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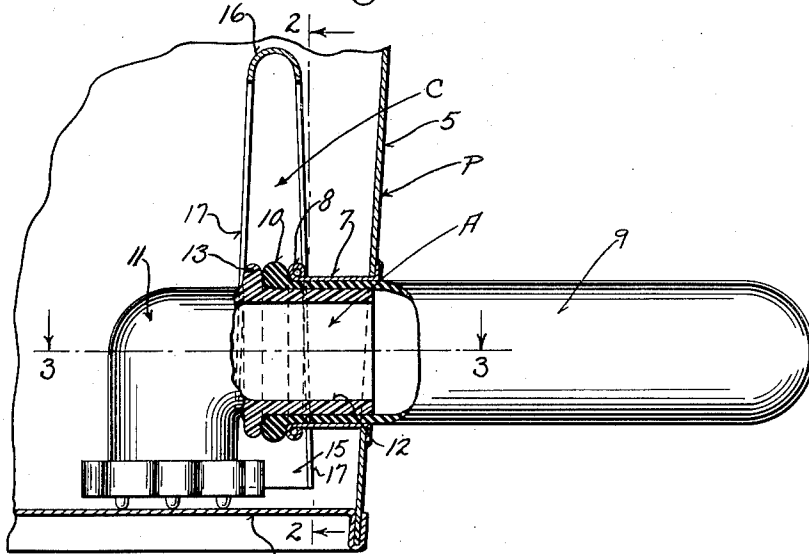
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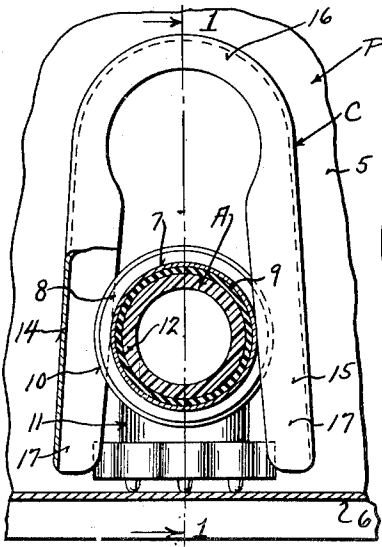
CALF FEEDER PAIL ASSEMBLY

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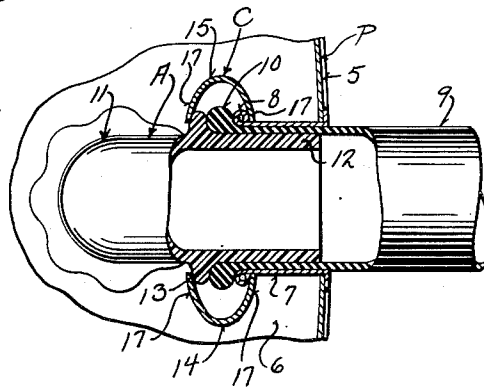
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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**CALF FEEDER PAIL ASSEMBLY**

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4 Claims. (Cl. 119-71)

This invention appertains to calf and other young animal feeders, particularly of the type known as feeder pails.

In feeder pails, the wall of the pail adjacent to its lower end is provided with an inwardly extending ferrule, in which is pushed the feeder nipple and the nipple extends outward of the pail. A check valve controlled hollow body is disposed in the pail and includes a sleeve which is pushed into the nipple and ferrule. This provides a quick assembly and the nipple when worn can be easily removed and replaced by a new one. The sleeve of the hollow body is relied on to frictionally hold the nipple in place, but in actual practice, a calf pushing in on the nipple often displaces the nipple and hollow body from the ferrule resulting in loss of milk and time necessary to reassemble the feeding unit.

One of the primary objects of my invention, is to provide a simple, but efficient, appliance for detachably holding the nipple and hollow body assembled on the ferrule against accidental displacement irrespective of the manner of usage of the nipple by the calf.

Another salient object of my invention is the provision of a single clip for effectively engaging an annular rib on the sleeve of the hollow body and a flange on the ferrule with the bead of the nipple clamped therebetween, whereby displacement of these parts will be prevented, the clip being movable into and out of clamping position by a mere sliding motion over the rib and flange.

A further object of my invention is to provide a clip of the above character of a substantially U-shape in side elevation having legs gradually diverging toward their lower ends, with each of the legs also of a U-shape in cross-section for gripping the rib of the sleeve of the hollow body and the flange of the ferrule with the side walls of the legs gradually converging toward their upper ends, so that when the clip is slid in place a dual wedging action will be had to firmly grip and clamp the rib and flange.

A still further object of my invention is to provide a device of the above character, which will be durable and efficient in use and one that can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed, and illustrated in the accompanying drawing, in which drawing,

Figure 1 is a fragmentary vertical sectional view through a feeder pail with the parts of the nipple assembly arranged thereon showing my novel clip in its operative position, the clip being shown in section and the section being taken on the line 1-1 of Figure 2;

Figure 2 is a vertical sectional view taken on the line of 2-2 of Figure 1, looking in the direction of the arrows, and showing the clip in elevation with one leg thereof partially broken away and in section, and

Figure 3 is a horizontal sectional view taken on the line 3-3 of Figure 1, looking in the direction of the arrows.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter P generally indicates a calf or other young animal feeding pail with a feeding assembly A connected with the pail, the parts of the assembly being held in operative position against displacement by my novel clip C.

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The feeder pail P and the feeding assembly A are of a type and character now sold on the open market and only sufficient parts thereof have been shown and illustrated to permit a thorough understanding to be had of my novel clip C.

The feeder pail P comprises an outer wall 5 and a bottom wall 6. Secured to and projecting inwardly from the wall 5 adjacent to the bottom wall 6 is a ferrule 7. The inner end of the ferrule has formed thereon a rolled-back annular flange 8.

The feeding assembly A comprises an elongated rubber nipple 9 having formed on its inner end a bead 10. The nipple 9 is slid in the ferrule 7 until the bead 10 abuts the flange 8. The feeding assembly A also includes a hollow angular shaped body 11. A conventional check valve (not shown) is provided for the body to control the flow of milk therethrough. This body includes a horizontally disposed sleeve 12 which is slipped into the nipple 9 and the ferrule 7. Formed on the sleeve 12 is an annular rib or shoulder 13, which is adapted to abut against the bead 10 formed on the nipple. As brought out in the objects of the specification, the sleeve is relied upon to hold the nipple 9 in position in the ferrule, but that accidental displacement of the nipple and the sleeve takes place when the calf thrusts inwardly on the nipple.

The clip C forming the essence of my invention is constructed, preferably, of sheet metal possessing some resiliency, and is fabricated to provide a structure of substantially U-shape in side elevation. This U-shaped structure defines legs 14 and 15 and a connecting rounded bight portion 16. The legs 14 and 15 diverge outwardly toward their lower ends for a purpose which will later appear. The legs themselves are also of a substantially U-shape in cross-section to provide slightly outwardly flared side flanges or wall 17, and these flanges also gradually converge toward one another as they approach the connecting bight portion 16.

In operation, after the assembly of the sleeve 12 within the nipple 9, the clip C is held in the hand so that the legs 14 and 15 will straddle the assembly, as best shown in Figure 2 and the legs are placed over the rib 13 and the flange 8 so that the side flanges or walls 17 of the legs will engage the rib 13. The clip is then slid downwardly and the legs 14 and 15 can spring slightly outwardly during this movement. As the walls 17 also converge toward their upper ends, the rib 13 will be brought toward the flange 8 slightly compressing the resilient bead 10 therebetween and this will effectively hold the nipple, the hollow body and the ferrule in binding contact so as to effectively prevent displacement of the nipple. Obviously, when it is desired to remove the nipple 9, it is merely necessary to pull up on the clip C.

From the foregoing description, it can be seen that I have provided a simple but effective means for preventing accidental dislodgement of a feeding nipple from a feeder pail.

Changes in details may be made without departing from the spirit or the scope of this invention, but what I claim as new is:

1. In a calf feeder of the type including a wall having an inwardly directed ferrule, an annular flange on the ferrule, a nipple fitted in the ferrule and provided with a bead abutting the flange and a hollow body including a sleeve fitted within the nipple and ferrule and an annular rib on the sleeve abutting the bead; of means for releasably holding the nipple and sleeve in the ferrule against displacement comprising a clip including portions engaging the flange and the rib for drawing the same toward one another with the bead therebetween.

2. In a calf feeder of the type including a wall having an inwardly directed ferrule terminating in a flange, a flexible nipple extending through the ferrule having a bead on its inner end abutting the flange and a hollow body including a sleeve fitted in the nipple and ferrule and having an annular rib abutting the bead; of means for detachably clamping the nipple and body together on the ferrule including a clip of a substantially U-shape in elevation having legs for straddling the sleeve and ferrule gradually converging toward their

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upper ends, and said legs each having side walls engaging respectively the rib and the flange for drawing the rib into compressing engagement with the bead.

3. In a calf feeder as defined in claim 2, and said walls also gradually converging toward their upper ends.

4. In a calf feeder as defined in claim 2 and said clip also including an arcuate resilient connecting bight portion for the legs, and said legs including spaced rib and flange engaging walls gradually converging toward the bight portion.

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