

E. L. WATSON.
VETERINARIAN'S CASTRATING KNIFE.
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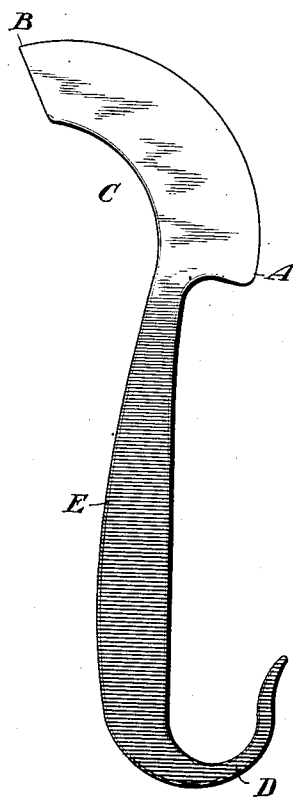


Fig. 1.



Fig. 2.

Witnesses:

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VETERINARIAN'S CASTRATING-KNIFE.

1,037,693.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD L. WATSON, a citizen of the United States, residing at Dallas, in the county of Gregory, State of South Dakota, have invented a new and useful Veterinarian's Castrating-Knife Designed for Use in Standing Operations and Which May Also be Used for other Operations, of which the following is a specification.

My invention relates to an improved form and shape of knife, having a blade of improved shape, set upon the handle in an improved relative position.

The object of my invention is to provide a knife which will facilitate castration, especially when the subject is in a standing position, by the following improvements: 1st, by positioning the blade on the handle at such an angle that the hand of the operator will be in a natural and easy position when making the incision; 2d, by so shaping the blade and handle as to give the operator a firm grasp of the knife and prevent slipping and turning in the hand; 3d, by so shaping the blade and placing it on the handle at such an angle as to give more room for the hand of the operator in performing the operation; 4th, by providing a blade of such shape and so positioned on the handle as to lessen the danger of the operator cutting himself; 5th, by providing a blade of such shape and positioning it at such an angle on the handle that in making the incision the cutting edge of the blade will be at all times parallel to the tissues and so that in making the incision the point of the blade will not be raised; 6th, by providing a blade of such shape and positioning it on the handle so that the incision necessary to the operation may be made at a single stroke of the knife and by a single rotary motion of the hand from the wrist. I attain these objects by means of an instrument constructed as shown in the annexed drawing, in which—

Figure 1 is a side view of the instrument. Fig. 2 is an edge view, with the blade foremost.

The instrument is constructed of a single piece of steel, as illustrated in Figs. 1 and 2. E is the handle.

D is a loop formed by the inverted end of the handle, in which the little finger of the operator rests and which, together with the brace afforded the thumb by the concave

back of the knife blade, enables the operator to obtain a firm grasp of the instrument.

A indicates the heel of the knife blade, which projects forward from the handle E forming an approximate right angle therewith. The knife blade, which curves across the medial line of the implement and extends back of the handle E, terminates in the knife blade point B. The line from A to B is the involute cutting edge of the knife blade.

C is the evolute back of the knife blade, concaved to receive the ball of the thumb as a brace when the knife is in the hand of the operator.

The blade of the instrument, as illustrated in Fig. 1, is positioned upon the handle at an angle of about 225 degrees, reference being had to the angle that would be formed by a medial line drawn through the knife blade from its point B to an extended medial line of the handle. The lower portion of the blade, about half, projects in front of the handle so that an angle of about 45 degrees would be formed by a medial line drawn through the knife blade from the heel A to an extended medial line of the handle. The positioning of the knife blade so as to project in front of the handle and beyond the fingers of the operator affords him more room for his hand between the thighs of the animal.

The involute and nearly semi-circular shape of the cutting edge of the blade, together with the positioning of the blade upon the handle at the angle illustrated in Fig. 1, enables the operator to make the incision by a single rotary motion of the wrist, rotating the blade forward and downward, without raising the point of the blade so as to endanger the hand of the operator.

I claim as new and useful in this invention:

1. A veterinary surgical instrument comprising a hook-shaped handle and a concavo-convex knife blade formed integrally therewith and so positioned upon the handle that the heel of the blade projects in front of the handle at an angle of about 45 degrees and the point of the blade extends back of the handle at an angle of about 225 degrees, with the handle positioned under approximately the center of the blade and so disposed that the hook portion of the handle provides a brace for the little finger and coacts with the concave back of the

knife blade as a brace for the thumb, whereby the knife may be grasped and rotatively operated in the manner hereinbefore specified.

- 5 2. A veterinary surgical instrument comprising a handle, a knife blade having a sharpened convex edge and a dulled concave back, the said knife blade being positioned upon the handle angularly so that
10 heel of the blade projects in front of and the point of the blade extends back of the handle with the handle under approximately

the center of the blade, and a loop on the handle, so disposed as to provide a brace for the little finger and to coact with the concave back of the knife blade as a brace for the thumb, whereby the knife may be securely and conveniently grasped, substantially as described for the purposes specified.

EDWARD L. WATSON.

Witnesses:

J. D. KELLER,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."