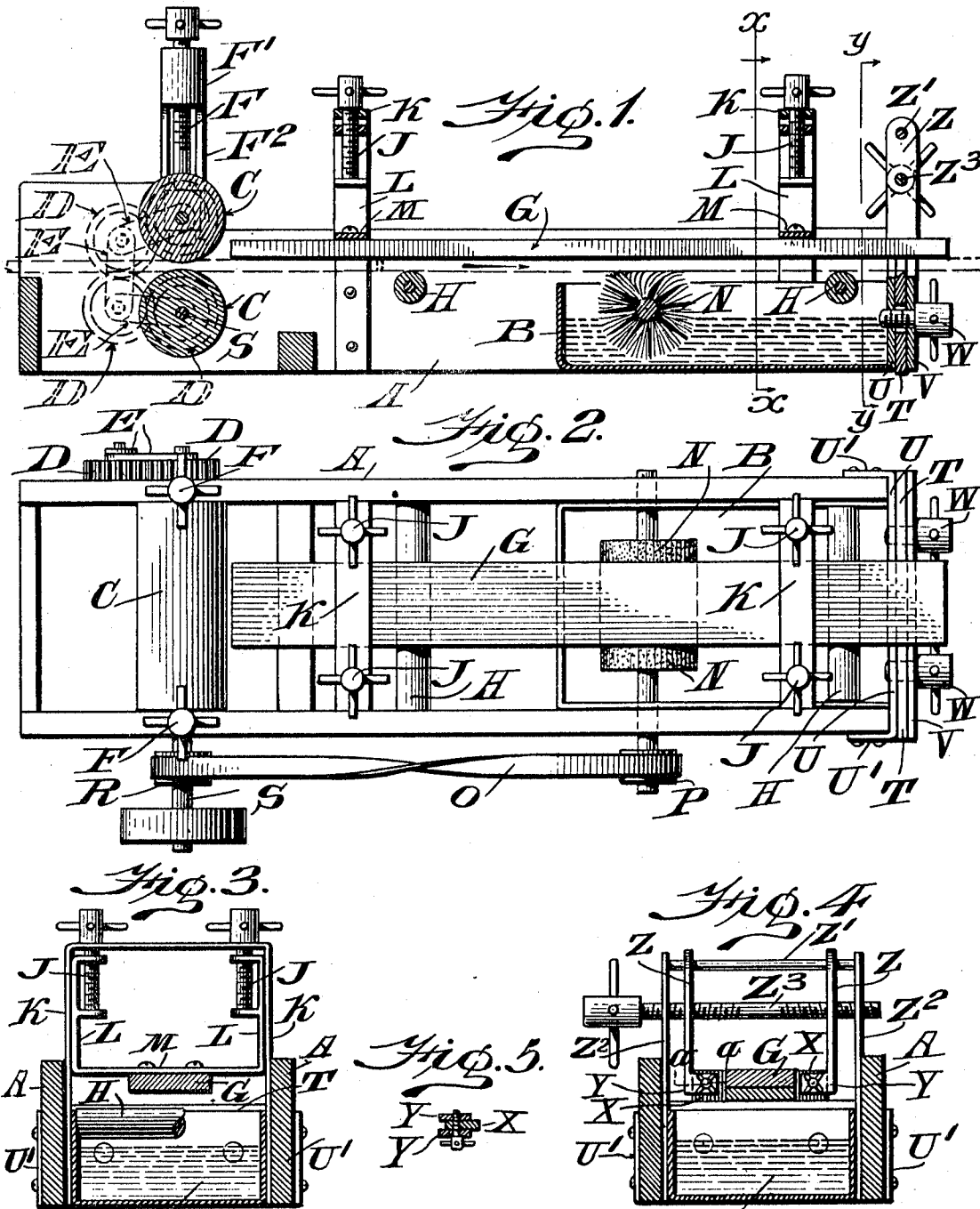


MACHINE FOR PAINTING, VARNISHING, FILLING, OR OTHERWISE COATING BOARDS OR
OTHER PIECES OF MATERIAL.

1,026,921.



WITNESSES
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UNITED STATES PATENT OFFICE

WILLIAM WINFRED NUSS, OF TOWANDA, PENNSYLVANIA.

MACHINE FOR PAINTING, VARNISHING, FILLING, OR OTHERWISE COATING BOARDS
OR OTHER PIECES OF MATERIAL.

1,026,921.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM W. NUSS, a citizen of the United States, residing in Towanda, county of Bradford, State of Pennsylvania, have invented a new and useful Machine for Painting, Varnishing, Filling or Otherwise Coating Boards or other Pieces of Material, of which the following is a specification.

My invention consists of a machine for painting, varnishing, filling or otherwise coating the face of a board or other piece of material in a convenient and effective manner, provision being made also for removing the surplus paint, varnish, etc., and returning it to the tank from which it came originally.

It consists also of means for removing the paint, varnish, etc., that may have been applied improperly to the side edges of said board or piece.

It consists also of details of construction as will be hereinafter fully set forth.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a longitudinal vertical section of a machine embodying my invention. Fig. 2 represents a top or plan view thereof. Fig. 3 represents a transverse vertical section thereof on line $x-x$ Fig. 1. Fig. 4 represents a transverse vertical section thereof on line $y-y$ Fig. 1. Fig. 5 represents a section of a portion on line $a-a$ Fig. 4.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings:—A designates the bed or base of the machine, and B designates a tank fitted therein.

C, C, designates feed rollers which occupy the relative end of the bed, the same being geared together by the toothed wheels D and mounted on links E, which have their bearings on the axes of the wheels D so that said rollers may be adjusted relatively to the thickness of the board or material to be passed between them. Swiveled to the boxes or bearings of the upper roller C are the set screws F which are fitted in internally threaded bosses F' which are supported on

the standards F², which rise from the bed A by which provision said roller may be placed nearer to or farther from the lower roller C for the adjustment of said rollers C as above stated.

Above the bed A is the pressure board G which extends horizontally thereover, it being held in position and adapted to be vertically adjusted relatively to the thickness of the board or piece of material passed through the feed rollers C and directed under said board G, it being noticed that the upper part of said bed has transversely-extending rollers H mounted thereon, the same being adapted to support said board or piece in its passage over the bed and consequently over the tank B which is below said board. In order to effect the vertical adjustment of said pressure board, I employ the screws J which are swiveled on the stationary frame K which rises from and is supported on the bed A and engages with the vertically movable frame L with which said board is connected as at M.

In the tank B is the brush N which receives rotation from the pulley P, the latter being operated by the belt Q, which passes around the pulley R on the driving shaft S of the machine, said shaft in the present case being the axis of the lower member of the feed rollers C, it being noticed that the brush N dips into the paint, varnish, filling or other material which is contained in the tank B and is adapted to come in contact with the underside of the board or piece of other material passed through the machine under the pressure board, it being noticed also that said board or piece is held in position by said pressure board in its motion while receiving the paint, etc., from said brush. The rollers H adapt the board or piece to be supported thereon with the least contacting surface especially after the paint or coating has been applied to the same.

Near the discharge end of the bed A is the wiper T which consists of a piece of rubber, leather, pliable metal or other material of somewhat yielding nature, it being arranged vertically and having its upper edge beveled or tapering, the same being adapted to come in contact with the under side of the board or piece passed through the machine, said wiper being retained and sustained on one side by the plate U on whose sides are the arms U' which are stationarily connected

with the sides of the bed and on the other side by the plate V which is movably held against the wiper by the screws W, the latter passing through the wiper and the plates U, V, the plate U in the present case comprising the rear end of the tank against which the wiper is sustained, the wiper being vertically movable by its slots on said screws W and so made adjustable so as to set its upper edge in proper relation to the underside of the board or piece of material with which it is adapted to contact.

Between the sides of the bed, near the discharge end thereof, are the wipers X which are adapted to contact with the side edge of the board or other piece of material passed through the machine, said wipers being connected with the clamps Y on the lower ends of the hangers Z, the latter being pendant from and guided on the rod Z² which extends horizontally on the standards Z³, and are secured thereto, said hangers having also fitted in them the screw Z³ which is provided with right and left threads and having a head Z⁴ whereby when said screw is operated, the wipers X may be moved from or toward the board or piece and so adjusted with nicety relatively to the side edges of the latter. For the purpose of clearness, the side wipers X have been removed from Fig. 2.

The operation is as follows:—The tank is properly supplied with paint, etc. and the rollers C and the pressure board G are adjusted to the thickness of the board or piece to be painted, etc. Power is applied to the main shaft S, whereby said rollers are properly operated and with them the brush N. As the board or piece advances, its underface comes in contact with said brush and as the latter dips into the paint, etc., and revolves, it applies the paint, etc., to said undersurface from side to side thereof in a convenient, uniform and effective manner. When the surface of the board painted or otherwise coated reaches the wiper T, the latter presses the paint, etc., firmly against the board, etc., and simultaneously removes the surplus paint, etc. The wipers X perform similar service on the side edges of the board while in both cases, the surplus paint, etc., drops from the wipers and returns into the tank so as to be reused.

The side wipers may be adjusted to and from each other by the screw Z³ relatively to boards or pieces to be painted, etc., of different widths and are of such height as to be adapted to contact with boards or pieces of different thicknesses, it being noticed that the pressure board or device is vertically movable between said side wipers and so serve also to remove surplus paint, etc., from the side edges of said device, as well as from the side edges of said boards or pieces.

The rollers H sustain the board or piece to be painted, etc., in the passage of the latter through the machine and serve with the pressure device to sustain said board or piece, whereby its under face is properly coated by the brush the bristles of the latter bending against said board or piece and so depositing a liberal supply of paint, etc., on said face after which the wiper smooths down said material and surface and so imparts a finish to the latter, while the surplus material is gathered and so may be reused as has been stated.

Where the face or sides, or both face and sides of the board, etc., are molded or shaped otherwise than flat, as shown, the wipers will have their wiping edges shaped to conform to the contour of the molding on said face or sides of the board, etc., so as to be effective in removing the surplus paint or coating therefrom.

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

1. In a coating machine of the character stated, a bed, feed rollers at the front end thereof, a pressure device above said bed, a roller for supporting the article to be coated on said bed below said device, a tank on said bed below said device, a brush in said tank, a wiper on the bed rearward of said roller, and means for vertically adjusting said feed rollers, said pressure device and said wiper.

2. In a machine of the character stated, a bed, a support on the bed for the piece to be coated, a tank thereon, a brush in said tank, feed rollers at the front end of said bed, means for rotating said rollers and said brush, and a wiper at the discharge end of said bed at the rear end of said tank, said brush and wiper being both below said device.

3. In a machine of the character stated, a tank, a pressure device above the same, a brush in said tank, a wiper on the bed below said device removed from said brush, and means for sustaining said wiper against said tank and permitting vertical adjustment of the former.

4. In a machine of the character stated, a bed, a tank, feed rollers at the front end of said bed, a pressure device above said bed, supporting rollers on the bed below said pressure device, a brush in said tank below said device, a wiper about the discharge end of said bed and adjacent portion of said tank, means for rotating said rollers and brush, and means for vertically adjusting said device.

5. In a machine of the character stated, a tank for coating material, a pressure device above the same, a brush in said tank, a wiper for surplus coating material on the bed below said device, and wipers for

surplus coating material on the bed at the sides of said device.

5 6. In a coating machine of the character stated, a bed, feed rollers at the front end thereof, a pressure device supported above said bed, a tank on said bed below said device, a brush in said tank, supporting rollers on the bed above said tank and below said device.

10 7. In a coating machine of the character stated, a bed, a pressure device above the same, a support for the article to be coated below said device, a brush in said tank, and wipers for surplus material on the sides of the bed adjacent to said tank and pressure device.

15 8. In a coating machine of the character stated, a bed, a tank thereon, a brush on said tank, a pressure device over said bed, 20 a support for the article to be coated below said device, wipers on the sides of the bed adjacent to said tank and device, hangers on the bed adapted to carry said wipers, and a screw engaging said hangers, and a mounting for laterally adjusting said wiper. 25

9. In a coating machine of the character stated, a bed, feeding means for the article to be coated at the front end thereof, a tank for coating material rearward of said means, a brush in said tank, and a pressure device 30 on the bed above said brush, said device being composed of a board, and means for supporting the same, said board extending substantially the length of said tank.

10. In a coating machine of the character 35 stated, a bed, feeding means for the article to be coated at the front end thereof, a tank for coating material rearward of said means, a brush in said tank, and a pressure device on the bed above said brush, said device 40 being composed of a board, means for supporting the same, said board extending substantially the length of said tank, and a wiper at the rear end of said tank, said brush and wiper being on the underside of 45 said device.

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Witnesses:

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