

(No Model.)

2 Sheets—Sheet 1.

W. M. MEHRING.  
COW MILKER.

No. 571,573.

Patented Nov. 17, 1896.

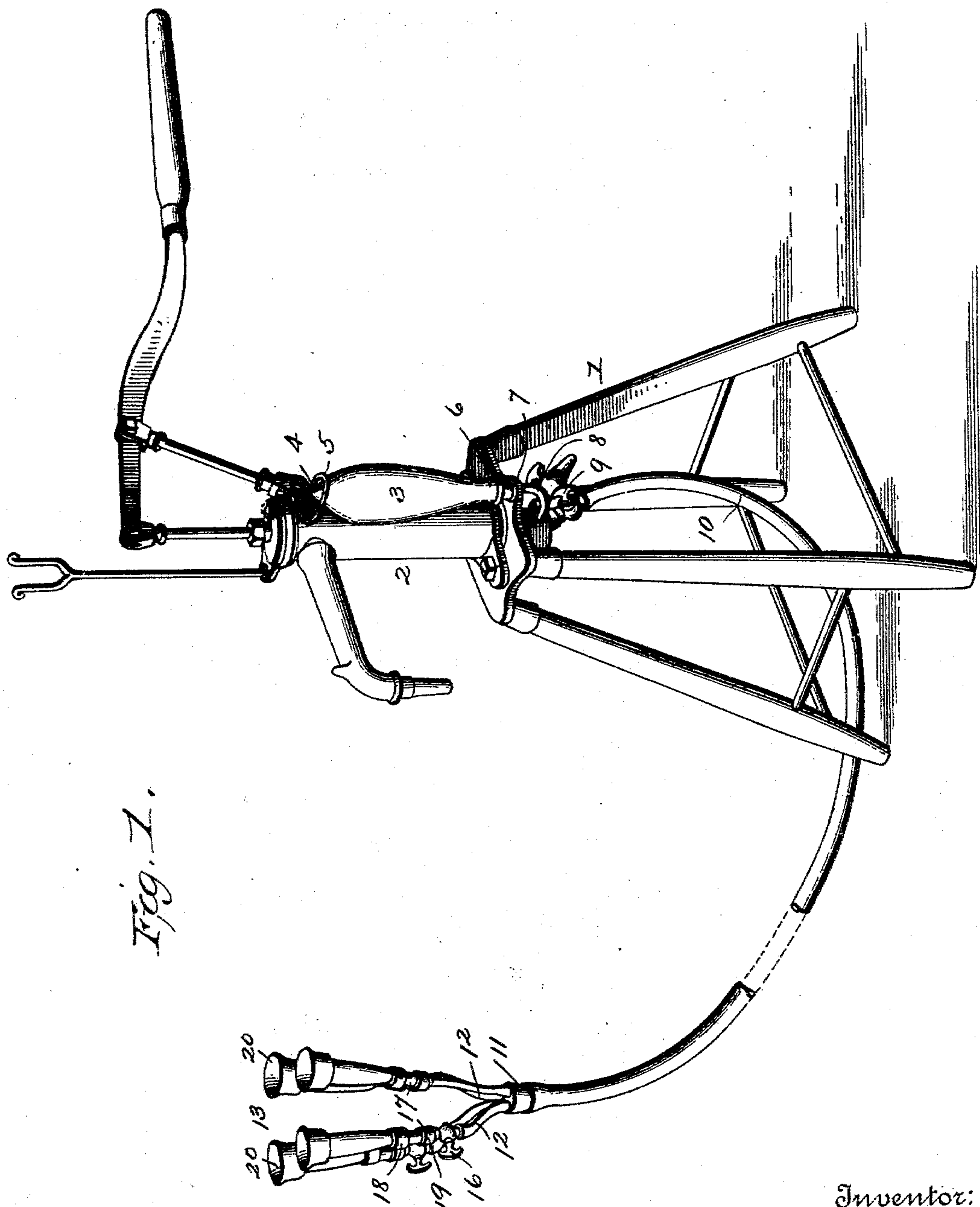


Fig. 1.

Witnesses  
*W. H. Hamilton*  
*Geo. R. Hamilton*

Inventor:  
*William M. Mehring*  
per *Rhesa Grant*  
Attorney

(No Model.)

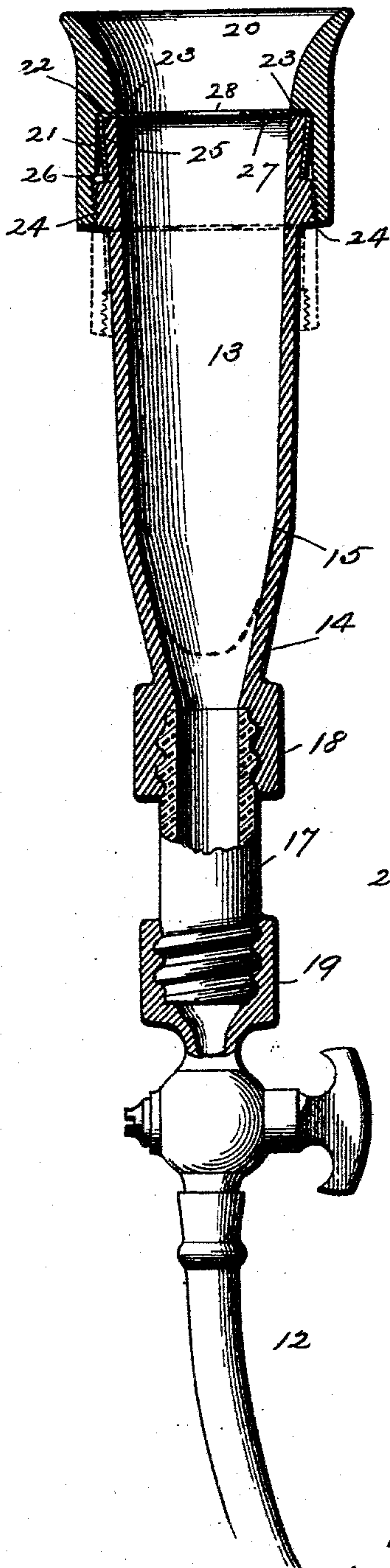
2 Sheets—Sheet 2.

W. M. MEHRING.  
COW MILKER.

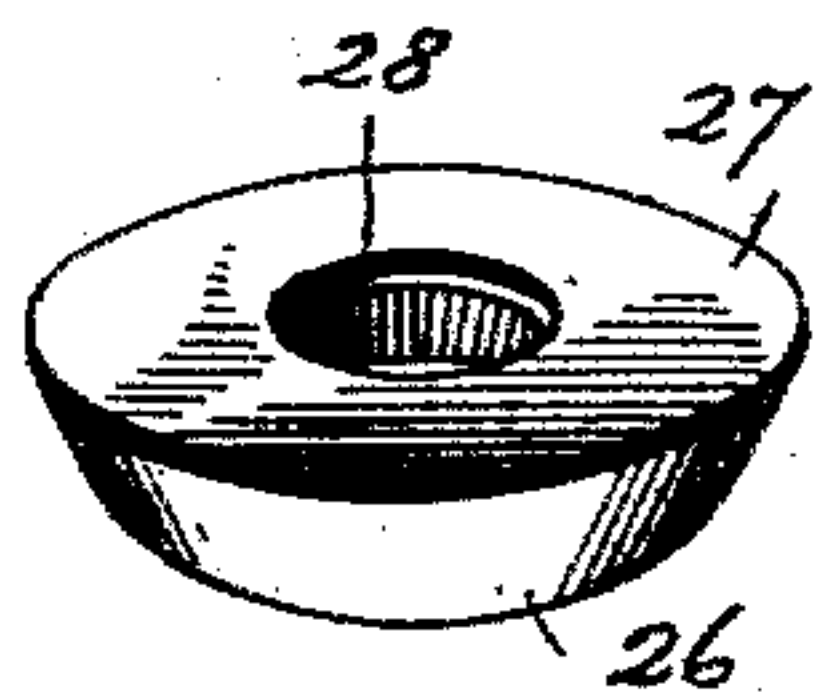
No. 571,573.

Patented Nov. 17, 1896.

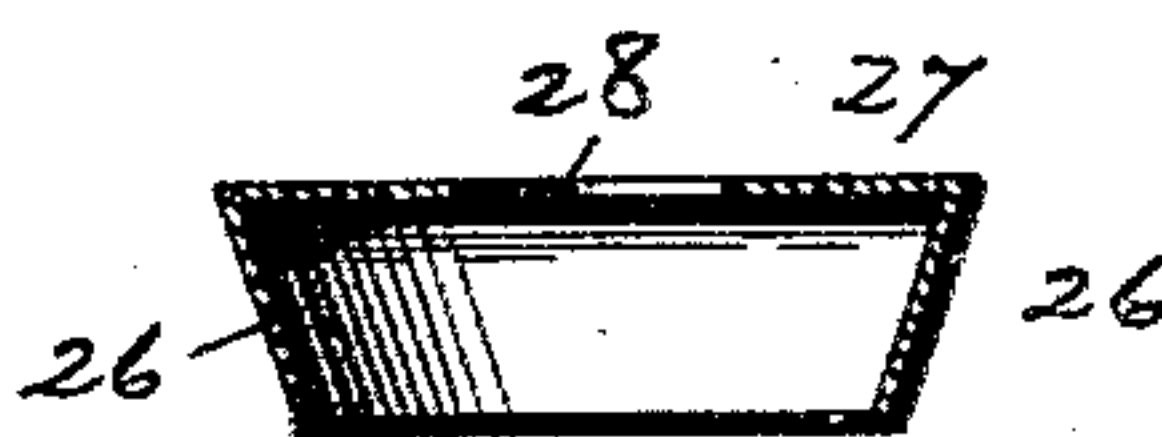
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
*Geo. R. Hamlin*

Inventor:  
*William M. Mehring*  
per *Charles D. Jones*  
Attorney



# UNITED STATES PATENT OFFICE.

WILLIAM M. MEHRING, OF YORK ROAD, MARYLAND.

## COW-MILKER.

SPECIFICATION forming part of Letters Patent No. 571,573, dated November 17, 1896.

Application filed February 7, 1895. Serial No. 537,614. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. MEHRING, a citizen of the United States, residing at York Road, in the county of Carroll and State of Maryland, have invented certain new and useful Improvements in Cow-Milkers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The object of my invention is to improve upon the structure shown and described in my Patent No. 488,282, dated December 20, 1892; and my invention consists in the provision of a peculiarly-formed teat-washer, the manner of holding it in place, the form of the teat-tube, and other features, which will be more fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective exterior view of my complete invention; Fig. 2, a vertical sectional view of one of the teat-tubes and its immediate connections, and Figs. 3 and 4 a perspective exterior view and a transverse section, respectively, of one of my teat-washers.

The reference-numeral 1 denotes a stand supporting a suction-pump 2. This pump is of the usual construction, excepting its air-chamber 3 and the means for holding it in place. This chamber 3 is made of transparent glass, and it has the general outline of a common beer-bottle. The upper or larger end tapers to a point 4, over which snaps a spring loop or clasp 5 to removably hold it in place. The lower end 6 of the chamber is made like the mouth of a bottle and fits over a vertically-projecting plug 7, which has a hole through it to establish communication between the chamber and lower end of the cylinder, a short pipe 8 connecting it with the latter. The air-chamber is made transparent in order to tell when it is clean and working all right.

Connected with the bottom of the pumping-cylinder are a number of cocks 9, which receive a hose 10, leading to the teat-tubes. In the free end of this hose is placed a four-way plug 11. Four flexible rubber pipes 12

lead from these ways to a like number of teat-tubes 13, and as these tubes and their immediate parts are the most important part of my invention I will now proceed to describe them in detail. These are made funnel-shaped in order to conform to the shape of the teats. Down near the smaller end I provide a stricture 14, which constitutes an internal annular shoulder 15 for the side of the end of the teat to bear against in order to resist suction and at the same time operate to open the milk-duct.

The wall of the stricture is of such shape that the extreme end of the teat will not be drawn against it by the suction of the pump, but only the side of the end thereof, as represented by dotted lines. I have discovered that if the extreme end of the teat is drawn squarely down against an abutting wall the peculiar anatomy of the teat is such that it will collapse or close the milk-duct, thereby producing pain and rendering the device impracticable. In all the milking-machines heretofore devised this objection has to a more or less extent prevailed. I have also discovered that by drawing that portion of the teat which lies a short distance above the extreme lower end against the stricture the lateral pressure will be exerted upon the teat in such a manner as to make the outlet of the milk-duct spread open like the force given by a calf in sucking.

The front tubes or those nearest the cow's head are preferably provided with cocks 16, while the rear tubes have none. Glass sections 17 are interposed between the smaller ends of the tubes and the small rubber pipes 12. The sections are provided with screw-threads, which screw into sockets 18 and 19, a colored cement being interposed between the glass and socket to make a more tight joint without looking like milk. The larger end of each tube is provided with a flaring mouth-piece 20, which has an annular recess 21 cut in it about midway of its length to form a shoulder 22, adapted to abut against the end face 23 of the tube. This mouthpiece is removably attached by screw-threads 24 on it and the tube. Between the screw-threads 24 on the tube and its end face 23 is made a flaring annular surface 25 for the reception of the converging sides 26 of a soft-rubber washer



27. This washer is provided with a central hole 28 for the reception of the teat, which its edges tightly embrace. This washer is, as seen in Figs. 3 and 4, frustro-conical in form, and its converging sides 26 are molded smaller in diameter than the end of the tube, so that when it is stretched over the tube its elasticity will retain it in place. Now when the mouthpiece is screwed down, as in Fig. 1, the shoulder 22 will clamp the washer securely in place.

From the foregoing description it will be seen that the washer around each teat will exclude air, so that the entire force of the pump will be brought to draw the milk with greater effect, and the stricture in the tube will render the operation painless when the pump is properly manipulated. The glass sections permit the operator to tell when milk is flowing, the transparent air-chamber to perform a similar function, besides being easily removed for cleaning, and all contribute to produce a superior machine.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a cow-milking machine, a substantially conical teat-tube provided with an internal stricture, at the lower end, having a width sufficient to permit the tube to bear against the side only of the end of the teat when the latter is drawn upon, but tapered

sufficiently to prevent said end being drawn through the tube, in combination with a suction-pump, substantially as described.

2. In a cow-milking machine, a substantially conical teat-tube provided with an internal annular stricture, at the lower end, having a width sufficient to permit the tube to bear upon the side only of the end of the teat when the latter is drawn upon, but tapered sufficiently to prevent said end being drawn through the tube, in combination with an elastic washer stretched across the larger end of the tube and having a central orifice for receiving the teat, substantially as described.

3. In a cow-milking machine, the combination with a teat-tube, of an elastic washer adapted to stretch across the tube, and having flanges arranged to fit over the end of the tube, with a circular mouthpiece adapted to screw over the end of the tube, and having shoulders which bear upon the end of the tube to clamp the washer securely in place, substantially as described.

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

WILLIAM M. MEHRING.

Witnesses:

EDWARD REISLER,

WM. STEPHENS.