J. G. HODGSON.

APPARATUS FOR SPREADING LACQUER OVER THE INTERIOR WALLS OF CANS.

APPLICATION FILED MAY 5, 1913.

1,227,618.

Patented May 29, 1917.

2 SHEETS—SHEET 1.

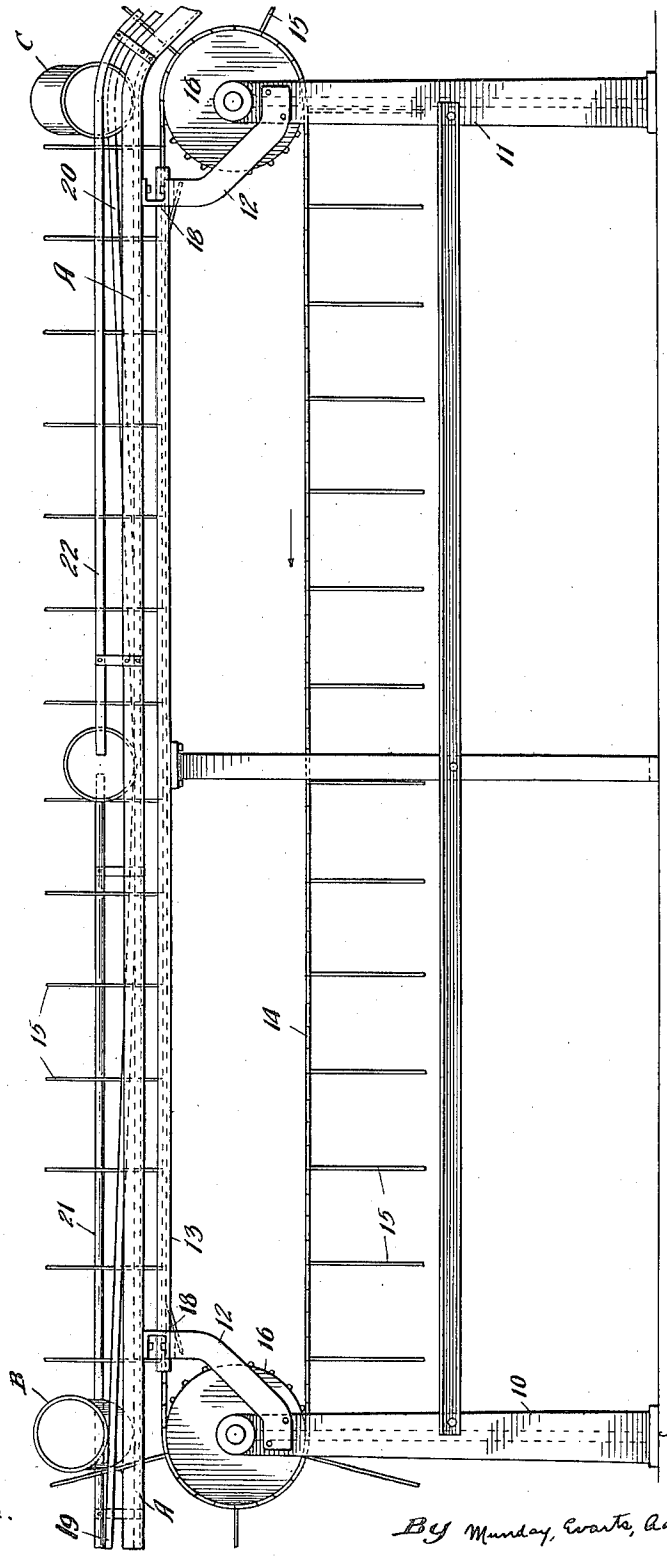


Fig. 1

Witnesses:

Wm. Geiger

Esther Abrams.

Inventor:

John G. Hodgson

By Munday, Evarts, Adcock & Clarke

Attys.

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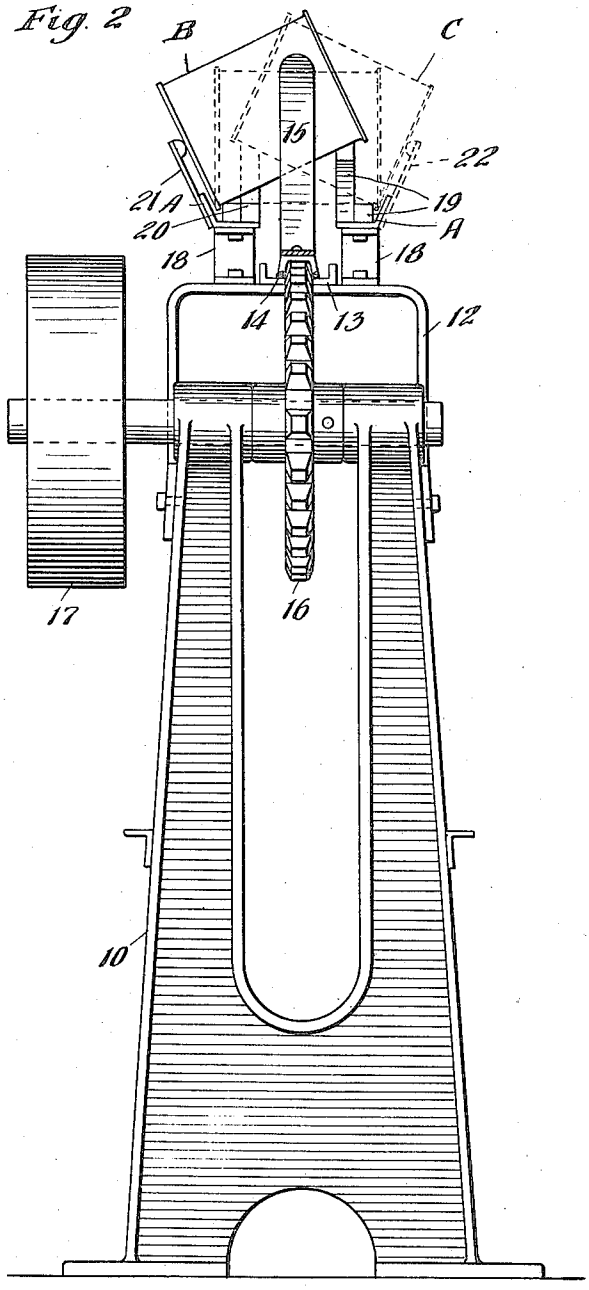
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2 SHEETS—SHEET 2.

Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN G. HODGSON, OF MAYWOOD, ILLINOIS, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

APPARATUS FOR SPREADING LACQUER OVER THE INTERIOR WALLS OF CANS.

1,227,618. Specification of Letters Patent. Patented May 29, 1917.

Application filed May 5, 1913. Serial No. 765,571.

To all whom it may concern:

Be it known that I, JOHN G. HODGSON, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Apparatus for Spreading Lacquer Over the Interior Walls of Cans, of which the following is a specification.

This invention relates to improvements in apparatus for spreading or distributing lacquer over the interior walls of cans.

An object of the invention is to provide suitable apparatus for distributing or spreading lacquer or other equivalent coating material over the interior walls of sheet metal cans or other forms of container vessels which avoids the use of swabs, brushes or spraying devices, and which is composed of few parts simply arranged.

Another object of the invention is to provide a coating machine or apparatus which will simultaneously rotate the container vessel and tilt the same to spread the coating material over the interior walls of the vessel.

The invention furthermore consists in the parts and devices and in the novel combinations of the parts and devices as herein shown, described or claimed.

In the drawings forming a part of this specification, Figure 1 is a side elevation of an apparatus embodying my improvements; and Fig. 2 is an enlarged end elevation of the structure shown in Fig. 1, showing in dotted lines several positions assumed by the cans during the passage of the latter over the track.

In said drawings the track A is shown as supported by suitable upright standards 10 and 11, the latter having mounted thereon brackets 12, to which are secured the ends of the channel shaped table 13 over which runs the endless sprocket or link chain or conveyer 14, the latter being provided with a plurality of suitably spaced propelling arms or flights 15. The chain or conveyer 14 is mounted on and is continuously moved by a pair of sprocket wheels 16, one of the latter being driven from any suitable source of power (not shown) as by means of the pulley 17.

The track A is directly secured to castings 18, the latter being in turn secured to the brackets 12. As shown, the track A at the left hand end of Fig. 1 has one rail 19 elevated above the opposite rail 20, the rail 19 sloping gradually until it becomes level with the rail 20 at about the center of the track and from there on to the end of the track remains horizontal while the rail 20 is gradually elevated above the rail 19 as shown in Fig. 1. The cans are first placed on the track as shown at B in Fig. 1 and are propelled therealong by means of the flights 15, and, to keep the cans in proper position on the track, suitable guards 21 and 22 are provided. The said flights are as shown, or of equivalent design, suitable to maintain an engagement with the cans while they are being tilted and slid from side to side.

The apparatus is more particularly designed for carrying out the process of coating the interior walls of cans as described in Patent No. 1,196,155, granted Aug. 29, 1916, on the application of Franklin Rudolph and myself, the process consisting of first depositing a measured or predetermined quantity of lacquer or other coating material in the interior of the cans, after which the cans are placed upon the track in a tilted position as shown at B, Fig. 1, the cans being then rolled or rotated along the track and simultaneously with the rotation, tilted from the position shown at B to that shown at C in Fig. 1 in which the open end of the can is lowered to a position below the closed end.

From the preceding description it will be seen that the machine or apparatus is so arranged that the cans are rotated about their longitudinal axis during the passage over the track and on account of the gradual changing inclination of the track, the vessels are gradually tilted or rotated about another axis, substantially transverse to the longitudinal axis of rotation.

Although I have herein shown and described what I now consider the preferred embodiment of my invention, it will be understood that various changes and modifications may be made in the parts and arrangements thereof without departing from the spirit of the invention, and all such changes and modifications are contemplated as come within the scope of the claims appended hereto.

I claim:

1. A machine for spreading a coating of lacquer or the like over the interior walls of cans comprising, in combination: a conveyer having upright flights for advancing suc-

cessive cans and adapted to rotate the same, the can being adapted to slide endwise and vertically on said flights as may be required; and means for tilting the can simultaneously with the rotation thereof.

2. A machine for spreading a coating of lacquer or the like over the interior walls of cans comprising, in combination: a supporting track at one end of which one side is higher than the other and at the other end of which the opposite side is higher than the first named side; and a conveyer having narrow central flights, arranged to be free from engagement with the end flanges of the cans, for rolling cans along said track; substantially as specified.

3. A machine for spreading a coating of lacquer or the like over the interior walls of cans comprising, in combination: a track having two rails, each rail having an inclined portion and a horizontal portion, the inclined portions being arranged alongside the horizontal portions; a conveyer having a plurality of flights thereon adapted to engage and roll cans along said track, and end guards for engaging the end surfaces of the cams, against which guards the cans slide longitudinally as they are conveyed; substantially as specified.

4. A machine for spreading a coating of lacquer or the like over the interior walls of flanged cans comprising, in combination: a supporting track of gradually changing inclinations; a continuously movable conveyer having a plurality of flights for propelling and rolling cans along said track; and guards alongside and parallel with the depressed portions of said track engaging the end faces of the depressed ends of the cans; substantially as specified.

5. In a can coating machine, an endless chain conveyer having upright flights thereon extending up to the normal level of the centers of the cans adapted to engage the sides of cans and roll and propel them with the conveyer, on which flights the bodies of the cans slide vertically and from side to side during their travel, and means which cooperate with said conveyer whereby the ends of the cans are alternately elevated while the cans are being so advanced and rolled.

6. A machine for spreading lacquer or the like over the interior walls of cans, comprising, in combination: a conveyer having flights for engaging the rear sides of successive cans and for propelling the same, on which flights the cans are adapted to slide endwise and vertically as may be required; and means for tilting the ends of a can alternately.

7. A machine for spreading lacquer or the like over the interior walls of cans, comprising, in combination: a conveyer having flights for engaging the rear sides of successive cans and for propelling the same, on which flights the cans are adapted to slide endwise and vertically as may be required; and means for tilting the ends of a can alternately; said machine comprising means for holding the cans from moving endwise away from their positions in front of their propelling flights.

JOHN G. HODGSON.

Witnesses:
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