June 15, 1926. 1,589,127

O. DEVEAULT

PUNCH

Filed June 8, 1923

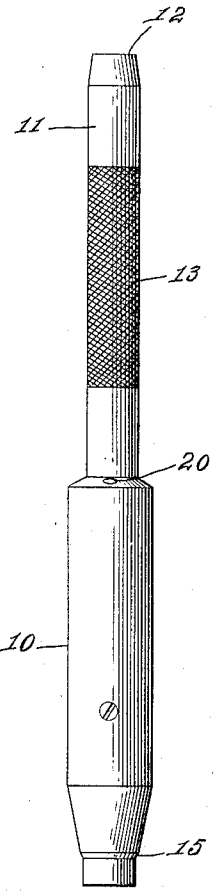


Fig. 1.

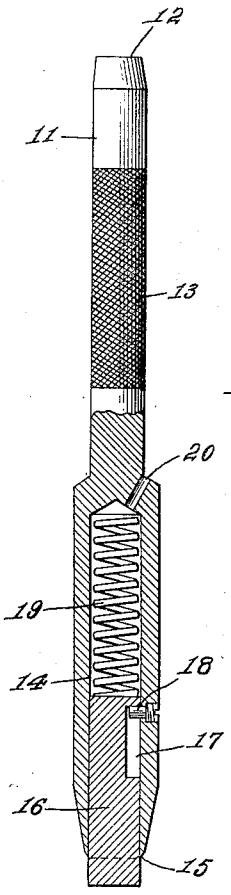
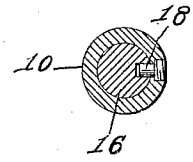


Fig. 2.

Fig. 3.



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Patented June 15, 1926. 1,589,127

UNITED STATES PATENT OFFICE.

OMER DEVEAULT, OF DERBY LINE, VERMONT.

PUNCH.

Application filed June 8, 1923. Serial No. 644,291.

This invention relates to punches or perforating devices and has for an object the provision of a tool which is especially designed for use in punching holes or openings in the manufacture of gaskets and is especially useful in garages or similar places.

Another object of the invention is the provision of a tool of this character wherein the disk which is cut from the material will be ejected from the punch, the means utilized for this purpose also providing means for the protection of the cutting edge of the punch.

Another object of the invention is the provision of a punch wherein the ejecting means employed will not only serve to eject the cut out disk of material, but will also act to force the tool upward and remove the same from the cut gasket.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is an elevation of a tool constructed in accordance with the invention.

Figure 2 is a similar view partly in section.

Figure 3 is a transverse section.

Referring in detail to the drawings, wherein like characters of reference denote corresponding parts, the reference character 10 indicates the body of the tool from which extends a shank 11, the latter being provided at one end with a striking surface 12 and being further provided with a roughened or knurled section 13 to provide convenient gripping means.

The body 10 is provided with a socket 14 which extends inwardly from one end and this end of the body is beveled and formed with a cutting edge 15 of circular shape. Slidingly mounted within the open end of the socket 14 is a cylindrical ejector 16 which has a working fit within the socket and which is provided with an elongated slot 17 which receives the inner end of a threaded pin 18. This pin is removably secured within an opening provided in the body 10 and extends inwardly into the slot 17 and serves as a stop to limit the longitudinal movement of the ejector and at the same time prevent rotary movement. Also located within the socket 14 and having one end bearing against the inner end of this socket and the opposite end bearing against the inner end of the ejector 16, is a coiled spring 19 which acts to force the ejector outward as shown in Figure 2 of the drawings. The inner end of the body 14 is provided with an opening 20, by means of which lubricant may be inserted within the socket to aid in the operation of the ejector.

Normally, the ejector 16 extends beyond the end of the body so as to protect the cutting edge 15 of the tool. When the tool is in use, a blow upon the striking head 12 will force the cutting edge downward through the material to be cut and the disk material thus removed will be ejected by the action of the spring 19 forcing the tool upward, which action will also remove the tool from the gasket.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described the invention what is claimed is:—

A tool comprising a cylindrical body having a longitudinally disposed socket at one end, said body having a diagonal opening leading into the inner end of the socket, a shank extending from the opposite end of the body, a tapered extremity at the open end of the body and defining a circular cutting edge at the open end of the socket, a longitudinally movable cylindrical ejector normally projected an appreciable distance beyond the cutting edge and defining an edge protector, said ejector also extending for an appreciable distance within the socket and having an elongated axially disposed groove in its periphery, the end walls of said groove defining stop shoulders, a stud extending through the body into the groove for engagement by said shoulders to limit movement of the ejector and a spring also located within the socket and acting to normally force the ejector outwardly.

In testimony whereof I affix my signature.

OMER DEVEAULT.