

A. Y. SEELY.
 CLEANING MECHANISM FOR CAN LACQUERING MACHINES.
 APPLICATION FILED JAN. 22, 1910.

999,186.

Patented July 25, 1911.

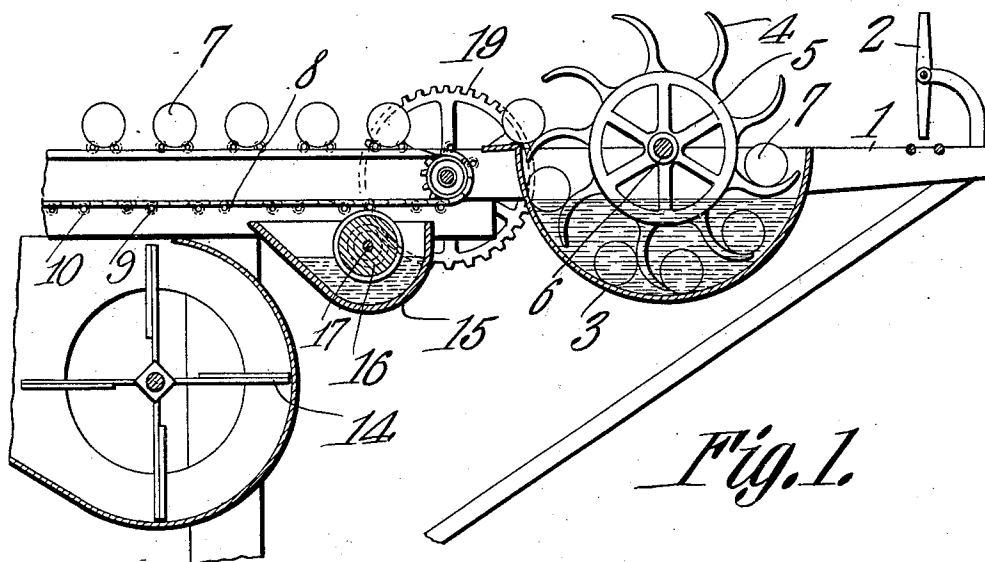


Fig. 1.

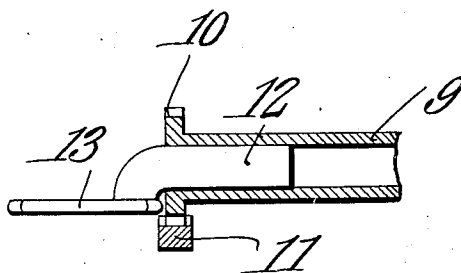


Fig. 2.

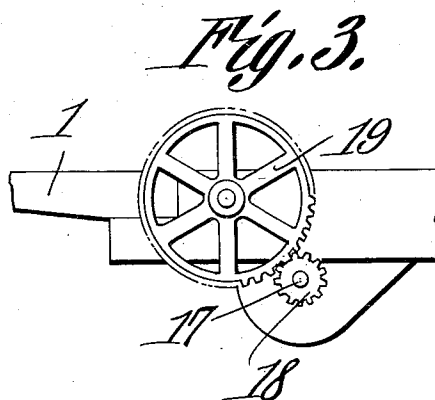


Fig. 3.

Witnesses

E. W. Haiman
F. T. Chapman

Inventor
Arthur Y. Seely.

By *C. A. Snow & Co.*
 Attorneys

UNITED STATES PATENT OFFICE.

ARTHUR Y. SEELY, OF BLAINE, WASHINGTON.

CLEANING MECHANISM FOR CAN-LACQUERING MACHINES.

999,186.

Specification of Letters Patent. Patented July 25, 1911.

Original application filed November 21, 1908, Serial No. 463,831. Divided and this application filed January 22, 1910. Serial No. 539,452.

To all whom it may concern:

Be it known that I, ARTHUR Y. SEELY, a citizen of the United States, residing at Blaine, in the county of Whatcom and State of Washington, have invented a new and useful Cleaning Mechanism for Can-Lacquer-
ing Machines, of which the following is a specification.

This invention has reference to cleaning mechanism for can lacquering machines, having special reference to that type of can lacquering machines in which the cans are carried through a bath of lacquer and then are conveyed away on an endless belt so constructed as to continuously roll the cans around their axes in order to present all the surfaces of the can to the action of air.

It is the object of the present invention to provide a means for removing excess lacquer from the can-supporting members of the supporting belt so as to prevent clogging of the machine and the sticking of lacquered cans to the conveyer. For this purpose there is provided, in operative relation to the return run of the belt and near the receiving end thereof, a cleaning roller constantly dipping in and so maintained wet with a solvent of lacquer, and this roller is caused to rotate against can-supporting rollers constituting members of the conveyer belt so that the rollers are subjected about their entire surfaces to the action of the solvent under a rubbing action of the cleaning roller and are thereby thoroughly cleansed from any adhering lacquer.

The invention will be best understood from a consideration of the following detail description taken in connection with the accompanying drawings forming a part of this specification, in which drawings—

Figure 1 is a longitudinal section of a can lacquering machine embodying the present invention and showing a sufficient portion of the said machine for an understanding of the present invention. Fig. 2 is a cross section of a portion of the conveyer belt and supporting co-acting members. Fig. 3 is a detail view showing the manner of driving the cleaning roller.

Referring to the drawings, there is shown a supporting frame 1 for the several members of the can lacquering machine. At one end of the machine there is located a can loading mechanism 2 which is shown and described in an application Serial No. 463,831 filed by me on November 21, 1908 for

a machine for lacquering cans, of which said application the present application is a division.

The feeding mechanism forms no part of the present invention and therefore need not be described in detail herein.

In the path of cans leaving the feeding mechanism 2 is a can lacquering trough 3 designed to contain a supply of lacquer in solution. Dipping in this trough are blades 4 carried by a drum 5 mounted on a shaft 6 which latter is journaled in the longitudinal axis about which the curvature of the trough 3 is described. The blades 4 are suitably curved to receive cans 7 and lower them into the lacquer solution in the trough 3 and to then elevate the cans out of the other side of the trough from that at which they entered and to then deliver these cans onto a conveyer belt 8, which belt has cross members or slats in the form of rollers 9 arranged in pairs, the two members of each pair being so disposed relative one to the other as to support a can with its longitudinal axis parallel to the length of the rollers 9. The rollers 9 have at the ends pinions 10 in the paths of which are racks 11 designed to engage the pinions and positively rotate the rollers. The rollers are supported upon spindles 12 entering the ends of the rollers and projecting from links 13 of link belts or sprocket chains such as are commonly employed in connection with conveyer belts. As the cans are delivered from the lacquering trough and pass to the conveyer belt and are carried by the latter toward the delivery end of the machine, the rollers 9 are positively rotated by the engagement of the pinions 10 with the racks 11 and by the progressive movement of the conveyer belt. By this means the entire surface of the can is subjected to air currents which may be produced by a suitable blower 14.

Because of the rolling action of the rollers 9 and of the cans 7 more or less lacquer is caused to adhere to the surface of the rollers 9 and there is a liability of such lacquer accumulating on the rollers 9 and ultimately clogging the machine and causing the sticking of the cans to the rollers. It is to prevent this contingency that the cleansing mechanism of the present invention is provided.

Beneath the conveyer belt but near the receiving end thereof there is located a trough

15 designed to contain a supply of a solvent
of the lacquer employed. Extending along
this trough so as to dip for a distance into
the lacquer solvent is a roller 16 having
5 suitable journal bearings in the sides of the
machine or in the ends of the trough and
the spindle 17 of the roller projects beyond
the trough where it carries a pinion 18,
which pinion is in mesh with a gear wheel
10 19 on the drive shaft of the conveyer belt 8
and which drive shaft receives power from
any suitable source. The rollers 16 may be
made of wood or other suitable material and
be provided with a covering of some suit-
15 able absorbent material, a strip of carpet be-
ing found to be of practical value owing to
the low cost and the facility with which it
may be removed and renewed when neces-
sary. The can revolving and carrying roll-
20 ers 9 are arranged to engage with the clean-
ing roller 16 as these can carrying rollers
turn upward toward the dipping tank. The
cleaning roller 16 is positively driven so
that the rollers 9 will be turned about their
25 longitudinal axes and all portions of their
peripheries will be thereby brought into con-
tact with the cleaner. The rollers are thus
kept free from accumulations of lacquer and
operate on the cans without sticking thereto.
30 Various solvents may be used, such as
gasolene or benzin, or any suitable solvent
for the lacquer employed may be used.
What is claimed is:

1. In a can lacquering machine, the com-
bination with a can conveyer including can 37
supporting rollers, of a solvent containing
tank below the conveyer, a cleaning roller
extending into the solvent and projecting
into the path of the rollers of the conveyer,
said rollers being shiftable successively into 40
contact with the cleaning roller, and means
for rotating the cleaning roller to elevate
portions of the solvent into direct contact
with the conveyer rollers and to rotate said
conveyer rollers during the application of 45
the solvent thereto.

2. In a can lacquering machine, a can con-
veyer including rollers mounted for rota-
tion and constituting can engaging devices,
a solvent containing tank, solvent absorbing 50
means within the tank and adapted to be en-
gaged by the rollers successively during the
movement of the conveyer, and mechanism
for rotating said absorbent means to apply
a solvent to the rollers and to rotate said 55
rollers during the application of the solvent
and during the movement of the rollers
across said means.

In testimony that I claim the foregoing
as my own, I have hereto affixed my signa- 60
ture in the presence of two witnesses.

ARTHUR Y. SEELY.

Witnesses:

J. A. NEHER,

G. B. JENISON.