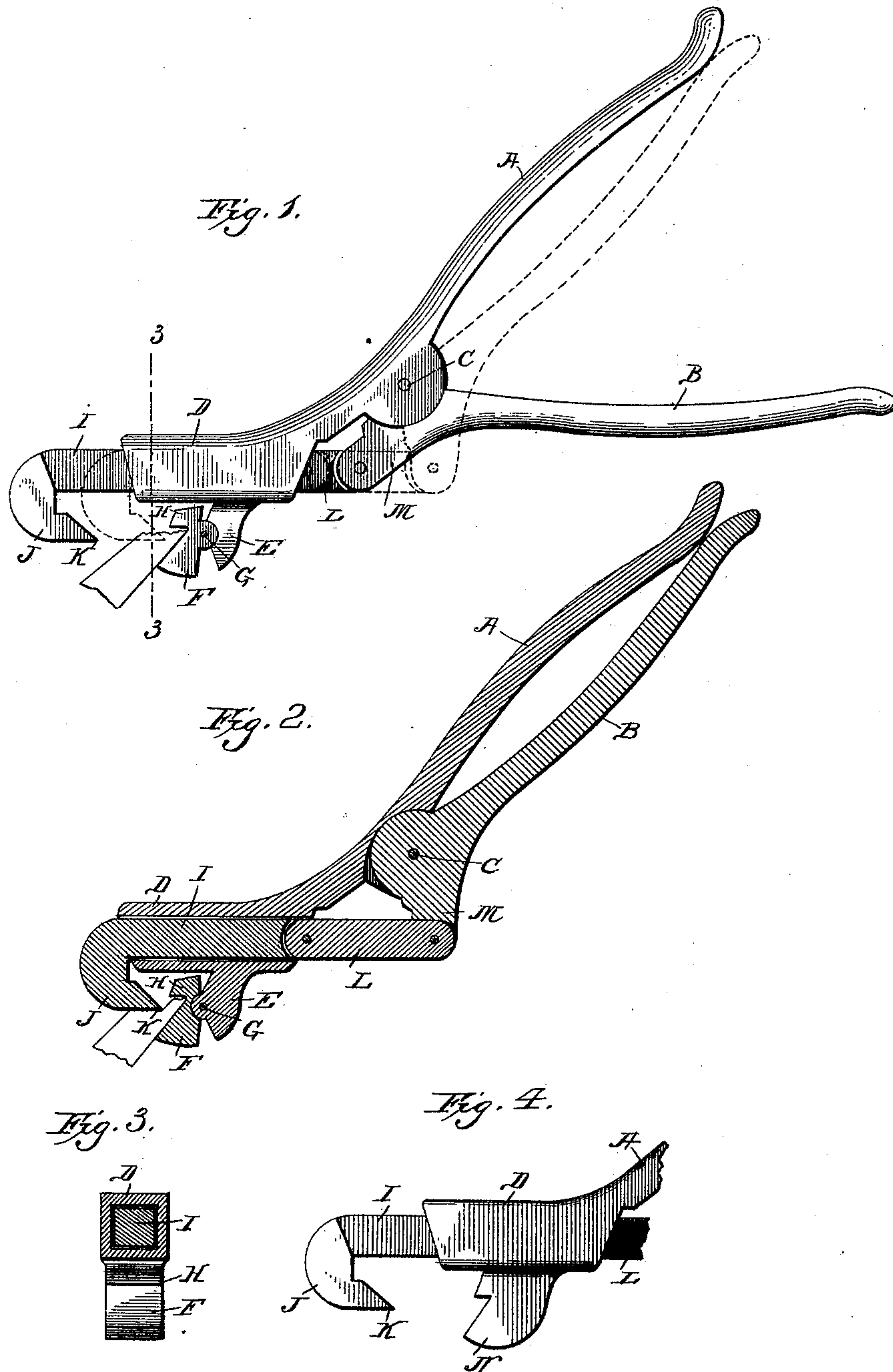


(No Model.)

H. HAUSSMANN.  
VETERINARY INCISOR CUTTER.

No. 414,311.

Patented Nov. 5, 1889.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

HERMANN HAUSSMANN, OF CHICAGO, ILLINOIS.

## VETERINARY INCISOR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 414,311, dated November 5, 1889.

Application filed March 19, 1889. Serial No. 303,869. (No model.)

*To all whom it may concern:*

Be it known that I, HERMANN HAUSSMANN, a citizen of the United States, residing in the city of Chicago, 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 that class of veterinary incisor cutters in which the cutting-jaw of the instrument moves in the arc of a circle in the act of cutting the tooth, thereby exerting upon the crown of the tooth a leverage or strain tending to break down or crush the tooth against the opposing sustaining-jaw of the instrument.

The prime object of this invention is to have the cutting-jaw of the instrument move in a straight line, whereby is avoided the objectionable crushing strain or leverage upon the tooth in the act of making the cut.

Another object is to combine with such an instrument a supplemental supporting-jaw movable upon the sustaining-jaw in such manner as to accommodate itself to irregularities in the shape or angle of the tooth, and at the same time furnish a solid support for the portion of the tooth operated upon, regardless of the angle at which the cut is made.

A further object is to have the instrument of such a character that the pivot of the supplemental supporting-jaw is at all times exactly coincident with the line of movement of the cutting-jaw, whereby is avoided the possibility of any leverage being exerted upon the tooth during the cutting operation.

I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of a veterinary incisor-cutter embodying my invention, showing the parts extended in full lines and the movement of the parts in dotted lines; Fig. 2, a central longitudinal section thereof, showing the jaws at the opposite limit of their movement; Fig. 3, a transverse vertical section on the line 3 3 of Fig. 1, and Fig. 4 a detail elevation illustrating the employment of a fixed sustaining-jaw.

Referring by letter to the accompanying

drawings, A B indicate the handles of my instrument, pivoted together at C, and forward of which pivot the handle A is formed into a hollow tube or guide D, having depending from the under side thereof the sustaining-jaw E, cast with or otherwise rigidly secured thereto, upon the forward face of which is mounted a supplemental jaw F, pivoted at G upon the sustaining-jaw, and free to vibrate upon said pivot. The operating-face of this supplemental jaw is preferably angular for greater convenience in fitting against the outer face of a tooth, and is provided with a shoulder H at the inner end thereof, against which the end of the tooth abuts during the cutting operation. Working freely through and guided in the guide D is the straight shank I of the cutting-jaw J, which latter extends toward the rear and has a cutting-edge K lying in a plane coincident with the pivot G of the supplemental jaw, toward and away from which it always moves in a straight line by reason of the straight shank thereof working through the guide D, as before described. To the inner end of the shank I of the cutting-jaw is pivotally secured one end of a link L, the opposite end of which is likewise pivotally secured to the end M of the handle B, forward of the pivot thereof, in order that the movement of the handle upon its pivot may cause a corresponding movement of the link and cutting-jaw, as clearly illustrated in the drawings.

I may here state that while I have shown the guide D as a squared tube, in which the squared shank of the cutting-jaw works, I do not desire to limit myself to this particular construction, because the same object may be obtained in numerous other ways familiar to those skilled in the arts, and my invention includes any form of connection between these parts which will constitute a guide and support for the shank of the cutting-jaw during its movements. Nor do I desire to limit myself to the employment of a pivoted or movable supplemental jaw such as herein shown and described, for so far as relates to the principal feature of my invention—namely, the movement of the cutting-jaw in a straight as contradistinguished from a curved line—this supplemental jaw might be dispensed



with and a fixed sustaining-jaw N employed, such as is illustrated in Fig. 4 of the drawings, for in connection with such a fixed jaw a cutting-jaw operating as herein described would  
5 be perfectly operative and successful; but I prefer to combine with the straight-moving cutting-jaw the pivoted supplemental jaw, because the most perfect and satisfactory results may be attained and the angle or de-  
10 gree of the cut varied at the will of the operator, without danger or liability of crushing or otherwise injuring the tooth, rendering the instrument safe and effective, even in the hands of a novice.

15 Another important feature resulting from the employment of the straight-moving cutting-jaw is the location of the pivot of the supplemental jaw on a line exactly coincident with the line of movement of the cut-  
20 ting-jaw, which may be easily and accurately determined, and against which the strain of the cutting operation is always necessarily directed, regardless of the position of the instrument relative to the tooth, and thus is  
25 avoided the possibility of the slightest degree of leverage or crushing strain upon the tooth during the cutting operation, which result cannot be attained in the old form of instruments because of the cutting-jaw thereof  
30 moving in the arc of a circle, and thereby preventing the exactness in the location of the pivot possible in the construction herein described, although in most cases sufficiently accurate for practical purposes; but with my  
35 device the maximum exactness is attained without possibility of damage to the tooth by reason of any undue leverage under any and all circumstances.

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

1. In a veterinary incisor-cutter, the combination, with a sustaining-jaw and a supplemental jaw pivoted thereon, of a cutting-jaw movable in a straight line toward and  
45 away from said supplemental jaw, substantially as described.

2. In a veterinary incisor-cutter, the combination, with a guide, a sustaining-jaw projecting therefrom, and a supplemental jaw  
50 pivoted to said sustaining-jaw, of a cutting-jaw opposing said supplemental jaw, a shank therefor working in said guide, and means for actuating said jaw toward and away from the supplemental jaw, substantially as de-  
55 scribed.

3. In a veterinary incisor-cutter, the combination, with the handles pivoted together, a guide on one of said handles, and a sus-  
60 taining-jaw projecting from said guide, of a cutting-jaw opposing said sustaining-jaw, the shank thereof working in said guide, and a link-connection between said shank and the other handle of the instrument, substantially  
65 as described.

4. In a veterinary incisor-cutter, the combination, with the handles thereof pivoted together, a guide on one of said handles forward of the pivot, a sustaining-jaw projecting  
70 from said guide, and a supplemental jaw pivoted to said sustaining-jaw, of a cutting-jaw opposing said supplemental jaw, the shank thereof working in said guide, and the link-connection between said shank and the other  
75 handle of the instrument, substantially as described.

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Witnesses:

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