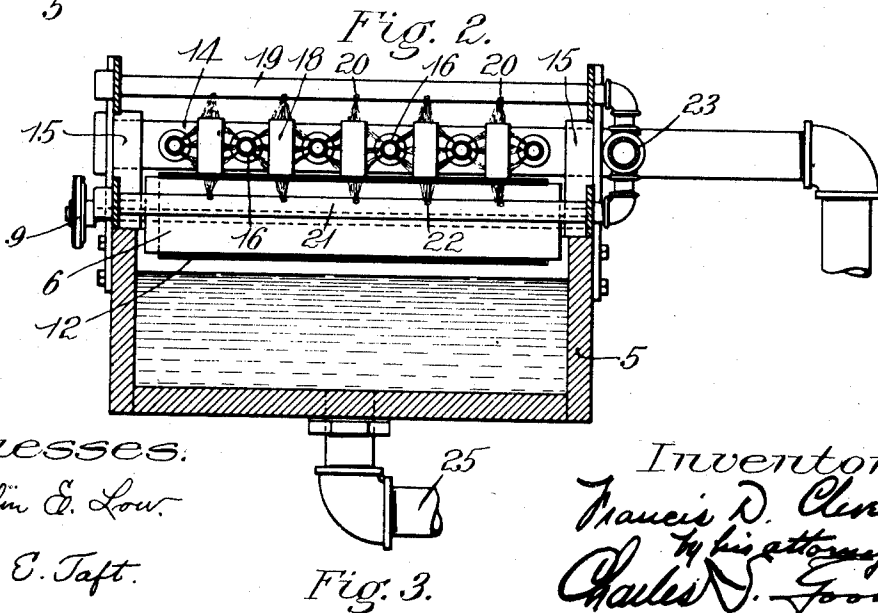
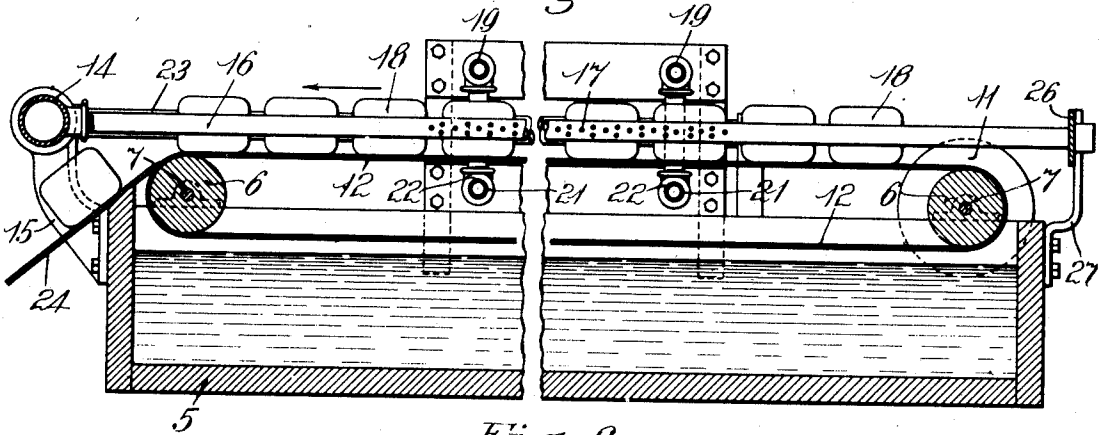
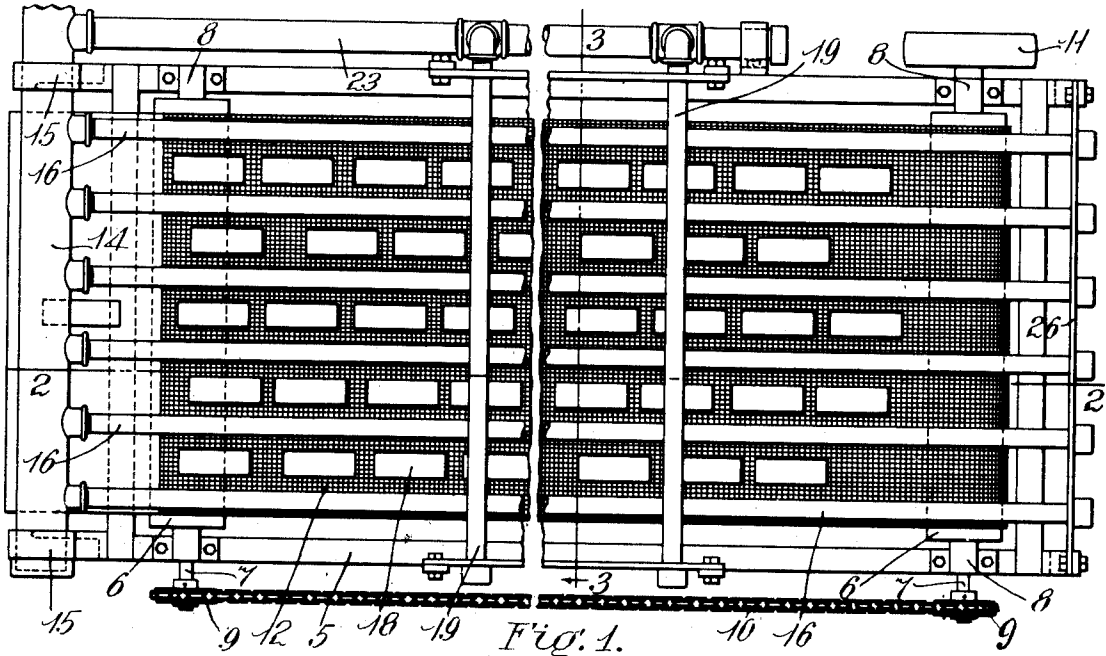


F. D. CLEVELAND.
 APPARATUS FOR CLEANING CANS.
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1,026,381.

Patented May 14, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANCIS D. CLEVELAND, OF WINCHESTER, MASSACHUSETTS.

APPARATUS FOR CLEANING CANS.

1,026,381.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed July 23, 1910. Serial No. 573,514.

To all whom it may concern:

Be it known that I, FRANCIS D. CLEVELAND, a citizen of the United States, residing at Winchester, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Apparatus for Cleaning Cans and the Like, of which the following is a specification.

This invention relates to an apparatus for cleaning articles and is particularly adapted to clean cans of sardines or fish after the fish has been packed in the cans.

It is evident that while this apparatus is particularly adapted for the purpose stated, it may be utilized for cleaning articles of different shapes and sizes.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings: Figure 1 is a plan view of my improved apparatus for cleaning cans and the like, the same being broken away in the central portion thereof to save space in the drawings. Fig. 2 is a sectional elevation taken on line 2—2 of Fig. 1, also broken away to save space. Fig. 3 is a sectional elevation taken on line 3—3 of Fig. 1.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a tank of suitable construction adapted to hold water and upon this tank are mounted the different parts of said apparatus.

6, 6 are rolls or pulleys which are fast to shafts 7, 7 journaled in bearings 8, 8. The shafts 7, 7 have sprockets 9, 9 fast thereto which are connected together by a sprocket chain 10, one of the shafts 7 being rotated by means of a pulley 11.

An endless belt 12, which serves as a carrier for the cans to be washed, extends around and between the rolls 6, 6 and this belt is provided with a series of orifices preferably by making the belt of wire mesh.

A main supply pipe 14 for the water extends across one end of the machine and is supported upon brackets 15, 15 fast to the end of the tank 5 and to this pipe is connected a series of pipes 16, 16 which extend longitudinally of the machine and of the carrier or conveyer 12. These pipes are provided with orifices 17, 17 through which the water issues in streams or jets against the tops and bottoms of the cans 18, 18

which are placed preferably with their sides upon the conveyer belt 12 and pass along with said conveyer belt between the pipes 16, 16, which act as guides for said cans. Extending transversely of the carrier belt 12 and above said carrier belt are pipes 19, 19, said pipes also being provided with orifices 20, 20 on their under sides to direct streams of water against the upper sides and the opposite ends of the cans 18 as they pass along therebeneath. Beneath the carrier belt 12 are two pipes 21, 21, also provided with orifices 22, 22 in their upper side to direct jets of water through the openings or orifices 13 in the belt 12 and against the under sides of the cans which pass along with the carrier belt 12 and over these pipes 21, 21. The pipes 19, 19 and 21, 21 are connected to a pipe 23 which, in turn, is connected to the pipe 14.

The cans, as they are delivered from the machine, pass from the belt 12 down an inclined chute 24.

A pipe 25 leads out of the bottom of the tank 5 to a suitable pump which is adapted to force water from the tank around into the pipe 14, so that the water may be used over and over again.

It will be seen that the pipes 16 are supported at one end by the main supply pipe 14 and at their opposite ends they are supported upon a cross-bar 26 which, in turn, is fastened to brackets 27 fast to the tank 5.

The general operation of the apparatus hereinbefore specifically described is as follows: The cans 18, 18 are placed upon the conveyer belt 12 between the pipes 16, 16 and preferably stand upon their sides. The water is forced through the pipe 14 into the pipes 16, 16 and through the pipe 23 into the pipes 19 and 21. The water issues in jets from the pipes 16, 16 against the tops and bottoms of the cans and the water also issues in jets from the pipes 19 and 21 against the upper and lower sides of the cans and against the ends of the cans. This water being directed with considerable force cleanses all foreign material from the surface of the cans as they pass along, being carried by the conveyer belt from one end of the apparatus to the other above the tank 5 until they arrive at the left hand end of said tank (Fig. 2), when they will be pushed off by the conveyer belt onto the chute 24 down which they will slide into a suitable receptacle.

It will be seen that cans of different sizes may be placed between the pipes 16 and washed and guided by said pipes as they are moved along by the conveyer belt 12; also it will be noted that if desired cans of one size may be placed between two adjacent pipes 16 and cans of another size between two other adjacent pipes 16, 16, and thus as the cans pass along the belt the sizes are kept sorted. All of one size pass down the chute 24 at one place in alinement with the spaces between two of the pipes 16, 16, all of the cans of another size passing down the chute at another place on said chute in alinement with another space between two of the pipes 16, 16, and said cans may then pass into separate receptacles at the end of the chute, thus being kept separate.

It will be noted that the pipes 16 are not provided with orifices throughout their entire length, a portion of said pipes adjacent their opposite ends being without orifices. The object of this construction is so that when the cans first pass into the washing machine from the right hand side (Fig. 2) the water will not be directed against them so as to splash out into the room in which the machine is located, and this object is attained by the pipes not being perforated at the exit end of the machine and further by omitting the perforations in the pipes 16 adjacent the exit end thereof the water is allowed to drip off of the cans before they pass down the chute 24 and thus said cans become partly dry before issuing from the washing machine.

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

1. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of an endless belt and a plurality of stationary parallel pipes extending longitudinally of and above said belt with orifices therein adapted to direct jets of water against cans located on said belt between said pipes, said pipes adapted to guide said cans as they are carried along by said belt.

2. An apparatus for cleaning cans and the like having, in combination, a carrier for

said cans consisting of an endless perforated belt, a plurality of stationary parallel pipes constituting guides for said cans extending longitudinally of and above said carrier with orifices in the sides thereof adapted to direct jets of water against cans located on said belt between said pipes and a pipe located beneath said carrier with orifices therein adapted to direct jets of water through the orifices in said belt between said parallel pipes and against cans on the upper face of said belt between said guide pipes.

3. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of a perforated endless belt, a plurality of stationary parallel pipes constituting guides for said cans extending longitudinally of and above said carrier with orifices in the sides thereof adapted to direct jets of water against cans located on said belt between said pipes, pipes located above and beneath said belt and extending transversely thereof, said pipes having orifices therein adapted to direct jets of water through the orifices in said belt between said parallel pipes and against cans on the upper face of said belt between said guide pipes.

4. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of an endless belt, a main supply pipe extending transversely of said belt beyond one end thereof, a series of stationary pipes fast to said main supply pipe extending longitudinally of said belt, said pipes provided with orifices in their sides through which jets of water may be directed against cans located on said belt between said pipes, said pipes adapted to guide said cans as they are carried along by said belt, and a chute adjacent to one end of said belt extending downwardly at an angle therefrom beneath said main supply pipe.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANCIS D. CLEVELAND.

Witnesses:

LOUIS A. JONES,
CHARLES S. GOODING.