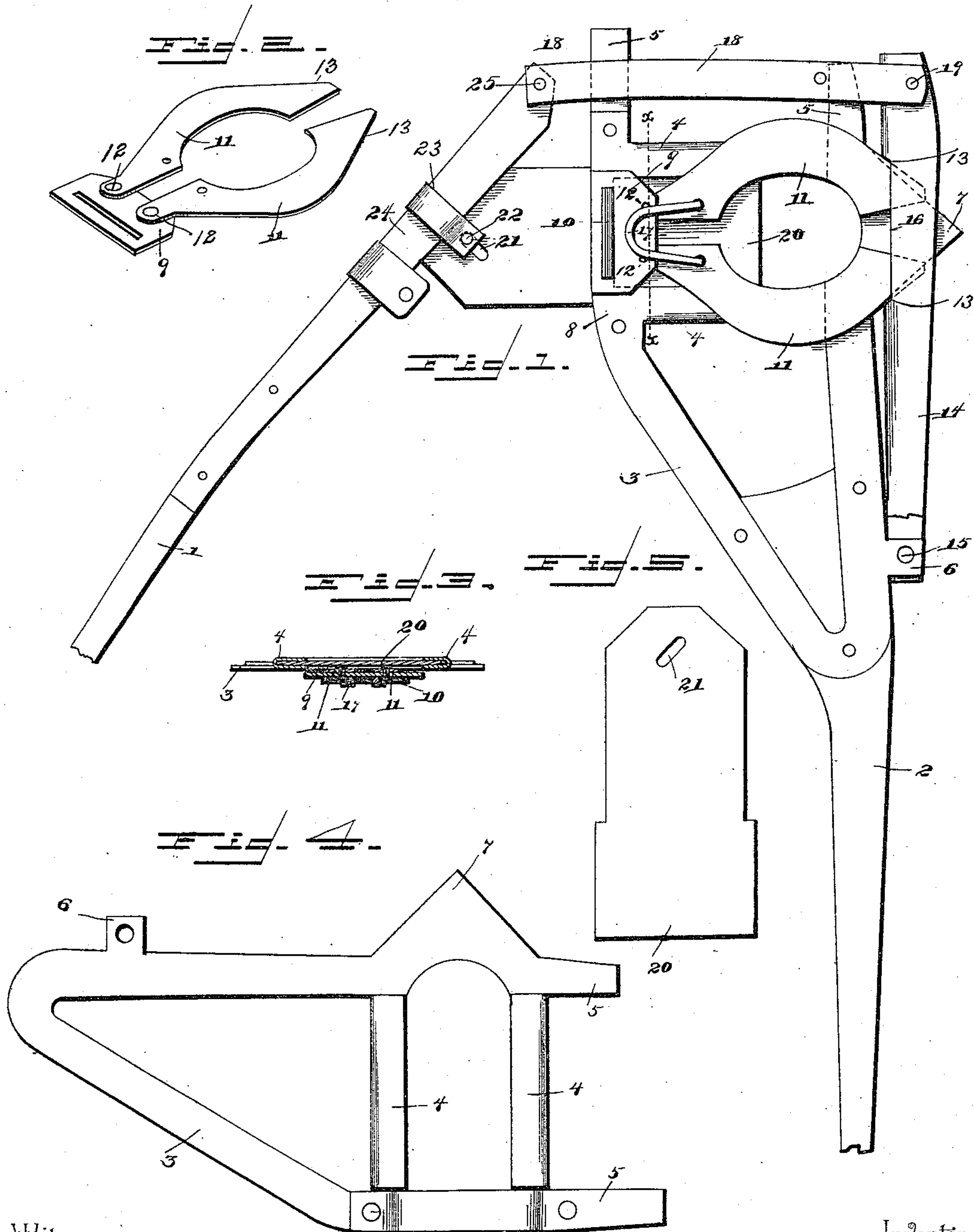


(Model.)

W. A. FARMER.  
DEHORNING SHEARS.

No. 441,146.

Patented Nov. 25, 1890.



Witnesses:

*Samuel Ker*  
*W. J. Duval*

Inventor

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By *his* Attorneys.

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# UNITED STATES PATENT OFFICE.

WILLY ANDERSON FARMER, OF NEBO, ILLINOIS.

## DEHORNING-SHEARS.

SPECIFICATION forming part of Letters Patent No. 441,146, dated November 25, 1890.

Application filed June 18, 1890. Serial No. 355,863. (Model.)

*To all whom it may concern:*

Be it known that I, WILLY ANDERSON FARMER, a citizen of the United States, residing at Nebo, in the county of Pike and State of Illinois, have invented new and useful Dehorning-Shears, of which the following is a specification.

This invention has relation to a device for dehorning cattle; and the objects of the invention are to provide a very simple, cheap, and durably-constructed device of the above class, the same being adapted for removing the horns of the cattle without the danger of cracking or fracturing the same below the cut; furthermore, to accomplish the above quickly without aid, all as will hereinafter appear in the following description, and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an inverted plan view of a dehorning device constructed in accordance with my invention. Fig. 2 is a perspective in detail of the clamping-jaws. Fig. 3 is a transverse section on the line  $x x$ . Fig. 4 is a plan view of the skeleton frame. Fig. 5 is a detail view of the knife.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I provide two opposite members, designated as 1 and 2, and to the latter secure a triangular plate or frame 3, the same being preferably formed open and connected at opposite sides by a pair of parallel and in cross-section U-shaped guides 4, extending transverse the frame. Beyond the end of the outer guide 4 the frame is extended, forming guiding projections 5, and at the inner side of the frame there is located a lug 6, and further along said frame a laterally-disposed triangular plate 7.

The inner bar 8 of the frame has located thereon a transversely-slotted plate 9, and through said slot is passed a tongue 10 struck up from the bar 8.

11 designates a pair of opposite curved clamping plates or arms pivoted at their inner ends, as at 12, to the plate 9 at the inner end of the guides 4. The outer ends of the plates 11 have their outer edges cut away or inclined toward each other, as shown at 13, and said plates lie and slide upon the plate 7 of the frame 3.

14 designates a U-shaped guide-bar pivoted,

as at 15, to the lug 6, and provided near its opposite end with a slot 16, through which passes the outer end of the plate 7 and also the ends of the plates 11. The plates 11 are connected near their pivoted ends by a U-shaped spring 17, the terminals of which are seated in openings formed in the plates, and said springs exert a tendency to separate the plates 11 to their fullest extent, as determined by the degree of their insertion into the slot 16. A pair of links 18 embrace the guide-lugs 5 at opposite sides, and are pivoted, as at 19, to the free end of the slotted guide-bar 14.

20 designates the knife, which is of oblong shape and mounted in the opposite guides 4, and therefore adapted to reciprocate in said guides and over the clamping-arms 11. The outer end of the knife is provided with an inclined slot 21, through which passes a pin 22, connecting the ends of a sleeve 23, which embraces a lever 24, pivoted at its outer end to the opposite links 18, as at 25, and secured at its inner end to the member 1.

In operating the device the members are separated and the two curved clamping-plates inserted over the horn of the animal to a desired depth. The members are then brought together, the horn acting as the fulcrum for the lever or member 1, in that the knife bears upon said horn and serves to draw the links 18 and the guide-bar 14 toward the knife, so that the ends of the slot in said guide-bar tend to ride along the opposite converging edges of the clamping-plates, and previous to the time the cut is made said clamping-plates are compressed, so as to embrace the horns snugly at a point just below the plane of the knife. In this way any fracturing or uneven ragged cutting of the horn is avoided.

It will be apparent that the lip 10 may be bent upward out of an interlocking position with the plate 9 and other plates provided with other sizes of horn embracing arms readily substituted and locked in position. When the members are separated and the guide-bar released, the spring 17 separates the opposite curved clamping-plates, and by reason of their converging edges riding against the ends of the slot 16 of the bar said bar 14 is forced toward the extremities of said plates ready for the introduction of the plates over another horn.



Having described my invention, what I claim is—

1. In a dehorner, the combination, with a frame provided with opposite transverse guides attached to a handle, of a pair of curved clamping-plates having opposite converging edges, a guide-bar pivoted to the frame and slotted to receive the converging edges of the clamps, a reciprocating knife mounted in the guides, a lever, a link loosely connecting the outer end of the lever with that of the guide-bar, and a sleeve loosely mounted on the lever and loosely connected with the knife, substantially as specified.

2. In a dehorner, the combination, with a frame having opposite guides, a reciprocating knife mounted in the guides, and a lever pivoted to said knife, of a pair of curved clamping-plates pivoted below the guides, said plates having opposite converging edges, a U-shaped spring pivoted at its terminals to the plates and adapted to separate the same, a guide-bar pivoted to the frame and slotted to receive the ends of the clamping-plates, and connections between the guide-bar and the outer end of the knife-operating lever, substantially as specified.

3. In a dehorner, the combination, with a frame having opposite knife-guides, a reciprocating knife mounted therein, and means for reciprocating the same, of a pair of pivoted curved clamping-plates located below the knife and detachably secured to the frame, and means for closing said plates simultaneously with the operation of the knife, substantially as specified.

4. In a dehorner, the combination, with an open frame provided with opposite guides and a knife mounted in said guides and provided with an inclined slot, of a lever loosely connected at one end to the frame, a clip or sleeve mounted for sliding upon the lever, and a pin passing through the clip and adapted for movement in the slot of the knife, substantially as specified.

5. In a dehorner, the combination, with the frame having the opposite guides and the struck-up tongue below the same, of the transversely-slotted plate 9, the opposite curved clamping-plates 11, pivoted, as at 12, to said plate, a knife mounted for reciprocation in the guides, and mechanism, substantially as described, for simultaneously operating the clamping-plates and knife, substantially as specified.

6. In a dehorner, the frame having opposite guides and secured to a handle, combined with a pair of curved clamping-plates, a slotted guide-bar for receiving the ends of said plates, a knife mounted for reciprocation in the guides of the frame, a lever loosely connected to the knife, and connecting devices between the lever and guide-bar, as set forth.

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

WILLY ANDERSON FARMER.

Witnesses:

J. T. HARVEY,  
C. A. FARMER.