(No Model.) 2 Sheets—Sheet 1.

R. H. BELLMAN.

JAPANNING AND ENAMELING MACHINE.

No. 559,662. Patented May 5, 1896.

Fig. 1.

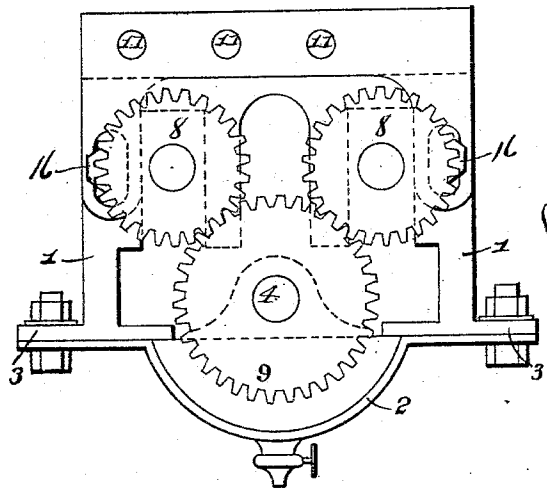
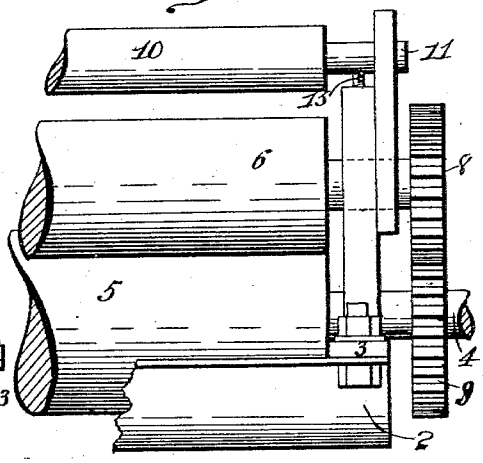


Fig. 2.



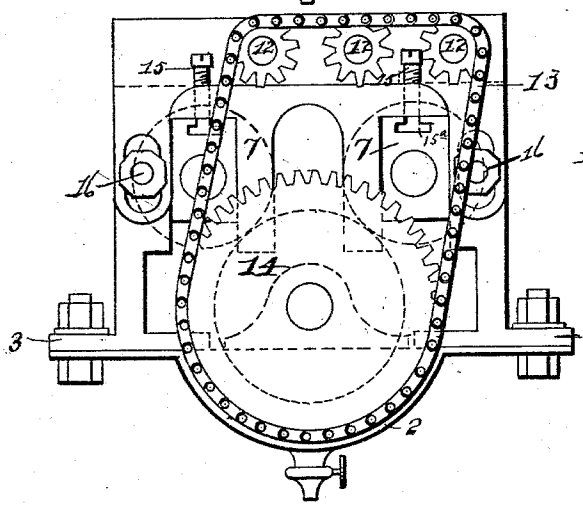


Fig. 3.

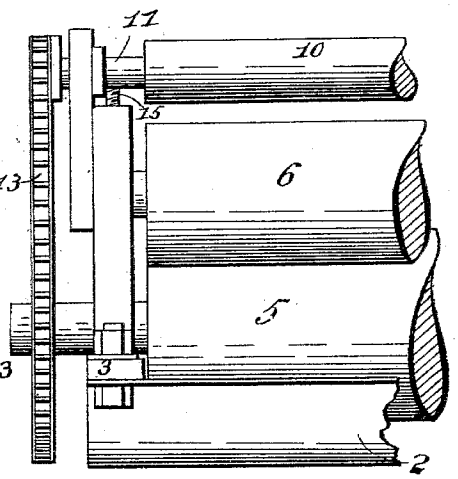


Fig. 4.

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(No Model.)

2 Sheets—Sheet 2.

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JAPANNING AND ENAMELING MACHINE.

No. 559,662. Patented May 5, 1896.

Fig. 5.

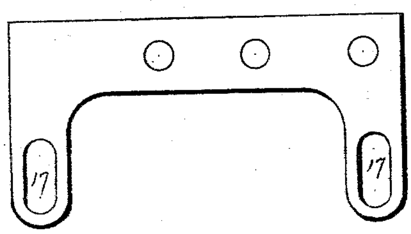


Fig. 6.

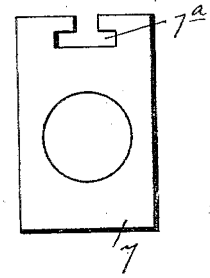


Fig. 7.

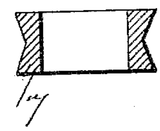


Fig. 8.

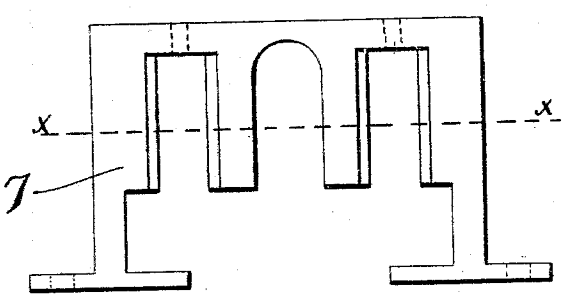
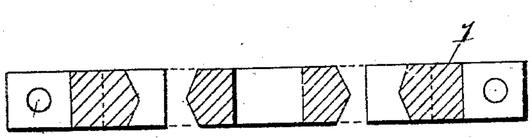


Fig. 9.



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UNITED STATES PATENT OFFICE.

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JAPANNING AND ENAMELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 559,662, dated May 5, 1896.

Application filed May 8, 1895. Serial No. 548,614. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HERMAN BELLMAN, a citizen of the United States, residing at Parnassus, county of Westmoreland, State of Pennsylvania, have invented new and useful Improvements in Japanning and Enameling Machines, of which the following is a specification, reference being had to the accompanying drawings, which will enable others skilled in the art to which it appertains to use the same.

This invention relates to certain new and useful improvements in machines for japanning, enameling, painting, and the like, and has for its object the provision of novel means whereby a device of this class may be constructed whereby the thickness of the coating to be applied can be regulated as desired.

A further object of the invention is to construct a device of the above-referred-to class whereby this class of work can be accomplished with much greater dispatch and ease than by the ordinary methods.

A still further object of the invention is to construct a machine of the above-referred-to class that will be simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like figures of reference indicate similar parts throughout the different views, in which—

Figure 1 is an end view of my improved machine. Fig. 2 is a side view of the same partly broken away. Fig. 3 is a rear elevation, and Fig. 4 is a side view of the same partly broken away. Fig. 5 is a front view of the top frame. Fig. 6 is a front view of the slide. Fig. 7 is a sectional view of the same. Fig. 8 is a front view of the frame proper; and Fig. 9 is a sectional view of the same, taken on the line X X of Fig. 8.

In the drawings, 1 1 represent the ends of the frame carrying the mechanism of the machine. Underneath the machine proper is a trough 2, which is provided with closed ends and is secured to the ends of the frame by means of bolts, as shown at 3 3, or in any suitable manner. Journaled in the bearings of the ends 1 1 is a shaft 4, which is provided with a roller 5 and carries on one end a pulley-wheel (not shown) through which motion is communicated to the roller 5. Rollers 6 6 are also journaled in adjustable bearings 7 7 and are provided at their ends with gear-wheels 8 8, which are adapted to mesh with a gear-wheel 9, provided on the end of the shaft 4. Rollers 10 10 10 are mounted in an adjustable frame and are provided with shafts 11 11 11, on one end of which are secured sprocket-wheels 12 12 12, engaging an endless sprocket-chain 13, which also passes under a sprocket-wheel 14 on one end of the shaft 4. Set-screws 15 15 are provided for adjusting the rollers 6 6, the set-screws 15 having heads 15^a, working in slots 7^a of the bearings 7, as shown in Fig. 3. An escape port or valve is provided on the underneath side of the trough 2 for emptying the same when desired. Set-screws or bolts 16 secure the sections of the frame, and by reason of the slots 17 in the said sections the frames are made adjustable to vary the action of the rollers.

Operation: It will be observed that when motion is communicated to the shaft 4 through the pulley-wheel on the end of the same the roller 5 will be rotated, and the gear-wheel on the end of the shaft 4 coming in contact with the gear-wheels 8 8 on the shafts of the rollers 6 6 will cause the rollers 6 6 to rotate in unison with the roller 5. It will also be observed that when this operation is taking place the sprocket-wheel 14 on the end of the shaft 4 will be rotated and will communicate motion to the rollers 10 10 10 by means of the sprocket-chain 13, operating on the sprocket-wheels 12 12 12 of the rollers 10 10 10. The paint or other substance is placed in the trough 2, and the roller 5, revolving in the said

trough, will come in contact with the paint or other substance and will be brought in contact with the rollers 6 6 by the roller 5, and by the rollers 6 6 communicated to the rollers 10 10 10. The material it is desired to paint, enamel, or japan, as the case may be, is then inserted between the rollers and is passed through by reason of the friction of the rollers against the material, and while passing through the rollers is coated with the substance contained in the trough 2. The rollers being adjustable it will be readily observed that the thickness of the coating can be easily regulated, as desired, by the set-screws regulating the rollers.

It will be noted that various changes may be made in the details of construction of my improved machine for enameling, painting, and the like without departing from the general spirit of my invention.

I claim—

1. In a machine of the character described, a frame arranged in sections and having slots, bolts working in the slots whereby the sections are adjustably secured, bearings having T-shaped slots, bolts provided with heads working in the slots, a series of rollers arranged in a horizontal plane, a series of increased diameter below the top series, and a roller below engaging the large rollers and having its periphery entering a tank, as and for the purpose described.

2. In a machine of the character described, a frame arranged in sections and provided with slots and screws or bolts extending through the slots and securing the sections in any degree of adjustment, bearings arranged on one section having T-shaped slots, bolts having heads working in the slots and having the screw-threaded portion operating in an aperture of the frame, shafts suitably journaled in the frame and bearings, rollers arranged on the shafts, and means for operating the rollers, as and for the purpose described.

ROBERT HERMAN BELLMAN.

Witnesses:

JNO. D. HALL,

I. L. GREEN.