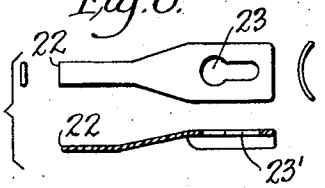
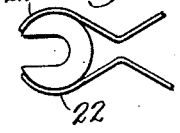


Fig. 7.



Inventor

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UNITED STATES PATENT OFFICE.

CHESTER S. DEFFENBAUGH, OF OROVILLE, CALIFORNIA.

TOOL.

Application filed May 6, 1926. Serial No. 107,241.

My invention relates to improvements in tools and while possessing particular advantage as a valve pin tool, is capable of use for many purposes, such as removing valve pins, picking up type, washers, nuts, bolts and in fact other purposes too numerous to mention.

The main object of my invention is the provision of a tool which can be operated with ease and readiness to quickly grasp and retain an object and which can be quickly operated to release the object or article.

Another object of my invention is the provision of a tool which will perform the function for which it is intended in a practical and efficient manner and which can be manufactured and sold at such a small price as to make its use highly desirable and necessary.

With these objects in view my invention consists of a tool of the character and for the purposes stated embodying novel features of construction and combination of parts, substantially as described and claimed and as shown in the accompanying drawing, in which:

Figure 1 represents a side elevation of a pick up tool constructed in accordance with and embodying my invention.

Figure 2 represents a central sectional view of the tool, and

Figures 3, 4, 5, 6 and 7 represent detail views of different forms of spring jaws adapted for use in connection with my tool, and—

Figure 8 represents a detail view of the winged nut and associated parts.

My invention is of extremely simple construction and consists of the casing or barrel 1, closed at one end 2, provided with a pair of finger receiving loops 3, and having the open end 4, in which is mounted the cap 5 having a passage 6 and a tapered nose 7. In the casing and mounted to move in the opening 8, of the barrel is the push rod 9, formed at its outer end with a button 10, and terminating in the lower stem 11, which passes through the passage 6 of the cap, and around said stem is placed the coiled spring 12, whose ends bear upon the cap at 13 and upon the disk 14, mounted upon the rod or stem, and bearing against the pin 15, which is movable and guided in the slot 16, and has secured thereto the thumb nut 17.

From this construction it will be noted that the action of the coiled spring moves the rod outward the distance of the slotted opening and pressure upon the button carried by the push rod, projects the end of the stem through the opening in the cap, causing it to engage the spring jaws 18, at the intermediate tapered portions 19, the effect of which is to move the jaws to open position, as shown in Figures 1 and 2 and upon release of pressure upon the push rod the stem retracts and the jaws by reason of their spring action close inwardly into the path of the opening or passage in the cap.

The jaws are made in pairs to provide a complete set for various purposes and in all cases the jaws consist of the curved inner portion 20, the intermediate inclined portion 21 and the spring jaws proper 22, in each case the inner curved portion fitting to conform with the barrel and having each a screw receiving opening 23, to receive the screws 24, such screw receiving opening having a communicating slot 23′, which permits the application and removal of the jaws when found necessary.

In Figures 3, 4, 5, 6 and 7, is shown a series of jaws which accompany the tool and which consists essentially of the same details of construction, some having curved, others angular and others flat engaging portions adapting them for various purposes where they would fit the object or article which is to be removed or applied.

The operation and advantages of my tool will be readily understood from the drawing and description and further comment is deemed unnecessary and it will be evident that the tool will fill a long felt want in a practical and efficient manner.

I claim:—

1. A tool of the character and for the purpose described, consisting of a barrel, a perforated tapering nose in one end of the barrel, a spring retracted plunger playing in the barrel, a stem on the plunger and playing through the tapered nose, and a pair of spring jaws on the nose and adapted to be opened by the action of said stem.

2. A tool of the character and for the purpose described, comprising a barrel, a conical perforated nose at one end of the barrel, a plunger adapted to play through the perforated head, a pair of spring jaws secured to the barrel and head and adapted to be expanded and opened by the plunger, and a spring to retract the plunger.

3. A tool of the character and for the purpose described, comprising a barrel hav-

ing finger loops and a slot, a tapered perforated nose at one end of the barrel, adjustable jaws secured to the barrel adjacent the head, a plunger playing through the other end of the barrel, a lateral pin from the plunger and playing in the slot to limit the movement of the plunger, a stem extending from the plunger and adapted to play between the jaws to expand them, and a retractible spring for the stem and plunger.

In testimony whereof I hereunto affix my signature.

CHESTER S. DEFFENBAUGH.