

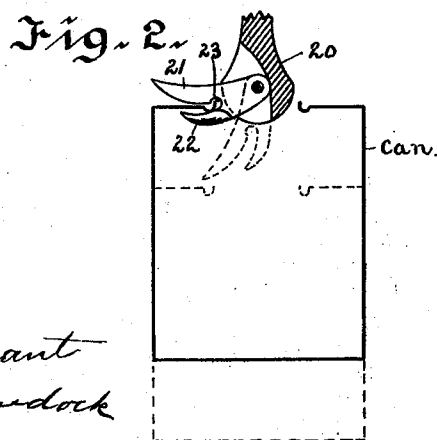
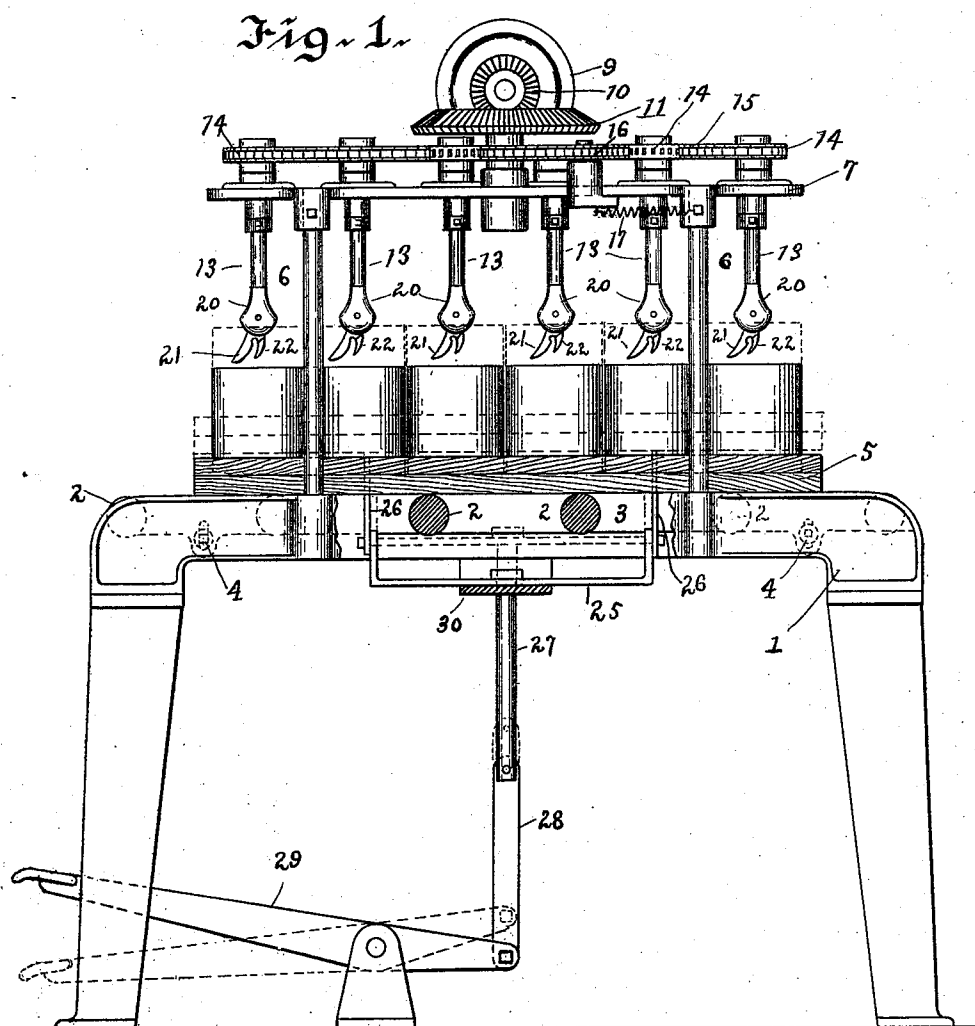
(No Model.)

2 Sheets—Sheet 1.

C. A. BURT.
MACHINE FOR CLEANING CAN TOPS.

No. 528,462.

Patented Oct. 30, 1894.



Witnesses
Thomas Durant
Wallace Furdock

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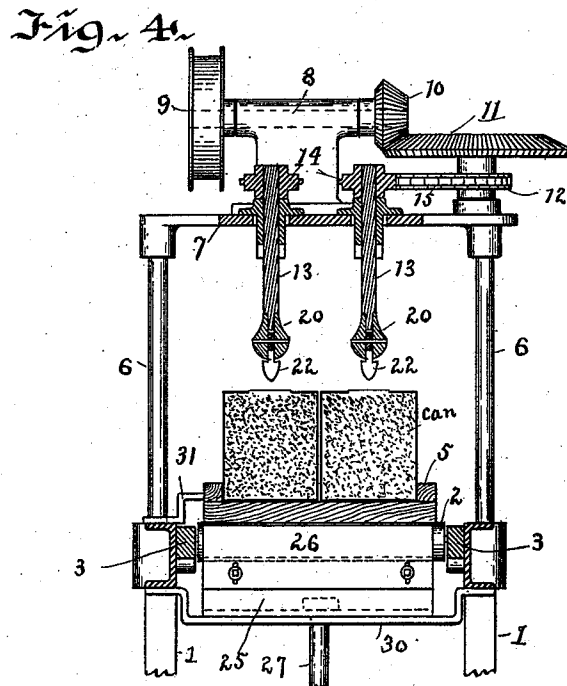
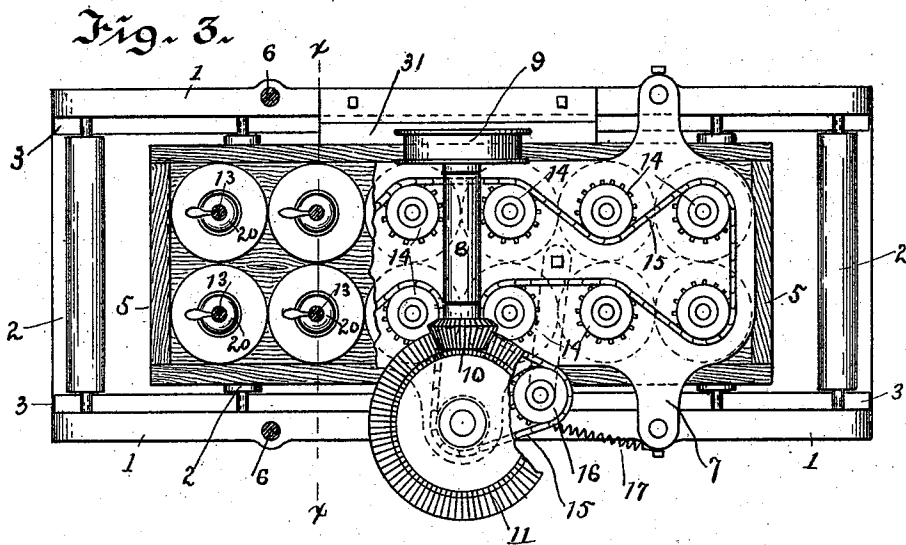
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MACHINE FOR CLEANING CAN TOPS.

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Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES A. BURT, OF ROCHESTER, NEW YORK.

MACHINE FOR CLEANING CAN-TOPS.

SPECIFICATION forming part of Letters Patent No. 528,462, dated October 30, 1894.

Application filed January 12, 1894. Serial No. 496,577. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BURT, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Machines for Cleaning Can-Tops; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to that class of machines used for cleaning the under side of the tops of cans filled with fruit or vegetables, preparatory to securing the caps thereon, and has for its object to improve the construction particularly of the machine shown in my patent, No. 514,702, dated February 14, 1894, and to this end it consists in certain improvements in construction and combinations of parts, all as will be hereinafter fully described and the novel features pointed out in the claims at the end of this specification.

In the accompanying drawings:—Figure 1 is a side elevation of a machine constructed in accordance with my invention, the central portion being shown in section in order to show the tray-lifting devices. Fig. 2 is a detail sectional view showing the construction and operation of the scraping-arm and displacing-knob; Fig. 3, a plan view with a portion of the top broken away; Fig. 4, a sectional view on the line $x-x$ of Fig. 3.

Similar reference numerals in the several figures indicate similar parts.

1 indicates the supporting frame of the machine provided with suitable legs and between the sides of this frame are arranged a series of tray-supporting rollers 2 journaled loosely in the side bars 3, which latter are secured adjustably to the sides of the main frame by bolts and slotted connections, as shown in dotted lines at 4, Fig. 1; from which it will be seen that the inner frame carrying the rollers can be adjusted slightly vertically, when desired, said rollers constituting a support for a tray 5 in which the cans containing fruit or other material are placed, so that the trays with their contents may be moved into and out of the machine easily. Secured to the sides of the supporting frame are standards 6 upon the upper ends of which is

adjustably secured a plate or casting 7 carrying the operating parts of the machine; said plate having mounted upon it a tubular bearing 8 in which is journaled a shaft having at one end a driving pulley 9 and at the other end a beveled gear 10 meshing with a corresponding gear 11 located on a vertical stud and provided with a sprocket wheel 12. Secured in vertical bearings in the top plate 7 are a number of spindles 13, each provided at its upper end with a sprocket wheel 14 with which engages a chain 15 driven from the sprocket 12 and held under tension by a movable sprocket 16 operated by a tightening spring 17, as shown in Fig. 3. Mounted upon the lower ends of the vertical spindles 13 are displacing knobs 20 adapted to enter the mouths of the cans to be operated upon and pivoted within said knobs are the laterally extensible scrapers, each provided with two approximately parallel arms 21 and 22, the former being preferably the longer and adapted, when the spindles are in normal position, as in Fig. 1, to project slightly below the arm or spoon 22, a slight space being left between the two arms and preferably a recess 23 formed in the arm 21 for accommodating the flange around the orifice in the can.

It will be understood that when power is applied to the pulley, the spindles carrying the scrapers will be rotated and if the displacing knobs are caused to enter the can, as shown in dotted and full lines Fig. 2, the arm 21 of the scraper will engage the can top and as the knobs continue their movement the scraper will be moved to the position shown in full lines with the arm or spoon portion 22 in engagement with the under side of the can top, whereby the portion of the contents thereof sticking to the top will be removed by the rotation of the spindle, thereby preventing the solder from being chilled when the top or cap of the can is soldered in position.

By thus providing a scraper engaging the top of the can for causing its lateral projection instead of employing a separate ring for the purpose, as in my beforementioned application, I not only simplify the construction, but diminish the friction and therefore the amount of power required to run the machine, but as the surfaces with which the

scraper arms co-operate to cause their lateral projection—i. e.—the tops of the cans—is constantly changing, there is no liability of the wear of the parts being such as to interfere with the proper operation of the machine.

To further simplify the construction, instead of displacing the frame carrying the movable spindles in order to have them enter the can tops, I provide means for raising the tray in which the cans are supported and for this purpose provide a movable plate or frame 25 arranged beneath the supporting rollers 2 and having the upturned ends to which are adjustably secured plates 26 projecting between the rollers and in position to engage the bottom of the tray 5 resting upon the latter. Secured to the frame 25 is a bar 27 pivoted upon a link 28 to which in turn is connected a foot lever 29.

In normal position, the frame or plate 25 rests upon a cross bar 30 on the main frame with the ends of the plates 26 below the tops of the rollers 2, but when a tray containing cans is rolled in upon the rollers and arrested with the spindles in line with the centers of the cans (said tray being properly positioned by a guide 31 arranged at the side, shown in Figs. 3 and 4), the operator depresses the lever 29 raising the tray from off the rollers to the position shown in dotted lines Fig. 1, when the displacing plugs 20 will enter the mouths of the cans and the scraper arms be turned to the position shown in full lines Fig. 2, thereby removing any accumulation from the under side of the tops, as will be understood.

It is not absolutely essential that the arm 21 of the scraper extend below the arm 22, though it projects laterally of it, but I prefer the construction shown as it enables the arm or spoon 22 to enter the aperture and be turned gradually and to be brought and kept in close contact with the underside of the top to effectually remove any deposit thereon, and further, as the arms 21 and 22 are approximately parallel the latter will not pro-

ject very far down into the contents of the can and stir or agitate the latter unduly.

It is not intended that the arms are necessarily parallel their whole length, though this is preferred, but if they are sufficiently close together to cause the one to engage the upper side of the top of the can and the other to hug its under side closely, the objects of the invention will be accomplished.

I claim as my invention—

1. The combination with the rotary spindle, of the scraper pivoted thereon having the two arms arranged close together, one arranged to enter the orifice of a can and engage the under surface of the top and the other to engage the upper surface of the top thereof, substantially as described.

2. The combination with the rotary spindle having a displacing knob thereon, of the scraper pivoted in the knob, having two approximately parallel arms, one of them extending beyond the edge of the knob and adapted to engage the upper side of a can top, and the other adapted to enter the orifice of the can and engage the lower side thereof, substantially as described.

3. The combination with the rotary spindle, and a scraper pivoted thereon, having two arms extending approximately parallel, one of said arms being adapted to engage the top of a can, and the other to enter the aperture therein, of means for moving the spindle and can relatively toward and from each other, substantially as described.

4. The combination with the rotary spindle, and a scraper thereon having the two curved arms extending approximately parallel, one for engaging the top of a can and the other to enter the aperture thereof and engage the under surface of the top, substantially as described.

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Witnesses:

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