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ILLUMINATED PUNCH

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1 Claim. (Cl. 240—6.46)

This invention relates generally to punches, and particularly to an illuminated punch.

The main object of this invention is to construct a punch provided with a means for illuminating the portion of the object being punched.

The second object is to construct a punch especially adapted for use by police officers, car conductors and bus operators in punching tags and tickets where accuracy in punching is an important factor.

The third object is to construct a punch of the class described which will be easy to manufacture and which cannot easily be rendered inoperative.

These and other objects are accomplished in the manner set forth in the following specification as illustrated in the accompanying drawing, in which:

Fig. 1 is a side elevation of the device.

Fig. 2 is a plan of the device.

Fig. 3 is a section taken along the line 3—3 in Fig. 1.

Fig. 4 is a section taken along the line 4—4 in Fig. 1.

Fig. 5 is a diagrammatic view showing the electrical circuit.

Fig. 6 is a fragmentary section taken along the line 6—6 in Fig. 2.

Fig. 7 is a fragmentary section taken along the line 7—7 in Fig. 3.

Similar numerals refer to similar parts throughout the several views.

Referring in detail to the drawing, there is shown a punch having a pair of elongated jaws 10 and 11 which are fixed in relation to each other and are separated by the elongated slot 12 into which the ticket or tag is inserted for punching purposes.

Integral with the jaws 10 and 11 is a handle 13. A punch carrying arm 14 is mounted on the pivot 15 in the jaw 11, said pivot 15 being disposed near the end 16 of the slot 12. The arm 14 is provided with a handle 17 and a punching point 18 which registers with the hole 19 in the jaw 10.

Owing to the length of the jaws 10 and 11, it is desirable to have the pivot 15 as far as possible away from the open end of the jaws.

A compression spring 20 is placed between the handles 13 and 17. The handle 13 is provided with an opening 21 to receive an electric battery 22 whose negative side is connected by means of a wire 23 to the center contact of the lamp 24 whose receptacle 25 is secured to the punch arm 14 by means of the screw 26.

The receptacle 25 is so formed as to permit light to shine in the direction of the arrow 27 onto the portion of the card 28 which is being punched.

The handle 17 is provided with an opening 29 which receives a battery 30 which is covered with the insulation 31. The positive pole 32 of the battery 30 is held out of engagement with the contact 33 by friction between the battery insulation 31 and the wall of the opening 29. The battery 30 is urged toward a circuit closing position, that is, when the members 32 and 33 are in engagement with each other, by means of a spring 34 which is attached to the threaded cap 35 which forms a closure for the opening 29.

A leaf spring 36 is mounted within the opening 29 on the inner side of the handle 17 and has attached thereto a headed button 37 by means of a countersunk screw 38. It is desirable to have the end 39 of the button 37 knurled to facilitate the operation of the device.

The spring 36 has its end 40 turned to engage the end of the battery 30 and the button 37 is slidable within the elongated opening 41 to permit the spring 36 to be moved longitudinally in the opening 29.

It is desirable to provide a notch 42 within the opening 29 to receive one end of the leaf spring 36 in order to insure against having the spring 34 operate the device in a circuit closing direction when such action is not desired.

It will be noted that the contact 33 of the battery 30 is connected by means of the wire 43 to the shell 44 of the lamp 24.

As a convenient way of completing the electrical circuit, I have found it desirable to form a channel in the arm 14 in which are placed the wires 23 and 43 which are imbedded in the insulating material 45.

The operation of the device is as follows:

When it is desired to use the lamp 24 in connection with the operation of the punch, it is only necessary for the operator to move the button 37 away from the handle end of the punch causing the spring 36 to disengage the notch 42 and causing the contacts 32 and 33 to engage each other thereby closing the circuit to the lamp 24 and causing the light to fall upon the card or ticket 28 at the place where the punching is about to be made thereby greatly facilitating the accurate punching of the tag or ticket.

While I have shown the flashlight mounted on the punch arm 14, it is obvious that it could

be mounted on the jaws 10 or 11 without departing from the spirit of this invention.

While I have thus illustrated and described my invention, it must be understood that it is not my intention to limit myself to the precise details shown herein but I intend to cover all such forms and modifications thereof which fall fairly within the appended claim:

I claim:

An illuminated punch for use by traffic officers consisting of a handled jaw member having an elongated ticket receiving slot formed in one end thereof extending toward its handled end, a pivot disposed on one side of said slot between the ends thereof, the side of said jaw 15

containing said pivot having an enlarged opening at its open end and the opposite jaw having a registering punch opening therein, a handled punch point jaw mounted on said pivot having a punch adapted to pass through said enlarged opening into said punch opening, an electric lamp mounted on said punch and in front of said enlarged opening and dry cells disposed within the handles of said jaws connected to said lamp and grounded to said jaws whereby the light rays passing through said enlarged opening illuminate a portion of an object to be punched.

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