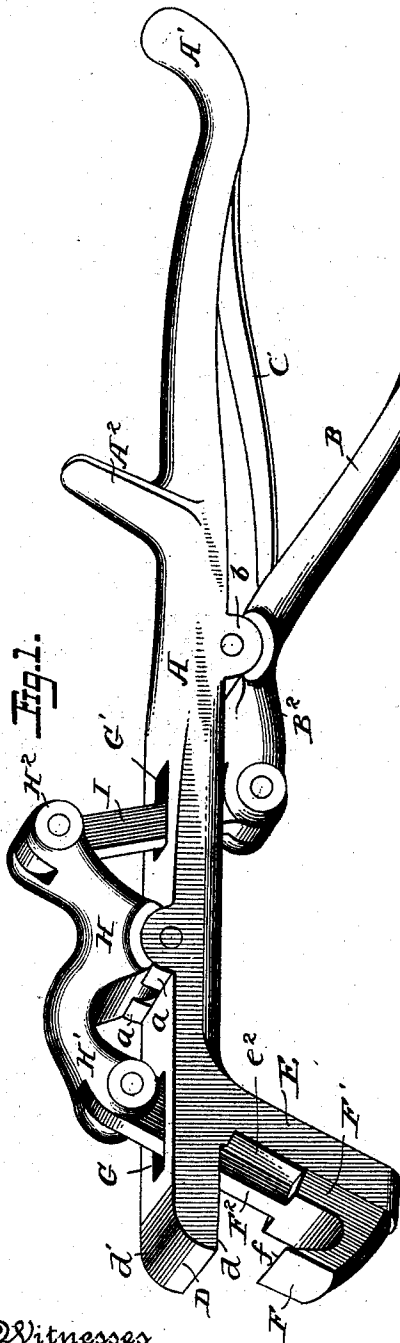


(No Model.)

D. M. SCHEFFER.
VETERINARY FORCEPS.

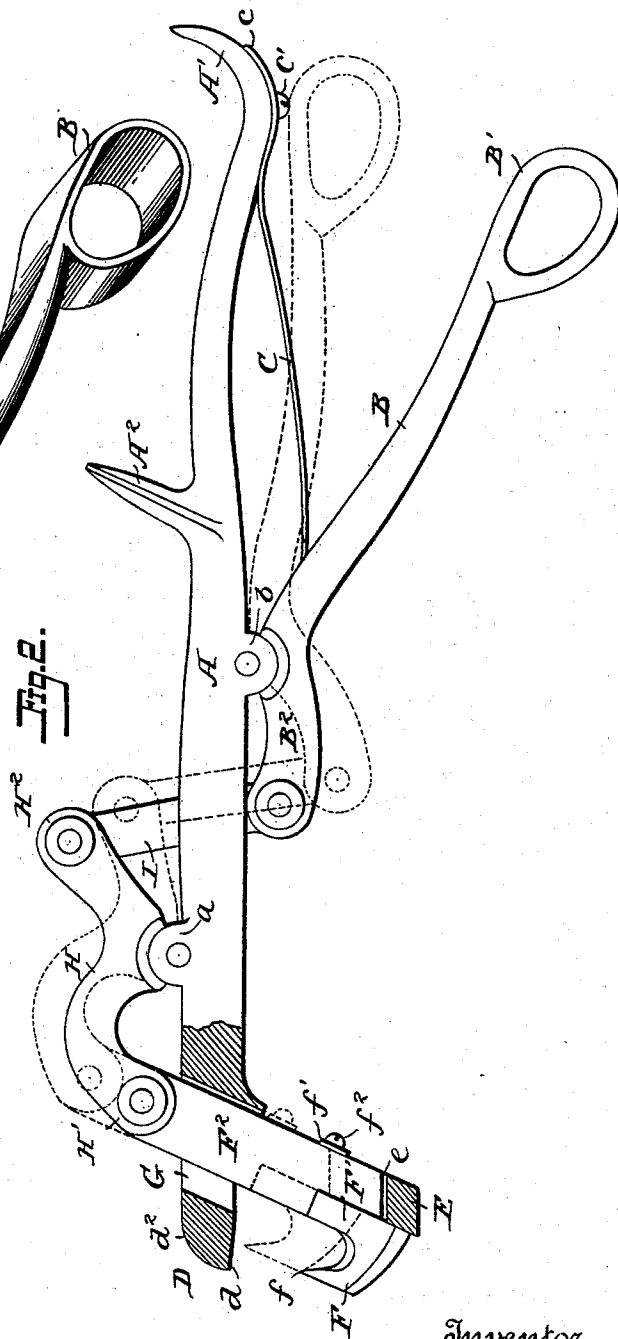
No. 502,386.

Patented Aug. 1, 1893.



Witnesses
Jno. Hinkel

Alfred H. Robson



Inventor
David M. Scheffer
By *Foster Freeman*
Attorneys

UNITED STATES PATENT OFFICE.

DAVID M. SCHEFFER, OF NEW CASTLE, INDIANA, ASSIGNOR TO THE CHAS. TRUAX, GREENE & COMPANY, OF CHICAGO, ILLINOIS.

VETERINARY FORCEPS.

SPECIFICATION forming part of Letters Patent No. 502,386, dated August 1, 1893.

Application filed June 3, 1892. Serial No. 435,375. (No model.)

To all whom it may concern:

Be it known that I, DAVID M. SCHEFFER, a citizen of the United States, and a resident of New Castle, Henry county, and State of Indiana, have invented certain new and useful Improvements in Forceps, of which the following is a specification.

My invention relates to what are generally termed veterinary incisor cutters or forceps, and it relates furthermore particularly to that class of forceps in which the cutting jaw moves in a straight line, whereby the objectionable crushing strain or leverage upon the tooth is avoided when the cut is being made.

The object of my invention is to provide such an instrument which shall be simple in construction, strong in its parts and capable of effective action for the purposes intended, and to these ends my invention consists in such a device having the general features of construction, arrangement and mode of operation, substantially as hereinafter more particularly set forth.

Referring to the accompanying drawings, Figure 1, is a perspective view of the preferred embodiment of my invention. Fig. 2, is a side view, partly in section, of the same.

The device illustrated consists of a main or body portion A, one end of which is preferably bent upward, as at A', to form a guide for the hand and which is provided at some distance from the end with another upwardly extending guide piece A², preferably formed integral with the body portion.

Pivotally connected to the body portion, at about its center, is the arm or lever B, which is preferably provided with the loop portion B', at its end which serves as a convenient receptacle for the finger of the operator and this arm together with the end of the body portion, forms a convenient handle which can be readily and firmly grasped for operating the device. The handle may be normally held apart by any suitable means as the spring C, which is shown in the form of a leaf spring, one end of which is secured to the body portion by means of a pointed extension c, and the screw or other fastening c', while the other end of the spring bears against the inner portion of the arm B. The forward or free end of the body portion is formed so as

to constitute one of the jaws of the forceps or cutters, and I have shown this portion D, as projecting in line with the body portion and having a flattened surface d, the end being preferably rounded as at d'.

Extending laterally from the body portion and preferably at an angle thereto is the bearing piece E, and this is formed integral with the body portion and serves as a support and guide for the movable jaw, F. This jaw F, is formed with a cutting edge f, projecting out from the body or base F', of the cutter, which body is provided with an extension F², which passes through a slot G, in the body portion and serves not only as a connecting piece but as a guide for the jaw. In order that the jaw may be properly guided the connecting piece F², passes through a slot e, in the bearing piece E, and fits accurately therein, and a guide, plate or washer f', may be connected therewith as by a screw f², and this shall ride over the edge of the slot in the bearing piece E, and hold the cutting jaw in its position. It will be seen that the cutting jaw is wider than the bearing piece so that the edges of the body portion F', ride over the bearing surfaces e², of the bearing piece E. It will also be seen that the cutting edge of the jaw moves in a right line parallel with the surface of the bearing piece E.

In order to move the jaw I provide a lever H, which is mounted on the body portion A, in suitable pivots and one end H¹, is bent and pivotally connected to the connecting piece of the jaw, while the other end H², is bent upward and connected by means of a link I, to the end B', of the arm B, the link passing through a slot G', in the body portion.

In order to furnish a substantial bearing for the lever H, and the handle B, I form on the body portion A, the round projections a, b, having a slot between them and the faces of the levers H and B, are correspondingly recessed to provide an extended bearing surface on said bearings a and b, while the uniting tongue of these parts extends centrally between the bearings. In this way I do not necessarily depend upon the strength of the pivot pins for this union as the curved parts of the levers ride over the curved bearings of the body portion and further the levers are

held against any lateral movement and a strong and substantial union is made. Such being the preferred construction of my device, its operation will be readily understood and it will be seen that when the instrument is clasped in the hand of the operator, its jaws are in convenient position to be applied to the tooth of the animal and then by operating the handle the cutting jaw can be moved in a direct line against the supporting jaw, with great force and a clean, smooth cut be made without danger of breaking or injuring the tooth. It will be seen that by placing the finger piece or lever B, of the handle on the under side of the main or body portion A, of the forceps, and providing suitable connections and arranging the movable cutting jaw F, on the same side of the main or body portion, I obviate any circular motion in working the forceps as the palm of the hand of the operator grasps the body portion and the fingers grasp the movable lever B, and draw it toward the body portion and the stationary jaw D, will remain still as the movable jaw F, is drawn against it in a direct line, thereby avoiding any tendency to cut on a circle, as would be the case if the relative positions of the body portion and movable lever of the handle were reversed as usual.

While all the parts are substantially made and united together so as to form a strong and effective forceps, the parts are light and the arrangement convenient and the whole constitutes an efficient device for the purpose intended.

While I have thus described and illustrated the preferred embodiment of my invention, it is evident that the details of my construction may be varied by those skilled in the art without departing from the spirit of my invention.

What I claim is—

1. In a veterinary incisor-cutter, the combination with the body portion of the support-

ing jaw formed integral and extending in line therewith, of a bearing piece extending laterally therefrom and a sliding cutting jaw movably connected to the said bearing piece, substantially as described.

2. In a veterinary incisor-cutter, the combination with the body portion having a supporting jaw formed on one end, a bearing piece projecting laterally from the body portion and having a slot therein, of a cutting jaw having a head mounted on the bearing piece and provided with an extension moving in the slot in said bearing piece, and a washer secured to the extension and holding and guiding the jaw in said slot, substantially as described.

3. In a veterinary incisor-cutter, the combination with the body portion having a supporting jaw formed thereon, of a bearing piece, a cutting jaw movable in the bearing piece, a lever mounted on the body and connected to the movable jaw and a hand lever also mounted on the body and connected to the former lever by a link, substantially as described.

4. In a veterinary incisor-cutter, the combination with the body portion and jaw thereon, of the hand lever pivotally mounted on the body portion, a lever mounted on the opposite side of the body portion, a link connecting the levers, a bearing piece extending from one side of the body portion and a movable connecting jaw mounted on the bearing piece and connected to the lever, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID M. SCHEFFER.

Witnesses:

HOMER H. WRIGHTSMAN,
WILLIAM A. BROWN.