July 2, 1940. A. L. KRONQUEST 2,206,778

MACHINE FOR COATING FLANGED CAN BODIES

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FIG. 4.

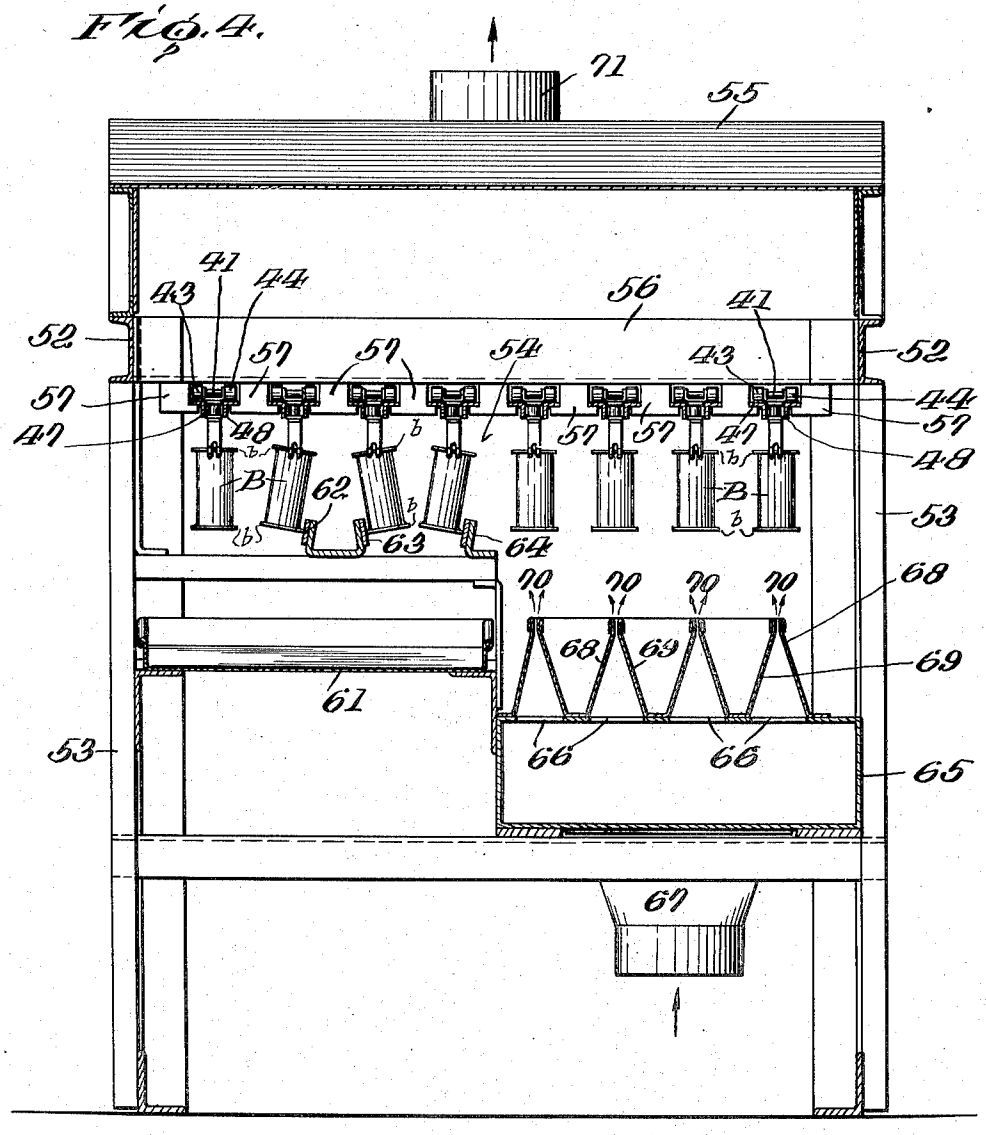
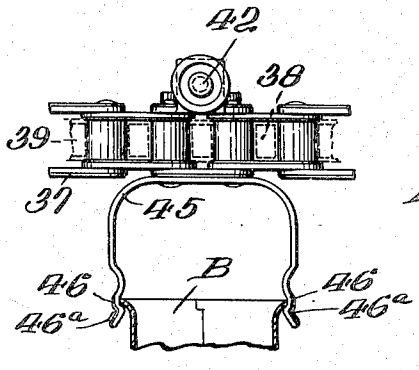


FIG. 5.



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FIG. 2.

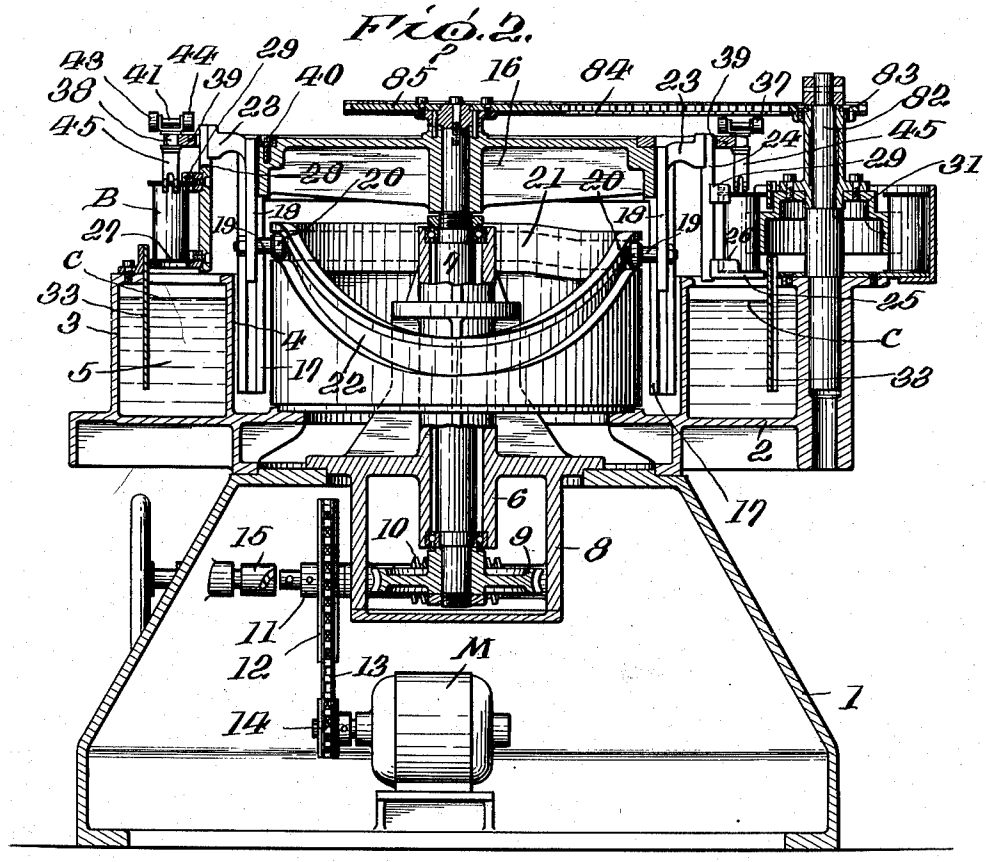
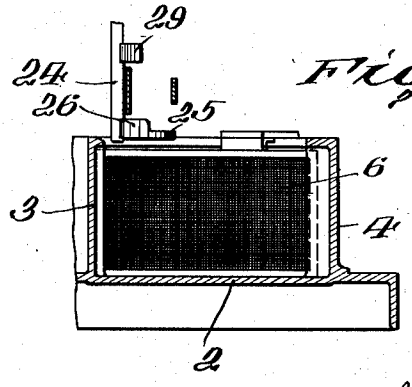


FIG. 3.



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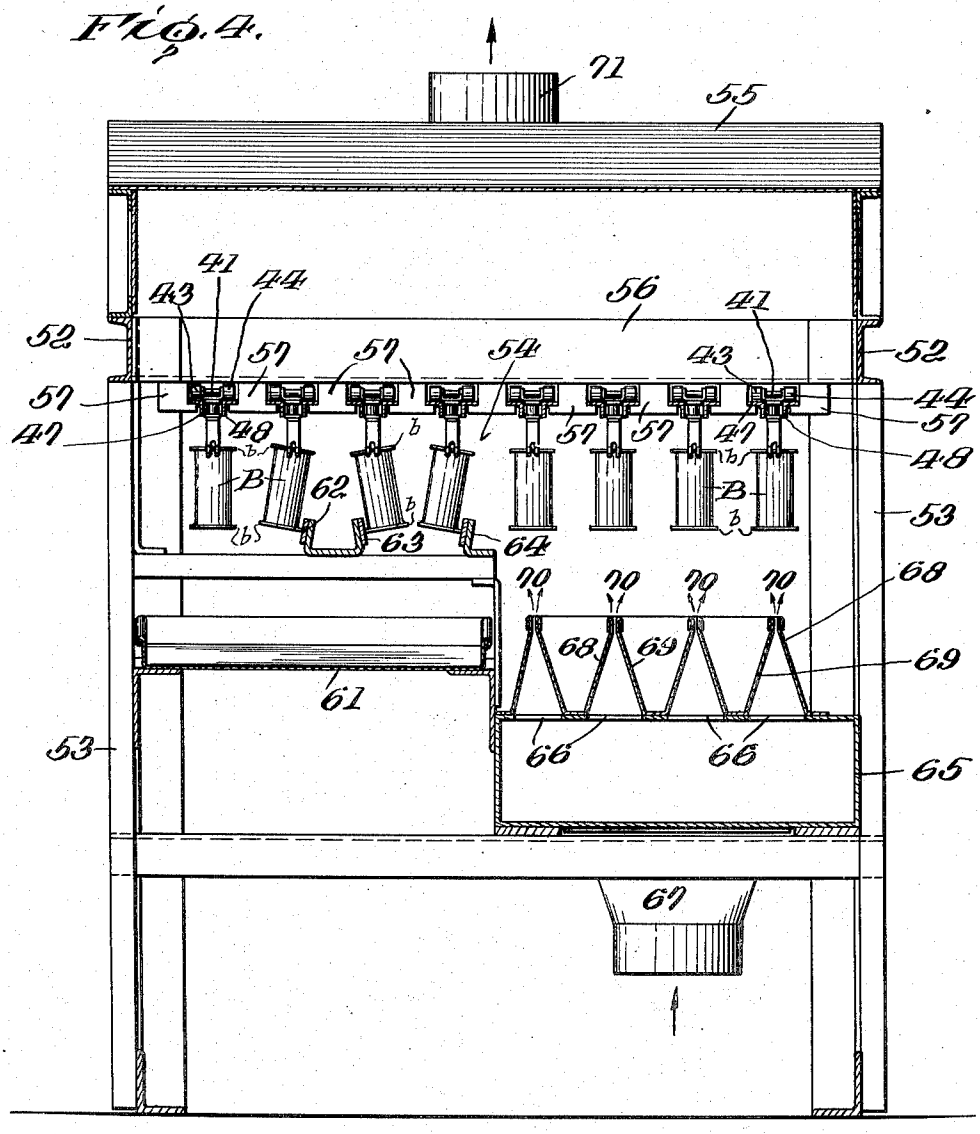
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FIG. 4.



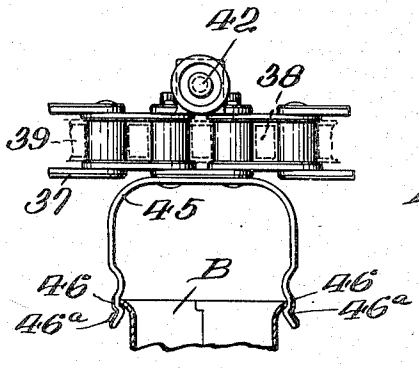


FIG. 5.

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FIG. 6.

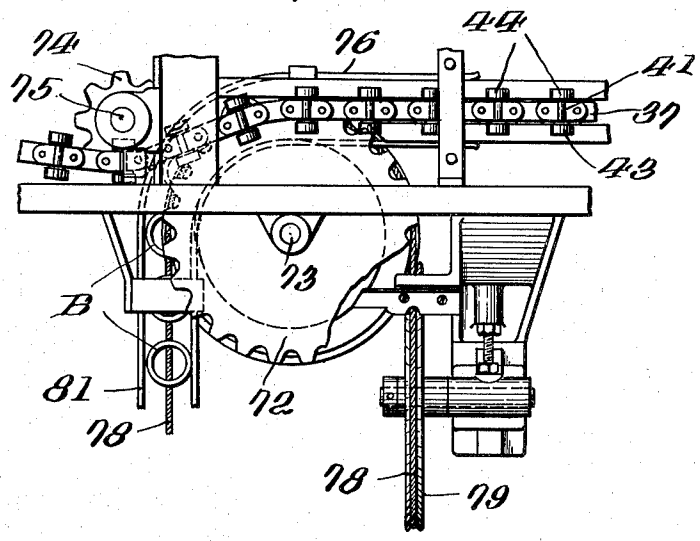
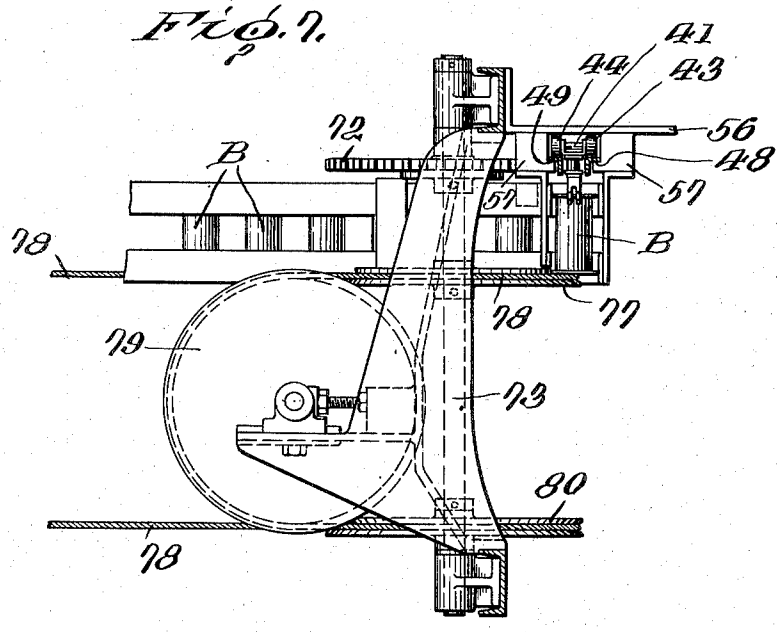


FIG. 7.



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Patented July 2, 1940 2,206,778

UNITED STATES PATENT OFFICE

2,206,778

MACHINE FOR COATING FLANGED CAN BODIES

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Application April 12, 1937, Serial No. 136,473

13 Claims. (Cl. 91—46)

The invention relates to new and useful improvements in a machine for coating flanged can bodies.

An object of the invention is to provide a machine for immersing the can bodies in succession in a bath of coating material for forming a film of coating thereon, which machine is so constructed that the flanged can bodies are passed in an endwise direction into and out of the bath.

A further object of the invention is to provide a machine of the above type wherein the flanged can bodies are received one after another by continuously traveling can body supporting devices which are moved so as to cause a can body to be immersed in the coating material, and then raised from the coating bath while said can body is maintained in a substantially vertical position so as to facilitate the passing of the coating material into and through the can body and the draining of the same therefrom.

A still further object of the invention is to provide a machine of the above type wherein a can body is supported during the immersing of the same by the flange of the can body so that the entire body portion will be brought into contact with the coating material.

A still further object of the invention is to provide a machine of the above type wherein a traveling conveyor receives the can bodies after they are immersed in the coating material and conveys the same through a combined draining and setting chamber.

A still further object of the invention is to provide a machine of the above type wherein the can body is suspended by jaws which contact with the edge portion of the upper flange of the can body only until after the coating has drained therefrom and has been sufficiently set for handling.

A still further object of the invention is to provide a machine of the above type wherein means is provided for facilitating the removal of the coating material accumulating on the upper side of the lower flange during draining, and wherein air may be caused to pass through the can body to aid in the setting of the coating.

These and other objects will in part be obvious and will in part be hereinafter more fully described.

In the drawings which show by way of illustration one embodiment of the invention—

Figure 1 is a view in plan showing a portion of the machine with parts broken away;

Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a vertical sectional view through a combined draining and setting chamber;

Fig. 5 is an enlarged detail showing a portion of the conveyor, the can supporting jaws carried thereby and the pinion associated with the turret for operating the same;

Fig. 6 is a plan view of a portion of the machine showing the take-away mechanism for removing the cans from the conveyor after the coating has been set and for conducting said can bodies to drying oven, and

Fig. 7 is a side view of the structure shown in Fig. 6, as viewed from the right.

In connection with the packaging of certain beverages, it is essential that the beverage be kept from contact with the metal of the container. This is particularly true in the packaging of beer. Many efforts have been made to provide a protecting coating for the container. When the metal is coated in the sheet with an enamel preparatory to making the body blanks, the coating sometimes becomes broken or marred during the fabrication of the body. Furthermore, when a solder bond is used for the side seam, the beverage may work into the side seam and contact with the solder and thus become clouded. Efforts have been made to spray the inner surface of the can body after the body has been shaped and seamed, but difficulty has been experienced in getting a proper coverage for the surface.

The present invention has to do with a machine wherein the can body after it is flanged and ready for the attachment of the ends thereto, is coated with an enamel by immersing the can body in the enamel. The can bodies are fed one after another on to traveling supporting devices which are moved in succession so as to lower the can body into the coating bath by an endwise movement of the can body into the bath. When the can body is raised from the bath, the coating material will drain therefrom leaving a film of the coating material covering both the inner and outer surfaces of the flanged can body. The support for the can body is constructed so as to contact with the edge portion only of the lower flange of the can body, and has an opening therethrough which permits the free flow of the coating material into and through the can body when the support is lowered. After the can body is raised from the coat-

ing bath, it is placed between yielding clamping jaws which engage the edge portion only of the upper flange of the can body. This removes the can body from the supports and the conveyor carries the can body in a circuitous path through the combined draining and setting chamber. In the draining chamber there are bars placed relative to the path of travel of the can bodies so that said bodies contact with and are tilted slightly whereby the coating material accumulating on the upper face of the lower flange is drained therefrom. After leaving these draining bars, the can bodies are conveyed through a section of the chamber where they are subjected to a current of air that passes on to and through the can bodies to assist in the setting of the coating.

Referring to the drawings, the illustrated embodiment of the invention will be described in detail. The machine includes a supporting housing 1 on which is mounted a frame 2 having an outer vertical wall 3 and an inner vertical wall 4 forming therebetween a tank 5 which is annular. This tank is filled with the coating material as indicated at C in Fig. 2, of the drawings. The tank is open at its upper end.

Mounted centrally of the tank is a vertically extending sleeve 6 carrying bearings in which is mounted a shaft 7 for vertical rotation. This sleeve 6 is carried by a housing 8 which is mounted in the main housing 1. Located in this housing 8 is a worm wheel 9. Said worm wheel is attached to the lower end of the shaft and meshes with a spiral pinion 10 on the actuating shaft. Also mounted on the actuating shaft is a hub 11 carrying a sprocket wheel 12 which is driven by a sprocket chain 13 running over a sprocket wheel 14 on the shaft of a motor M. The hub 11 is clutched to the shaft by a suitable clutch mechanism indicated diagrammatically at 15. By the above mechanism, the vertical shaft 7 is rotated continuously.

Mounted at the upper end of the shaft 7 is a turret 16. The turret carries a series of depending brackets 17, each of which is provided with guideways. A cross-head 18 is mounted on each bracket 17 and slides in the guideways thereof. Each cross-head carries a stud 19 on which is mounted a roller 20. Secured to the frame 2 is a cam sleeve 21 which is provided with a cam groove 22. The rollers 20 run in this cam groove 22. The cam is stationary, and as the shaft 7 turns carrying the turret therewith, the cross-heads will be caused to reciprocate in the guideways in the supporting brackets therefor. At the upper end of each cross-head is a radially projecting arm 23. This arm projects outwardly so as to overhang the tank containing the bath of coating material. Rigidly secured to the arm 23 and depending therefrom is a can body support which includes a vertically extending bar 24, at the lower end of which is mounted a supporting plate 25. Said supporting plate 25 is formed with an arcuate-shaped flange 26 which serves as a centering means for centering the can body on the support relative to an opening 27 through said support. This opening is practically of the same diameter as the inner diameter of the can body, which is indicated at B in the drawings. The can body is provided at each end thereof with a flange which is indicated at *b*, *b*. The opening through the support and the guide for positioning the can body are dimensioned so that the can body is supported by the edge portion of the flange.

Adjacent the upper end of the depending bar 24 is a segmental guide member 28 (see Fig. 1). This guide member 28 contacts with the upper flange of the can body and aids in the centering of the can body on the support directly over the opening therethrough. The guide member 28 is provided with a projecting lug 29 which extends over the top of the can body (see Fig. 2).

The can bodies are placed one after another on these supports 25, and as the turret rotates, the cross-head will be lowered carrying the support and the can body down into the bath. The support will move into the bath a sufficient distance so that the can body is entirely submerged in the bath. The coating material passes up through the opening in the support on which the can body rests and through the can body. It also passes up along the outer surface of the can body, so that the entire surface of the can body is subjected to the coating material. During this submerging of the can body in the coating material, the can body rests on the under side of the edge portion of the lower flange and will be raised sufficiently from contact with said support by the coating material so that the flange will be coated. The lug 29 is the means for positively forcing the can body down into the bath when the support is lowered. The can bodies to be coated are received from a runway 30 and are fed on to the can supports by a rotating timing wheel 31. This timing wheel is of the usual construction. It is provided with pockets which receive the can bodies, and the can bodies are moved by the timing wheel along the guiding rails 32 and positively placed on the supports carried by the turret while the turret is continuously rotating. There is a guide rail 33 which extends from a point where the containers are received on to the supports to a point where they are removed therefrom. This guide rail 33 is shaped concentrically about the center of rotation of the turret, and is disposed relative to the supports for the can bodies so that they will be retained in the guides carried by the traveling supporting units which receives the can bodies in succession from the timing wheel 31.

The tank is supplied with coating material from a supply pipe 34 and is maintained at a proper level for coating the cans by an overflow pipe 35. Between the pipes 34 and 35 is a screen 36 shown in detail in Fig. 3. This screen extends across the tank and serves to retain foreign material which gets into the bath. The can bodies and the supports therefor move down into the coating material while the turret is traveling, and this will set up a flow of the coating material so as to cause it to pass to a certain extent through the screen and the screen can be readily removed and cleaned whenever necessary.

Associated with the turret is an endless conveyor 37. This endless conveyor consists of a series of links which are joined so as to provide a chain that is adapted to engage the teeth 38 of a gear wheel 39. This gear wheel 39 is annular in shape and is clamped to the turret 16 by suitable clamping screws 40. The links forming the chain are arranged in pairs as shown in Fig. 5, and one of the connecting links is provided with a bearing sleeve 41 in which is mounted a stud 42, and on this stud are mounted rollers 43 and 44. Secured to the link directly beneath the rollers is a spring metal strip 45 which is U-shaped and the depending ends of the U-shaped strip form supporting jaws 46, 46 for the

can body. These jaws are shaped at 46a so as to provide a supporting shoulder for the flange of the can body.

The cam groove 22 is so shaped that the cross-head is positioned so that the can body when it is placed on the support can be passed beneath these supporting jaws 46 on the endless conveyor. The cam groove 22 is likewise shaped so as to lower the cross-head and thus move the can body down into the bath for coating, after which it is raised from the bath, and when raised from the bath, it is moved to a higher level, so that the flange b at the upper end of the can body B is forced between the jaws 46 and into clamping engagement therewith. Each jaw, as clearly shown in Fig. 2, includes spaced members, and these spaced members of the opposed jaws will hold the can body firmly centered beneath the path of travel of the endless conveyor. The endless conveyor leaves the gear wheel 39 and passes between guide rails 47, 48. The rollers contact with the upper faces of these guide rails and support the endless conveyor and the can bodies carried thereby. Thus it is that the conveyor takes the can body from the can body support and the can body support thus relieved of its can body, passes around over the bath and to the point where it receives another can body for the coating of the same. It sometimes happens that the can body is not properly seated in the supporting jaws and remains on the can body support. There is a guide rail 49 concentric with the axis of the turret which will retain the can bodies that are not taken from the supports by the endless conveyor and cause said can bodies to remain on the supports until a stripping guide 50 contacts with the can body and forcibly strips the same therefrom and delivers it from the machine through the can body guideway 51 (Fig. 1).

Associated with the means for coating the can bodies is a chamber through which the can bodies are caused to pass and in which the surplus coating material is permitted to drain from the can bodies. This chamber is also provided with the means for causing drying air to pass over and through the can bodies for aiding in setting the coating. Connected to the frame member 2 are side frame members 52, 52 which extend from one end of the machine to the other. These side members 52, 52 are supported by suitable members, two of which are indicated at 53, 53 in Fig. 4 of the drawings. Cross members and plates are secured to these frame members so as to form a chamber 54 closed by an upper member 55. Extending across from one side to the other of the chamber are cross beams 56. Mounted on the cross beams are the brackets 57, and the guide rails 47 and 48 are carried by these brackets. As noted above, these guide rails are spaced so that the rollers 43 and 44 run along the same. The guide rails are arranged in pairs and are parallel with each other. Mounted on the cross beam 58 is a bracket 59 carrying a sprocket wheel 60. As shown in Fig. 1, there are three of these brackets and sprocket wheels and the conveyor chain passes over each wheel. At the other end of the chamber there are similar brackets and sprocket wheels and the conveyor runs around these sprocket wheels which changes the direction of travel of the conveyor, and thus the can body carried by the conveyor is caused to travel in a circuitous path through this chamber 54. The left-hand half of the chamber 54, as viewed in Fig. 4, is the draining section of the chamber. The can bodies B suspended by these supporting jaws are caused to travel from one end of the chamber to the other and then pass around the sprocket wheel and back along the chamber parallel with the first path of travel. In the draining section, the can bodies pass four times from one end of the chamber to the other. Extending from one end of the chamber to the other is a pan 61 which catches the drip from the can body. Also extending lengthwise of the chamber 54 are bars 62, 63 and 64. These bars are mounted on suitable supporting brackets and are positioned so that the can body in its first return travel through the chamber 54 will contact with the bar 62 and be tilted slightly. The bar 62 is also slightly tilted. The can body does not rotate as it passes along the bar, but makes sliding contact therewith. Therefore, it is constantly making a new point of contact, and the coating material accumulating on the upper side of the flange at the lower end of the can body will be caused to run off from the flange on to the bar and thus leave a uniform film of coating on the flange. The can body on its next return movement through the draining chamber 54 contacts with the bar 63, and on its fourth travel lengthwise of the chamber 54, it will contact with the bar 64. When the can body leaves the bar 64, practically all of the excess material will have drained from the can body, leaving a thin film of coating adhering both to the inner and outer surface thereof. The can body now travels back and forth through the section where the coating is set sufficiently so that the can body can be readily handled and passed through a baking oven for the final setting of the enamel coating. In this section of the chamber there is a compartment 65 which is provided with openings 66, 66 in the upper side thereof. There is also an opening in the bottom of the compartment connected to a pipe 67 through which dry heated air may pass into the compartment. Connected to the outer wall of the compartment are sheet metal plates 68 and 69 which are spaced so as to form a discharge slot or nozzle 70 for the air. There is a plate 68 and 69 for each opening 66 and a discharge nozzle for each pair of plates. These discharge nozzles are located, respectively, under the several paths of travel of the can body as it moves from one end of the chamber 54 to the other end thereof. The conveyors are directly over these nozzles, so that the air passes upward on to the can body and through the can body to aid in the setting of the enamel. There is a stack pipe 71 leading from the upper end of the chamber 54.

The endless conveyor as it moves along the extreme right-hand line of travel, as viewed in Fig. 4, is caused to engage with the toothed wheel 72 mounted on a shaft 73. It then passes over a sprocket wheel 74 mounted on a shaft 75, and from the sprocket wheel 74, the endless conveyor moves into engagement with the toothed wheel 39 carried by the turret. The sprocket wheel 74 is positioned relative to the toothed wheel 72 so that the conveyor will travel for a very short distance over the periphery of the toothed wheel 72. A guide rail 76 extends into the chamber 54 and the can bodies contacting with this guide rail are forced out of the supporting jaws and drop on to the rotating wheel 77 which is mounted on the shaft 73. This wheel 77 is formed with a groove and a conveyor belt 78 passes over the grooved wheel contacting therewith. This conveyor belt 78 also passes over a grooved wheel 79, thence around a grooved wheel 80. The wheel 79

can be adjusted so as to take up the slack in this conveyor belt, and thus it is that this conveyor belt is driven through its contact with the wheel 77. The conveyor belt after it leaves the wheel 77 passes along a can guideway 81, and this guideway 81 and the belt 78 feed the cans into a position where they may pass into the baking oven for the final setting of the coating material on the can bodies. By the time the can bodies leave the setting chamber, the enamel coating is sufficiently hard so that they may be handled by the automatic feeding mechanism which feeds the can bodies into the oven and on to a conveyor belt of the usual type for feeding the containers through the oven. The guideway 81 is formed in part by a continuation of the guide rail 76, and thus it is that the can bodies are taken from the endless conveyor which carried the same through the draining and setting chamber and are transferred to the conveying belt 78 that carries the can bodies to the baking oven.

The timing wheel 31 is carried by a shaft 82 mounted in suitable bearings carried by the frame 2. At the upper end of this shaft 82 is a sprocket wheel 83, and a sprocket chain 84 runs over the sprocket wheel 83, and a sprocket wheel 85 which is fixed to the upper end of the shaft 7. From the above it will be noted that the motor drives the turret and the timing wheel 31. The turret through the toothed wheel carried thereby drives the endless conveyor, and the endless conveyor drives the toothed wheel 72 which conveys the coated can bodies from the setting chamber to the drying oven.

It is thought that the operation of the coating machine will be obvious from the detail description which has been given above. The can bodies after they are flanged are received one at a time by the rotating turret on supports which are moved so as to immerse the can bodies in the bath of coating material. The support raises the can bodies from the bath after they have been completely immersed therein, and the excess material drains from the can body back into the bath. The can body is transferred to the endless conveyor where it is suspended through gripping jaws which contact with the edge portion of the upper flange only of the can body. The can body is then conveyed in a circuitous path through the draining chamber where the excess of material is finally removed from the can body leaving a thin film of coating covering the entire inner and outer surfaces of the can body, including both the inner and outer faces of the flanges carried thereby. After the coating material has been completely drained from the can body, then it passes in a circuitous path where a current of air passes over the can body for the purpose of carrying off solvent in the coating material and setting the material so that the can body can be easily handled. The can bodies then pass into the baking oven where the final setting operation takes place.

It will be noted from the above that a machine has been provided for coating can bodies where the can bodies are handled by a minimum surface contact of the coating apparatus with the can body during coating and draining the same. It will also be noted that the can body is coated by immersing the same in the coating material so that the entire surface is brought into contact with the coating material, and this is accomplished while the can body is continuously moving, all of which contributes to a very high speed machine for coating can bodies. It will also be noted that while the can body is coated and drained and the coating material set while the can body is moving continuously, that the apparatus for accomplishing this is very simple, of few parts, requiring comparatively small space for the operating parts, and the entire mechanism is actuated by a single motor, so that the proper timing of the parts which receive and transfer the can body from one moving member to another are maintained in synchronism.

It is obvious that minor changes in the details of construction and the arrangement of the parts may be made without departing from the spirit of the invention as set forth in the appended claims.

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

1. A machine for coating flanged can bodies comprising a coating bath, a draining and setting chamber, means rotating about a vertical axis disposed centrally of said bath, said means including a plurality of devices for receiving can bodies in succession for coating, means cooperating with said devices for lowering and raising the same for immersing the can bodies in the coating material for forming a film of coating thereon, and a conveyor means associated with said coating means for receiving the can bodies and conveying the same through said chamber.

2. A machine for coating flanged can bodies comprising a coating bath, a draining and setting chamber, means rotating about a vertical axis disposed centrally of said bath, said means including a plurality of devices for receiving can bodies in succession for coating, means cooperating with said devices for lowering and raising the same for immersing the can bodies in the coating material for forming a film of coating thereon, and a conveyor means associated with said coating means for receiving the can bodies and conveying the same through said chamber, said conveyor means including devices for engaging the flange of the can body for suspending the same in a substantially vertical position.

3. A machine for coating flanged can bodies comprising a coating bath, a draining and setting chamber, means rotating about a vertical axis disposed centrally of said bath, said means including a plurality of devices for receiving can bodies in succession for coating, means cooperating with said devices for lowering and raising the same for immersing the can bodies in the coating material for forming a film of coating thereon, a conveyor means associated with said coating means for receiving the can bodies and conveying the same through said chamber, and means associated with said conveyor for contacting with the lower flange for tilting the can body slightly and causing the coating material accumulating at the lower flange to drain therefrom.

4. A machine for coating flanged can bodies comprising an annular tank containing a bath of coating material, a turret mounted for rotation about a vertical axis centrally of the tank, said turret having a plurality of can supports for receiving cans in succession, means operated by the rotation of the turret for moving the can supports and the can bodies carried thereby one after another into and out of the bath for forming a coating film on the can bodies, and means cooperating with said turret for removing the coated can bodies from the can supports thereon.

5. A machine for coating flanged can bodies comprising an annular tank containing a bath of

coating material, a turret mounted for rotation about a vertical axis centrally of the tank, said turret having a plurality of can supports for receiving cans in succession, means operated by the rotation of the turret for moving the can supports and the can bodies carried thereby one after another into and out of the bath for forming a coating film on the can bodies, means cooperating with said turret for removing the coated can bodies from the can supports thereon, said last-named means including a traveling conveyor, and yielding jaws depending from said conveyor adapted to engage a flange of the can body when lifted from said bath for removing the same from the support.

6. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, a draining and setting chamber, and a conveyor associated with said turret and traveling through said chamber, said conveyor having means for receiving in succession the can bodies after they have been immersed in the bath for removing the can bodies from the turret and carrying the same through said chamber.

7. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, said support for the can body having a circular opening therethrough of substantially the same diameter as the can body whereby the coating material is free to pass through the can body when it is lowered into the bath for coating the entire inner and outer surfaces of the can body.

8. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, said support for the can body having a circular opening therethrough of substantially the same diameter as the can body whereby the coating material is free to pass through the can body when it is lowered into the bath for coating the entire inner and outer surfaces of the can body, said support for the can body having means positioned above the can body for preventing the same from being lifted off from the support when the support moves down into the bath for immersing the can body.

9. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, a draining and setting chamber, an endless conveyor movable with the turret in a path over the can bodies during the travel of the same while they are being immersed in the bath, said endless conveyor moving in a circuitous path through said chamber, and a series of yielding jaws depending from said conveyor, said jaws being spaced and timed so as to engage the upper flange of a can body on the support when said support raises the can body from the bath whereby said can body is removed from the support and carried through said chamber.

10. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, a draining and setting chamber, an endless conveyor movable with the turret in a path over the can body during the travel of the same while they are being immersed in the bath, said endless conveyor moving in a circuitous path through said chamber, a series of yielding jaws depending from said conveyor, said jaws being spaced and timed so as to engage the upper flange of a can body on the support when said support raises the can body from the bath whereby said can body is removed from the support and carried through said chamber, and draining bars disposed in said chamber so that the suspended can bodies passed through the chamber will be caused to contact with said bars and tilted so as to drain therefrom the coating accumulating on the upper side of the flange.

11. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, a draining and setting chamber, an endless conveyor movable with the turret in a path over the can bodies during the travel of the same while they are being immersed in the bath, said endless conveyor moving in a circuitous path through said chamber, a series of yielding jaws depending from said conveyor, said jaws being spaced and timed so as to engage the upper flange of a can body on the support when said support raises the can body from the bath whereby said can body is removed from the support and carried through said chamber, and means in said chamber and disposed along the path of travel of the can bodies for directing heated air on to and through the can bodies to aid in the setting of the coating.

12. A machine for coating flanged can bodies comprising an annular tank for a coating bath, a turret mounted for rotation about a vertical axis centrally of said tank, said turret including a plurality of devices for receiving the can bodies in succession and supporting the same in a substantially vertical position, said turret having means associated therewith for lowering and raising the support for immersing the can body in the bath, a draining and setting chamber, an endless conveyor movable with the turret in a path over the can bodies during the travel of the same while they are being immersed in the bath, said

endless conveyor moving in a circuitous path through said chamber, a series of yielding jaws depending from said conveyor, said jaws being spaced and timed so as to engage the upper flange of a can body on the support when said support raises the can body from the bath whereby said can body is removed from the support and carried through said chamber, draining bars disposed in said chamber relative to the path of travel of the conveyor so that the can bodies during a portion of the travel through said chamber are caused to contact with said bars and tilt so as to drain therefrom coating accumulating on the upper side of the flange, and means in said chamber and disposed along a portion of the path of travel of the can body after leaving the draining bars for directing heated air on to and through the can bodies to aid in the setting of the coating.

13. A machine for coating flanged can bodies comprising a coating bath, a draining and setting chamber, means traveling over said bath including a plurality of devices for receiving can bodies in succession for coating, means cooperating with said devices for lowering and raising the can bodies while in a vertical position for immersing the same in the coating material for forming a film of coating material thereon, and a conveyor means associated with the coating means for receiving the can bodies and conveying the same through the draining and setting chamber.

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