(No Model.)

2 Sheets—Sheet 1.

J. A. McPHERSON.

MILK STRAINER.

No. 350,379. Patented Oct. 5, 1886.

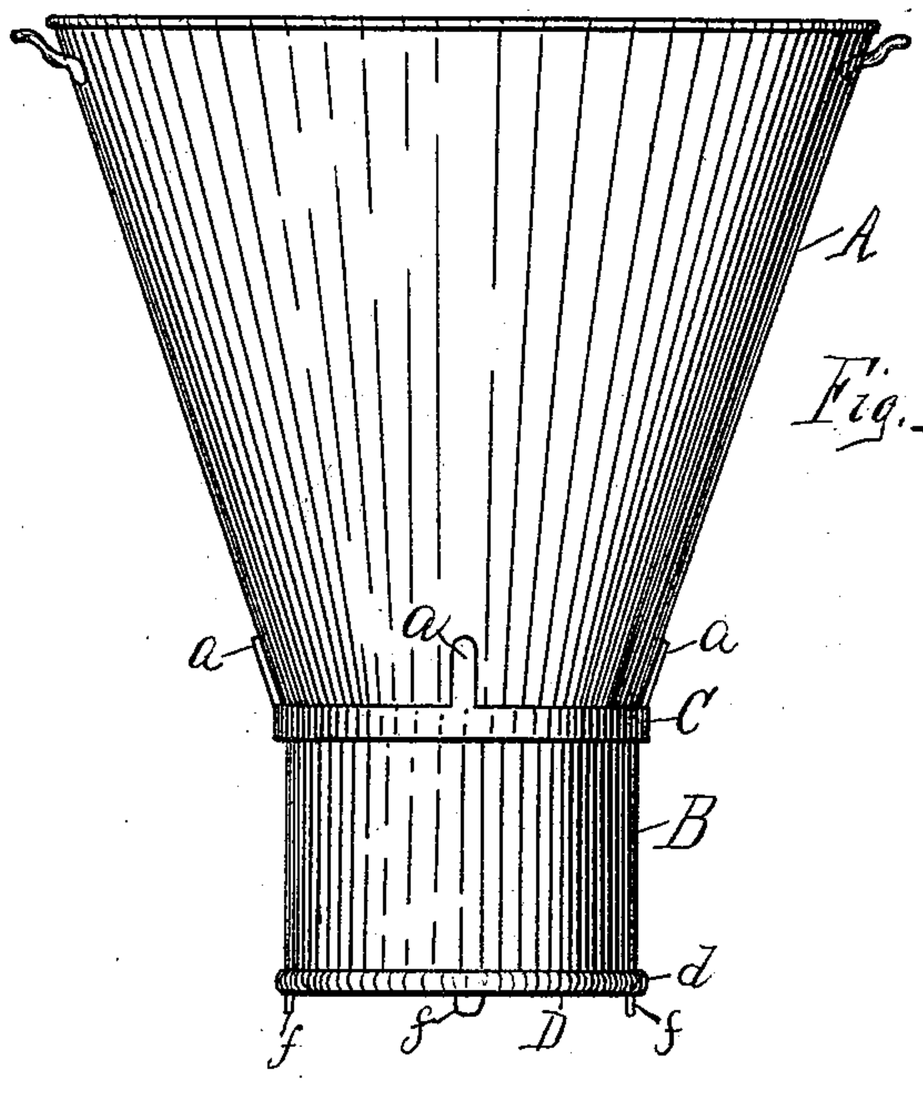

Fig. 1

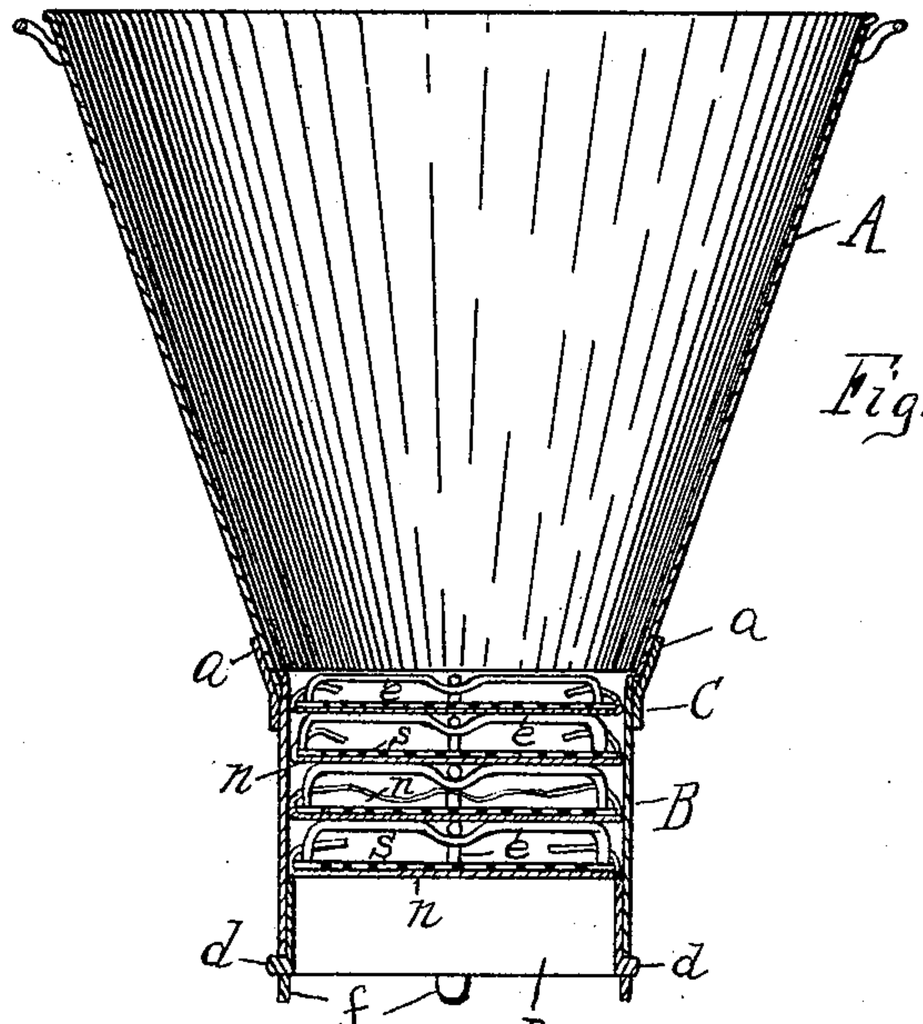

Fig. 2

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John F. Booth

INVENTOR

James A. McPherson

by Geo. A. Mosher

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N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. A. McPHERSON.

MILK STRAINER.

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Fig. 3

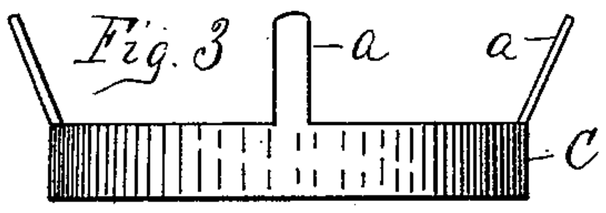


Fig. 4

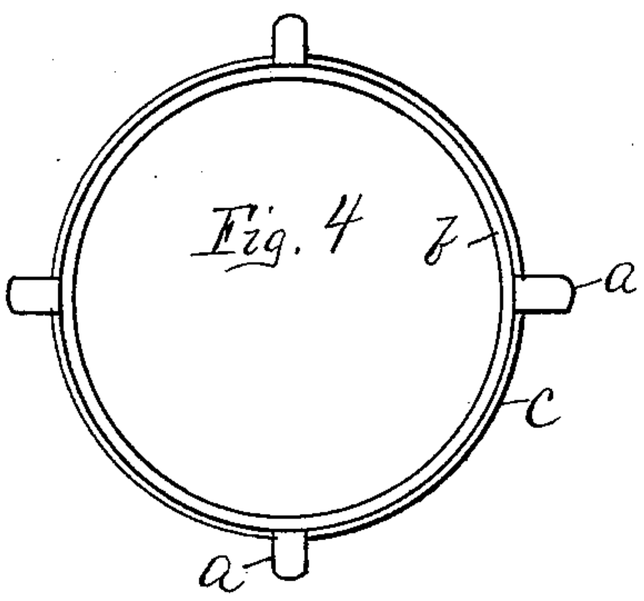


Fig. 5

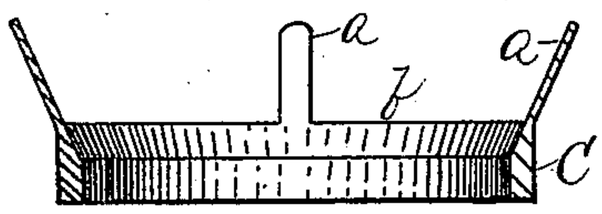


Fig. 6

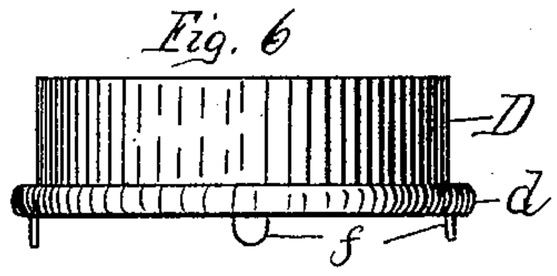


Fig. 7

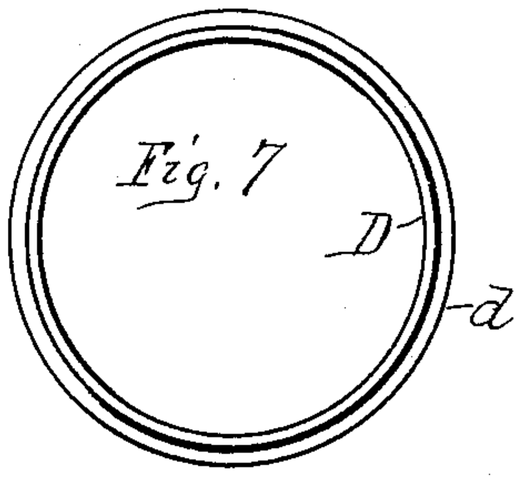


Fig. 8

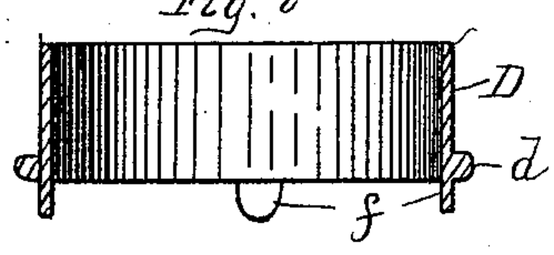


Fig. 9

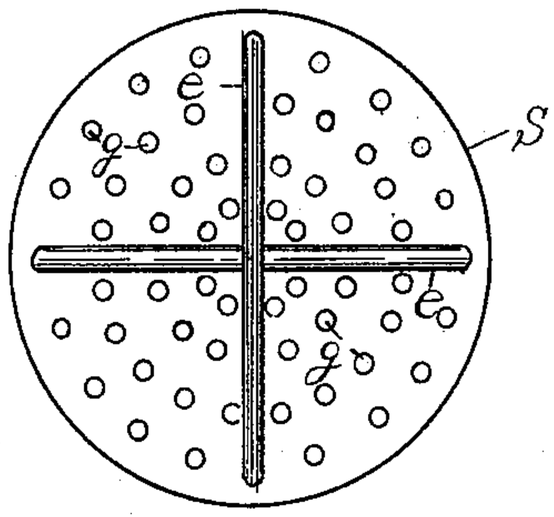
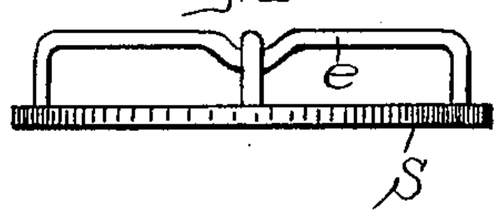


Fig. 10



WITNESSES:

Geo. A. Darby

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UNITED STATES PATENT OFFICE.

JAMES A. McPHERSON, OF BRUNSWICK, NEW YORK.

MILK-STRAINER.

SPECIFICATION forming part of Letters Patent No. 350,379, dated October 5, 1886.

Application filed April 7, 1886. Serial No. 198,077. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. McPHERSON, a resident of Brunswick, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Milk-Strainers; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention consists of the novel construction and combination of parts, hereinafter described, and pointed out in the claims.

The object of the invention is fully set forth in the following description.

Figure 1 of the drawings is a side elevation of my improved milk-strainer. Fig. 2 is a vertical central section of same. Figs. 3, 4, and 5 are respectively side elevation, plan view, and central vertical section of the ring C. Figs. 6, 7, and 8 are respectively side elevation, plan view, and central vertical section of base-ring D. Fig. 9 is a plan view of one of the metallic strainers resting upon a cloth strainer. Fig. 10 is a side elevation of the metallic strainer.

In my improved device I make use of a funnel-shaped vessel, A, having an enlarged mouth at the top and terminating at the bottom in a cylindrical spout, B. The parts A and B are preferably made of tin or other sheet metal. The spout is supported by the ring D, preferably made of cast metal and provided with the projecting rim *d*, for the purpose of supporting the spout, and with the feet *f*. The ring C, preferably of cast metal, is adapted to conceal and strengthen the joint formed at the junction of funnel and spout. The ring D is inserted in the lower end of the spout until the lower edge of the latter rests upon the rim *d*. The upper end of the spout is inserted and forced into the ring C until the upper edge of the spout projects up opposite the inner beveled side, *b*, of the ring. The lower end of the funnel is inserted between the inner beveled side of the ring C and the outer side of the upper edge of the spout, whereupon the upper edge of the spout is expanded and forced outward to contact with the inner edge of the funnel, all as shown in Figs. 1 and 2. The expanded edge of the spout is then soldered or otherwise secured to the contiguous inner edge of the funnel, which secures the parts firmly together. The upwardly-projecting arms *a* on ring C serve to protect the funnel from abrasive contact with the walls surrounding the mouth of a milk-can. I also provide a plurality of strainers, S, preferably made of cast metal, containing numerous perforations or openings, *g*, and having elevated handles, as *e*. These strainers are formed to loosely fit the interior of the spout, and may be inserted therein one above the other, as shown in Fig. 2.

The handles *e* not only serve as a convenient means by which to insert the strainers within the spout and remove them therefrom, but they also serve as rests to support the successive upper strainers within the spout, as shown in Fig. 2, the lower strainer being supported by the upper edge of the ring D, which forms a rest therefor. I also make use of cloth strainers *n*, which cover the lower side of the metallic strainers and project upward between the edges of the metallic strainers and the inner side of the spout, between and by which they are firmly secured in place.

The milk is poured into the mouth of the funnel and filters down through the strainers, arranged one above the other in the spout, as shown, escaping from the lower end of the spout into a milk-can or other desired receptacle. Should the upper strainer become clogged after a certain period of use, and the flow of milk be too much retarded, it can be easily removed by means of the handles *e*, and the remaining strainers allowed to perform the work until the flow is again retarded, when the next strainer can be removed in the same manner as the first, and so on to the last strainer, if desired.

By removing the last strainer, all the parts of the device become easily accessible for cleaning, after which new or cleaned strainers can be easily and quickly inserted.

It is of great importance to have all the parts of a milk-strainer easily accessible for cleansing, as sour milk quickly accumulates on the parts not thoroughly cleansed.

My method of connecting the funnel and spout, and providing a rest for the strainers, presents a smooth unbroken interior surface, all the parts of which are easily accessible for cleaning, and by having a plurality of uniform strainers adapted to be arranged one above the other in the spout, as shown, they may be easily and quickly removed one at a time, or exchanged for clean ones while the operation of filtering or straining the milk continues.

What I claim as new, and desire to secure by Letters Patent, is—

1. The base-ring D, having spout-support *d* on the outside of its lower edge, combined with a spout, B, strainer S, and supporting-ring C, as shown and described.

2. The combination of base-ring D, provided with spout-support *d*, a spout, B, funnel A, supporting-ring C, provided with an inner beveled surface, *b*, and a strainer, S, substantially as described, and for the purposes set forth.

3. In a milk-strainer having a funnel-shaped mouth, the metallic ring C, surrounding the spout and funnel at their line of junction, and provided with the funnel-protecting arms *a*, substantially as described, and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 2d day of April, 1886.

JAMES A. McPHERSON.

Witnesses:

GEO. A. MOSHER,

CHAS. L. ALDEN.