Feb. 16, 1926. 1,573,681

J. G. DAIREAUX

TROCAR

Filed June 18, 1924

FIG. 1.

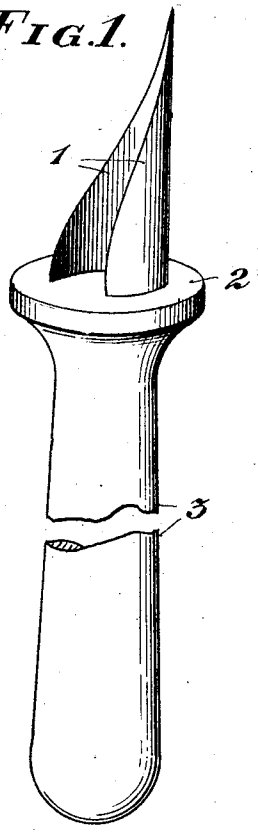


FIG. 2.

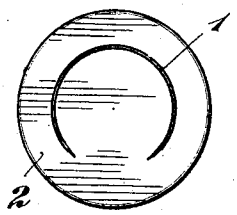
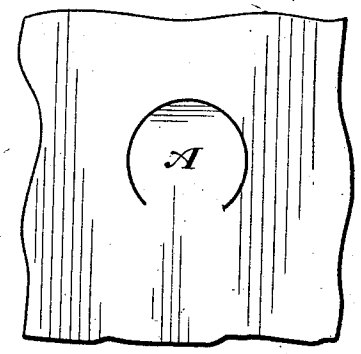


FIG. 3.



INVENTOR

Jorge G. Daireaux

BY Thumm & Co.

ATTORNEYS

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UNITED STATES PATENT OFFICE.

JORGE GASC DAIREAUX, OF BUENOS AIRES, ARGENTINA.

TROCAR.

Application filed June 18, 1924. Serial No. 720,803.

To all whom it may concern:

Be it known that I, JORGE GASC DAIREAUX, a citizen of the Republic of Argentina, residing at Maipu 671, Buenos Aires, Argentina, have invented a new and useful Trocar, of which the following is a specification.

This invention is for a new veterinary apparatus for the exclusive purpose of operating on food bound animals.

As is well known, except in very rare cases, bound animals almost invariably die if intervention be not taken without delay and an opening made in the stomach allowing of the escape of the gases and matter which produce the swelling, the characteristic symptoms of this illness. At present this operation is effected by means of special apparatus, known as trocars, or simply by means of knives.

Although the above means may result in saving the animals, they both offer serious deficiencies. As regards the first, it is necessary to keep on hand a number of these apparatus in case several animals are effected at the same time, as the tube has to be left in the wound. Again, when the tube has been inserted it is very prone to become blocked by the matter drawn off, and this means that the operator has to maintain a constant watch in order to clear the tube each time it gets stopped up, otherwise the apparatus would be ineffective. The skin contracts as the swelling goes down, and the tube remains tightly gripped, thus giving rise to tears in the wound, which makes it difficult to heal when the tube is withdrawn.

Operations practised with knives cause, of necessity, large wounds, since the tension of the skin tends to close up the wound. Therefore, as is easily understood, it takes a long time to heal, leaving the animal in a weak state and exposed to risk of infections.

The instrument which is the object of this application, is characterized by the special form of cut it makes. This is semi-circular, and the central part is left free from the tension of the surrounding skin, forming a kind of hinged flap, which later is used as a covering to aid the closing of the wound after the swelling has subsided. Obviously when the incision is first made the tension of the swelled body draws the incision open and holds it open, and this continues until the swelling subsides. With this instrument a large number of animals can be operated on very rapidly, without need for accessory parts, and the punctures practised do not get blocked up, nor do they require any attention whatsoever during the evacuation the wound healing very rapidly as soon as this ceases and allows the contraction of the skin.

For the better understanding of this description the following detailed drawings are attached:—

Figure 1, showing in perspective an instrument for making punctures in food-bound animals.

Figure 2, showing same in plan view.

Figure 3, showing the form of the incision in the skin.

In these figures the part numbered 1, is the cutting part of the instrument, which is formed of a steel tube that may be opened along its length or not, and the end of this is cut off obliquely, the edge of this oblique cut being sharpened all round, the section thus being as shown in Fig. 2: it may be made in the form of a complete circle, provided that the sector below 1 is left unsharpened, or that it has a projection to prevent that portion from cutting and also to act as a stop, thus avoiding a deeper penetration than necessary. In this way the apparatus, independent of a handle, may be formed of a simple tube cut off in the manner described.

The drawing only shows one of many ways in which the cutting instrument can be mounted.

In the present case the stop is formed by the end washer, numbered 2, which is fixed on the handle, numbered 3, holding the cutting part.

As is shown in Figure 3 the incision made by the instrument is a semi-circular one.

Due to this special form of incision the part A does not oppose any resistance to the internal pressure and allows the free escape of the gases and matter. When the skin contracts, the perforation shrinks and the centre part of the semi-circle closes it up, thus aiding in a speedy healing.

The character of this invention and the way in which it is put into practice having thus been described and specified, I claim as being my exclusive invention and property:—

An instrument for making punctures in bound animals, comprising a handle provided at one end with an enlargement hav-

ing a flat face at right angles to the longitudinal axis of the handle, and a cutting blade secured thereto projecting centrally from the face of the enlargement and in line with the handle, said blade being curved transversely and having its edges gradually inclined to form a pointed end, said edges being sharpened to form cutting edges extending throughout their length, whereby the flat face of the enlargement of the handle forms a stop to limit the puncture and provision is made for making a curved incision which is greater than a semicircle and facilitates closing of the wound.

JORGE GASC DAIREAUX.