H. DODGE.
Milk-Pail.

No. 197,836. Patented Dec. 4, 1877.

Fig. 1

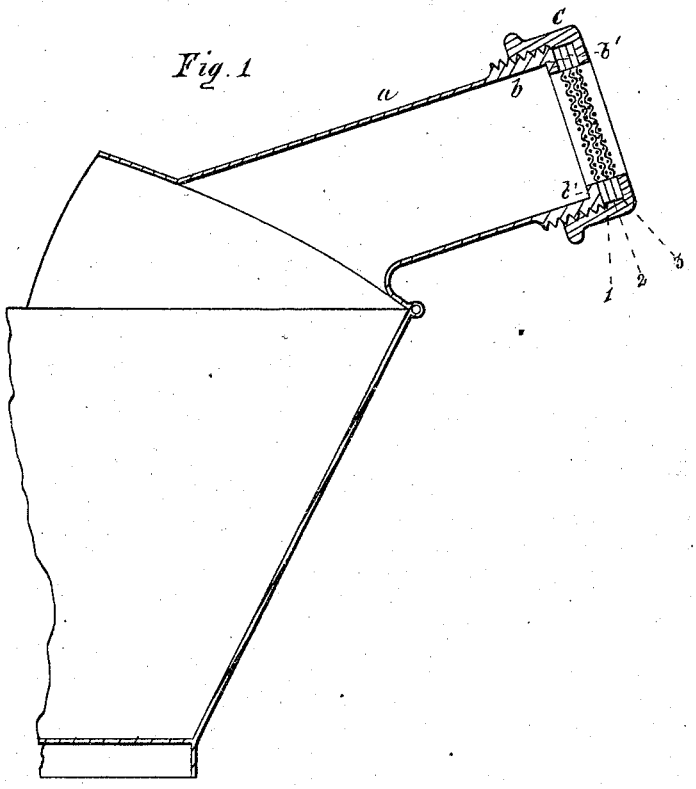


Fig. 2.

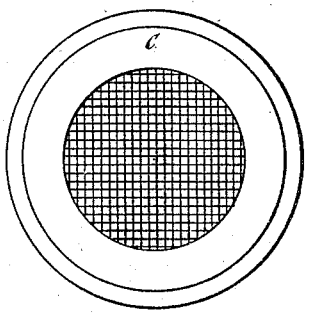
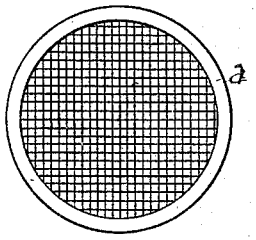


Fig. 3.



Witnesses:

Fred. Howard
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Inventor:
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Atty

UNITED STATES PATENT OFFICE.

HENRY DODGE, OF WASHINGTON MILLS, NEW YORK.

IMPROVEMENT IN MILK-PAILS.

Specification forming part of Letters Patent No. **197,836**, dated December 4, 1877; application filed September 1, 1877.

To all whom it may concern:

Be it known that I, HENRY DODGE, of Washington Mills, Oneida county, New York, have invented certain Improvements in Strainers for Milk-Pails, &c., of which the following is a specification:

From a large and long-continued experience in dairy-work, I have found a serious inconvenience in the use of the ordinary wire-gauze strainers in milk-pails as heretofore made, with a single diaphragm set in a frame-work in the milk-pail, and it has long been apparent to me that this device was imperfect, as it allowed the motes and other foreign substances to pass through it, especially hairs, which, in the spring-time particularly, are very annoying to the dairyman. From the inconveniences thus encountered by me in practice came the device herein described, invented by me to obviate them, which I have found, after a thorough practical test, to be a sure remedy, making a perfect strainer.

The following is a description of the construction of my strainer, referring to the accompanying drawings, in which—

Figure 1 is a vertical section through the strainer and front upper portion of a pail. Fig. 2 is a front view of the strainer and cap. Fig. 3 is a wire-gauze diaphragm detached.

The pail A may be of any convenient size or form. From the cap or shield in front a nozzle, *a*, projects, upon the end of which there is a cylindrical ring, *b*, permanently attached, the outer end of which ring is made with a broad annular seat by the bead *b'*, as clearly seen in Fig. 1. On this ring a screw-thread is cut, and an annular cap, *c*, screws onto it. Between the end of the ring *b* and cap *c* a series of wire-gauze diaphragms are placed, one upon another, (I have found the best results from the use of three diaphragms, generally,) as shown in Fig. 1, where the wire-gauze sections are somewhat exaggerated to show clearly. The diaphragms 1 2 3 are made by cutting out the wire-gauze to the exact size of the inner circumference of the cap *c*, and then securing the ends of the wire forming the same by a rim of solder, *d*, as shown in Fig. 3. This strengthens the diaphragm, and keeps the ends of the wire from being displaced in handling. Each diaphragm is entirely independent of the others.

In putting the parts together, the series of diaphragms 1 2 3 are put into the cap *c*, resting upon its internal ring, and the cap is then screwed down tight upon the permanent ring *b*, firmly holding the diaphragms by their edges between them. Three diaphragms will effectually prevent the hairs passing through, and are sufficient for all ordinary occasions, the interstices forming an irregular passage for the liquid—a result not obtainable with a single wire-gauze.

The diaphragms, being separate from each other, are easily and perfectly cleaned—an important point with dairymen.

Having thus fully described my improvement, I claim—

1. The compound diaphragm, composed of a series of layers of wire-gauze superimposed upon each other, and secured firmly in place by the single cap and screw, as described.

2. Uniting and consolidating the edges of the wire-gauze by a rim of solder, as herein specified, and for the purposes set forth.

HENRY DODGE.

Witnesses:
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