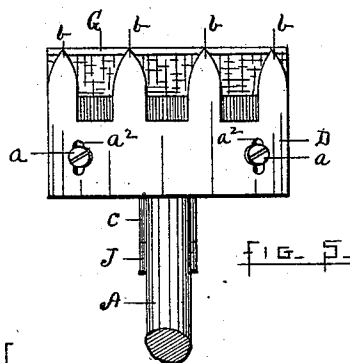


I. C. LITTLE.
VETERINARY LANCET.

Patented Apr. 19, 1887.



V. Steere.
H. M. Fowler.

Isaiah C. Little
By Rufus B. Fowler atty.

UNITED STATES PATENT OFFICE.

ISAIAH C. LITTLE, OF WILLIAMSTOWN, VERMONT.

VETERINARY LANCET.

SPECIFICATION forming part of Letters Patent No. 361,533, dated April 19, 1887.

Application filed February 17, 1886. Serial No. 192,257. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH C. LITTLE, a citizen of the United States, residing at Williamstown, in the county of Orange and State of Vermont, have invented certain new and useful Improvements in Veterinary Lancets, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved lance. Fig. 2 is a sectional view. Fig. 3 is a top view. Fig. 4 is an end view, and Fig. 5 is a view of the under side of that part of the device forming the head.

Similar letters refer to similar parts in the several views.

My invention has for its object to provide a lance adapted to cut the swollen lining of horses' mouths known as "lampass;" and my invention consists in providing one or more blades attached to a handle, said blades being preferably curved to fit the horse's mouth, in providing a gage by which the depth of cut is regulated, in providing a pressure-plate adapted to be brought to bear on the soft and yielding portion of the mouth to be cut, and in the construction and arrangement of the several parts, as herein described, and specifically set forth in the claims.

A is a metal rod or bar, with a handle, B, at one end and a curved cross-bar, C, at the other end. To the convex surface of the curved bar C, I attach by screws *a a* a steel plate, D, having in the present instance the four fangs or blades *b b b b*, adjustable on the screws *a a* by means of the slots *a'*. A sliding bar, E, is held in guides *c c'*, attached to the rod A, and has attached to its outer end a curved cross-bar, F, to which I fasten the plate G. The convex side of the bar F fits the concave side of the curved cross-bar C, thereby preventing the rod E from rocking. A chamber, H, incloses a spiral spring, I, whose tension, applied to the end of the bar E, carries the plate G out even with or slightly in advance of the points of the blades *b* when its motion is limited by the collar J, held in position by the set-screw *d*. The motion of the plate G and bar E is limited in the opposite direction by an adjusting-screw, *f*, held in the end wall of the chamber H.

In use the plate G, whose outer surface may

be inclined or curved, as shown in Figs. 1 and 2, is placed upon the surface to be lanced and a sharp quick pressure applied to the handle B, pushing the blades *b* forward, as shown by broken lines *b'*, Fig. 3, into the swollen portion to be lanced, the plate G and bar E sliding back and compressing the spring I until their motion is checked by the end of the adjusting-screw *f*. Any change in the position of the screw *f* will of course vary the depth of cut, the plate G thus serving as a gage as well as a pressure-plate to compress the flabby and yielding portion of the mouth to be lanced. By loosening the set-screw *d* the bar E may be readily removed, releasing the spiral spring from the chamber H and separating the several parts of the instrument.

The curvature of the plate D may be varied to suit the varying curvature in the mouths of horses of different ages, and the number of the blades may be varied as desired; and the gage-plate G may be rigidly held in any desired position by bringing the bar E against the adjusting-screw *f* and loosening the screw *d* and bringing the collar J against the guide *c* and tightening the screw *d*, thereby holding the bar E and plate G rigidly in position, forming a fixed gage-plate.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a lance, of a pressure-plate, said pressure-plate being attached to a bar sliding in ways and having a spring applied to said pressure-plate to resist the pressure upon said pressure-plate, as described.

2. The combination, with a cutting blade or blades, of a pressure-plate having a sliding motion along the cutting-blades, a spring applied to said plate to resist the pressure thereon, and an adjusting-screw to limit the motion of the plate, whereby it forms a gage to regulate the depth of the cut, as described.

3. The combination, with the cross-bar C, rod A, and handle B, of a plate, D, having one or more fangs or blades, said plate being adjustable by means of the slots *a'* and screws *a*, as described.

ISAIAH C. LITTLE.

Witnesses:

EDWIN J. WOODBURY,
ALBERT W. FERRIN.