Nov. 3, 1925. 1,559,907

J. PAISSEAU

MACHINE FOR VARNISHING ARTIFICIAL PEARLS BY THE DIPPING PROCESS

Filed July 25, 1922

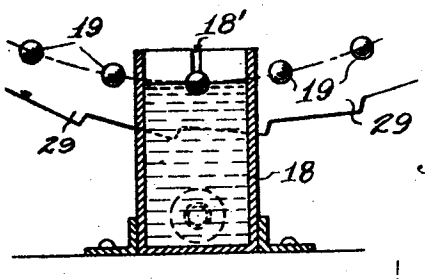


fig. 3

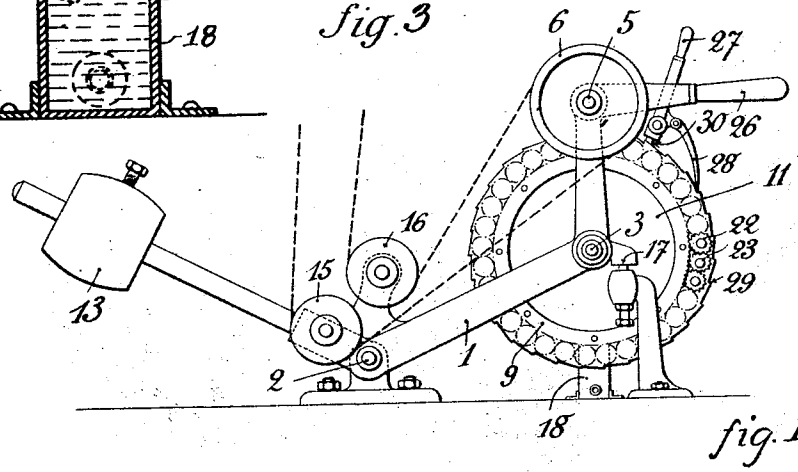
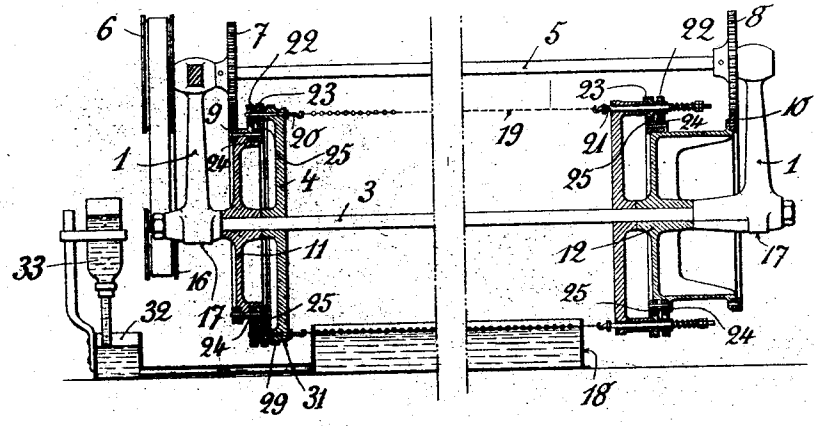


fig. 1

fig. 2



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Patented Nov. 3, 1925. 1,559,907

UNITED STATES PATENT OFFICE.

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MACHINE FOR VARNISHING ARTIFICIAL PEARLS BY THE DIPPING PROCESS.

Application filed July 25, 1922. Serial No. 577,379.

To all whom it may concern:

Be it known that I, JEAN PAISSEAU, a citizen of the Republic of France, and residing at Paris, Seine Department, No. 53 Rue de Chateaudun, in the Republic of France, engineer, have invented certain new and useful Machines for Varnishing Artificial Pearls by the Dipping Process, of which the following is a specification.

This invention relates to a machine for the varnishing of artificial pearls with great facility and with great rapidity by dipping them in a bath of suitable varnish.

To this effect the said machine comprises a barrel with horizontal axis, the pearls being disposed between the cheeks of the barrel upon stretched wires and are rotated by suitable driving means. Hand levers are used to rotate the said barrel and to lower the same in such manner that a row of pearls shall be immersed in a varnish tank at each operation.

The accompanying drawings show by way of example a form of construction of the apparatus according to the invention.

Fig. 1 is a cross-section of the machine and

Fig. 2 a lengthwise section of the same.

Fig. 3 is a detail cross sectional view, on a larger scale, of the tank and showing a portion of the barrel carrying the pearls.

The said machine comprises a main frame 1 pivoted on the axle 2 and supporting the axle 3 of a barrel 4 and also a shaft 5 having mounted thereon a driving pulley 6 and gears 7, 8 co-operating with toothed parts 9, 10 on the drums 11, 12 which are loose on shaft 3. The device as a whole is balanced by the counterweight 13; the driving belt 14 is disposed on guide pulleys 15 and 16, mounted on the main frame 1 and passes around pulley 6 whereby said pulley, the shaft 5 and the gears 7 and 8 are driven. The belt may be connected with any suitable driving mechanism (not shown). The descent of the barrel 4 is regulated by the stops 17 so as to secure a suitable immersion of the pearls in the varnish contained in the tank 18.

Between the cheeks of the barrel are stretched the wires 19 holding the pearls, said wires being attached to rods 20, 21 which are loosely revoluble in the barrel and are secured respectively to the gear wheels 22, 23 which respectively engage the toothed rings 24, 25 mounted on the drums 11, 12. In this manner, when said drums are rotated by the shaft 5, the wires supporting the pearls are also rotated in a continuous manner.

The movements of the frame 1 on the axle 2 are obtained by means of the lever 26. A second lever 27 drives a pawl 28 so as to rotate the barrel by means of the teeth 29. Obviously, the width of said teeth corresponds to the distance between two rows of pearls, and since on the other hand the machine is provided with a thrust ball-bearing 30 pressed by a spring into the notches 31 of the barrel, each movement of the lever 27 will bring a succeeding row of pearls exactly in the axis of the tank 18 and it is simply necessary to press upon the lever 26 in order to immerse the pearls in the varnish. The wires supporting the pearls enter slots 18′ formed in the ends walls of the tank for this purpose. The tank 18 is preferably supplied by a container 32 provided with a constant level device 33.

In the operation of the machine, the rotating movement of the gears 7 and 8 is imparted to the drums 11 and 12 on the shaft 3 through the toothed parts 9 and 10 of said drums. The engagement of the toothed rings 24 and 25 on the drums 11 and 12 with the gears 22 and 23 on the rods 20 and 21 will cause a continuous rotation to all of the wires 19 connected with the rods and the pearls carried by the wires.

The frame 1 carrying the supporting and rotating mechanism for the wires carrying the pearls is swung upwardly and downwardly on the axle 2 by the lever 26 to raise and lower the pearls out of and into the tank 18, and each wire of pearls is successively brought into position to be lowered into the tank by the engagement of the pawl 28 carried by the lever 27 with the successive teeth 29 of the barrel. In this lowering operation the wires enter the slots 18′ in the ends of the tank to permit the pearls to be partly immersed in the varnish. The rotation of the wires of beads will cause the complete coating thereof with the varnish. After each wire of beads is thus coated the mechanism is raised by the lever 26 and the lever 27 operated to turn the barrel to the distance of one tooth thereby bringing the next wire of pearls in position for engagement with the tank when the mechanism is again lowered.

It will thus be seen that as the wires of beads are continuously rotated in the manner described it is simply necessary to alternately operate the two levers 26 and 27 to effect the varnishing of the successive wires of pearls carried by the barrel.

I claim—

1. A machine for varnishing artificial pearls comprising a varnish containing tank, a revoluble barrel upon a horizontal axis, wires stretched upon the said barrel parallel to the axis and adapted to support the pearls, and means for raising and lowering said barrel in order to immerse the pearls in the varnish.

2. A machine for varnishing artificial pearls comprising a varnish containing tank, a barrel revoluble upon a horizontal axis, wires stretched upon the said barrel parallel to the axis and adapted to support the pearls, means for raising and lowering said barrel in order to immerse the pearls in the varnish and means for continuous rotation of said wires upon their centers.

3. A machine for varnishing artificial pearls comprising a varnish containing tank, a support swinging on a horizontal axis, a revoluble barrel mounted on said support and having its axis in the horizontal position, wires stretched upon said barrel parallel to the axis and adapted to support the pearls, the above-mentioned elements being so disposed that the pearls mounted upon one of the wires will be immersed in said tank when the said support is caused to swing.

4. A machine for varnishing artificial pearls comprising a varnish containing tank, a barrel revoluble upon a horizontal axis, wires stretched upon the said barrel parallel to the axis and adapted to support the pearls, means for raising and lowering said barrel in order to immerse the pearls in the varnish, and means for rotating said barrel by successive stages whereby a succeeding wire shall be brought above the tank after each lifting movement of the barrel.

5. A machine for varnishing artificial pearls comprising a varnish containing tank, a barrel revoluble upon a horizontal axis, wires stretched upon the said barrel parallel to the axis and adapted to support the pearls, means for raising and lowering said barrel in order to immerse the pearls in the varnish and means for maintaining the varnish in the tank at a constant level.

In testimony that I claim the foregoing as my invention, I have signed my name.

JEAN PAISSEAU.