

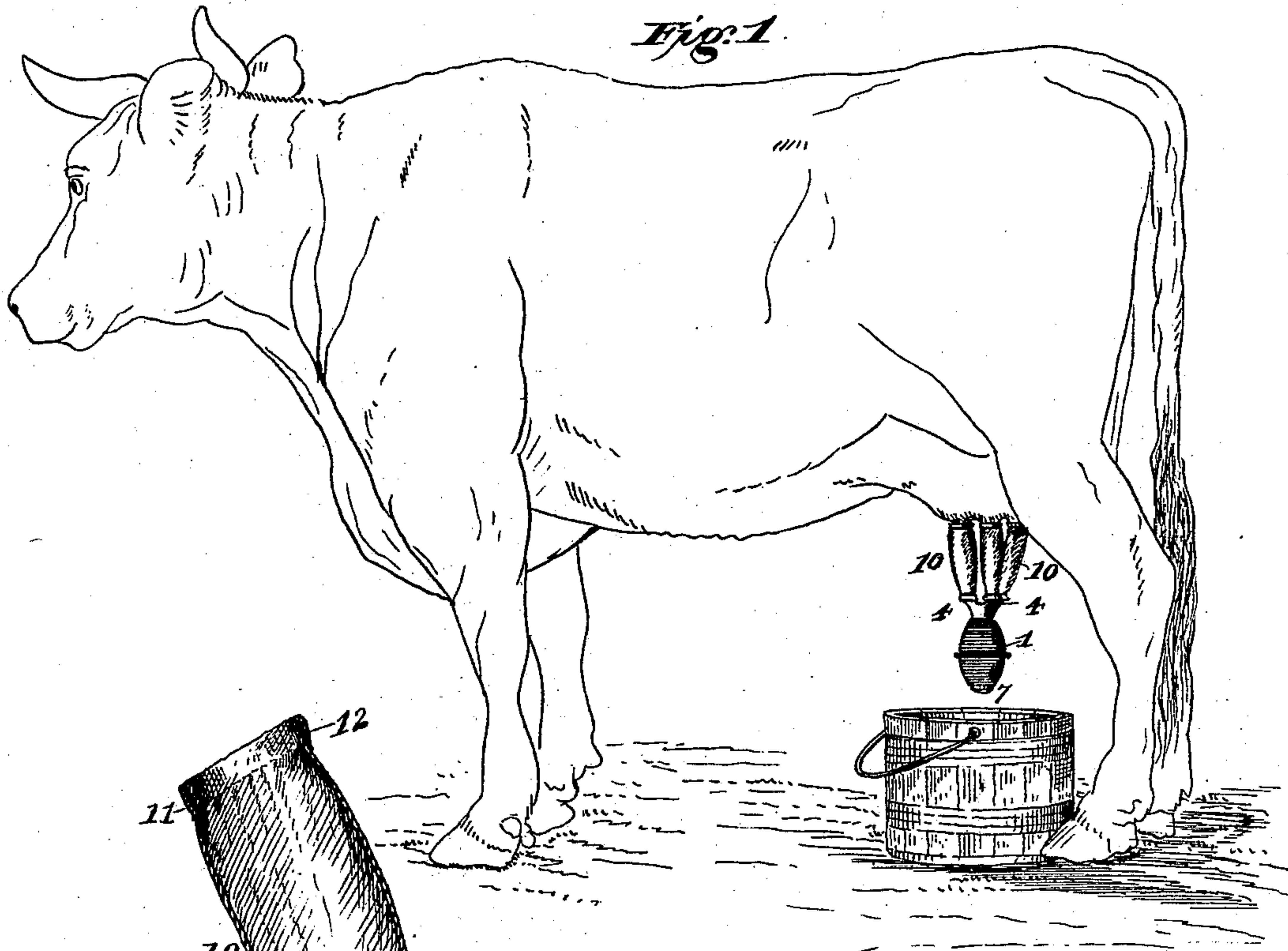
(No Model.)

E. B. DOUGLASS.

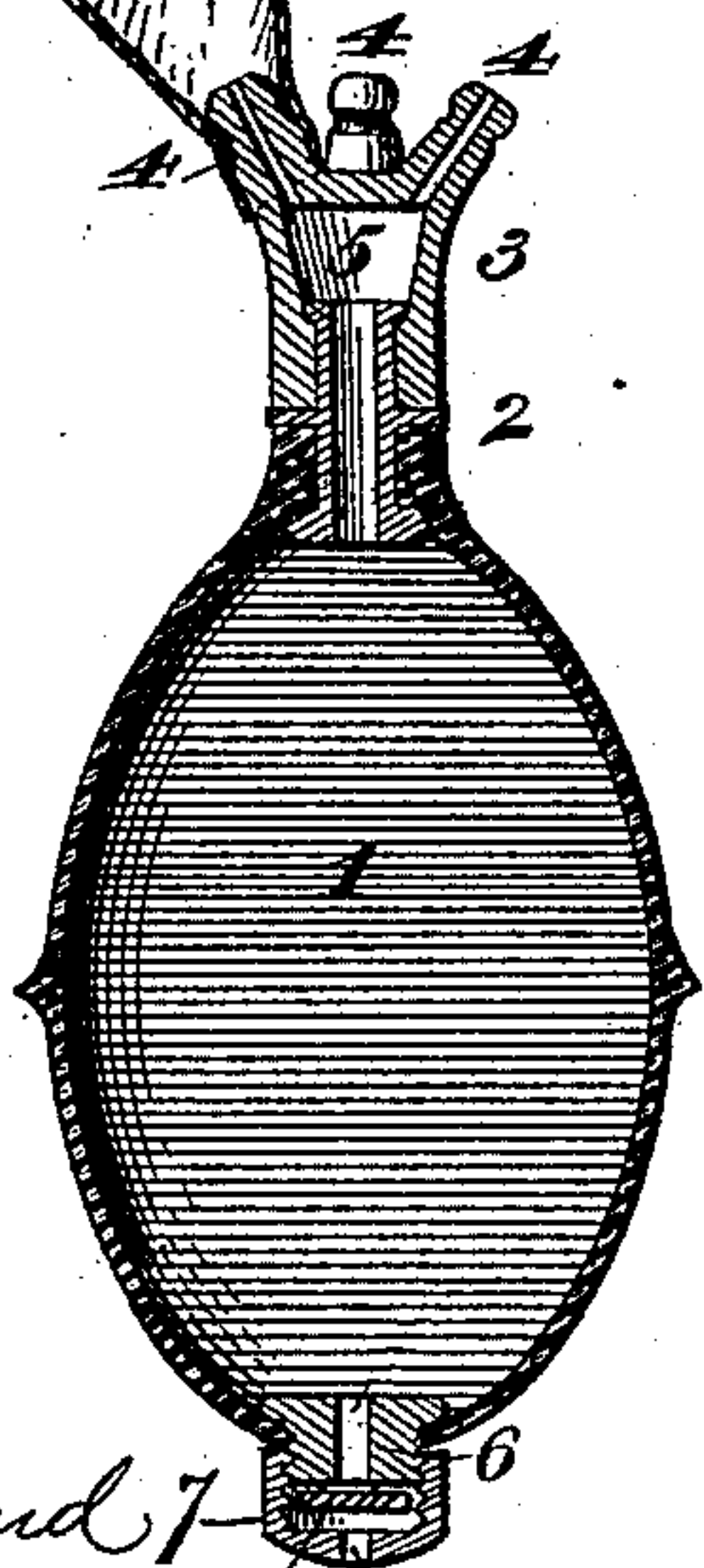
COW MILKER.

No. 361,213.

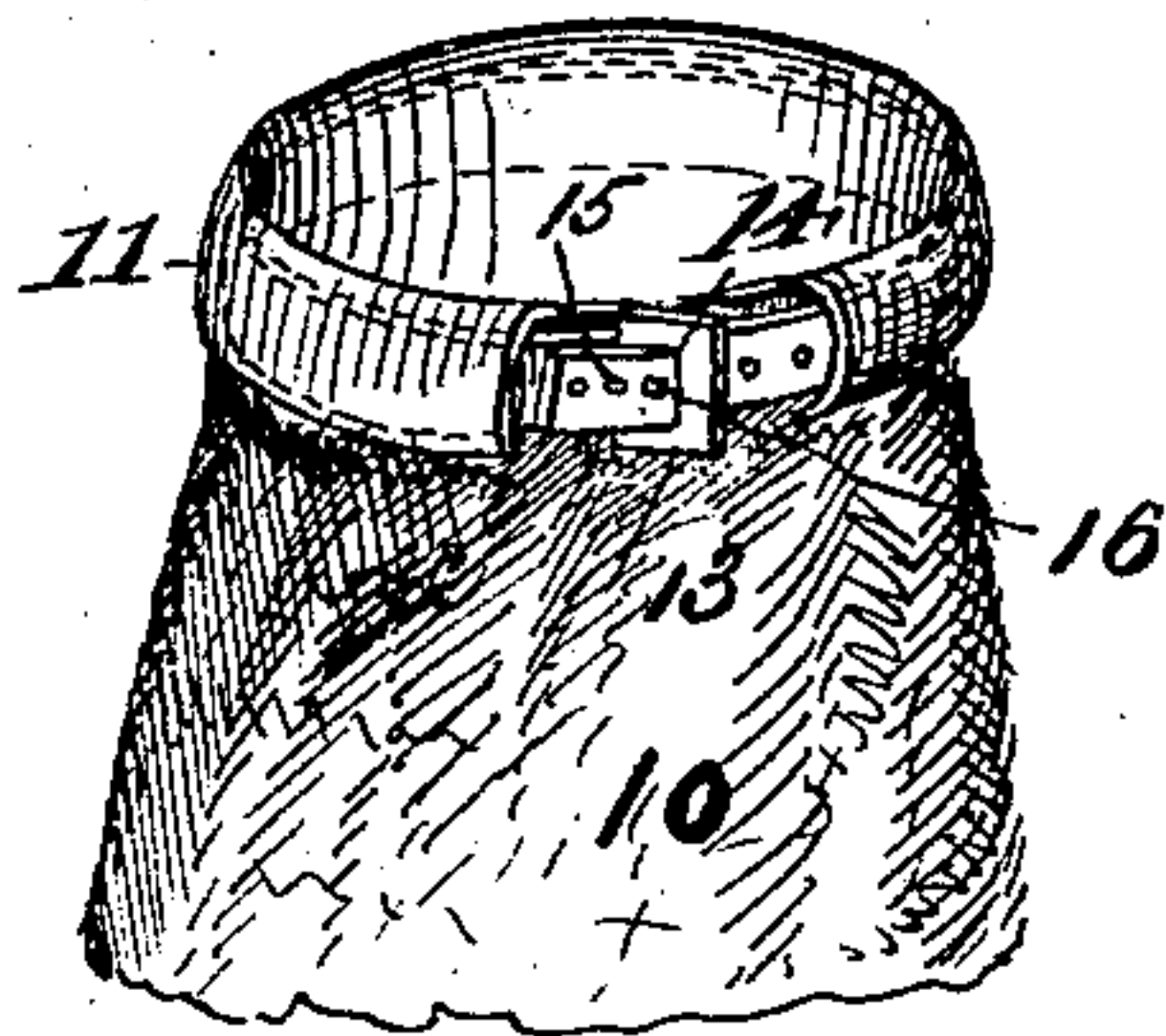
Patented Apr. 12, 1887.



*Fig. 2.*



*Fig. 3.*



Witnesses  
F. L. Ourand  
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Inventor  
Elias B. Douglass,  
By his Attorneys  
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# UNITED STATES PATENT OFFICE.

ELIAS B. DOUGLASS, OF CORTLAND, INDIANA.

## COW-MILKER.

SPECIFICATION forming part of Letters Patent No. 361,213, dated April 12, 1887.

Application filed January 24, 1887. Serial No. 225,287. (No model.)

*To all whom it may concern:*

Be it known that I, ELIAS B. DOUGLASS, a citizen of the United States, and a resident of Cortland, in the county of Jackson and State of Indiana, have invented certain new and useful Improvements in Cow-Milkers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cow-milker, showing it applied. Fig. 2 is a vertical sectional view of the milker; and Fig. 3 is a perspective view of the upper end of one of the nipples, showing the spring for securing it to the teat.

Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to that class of cow-milkers in which the milk is drawn from the teats by means of an elastic bulb having suitable nipples for fitting upon the teats, and having a valve at its lower end which will admit of the milk being discharged through the said end, and at the same time prevent air from entering the bulb; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the numeral 1 indicates the elastic bulb, preferably made of rubber, and this bulb is provided at its upper end with a neck, 2, to which is secured a four-pronged nozzle, 3, having four channels, 4, converging into a main channel, 5, entering the upper end of the bulb. The lower end of the bulb has a screw-threaded neck, 6, upon which is screwed a threaded cap, 7, having a perforation, 8, in its top, and a valve, 9, fits over this screw-threaded neck, being confined by the cap and opening outward within the cap, so that fluids contained in the bulb may be forced out through the neck past the valve, while air may not pass into the bulb through the valve.

Nipples 10 are secured with their lower contracted ends to the four prongs or necks of the

nozzle, and these nipples are formed of rubber or similar elastic material, and formed to correspond to the shape of a teat. The mouth of the nipple is formed with a wide seam or fold, 11, and a spring, 12, of flat spring metal or similar material, is inclosed in this seam, and has a flat head, 13, at one end, formed with a slot, 14, through which the other end of the spring passes, and the free end of the spring is formed with a series of perforations, 15. The head 13 is provided with a pin, 16, which projects into the slot 14, and when the free end of the spring is passed through the slot the pin engages with one of the perforations and secures the mouth of the nipple around the teat.

It will now be seen that when the device is to be put into operation the nipples are slipped upon the teats, the springs being opened to allow the nipples to slip freely upon them, whereupon the springs are drawn together sufficiently to hold the nipples in place. By now compressing the bulb and again allowing it to expand, the milk will be drawn out of the udder by the vacuum formed by the expanding bulb and be forced out when the bulb is compressed, all four teats being thus milked out at the same time, and by an easy and natural operation, the suction created by the bulb being similar to the suction created by the calf in sucking.

This device is simple of construction, and may be manufactured at a comparatively low cost, and it will be applicable to all cows, on account of the adjustability of the nipples by the springs; and it will be seen that with cows having sore teats, or cows which are troublesome to milk, the gentle action of the machine and absence of pressure upon the teats will render the milking easy and painless for the cow, as well as easy and free from trouble for the operator.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a cow-milker, the combination of a nipple to fit the teat, and having a wide seam or fold at its wide mouth, with a flat spring secured in the said seam or fold, and having a slotted flat head at one end formed with a pin, and having its free end formed with a series



of perforations and passing through the slot, the pin engaging one of the perforations, as and for the purpose shown and set forth.

2. In a cow-milker, the combination of an  
5 elastic bulb, a neck at the lower end of the bulb having a screw-threaded and perforated cap upon it, and having an outwardly - opening valve upon it inclosed by the cap, a nozzle at the upper end of the bulb having four prongs  
10 or necks provided with channels converging into a main channel opening into the bulb, nipples of elastic material secured with their smaller lower ends to the prongs or necks and having wide seams or folds at their upper wide

mouths, and flat springs within these folds or  
15 seams having flat slotted heads formed with a pin, and having a series of perforations in their free ends, the said ends sliding in the slots and fitting with the perforations upon the pins, as  
20 and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ELIAS B. DOUGLASS.

Witnesses:

JACOB BROWN,  
BRUCE KEEN.