

No. 668,490.

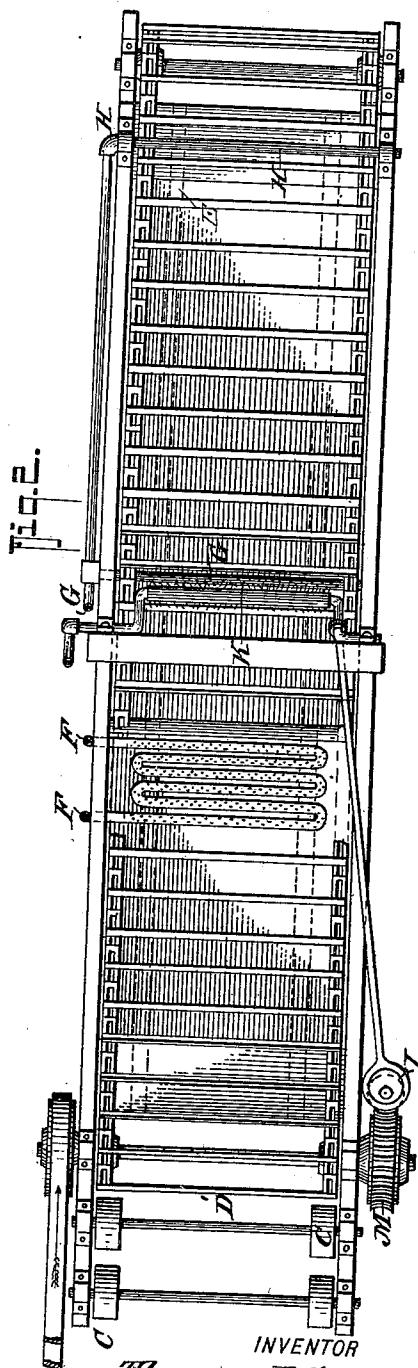
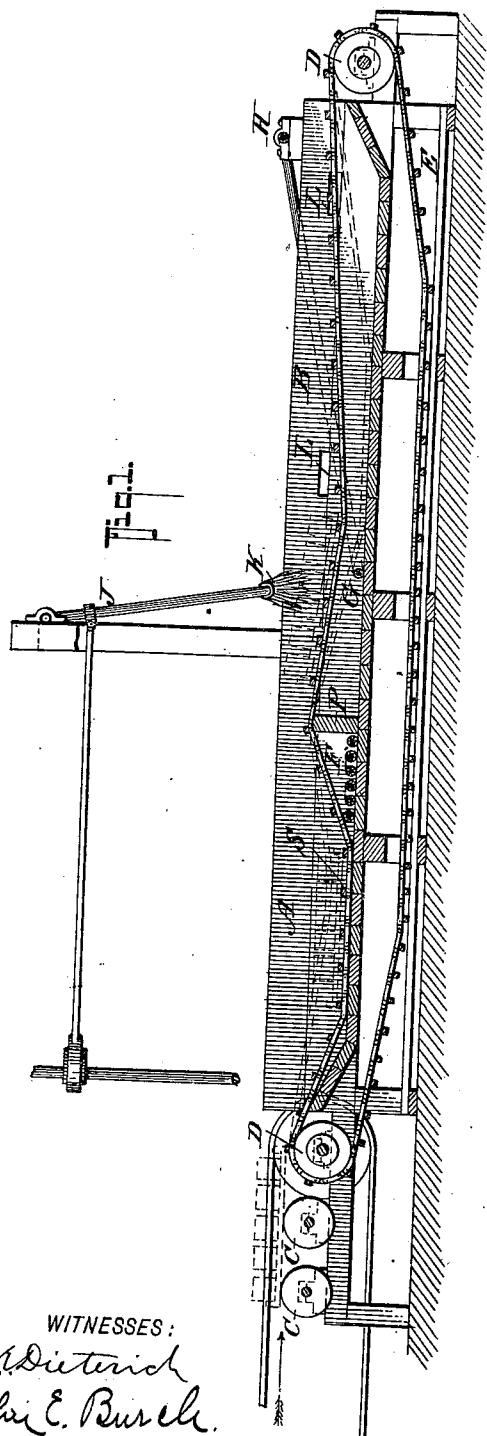
Patented Feb. 19, 1901.

T. J. COSENS.

## **MACHINE FOR WASHING FILLED CANS**

(Application filed Oct. 30, 1900.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MACHINE FOR WASHING FILLED CANS.

SPECIFICATION forming part of Letters Patent No. 668,490, dated February 19, 1901.

Application filed October 30, 1900. Serial No. 34,922. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS JAMES COSENS, a citizen of the Dominion of Canada, residing at New Westminster, in the Province of British Columbia, Canada, have invented a new and useful Machine for Washing Filled Cans, of which the following is a specification.

My invention relates to improvements in washing cans wherein have been put up fish, &c., whereby the cans in the trays as they come from the cooking-retorts are passed continuously first through a bath of hot lye and are thereafter rubbed and sprayed while passing through a bath of clean water; and my objects have been to make such a cleaning a continuous process and to dispense with handling and attendants. I attain these objects by means of the mechanism illustrated in the following drawings, in which—

Figure 1 is a longitudinal section of my machine, and Fig. 2 is a plan of the same.

My machine consists of a long shallow trough divided into two parts A and B by a cross-partition P, through which passes a conveyor formed of slats attached to two slack sprocket-chains at either side of the trough and passing at their ends over the sprocket-wheels D. In the first of these divisions A is a strong solution of lye, kept hot by the steam-pipe coil F, while B is a wash-bath of clean water provided with long shallow overflows L L, through which any scum flows, while spray-pipes G and H across the width of the bath deliver sprays of cold water on the bottoms and tops of the cans, respectively, as they pass through.

Across the width of the bath and a little in advance of the partition P is a light swinging rectangular frame J, made of piping. The cross member of the frame is perforated on its under side across the width of the bath and has a swab or brush attached to it. Water is admitted to this tubular frame through a continuation of the top or pivot member of it, and a swinging motion is imparted to it by means of a connection to an eccentric I on the vertical shaft which drives the sprocket-wheels of the conveyor by means of a worm and worm-wheel M.

O C are receiving-rollers on which the trays containing the cans are placed for delivery into the machine.

E E are bearers which support the return side of the chains.

In the operation of my machine the trays containing the cans to be washed are placed on the delivery-rolls C C and are pushed into the machine until engaged by the cross-slats of the traveling chains which carry them forward, and their weight depresses the slack chain and allows them to be immersed into the bath of hot lye in A. In the further forward movement they are carried up over the partition P and their tops are washed by the swinging swab K, which has the water-service sprayed through it. As the trays of cans pass on they are similarly depressed into the clean-water bath B. Their under sides are washed by the spray of water from the perforated pipe G, while on their exit from the end of this bath they receive a final spraying from above by the perforated pipe H.

Having now particularly described my invention, what I claim as new, and desire to be protected in by Letters Patent of the United States, is—

1. In a machine of the class described a shallow trough or bath; a heating-coil in the bottom of such; slack sprocket-chains on each side of the inside of the bath joined with slats so as to form a conveyor; sprocket-wheels at each end of the conveyor and means whereby a continuous motion may be imparted to such sprocket wheels and chains; receiving-rollers at the entering end of such bath; a swinging tubular frame at the leaving end of the same having a perforated lower cross member carrying a swab or brush that shall sweep the tops of the cans across the whole width of the bath and means whereby water may be admitted to such tubular frame and through it to the perforated lower member, and an eccentric for engaging the swinging frame whereby an oscillating motion may be imparted to such frame, all substantially as described.

2. In a machine of the class described a long shallow trough or bath; a slack conveyor formed of sprocket-chains on each side of the bath with slats between them; a cross-pipe in the entering end of such bath below the chains, perforated on its upper side; a similar cross-pipe above the level of the chains at the opposite end of the bath, perforated on

its under side and means whereby water may be conveyed to such pipes; long shallow overflows in the side or sides of such bath, substantially as described.

5 3. In a machine of the class described a long trough or bath divided by a cross-partition into two parts, one smaller than the other; slack sprocket-chains on each side of the inside of the bath passing over the sprocket-wheels at each extreme end thereof, the upper sides of which are above the level of the ends and partition; slats connecting such chains so as to form a carrier or conveyer and means by which a continuous motion, through the smaller bath to the larger, may be imparted to such chains; a heating-coil in the bottom of the smaller division; a cross-pipe perforated on its upper side in the end of the larger bath near the partition below the level of the chains; a similar pipe perforated on its under side at the other end of the same bath above the level of the chains; long shallow overflows in the sides of the same bath just below the level of the partition; a swinging tubular frame, having a perforated lower cross member and means whereby water may be admitted to such, suitably suspended over the entering end of the second bath; at its lower end a swab or brush which will sweep the tops of the cans when on the conveyer-chains; means whereby an oscillating motion may be imparted to such frame, and receiving-rollers at the entering end, all substantially as described.

30 35 4. A machine for the purposes described, comprising a divided trough one part of which is adapted to hold a solution of lye, the other

part water, the latter trough portion having overflows an endless conveyer, having two slack portions, one of which immerses in the lye solution and the other in the water, and means for washing the lye off the cans as they pass into the water-compartment, said means including a brushing water-spray, as set forth.

5. The combination with the trough, having a partition P, which divides it into two compartments, an endless conveyer having a slack portion for each compartment, means for feeding the cans onto one end of the conveyer, and the conveyer spray-pipes held within the water-holding compartment to discharge against the cans, and means for keeping the solution in the first compartment hot, substantially as shown and for the purposes 45 described.

6. In a machine for the purposes set forth, a lye-holding trough and a water washing-fluid trough, means for conveying the cans through the lye-holding trough; of an endless 60 conveyer, said conveyer being constructed to first carry the cans down through the lye solution, then up out of the said solution, then down through the washing fluid, and then discharging the washed cans, substantially as 65 shown and for the purposes described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS JAMES COSENS.

Witnesses:

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