UNITED STATES PATENT OFFICE.

FRED L. OLIVER, OF FRIENDSHIP, NEW YORK.

IMPROVEMENT IN MILK-STRAINERS.

Specification forming part of Letters Patent No. **165,858**, dated July 20, 1875; application filed May 17, 1875.

To all whom it may concern:

Be it known that I, FRED L. OLIVER, of Friendship, in the county of Allegany and State of New York, have invented a new and Improved Milk-Strainer, of which the following is a specification:

The strainer is constructed of funnel shape, adapted to cover the entire top or opening of a can or other vessel, and is constructed with an annular flange to fit within the mouth of the can. The funnel terminates below in a cylindrical nozzle covered at bottom with wire-gauze, above which is placed a removable diaphragm of perforated sheet metal, to protect the gauze and to arrest the larger matters which are to be strained out of the milk.

In the accompanying drawing, Figure 1 is a plan or top view of the device. Fig. 2 is a vertical section of the same as applied to a milk-can in readiness for the reception of milk. Fig. 3 is a vertical section, showing the strainer in its reversed position to constitute a cover. Fig. 4 is a perspective view of the removable preliminary strainer.

A may represent a milk-can of common form. B C represent, respectively, the body and neck or nozzle of a funnel, at the bottom of which is secured a web or sheet, D, of wire-gauze. E represents an annular flange, permanently secured to the under side of the funnel B, and adapted to fit within the mouth or top of the can A. The removable preliminary strainer (shown in Fig. 4, and in position in Figs. 1 and 2) consists of a plate, F, of perforated sheet metal, a flange, G, attached thereto and supporting it at the necessary height above the gauze D, and a handle, H, for removing and applying the said preliminary strainer. It will be seen that the parts are so proportioned that the preliminary strainer F is supported within the neck or nozzle C of the funnel, at a sufficient distance below the outer margin thereof to prevent the milk from being carried up the opposite side of the inclined funnel B when poured in from one side. This dispenses with the necessity of guards or checks sometimes provided for this special purpose. The perforated sheet-metal strainer F arrests all the larger particles which are to be strained out of the milk, and protects the wire-gauze D from sudden or heavy pressure when the milk is poured into the strainer. The wire-gauze D is thus preserved from injury, and, receiving the milk uniformly over its entire surface, passes the same into the can with great rapidity.

I am thus enabled to use a wire-gauze strainer sufficiently fine to thoroughly cleanse the milk, while it does not impede the straining operation inconveniently.

The milk having been strained into the can, it is important that it shall be fully exposed to the air while parting with its animal heat. To permit the necessary ventilation for this purpose, and, at the same time, to protect the milk in the interior of the can from dust and impurities, the strainer is employed as a cover, in the manner illustrated in Fig. 3. The fine wire-gauze D affords free and thorough ventilation, while, at the same time, it prevents the entrance of the slightest dust. Any dust or other impurities which may settle on the gauze D or other part of the bottom of the inverted strainer are, of course, readily washed off when the strainer is removed for the purpose of placing the permanent cover on the can.

The flange E fits the mouth of the can tightly enough to prevent the loss of milk in the event of upsetting or sudden movement of the can.

The following is claimed as new:

1. A funnel-shaped strainer, B C D, with an annular flange, E, attached to its under side, and tightly fitting the interior of the mouth of the can A, as and for the purpose set forth.

2. The removable preliminary strainer F G H, constructed as described, and inserted below the margin of the cylindrical neck C of the funnel, for the purposes set forth.

FRED L. OLIVER.

Witnesses:

E. B. WINGATE,

ARTHUR B. BOWLEY.

J. A. T. OVEREND.

Machine for Cutting Printers' Leads.

No. 165,859. Patented July 20, 1875.

Fig. 1.

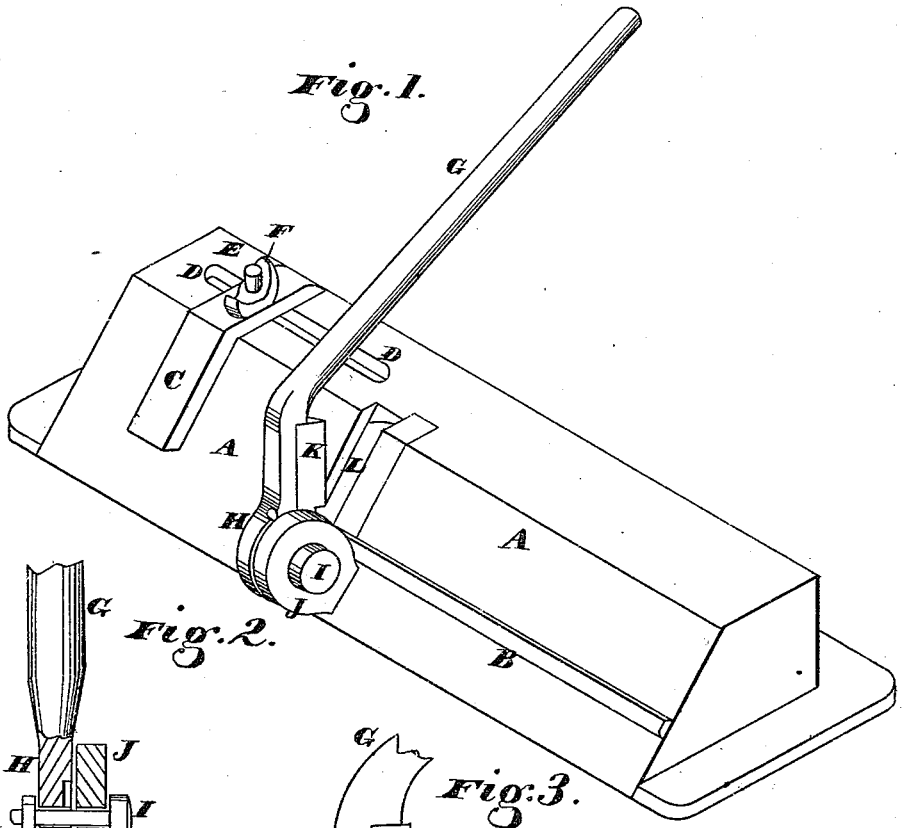


Fig. 2.

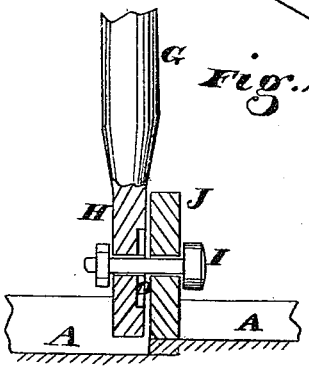
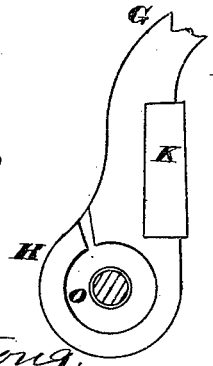


Fig. 3.



Witnesses

Geo. H. Strong.

Jno. L. Boone

Inventor

John. A. T. Overend

by Dewey & Co

Attys