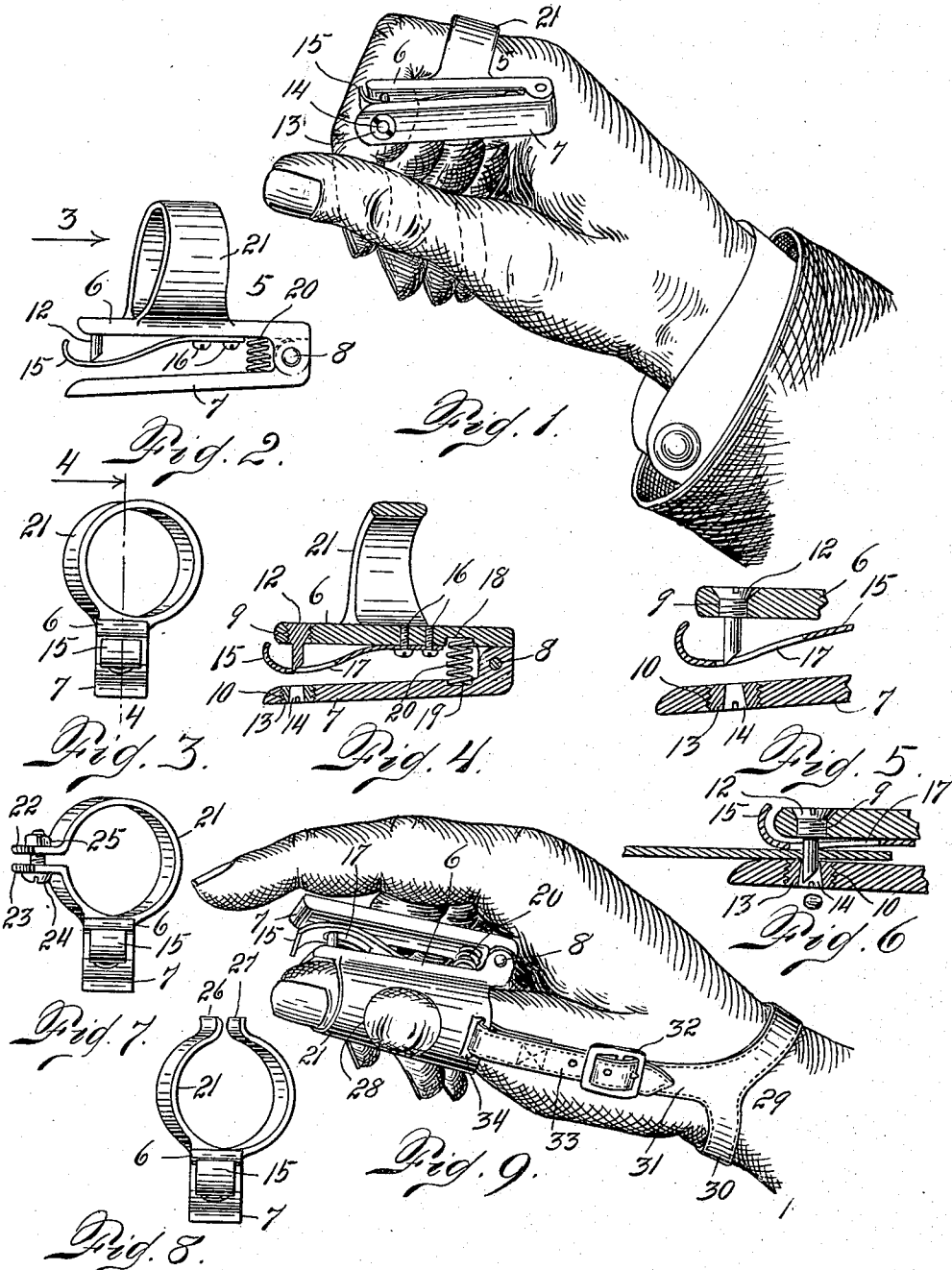


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TICKET PUNCH.  
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# UNITED STATES PATENT OFFICE.

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## TICKET-PUNCH.

1,217,870.

Specification of Letters Patent.

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### *To all whom it may concern:*

Be it known that I, JOHN KLAES, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Ticket-Punches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

The object of my invention is to produce a punch of the class used for punching tickets, transfers and the like, which, besides being simple in construction and very compact in form can be maintained upon the finger or thumb of the hand both during the punching operation and while the hand is being used for other purposes.

In order to make it possible to do this, and at the same time provide sufficient leverage, I mount a ring or band upon the body of the punch in a plane oblique to the central longitudinal plane of the punch body.

Having briefly outlined my improved construction, I will proceed to describe the same in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof. In this drawing,—

Figure 1 is a view of my improved device mounted upon the forefinger of the hand.

Fig. 2 is an elevation view of the device detached from the hand.

Fig. 3 is an end view taken in the direction of arrow 3, Fig. 2.

Fig. 4 is a sectional view taken on the line 4—4, Fig. 3.

Fig. 5 is a detail view of the punching extremity of the device, with the parts in the open position.

Fig. 6 is a detail view of the punching extremity, showing the parts in the act of punching a ticket.

Fig. 7 is an end view showing a modified form of ring or band.

Fig. 8 is an end view showing another modified form of the ring or band.

Fig. 9 is a view showing the device mounted upon the thumb of the hand and secured in position by a retaining shackle.

Let the numeral 5 designate the punch in its entirety, and which is composed of two

main parts 6 and 7 hingedly connected at one extremity as shown at 8. Attention is called to the fact that this hinge is so arranged that the parts 6 and 7 have only a limited movement, and therefore cannot open beyond a certain point. The opposite extremities of the said parts 6 and 7 are perforated at 9 and 10, and adapted to respectively receive male and female members 12 and 13. The upper extremity of the male member 9 is fashioned similar to the head of an ordinary screw, that is, it has a slot therein whereby it may be manipulated by a screw-driver or other suitable instrument. A portion of the male member directly below its head is threaded, as is also a portion of the wall surrounding the perforation 9, whereby the male member may be screwed into the said perforation. The upper extremity of this perforation is enlarged to receive the head of the male member so that when the latter is fitted into position its top will lie flush with the upper surface of the part 6. The lower portion of the male member is of less diameter than its threaded portion, and is adapted to normally project into the space between the two parts 6 and 7, but during the punching operation it will enter a perforation 14 formed in the female member 13. This female member is exteriorly threaded so that it can be screwed into the perforation 10 in the part 7, the walls of said perforation being threaded for this purpose, and when the said female member is in place its opposite extremities will lie flush with the inner and outer surfaces of the part 7. The exterior surface of the female member, as illustrated in Figs. 1, 4, 5 and 6, has slots therein diametrically arranged, whereby it may also be screwed into place or withdrawn by using an ordinary screw-driver.

Thus, both the male and female members are readily detachable, and may be easily replaced when they become worn out or injured, and, as they are practically the only portions of the punch that will need replacing; the latter can be used indefinitely.

To the under surface of the part 6 is secured one extremity of a stripper spring 15 by means of screws 16. The said spring projects forwardly and away from the under surface of the part 6, and has a slot 17 in its forward portion into which the lower extremity of the male member normally projects. The forward or free extremity of this

spring 16 is curved upwardly to facilitate the inserting of a ticket or the like, and when the two parts 6 and 7 are brought into punching relation this curved extremity of the spring will lie forward of the part 6.

The inner opposing surfaces of the parts 6 and 7 are recessed as shown at 18 and 19 to respectively receive the opposite extremities of a coil spring 20 which is compressed during the punching operation, and will therefore return the parts 6 and 7 to their normal position when the latter are released.

Formed integral with or mounted in any suitable manner upon the part 6, is a ring or band 21 adapted to be slipped over the forefinger or thumb of the user, and the ring is so arranged with respect to the body of the punch that the band is mounted in a plane oblique to the central longitudinal plane of the punch body. This peculiar arrangement of the ring with respect to the punch proper is one of the most essential features of my invention, since when the ring is slipped over the forefinger the forward or punching extremity of the punch will bear against the said forefinger between its two joints, as illustrated in Fig. 1, whereby the greatest possible leverage will be obtained, and the forefinger will have the support of the other three fingers. A further advantage arising from this particular manner of mounting the ring on the body of the punch is the ease with which the operator is enabled to secure the precise, desired location of the perforation to be made in the ticket. This would not be the case if the ring or band were parallel with the central longitudinal plane of the body of the punch, because then the punching extremity of the latter would bear against the first joint of the finger, or the joint adjacent the knuckle, and thus the thumb would have to be moved to a position at an angle to the normal in order to manipulate the device, and, furthermore, the forefinger would lose the support of at least two of the other fingers.

This ring 20 may be continuous and rigid, as illustrated in Figs. 1, 2, 3 and 4, or split as shown in Figs. 7 and 8. In the construction illustrated in Fig. 7, the ring is composed of resilient material, and the opposing extremities 22 and 23 are bent outwardly parallel to each other, and have registering perforations to receive a bolt 24 upon the free extremity of which a nut 25 is threaded,

and by manipulating the nut the ring or band may be adjusted to increase or decrease the opening within the same.

In Fig. 8 the ring is composed of spring material and the opposing extremities 26 and 27 are curved upwardly and away from each other to avoid irritating the finger, and at the same time to permit a slight adjustment of the said ring.

In Fig. 9 the device is shown as applied to the thumb of the hand, the construction of the ring and punch being the same as when the device is applied to a finger except that the ring is provided with an opening 28 to receive the joint of the thumb, and allow the latter a slight movement. In this figure a retaining shackle 29 is shown, the latter comprising a loop 30, which surrounds the wrist of the user, and an extension 31 having a buckle 32 secured thereto. A strap 33 is attached at one extremity to the ring by means of a slot 34 formed in said ring, the free extremity of said strap being adjustably connected with the buckle 32. This supporting strap may be used if desired, but it is not necessary for retaining the device in position upon the hand.

From the foregoing description it is believed readily discernible that my device may be maintained at all times upon the hand and not interfere with whatever other duties the user may have to perform, and at the same time permit the punching of a ticket or transfer in a most efficient manner.

Having thus described my invention, what I claim is,—

1. A ticket punch comprising a body, equipped with a rigidly connected ring or band to receive the thumb or a finger of the user's hand; said band being mounted in a plane oblique to a central longitudinal plane of said body.

2. A ticket punch having a body comprising two parts hingedly connected, and a ring or band rigidly connected to one of said parts in a plane oblique to a longitudinal plane of said body, for retaining the implement in working position on the hand of the user.

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

JOHN KLAES.

Witnesses:

GRACE HUSTON,

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