W. R. O'BRIEN.

VETERINARY SURGICAL INSTRUMENT.

APPLICATION FILED JUNE 25, 1915.

1,167,014. Patented Jan. 4, 1916.

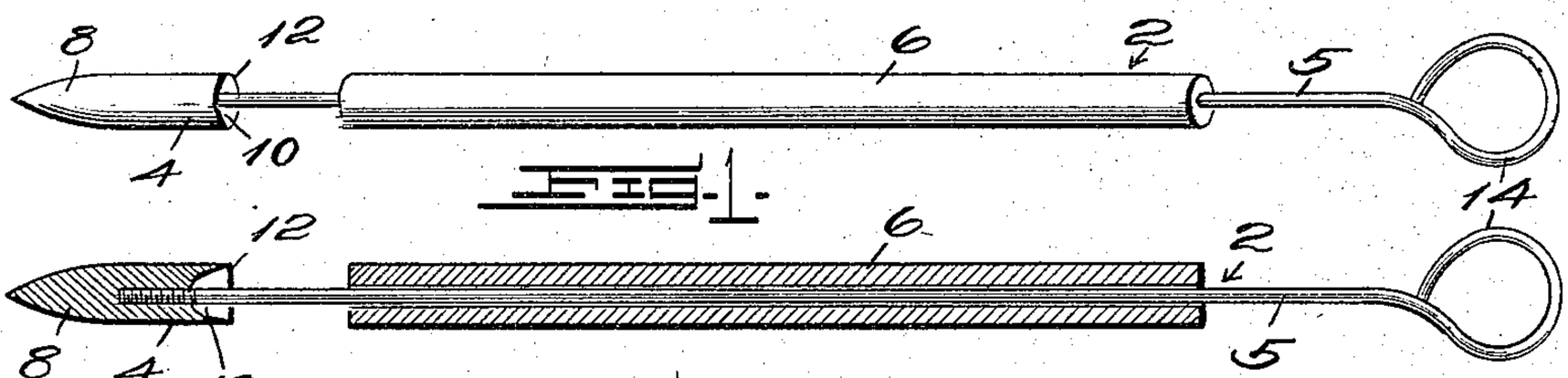

Fig. 1.

Fig. 2.

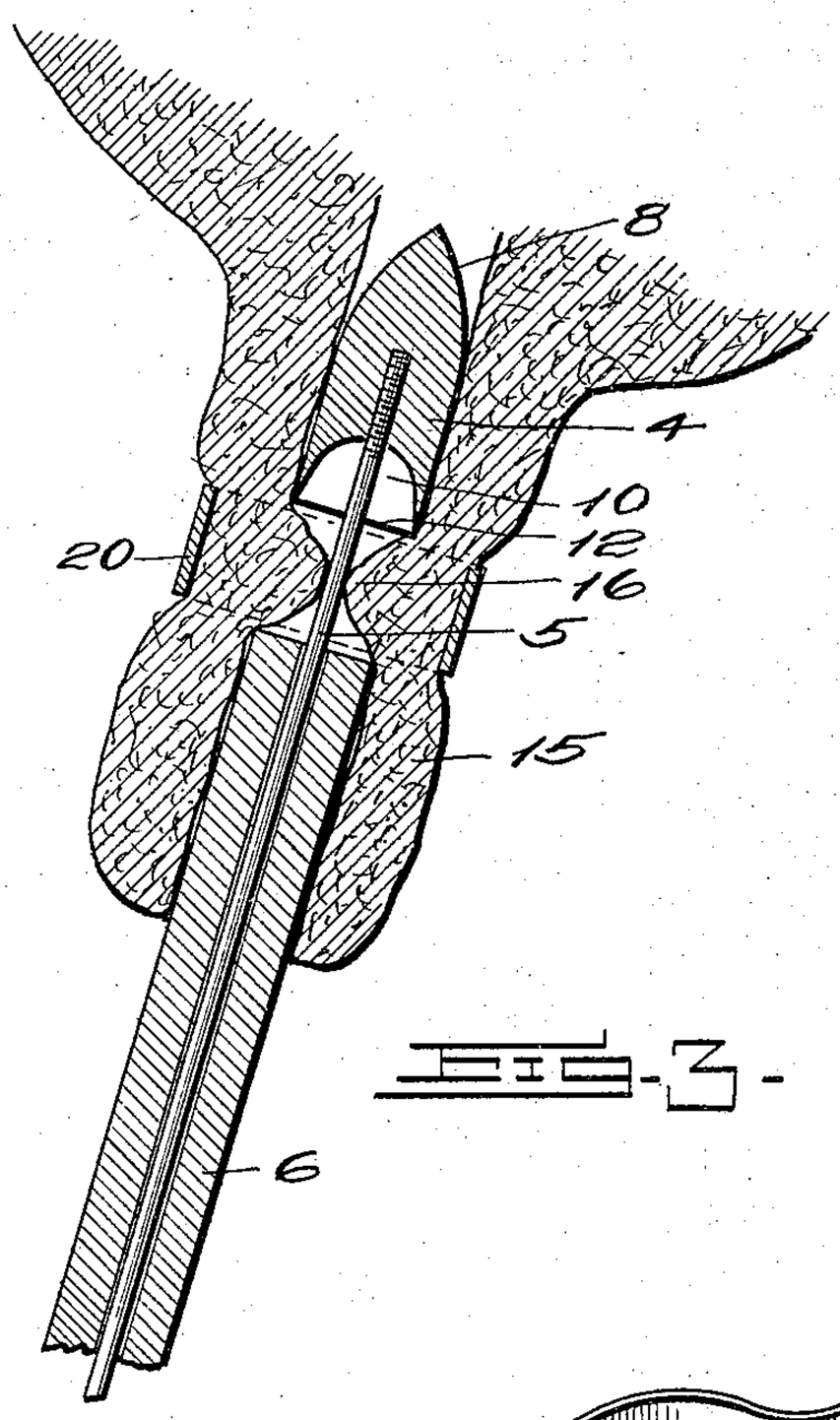

Fig. 3.

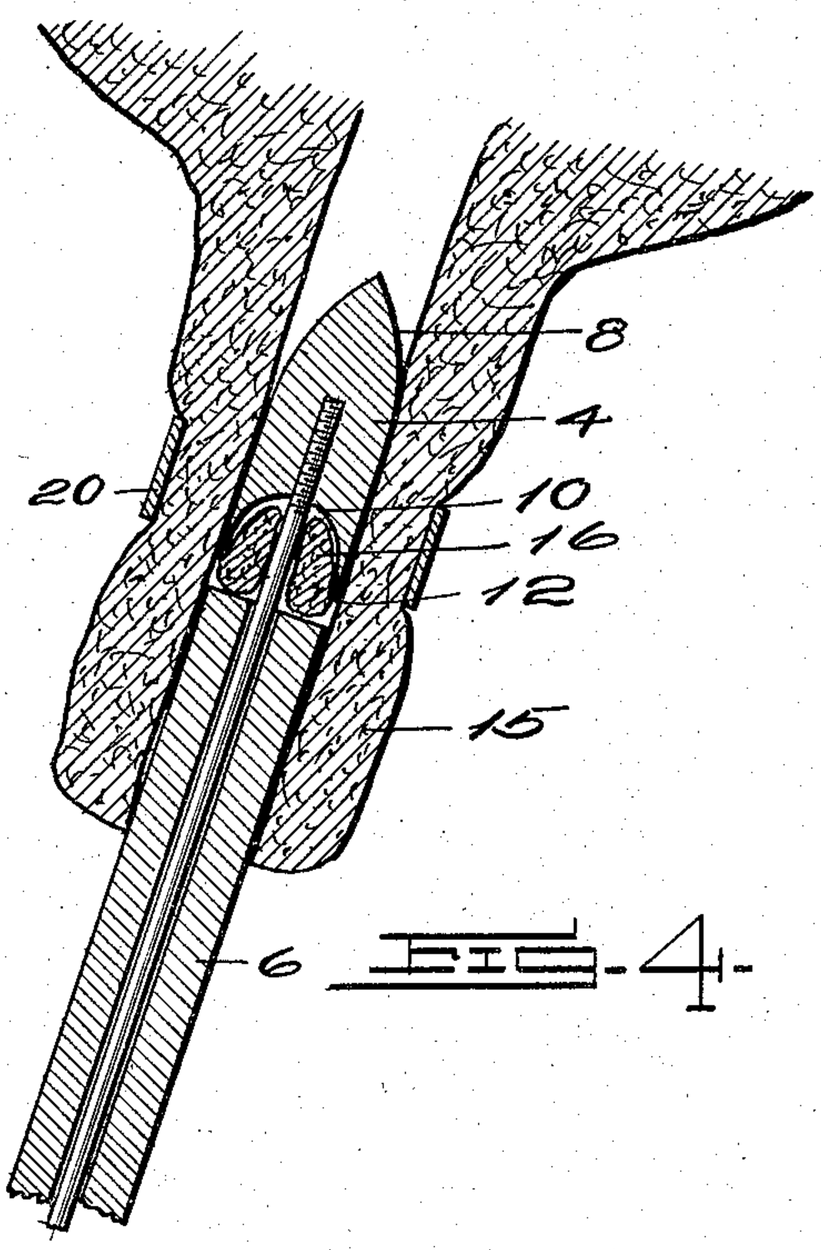

Fig. 4.

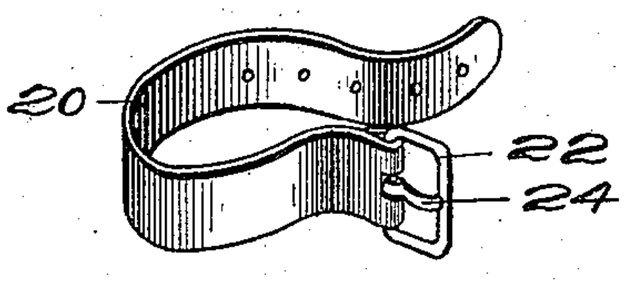

Fig. 5.

Witnesses

J. M. Lyles

O. M. Harrell.

Inventor

William R. O'Brien

By M. M. Cady.

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM R. O'BRIEN, OF PEOSTA, IOWA.

VETERINARY SURGICAL INSTRUMENT.

1,167,014. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed June 25, 1915. Serial No. 36,173.

To all whom it may concern:

Be it known that I, WILLIAM R. O'BRIEN, a citizen of the United States, residing at Peosta, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Veterinary Surgical Instruments, of which the following is a specification.

My invention relates to veterinary surgical instruments, with special reference to instruments for removing obstructions from milk passages in the teats of cows, and the leading object is to provide an instrument that may be inserted in the teat and cut out the obstruction and at the same time remove it from the teat.

It essentially consists in a circular piece of metal, cone pointed at one end and hollowed into cup shape at the other end, which end is provided with a circular cutting edge, and to the center of this piece, within the cutting end, is attached a small rod which also serves as a handle for operating the device. Around this handle is a tube that extends partly the length of the handle and is adapted to readily slide along on the handle and with this instrument is a strap or other means for compressing the teat.

The following specification will point out in detail the manner in which it is constructed and mode of operation when read in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a perspective view of my device. Fig. 2 is a longitudinal section. Fig. 3 shows a sectional view of a teat with my device therein and the obstruction compressed against the handle before the operation and enlarged. Fig. 4 shows a sectional view of the device after the obstruction has been cut off and about to be removed. Fig. 5 is a perspective view of a strap or rubber band used in connection with the instrument.

Like characters of reference denote corresponding parts in each of the figures.

Referring to the drawings 2 represents the device, 4 the head, 5 the handle. The head 4 is made of metal and is formed into a cone 8 at one end and hollowed out into a cup 10, at the end. The outer edges of the cup 10 is provided with a cutting edge 12 that extends entirely around the head. Within the center of the cup is secured an operating rod 5 which also serves with the ring 14 at the outer end, as a handle. Around the handle is a tube, not as long as the handle but adapted to slide readily on the handle. The circumference of which tube is practically the same as that of the cutting edge of the head.

For the purpose of compressing the teat so that the cutting edge will engage the obstruction and sever it at its base, there is provided, preferably, a strap of leather 20 having at one end a buckle 22 and provided with a tongue 24.

The manner of operating is substantially as follows; the head 4 is inserted in the teat until the cutting edge 10 has passed a trifle beyond the obstruction 16 in the teat 15, and the tube is shoved along a short distance in the teat, then the strap 20 is brought around the teat over the obstruction and buckled. This presses the teat and the obstruction close down onto the handle 5 and within the line of travel of the cutting edge. The operator takes hold of the tube 6 and the handle 5 at the ring 14 and pushes up the tube until it comes to the obstruction then he draws the head 4 down and at the same time pushes up the tube 6 and cuts off the obstruction against the end of the tube. When the cutter meets the end of the tube and the obstruction is severed then the operator slides down the tube and at the same time draws out the handle and with it the head and this brings the obstruction out of the teat.

It will be seen that by compressing the teat by the strap down on the handle, that all of the obstruction will be cut-off and drawn out and the milk passage will be freed of all obstruction.

It is manifest that means, other than a strap or rubber band may be used to compress the obstruction in the teat without departing, in any manner, from the spirit of my invention.

Having now described my invention what I claim is:

1. In a device of the character described, a head smaller at its outer end, a cutting edge on the opposite end, a handle attached to the head, a tube adapted to slide on said handle, and means for compressing the teat.

2. In a device of the character described, a head of cone shape at one end and provided with a circular cutting edge on the opposite end, a handle attached to the head

within the circle of the cutting edge, a tube adapted to slide on said handle, and means for compressing the teat against the handle.

3. In a device of the character described, a head of cone shape at one end and of cup shape at the opposite end and provided with a cutting edge around the edge of the cup, a handle attached to the head within the cup, a tube adapted to slide on said handle, and means for compressing the teat upon the handle.

4. In a device of the character described, a head of cone shape at one end and having a circular cutting edge on the opposite end, a handle attached to the head within the circle of the cutting edge, a tube adapted to slide on said handle and of substantially the same circumference as the inside of the cutting edge of the head, and means for compressing the teat upon the handle.

5. In a device of the character described, a head of cone shape at one end, cup shape at the opposite end and provided with a cutting edge around the edge of the cup, a handle attached in the cup to the head, a tube adapted to slide on said handle and form a cutting block for said cutting edge, and means for compressing the teat against the handle between the cutting edge and the end of the tube.

6. In a device of the character described, a head of cone shape at one end and cup shape at the opposite end and provided with a cutting edge around the cup, a handle attached to the head within the cup, a tube adapted to slide on said handle and form a cutting block for the cutting edge of the head, and a strap for compressing the teat on the handle between the cutting edge and the end of the tube.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM R. O'BRIEN.

Witnesses:
M. M. CADY,
V. SCHEIBE.