(No Model.)

S. ROBERTS.

CAN WASHER.

No. 371,366. Patented Oct. 11, 1887.

Fig. 1.

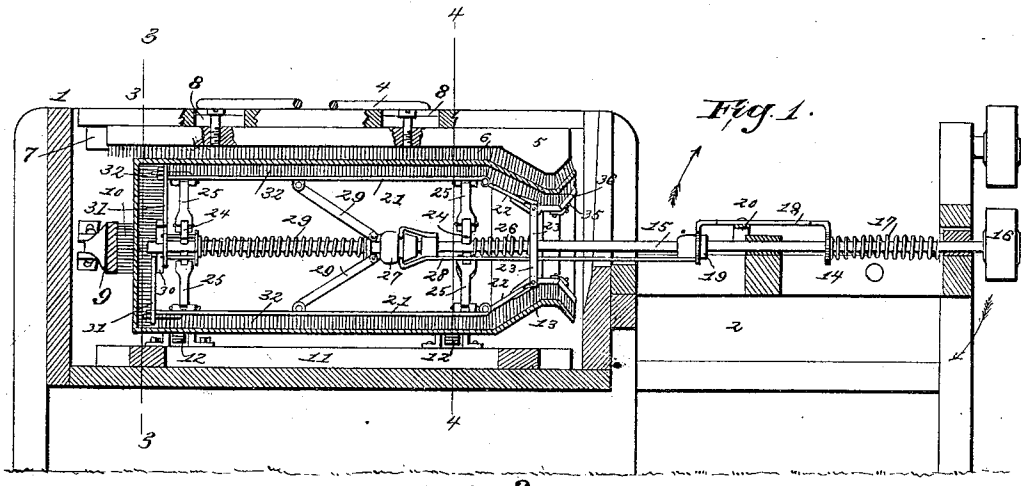


Fig. 2.

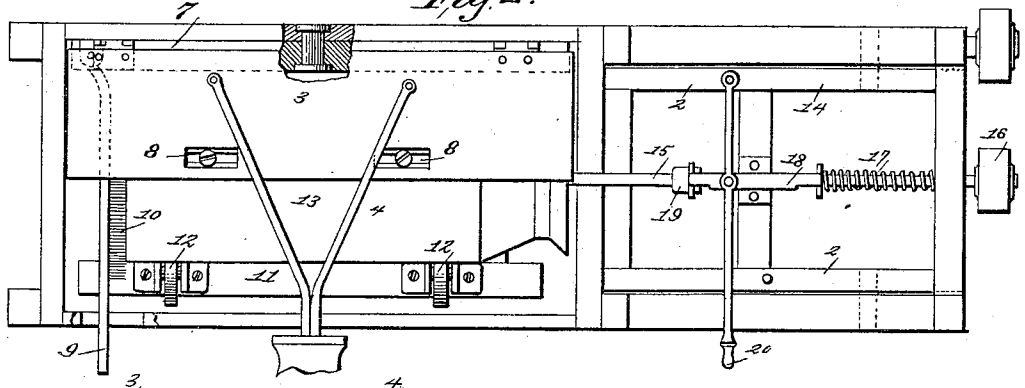


Fig. 3.

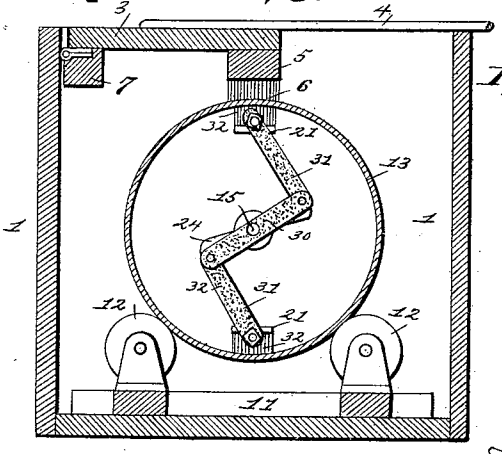


Fig. 4.

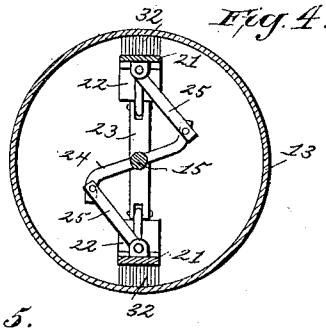
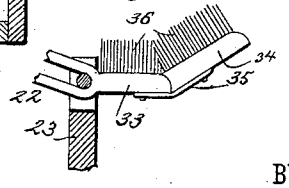


Fig. 5.



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SYLVANUS ROBERTS, OF CHESTER, NEW YORK.

CAN-WASHER.

SPECIFICATION forming part of Letters Patent No. 371,366, dated October 11, 1887.

Application filed May 24, 1887. Serial No. 239,230. (No model.)

To all whom it may concern:

Be it known that I, SYLVANUS ROBERTS, of Chester, in the county of Orange and State of New York, have invented a new and Improved Device for Washing Milk-Cans, of which the following is a full, clear, and exact description.

My invention relates to an improved device for washing milk-cans, and has for its object to quickly, thoroughly, and effectually wash a can both inside and out in a simple and convenient manner.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the figures.

Figure 1 is a central vertical section through the device and through a can held therein, and Fig. 2 is a plan view of the same. Fig. 3 is a section on line 3 3 of Fig. 1, and Fig. 4 is a section partially on line 4 4 of Fig. 1. Fig. 5 is a detail view of that portion of the device adapted to wash the neck of the can inside.

In carrying out the invention a rectangular box, 1, is provided, slotted centrally and vertically at the inner end, to which end of the box a rectangular frame, 2, is attached. The said box 1 is provided with a lid, 3, adapted to cover about half the same, which lid has attached to the top a handle, 4, projecting beyond the front side of said box. The under portion of the lid is provided with one or more longitudinal strips, 5, shaped to the outer contour of a milk-can, and the under faces of said strips have attached thereto a series of abutting brushes, 6, as shown in Figs. 1 and 3.

The lid 3 is not hinged directly to the box, but to a longitudinal bar, 7, pivoted centrally to the inner and upper edge of said box, whereby the lid may be made to bear heavily upon either end of the can. The brushes 6 are made adjustable laterally by giving the bolts supporting the strip 5, to which they are attached, more or less play in the slots 8 produced in the cover 3. To one side of the box, at the rear end, a lever, 9, is pivoted, adapted to extend transversely the box and project through a slot in the other side. Upon the inner face of said lever brushes 10 are secured, the brushes being purposed to engage the outer bottom portion of the can to clean the same, as shown in Fig. 2.

In the bottom of the box a car or frame, 11, is laid, having brackets upon each upper side near the ends, in which friction-rollers 12 are pivoted, adapted to support the can 13 when placed in the box for washing and to assist said can to revolve.

In the frame 2 a carriage, 14, is pivoted, upon which carriage, centrally and longitudinally the same, a rod, 15, is journaled, the outer end of the rod having attached thereto a pulley, 16, the other end of said rod projecting beyond the carriage nearly the length of the box, being purposed to carry the mechanism for washing the interior of the cans.

Between its bearings the rod 15 is encircled by a coil spring, 17, the inner end of said spring being made to bear against one end of an arched bar, 18, sliding upon the rod, the other end of which bar is connected with a collar, 19, also sliding upon the rod 15. The movement of the bar 18 is controlled by a lever, 20, pivoted to the carriage and to the bar, the free end of which lever, projecting beyond the carriage, may be made to engage a rack suitably placed thereon.

The mechanism for cleaning the inside of the can consists of two longitudinal parallel plates, 21, one at each side of the rod 15, having hinged to their outer ends short plates 22, which plates are pivotally attached to a cross-head, 23, sliding upon the rod, which sliding cross-head is of a length less than the width of a milk-can at the mouth.

An S-shaped bar, 24, is passed through and secured to the rod 15 at right angles to the side plates 21, nearly opposite their connection with the short plates 22, the said plates 21 being pivotally connected with the ends of the S-shaped bar by connecting-rods 25, as shown in Fig. 4.

Near the inner end of the rod 15 a similar S-shaped bar is secured in like manner to the bars 24, and united to the ends of the long plates 21 also by pivoted connecting-bars.

Between the sliding cross-head 23 and the S-shaped bar a coil-spring, 26, is made to encircle the rod 15, and a distance beyond said

bar a sleeve, 27, is held to slide upon the rod, connected by a strap, 28, with the sliding collar 19, and provided with diverging pivotal arms 29, one arm being hinged or pivoted to each long plate 21, as shown in Fig. 1. Between said sleeve 27 and the end S-shaped bar, 24, a second coil-spring, 29, is made to encircle the rod 15.

At the extreme inner end of the rod 15 a cross-head, 30, is secured parallel with the S-shaped bar 24, having pivoted at each end strips 31, which, remaining at all times parallel with the connecting-rods 25, are pivotally secured at their opposite end to the extremities of the side plates 21, as shown in Fig. 3. The long side plates 21, the short side plates 22, the fixed cross-head 30, and the strips 31 are covered upon their outer faces with brushes 32, as illustrated in Fig. 1.

To the outer ends of the short plates 22 an integral outward projection, 33, is formed, and at a slight angle outward a short strip, 34, is attached by a spring-plate, 35, as shown in Fig. 5, and the outer faces of said strip and projection are both provided with brushes 36, adapted to clean the mouth of the can.

In operation the box is filled with water at a proper temperature, and the carriage and rod are carried to a vertical or inclined position, the device having been previously contracted by the outward movement of the lever 20. The can is thereupon placed over the device and the lever 20 carried inward, which movement presses forward the sleeve 27, which causes the diverging arms 29 to straighten themselves, thereby expanding the frame of the devices until the brushes firmly engage the inner surface of the can. The lid being opened, the can thus fastened is let down in the box upon the rollers 12, and the brush-carrying bar in the lid is adjusted to the outer contour of the can. This is preferably held down with the hand, while the levers 9 20, having been previously manipulated, are held in a given position by contact with a suitable rack, or in any other approved manner. When the power is applied to pulley 16, the device is made to revolve rapidly, while the motion of the can is more or less checked by contact with the brushes of the lid. Thus it will be observed that both the inside and outside of many cans may be thoroughly cleaned in a short space of time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a box or receptacle provided with an adjustable lid carrying brushes upon the inner face adapted to engage the outer surface of the can, a lever pivoted at one end, carrying brushes adapted to engage the bottom of the can, and a truck having friction-rollers adapted to receive the said can, of a carriage pivoted outside the box, a rod journaled in said carriage, an expansible frame adapted for insertion in the can, having brushes attached to the outer side, and means for revolving said rod and can, substantially as herein shown and described.

2. The combination, with a box provided with an adjustable lid, an adjustable bar secured to the inner face of said lid, carrying brushes adapted to engage the outer surface of a can, a lever pivoted at one end, carrying brushes adapted to engage the bottom of the can, and a truck having friction-rollers adapted to support said can, of a carriage pivoted outside the box, adapted to assume a vertical or horizontal position, a rod journaled in said carriage, an expansible frame attached to said rod, adapted for insertion in the can, a series of brushes attached to the outer surface of the frame, and means for rotating said rod and can, substantially as herein set forth.

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