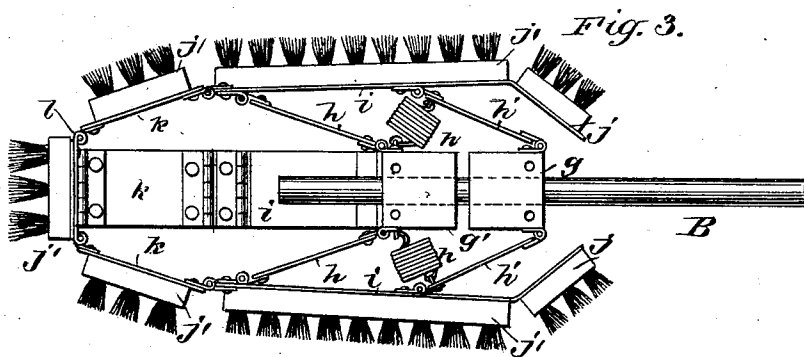
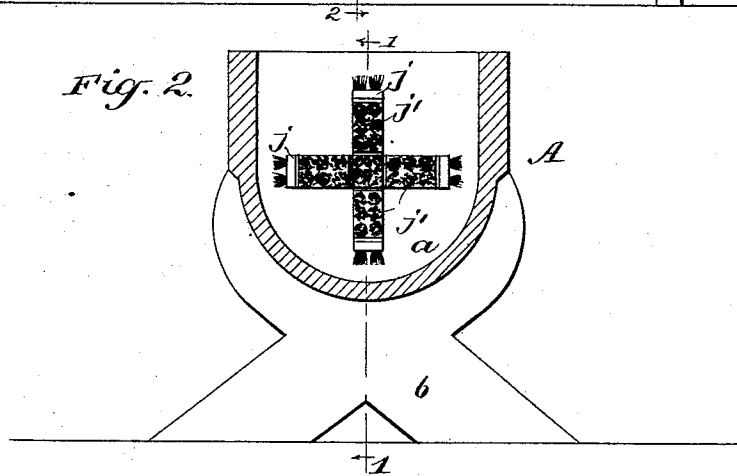
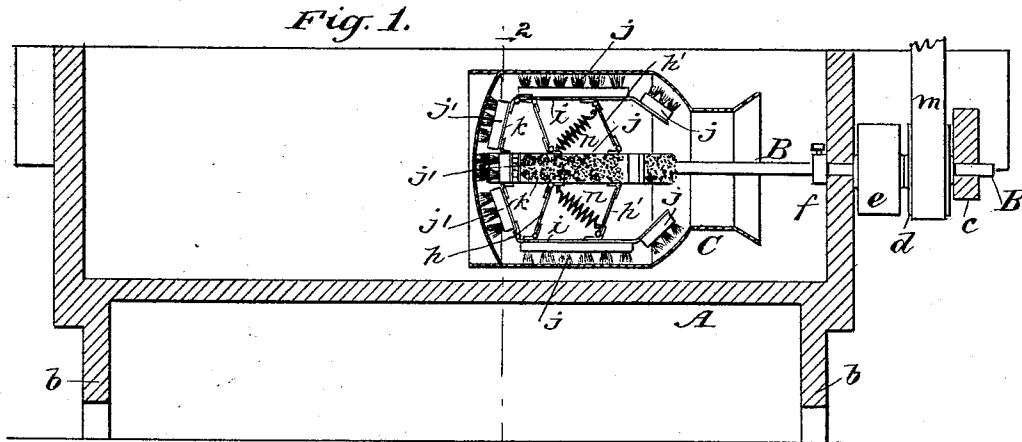


(No Model.)

C. H. SOUTHARD.
CAN WASHER.

No. 482,763.

Patented Sept. 20, 1892.



WITNESSES:

J. H. Guinness
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UNITED STATES PATENT OFFICE.

CHARLES H. SOUTHARD, OF PRESTON, NEW YORK.

CAN-WASHER.

SPECIFICATION forming part of Letters Patent No. 482,763, dated September 20, 1892.

Application filed August 17, 1891. Serial No. 402,800. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY SOUTHARD, of Preston, in the county of Chenango and State of New York, have invented a new and Improved Can-Washer, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a vertical longitudinal section of my improved can-washer, taken on line 1 1 in Fig. 2. Fig. 2 is a vertical transverse section taken on the line 2 2 in Fig. 1, and Fig. 3 is an enlarged side elevation of the brush with one of the sections removed.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to construct a simple and efficient machine for cleaning cans of various kinds, but more especially small-topped milk-cans used for shipping milk by railroad.

My invention consists in the combination, with a trough adapted to receive the can and hold water, of a shaft and an expansion-brush arranged to be expanded within the can by the pressure of the can on the brush, all as will be hereinafter more fully described.

The trough A, forming the body of the machine, is preferably furnished with a semi-cylindrical bottom *a* and is supported upon legs *b*. The sides of the trough are prolonged beyond the end thereof and support a cross-bar *c*, in which and in the end of the trough is journaled a shaft B.

Between the cross-bar *c* and the end of the trough and upon the shaft B are placed the pulleys *d e*, the pulley *d* being loose upon the shaft and the pulley *e* being fixed thereto. On the shaft B, at the inner side of the end of the trough A, is placed a collar *f*, which in connection with the pulley *e* prevents the shaft from moving endwise. On the portion of the shaft within the trough are secured the cubical hubs *g g'*, to which are hinged the arms *h h'* in four series. To the outer ends of the arms *h h'* are hinged bars *i*, which extend rearwardly and are bent inwardly toward the shaft B for receiving the brushes *j*, which clean the inner surface of the top of the can. To the front ends of the bars *i* are hinged the bars *k*, which in turn are hinged to a rectangular plate *l*, which connects the

four bars *k*, so that when the plate *l* is pressed forward toward the shaft B the bars *i* and arms *h h'* are swung outwardly. This outward movement of the arms is opposed by springs *n*, connected with the outer ends of the arms *h'* and with the hinges at the inner ends of the arms *h*. The end of the shaft B serves as a stop to limit the inward movement of the plate *l*. Upon the bars *i k* and to the plate *l* are attached brushes *j' j'*. The shaft B receives its motion through the belt *m*. The trough A being partly filled with water and the shaft B being in motion, the can C is placed in the trough and pushed forward over the brush until the bottom of the can is brought into contact with the brushes *j'* on the bars *k* and plate *l*. The forward pressure of the can against the said brushes not only brings them into contact with the bottom of the can, but it also expands the brush by swinging the arms *h h'* backward and by changing the angle of the bars *k* until all the brushes carried by the expansible framework touch the inner surface of the can. The brush being expanded while being rotated cleans every portion of the can quickly and thoroughly. When the brush is relieved of the pressure of the can, the brush automatically contracts, and the can may be removed and another can operated upon in the manner already described.

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

1. An expansion-brush formed of the hubs *g g'*, the swinging arms *h h'*, the expansible frame formed of the bars *i k* and plate *l* and arranged for expansion by end pressure, the brushes carried by the expansible frame, and the springs *n*, arranged to contract the frame, substantially as specified.

2. In a can-washer, the combination of a trough adapted to receive cans and an expansible rotary brush arranged to revolve within the trough and constructed to be expanded by the pressure of the can and contracted by springs, substantially as specified.

CHARLES H. SOUTHARD.

Witnesses:

S. S. STAFFORD,
CHAS. W. BROWN.