

(No Model.)

7 Sheets—Sheet 1.

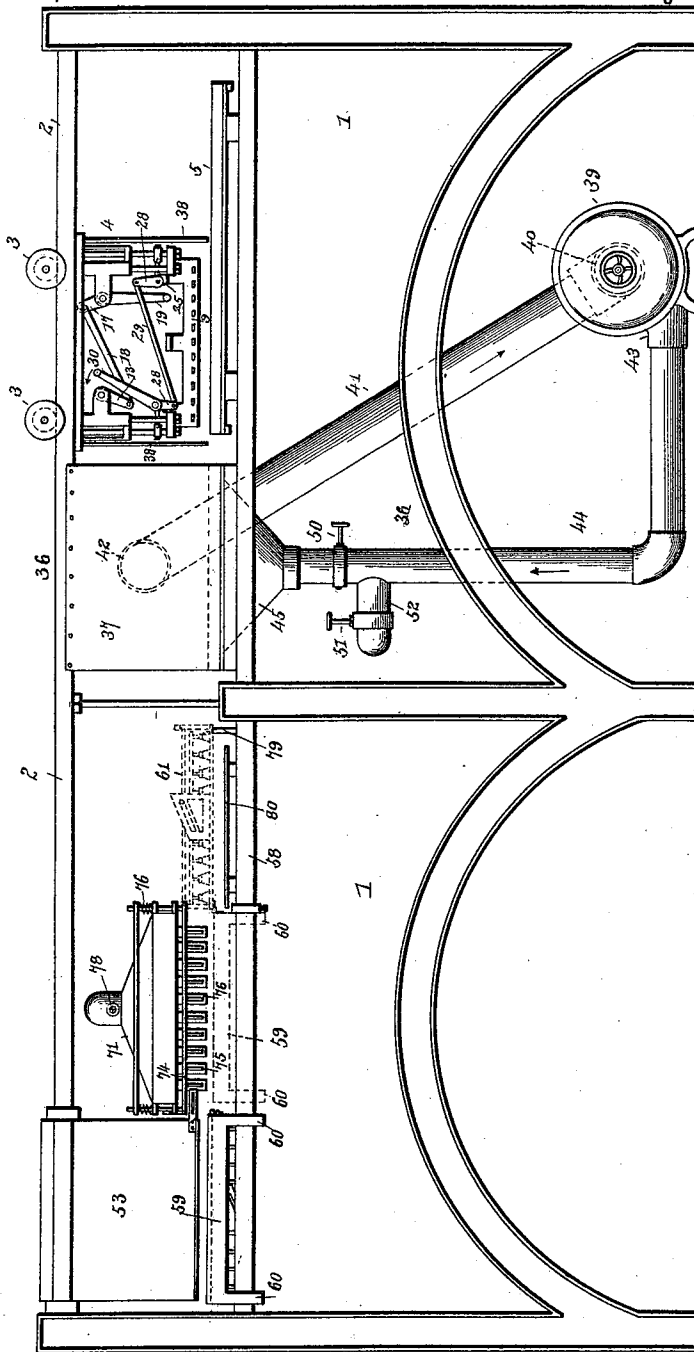
J. C. RUBY.

MACHINE FOR COATING CONFECTIONERY.

No. 539,548.

Patented May 21, 1895.

FIG. 1.



Inventor

Witnesses

Jas. K. McLachlan
[Signature]

By *[Signature]* Attorney, Joshua Clay Ruby

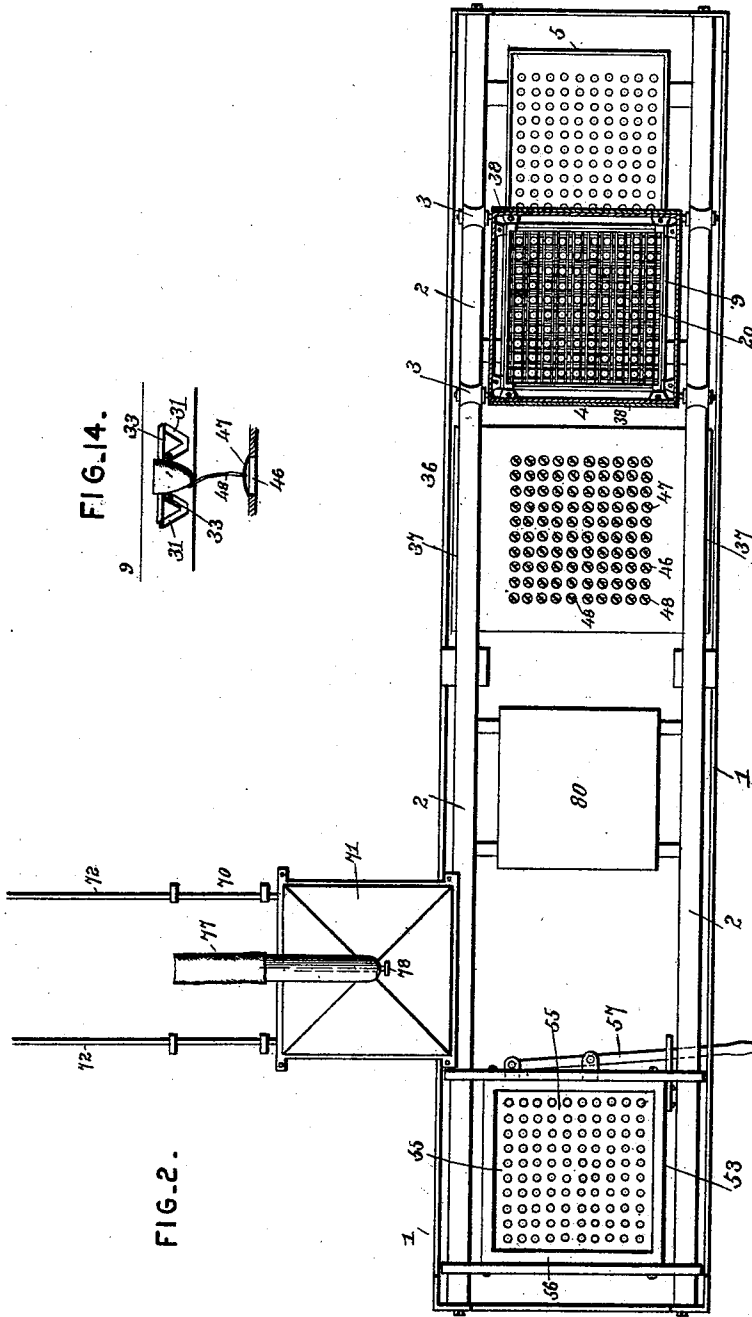
CA Snow & Co.

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Inventor

Joshua Clay Ruby

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James H. McEachern

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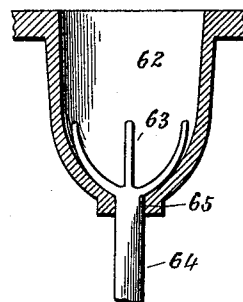
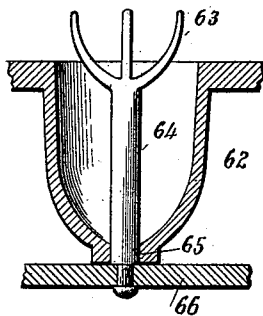
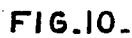
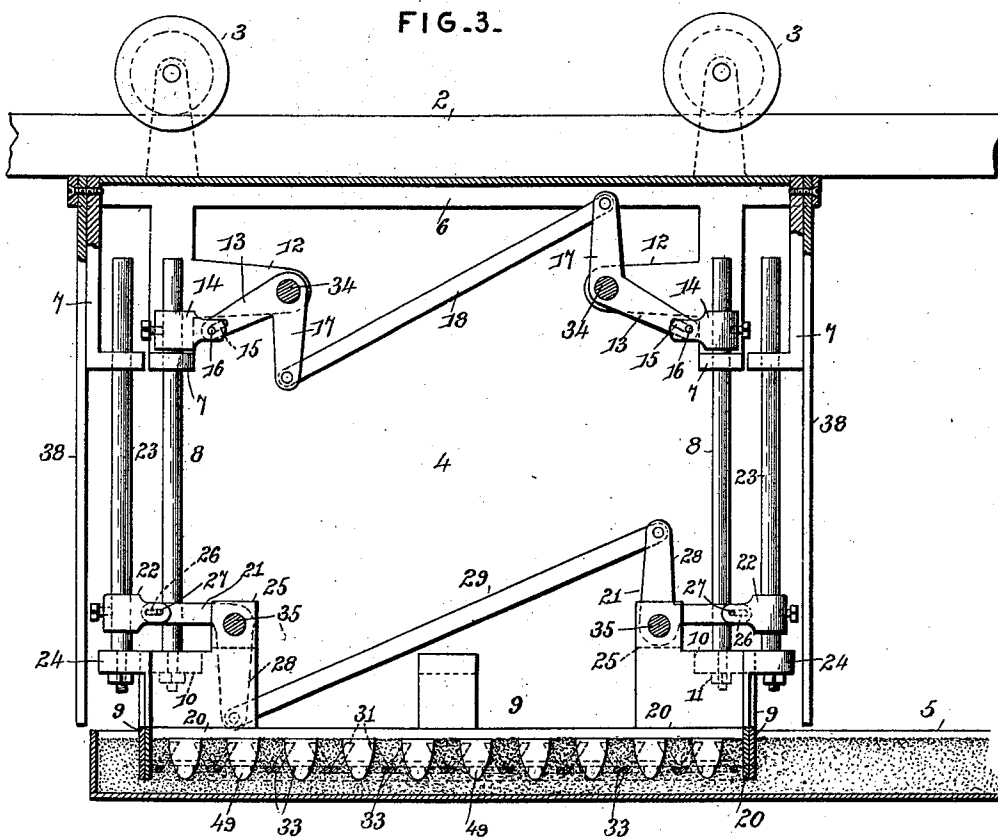
[Signature]

Chas. Snow & Co.

7 Sheets—Sheet 3.

MACHINE FOR COATING CONFECTIONERY.

Patented May 21, 1895.



Inventor

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By *his* Attorneys.

Chas. Snow & Co.

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Jas. K. McLaughlin
J. K. McLaughlin

(No Model.)

7 Sheets—Sheet 4.

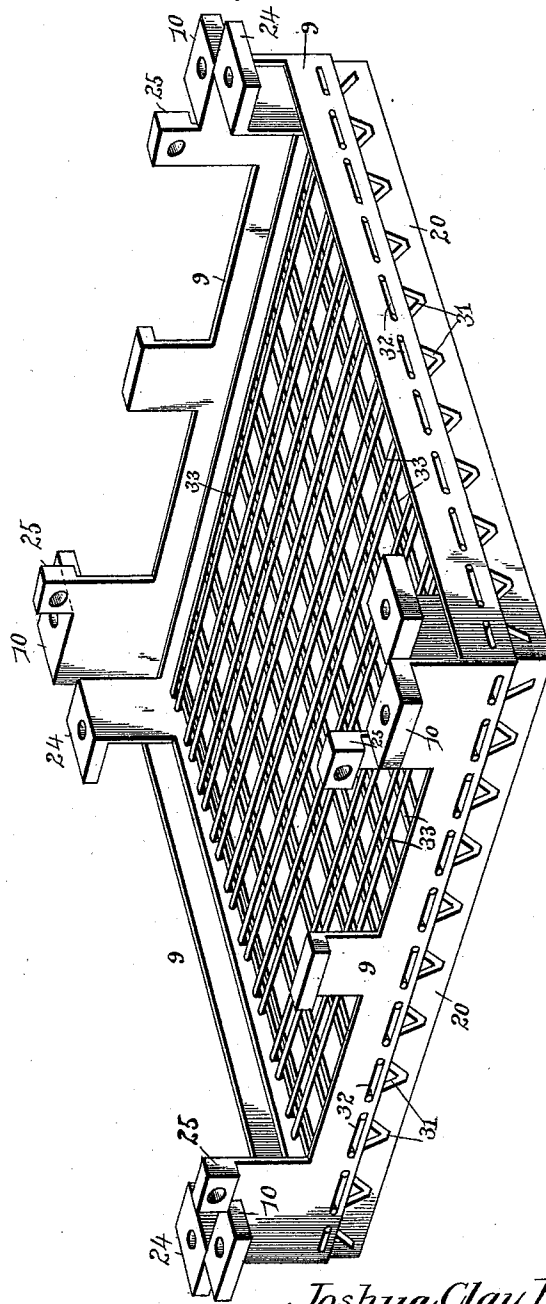
J. C. RUBY.

MACHINE FOR COATING CONFECTIONERY.

No. 539,548.

Patented May 21, 1895.

FIG. 4.



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MACHINE FOR COATING CONFECTIONERY.

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FIG. 5.

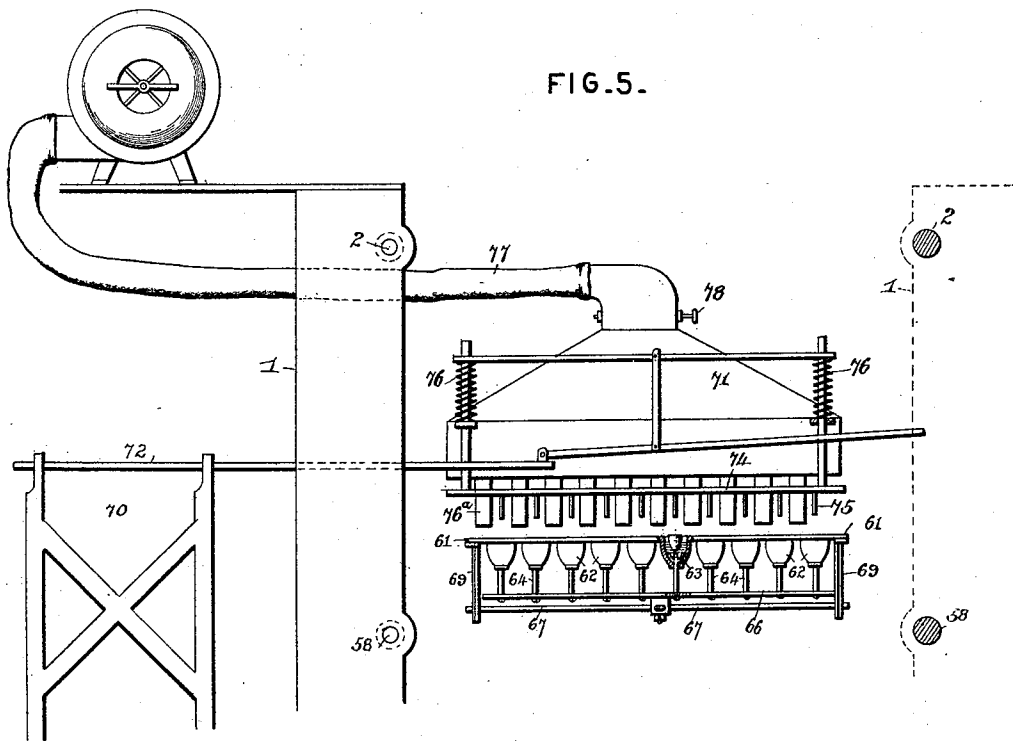
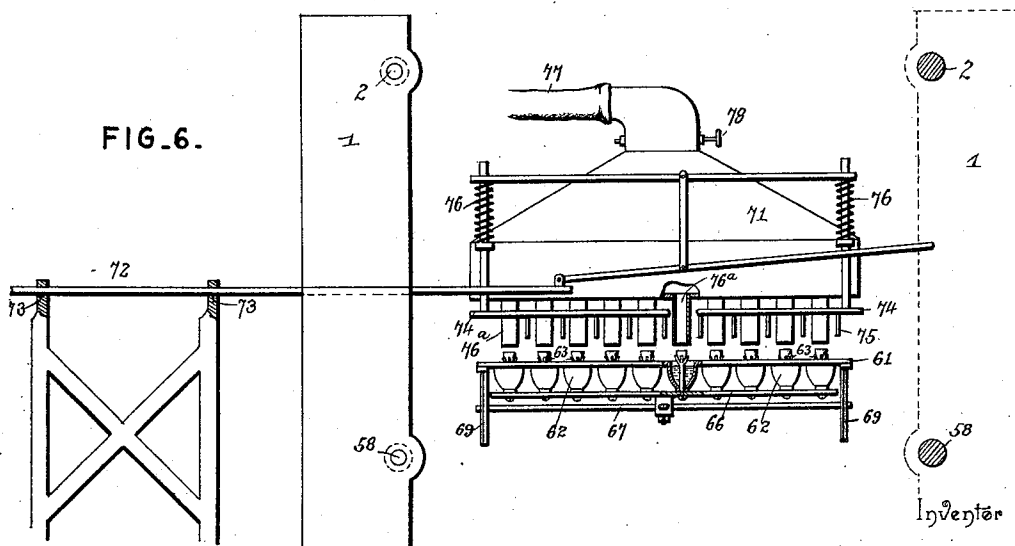


FIG. 6.



Witnesses

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J. S. H. H. H.

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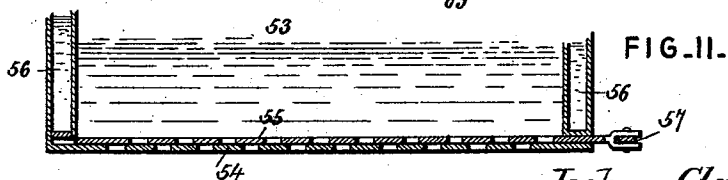
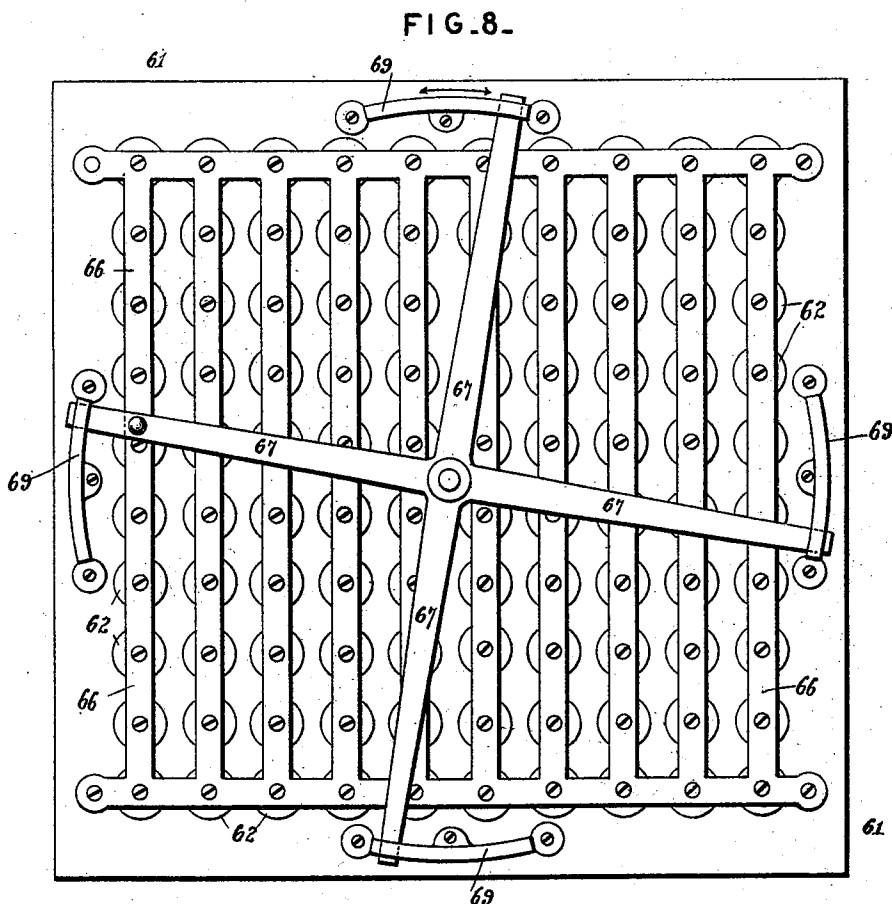
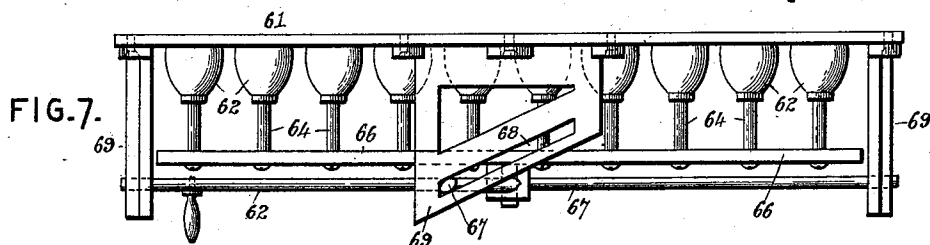
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MACHINE FOR COATING CONFECTIONERY.

No. 539,548.

Patented May 21, 1895.



Witnesses

James H. McLathran
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MACHINE FOR COATING CONFECTIONERY.

No. 539,548.

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FIG. 12.

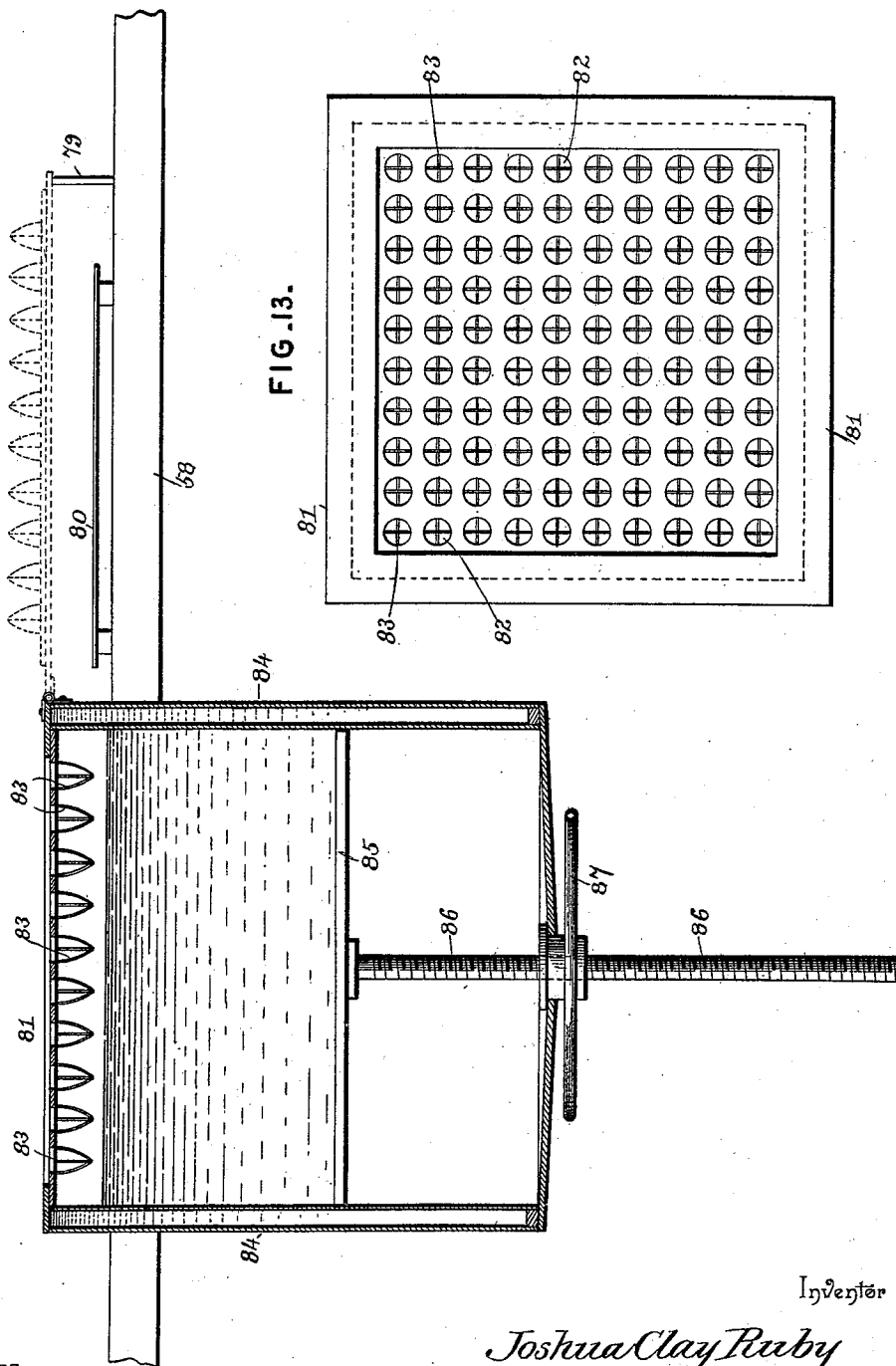


FIG. 13.

Witnesses

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By his Attorneys.

Joshua Clay Ruby

CA Snow & Co.

UNITED STATES PATENT OFFICE.

JOSHUA CLAY RUBY, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR COATING CONFECTIONERY.

SPECIFICATION forming part of Letters Patent No. 539,548, dated May 21, 1895.

Application filed June 8, 1894. Serial No. 513,938. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA CLAY RUBY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Machine for Coating Confectionery, of which the following is a specification.

My invention relates to machines for making candy, and particularly to the means for coating casts in the formation of chocolate drops and similar kinds of candy, the objects in view being to provide means for removing the casts from the starch in the casting-box or tray; furthermore, to provide means for removing the starch from the surface of the casts; to provide independent dip-cups for the reception of the casts; to provide means for depositing the coating in a group of the dip-cups simultaneously; to provide means for depositing the casts in the dip-cups; to provide supporting devices or claws within the dip-cups to catch the casts as they enter said cups; to provide means for depressing the casts into the coating material in the cups, whereby they may be wholly immersed therein; to provide means for operating the claws to elevate the casts from the coating material; to provide means for removing the surplus coating material from the surfaces of such casts to avoid dripping or flowing of such coating material after the casts have been deposited upon the drying table; and, finally, to provide means for discharging the coated casts and arranging them in their proper or upright positions upon the table.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side view of a machine embodying my invention, the carrier being shown in full lines in position to receive chocolate from the tank and in dotted lines in its operative position with the tray reversed as when discharging the coated casts. Fig. 2 is a plan view with the parts in the position shown in Fig. 1, the top or covering-plate of the carriage being broken away to show the subjacent device for lifting the casts. Fig. 3 is a detail front view of the carriage, partly broken away. Fig. 4 is a detail view,

in perspective, of the lifting or pick-up device. Fig. 5 is a side view of the means for depressing the casts into the dip-cups and for removing the surplus coating, with the carriage arranged in the operative position thereunder, said depressing and surplus-removing devices being in position to depress the casts. Fig. 6 is a similar view showing the parts in position to remove the surplus coating. Fig. 7 is a detail front view of the tray. Fig. 8 is a bottom plan view of the same. Fig. 9 is a detail view, in section, of one of the dip-cups, the cast-receiving fork being depressed. Fig. 10 is a similar view with the fork elevated. Fig. 11 is a longitudinal vertical section of a portion of the tank or reservoir for containing the coating material, the controlling-slide being shown in its closed position. Fig. 12 is a vertical section of a modified form of receptacle for containing the coating material and means for applying such material to the casts and showing in full lines a modified form of tray in its operative position and in dotted lines the same in its discharging position. Fig. 13 is a plan view of said modified form of tray. Fig. 14 is a detail enlarged sectional view of a portion of the floor of the blow-off device with a portion of the superjacent lifting or pick-up device to show the means for removing the casting starch from the casts.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The supporting frame 1 of the improved machine is provided with parallel longitudinally disposed tracks 2, upon which are mounted the rollers 3, of the carriage 4, said carriage being the means for conveying the casts from the casting-box 5 and depositing them in the dip-cups hereinafter described.

The casting-box 5 is located at one end of the framework, and may be of the ordinary or any preferred construction, inasmuch as the mechanism embodying my invention relates to that portion of the process of candy making which succeeds the formation of the candy casts.

The carriage 4 is provided with lifting or pick-up devices adapted to be lowered into the starch in the casting-box to engage the casts and remove them therefrom, such devices being constructed as follows.

6 represents the frame of the carriage, which is provided with depending vertical guides 7, and in these guides are slidably mounted the supporting rods 8, to the lower ends of which is fixed the outer frame or member 9 of the lifting or pick-up device, said outer frame 9 being provided with ears 10 which are attached by means of securing nuts 11 to the lower ends of said rods 8.

Pivottally connected to ears 12 projecting inward from the depending guides are bell-crank levers 13, the outer or approximately horizontal arms of which are attached to sleeves 14 fixed to the guide-rods 8, said horizontal arms of the bell-crank levers being slotted longitudinally, as shown at 15, for the reception of the pins 16 attached to the sleeves, whereby as the bell-crank levers are moved to elevate or depress the rods 8, no binding or locking of the joints is caused. The oppositely extending arms 17 of the bell-crank levers are connected by a link 18, and one of the bell-crank levers is provided with an operating handle 19, whereby the bell-crank levers may be operated simultaneously to either elevate or depress the frame 9.

Arranged within the outer frame 9 of the lifting or pick-up device is an inner frame 20, which fits snugly within the outer frame, and is capable of movement independently thereof, such movement being accomplished by means of bell-crank levers 21, the outer approximately horizontal arms of which are pivotally connected to sleeves 22 fixed to upright rods 23 attached at their lower ends to the lateral ears 24 on the inner frame 20, said bell-crank levers 21 being fulcrumed upon ears 25 of the outer frame 9, and the connection between the outer or approximately horizontal arms of the bell-crank levers and the sleeves 22 being by means of slots 26 and engaging pins 27 for the reason above assigned in connection with the attachment of the levers 13 with the sleeves 14.

The oppositely extending arms 28 of the bell-crank levers 21 are connected by a link 29, and attached to one of these levers is an operating handle 30. The operation of the lever 30 in the direction indicated by the arrow adjacent thereto depresses the inner frame 20, and as the inner frame is provided with V-shaped slots 31, and the outer frame with horizontal slots 32, in which are arranged loose rods 33, said movement of the lever 30 causes the movement of said rods toward each other to contract or reduce the openings or meshes formed by the rods. A movement of the lever 30 in the opposite direction to that indicated by the said arrow separates the rods and thus spreads or opens the meshes formed thereby, as shown in Fig. 3.

It will be understood that the means for operating the outer and inner frames or members of the lifting or pick-up device are duplicated at the opposite sides of said frames, with the exception of the operating-handles 19 and 30, the bell-crank levers 13 being con-

nected by shafts 34, and the bell-crank levers 21 being connected by shafts 35.

Located adjacent to the casting-box and in the path of the carriage 4 is a blow-off device 36, consisting of a box or casing having the opposite sides 27 spaced apart a sufficient distance to admit the carriage, the latter being provided with vertical end plates 38, which, when the carriage is in place between the walls 37, fill the spaces between the latter, and thus complete the box. In connection with this box and forming a part of the blow-off device 36 is a fan 39, the inlet opening 40 of which is connected by means of an exhaust-pipe 41 with an opening 42 in one of the walls 37, and the discharge nozzle 43 of which is connected by means of a pipe 44 with a funnel 45 arranged below said box. The floor of the box is provided with a series of juxtaposed perforations 46 spanned by pins 47, to which are attached flexible agitators 48, consisting of pieces of fabric or similar material which are thus exposed to the action of the blast discharged from the pipe 44.

The operation of the lifting or pick-up device is as follows: After the carriage has been arranged over the casting-box in which the candy casts 49 are arranged at intervals indicated in the drawings in Figs. 2 and 3, the operating handle 19 is moved in the direction indicated by the arrow adjacent to said part, in order to depress the pick-up frames 9 and 20 into the starch in which the casts are arranged. At the time of depressing the pick-up frame the inner frame 20 is elevated with relation to the outer frame, whereby the rods 33 are separated or arranged in pairs, and therefore said rods pass down into the starch between the rows of casts. After such depression of the pick-up frames has been attained, the operating-handle 30 is moved in the direction indicated by the arrow adjacent thereto to depress the inner frame with relation to the outer frame of the pick-up and thus reduce the distances between the rods 33, whereby the meshes formed thereby are smaller than the diameters of the casts. The handle 19 is moved in the opposite direction to elevate the pick-up frames, and at the same time remove the casts from the box. The carriage is then moved forward into the box of the blow-off device, and the valve 50 arranged in the pipe 44 is opened to direct the blast into the funnel 45, while a corresponding valve 51 in a branch-pipe 52 is closed. The exhaust-pipe 41 draws from the interior of the box of the blow-off, and the pipe 44 conveys the blast from the fan to the funnel 45 from which it is projected through the perforations 46 in the floor of said box and against the casts, thus carrying the loose starch from the latter and conveying it around through the exhaust-pipe 41, through the fan, and up through the blast-pipe 44. The flexible agitators 48, which are disposed over the perforations 46, are vibrated in contact with the casts, thus assisting in the detachment of the starch which is carried

away as above described. When the blast has continued a sufficient time to remove the starch, the valve 50 is closed and the valve 51 is opened, thus directing the blast into the pipe 52 which communicates with a room or chamber, not shown, in which the loosened starch is deposited.

Arranged at the opposite end of the framework 1 is reservoir 53, provided with a perforated floor 54, and a sliding perforated cut-off 55, which is arranged parallel and in contact with the floor 54, whereby when the perforations of the cut-off and floor agree, the contents of the reservoir are allowed to escape, and when said perforations are out of registration, the escape of said contents is prevented. This reservoir is surrounded by a jacket 56 for the reception of hot water for maintaining the contents of the reservoir in a semi-liquid state. The cut-off plate 55 is provided with an operating lever 57.

Arranged below the plane of the tracks 2 are the parallel guides 58, upon which is mounted a carrier 59, having depending eyes 60 which fit slidably upon said guides. Hinged to the body portion of this carrier is a tray 61, which is adapted to occupy a position within the body of the carrier or may be turned over or reversed to occupy the position shown in Fig. 1, in dotted lines, as hereinafter explained. Attached to this tray 61 is a series of spaced dip-cups 62, spaced to agree with the intervals between the casts in the casting-box, the intervals between the centers of the meshes in the pick-up, the intervals between the perforations in the floor of the blow-off, and the intervals between the perforations in the floor of the reservoir. Arranged within these dip-cups are cast-holding claws 63 provided with stems 64 which fit in perforations 65 in the bottoms of the dip-cups. The lower ends of these stems are attached to a movable plate 66, upon the under side of which is centrally swiveled an operating spider 67 fitting at the terminals of its arms in inclined or cam-slots 68 in the brackets 69. These brackets are supported by the tray 61, and therefore when the spider 67 is turned in one direction the stems 64 are pushed upward to elevate the claws 63 in the dip-cups, and when the spider is turned in the other direction, the stems are lowered to immerse the claws in the contents of said cups. Therefore, after the starch has been removed by the blow-off device from the casts, the carriage is moved forward to a position adjacent to the reservoir 53, while the carrier, which has been previously disposed under the reservoir to enable the dip-cups to be filled with coating material from said reservoir, is arranged under the carriage with the dip-cups disposed respectively beneath the casts in the pick-up device. The handle 30 is now moved in the direction opposite to that indicated by the arrow adjacent thereto to open the meshes, whereupon the casts drop into the dip-cups and are received by the claws arranged therein.

Normally arranged upon a lateral portion 70 of the supporting frame is a hood 71 provided with guide-rods 72, fitting in guide-openings 73 in said lateral frame, and after the casts have been dropped into the dip-cups and the carriage has been returned to its initial position for another load of casts, said hood is moved forward supported by said guide rods to the position shown in Fig. 5 over the tray which carries said dip-cups. Mounted upon the frame of the hood is a plate 74 carrying a series of push-pins 75, which are spaced to agree with the intervals between the centers of the dip-cups. This plate 74 is supported by means of springs 76, whereby when the hood has been properly adjusted to dispose the push-pins respectively over the dip-cups the plate is depressed, thus causing said pins to impinge against the casts and press them downward into the coating material contained in the cups, so that they may be entirely immersed therein. The hood is then moved forward a short distance farther to bring the spaced tubes or nozzles 76^a respectively over the dip-cups, as shown in Fig. 6, said tubes or nozzles being supported by and communicating with the interior of the hood which is connected by means of a flexible hose 77 with a suitable blast-fan, a controlling valve 78 being provided to cut off or admit the blast to the hood.

After the immersion of the casts in the coating material as above described, the spider 67 is turned to elevate the claws, which thus raise the casts out of the coating material and hold them supported above the same in the mouths of the dip-cups and directly under the tubes or nozzles 76^a. The controlling valve 78 is now opened, whereby a blast of air is directed upon the surface of each cast to remove the surplus coating, after which the hood is moved backward to its original position and the tray is turned over upon its hinge and allowed to drop until its free edge is checked by the stationary stop 79, thus jarring the casts out of engagement with the claws and depositing them upon their flat sides upon the table 80.

It will be understood that the casts are made in an inverted position and retain this inverted position throughout the above described operation, whereby the blast from the hood is directed upon the flat sides or bottoms of the casts, thus removing the chocolate or other coating partly or wholly from that side of each cast which will thereafter be in contact with the table 80 to avoid the flowing of the coating material and the formation of a fin or ragged edge around the bottom of the completed drop.

In connection with the above mechanism I employ a modified form of tray, as shown in Figs. 12 and 13, said tray consisting of a plate 81 provided with a series of perforations 82, beneath which are arranged baskets 83. These baskets perform the function of the claws above described, in that they receive the casts

from the pick-up device of the carriage. This modified form of tray is supported upon a carrier of the same construction as that above described, and below the carrier is arranged
 5 a tank 84 having a plunger 85 provided with a stem 86. Upon this stem is threaded an operating handle 87, which when turned is adapted to raise or lower the plunger 85 and thus raise or lower the chocolate or other
 10 coating material which is arranged in the upper portion of the tank above said plunger. Therefore, after the casts have been deposited in the baskets of the tray the plunger 85 is elevated sufficiently to bring the coating material above the plane of the casts. The remaining portion of the apparatus, as used with this modified form of tray, is identical with that above described, including the carriage, starch blow-off, and the device for removing the surplus coating, but, inasmuch as the lowering of the plunger removes the coating material from the casts, it is necessary after the operation of the blast for removing the surplus chocolate, to turn the tray over in the manner above described in connection with the preferred form of the mechanism to discharge the casts from the baskets and deposit them upon the drying table.

It is well known that dealers in candy prefer those means of manufacture which give the confectionery the appearance of having been made by hand in contradistinction to those which are obviously machine made, and in order to provide for this preference I employ the hereinbefore described claws for elevating the casts above the surface of the coating material, and also the open-work receptacles shown in the modified form of the chocolate applying devices. The indication
 30 of hand-made confectionery of this class is a "fin" at the top or apex of the drop formed at the time of depositing the drop upon the drying table and formed by a slight adherence of the chocolate or other coating material to the receptacle in which the cast has been held while dipped in the coating material. The fingers of the claws employed in the improved machine intersect at the bottom of the claws, and to this intersecting point
 40 the coating material adheres as the casts are deposited upon the drying table by the reversal of the tray, and hence each drop is formed with the "fin" which is sought for by dealers and those purchasers who are aware of the difference between hand and machine made confectionery. The same is true of the cages employed in the modified form of my invention. The intersection of the wires forming the cage causes an adherence of the coating material which forms this "fin." The construction of both the claws and the wire cages or receptacles provides for the exposure of the greater portion of the surface of each cast, and hence the uniform application of the coating material. It is obvious that in order to
 60 form the "fin" at the apex of the drop without a rough edge or flange of the coating material

around the base, the combination of parts whereby the cast is held in inverted position while dripping and during the removal of the surplus material from the base, and the reversal of the drop to deposit it upon the base from which said surplus material has been removed, is essential.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having described my invention, what I claim is—

1. In a machine for coating candy, the combination with a casting-box, of a carriage having a lifting or pick-up device provided with a reticulated diaphragm, means for depressing the lifting or pick-up device into the starch contained in the casting-box, and means for closing the meshes of said reticulated diaphragm, substantially as specified.

2. In a candy coating machine, the combination with a casting-box, of a carriage, a lifting or pick-up device supported by said carriage and having telescoping frames provided respectively with horizontal and V-shaped registering slots, a reticulated diaphragm composed of intersecting rods engaging said slots in the telescoping frames, means for depressing the frames to lower the rods composing the diaphragm into the starch in the casting-box, and means for moving one of the frames independently of the other to adjust the relative positions of the rods to close or open the spaces therebetween, substantially as specified.

3. In a candy coating machine, the combination with a casting-box, of a carriage, a lifting or pick-up device mounted on the carriage and having the telescoping frames provided respectively with registering V-shaped and horizontal slots, a diaphragm composed of intersecting rods engaging said registering slots, guide-rods attached to one of the frames and fitting slidably in guides on the carriage, connected levers fulcrumed upon the guides and engaging said guide-rods, and means for moving the other frame independently of the first named frame to vary the intervals between said rods, substantially as specified.

4. In a candy coating machine, the combination with a casting-box, of a carriage, a lifting or pick-up device supported by the carriage and having telescoping frames provided respectively with registering V-shaped and horizontal slots, intersecting rods engaging said registering slots, means for lifting and depressing the frames with relation to the carriage, and connected levers mounted upon one of the frames and engaging guide-rods attached to the other frame for changing the relative positions of the frames and altering the intervals between said rods, substantially as specified.

5. In a candy coating machine, the combination with a framework having tracks, and

a casting box, of a carriage mounted upon said tracks, a lifting or pick-up device supported by the carriage and adapted to engage the candy casts and remove them from said box, and a blow-off device having a box or casing for the reception of the carriage, and an exhaust fan in communication with the box or casing, substantially as specified.

6. In a candy coating machine, the combination with a supporting framework having tracks, and a casting box, of a carriage mounted upon said tracks, a lifting or pick-up device adapted to engage and remove the casts from said box, and a blow-off device having a box or casing for the reception of said carriage, a fan provided with an exhaust-pipe, and a blast-pipe communicating with said box or casing respectively above and below the plane of said lifting or pick-up device, substantially as specified.

7. In a candy coating machine, the combination with a supporting framework having tracks, and a casting-box, of a carriage mounted upon said tracks and provided with end plates, a lifting or pick-up device supported by the carriage and adapted to engage and remove the candy casts from the box, and a blow-off device having a box or casing consisting of parallel side walls spaced apart to agree with the width of the end plates of the carriage, and a fan having an exhaust-pipe, and a blast-pipe communicating with said box or casing, substantially as specified.

8. In a candy coating machine, the combination with a supporting framework having tracks, and a casting-box, of a carriage mounted upon said tracks, a lifting or pick-up device adapted to engage and remove the candy casts from said box, said carriage being provided with end plates, a blow-off device having a box or casing consisting of side walls spaced apart to agree with the width of the end plates of the carriage and having a perforated floor and a subjacent funnel, a fan, an exhaust-pipe connecting the inlet passage of the fan with the interior of the box or casing above the plane of the lifting or pick-up device of the carriage, and a blast-pipe communicating with the outlet of said fan and connected to the said subjacent funnel, substantially as specified.

9. In a candy coating machine, the combination with a supporting framework having tracks, and a casting-box, of a carriage mounted upon said tracks, a lifting or pick-up device supported by the carriage and adapted to engage and remove the candy casts from said box, and a blow-off device having a box or casing for the reception of the carriage, said box or casing being provided with a perforated floor, a fan having an exhaust-pipe connected with the box or casing above the plane of the lifting or pick-up device, and a blast-pipe communicating with a funnel beneath said perforated floor of the box or casing, and agitators arranged within the box or casing in position to be affected by the blast

introduced through the perforated floor and vibrated by such blast in contact with the casts, substantially as specified.

10. In a candy coating machine, the combination with a supporting framework, of a carriage provided with means for supporting candy casts, a blow-off device having a box or casing for the reception of the carriage, a fan communicating with said box or casing, and flexible agitators arranged within the box or casing in the path of the blast from said fan to contact with the casts to detach the casting starch from the surfaces thereof, substantially as specified.

11. In a candy coating machine, the combination with a framework, of a carriage provided with means for supporting candy casts arranged at intervals and out of contact with each other, a blow-off device having a box or casing for the reception of said carriage, said box or casing being provided with a perforated floor in which the perforations are spaced to agree with the intervals between the casts supported by the carriage, a fan having a blast-pipe in communication with a funnel disposed below said floor, and flexible agitators disposed respectively above the perforations in the floor of the box or casing and adapted to contact with the casts to detach the casting starch therefrom, substantially as specified.

12. In a candy coating machine, the combination with a framework, of a carriage mounted thereon and adapted to support candy casts, a blow-off device having a box or casing for the reception of said carriage, a fan having exhaust and blast-pipes communicating with said box or casing, a branch-pipe communicating with said blast-pipe, and valves arranged in the blast and branch-pipes, substantially as specified.

13. In a candy coating machine, the combination with a framework having tracks, and a casting-box, of a carriage mounted upon said tracks, a lifting or pick-up device supported by the carriage and adapted to engage and remove candy casts from said casting-box, a tray having dip-cups spaced to agree with the intervals between the casts supported by the lifting or pick-up device, and means for removing the casts from said dip-cups, substantially as specified.

14. In a candy coating machine, the combination with a supporting framework having tracks, and a casting-box, of a carriage mounted upon said tracks, a lifting or pick-up device for engaging and removing candy casts from said casting-box, a tray provided with spaced dip-cups, means for depositing coating material in said cups, mechanism for raising the casts out of the coating material in the cups, and devices for removing the surplus coating from the casts, substantially as specified.

15. In a candy coating machine, the combination with a table for receiving candy casts, of a carrier mounted upon tracks or ways

extending to said table, a tank for containing coating material arranged above the plane of the track at an interval from said table and provided with spaced valve controlled outlets, a reversible tray hinged to said carrier and provided with spaced receptacles for holding candy casts in an inverted position, whereby when the carrier is withdrawn from beneath the tank and the tray is reversed the casts are deposited at the same intervals in an upright position upon the table, said receptacles being arranged at intervals corresponding with the intervals between the outlets of said tank, and means for elevating the candy casts above the surface of the coating material contained in the receptacles preparatory to reversing the tray, substantially as specified.

16. In a candy coating machine, the combination with a reversible dip cup adapted to contain coating material, of a vertically movable claw arranged within said cup and having independent spaced fingers to engage and hold a candy cast in an inverted position, whereby the greater portion of the surface of the cast is exposed and the apex or top thereof is in contact with the intersection of the fingers of the claw, and means to adjust the claw to elevate the cast above the surface of the coating material and support the same in position to drip preparatory to reversing the cup to discharge the cast, substantially as specified.

17. In a candy coating machine, the combination of a tray, dip-cups supported thereby and adapted to contain coating material, claws arranged in the dip-cups and provided with stems depending through perforations in the bottoms thereof, a plate connecting the exterior ends of the stems, and a rotary spider swiveled upon said plate and having arms fitting at their extremities in inclined or cam slots, whereby when the spider is turned the claws are elevated or depressed within the dip-cups, substantially as specified.

18. In a candy coating machine, the combination with a tray, spaced dip-cups supported thereby, and means for elevating candy casts to remove them from the coating material within the dip-cups, of means for removing surplus coating material from all of the casts simultaneously, substantially as specified.

19. In a candy coating machine, the combination with a tray, dip-cups supported thereby, and means for elevating candy casts to remove them from the coating material within said dip-cups, of means for applying a blast of air to the exposed sides of the casts to remove the surplus coating, substantially as specified.

20. In a candy coating machine, the combination with a tray, dip-cups supported thereby, and means for lifting candy casts from the dip-cups to remove them from the coating material contained therein, of spaced

blast-tubes or nozzles disposed above the dip-cups, and means for causing a blast of air through said tubes or nozzles to remove the surplus coating from the casts, substantially as specified.

21. In a candy coating machine, the combination with a tray provided with receptacles for candy casts, and means for applying coating material thereto, of blast tubes or nozzles spaced to agree with said receptacles, and means for causing a blast of air through said tubes or nozzles to remove the surplus coating from the casts, substantially as specified.

22. In a candy coating machine, the combination with a movable tray provided with spaced receptacles for holding coating material and candy casts, of push-pins spaced to agree with the intervals between the receptacles, and means for simultaneously lowering said pins to depress and submerge the candy casts in the coating material contained in the receptacles, substantially as specified.

23. In a candy coating machine, the combination with a supporting framework having parallel guides, of a carrier mounted upon said guides, a tray having spaced receptacles for candy casts, a reservoir provided with a perforated floor, a cut-off device for controlling the outlet through said perforations, and means for removing the casts from the coating material contained in the receptacles, substantially as specified.

24. In a candy coating machine, the combination with a carrier mounted upon suitable tracks, a reversible tray supported by the carrier, spaced receptacles carried by the tray, vertically movable claws arranged in the receptacles and adapted to receive and support candy casts in an inverted position, whereby when said casts are removed from the coating material in the receptacles their bottoms are exposed, and means for adjusting the claws to elevate the casts above the surface of the coating material in the receptacles, of a blasting device provided with tubes or nozzles spaced to agree with the intervals between the receptacles on the tray and adapted to direct independent streams of air upon the exposed bottoms of the casts, when the latter are elevated above the surface of the coating material, to remove the surplus coating material adhering to the bottoms of the casts, whereby when the tray is reversed the casts are deposited upon their bottoms at intervals corresponding with the intervals between the receptacles, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSHUA CLAY RUBY.

Witnesses:

ROBERT J. RUBY,
R. T. FRAILEY.