

No. 734,353.

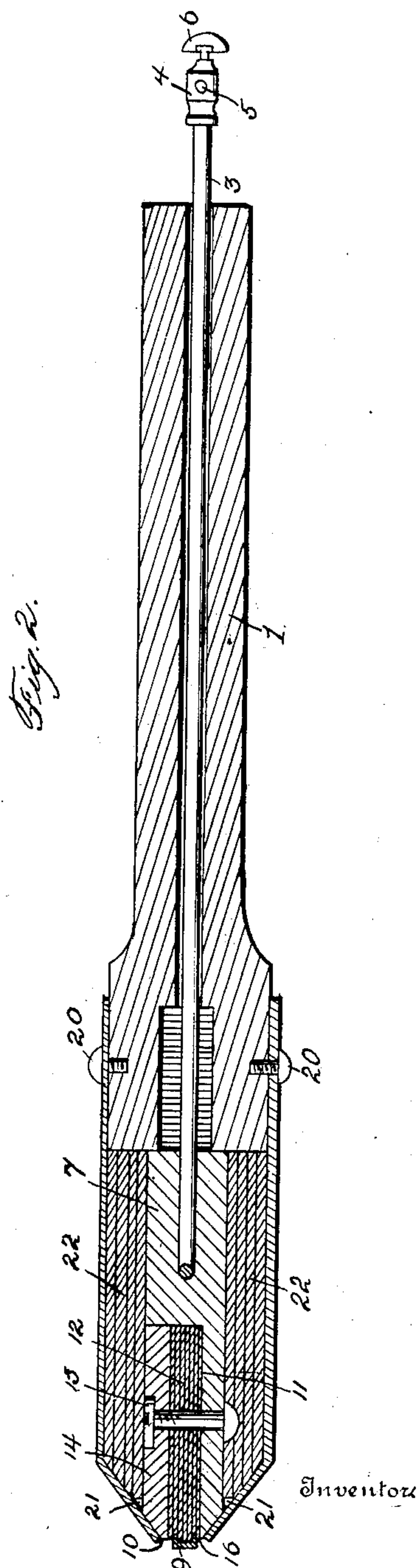
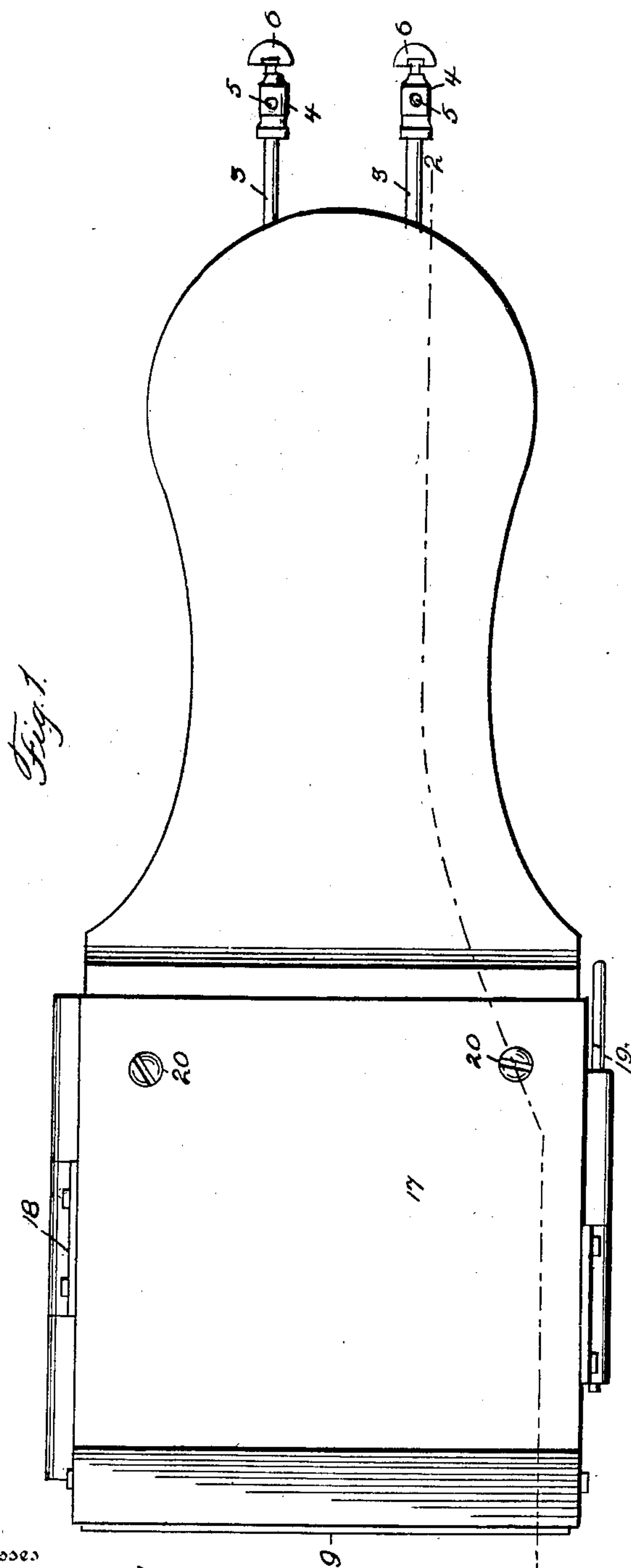
PATENTED JULY 21, 1903.

F. NETTLETON & E. B. DEMPSEY.  
ELECTRIC CLEANING KNIFE.

APPLICATION FILED FEB. 24, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

*Chas. Harvey,  
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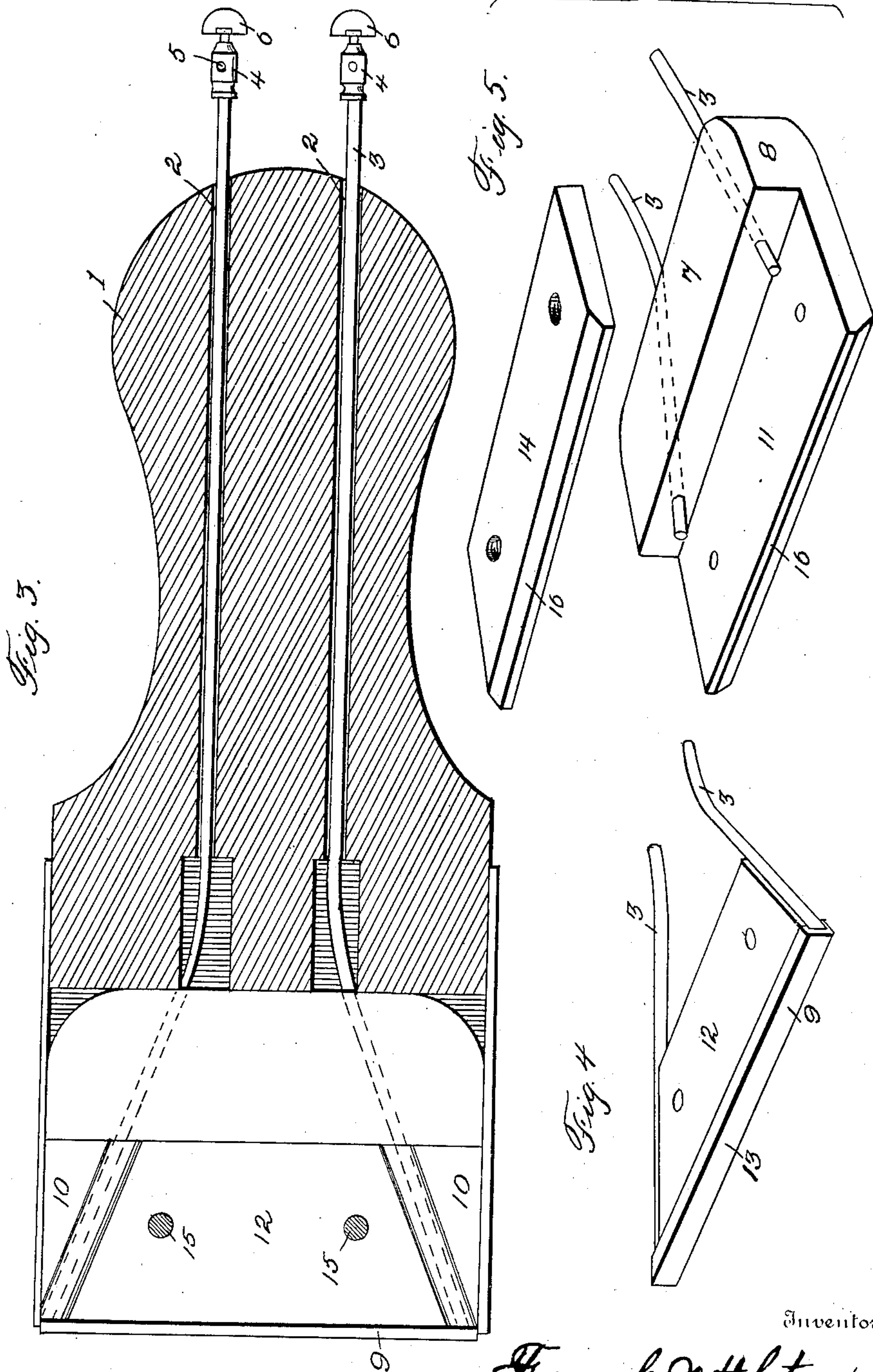
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Chas. Howell.  
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# UNITED STATES PATENT OFFICE.

FRANK NETTLETON AND EDWARD R. DEMPSEY, OF PHILADELPHIA,  
PENNSYLVANIA.

## ELECTRIC CLEANING-KNIFE.

SPECIFICATION forming part of Letters Patent No. 734,353, dated July 21, 1903.

Application filed February 24, 1903. Serial No. 144,751. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK NETTLETON and EDWARD R. DEMPSEY, citizens of the United States, residing at 224 Wister street, Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Electric Cleaning-Knives, of which the following is a specification.

10 This invention pertains to electric devices, and especially to a device adapted to use in removing the hair from sheep, goat, and other hides.

Heretofore it has been the practice in depelting skins and hides to subject them to a chemical treatment which takes usually from two to three weeks; and it is the primary object of this invention to effect a saving of time and at the same time to prevent the depreciation of the skins as results from the aforesaid chemical treatment.

The device which forms the subject-matter of this invention is a hand-tool which can be easily manipulated, and it is used in the following manner: being heated to a cherry-red heat at a temperature of, say, from about 1,250° to 1,500°, which ordinarily requires about thirty-five amperes and seven volts, the device is taken in one hand and run along over the skin to clean the pelt therefrom, the hair being taken by the other hand and thrown off as fast as it is removed by the cleaning-knife now to be described.

Other objects and advantages of the invention will be hereinafter described, and the novel features thereof will be specifically defined by the appended claims.

The invention in its preferred form is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a plan view of the implement as it is placed on the market ready for the attachment of the electrical connections. Fig. 2 is a longitudinal section through the same, taken on the line 2 2 of Fig. 1. Fig. 3 is a substantially central longitudinal section through the implement at right angles to the section of Fig. 2. Fig. 4 is a perspective detail of the platinum plate or edge of the means

by which it is held in position. Fig. 5 shows in detail perspective the slate base or separable portion, the two sections thereof being separated, but in their relative positions, the ends of the wires being shown in the one portion or section.

Like numerals of reference indicate like parts throughout the several views.

Referring now to the details of the drawings, 1 designates a frame or support, preferably in substantially the shape shown. It is by preference formed of wood, although any other analogous non-conductor will answer the purpose. It is shaped so as to be readily grasped by the hand and is provided with substantially central longitudinal passages 2 2 for the reception of the wires 3 3, preferably of copper, and the outer ends of these wires are provided with suitable pole-pieces 4 or posts having openings 5, into which are adapted to be received the wires (not shown) which run from an electric battery or other sources of supply of electricity. The screws 6 are provided for holding the said wires detachably in said holes in the usual manner. The wires or rods 3 3 after passing through the part 1 are extended at right angles to each other, as seen best in Figs. 3 and 5, and pass through the thickened portion 7 of a block or plate 8, of slate or analogous material, the rods where they pass through said slate being held in plaster-of-paris or the like, and their outer ends are secured by German-silver solder to the blade of knife 9, of platinum or analogous material, and this blade or knife is embedded in plaster-of-paris or the like, 10, and held on the thinner portion 11 of the block or plate 8, and between the rods 3 3 at this end of the device and in a recess in the plaster-of-paris are the substantially triangular pieces of mica 12, the outer edges of which are held in place by the overturned flange or lip 13 of the platinum plate 9, as seen best in Fig. 4. The plate 14, of slate or analogous material, held by screws or the like 15, is placed over the mica plates, as seen in Fig. 2, and the parts are thus securely retained in their proper position. The outer edges of the thin portion 11 of the plate or block 8 and the outer edge of the blade 14 are beveled, as seen at 16, so as to bring the same to a thin



edge, between which the knife or blade 9 projects, as seen best in Fig. 2.

It may sometimes be desirable to provide the device with a protective casing, as shown in Figs. 1 and 2. As there seen, the base-frame has attached thereto a case 17, which in this instance consists of two members hinged together, as at 18, and provided with a suitable fastening device 19 at the opposite side, as seen best in Fig. 1. This case is secured to the frame by suitable means, as the screws 20, and the front ends are tapered, as seen at 21 in Fig. 2, and embrace the front ends of the block 8, leaving the end or edge of the blade 9 protruding. In the space between the casing and the opposite sides of the slate block 8 are arranged a plurality of layers 22, of asbestos, as is seen clearly in Fig. 2. While this case and the asbestos are not necessary, yet the same are desirable, as they keep the heat in the tool and also protect the parts.

The manner of use will be apparent from the foregoing description when taken in connection with the annexed drawings. One of the wires or rods is connected with the source of electricity, as a battery, and the other with the return-wire. The device is taken in the hand and the current turned on, and when the blade or knife reaches a cherry-red heat the tool is moved about by hand over the material from which the pelt is to be removed, care being taken not to allow the tool to rest long enough on any one spot to scorch and burn the hide.

From the foregoing it will be seen that we have devised a novel and efficient form of cleaning-tool, and while the structural embodiment of the invention as herein disclosed is what at the present time we consider the preferable one, yet it is evident that the same is subject to changes, variations, and modifications, and we therefore do not wish to be restricted to the details herein disclosed, but reserve the right to make such changes, variations, and modifications as come properly within the scope of the protection prayed.

What is claimed as new is—

1. An electrical hand-manipulated device for removing the pelt from the skins and hides, comprising a frame, a platinum blade carried therefrom, mica plates held by said blade, electrical connections passed through said frame and connected with said blade, and a heat-retaining means, as set forth.

2. A hand-manipulated device for the purpose described, comprising a frame having longitudinal passages, rods passed therefrom and having at one end means for connection with a source of electricity, a platinum blade at the other end, mica plates embraced by the edges of said blade and a connection between said blade and said rods, as set forth.

3. A hand-manipulated device of the character described, comprising a frame with longitudinal passages, rods therein, a platinum blade connected with said rods, a slate block supporting said blade and the ends of the rods held in flanges on said blade, and mica on said block between said rods, as set forth.

4. A hand-manipulated device of the character described comprising a frame, electrical connections therewith, a blade, connections between said electrical connections and blade, and slate block having a recess, mica sheets in said recess, and held in flanges formed on said blade, a cover therefor, and means for securing the cover on the block, as set forth.

5. In a hand-manipulated device of the character described the combination with the frame having longitudinal passages of rods therein, a block in which said rods are received, mica sheets held in said block, and the knife-blade held at the end of said block and connected with said rods, and having flanges receiving said mica sheets, as set forth.

6. A hand-manipulated device of the character described, comprising a frame, rods with electrical connections, a block in which said rods are inserted, mica sheets carried by said block, a blade connected with said rods, and a casing inclosing said block and mica and having said blade protruding therefrom, as set forth.

7. A hand singeing device of the character described comprising a frame having substantially central longitudinal passages, wires passed through said passages and having pole-pieces exterior thereon, a block having different openings through which said wires pass, a platinum blade to which said wires are connected, insulating metal held in a recess in said block and removable plate secured to said block from the insulating metal and means for holding the same in place.

8. A hand singeing device of the character described comprising a frame having substantially central longitudinal passages, wires passed through said passages and having pole-pieces exterior thereon, a block having divergent openings through which said wires pass, a platinum blade to which said wires are connected, insulating metal held in a recess in said block, a removable plate secured to said block from the insulating metal and means for holding the same in place, and an inclosing case for said block and its accessories formed of two parts hinged together, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK NETTLETON.

EDWARD R. DEMPSEY.

Witnesses:

RICHARD J. MCGONIGLE,  
JOHN J. CROUT.