

No. 663,930.

Patented Dec. 18, 1900.

R. D. ROTH.
COW MILKER.

(Application filed Dec. 30, 1899.)

(No Model.)

Fig. 1.

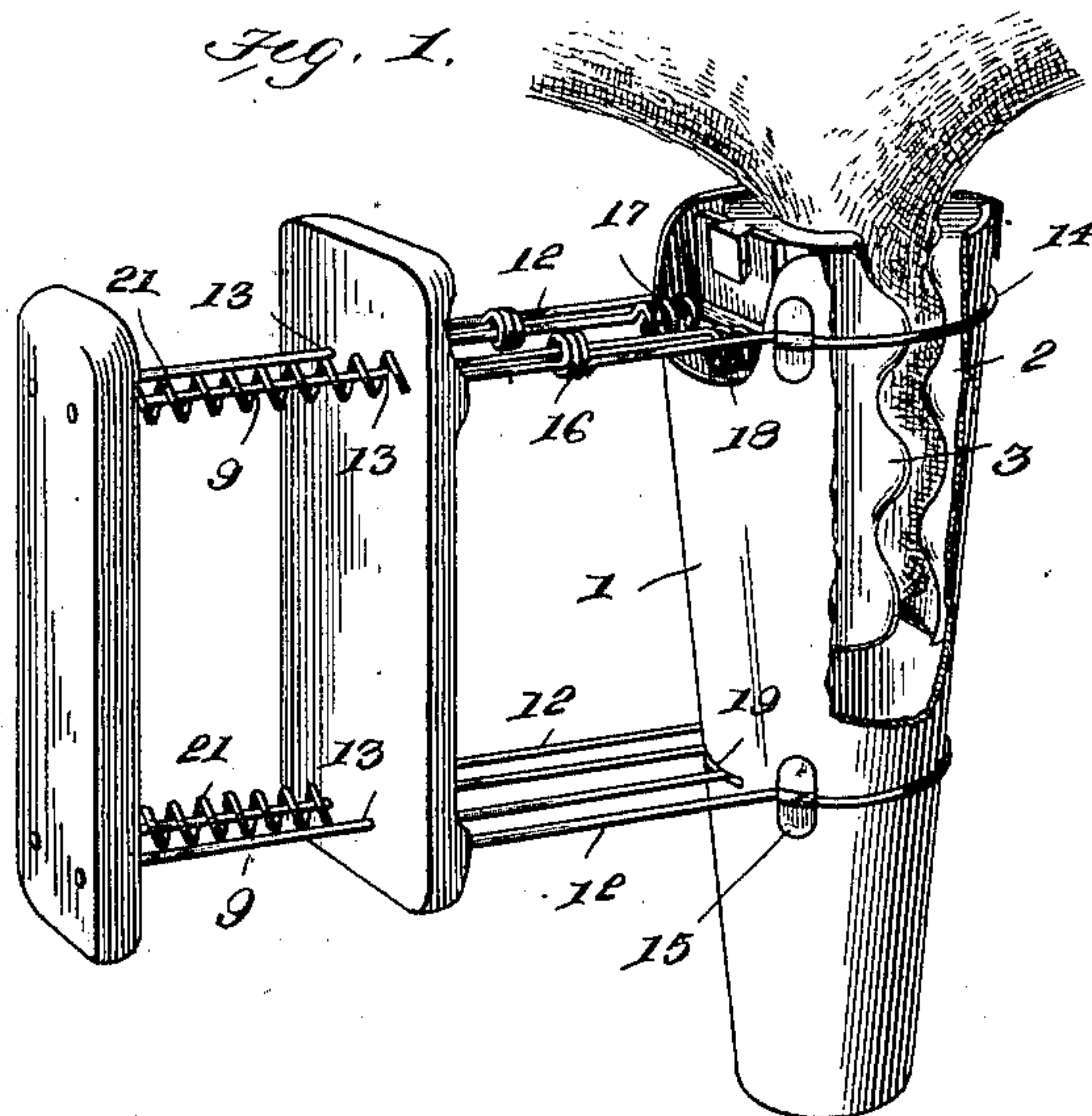


Fig. 2.

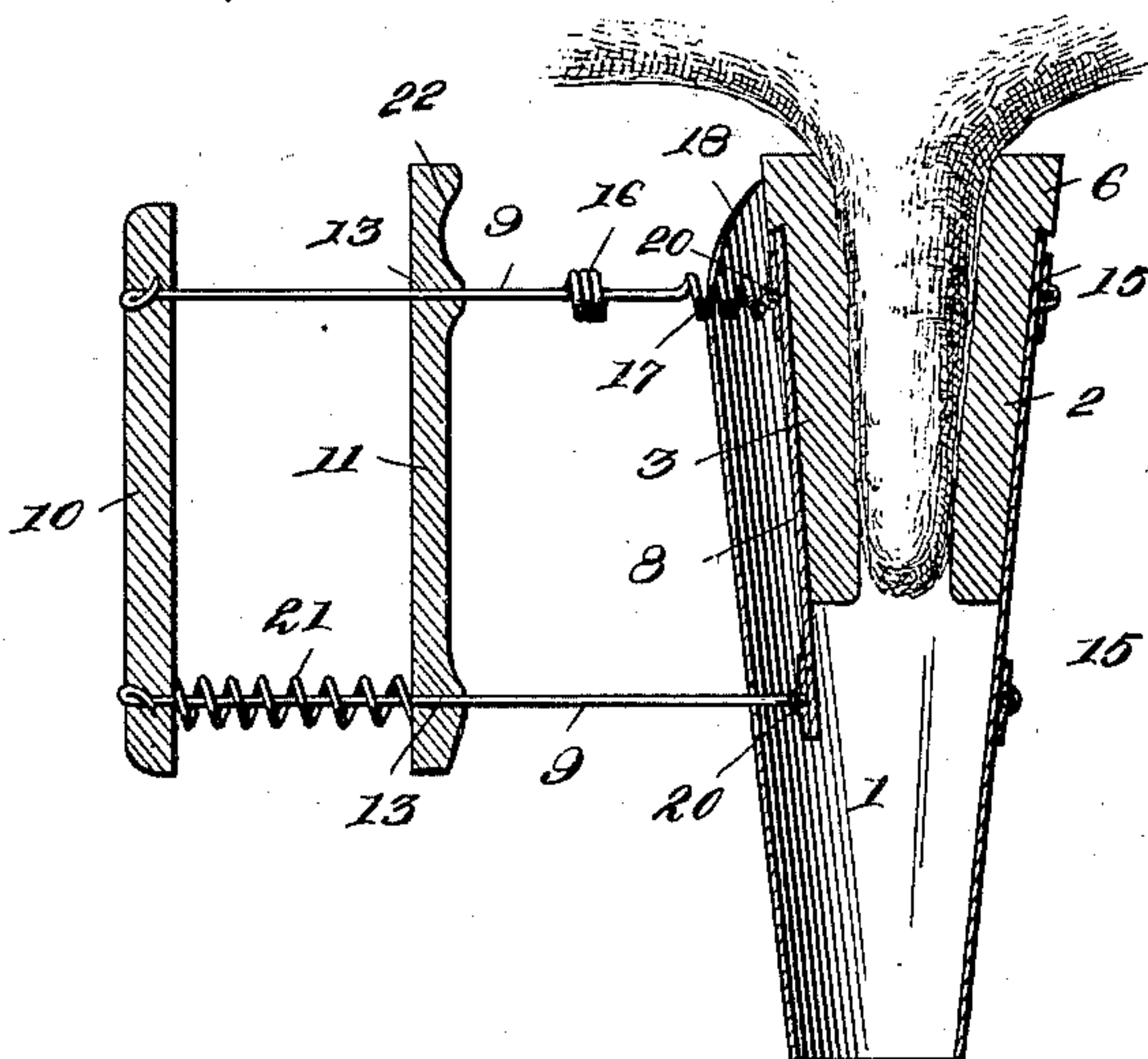


Fig. 5.

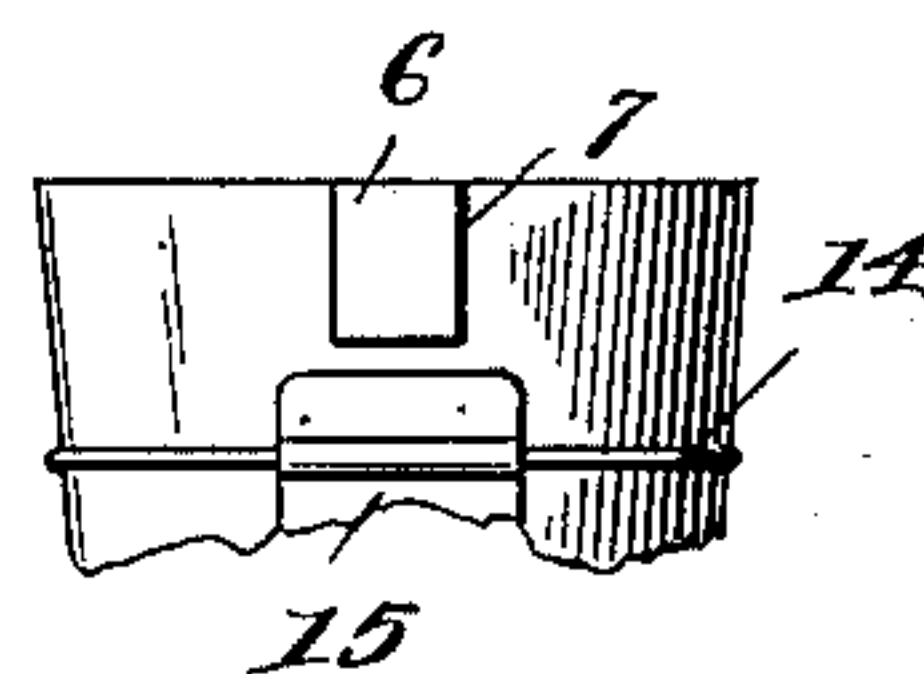


Fig. 4.

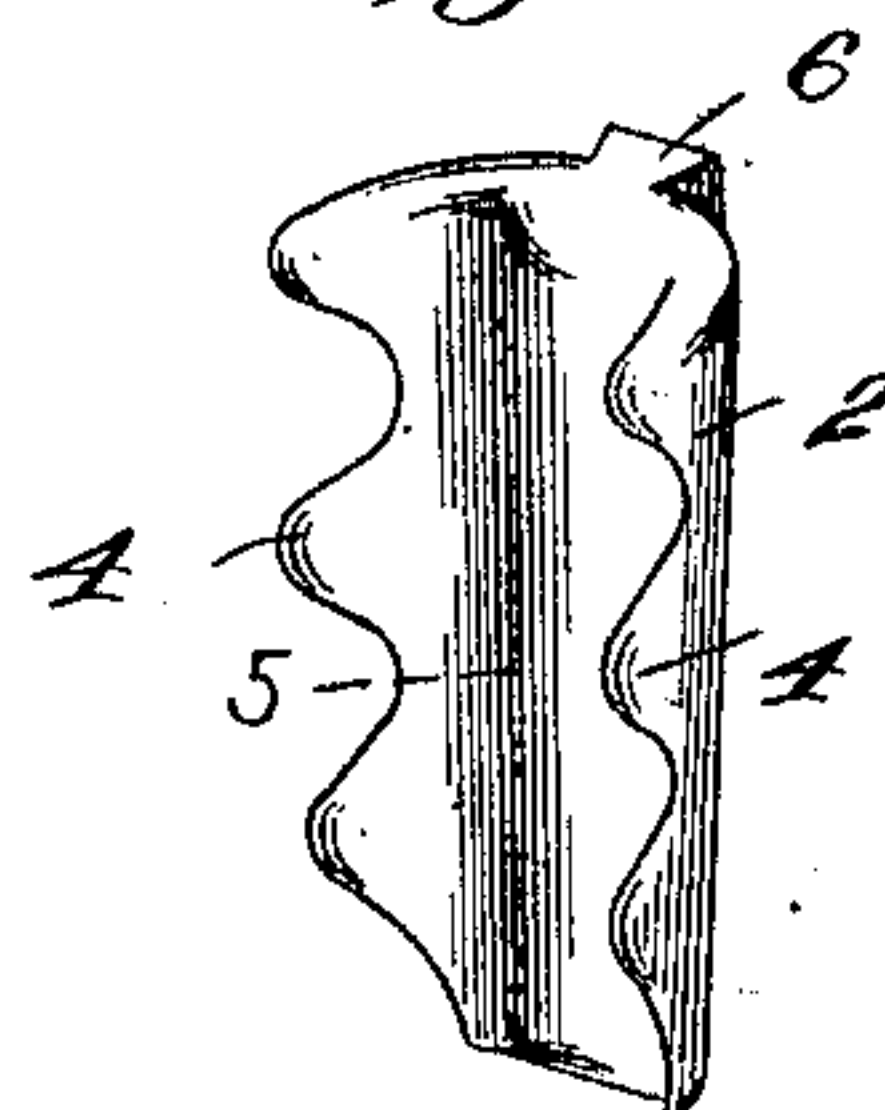
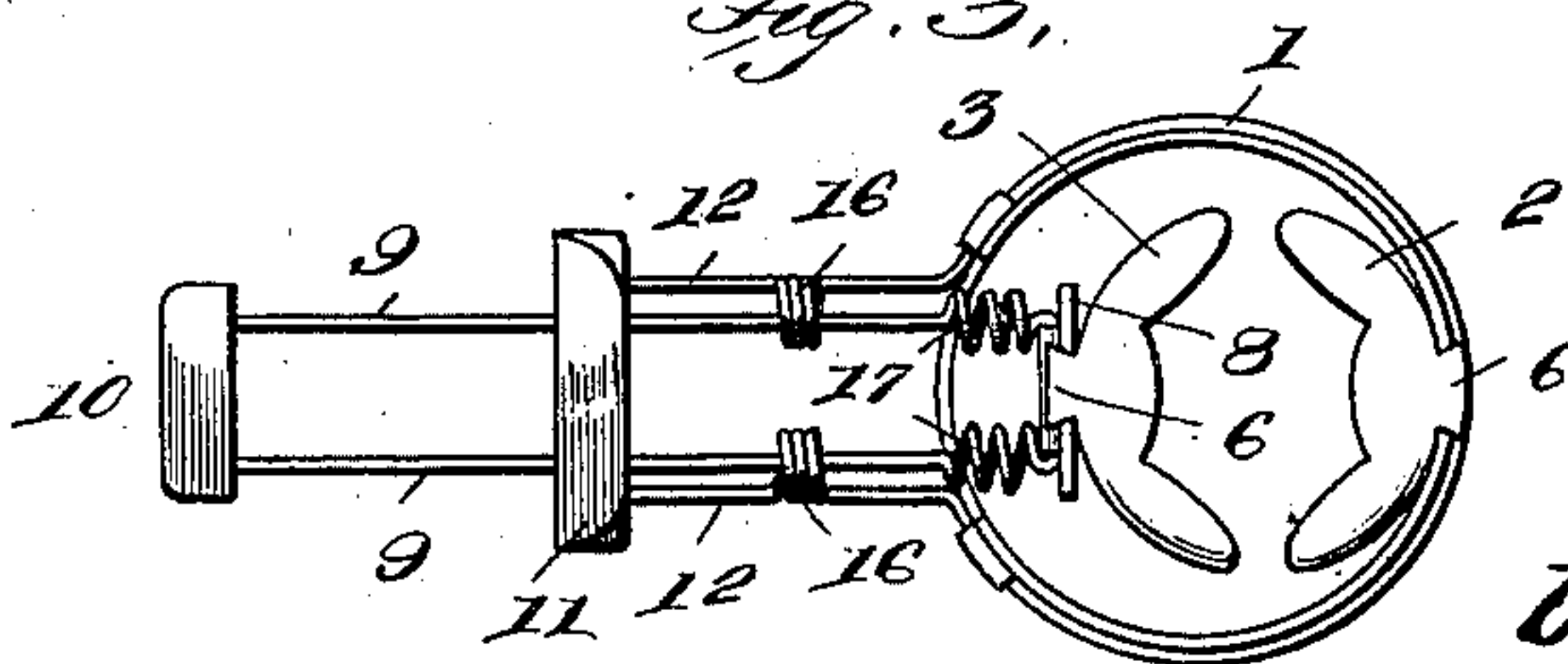


Fig. 3.



Witnesses

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REUBEN D. ROTH, OF MUMMASBURG, PENNSYLVANIA.

COW-MILKER.

SPECIFICATION forming part of Letters Patent No. 663,930, dated December 18, 1900.

Application filed December 30, 1899. Serial No. 742,081. (No model.)

To all whom it may concern:

Be it known that I, REUBEN D. ROTH, a citizen of the United States, residing at Mummasburg, in the county of Adams and State of Pennsylvania, have invented a new and useful Cow-Milker, of which the following is a specification.

My invention relates to cow-milkers in which pressure is applied by hand through the instrumentality of suitable mechanism; and it has for its object to produce such a device as will be cheap, simple, and effective; and it consists in the combination and improved construction of parts of the same, as will be hereinafter more fully set forth.

Referring to the accompanying drawings, in which the same reference numerals indicate corresponding parts in each of the views in which they occur, Figure 1 is a broken perspective view of my improved cow-milker in position. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a top plan view, and Figs. 4 and 5 are detail views.

Referring more particularly to the drawings, 1 indicates a funnel-shaped receptacle or case into which the teat is inserted when the milker is in position. Within the receptacle are two clamps 2 and 3, one of which is fast to the side of the case and the other one is movable. The edges of the clamps are indented or provided with projections 4, which interlock with each other when the clamps are forced toward each other. The clamps are substantially curved in cross-section, the inner face being slightly corrugated longitudinally, as shown at 5. The top of each clamp is provided with a projection or hook 6, which fits in a suitable notch or recess 7, to hold it in place.

The movable clamp is secured to a plate 8, which is supported on the inner ends of rods or wires 9, the outer ends of the rods being connected with a suitable handle or grip 10. Mounted upon the intermediate portion of these wires is another handle or grip 11, which is connected with the case by means of wires 12. The ends of the wires 12 are secured to the handle 11 in any suitable manner, preferably outside of the wires 9, which pass through holes 13 in the handle 11, and the central portion of each of the wires 12 is bent into a loop 14, which surrounds the case 1 and is secured

thereto by clips or fasteners 15. The portions of the top wires 12 between the clips and the handle 11 are provided with close coils 16, which preferably surround the top wires 9.

The top wires 9 are preferably provided each with a coil 17 adjacent to the plate 8, the top of the case 1 being cut away, as at 18, to accommodate said coils, and the lower wires 9 pass through a slot 19 in the side of the case, each of the wires being preferably secured to the plate 8 by means of a pivotal joint 20. If desired, springs 21 may be placed on the wires 9 between the handles to return the parts to their normal position after the pressure has been removed from the handles. The springs may be placed at both ends of the handles; but I prefer to use them only at the lower ends. The handle 11 may be provided with suitable finger-holds or recesses 22, if desired.

In operation the teat is inserted in the case between the clamps as far as it will go and the handles are grasped between the thumb and fingers. Pressure is then applied by closing the hand, which will force the movable clamp toward the stationary one with sufficient power to force the milk out of the teat quickly and easily. The natural process of closing the hand upon the handles will cause the upper end of the clamps to engage with the teat at the top first and prevent the backflow of the milk into the udder, as is done in hand-milking, and the springs in the top wires will prevent too great a pressure being applied before the lower ends of the clamps have been forced together. As soon as all of the milk has been expelled the pressure of the hand is relaxed, which will permit the springs between the handles to expand and separate the handles and with them the clamps. The teat will then instantly fill from the udder, and another pressure by the hand will expel it as before, a slight suction being caused by the separation of the clamps, which will assist in filling the teat. In this manner the milking can be performed rapidly and cleanly, as the milk will not come in contact with any part of the device except the lower end of the case, by means of which it is guided to the receptacle provided for that purpose. It is evident that two milkers can be used at the same time, one in each

hand. By securing the clamps to the case and to the plate with hooks or projections they can be easily and quickly removed and replaced for the purpose of cleaning them, 5 and the case itself can be readily cleansed. The device is light and being of simple construction can be cheaply made or repaired.

Although I have shown and described the preferred form of my machine, I reserve to 10 myself the right to make such changes and variations in the same as will come within the scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by 15 Letters Patent, is—

1. In a cow-milker, the combination with a case, of two curved clamps therein, the edges of which are provided with interlocking pro- 20 jections, and means permitting one of said clamps to be forced toward the other one with a yielding pressure, substantially as described.

2. In a cow-milker, the combination with a case, of a removable plate therein, the top of 25 the case and of the plate being each provided

with a recess, two clamps, the top of each of which is provided with a projection to fit within one of the recesses, and means exteriorly of the case for moving the plate and its clamp toward the other clamp, substan- 30 tially as described.

3. In a cow-milker, the combination with a case, of a plate therein, two clamps one of which is secured to the plate, two wire loops around the case, the ends of one of which is 35 provided with closed coils, a handle on the ends of said looped wires, wires secured to the plate, the intermediate portions of which project through the case and the handle and the inner ends of a portion of which wires 40 are each provided with a coil, a handle secured to the outer ends of the wires projecting outward from the plate, and springs on said wires between the handles, substantially as described.

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Witnesses:

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