Sept. 3, 1935. N. F. MILLER 2,013,574

TOOL

Filed Oct. 6, 1934

Fig. 1.

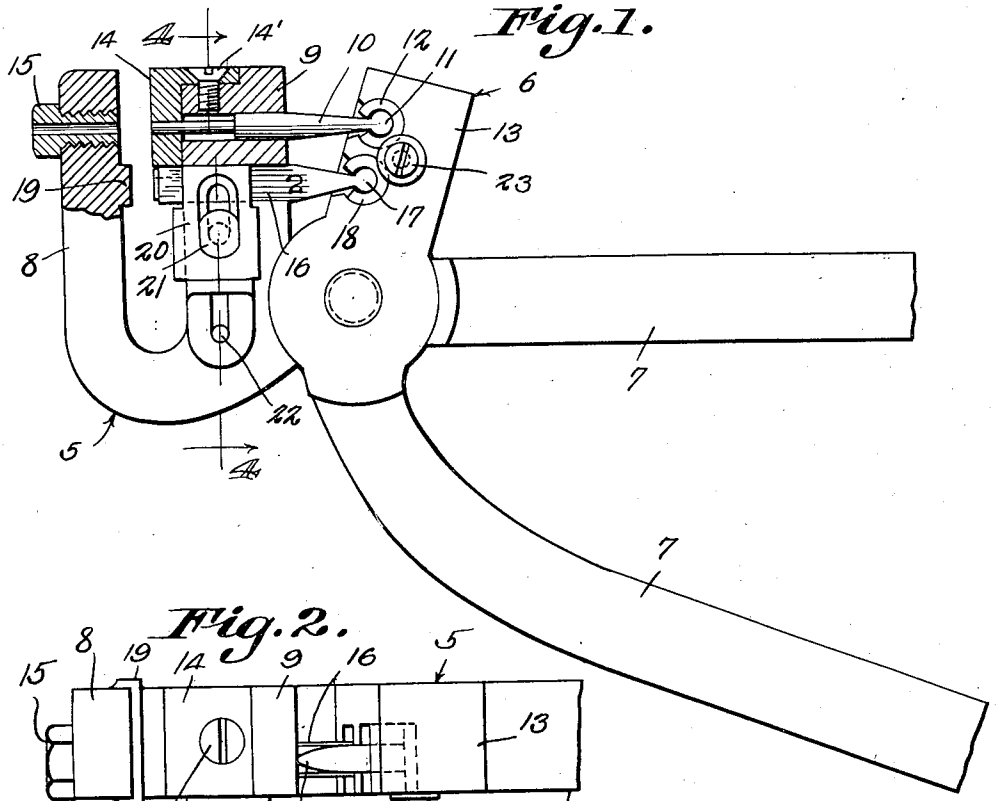


Fig. 2.

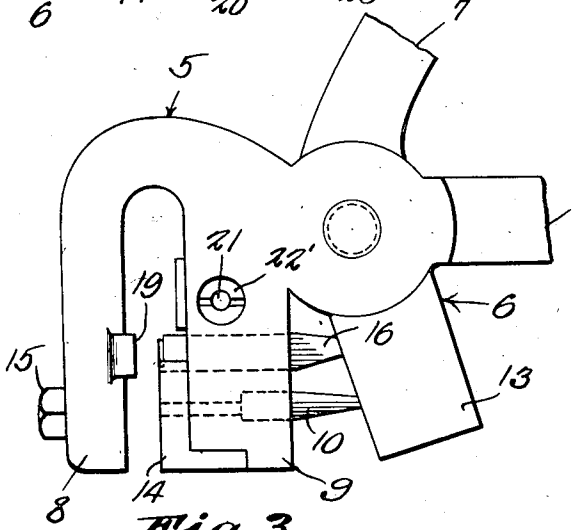


Fig. 3.

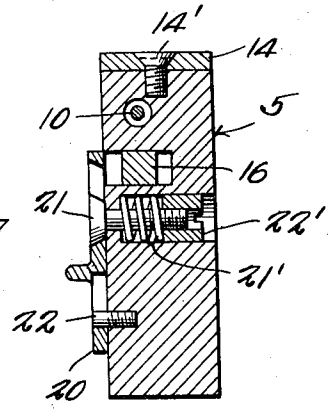


Fig. 4.

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UNITED STATES PATENT OFFICE

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TOOL

Nickolaus F. Miller, Dwight, Ill.

Application October 6, 1934, Serial No. 747,227

2 Claims. (Cl. 101—3)

This invention relates to a tool designed for use primarily in connection with a motor vehicle license plate constructed in accordance with my invention as set forth in my copending application filed October 3, 1934, Serial Number 746,718, the primary object of the invention being to provide means for punching the license plate, and simultaneously forming indicia directly under the opening punched.

An important object of the invention is to provide a tool of this character embodying a removable die and punch which when in use, move through the stationary jaws of the tool, means being provided for pivotally mounting the die and punch on the swinging arm of the tool, whereby the die and punch will be maintained in parallel relation with respect to each other at all times.

Another object of the invention is the provision of means for removably supporting the die and punch, whereby the die and punch may be readily removed and replaced, when it is desired to replace the die or punch.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is an elevational view of a tool constructed in accordance with the invention, a portion thereof being shown in section, illustrating the construction of the stationary jaws, die and punch.

Figure 2 is a plan view of the tool.

Figure 3 is an elevational view illustrating the opposite side of the head of the tool.

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

Referring to the drawing in detail, the tool embodies pivotally connected members 5 and 6, each member embodying a handle 7. The member 5 is formed with a pair of parallel jaws 8 and 9 which are spaced apart a distance to permit the jaws to be slid over a license plate, for accomplishing the purpose of the invention.

The jaw 9 is formed with an opening through which the punch 10 operates, the punch 10 being provided with a head 11 which is fitted in the bearing 12 that in turn is pivotally mounted within an opening of the jaw 13.

A removable guide plate indicated at 14 is positioned over the outer edge of the jaw 9 and is removably held in position by means of the screw 14'. The guide plate 14 is provided with an opening registering with the opening of the jaw 9 through which the punch 10 extends, so that the punch is guided in its movements towards the jaw 8.

The free end of the punch is adapted to extend into the bore of the member 15 carried by the jaw 8, so that the punch may act to force the piece of metal punched, from the jaw.

Associated with the punch 10 is a die 16 which is formed with a head 17 fitted in the bearing 18, so that movement of the jaw 13 will be permitted.

An anvil indicated at 19 is formed on the jaw 8, and cooperates with the die in forming a number, directly under the hole or opening formed by the punch 10.

This die operates through a slot formed in one side of the jaw 9, and is held in the slot by means of the plate 20, which is formed with an elongated opening to receive the screw 21, which grips the plate 20 and holds it against movement. This screw is yieldably held in position by means of the spring 21' which encircles the screw and is held in position and tensioned by means of the nut 22'.

To remove the die, the plate 20 is moved away from the die, and the die lifted from its recess.

When another die has been positioned in lieu of the die removed, the plate is returned to its active position and the screw 21 tightened, holding the plate against movement.

The dies are supplied with numbers on the sides thereof, corresponding to the numbers on the ends of the dies, so that the operator may readily determine when the dies have been properly positioned.

A pin indicated by the reference character 22 rides in a slot of the plate 20, and provides a guide to prevent the twisting of the plate.

The bearings 12 and 18 are held in position by means of the washer and screw 23, the screw extending into a threaded opening formed in the jaw 13. As clearly shown by Figure 1 of the drawing, the washer, when positioned on the jaw, overlies portions of the bearings 12 and 18 preventing the bearings from moving laterally, when the tool is operated.

From the foregoing it will be seen that when it is desired to impress the date on a license for identification purposes, it is only necessary to

position the tool so that one edge of the plate extends into the space between the jaws 8 and 9, whereupon the handles are forced together causing a hole to be punched, and the die to impress or form a letter directly thereunder.

Having thus described the invention, what is claimed is:

1. A tool of the class described, comprising a pair of pivotally connected members, a pair of spaced jaws on one of the pivoted members, and a jaw carried by the opposite pivoted member, the jaws having openings, a punch member and a die member operating through the openings, the latter jaw having openings formed therein and extending to the edge of the jaw, said punch member and die member having heads, bearings fitted within the openings of the last mentioned jaw and embracing the heads, and said bearings adapted to move within their openings when the pivotally connected members are moved together.

2. A tool of the class described, comprising a pair of pivotally connected members, a pair of spaced stationary jaws having openings, a jaw carried by the opposite pivoted member, the latter jaw having openings formed therein, the openings extending to the edge of the latter jaw, curved bearings in the openings and having openings therein, a punch member and die member having heads fitted in the bearing members pivotally connecting the punch member and die member to the last mentioned jaw, and removable members engaging the punch and die, securing them within the openings of the first mentioned jaws.

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