

G. N. Palmer,

Lancet

N^o 68,647.

Patented Sep. 10, 1867.

Fig. 1

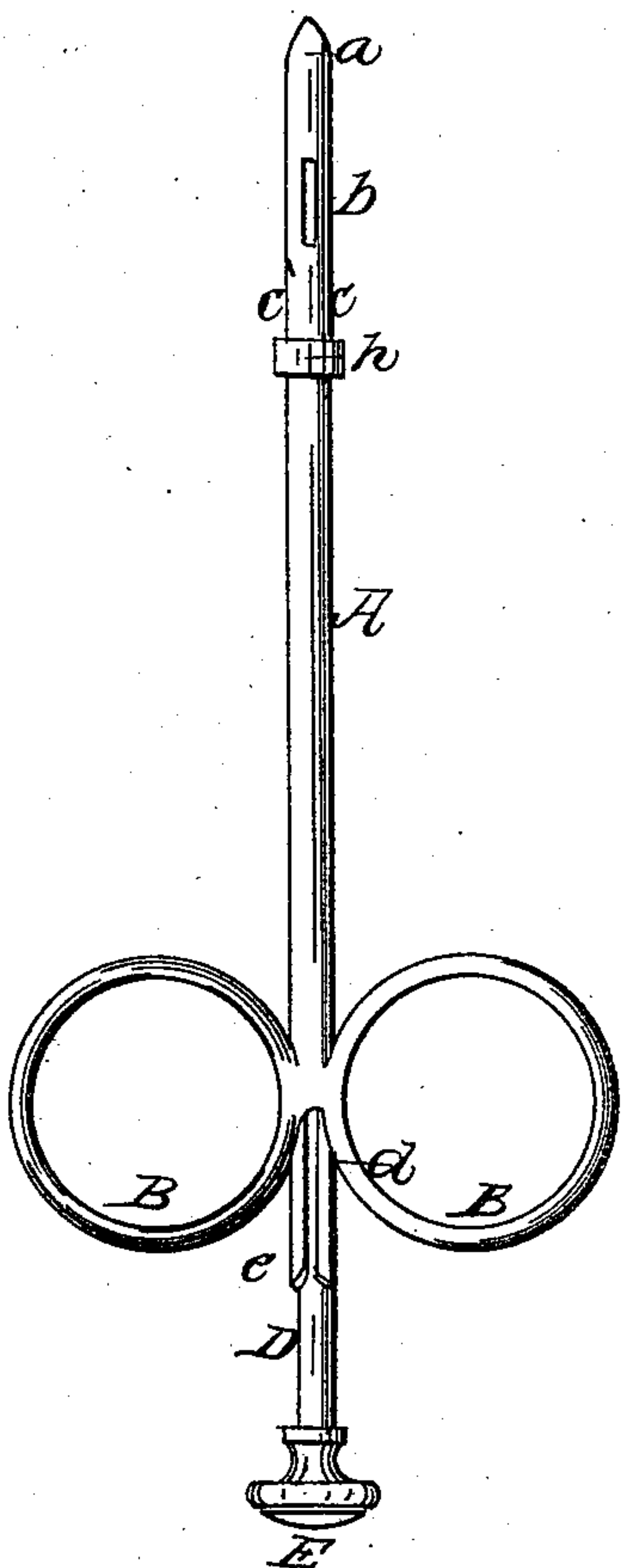
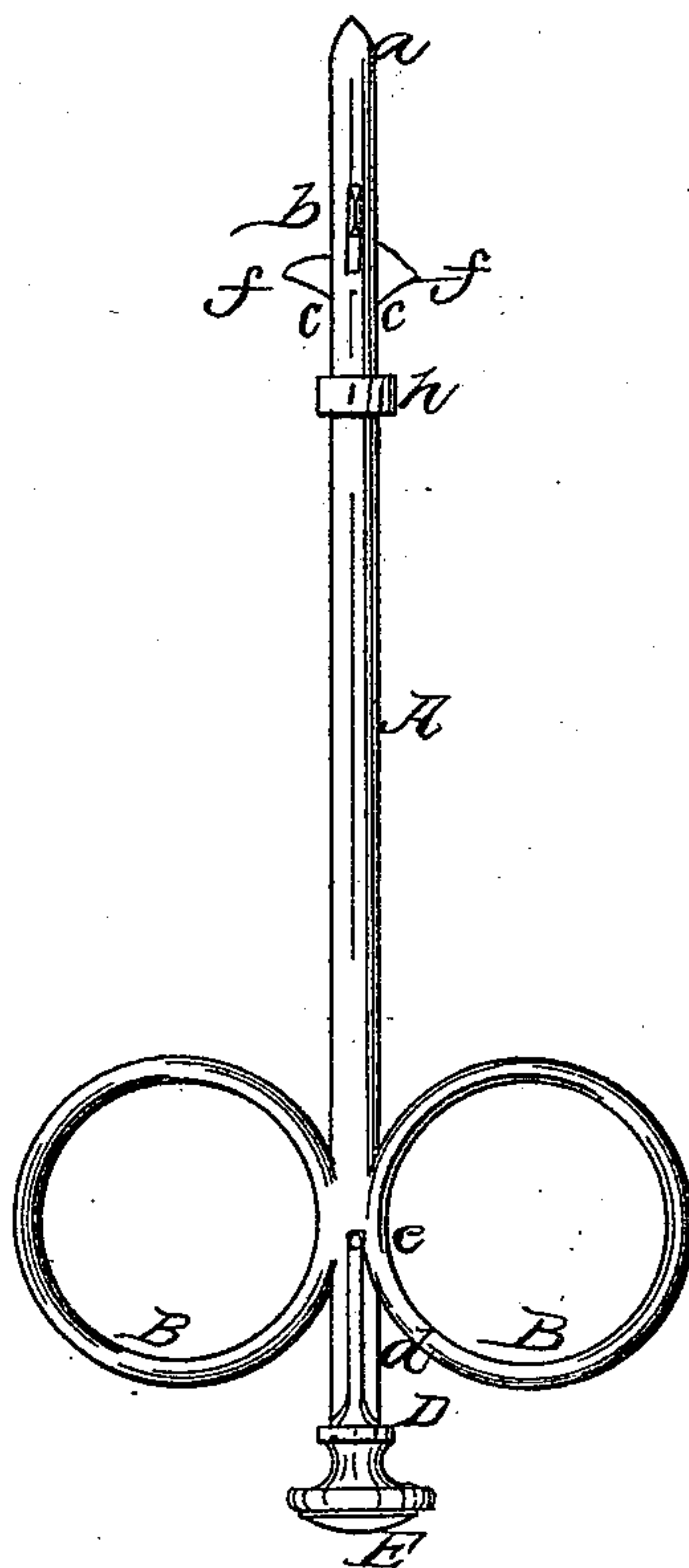


Fig. 2



Witnesses:

D. F. Dodge.
J. B. Woodruff.

Inventor:

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UNITED STATES PATENT OFFICE.

GEORGE N. PALMER, OF GREENE, NEW YORK.

IMPROVEMENT IN INSTRUMENTS FOR OBLITERATING STRICTURES IN DUCTS OR NATURAL PASSAGES FOR ANIMAL FLUIDS.

Specification forming part of Letters Patent No. 68,647, dated September 10, 1867.

To all whom it may concern:

Be it known that I, GEORGE N. PALMER, of the town of Greene, in the county of Chenango, in the State of New York, have invented a certain new and useful Instrument to Cut the Strictures or the Contracted Ligaments in the Teats of Hard-Milking Cows, thereby preparing them to be milked with ordinary ease and facility without the least apparent injury to the cow; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a view of the outside tube of the instrument with the slide or rod drawn so that the blades or lancet-points are incased within the sheath. Fig. 2 shows a view of the same with the slide-rod forced in, showing the cutting-blades or lancet-points thrown out for operating.

The object of my invention is an improvement in surgical instruments for the purpose of removing or obliterating strictures or contracted ligaments in ducts or natural passages for animal fluids.

My invention consists in a smooth, closed, conical-pointed tube, in which is fitted a piston-rod, in which, also, are fitted and pivoted two or more concealed lancet-points or blades, which can be thrown out of the small openings near the point of the tube or sheath at pleasure, so as to make the incision in a duct or passage on opposite sides instantly at the same time.

To enable others to make and use my invention, I will describe it more fully, referring to the amended drawings and to the letters thereon.

The tube or sheath A may be made of silver or other suitable metal, the diameter of which for most purposes should be quite small—not to exceed three-sixteenths of an inch—conical-shaped, and closed at the point *a*, and very smooth, with rings or handle B B to control its operation. At a short distance from the point *a* of the tube A, I make narrow slits or openings *b b* on opposite sides, and near to them, at a right angle, may be two more slits, *c c*, if desirable, for any specific purpose. Into the sheath or tube A is fitted a rod of metal,

D, to slide, it having at one end a head or knob, E, and a smaller guide-pin, *e*, to work in a slit, *d*, in the sheath A, so that the rod D is always in one position in the sheath or tube. At the right distance from the knob E to match the openings *b b* and *c c* in the sheath A are fitted in the rod D two or four small cutting-blades or lancet-points, *f f*, they being pivoted to the rod D in such a manner as to be entirely folded within the tube A, there being small longitudinal grooves in the rod from the blades *f f* to the ends, in which are fitted small lips cut and turned in from the point end of the slits *b* and *c* of the sheath A, so that when the rod or piston D is pressed up in the tube A the blades or points *f f* are guided and forced out through the openings *b* and *c*, and are held there at a right angle, firmly braced, as long as the rod D is held up to the knob E against the end of the tube A. When the rod D is started back the lancet-points *f f* are instantly withdrawn and concealed within the sheath, as in Fig. 1.

One of the specific purposes for which the above-described surgical instrument is intended is to operate in the orifice of the teats of hard-milking cows, and a slide-gage, *h*, is provided, so that the exact distance the instrument is inserted into the teat may be known.

It has been long and well known to dairy-men that some of the best cows have so small an orifice in their teats and so firm a ligature that they cannot be milked without extraordinary strength and a most laborious process, and it often occurs that the most valuable cows and best milkers, from some cause or other, have one or more of their teats apparently closed up by the contraction of the muscle around the orifice, so that they can only be milked, if at all, by a very strong-handed man; and another fact is well known to dairymen that new milch-cows often have inflammation in their bags by reason of the ducts or passages being contracted and closed up, and no method of applying an internal remedy having been discovered whereby to relieve them and draw the milk from the udder, they not unfrequently become ulcerated and useless for the season, and many times lost for the dairy forever. The only resource to remedy the difficulty was found to be in the use of the scalpel

to enlarge the orifice in the teat. This proved to be beneficial, and to make the operation easy and a safe, sure, and permanent thing, I have invented and constructed the above-described improvement in surgical instruments, or a trocar, for this and other purposes for which it may be applicable.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The sheath or cone-pointed tube A, sliding rod D, knob E, and guide-pin *e*, as constructed and arranged, in combination with the pivoted blades or lancet-points *ff*, for operating in the manner as and for the purposes herein set forth.

GEO. N. PALMER.

Witnesses:

R. M. BINSWELL,
M. S. BARKER.