

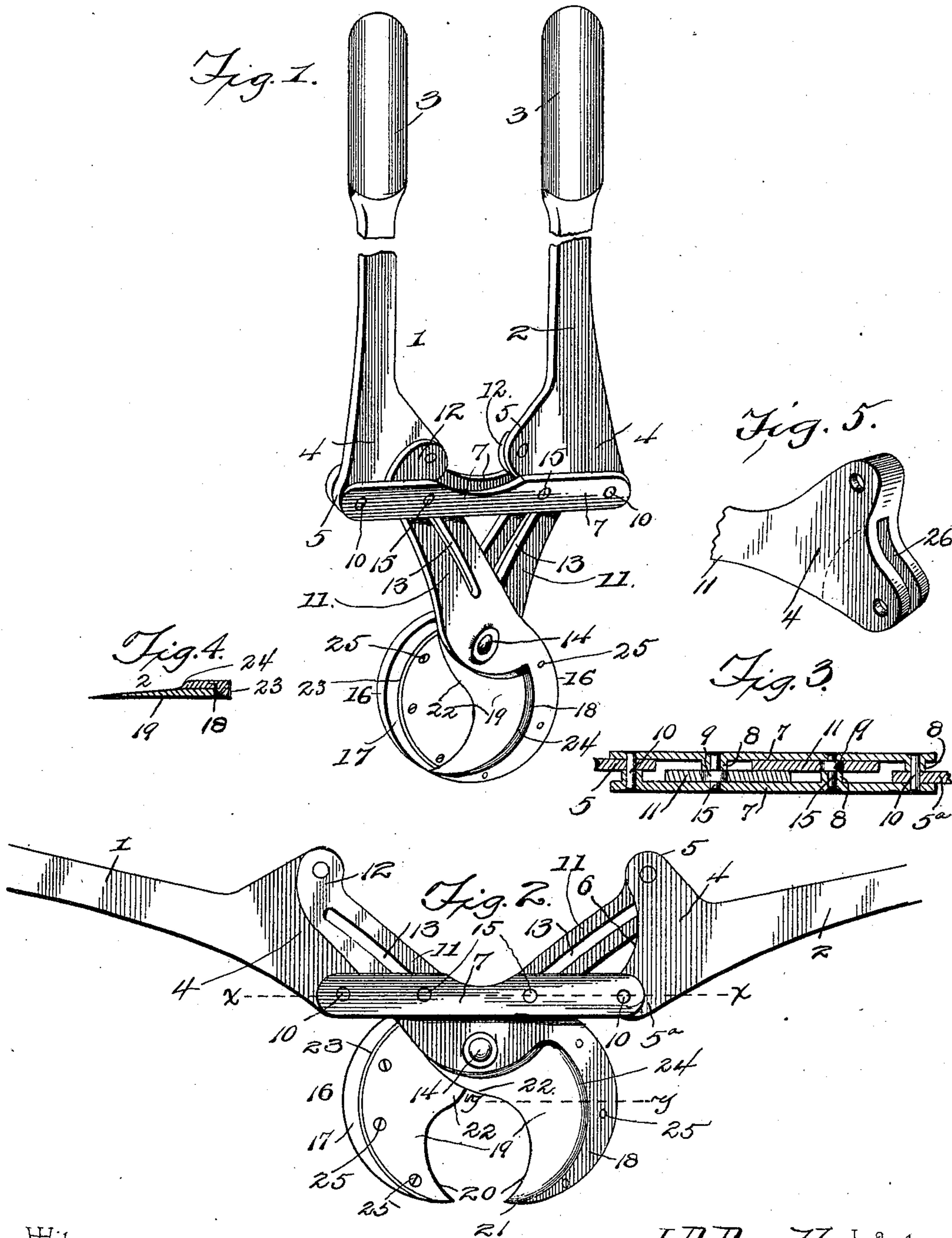
No. 644,350.

Patented Feb. 27, 1900.

J. D. DECELLE.
DEHORNING IMPLEMENT.

(Application filed Aug. 9, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

JERRY D. DECELLE, OF FORT COLLINS, COLORADO.

DEHORNING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 644,350, dated February 27, 1900.

Application filed August 9, 1899. Serial No. 726,712. (No model.)

To all whom it may concern:

Be it known that I, JERRY D. DECELLE, a citizen of the United States, residing at Fort Collins, in the county of Larimer and State of Colorado, have invented a new and useful Dehorning Implement, of which the following is a specification.

This invention relates to dehorning implements; and one object of the same is to provide simple, efficient, and compact means for painlessly dehorning cattle by avoiding a crushing cut and regularly producing a severance from the points toward the heels of the cutters, and, further, to employ positively-acting operating devices in connection with said cutters that have a forceful leverage.

Further objects and advantages will appear in the subjoined description and as the invention becomes better understood. The preferred embodiment of the same is illustrated in the accompanying drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view of a dehorning implement embodying the invention. Fig. 2 is an elevation of the same broken away, showing the parts open. Fig. 3 is a transverse horizontal section on the line *x x*, Fig. 2. Fig. 4 is a similar section on the line *y y*, Fig. 2. Fig. 5 is a detail perspective view of a part of the device, showing a slight change in the arrangement.

The numerals 1 and 2 designate oppositely-disposed handle-levers having terminal grips 3, which are preferably tubular and may be covered with any suitable material or have an integral surface construction to prevent slipping from the hands or to be easily grasped. The terminals of the said levers opposite to those bearing the grips 3 are laterally extended or widened to provide heads 4, each of which has a pair of spaced ears 5 and 5^a continuous therewith, the inner edge between said ears being concaved, as at 6, to afford a clearance when the handle-levers are drawn inwardly adjacent other parts of the device. The ear 5^a of each head 4 is pivotally fulcrumed between the outer ends of a pair of tie-bars 7, which extend transversely across the implement and are similar in construc-

tion and have on their inner faces space-lugs 8 and antifriction-rollers 9 in reverse position on the opposite bars and so that they will project in opposite alternate directions. Two antifriction-rollers 9 are employed, and each is closer to one of the bars than the other. The space-lugs 8, near opposite ends of the bars 7 and in reverse positions, bear upon the ears 5^a, the pivotal connection at this point being established by means of rivets or analogous devices 10, held in the said lugs and bars and passing through the said ears. The intermediate space-lugs bear against opposite sides of a contiguously-arranged pair of cutter-shanks 11, each having an inturned or directed terminal 12 at an angle to the shank proper, which is pivotally connected to the ear 5 on each handle-lever, the terminals 12 being applied to reverse faces of the opposite ear 5. The shanks 11 are also formed with longitudinal guide-slots 13, and beyond the terminals of the guide-slots, in the direction of the working ends of said shanks, the material is increased in width to provide a broad bearing and serve as a rigid support for a main pivot-bolt 14, inserted through said parts of the shanks when closely arranged in operative relation.

The antifriction-rollers 9 are rotatably mounted on rivets or pins 15, extending through the intermediate space-lugs 8 on the bars 7, and, as previously indicated, the said rollers are by this means held over against the inner faces of the opposite bars and fit and move in the guide-slots 13 of the shanks 11 and serve to ease the movement of said shanks in opening or closing the same by operating the handle-levers 1 and 2. Beyond their pivotal connection the shanks 11 terminate in cutter-supports 16, comprising rims 17, which converge to a point toward their free ends and have seat-webs 18, against which are removably secured cutters 19, consisting of flat blades having inner compound cutting edges 20, having a distinct or deep concavity at about the center in a transverse direction and gradually sloping off to the points 21. In the opposite direction the edges 20 have convex heels 22. When the cutters are secured to their supports, the outer edges abut against shoulders 23, so as to make a

flush fitting of each cutter on one side with the adjacent surface of the rim. The faces of the cutters which stand flush with the adjacent-rim surfaces are brought together when the shanks 11 are pivotally connected and are thereby caused to work closely and make a clean cut, which is started from the points 20 of the blades, owing to the curvature of the cutting edges described, and continues gradually toward the heels 22. Where the webs terminate at their inner portions the metal is cut away to form bevels 24, so as to provide for a clearance of the blades at the points where the said bevels meet the latter. It is preferred to use screws 25 for securing the blades to the webs 18, and at any time necessary the said blades may be removed and sharpened or, if too much worn, replaced by others of a similar nature.

In the operation of the device it is reversible, and in applying the same the handle-levers 1 and 2 are opened, as shown by Fig. 2, so as to space the cutting edges 20 of the blades apart for the reception of the horn at the point where the severance is to be made. The handle-levers are then drawn toward each other and moved against the resistance afforded by the horn being cut on their fulcrums instituted between the ears 5^a and the opposite ends of the bars 7. Simultaneously with this movement the shanks 11 are gradually moved forward with an easy motion, owing to the interposition of the antifriction-rollers 9, which tend to forcefully throw the shanks regularly together without any shifting movement or slip which might arise from a strain brought solely to bear on a pivotal connection. This action continues until the parts are in the condition shown by Fig. 1, when the cutters will have entirely severed the horn. By applying a comparatively-small amount of power on the grips 3 of the handle-levers 1 and 2 the cutters, through the shanks holding the same, will exert a strong leverage, owing to the connection and arrangement of the several parts. The oppositely-disposed bars 7 hold the moving parts in close operative relation and brace the same in their action.

In Fig. 5 a part of one of the heads 4 is shown, and those parts corresponding to the ears 5, as heretofore described, are thickened and formed with slots 26 to movably receive the terminals 12 of the shanks 11, and thereby afford a better or strengthening support for the connecting-rivets.

Many other advantages will appear from time to time to those using the improved implement, and variations in the proportions, size, and minor details of construction may be resorted to without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. In a dehorning implement, the combination of handle-levers, shanks pivotally attached to the handle-levers and having cutters thereon, said shanks being crossed and pivotally connected to each other, and transverse bars to which the handle-levers are pivotally connected, the shanks having movement between the bars.

2. In a dehorning implement, the combination of handle-levers, a pair of bars between which the handle-levers are fulcrumed, shanks pivotally attached to the handle-levers and having cutters connected thereto, and an antifriction connection between the shanks and the bars.

3. In a dehorning implement, the combination of handle-levers, a pair of bars to which the handle-levers are fulcrumed and extending transversely of the implement, shanks pivotally attached to the levers and having guide-slots therein, cutters supported by said shanks, the latter being pivotally connected, and antifriction-rollers held by the bars and movable in the guide-slots of the shanks.

4. In a dehorning implement, the combination of a pair of transversely-extending bars, handle-levers pivotally connected thereto, pivotally-attached shanks provided with slots and having ends movably attached to the said handle-levers, cutters supported by the opposite extremities of said shanks, and antifriction devices carried by the said bars and movable in the slots of the shanks.

5. In a dehorning implement, the combination of handle-levers, a pair of bars to which said handle-levers are pivotally connected, having space-lugs in reverse position thereon and carrying oppositely-disposed antifriction-rollers, pivoted shanks having terminals thereof movably attached to the said handle-levers and provided with guide-slots in which the antifriction-rollers are fitted, and cutters supported by the said shanks beyond the pivotal point of the latter.

6. In a dehorning implement, the combination of handle-levers, pivoted shanks supporting cutters and having terminals applied to opposite faces of the handle-levers in movable relation thereto, and a pair of transversely-extending bars to which the handle-levers are fulcrumed, the shanks having movement between the bars and the latter holding the parts relatively spaced.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JERRY D. DECELLE.

Witnesses:

FRANK J. ANNIS,
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