No. 676,070. Patented June 11, 1901.

E. MANULA.

CAN COOLING MACHINE.

(Application filed Mar. 26, 1901.)

(No Model.)

Fig. 1.

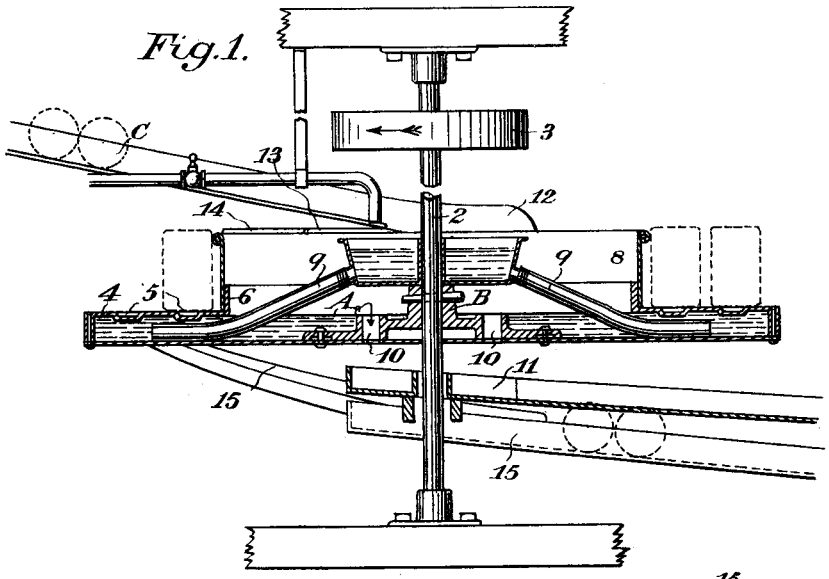
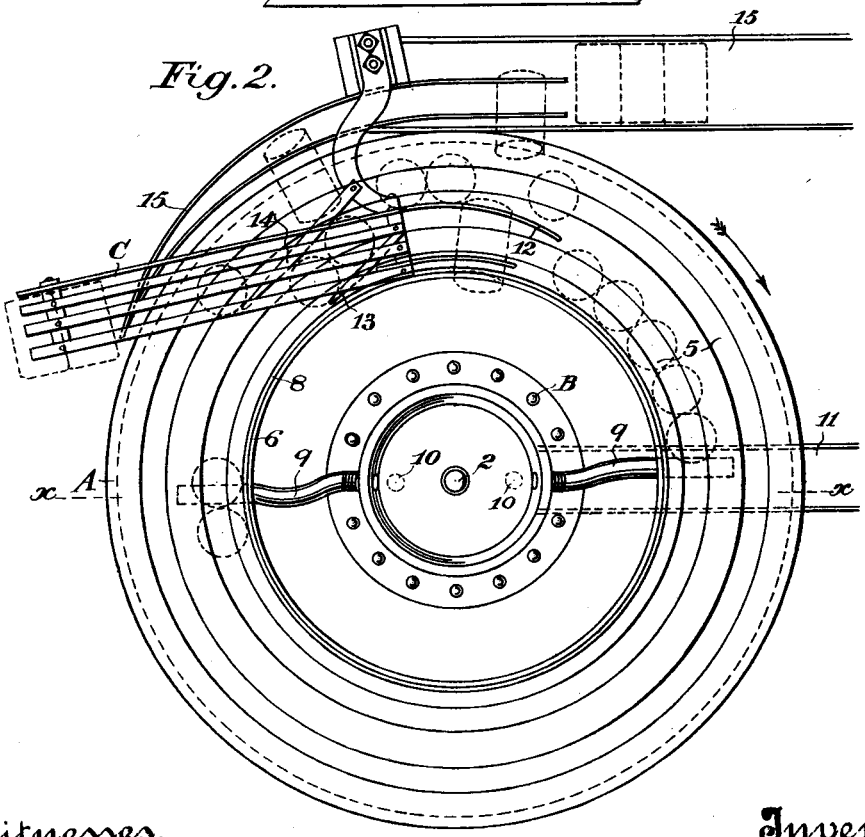


Fig. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

ERIK MANULA, OF ASTORIA, OREGON.

CAN-COOLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 676,070, dated June 11, 1901.

Application filed March 26, 1901. Serial No. 52,917. (No model.)

To all whom it may concern:

Be it known that I, ERIK MANULA, a citizen of the United States, residing at Astoria, county of Clatsop, State of Oregon, have invented an Improvement in Can-Cooling Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in machines for cooling cans after they have come from the soldering-machine.

It consists, essentially, of a revoluble reservoir having an annular cooling platform or table upon which the cans are delivered automatically in upright position, guides by which the cans are moved outwardly on this table in the course of the revolution of the latter, and means for delivering water to and from the reservoir, and of details more fully to be hereinafter set forth, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section of my invention, taken on the line *x x* of Fig. 2. Fig. 2 is a plan.

A represents an annular reservoir having a hub portion B, through which the shaft 2 passes and to which latter the hub is suitably secured. A driving-pulley 3 communicates motion to this shaft.

4 is an annular platform or table upon the reservoir. This table is provided with grooves or cooling-channels 5.

6 is an upwardly-projecting flange on the inner edge of the table. A ring 8 of a width approximately the height of a can is slipped over this flange and rests upon the table. It is thus easily replaceable at any time by rings varying in size according to the heights of the cans that are to be run through the machine.

The water-space in the reservoir is ordinarily about one and one-half inches deep. Water is admitted through the inlet-pipes 9 and is discharged through openings 10 into the trough 11. The admission-pipes terminate, preferably, beneath the table, as shown, so that the cans receive the fullest benefit of the cold water.

The cans are received directly from the soldering-machine into a chute C, by which they are fed into the cooling-machine. As the cans come upon this chute they lie in a horizontal position, and from this they are changed to a vertical position by means of the ring 8 and the peculiar construction of the chute. The lower portion of the chute is formed or provided with a raised outer guide-wall portion 12, serving to keep the cans from running down the chute and off of the platform. As the can enters the machine one end rolls upon the upper edge of the ring 8 and the other end rests on the chute. The incline of the latter brings this end of the can lower continually, and by the time the can reaches the end of the chute it is in an upright position on the platform or cooling-table 4 and over the inner groove 5. The revolution of the table brings the can against the fixed guide 13, by which the can is advanced outwardly and over the second groove. Here the can remains till the next revolution of the table brings it against a second and similar guide 14, by which it is ejected into the discharge-trough 15. Thus two rows of cans are continually supported on the table, and their stay thereon is long enough to insure their thorough cooling. While it is manifest that the width of this table may be increased and the number of guides multiplied, if desired, without any alteration of principle, I have found the form shown to be sufficient for all practical purposes.

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

1. The combination in a can-cooling machine of a reservoir, an annular can-supporting platform thereon, means upon which the cans are received in a horizontal position and then turned and delivered in upright position on the platform, and means whereby the cans are discharged from the platform.

2. The combination in a can-cooling machine of a revoluble reservoir, a can-supporting platform thereon and revoluble therewith, can-feeding devices for receiving the cans in a horizontal position and then delivering said cans on the platform in upright position, and means for discharging the cooled cans.

3. The combination in a can-cooling machine of a revoluble reservoir, an annular platform thereon, inlet and outlet passages in said reservoir, a chute upon which the cans in horizontal position are received, an annu-

lar guide with which one end of an entering can upon the chute engages and by which it is tilted into a vertical position and means for for discharging the cans from the platform.

4. The combination in a can-cooling machine of a revoluble reservoir, means for admitting and discharging water continuously to and from this reservoir, a platform upon said reservoir, means for delivering cans upon this platform and guides whereby cans are moved outwardly upon this platform, by consecutive revolutions of the reservoir and platform.

5. The combination in a can-cooling machine of a revoluble reservoir, an annular platform thereon, a flange on the inner edge of this platform, a ring adapted to fit over said flange, a chute upon which cans to be cooled are received in a horizontal position, said cans adapted to have one end engage with the upper edge of said ring as they roll down the chute whereby they are turned into a vertical position and means by which the cans are moved outwardly upon the platform by consecutive revolutions of the reservoir and platform.

6. The combination of a can-cooling machine, of a revoluble can-support, an upward annular projection thereon, a ring fitting over said projection, a chute upon which cans in a horizontal position are received, said chute having its bottom portion curved approximately concentrically with said ring, the cans adapted to have one end engage with the upper edge of said ring as they roll down the chute whereby they are turned into a vertical position upon the support, and means whereby the cans are moved outwardly upon said support a certain distance by each consecutive revolution of the support.

In witness whereof I have hereunto set my hand.

ERIK MANULA.

Witnesses:
J. R. A. BENNETT,
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