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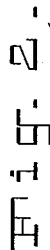
No. 386,392.

Patented July 17, 1888.



E. B. Bolton.

H. Haplinger.



INVENTOR:

Wm. J. Ericson,

By: Henry Connors,
Attorney.

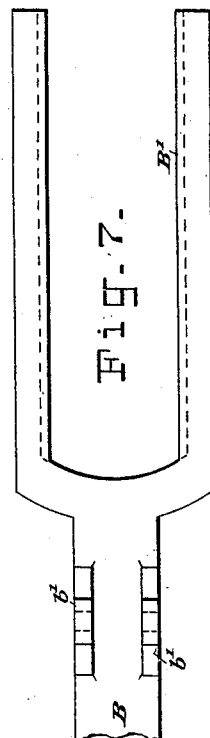
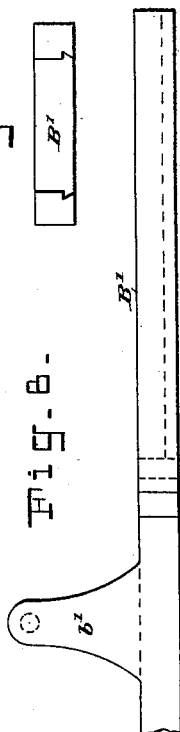
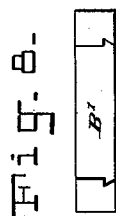
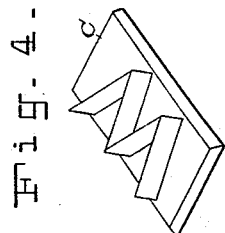
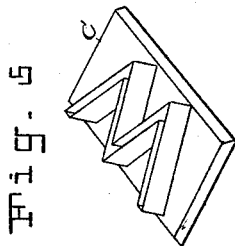
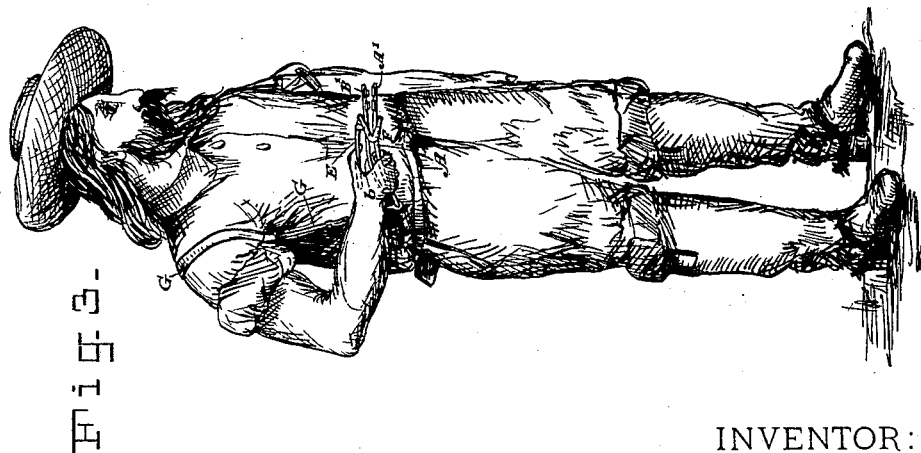
(No Model.)

2 Sheets—Sheet 2.

C. J. ERICSON.
PUNCH.

No. 386,392.

Patented July 17, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES J. ERICSON, OF SALT LAKE CITY, UTAH TERRITORY, ASSIGNOR TO
WILLIAM GRANT VAN HORNE, OF SAME PLACE.

PUNCH.

SPECIFICATION forming part of Letters Patent No. 386,392, dated July 17, 1888.

Application filed May 18, 1887. Serial No. 238,645. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. ERICSON, a citizen of the United States, and a resident of Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented certain new and useful Improvements in Punches, of which the following is a specification.

My invention relates to the class of lever hand-punches, and is especially designed for use as a punch for marking the ears of cattle—that is to say, I employ in my punch cutters adapted for clipping out pieces from the ears of the animals, the peculiar form of the piece removed indicating the ownership of the animal. The cutters may be so shaped as to leave marks on the ear simulating letters or figures, and these may be formed at the margin of the ear by clipping or notching, or the cutter may be formed so as to remove a piece from the body of the ear, leaving thus a hole of peculiar form.

In order that two or more letters or marks—as two initials—may be cut at once, I provide means for inserting two or more removable cutters in one jaw of the punch. The soft-metal cutting-plates in the other jaw may also be made removable.

In order to obtain sufficient leverage to enable the operator to effect the punching easily with one hand, and also to cause the cutter to move in punching in nearly a straight line, I employ a peculiar compound-lever construction, that will be hereinafter described.

In order to provide ample room for the ear or thing to be punched, I connect the operating-lever and the non-moving or lower jaw of the punch by means of U-shaped links, in a manner that will be hereinafter described.

In order to support the rear end of the punch while it is being used, and thus assist the operator materially in the punching operation, I provide this end of the punch with a strap attachment, whereby the punch may be hung from the operator's shoulder, or from some other part of his person.

My invention will be hereinafter fully described, and its novel features carefully defined in the claims.

In the drawings which serve to illustrate my invention, Figure 1 is a side elevation of a punch and its strap or support embodying my

invention. Fig. 2 is a plan of the punch seen in Fig. 1. Fig. 3 is a view designed to illustrate the manner of supporting the punch by the strap when the punch is being used. Figs. 4 and 5 illustrate two different forms of cutters that may be employed in the punch. Figs. 6, 7, and 8 illustrate another form of the jaw-head for receiving the cutters.

Referring first to Figs. 1 and 2, A represents the lower or non-moving jaw of the punch. This jaw is, by preference, curved or arched at the part *a*, the better to adapt it for grasping by the hand. It has a head, A', broader than the body or shank, in or on which is placed the soft-metal cutting-plate *a'*. I prefer to provide the head A' with dovetail keepers to receive the cutting plate or plates, so that they may be readily removed and replaced when necessary; but they may be attached to the jaw-head by other means.

B is the upper or moving jaw of the punch. This jaw I usually curve or arch at *b* to coincide with the corresponding part, *a*, of jaw A. Jaw B is hinged to jaw A at *x*, preferably by turning up lugs *a'* on the jaw A, which lugs embrace the end of the jaw B. A hinge-pin is passed through all three parts. The head B' of jaw B is made broader than the body or shank, and is provided on its lower face with dovetail keepers to receive a suitable removable cutter, C, the base of which is properly beveled to fit said keepers.

In Figs. 1 and 2 two cutters C are shown in the head B'. One or more may be employed. The cutter in these figures is an "open" cutter, adapted either to remove a piece from the body of the ear or to clip a piece from the edge of the ear. One cutter C is circular in form and the other triangular. The jaw B is held up, lifted, or supported on a spring, D, secured to the lower jaw, A.

E is the operating-lever of the punch. This lever is slightly arched, as shown, and is pivotally fulcrumed at *y* on the jaw B. The pivot-pin *e* passes through two uprights, *b'*, on the jaw, the outer faces of which are flush with the faces or sides of said jaw.

F F are two U-shaped links, arranged one at each side of the jaws A and B and coupled at their upper ends to the short arm *e* of the operating-lever E and at their lower ends to the

jaw A at the point *z*. By giving to these links a U form, as shown, room at the point X in Fig. 1 is provided for the ear of the animal when it is desired to mark the ear at a point some distance from its edge.

G is a strap, (see Figs. 1 and 3,) which is connected to the extreme end of the jaw A of the punch by means of a snap-hook, *g*, for convenience of detaching the punch. This strap is in the form of a loop, and has a buckle, *g'*, for adjusting its length, and a slide, *g''*, for tightening the loop around the shoulder or arm.

Fig. 3 shows the manner of using the strap G. The loop is slipped up over the arm and so as to rest on the shoulder. The slide *g''* is slipped up so as to make the loop tight. The strap will now serve as a support for the back end of the punch when the latter is held in a horizontal position for punching, as indicated in the figures, and thus materially aid the operator in working the punch.

Fig. 4 illustrates a cutter C having the form of a letter W, and designed for clipping or notching the margin of the ear.

Fig. 5 shows a cutter C, also in the form of a letter W, but having double cutters and being designed to cut a piece from the body of the ear having this form, and thus leave a hole in the ear of the same form. These are only illustrations of various forms of cutters that may be employed in my punch.

In Figs. 1 and 2 the keepers which receive the cutters extend transversely of the jaw-head B'. Fig. 6 is a side elevation, Fig. 7 a plan, and Fig. 8 an end elevation of a jaw-head provided with dovetail keepers for this purpose extending longitudinally of the head.

By making the jaws A B long and hinging

them together (at *x*) as far as possible from the cutter C, I obtain a movement of the cutter approaching very nearly to a straight line, and by arranging the fulcrum-pivot (at *y*) of the operating-lever forward near the cutter and making the disparity in length between the long and short arms of the operating-lever as great as possible I obtain a powerful leverage.

Having thus described my invention, I claim—

1. In a punch, the combination, with two jaws hinged together and a spring arranged between them, of an operating-lever with arms of unequal length fulcrumed on the upper one of said jaws, and two U-shaped connecting-links, F F, coupled at their ends, respectively, to the short arm of the operating-lever and to the lower jaw, as set forth.

2. In a punch for marking cattle, the combination, with the long jaw A, provided with a head, A', and a cutting-plate, *a'*, of the long jaw B, provided with a head, B', and cutters C, mounted on said head, said jaws being hinged together at *x*, the spring between the jaws, the operating-lever E, fulcrumed on the top of jaw B at *y*, and the U-shaped links F F, each coupled at one end to the short arm of lever E and at the other end to jaw A at *z*, whereby the room is provided for the ear of the animal, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES J. ERICSON.

Witnesses:

JOHN E. WISCOMB,
JOHN B. ROGERS.