V. CLAIREMONT.

PRESERVING EGGS.

APPLICATION FILED JAN. 14, 1914.

1,127,733.

Patented Feb. 9, 1915.

3 SHEETS—SHEET 1.

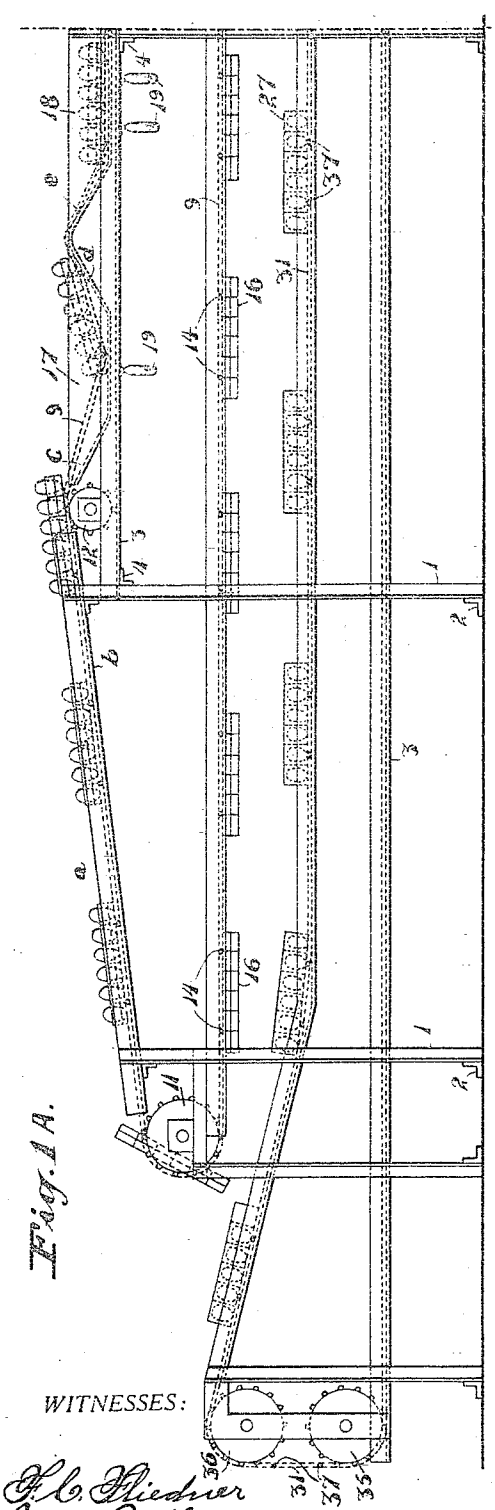


Fig. 1 A.

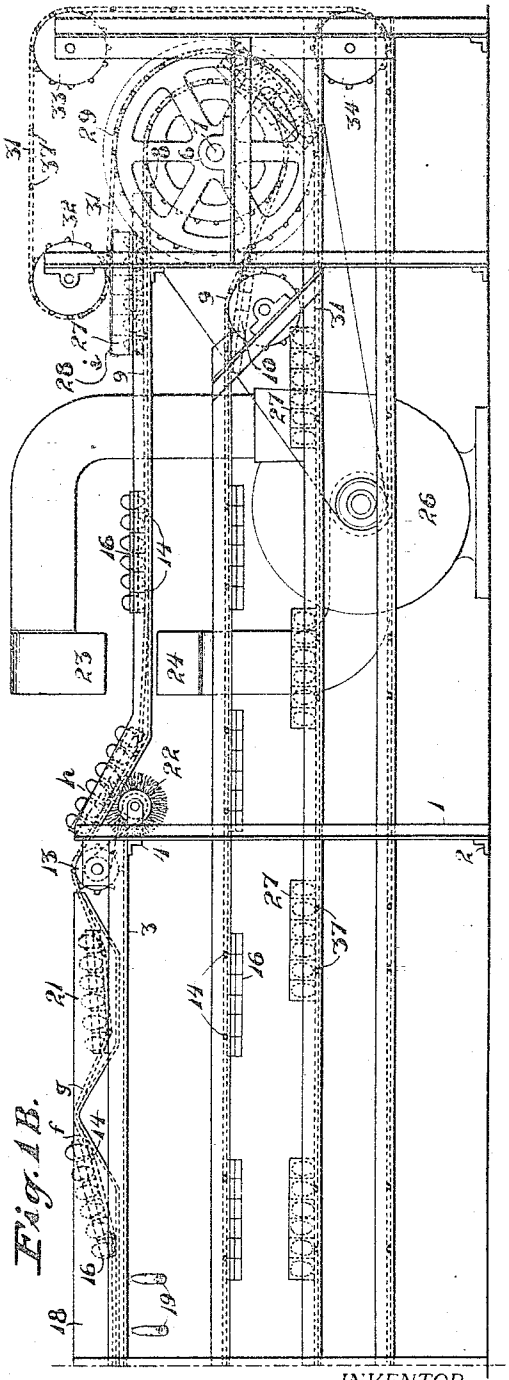


Fig. 1 B.

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2 SHEETS—SHEET 2.

Fig. 2.

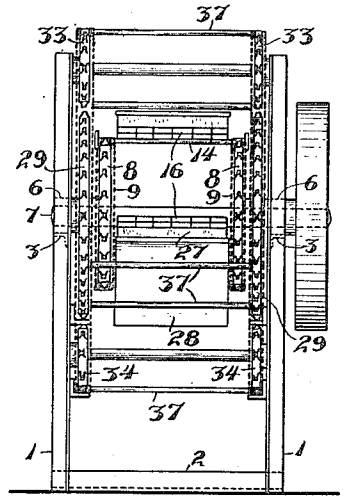
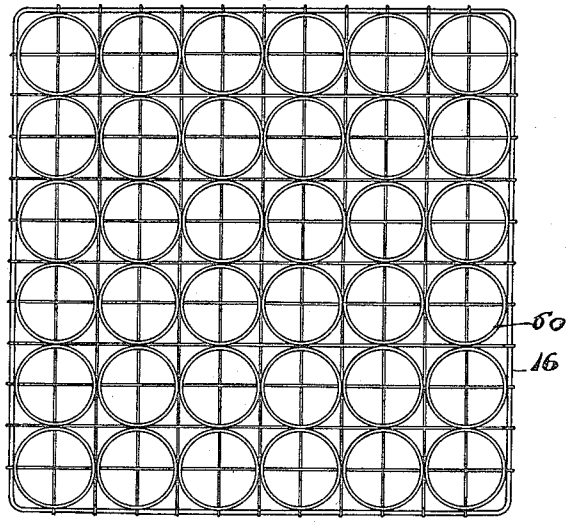


Fig. 3.



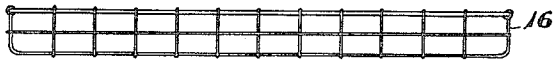
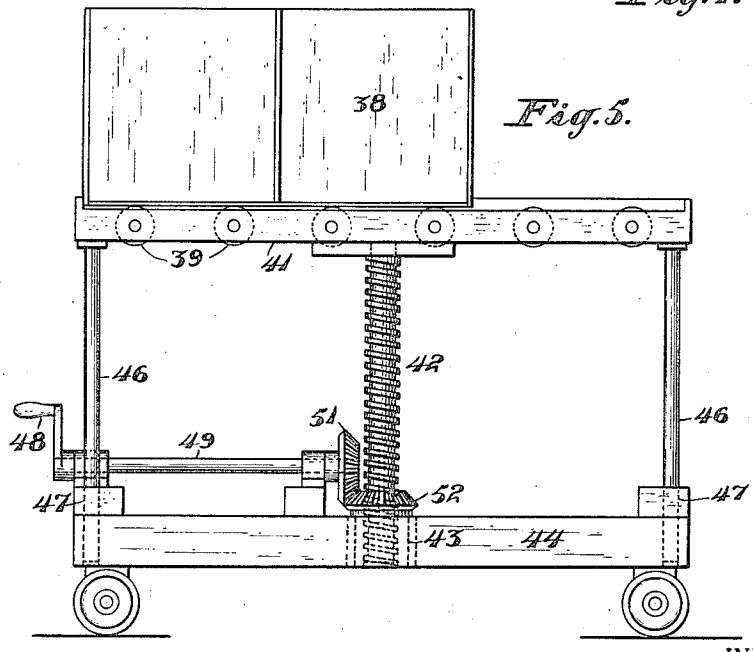


Fig. 4.

Fig. 5.



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PRESERVING EGGS.

1,127,733. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed January 14, 1914. Serial No. 811,997.

To all whom it may concern:

Be it known that I, VICTOR CLAIREMONT, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Preserving Eggs, of which the following is a specification.

The object of the present invention is to provide a machine in which eggs, taken from the usual card-board filler, are dipped in a hot preservative solution and then in a cold solution to close the pores of the shell to make the same air-tight, and can then be transferred to card-board fillers, without changing the relative positions which the eggs originally occupied in the card-board filler.

In the accompanying drawing, Figure 1A is a side view of one portion of the machine; Fig. 1B is a similar view of the remainder thereof; Fig. 2 is an end view of the machine; Fig. 3 is a plan view, and Fig. 4 a sectional view, of a wire basket employed in my invention; Fig. 5 is a side view, of a movable egg case supporter.

Referring to the drawing, 1 indicates vertical angle-irons, secured at the bottom to transverse angle-irons 2, and secured to longitudinal angle-irons 3, transverse angle-irons 4 being secured to said vertical and longitudinal angle-irons at their points of juncture. In boxes 6 on longitudinal angle-irons 3 is mounted a driving shaft 7, upon which are secured a pair of sprocket wheels 8, around which pass a pair of upper sprocket chains 9, of the link-belt variety, which also pass in an endless path around idle pairs of sprocket wheels 10, 11 12 and 13, said sprocket chains travel on horizontally extending members of the longitudinal angle-irons so that they do not sag and they are connected to each other by transverse bars 14, to pairs of which are connected open-bottomed wire baskets 16, particularly shown in Figs. 3 and 4, said wire baskets having compartments holding in all three dozen eggs and being exact duplicates of the card-board fillers as to spacing of eggs.

The wire baskets travel away from the driving wheel in the lower course of their endless path, in which course they hang downward and are empty, and they travel toward the driving wheel in the upper course thereof. At a part of the machine indicated by the letter "*a*" in Fig. 1A they are filled by an operator with eggs in the following manner: Full cases of eggs are brought near to said part "*a*" of the machine on trucks, and with one side removed. The operator by means of a flat metal sheet inserted beneath the loose card-board flat bottom of the upper layer of three dozen eggs, raises said filler and eggs from the egg case, places this sheet, with the card-board bottom and filler and eggs thereon, upon the empty wire basket while it is traveling along this part of the machine taking care that the compartments of the card-board filler are immediately above the corresponding compartments of the wire basket. He then withdraws the flat metal sheet and loose card board bottom from beneath the eggs, whereupon they drop into the wire basket. He repeats this operation with the succeeding card-board fillers and wire baskets. The wire basket, with the eggs therein, now travels on an ascending portion *b* of the path of the chains, and then, as shown at *c*, descends into a tank 17 containing a warm preservative solution which takes the chill off the eggs. Then, as shown at *d*, it descends out of said tank, and, as shown at *e*, descends in a tank 18 containing hot preservative solution. These tanks 17 and 18 are supported upon the angle-irons, except when passing through tanks hereinafter described and may be heated in any desired manner, and I have herein illustrated such heating means by gas burners 19. The basket with eggs therein then, as shown at *f*, ascends out of said hot solution tank, and, as shown at *g*, descends into, and ascends out of, a cold solution tank 21, which chills the eggs and closes the pores of their shells, and renders the same air-tight. The basket, then, as shown at *h*, descends and passes over a revolving brush 22, which brush removes from the eggs the solution that is dripping off. Said basket then passes between an upper discharging conduit 23 and a lower suction conduit 24, which conduits are connected to a blower 26. This blower dries the solution remaining on the eggs. The suction conduit 24 of the blower is made with a separator or trap to take up the solution and insure only dry air going into the blower. The separator or trap drains into the supply tank of the solution. The basket then passes over a portion of the path, shown at *i*, near which another operator stands, and places on the

wire basket, so as to register therewith, a card-board filler 27 and on this card-board filler he places a flat metal sheet 28. The basket is now approaching the driving wheels 8. On the driving shaft 7 are secured two outer and larger sprocket wheels 29 around which pass a pair of sprocket chains 31, which also pass around pairs of sprocket wheels 32, 33, 34, 35 and 36, these sprocket chains likewise traveling on the horizontally extending members of the longitudinal angle-irons. These sprocket wheels are connected at suitable intervals transversely by bars 37, which bars uphold the flat metal sheet, and therefore also the card-board filler, while they and the wire basket are making the turn from the upper to the lower course of the path. In so turning, the eggs drop from the wire basket into the card-board filler, and immediately the wire basket is raised from off the card-board filler by the chains 9, which, immediately after passing the driving sprocket wheels 8, pass over the idle sprocket wheels 10.

The card-board filler 27, supported upon the flat metal sheet, is conveyed by the chains 31 to the end of the machine remote from the driving wheel, at which end the card-board filler and metal sheet are gradually raised. They are then placed in an egg case 38 open at one side, (Fig. 5). Said egg case is supported on rollers 39 mounted in a frame 41 supported upon the top of a screw 42 screwed through a collar 43 secured on the body of a truck 44, said frame having guide posts 46 guided in vertical bearings 47 in said truck. When a filler has been deposited upon the bottom of each egg case on the truck, the frame 41 is lowered through the distance equal to the height of one filler by means of a crank handle 48 on a shaft 49 having suitable bearings in the vehicle and having a bevel gear 51 meshing with a bevel gear 52 on the collar 43. In this manner the fillers are successively deposited in the egg cases on the top of one another until the egg cases are filled. Another truck is brought into position, and the metal sheets 28 are now removed from the egg cases on the truck and the egg cases may be removed from the truck for transportation or storage.

An important feature of this invention is the construction of the wire baskets, especially as to their depth. Each basket has circular wires 60 around the tops of the several compartments for the individual eggs. The baskets should be one inch high; if made any shallower, a large egg will not be securely held therein when the basket is traveling on an inclined plane; and if the baskets were made deeper a short egg will catch the edge of the upper wire and will not roll out when going around the turn at the end of the machine.

I claim:—

1. The combination of an endless traveler, an open-bottomed basket secured thereto having compartments, a tank into and from which said traveler and basket descend and ascend, and means at a downward turn of said path for holding in registry with said basket a receptacle having compartments arranged similarly to those of the basket.

2. The combination of an endless traveler, an open-bottomed basket secured thereto having compartments, a tank into and from which said traveler and basket descend and ascend, a receptacle having compartments arranged to register with compartments of the basket, and an endless traveler arranged to travel coaxially with a downward turn of the path of the first-named traveler at a sufficient distance therefrom to maintain said receptacle in registry with said basket.

3. The combination of an endless traveler, an open-bottomed basket secured thereto having compartments, a tank into and from which said traveler and basket descend and ascend, a receptacle having compartments arranged to register with the compartments of the basket, a loose bottom for said receptacle, and an endless traveler arranged to travel coaxially with a downward turn of the path of the first-named traveler at a sufficient distance therefrom to engage said bottom and maintain said receptacle when inverted in registry with said basket.

4. In a machine for coating eggs, the combination of an endless traveler, a tank into and from which said traveler descends and ascends, and a second endless traveler arranged to travel coaxially with a downward turn of said path of the first-named traveler, and means carried by each of said travelers for preventing longitudinal movement of eggs relative to the traveler on which they are carried, said means being adapted to register with each other at said downward turn and to permit transfer of eggs from the first-named traveler to the second.

5. An endless traveler having secured thereto, at intervals and at points intermediate of their ends, wire baskets having compartments for eggs and substantially one inch in height and comprising a circular wire around the top of each compartment, and means in the path of said traveler for treating said eggs.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

VICTOR CLAIREMONT.

Witnesses:
FRANCIS M. WRIGHT,
D. B. RICHARDS.