July 25, 1939. A. BUSTAMANTE ET AL 2,167,103

PUNCH

Filed March 23, 1939

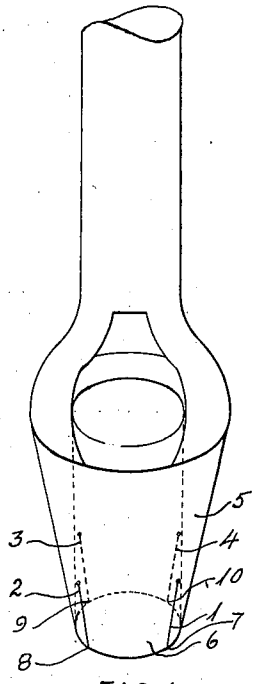


FIG. I

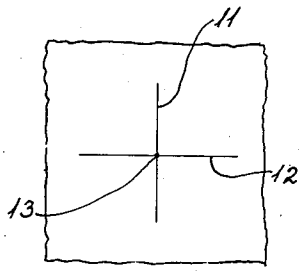


FIG. III

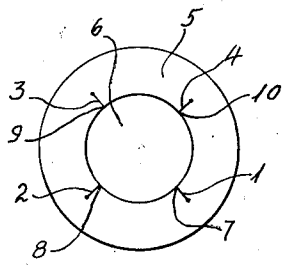


FIG. II

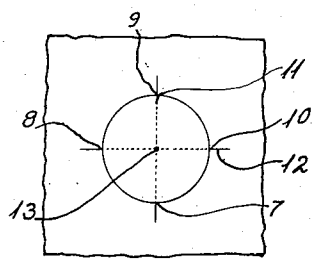


FIG. IV

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UNITED STATES PATENT OFFICE

2,167,103

PUNCH

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1 Claim. (Cl. 164—119)

This invention relates to improvements in punches and particularly to means for accurately centering the punch to make the perforation or impression in the exact position wanted, when this position is given by single points marked in the sheets or materials to be impressed or perforated.

Although the invention may be used in every kind of punches embodying mechanical means for their actuation it is especially useful when adapted to hand punches.

For a better understanding of the advantageous features of our invention or discovery above named, reference should be made to the attached drawing which merely by way of example illustrates one of the many kinds of punches in which is possible the embodiment of the invention, wherein—

Fig. I illustrates a perspective view of a hand punch embodying the invention.

Fig. II shows the same punch in an end view.

Fig. III represents a piece of sheet to be punched, and

Fig. IV shows the same piece of sheet with the shearing edge of the punch set in position to operate.

Our invention consists in the four narrow grooves or etched lines 1, 2, 3, 4, marked on the lateral visible face of the punch 5 according with planes crossing at right angles one in another and normally to the plane of the mouth 6, thus crossing these planes with the plane of the mouth through its center of figure, and producing the points 7, 8, 9, 10 at the shearing edge of the punch.

These points are the only necessary means in the use of the invention as the lines 1, 2, 3, 4, are merely references to the points 7, 8, 9, 10.

In the practice with a punch embodying our invention, draw two straight lines 11, 12, Fig. III, at right angles, through the point 13, previously marked as the center of the perforation to be made; set then the punch so that points 7, 8, 9, 10, ends of grooves or lines 1, 2, 3, 4, respectively, correspond with the lines 11, 12 as represented on Fig. IV and the punch is thus centered in position to make the impression desired.

In accordance with the requirements of the patent statutes we have set forth one embodiment of our invention in this application, but it is understood that the invention is capable of assuming other forms than that chosen for purposes of illustration. The invention for example, as described, is adapted to a hollow punch but in the same way may be used when the punching member be a solid rod with a plain face instead of a mouth. The claim appended hereto is thus intended to cover all such forms.

What we claim is:

In a punch, marks consisting in narrow grooves or etched lines on its visible lateral shearing face according with normal planes to that of the mouth, said marks or lines ending at the shearing edge of the punch.

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