No. 815,575. PATENTED MAR. 20, 1906.

O. O. AMSDEN.

ROTARY CHEESE PARAFFINING MACHINE.

APPLICATION FILED APR. 3, 1905.

2 SHEETS—SHEET 1.

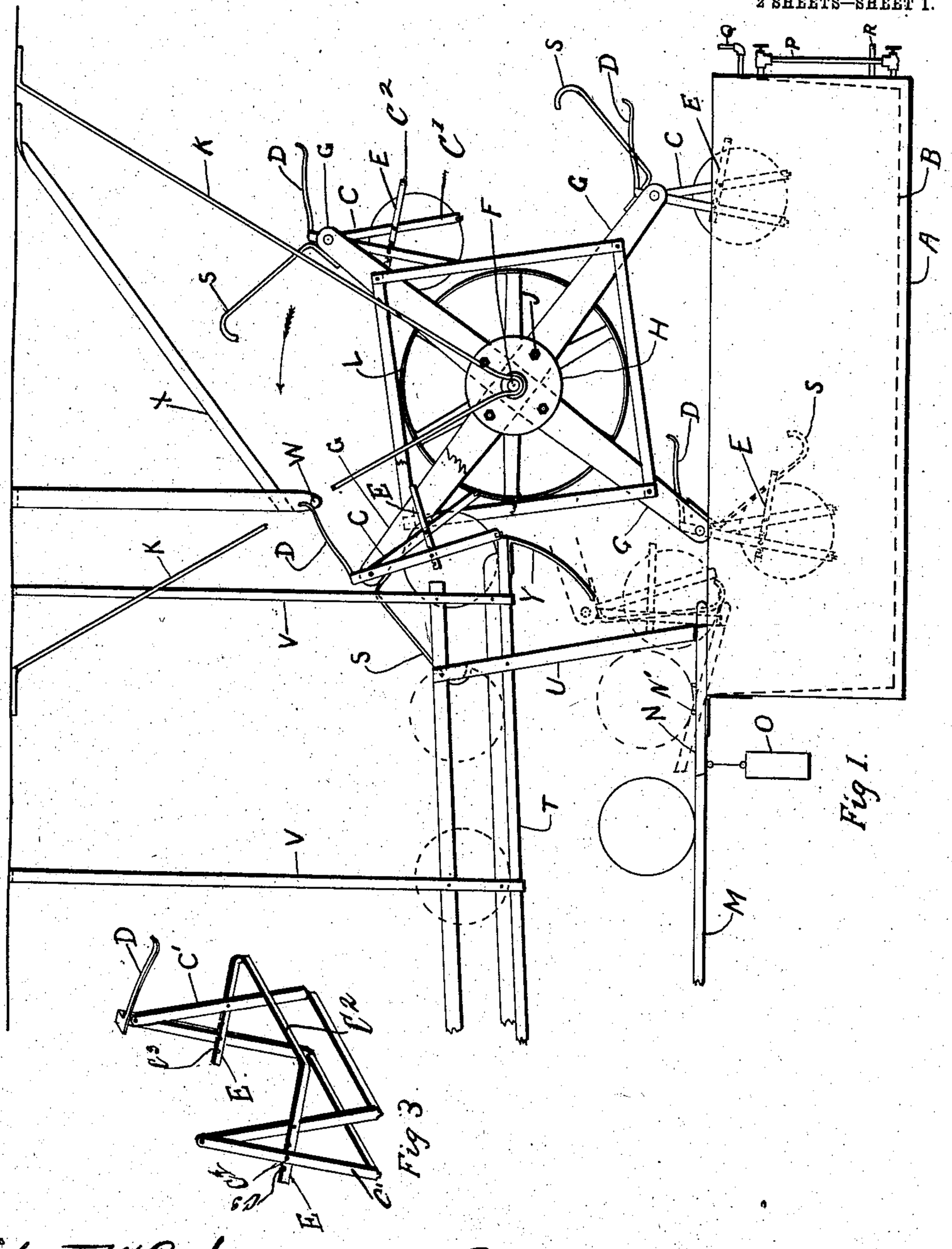


Fig. 1.




Fig. 3.

Witnesses:
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Stanley C. Smith

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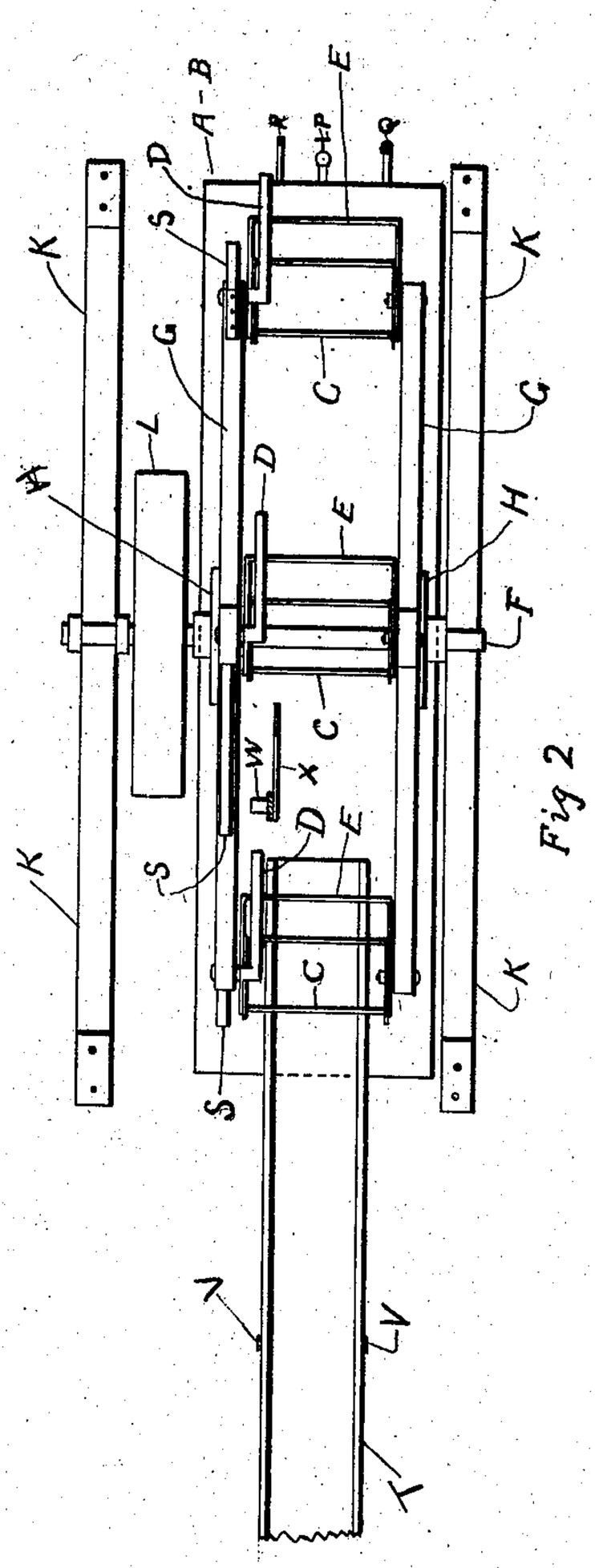


Fig 2

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# UNITED STATES PATENT OFFICE.

ORVILLE O. AMSDEN, OF CUBA, NEW YORK.

## ROTARY CHEESE-PARAFFINING MACHINE.

No. 815,575. Specification of Letters Patent. Patented March 20, 1906.

Application filed April 3, 1905. Serial No. 253,729.

*To all whom it may concern:*

Be it known that I, ORVILLE O. AMSDEN, a citizen of the United States, residing in Cuba, in the county of Allegany and State of New York, have invented new and useful Improvements in Rotary Cheese-Paraffining Machines, of which the following is a specification.

The object of my invention is to provide an improved cheese-paraffining machine by which cheese-rolls may be easily and quickly paraffined by being received and revolved in swinging baskets which receive them from a supply-chute or the like, pass them successively through a tank of hot paraffin, and then allow them to drip and cool while passing around to a shelf upon which they are deposited, the rolls then passing down an incline to the starting and receiving bench, where they are ready for boxing. The operation of my device is a continuous one and comprises a cycle of movements in which the cheese-rolls are first passed to the machine, are then acted upon by the latter, and are automatically returned to the starting-point or some adjacent point ready for the boxing operation.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a side elevation of an embodiment of my invention. Fig. 2 is a top plan view thereof. Fig. 3 is a detail perspective view of one of the swinging carriers or baskets.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the reference-letter K designates two spaced-apart hangers between which is journaled a transverse shaft F, carrying two sets of radial arms G, (in this instance four in number in each set,) said arms being secured at their inner ends by bolts J to hub-plates H on the shaft. The said shaft is driven in any suitable manner—in the present instance a band-wheel or pulley L being employed. Between the outer ends of every two corresponding arms G is suspended a freely-swinging basket C, the basket being pivotally suspended from the arms at the upper end thereof. This basket in the present instance comprises two U-shaped bars C′, one of which is pivoted to the other, so that they may be more or less extended at their lower cross-bar ends with relation to each other, and one of said bars is provided with a transverse guard $C^2$, which is provided with a series of notches $C^3$, designed to engage pins $C^4$ on the other bar, whereby to hold the two bars by means of this guard in a more or less spaced-apart position with respect to each other. Each of the baskets is further provided with an arm D, extending rearwardly therefrom at one side and preferably secured to or formed integral with one of the two U-shaped bars C′. The arms D are preferably somewhat curved, as shown. The radial arms G, which are designed to revolve about the shaft F as an axis, constitute, with their swinging baskets C, a revoluble carrier for the cheese-rolls.

M designates a chute or trackway over which the cheese-rolls are designed to travel in their passage to the receiving-platform N, which is tilted to swing in a vertical plane by being pivoted intermediate of its ends and is provided with a counterweight O, to return it to its normal horizontal position. The tilting platform N forms practically a continuation of the track or chute M, and the forward end of the platform is located in juxtaposition to the path described by the outer ends of the revolving arms G. The cheese-rolls may be fed to the tilting platform in any suitable manner; but as the feeding device does not form a material part of my present invention I have deemed it unnecessary to illustrate the same. If desired, the cheese-rolls may be fed by hand one at a time direct from the unboxing-bench onto the tilting platform, and the latter may be provided with two spaced-apart stops N′, between which the cheese-rolls may be set directly over the hinge of the tilting platform, so that they will be conveniently supported without danger of rolling off the same and yet be in position to roll off the stop down the platform in tilted position and into one of the swinging baskets designed for its reception.

As the carrier is rotated an arm S, secured to the outer end of one of each pair of radial arms G, will strike against the outer end of the platform N and cause the latter to tilt, assuming the position shown in dotted lines in Fig. 1. This tilting will result in a cheese-roll being received in the basket that happens to be adjacent the outer end of the plat-

form at the time, and as the carrier continues to rotate the said basket, with the cheese-roll in it, will be carried through the tank of paraffin, whereby the cheese-roll becomes coated. This tank may be constructed in any desired manner, and, as shown in Fig. 1, it preferably comprises an outer shell A, provided with water-pipe R, water-glass P, and steam-outlet Q, and an inner shell B, designed to receive the paraffin and wedge into the outer shell A. As shown, the platform N is in the present instance hinged directly to the paraffin-tank, with its outer end projecting over the same. As the carrier then continues to revolve the swinging suspended baskets, with the cheese-rolls in them, will be carried out of the paraffin one at a time and passed around in the direction indicated by the dart in Fig. 1 through the air, whereby they are allowed to drip and cool. When a basket reaches the upper end of its travel, its arm D will come into contact with a laterally-projecting pin W, secured on the lower end of the frame X, attached to the roof or the like, as shown, and by thus coming in contact the basket will be tilted rearwardly, as is evident from the drawings, and this will allow the cheese-roll to be discharged from the basket onto a receiving chute or runway T, which may be of any suitable character, in this instance being suspended from hangers V, the receiving end of said runway being located at the proper point, so that when the basket is tilted to discharge a cheese-roll its lower end will engage with the outer end of the runway, as indicated in Fig. 1. The cheese-rolls are thus permitted to roll down to the receiving-bench or similar device ready for boxing. As the carrier still continues to revolve the basket will be again presented to the platform N to receive another cheese-roll, the foremost cross-bar C′ of the basket riding downwardly over a suitable inclined guide Y, which maintains the basket in the proper position and prevents it from swinging forwardly, in which event it might not be in a position to properly receive the next cheese-roll.

As illustrated in Fig. 1, the parts of the apparatus are so proportioned that when a swinging basket is tilted by the pin W to deposit its cheese-roll onto the runway T the lower edge of the basket is in contact with the outer end of said runway, being held in this position by the engagement of the arm D with the said pin W. As the inclined guide Y projects downwardly from the said end of the runway, it is manifest that the basket in its further downward movement will ride upon the said guide and be directed thereby onto the tilting platform. The baskets being U-shaped, as above described, as soon as their lowermost cross-bar clears the lower end of the inclined guide Y the basket as a whole is out of engagement with the inclined guide, for the reason that it is only the lower cross-bar which engages therewith. In other words, the inclined guide Y is located between the planes of the vertical bars C′ of the baskets and subsequently also within the plane of the arms G and other projecting parts of the apparatus.

The reference-letter U designates side guides for the roll as it is received upon the tilting platform N, said guides in the present instance being shown as attached to and depending from the runway T.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a useful and novel form of apparatus, which is provided with a revolving carrier and operates continually to receive cheese-rolls one after the other and carry them successively through paraffin, after which the carrier will carry them through the air to allow them to drip and cool, and will deposit them one after the other upon a runway or the like. It will also be seen that the operation of the apparatus is entirely automatic, it being only necessary to supply the inclined track or chute with cheese-rolls, the machine automatically going through all the other steps of the operation.

Having thus described the invention, what is claimed as new is—

1. An apparatus of the character described comprising a revoluble carrier, a series of freely-swinging baskets mounted thereon, a suitable bath, and means whereby said baskets will receive the articles and carry them through said bath and automatically deposit them upon a receiving-table or the like.

2. An apparatus of the character described comprising a revoluble carrier, a freely-swinging basket carried thereby, a suitable bath through which said basket is designed to pass, a receiving chute or runway, and means for automatically tilting the basket after it has emerged from the bath whereby to discharge its contents upon said runway.

3. An apparatus of the character described comprising a series of revoluble swinging baskets, a suitable bath, and means whereby said baskets will automatically receive the articles one at a time and carry them through said bath and finally deposit them successively upon a receiving-table or the like.

4. An apparatus of the character described comprising a series of revoluble freely-swinging baskets, means for automatically depositing the articles in the successive baskets, and means whereby said baskets will deposit their articles successively onto a receiving-table or the like.

5. An apparatus of the character described comprising a revoluble carrier, a suitable

bath, a supply-chute adjacent said bath, a receiving-runway above said bath, and means whereby said carrier will automatically receive the articles from said chute, carry them through the bath and finally deposit them upon said runway.

6. An apparatus of the character described comprising a revoluble carrier provided with a series of freely-swinging baskets, a suitable bath through which said baskets are designed to successively pass, and means for automatically tilting said baskets to allow them to deposit their contents upon a runway or the like.

7. An apparatus of the character described comprising a revoluble carrier including a series of swinging baskets, a suitable bath through which said baskets are designed to successively pass, a runway adjacent said carrier, a stationary abutment, and an arm on said abutment whereby to tilt the basket for the purpose set forth.

8. An apparatus of the character described comprising a freely-swinging revoluble basket, a suitable bath through which said basket is designed to pass, means for supplying the basket with the article to be acted upon by the bath, and means for automatically tilting tne basket after it has emerged from the bath whereby to discharge its contents.

9. An apparatus of the character described comprising a revoluble carrier including a swinging basket, a suitable bath through which said basket is designed to pass, a tilting platform arranged in the path of said basket, and an arm secured to the carrier and designed to tilt said platform whereby to allow the article thereon to enter the basket.

10. An apparatus of the character described comprising a revoluble carrier including a freely-swinging basket, a suitable bath through which said basket is designed to pass, a tilting platform for the articles, the forward end of said platform lying within the path of said basket, and a depressing device supported on the carrier and designed to tilt the outer end of said platform when the basket is adjacent thereto as and for the purpose set forth.

11. An apparatus of the character described comprising a revoluble carrier including a swinging basket, a suitable bath through which said basket is designed to pass, an arm rigidly secured to said basket and extending rearwardly therefrom at one side, and a pin W projecting laterally into the path of said arm and designed to engage the latter to tilt the basket, as and for the purpose set forth.

12. An apparatus of the character described comprising a revoluble shaft, two sets of radial arms secured thereon, swinging baskets freely suspended from the outer ends of said arms, a suitable bath through which said baskets are designed to successively pass, a supply-chute adjacent the path of said baskets, a receiving-runway or the like above said chute, and means whereby the baskets will automatically receive the articles one basket at a time and will pass them successively through the bath and automatically deposit them upon said runway.

13. An apparatus of the character described comprising a revoluble carrier including a swinging basket, a bath through which said basket is designed to pass, a supply-chute having an end adjacent the path described by said basket, a runway above said chute, means for tilting the basket rearwardly adjacent the ends of said runway, whereby to discharge the contents of the basket onto the same, and guides extending from said runway and designed to prevent the free swinging of the basket as it passes to the said chute.

14. An apparatus of the character described comprising a revoluble carrier, a swinging basket embodied therein, a bath through which said basket is designed to pass, a supply device having an end adjacent the path described by said basket, a runway above said chute means for tilting the basket rearwardly adjacent the end of said runway whereby to discharge the contents of the basket onto the same, the parts being so arranged that the lower front edge of the basket will engage with the end of said runway when the basket is tilted, and a guide extending downwardly from the edge of the runway and designed to direct the basket toward the supply device.

15. In an apparatus of the character described, a basket comprising pivoted U-shaped bars, a guard for the rear of the basket, and an adjustable connection between said guard and said bars.

16. In an apparatus of the character described, a basket comprising U-shaped bars pivotally connected together at their ends, a horizontally-extending guard secured to one of said bars and provided with a series of recesses or the like, and one or more pins secured to the other bar and designed to be received in said recess for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ORVILLE O. AMSDEN.

Witnesses:
STANLEY C. SWIFT,
EDWIN M. PARK.