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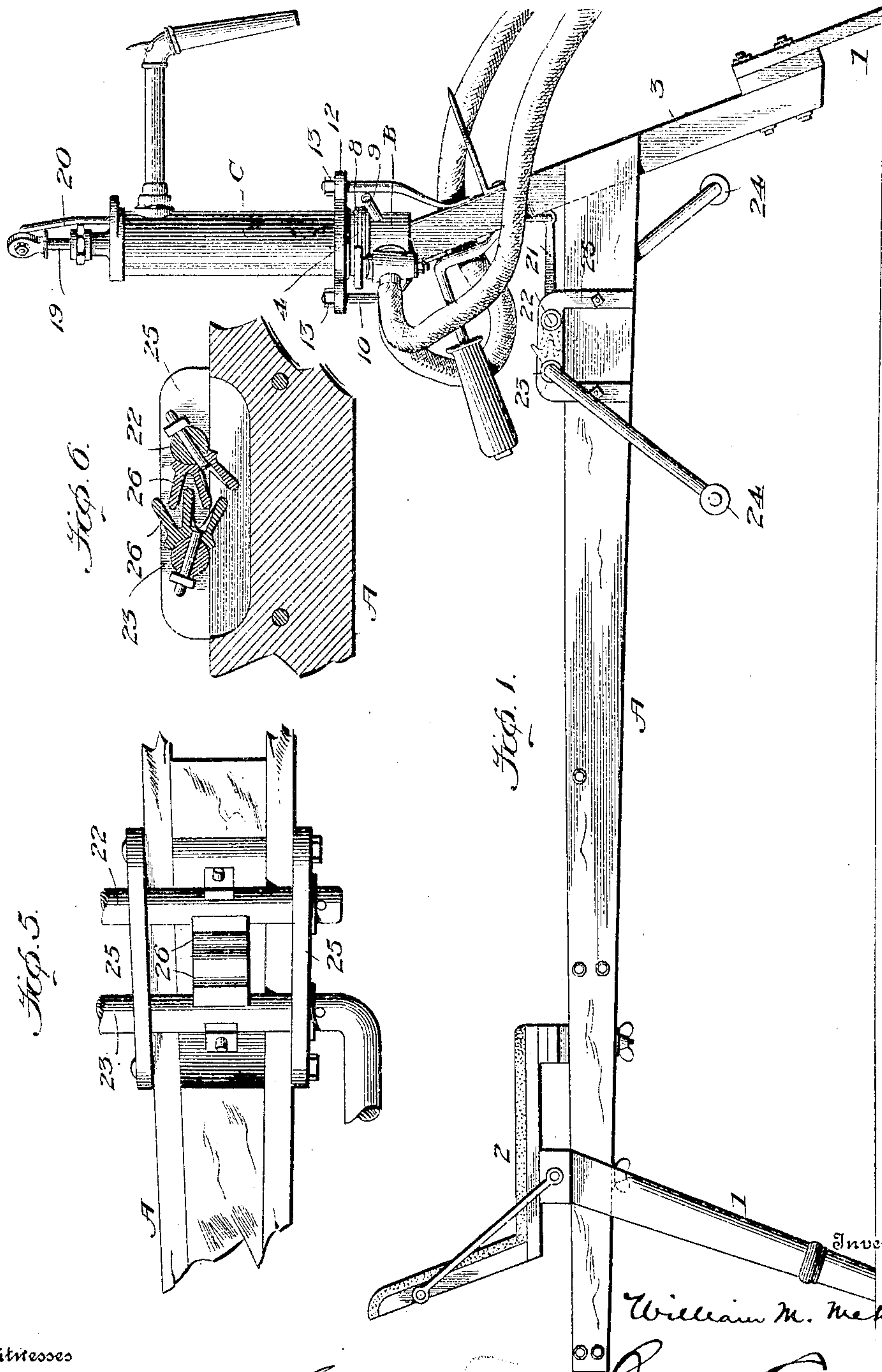
No. 885,355.

W. M. MEHRING.
COW MILKER.

PATENTED APR. 21, 1908.

APPLICATION FILED FEB. 13, 1907.

2 SHEETS—SHEET 1.



Witnesses
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Gloyd W. Patch

Inventor
William M. Mehring
By *[Signature]*
his Attorney

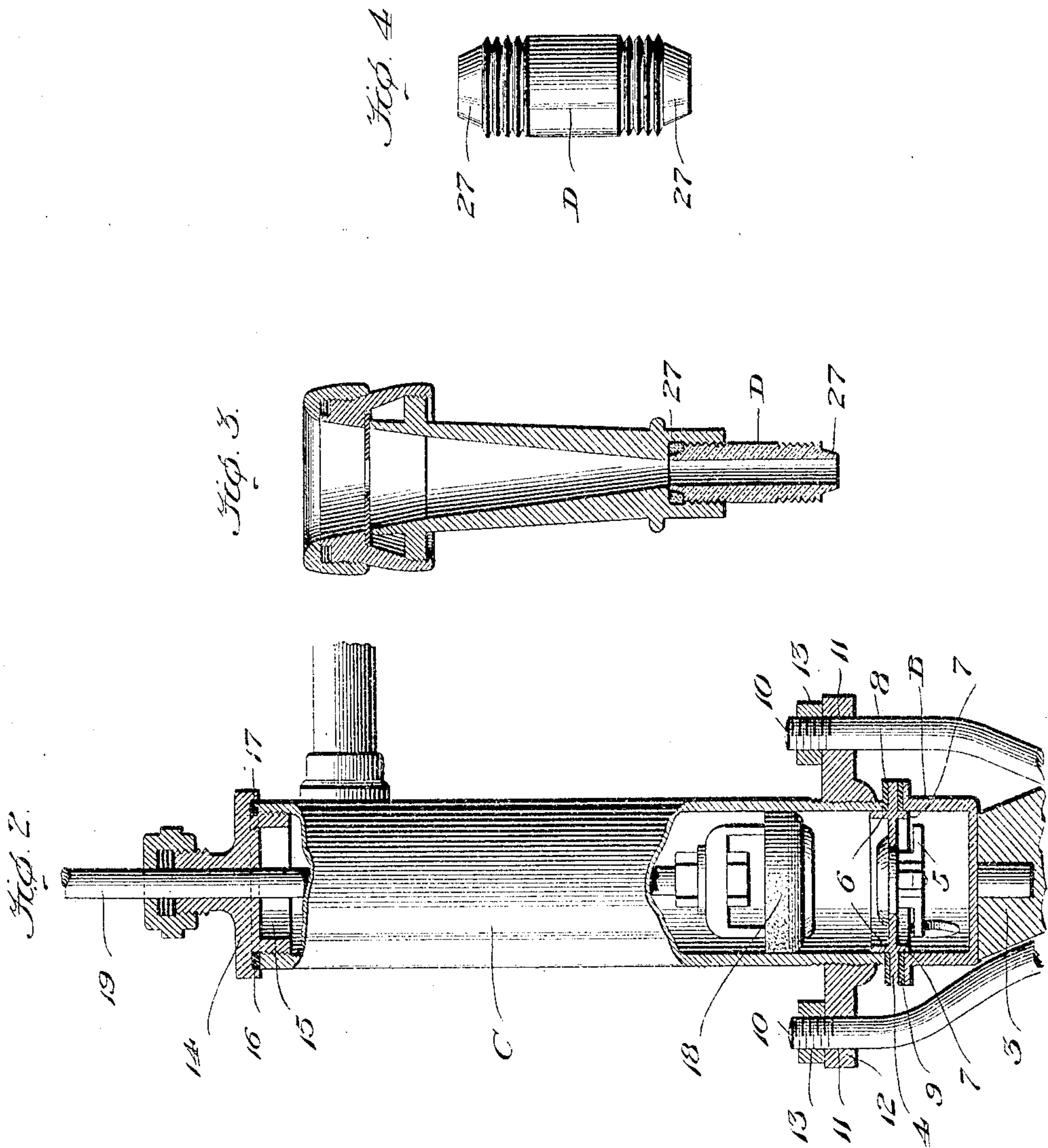
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William M. Mehring

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UNITED STATES PATENT OFFICE.

WILLIAM M. MEHRING, OF YORK ROAD, MARYLAND.

COW-MILKER.

No. 885,355.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed February 13, 1907. Serial No. 357,193.

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, of which the following is a specification.

My invention relates to an improvement in cow milkers, and there are several objects, one of which is to provide an improved gear mechanism by which the pump is operated by foot power, the gearing combination so arranged and adjusted that the operator resting on the seat alternately presses one foot forward and away from him, and then the other, the forward pressure of one pedal acting to reverse the other, and so on, alternately.

Another and equally important object of the invention is to provide means for preventing the milk from coming in contact with the washers which are used in forming the unions between the cylinder and base, and cylinder and cap which washers being made of absorbent material are always a source of contamination as they are liable to become foul, sour and unsanitary.

Still another object is to provide an improved joint for the glass sections of the cups.

With these several objects in view, my invention consists in certain novel features of construction, and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a view in side elevation of my improved cow milker, parts being broken away and portions being in section. Fig. 2 is an enlarged sectional view through the cylinder, base, valve seat and cap. Fig. 3 is a section through one of the cups, and glass tubes. Fig. 4 is a side view of one of the glass tubes on an enlarged scale. Fig. 5 and 6 are details.

A, represents the frame of the machine resting on legs 1, 1, and provided with a seat 2, preferably adjustable, and 3 is a standard on the upper end of which the base B of the pump cylinder C is preferably supported, and between this base and pump cylinder is interposed a valve seat 4, having the usual valve 5 therein. This valve seat is provided with an upwardly extending annular flange 6 which fits the inside of the lower end of the pump cylinder C, and the downwardly ex-

tending annular flange 7 which enters and fits the rim of the base B. Leather washers 8 and 9 surround these two flanges, the upper washer engaging the lower edge of the pump cylinder outside of the flange 6 and the washer 9 surrounding the lower flange 7 so that both washers are precluded from the possibility of any contact with the milk, which is a very important feature of this class of machines in which all the milk passes through the pump cylinder. The cylinder is held down on the base in the usual manner by the bolts 10, 10, passing through the orifices 11, 11, in the ring 12, it being held rigidly in place by nuts 13, 13, on the upper threaded ends of these bolts.

The cap 14 at the upper end of the cylinder has a threaded flange 15 which screws into the cylinder, and outside and adjacent to this threaded flange is an annular recess 16, in which the washer 17 is seated, said washer being held in position to engage the upper end of the pump cylinder whereby to form a tight joint at that point, and here, as at the base, the leather or material composing the washer is kept away from the milk or contents of the cylinder at all times.

The usual piston 18 works up and down in the cylinder and a piston rod 19 at the upper end is connected with the connecting rod 20, which extends upwardly from the crank 21 on one of the pedal shafts 22. This pedal shaft and its companion shaft 23, are provided with pedals 24, 24. These shafts 22 and 23 are preferably located in approximately the same horizontal plane, they being journaled in brackets 25, 25, side by side, and each shaft is provided with a small segment 26 the teeth of which segments intermesh with each other, so that the pedals always turn in opposite directions, that is to say, when one is pushed forward by the operator, the other is reversed, and vice versa. This is one of the features of my present invention, as it greatly facilitates the operation of the machine, and the ease and convenience with which motion is imparted to it.

Referring now to the cups, there is one feature to which attention is especially directed. The letter D indicates a glass tube which has a straight bore and externally threaded ends, but the outer surfaces 27 of these ends are tapering or wedge-shaped, the special function of which is to force the cement or plaster of paris and Portland cement, or whatever material may be used, into such position that

it forms an air and liquid tight joint, whereas if the end of the glass tube were plain it would have a tendency to push the cement away when the glass was screwed into the
5 cavity instead of packing it around the tapering end, as in this present invention.

From the foregoing, it will be seen that I have provided a perfectly cleanly and sanitary cow milker, composed of parts which do
10 not easily get out of order, and which are perfectly effectual in the accomplishments of the functions required of the machine.

It is evident that slight changes might be resorted to in the form and arrangement of
15 the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth, but:—

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

1. In a cow milker, the combination with a suction pump, the cylinder of which is made
25 in two sections, an independent valve seat having a peripheral flange resting and secured between the sections of the cylinder and provided with annular flanges which embrace the inside walls of the sections of the
30 cylinder and external means for holding the sections of the cylinder together, of teat cups and connections extending from the latter to the pump.

2. In a cow milker the combination with a
35 cylinder having internal screw-threads at its upper head, of a cap having an annular externally screw-threaded flange adapted to screw into the threads of the cylinder and provided with an annular recess outside of
40 said flange wherein a packing ring is held and

adapted to receive the upper end of the cylinder, teat cups and connections extending from the latter to the pump.

3. In a cow milker, the combination with a frame, a pump mounted thereon, teat cups
45 and connections extending from the latter to the pump of two pedal shafts having pedals thereon, provided with gearing which causes one pedal when moving in one direction to reverse the other, and vice-versa. 50

4. In a cow milker, the combination with a frame, pump, teat cups and connections extending from the latter to the pump, of two intergeared pedal shafts having pedals thereon which move in opposite directions, and
55 means guided by one of the pedal shafts extending to the opposite rod of the pump cylinder for reciprocating the pump piston.

5. In a cow milker, the combination with a frame, pump, teat cups and connections extending from the latter to the pump of two inter-geared pedal shafts having pedals
60 thereon which move in opposite directions, and means extending from one of said pedal shafts to the piston rod of the cylinder for reciprocating the piston. 65

6. In a cow milker, the combination with a cup having a cavity therein, of a glass tube externally screw-threaded near each end, the ends of the tube being lengthened beyond the
70 screw-threads and tapering or beveled to a point.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM M. MEHRING.

Witnesses:

F. EARLE SHRINER,
FRANK J. SHRINER.