

(No Model.)

J. B. SMALL.

CALF FEEDER.

No. 303,673.

Patented Aug. 19, 1884.

Fig:1.

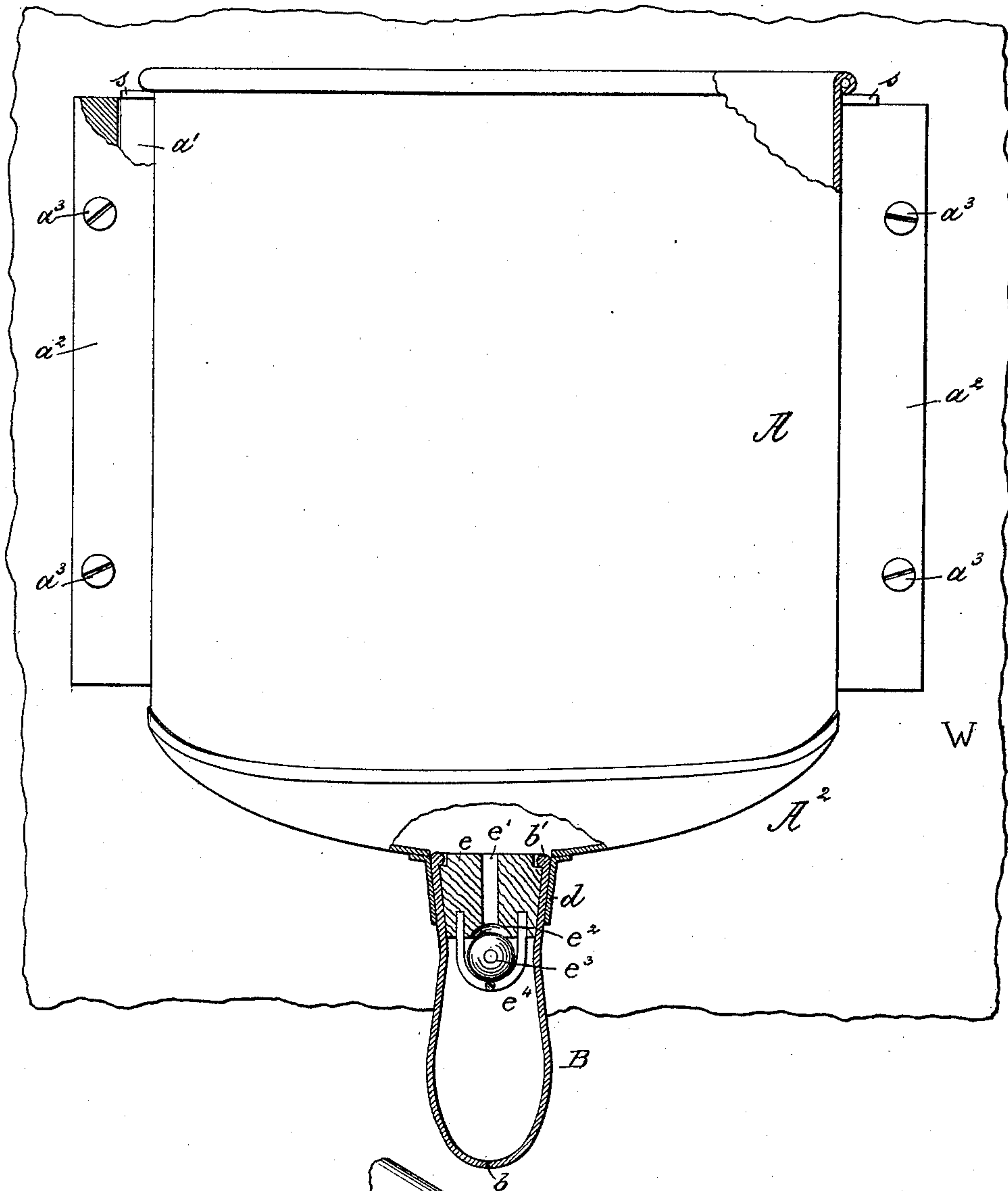
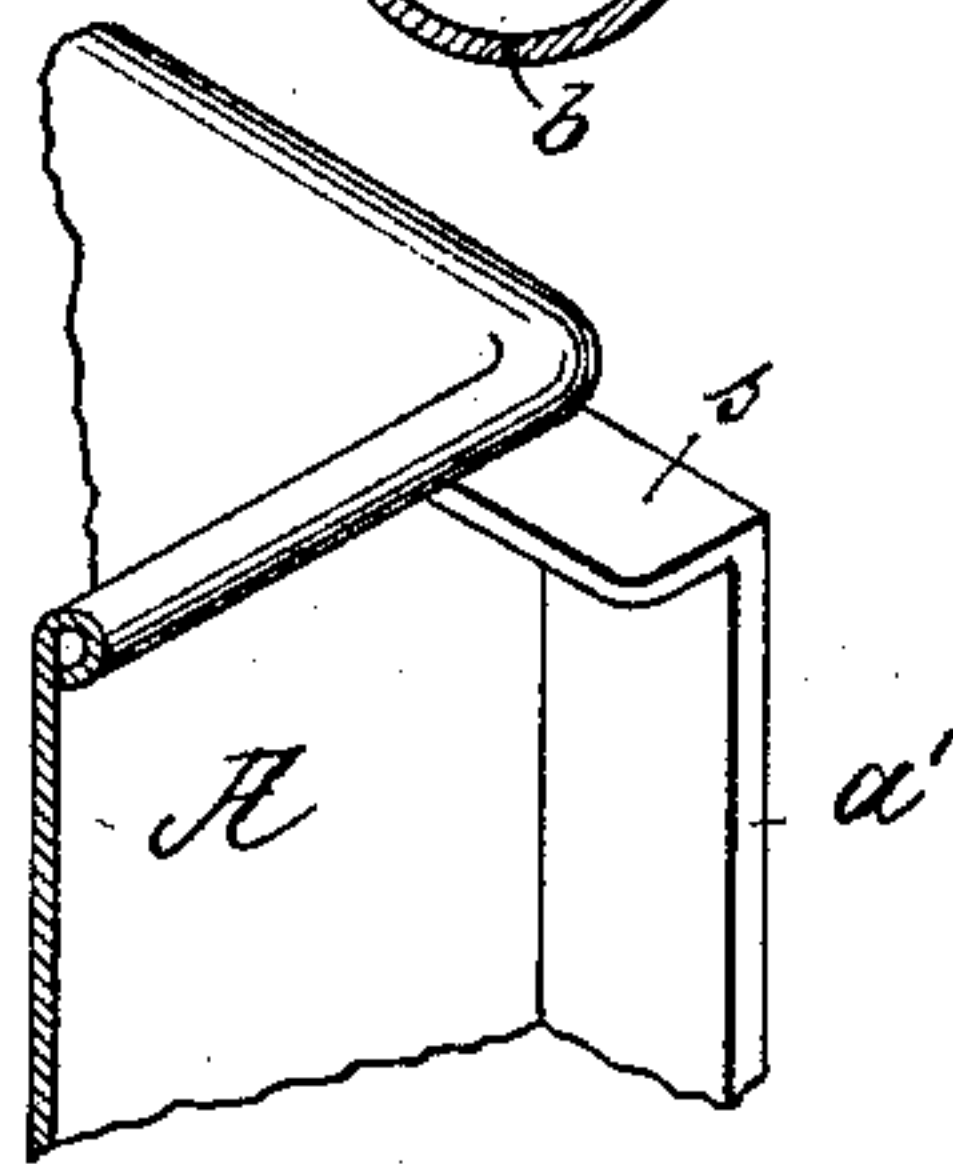


Fig:2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSIAH B. SMALL, OF SOMERVILLE, MASSACHUSETTS.

CALF-FEEDER.

SPECIFICATION forming part of Letters Patent No. 303,673, dated August 19, 1884.

Application filed November 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH B. SMALL, of Somerville, county of Middlesex, State of Massachusetts, have invented an Improvement in Calf-Feeders, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention has for its object the production of a calf-feeding device, whereby calves may be fed before they learn to eat and drink. The device herein shown is composed of a vessel having a nozzle in which a nipple is held by a tapering plug, and the plug is provided with a valve to check the movement of fluid back into the vessel from the nipple.

The particular features in which my invention consists will be specifically set forth in the claims at the end of this specification.

Figure 1 represents in front elevation a feeding device embodying my invention, the same being partially broken out to show the manner of holding the nipple by the plug provided with a valve; and Fig. 2 represents a detail of the vessel to show its stop, to be described.

In my improved calf-feeding device $A A^2$ represent the liquid-holding vessel, and B a nipple attached to the bottom A^2 . This vessel, preferably of wrought or cast iron, properly glazed, enameled, or painted in any usual manner, is provided with flanges a' , adapted to enter corresponding grooves in guideways or blocks a^2 , screwed at a^3 to a partition or wall, W , such mode of supporting the vessel enabling it to be removed from the wall or partition when not in use. The flanges are bent or shaped to form stops or shoulders s , to strike against or rest upon the upper ends of the blocks a^2 , to thereby support the weight of the vessel $A A^2$. The nipple B , of india-rubber, is provided with a small hole or educt at b , and a bead or thick upper edge, b' . The bottom plate, A^2 , of the vessel is provided with a tapering outlet or nozzle, d . The nipple provided with the tapering plug e , having an open passage, e' , is placed within the large end of the nozzle, and both are drawn into the outlet or nozzle d , as shown, the taper of the plug and nozzle causing the nipple to be bound closer and closer as the latter is pulled upon. The bead b' also acts to prevent the escape of the nipple. The plug e at its lower end is provided with a seat, e^2 , for the valve

e^3 , (herein shown as a marble held by metal loops e^4 ;) but instead of such valve I might use any other usual form of valve capable of checking the backward flow of the liquid into the vessel when the nipple is collapsed or squeezed, and by checking the backward flow of the liquid from the nipple it results that pressure upon the nipple causes its contents to flow from the educt b . Normally the valve e^3 is removed from its seat, permitting the liquid in the vessel to flow freely into the nipple by gravity alone. The vessel is an open one, in which the air has free access to the surface of the liquid, thus avoiding the formation of a vacuum in the vessel as the level of the milk or liquid contained therein is lowered through the nipple.

I have described the vessel as adapted for use of calves; but it is obvious that lambs may be fed therefrom with equally beneficial results.

I claim—

1. In a calf-feeding device, the vessel $A A^2$, provided with flanges a' , having shoulders s , at the tops thereof, combined with guideways or blocks a^2 , on the tops of which the shoulders rest to retain the vessel in position, substantially as described.

2. In a calf-feeding device, the vessel $A A^2$, having the nozzle d , combined with the nipple and tapering plug therein, to hold the nipple in the nozzle by pressure between the nozzle and plug, substantially as described.

3. In a calf-feeding device, the vessel $A A^2$, having the nozzle and the nipple, combined with a plug provided with a valve to check or prevent the return of the liquid from the nipple into the vessel, and yet permit the liquid to enter the nipple by gravity, substantially as set forth.

4. The liquid-holding vessel A , provided with the side flanges, a' , and the stops s , and the nipple B , attached to the said vessel, and the nipple-holding plug, combined with the guide-pieces a^2 , to receive and hold the flanges a' , substantially as described.

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

JOSIAH B. SMALL.

Witnesses:

G. W. GREGORY,
B. J. NOYES.