(No Model.)

H. HAUSSMANN.

VETERINARY INCISOR CUTTER.

No. 454,473. Patented June 23, 1891.

Fig. 1.

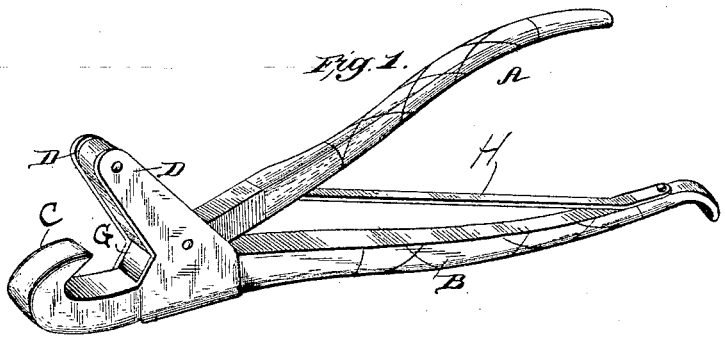
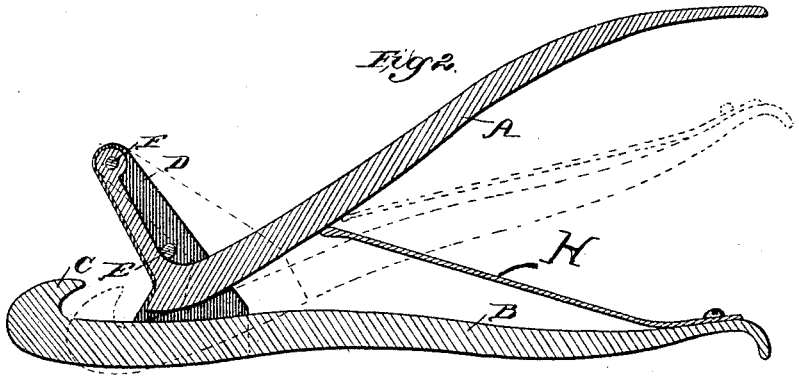


Fig. 2.



Witnesses.
Wm. Rheem.
Wm. H. Hart.

Inventor
Hermann Haussmann
By Jno. G. Elliott
Atty.

UNITED STATES PATENT OFFICE.

HERMANN HAUSSMANN, OF CHICAGO, ILLINOIS.

VETERINARY INCISOR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 454,473, dated June 23, 1891.

Application filed June 25, 1889. Serial No. 315,553. (No model.)

To all whom it may concern:

Be it known that I, HERMANN HAUSSMANN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Veterinary Incisor-Cutters, of which the following is a specification.

This invention relates to improvements in veterinary incisor-cutters employed for cutting and shaping the teeth of animals, and particularly of horses, which have become broken or worn. In these devices heretofore where opposing pivoted jaws are employed it has been common, so far as I am aware, to have the cutting-jaw work on the arc of a circle, which is objectionable, because of the hook-like form of teeth produced, besides which it is difficult to support a tooth against the crushing strain of the cutting-jaw, the direction of which is constantly changing, thereby necessitating the employment of a supplemental jaw pivoted upon the supporting-jaw, so as to adapt itself to the variation both in the pressure and angle of cut.

The prime object of this invention is to dispense with the employment of a supplemental jaw in connection with an incisor-cutter comprising opposing cutting and supporting jaws pivoted together and to have the pivot connection between the jaws of such a character that the cutting-jaw will move in substantially a straight line when operated by the handles.

Another object is to simplify the construction and operation of the cutter and at the same time promote the effectiveness thereof.

These objects are attained by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a veterinary incisor-cutter embodying my invention, and Fig. 2 a central longitudinal section thereof, the dotted lines showing the movements of the parts in operation.

Similar letters of reference indicate the same parts in both figures of the drawings.

Referring by letter to the accompanying drawings, A B indicate the handles of the cutter, the latter one of which terminates at the forward end in a hook-shaped bend, constituting the cutting-jaw C of the instrument, of substantially the same shape as the corresponding jaw in instruments of this class generally. From the handle B just back of the cutting-jaw extends upwardly at an oblique angle a pair of lugs or ears D, projecting forwardly, so that the upper end thereof terminates approximately in a plane passing through the cutting-edge of the jaw C and perpendicular to the handle B. Between these lugs works the supporting-jaw E, pivoted at F to the upper ends of said lugs, this sustaining-jaw being in reality a right-angled extension of the handle A, projecting from the forward end thereof and provided with an offset or shoulder G, as usual in these instruments, constituting a rest for the lower edge of the tooth during the cutting operation. These handles, and consequently the cutting and sustaining jaws, are normally held apart out of engagement with each other, preferably by means of a flat spring H, attached at one end to one of the handles and bearing at its opposite free end upon the other handle; but the form, location, and operation of this spring are immaterial, so long as it serves to maintain the handles and jaws normally separated from each other, and, in fact, the spring might be dispensed with entirely without materially affecting the operativeness of my instrument. By reason of the pivoting of the sustaining-jaw to the cutting-jaw at a point approximately in a plane with the cutting-edge of the cutting-jaw and perpendicular to the handles in a plane the movement of the jaws will be in substantially a straight line, for with the length of the arc in which they operate and the movement necessary to complete the operation the variation from a straight line is so slight that it has no material effect upon the operation of the instrument.

In these instruments as heretofore constructed both the cutting and sustaining jaws have been located beyond the pivot connection between said jaws; but it will be observed that in this instrument the sustaining-jaw is located between the pivot thereof and the handle supporting and operating it, thus producing a movement of the jaws at a right angle to the movement produced when pivoted as heretofore, and at the same time enables the movement of the jaws in the arc of a circle of much greater degree than is possi-

ble with the old form of instrument without producing a corresponding lessening of the leverage gained thereby—that is to say, with a given size of instrument and a given amount of action the arc in which this instrument operates would be much greater and the movement of the cutting-jaws much straighter than in the old form of instrument without lessening the leverage of the handle, and therefore without increasing the power necessary to operate the end.

In practice the cutting-jaw of this instrument is really the movable jaw, although the sustaining-jaw is pivoted to it, for in the cutting operation the sustaining-jaw will be placed against the outside of the animal's tooth, and therefore held in a substantially fixed position, while the cutting-jaw projects into the mouth of the animal and is caused by the handles to move toward the sustaining-jaw, so as to cut the tooth upon the inside, as is usual in this class of instruments.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a veterinary incisor-cutter, the combination, with the cutting-jaw, of a sustaining-jaw and a pivot connecting said jaws forward of the sustaining-jaw, but to the rear of the cutting-jaw, said sustaining-jaw being located to the rear of the cutting-jaw and to which access is gained between the cutting-jaw and the pivot, whereby the tooth is inserted between the cutting-jaw and the pivot and the outer face thereof is supported by the sustaining-jaw, substantially as described.

2. In a veterinary incisor-cutter, the combination, with the handle B, provided at its forward end with a cutting-jaw, and the lugs D, terminating approximately in a plane parallel with the cutting-jaw and perpendicular to the handle, of the handle A, pivoted at its forward end between said lugs, and a sustaining-jaw on said handle to the rear of the pivot and opposing the cutting-jaw, substantially as described.

HERMANN HAUSSMANN.

Witnesses:
R. C. OMOHUNDRO,
W. R. OMOHUNDRO.