May 31, 1927. 1,630,982

B. E. STONE

FEEDER

Filed Oct. 25, 1926 2 Sheets-Sheet 1

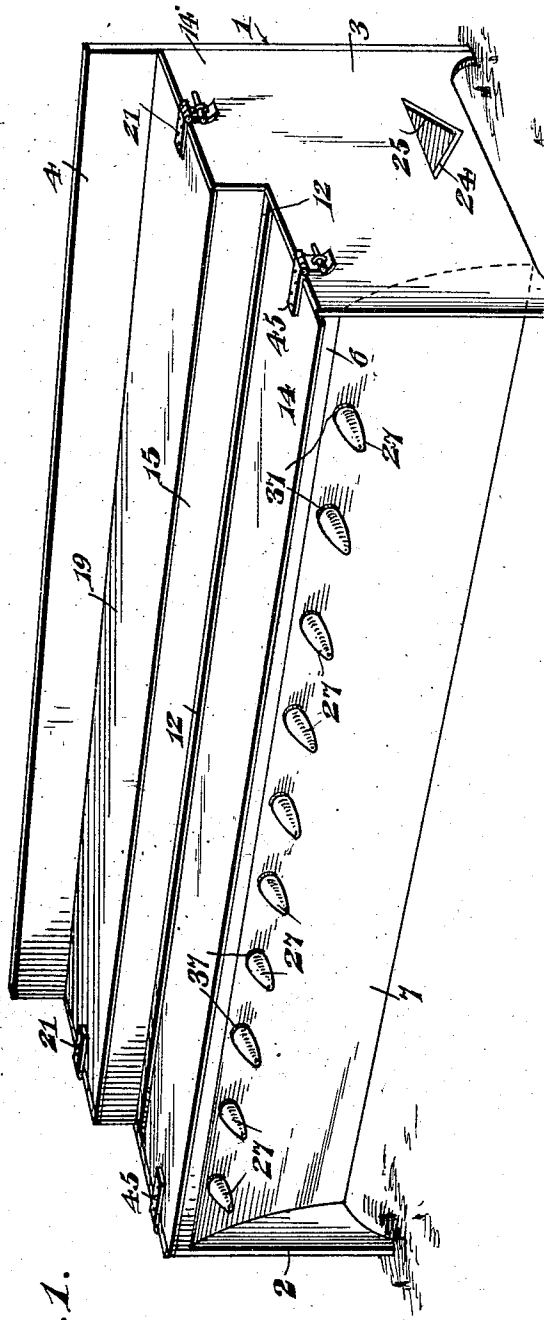


Fig. 1.

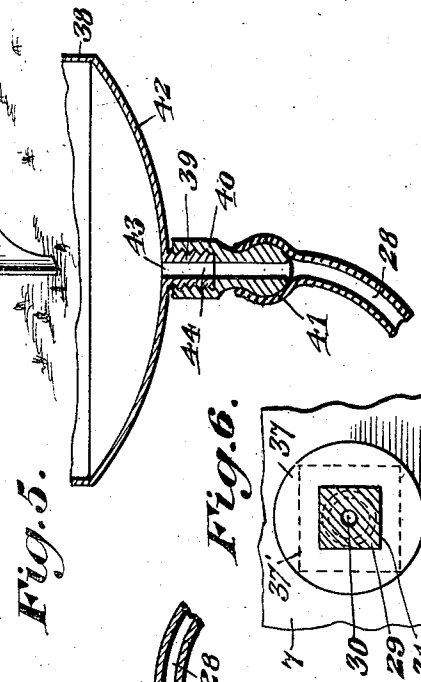


Fig. 5.

Fig. 6.

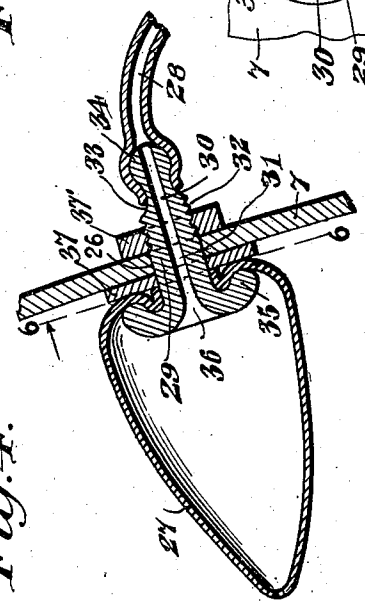


Fig. 4.

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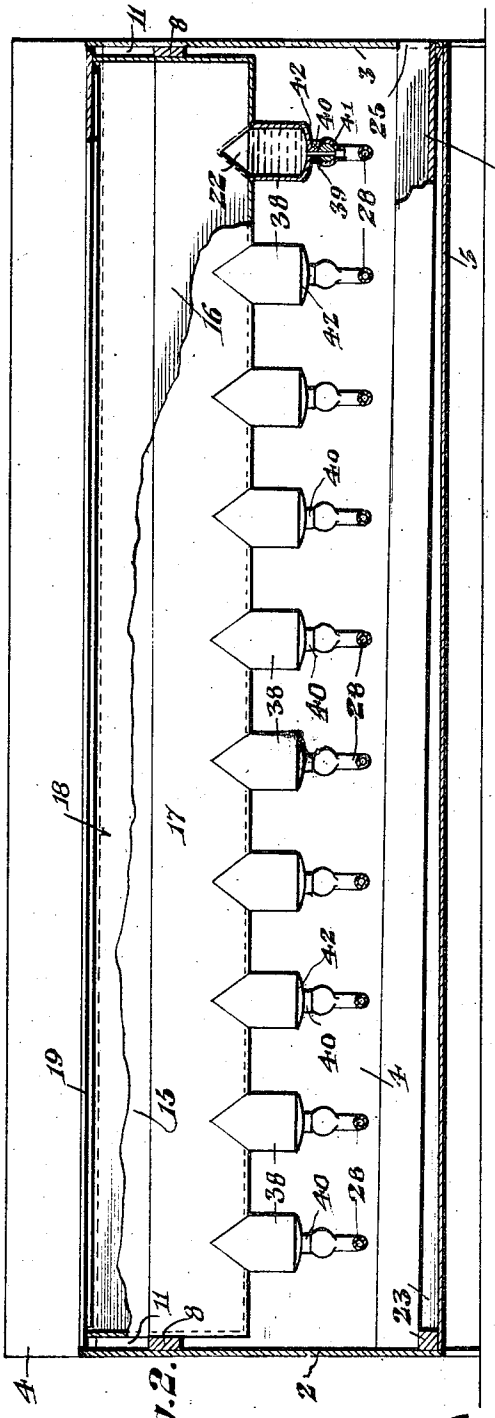


Fig. 2.

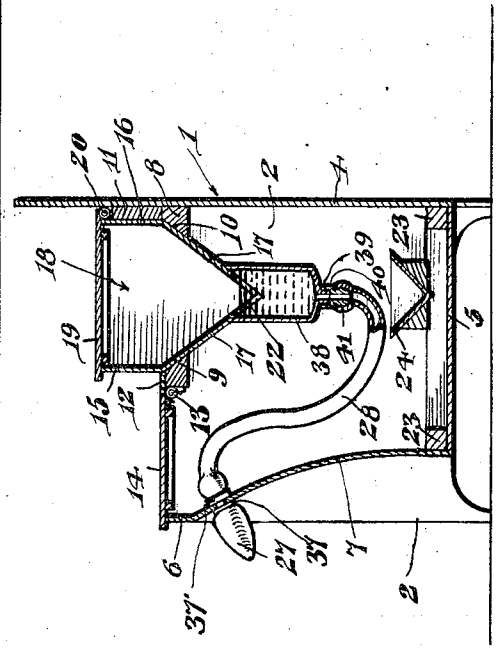


Fig. 3.

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UNITED STATES PATENT OFFICE.

BERTHA E. STONE, OF GREAT FALLS, MONTANA.

FEEDER.

Application filed October 25, 1926. Serial No. 144,108.

This invention relates to a lamb feeder and has for its object to provide a device of such class, in a manner as hereinafter set forth, for feeding a lamb with a predetermined amount of milk.

A further object of the invention is to provide, in a manner as hereinafter set forth, a feeding device for the purpose referred to, which can be used by a large number of lambs for the purpose of feeding to each one a predetermined amount of milk.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a lamb feeding device which is simple in its construction and arrangement, strong, compact, durable, sanitary, thoroughly efficient in its use, readily assembled, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Figure 1 is a front elevation of a lamb feeder in accordance with this invention.

Figure 2 is a sectional plan.

Figure 3 a cross sectional view thereof.

Figure 4 is a fragmentary view illustrating one of the nipples and its connecting means with a feed cup.

Figure 5 is a fragmentary view of a feed cup.

Figure 6 is a section on line 6—6, Figure 4.

Referring to the drawings in detail 1 generally denotes a housing comprising a pair of end walls 2, 3, a rear wall 4, a bottom 5 and a front wall formed of a perpendicular upper portion 6 and a rearwardly curved lower portion 7. The top of the housing 1 is formed of a rectangular lengthwise disposed frame 8 which abuts against the forward face of the rear wall 4 and extends from the end wall 2 to the end wall 3. The frame 8 is positioned below the top edge of the rear wall 4. The inner faces of the side members of the frame 6 are oppositely beveled as indicated at 9, 10. The width of the frame 8 is less than the width of the housing 1. Positioned upon the rear side member of the frame 8, as well as abutting against the forward face of the rear wall 4 is a support 11. Secured to the forward side member of the frame 8 is a flat top piece 12 and hinged therewith as at 13 is a closure 14.

Formed in the upper part of the housing 1, is a milk supply trough which extends from the end wall 2 to the end wall 3 and has its ends opposed by the extensions 14′ formed on the end walls 2 and 3. The front wall of the trough is indicated at 15 and the rear wall at 16. The upper part of the wall 15, as well as the upper part of the wall 16, is perpendicular and the lower portion of each of said walls is inclined. The inclined portions of said walls 15 and 16 extend towards each other and seat against the bevelled faces 9 and 10 of the side bars of the frame 8. The inclined portions of the side walls of the trough are indicated at 17. The trough is referred to generally by the reference character 18 and includes a closure 19 for the upper end thereof, which is hinged as at 20 to the top edge of the support 11. The closure 19 when lowered is positioned between the extension 14′ of the end walls 2 and 3, see Figure 1. Latching means is provided at 21 for detachably securing the closure 19 in position to close the top of the trough 18. At spaced points in the bottom of the trough 18 discharge openings 22 are formed. The openings 22 correspond in number to the number of feed cups hereinafter referred to.

Supported upon the bottom 5 and abutting against the wall of the housing 1, is a frame 23 which has one end of greater height than the other or in other words the frame gradually decreases in height from one end to the other and said frame provides a support for a conducting or discharge trough 24 which opens through the end wall 3 of the housing as indicated at 25. The trough 24 gradually inclines from the end wall 2 towards the end wall 3 and the function thereof will be presently referred to.

The curved portion 7 of the front wall of the housing is formed with a series of spaced downwardly inclined, square openings 26 which correspond in number to the number of feed cups to be presently referred to.

Extending through each opening 26 is a downwardly inclined coupling device which provides means for establishing communication between a downwardly inclined nipple 27 and a feed tube 28. Each coupling device includes a shank 29 having an axial bore 30. The shank 29 has a squared outer end portion 31, a peripheral threaded cylindrical intermediate portion 32 and a tapered portion 33 which extends from the intermediate portion 32 and merges into a spherical inner end portion 34. The portion 33 provides what may be termed a neck between the portions 32 and 34. Formed integral with the outer end of the shank 29 is a flaring and rearwardly directed head 35 having a flaring passage 36 which forms a continuation of the bore 31. The nipple 27 is coupled with the shank 29 by the head piece 35 and the rear portion of the nipple is clamped between the head piece 35 and a washer 37 mounted on the shank 29 and abutting against the portion 7 of the front wall of the housing. The clamping of the nipple to the head piece 35 is provided by a clamping nut 37′ mounted on the threaded portion of the shank and engaging the inner face 7 of the front wall of the housing. See Figure 4.

The conducting tube 28 is connected to the shank 29 by the spherical portion 34 as the forward end of the tube overlaps the portion 34 and surrounds the neck 33.

The tubes 28 open into the rear end of the bores or channels 30. The nipples 27 are positioned above the bottom of the trough 18.

Formed integral with or depending from the trough 18 is a series of feed cups 38 which correspond in number to the number of the openings 22 and each of which surrounds and is spaced from an opening 22. Carried by each cup 38 is a depending tubular peripherally threaded nipple 39 with which is detachably connected an interiorly threaded tubular coupling member 40 having a spherical end 41 for connecting the inner end of a tube 28 therewith. The bottom 42 of each cup is formed with an outlet 43 which registers with the passage 44 formed by the nipple 39.

Each nipple 27 is positioned at the proper height so it can be conveniently grasped by the lamb. The nipple will be at the same height as the height of the milk in the cup and as the tube is attached to the bottom of the cup it will always contain milk as long as there is any in the cup, and as there is no connection between the cups each lamb will get his share.

When it is desired to clean the trough and cups, the tubes 28 are detached and the cleansing fluid will be passed through the trough and cups and be discharged into the trough 24 and conducted off through the opening 25. The curved portion 7 prevents the front of the housing interfering with the lambs when feeding. The lid or cover 14 permits of access being had to the interior of the housing. The inner ends of the nipples are so connected with the extensions 32 to prevent possibility of them being accidentally removed or pulled off by the lambs when feeding. The lid or closure 14 has connected therewith suitable latching means 45 therefor. The trough 18 is common to the several feed cups 38. When employing the trough 18 the feed cups 38 can be filled simultaneously. Furthermore it permits of the individual filling of the cups 38 depending on the number of lambs which are to be fed. The filling of the cups 38 can be had without any waste. The nuts 37′ of the coupling devices are arranged rearwardly with respect to the front wall of the housing and access can be had to them and to the tubes when the cover or lid 14 is raised. The lid or closure 19 prevents any foreign substances from entering the cups 38 after the same have been filled with milk.

It is thought that the many advantages of a lamb feeder, in accordance with this invention, can be readily understood and although the preferred embodiment of the invention is as illustrated and described, yet it is to be understood that changes in the details of construction can be had which will fall within the scope of the invention as claimed.

What I claim is:

1. A lamb feeder comprising a housing, a plurality of vertically disposed, depending, spaced independent feed cups arranged therein and each adapted to contain a predetermined amount of liquid food whereby a plurality of animals can be fed simultaneously with like amounts of liquid feed, said housing including means at the upper portion thereof to provide a supply trough common to and suspending said cups, a plurality of nipples extended from the front of the housing, said nipples positioned above the tops of said cups, and conducting tubes leading from the bottoms of said cups to said nipples and arranged within said housing.

2. A lamb feeder comprising a housing, a plurality of depending, vertically disposed, spaced independent feed cups arranged therein and each adapted to contain a predetermined amount of liquid food whereby a plurality of animals can be fed simultaneously with like amounts of liquid feed, said housing including means at the upper portion thereof to provide a supply trough common to and suspending said cups, a plurality of nipples extended from the front of the housing, said nipples positioned above the tops of said cups, conducting tubes leading from the bottoms of said cups to said nipples and arranged within said housing, and

said housing including at its top a pair of hinged closures arranged one above the other, said closures coacting with the top of said trough and the other of said closures permitting of access to the interior of the housing forwardly of the trough when swung to open position.

3. A lamb feeder comprising a series of depending, spaced, vertically disposed, independent feed cups each adapted to contain a predetermined amount of liquid food whereby a plurality of animals can be fed simultaneously with like amounts of liquid feed, a supply trough common to said cups and formed with openings corresponding in number to the number of the cups, each of said openings communicating with the top of a cup, said cups suspended from the bottom of said trough, nipples corresponding in number to the number of said cups, said nipples positioned above the top of said cups, and conducting tubes leading from the bottoms of said cups and communicating with the inner ends of said nipples.

4. A lamb feeder comprising a series of vertically disposed, depending, spaced, independent feed cups each adapted to contain a predetermined amount of liquid food whereby a plurality of animals can be fed simultaneously with like amounts of liquid feed, a supply trough common to said cups and formed with openings corresponding in number to the number of the cups, each of said openings communicating with the top of a cup, said cups suspended from the bottom of said trough, nipples corresponding in number to the number of said cups, said nipples positioned above the top of said cups, conducting tubes leading from the bottoms of said cups and communicating with the inner ends of said nipples, means for detachably connecting said tubes to said nipples, and means for detachably connecting said tubes to said cups.

5. A lamb feeder comprising a series of feed cups, a supply trough common to said cups and formed with openings corresponding in number to the number of cups, each of said openings communicating with the top of a cup, said cups suspended from the bottom of said trough, nipples corresponding in number to the number of said cups, said nipples positioned above the top of said cups, conducting tubes leading from the bottoms of said cups and communicating with the inner ends of said nipples, means for detachably connecting said tubes to said nipples, means for detachably connecting said tubes to said cups, and a trough arranged below said cups for conducting off a washing medium when the latter is passed through said supply trough and said cups.

6. A lamb feeder comprising a plurality of spaced, vertically disposed, independent feed cups each adapted to contain a like quantity of liquid food whereby a plurality of animals can be fed simultaneously with like amounts of liquid feed, nipples corresponding in number to the number of said cups and arranged above the tops thereof, and a feed tube depending from and attached to the inner end of each of said nipples and further attached to the bottom of a feed cup and further communicating with the latter.

7. A lamb feeder comprising a housing having the major portion of its front wall inset rearwardly, the top of said inset portion positioned below the top of said wall, nipples projecting from the front wall of said housing at a downward inclination and positioned at the upper port of said inset portion, a series of vertically disposed feed cups arranged within said housing and each adapted to contain a like quantity of liquid food, a supply trough common to said cups and having its bottom formed with a series of openings, each opening communicating with the top of a cup, and feed tubes, each of said tubes leading from the inner end of a nipple and terminating in the bottom of a feed cup.

8. In a lamb feeder a series of independent feed cups each adapted to contain a like amount of liquid feed, a supply trough common to said cups, having the lower part of its body portion extending into and common to said cups to provide a top therefor, said trough having its bottom formed with spaced openings each providing an inlet for a cup, a tubular member depending from each cup, nipples corresponding in number to the number of said cups, and feed tubes detachably connected to the inner end of the nipples and to said tubular members.

9. In a lamb feeder a vertically disposed feed cup provided with a depending tubular member at its bottom providing a discharge outlet therefor, a V-shaped trough extending into the top of said cup and providing a top therefor, said trough having an opening constituting an inlet for said cup, a downwardly inclined nipple, a feed tube connected to the inner end of said nipple, and a coupling means for detachably connecting the inner end of the feed tube to said tubular member.

In testimony whereof, I affix my signature hereto.

BERTHA E. STONE.