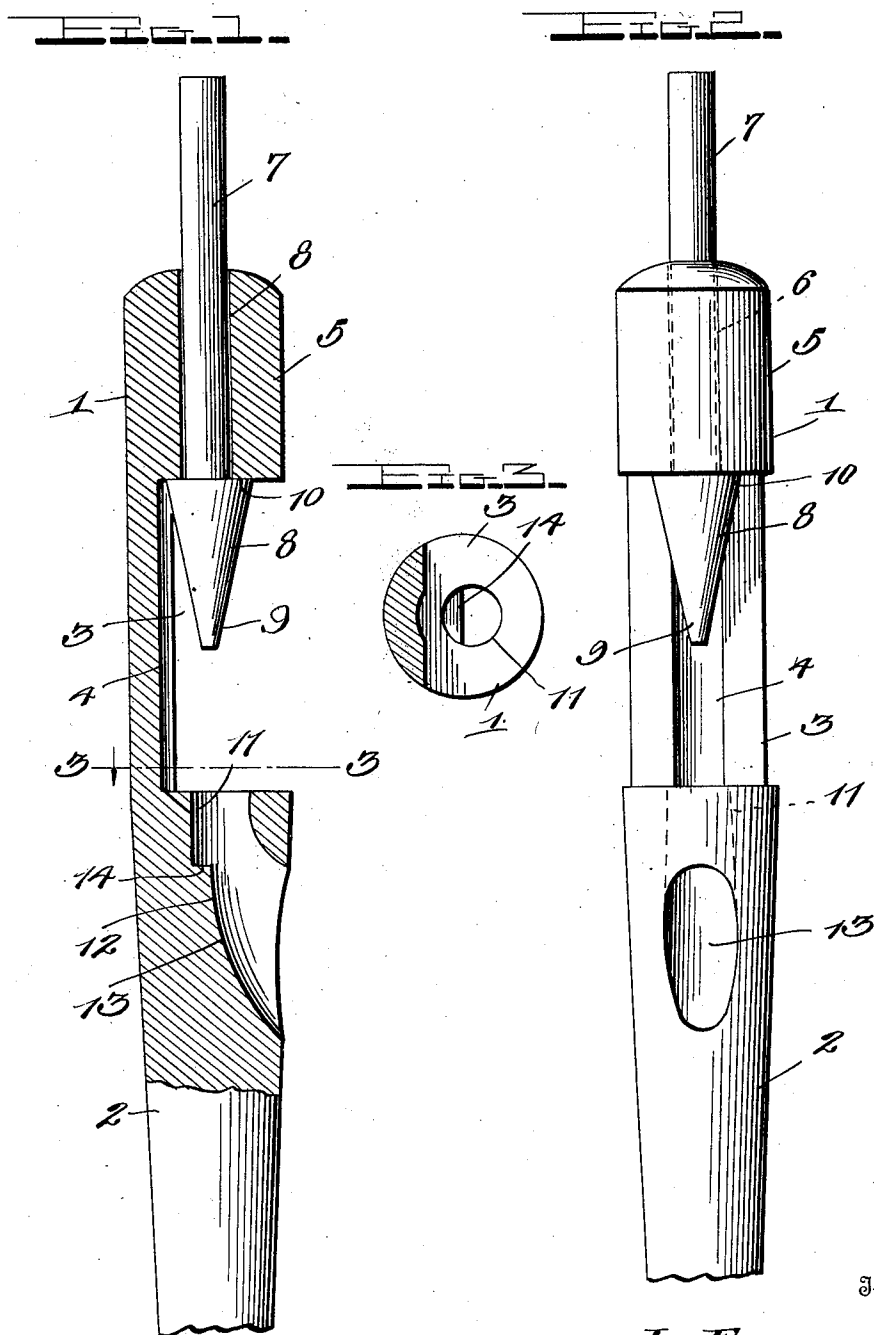


L. FOX.
PUNCH.

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Patented Dec. 10, 1912.



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PUNCH.

1,047,029.

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To all whom it may concern:

Be it known that I, LOUIS FOX, a citizen of the United States, residing at Chandlersville, in the county of Muskingum and State of Ohio, have invented certain new and useful Improvements in Punches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in punches, the object of the invention being to provide a punch adapted for use in punching holes in metallic plates and also for punching rivets out of belting and various other materials.

Another object of the invention is to provide a punch of the above character which will possess advantages in points of efficiency and durability, is inexpensive to manufacture and at the same time is simple in construction and operation.

With the above and other objects in view the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described, pointed out in the claim, and shown in the accompanying drawings in which,

Figure 1 is a vertical sectional view of my improved device. Fig. 2 is a front elevation. Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Referring more particularly to the drawings, 1 indicates the elongated body portion of the device which is formed tapering toward one end as shown at 2 and is provided adjacent its other end with a cut away portion 3 to form a longitudinally extended recess, having a similar shaped groove formed in the side wall thereof as shown at 4. The upper end 5 of the body is provided with a longitudinal opening 6 in which is slidably mounted the shank 7 of the punch 8. Formed integral with the lower end of the shank is the tapering head portion 9 which is provided at its large end with an annular shoulder 10 adapted to abut against the upper wall of the recess 3 to limit the upward movement of the punch.

The lower wall of the recess is provided with a downwardly extending opening 11 which extends outwardly through the body portion to the exterior thereof as shown at 12 to form an incline wall 13 at the upper

end of which is formed a shoulder 14 against which the lower tapering end of the punch abuts to limit the downward movement thereof. In the sliding movement of the punch, the upper end of the head portion 9 is slidably arranged within the groove 4. In using my improved punch the lower tapering end 2 of the body member is mounted in a socket or other stationary object and the work is placed upon the lower wall of the recess and arranged beneath the lower end of the punch, the punch is then driven through the work by means of a hammer or other suitable tool striking upon the upper end of the shank 7 to force the tapering end of the punch down through the work. Thus if the device is used for punching holes in sheet metal, the material which is punched therefrom will drop down out through the lower end of the opening 11, and if rivets or other articles are punched from belting or other material, the rivets will drop down and out the opening 11.

From the above description taken in connection with the drawings, it will be readily apparent that I have provided a simple, durable and inexpensive punch that can be manufactured at an extremely low cost and one which can be quickly and easily operated.

While I have shown and described the preferred form of my invention, it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from the scope of the appended claim.

What I claim is:—

In a device of the character described, the combination of a tapering body having a longitudinal recess formed therein adjacent the upper end, having a groove formed therein, the upper end of said body having an opening therein communicating with said recess, the lower wall of said recess having a downwardly and outwardly extending opening communicating with the exterior of the body, a shoulder formed in the side wall of said opening, a punch comprising a shank slidably mounted in the upper end of the body, a tapering head portion arranged in the recess and having its lower end adapt-

ed to be disposed in the opening formed in
the lower side wall of the recess and abutting
against the shoulder formed in the side wall
of the downwardly extending opening to
5 limit the downward movement of said
punch, an annular shoulder formed upon
the upper end of the tapering head adapted
to abut against the upper wall of the recess

and one side of said shoulder being slidably
mounted in said groove. 13

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

LOUIS FOX.

Witnesses:

F. H. WAXLER,
C. W. DANISON.

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