

No. 677,343.

Patented July 2, 1901.

H. J. DELANEY.  
PAINTING MACHINE.

(Application filed July 20, 1900.)

(No Model.)

Fig. 1.

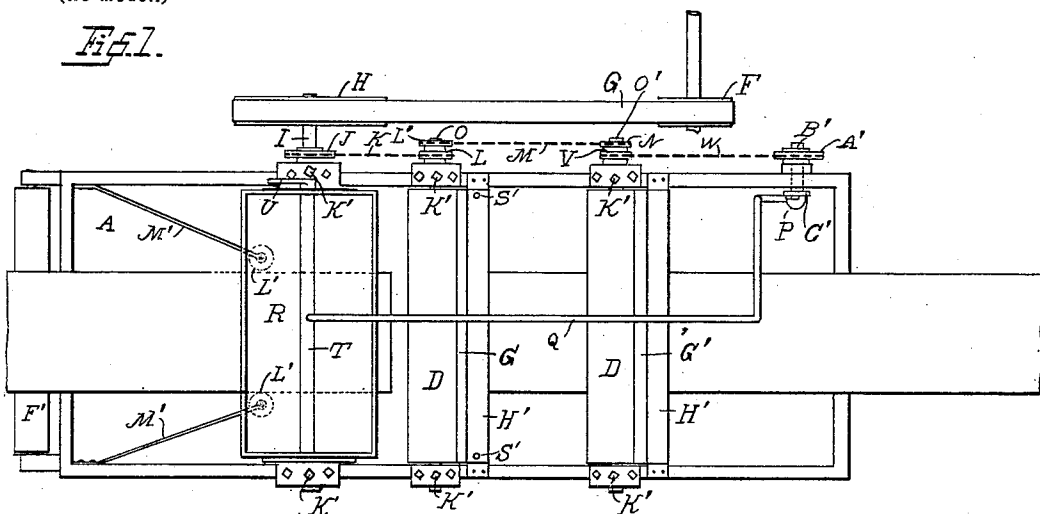


Fig. 2.

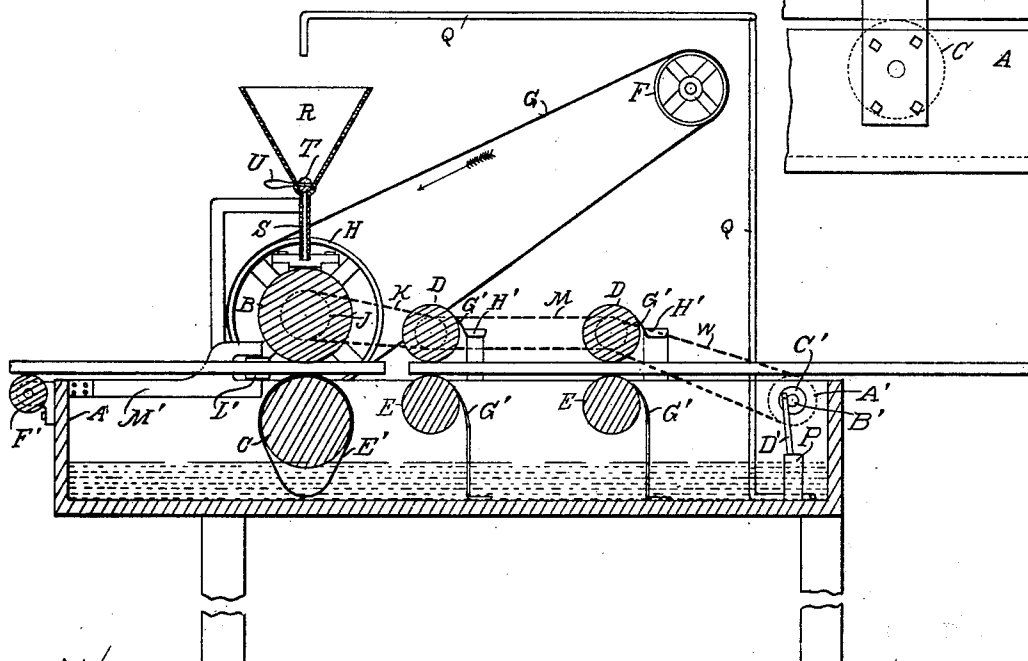
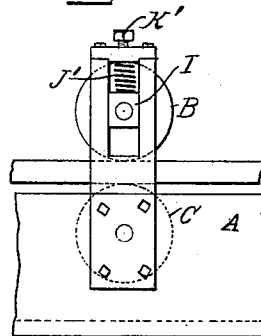


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

HENRY J. DELANEY, OF MILWAUKEE, WISCONSIN.

## PAINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,343, dated July 2, 1901.

Application filed July 20, 1900. Serial No. 24,268. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY J. DELANEY, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Liquid-Distributing Machines, of which the following is a specification.

The object of my invention is to provide a machine for applying paint or other liquid of wood-preserving compound to the surface of boards, shingles, and other material uniformly and rapidly.

My invention is explained by reference to the accompanying drawings, in which—

Figure 1 represents a plan view of my machine. Fig. 2 represents a longitudinal vertical section, and Fig. 3 represents a side view of the roller-journal bearings.

Like parts are identified by the same reference-letters throughout the several views.

A is a liquid-tank in which the paint or other preserving compound is stored.

B and C are liquid-distributing rollers by which the liquid from the tank is uniformly distributed over the surface of the boards or other material as it is being fed between them.

D D and E E are finishing-rollers by which the liquid applied by the rollers B and C is more effectually brushed or forced into the pores of the wood, while the surplus liquid, which would otherwise be wasted, is caused by such rollers to drip back into the tank.

Motion is communicated to the roller B from a driving-pulley F through the belt G, pulley H, and shaft I. Motion is communicated from the shaft I to the rollers D D through the sprocket-wheel J, sprocket-chain K, sprocket-wheel L, shaft O, sprocket-wheel L', sprocket-chain M, sprocket-wheel N, and the supporting-shaft O'. The rollers C E and E are idle except when the material is being fed over them, when they are actuated by contact of the moving substances passing between them and the opposing rollers above.

The preserving compound is carried up to the lower side of the boards or other material by the roller C, the lower surface of which dips into the upper surface of such compound. The compound is forced by an ordinary force-pump P from the liquid-tank A through the pipe Q to the upper reservoir R, from which reservoir R it is uniformly distributed along

the length of the roller B through the discharge-nozzle S. The mouth of the discharge-nozzle S is preferably provided with the liquid-controlling valve T, which may be turned so as to increase or diminish the flow of the liquid therefrom by turning the handle U toward the right and left. Motion is communicated to the pump P from the sprocket-wheel V through the sprocket-chain W, sprocket-wheel A', shaft B', crank C', and pitman D'.

To provide for conveying the compound to the roller C in case the liquid has receded below its lower surface, an endless belt or apron E' is preferably provided, which is suspended at its upper end from and around said roller, while its lower end hangs beneath the surface of said liquid.

F' is a guide-roller which serves to support and guide the material as it is being fed forward between the rollers B and C.

G' represents scraping-plates by which the surplus liquid from the finishing-rollers is caused to flow back into the tank.

H' represents troughs into which the surplus liquid removed by the scraping-plates from the finishing-rollers flows and by which it is led toward the right and left past the boards or other material being treated, when it drops of its own gravity into the tank through apertures S' provided therefor at the respective ends of such troughs.

The upper series of rollers B, D, and D are provided with movable journal-bearings I', which are held down against the material passing beneath them by spiral springs J'. The tension of the springs J' is regulated by adjusting-screws K', whereby the rollers may be adjusted to material of different thicknesses, while the springs permit the rollers to yield to conform to slight variations in the thickness of the material being treated.

L' L' are vertical guiding-rollers, which are supported in contact with the edges of the material treated by the yielding arms M' M'. The arms M' are preferably made of elastic material, which will permit said rollers to move toward or from each other, as may be required, to conform to material of different widths. Said arms may, however, be made of rigid material and pivoted to the supports, so as to yield to the pressure of the material

fed forward between them. The object of the rollers L' L' is to guide the material which is being treated and retain the same near the center of the rollers between which it passes.

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

1. In a liquid-distributing machine, the combination of a liquid reservoir or tank; a  
10 pair of liquid-distributing rollers having their opposing surfaces at or near the line of the upper surface of said tank; means for conducting liquid from said reservoir to both of said rollers simultaneously; one or more fin-  
15 ishing-rollers adapted to receive the material as it is fed between said distributing-rollers; two vertical guiding-rollers yieldingly supported near said liquid-distributing rollers; a sprocket-wheel affixed to the shaft of said  
20 upper distributing-rollers; a sprocket-wheel attached to the shafts of one or more of said upper finishing-rollers; and a sprocket chain or chains communicating between said sprocket wheel or wheels; whereby all of said upper  
25 rollers are simultaneously driven, substantially as and for the purpose specified.

2. In a liquid-distributing machine, the

combination of a liquid reservoir or tank; a pair of liquid-distributing rollers, one located above the other; one or more finishing-roll- 30 ers adapted to receive the material as it is fed between said distributing-rollers; means for communicating motion simultaneously to said distributing and finishing rollers; a distributing-reservoir located above the upper 35 one of said distributing-rollers; a regulating-valve located in the discharge-duct of said reservoir; means for forcing liquid from said lower reservoir to said upper reservoir; means for leading liquid from said lower reservoir 40 to said lower distributing-roller; scraping-plates supported yieldingly against the surfaces of said distributing-roller; and troughs for conducting the surplus material from the upper distributing-rollers back to the liquid- 45 tank, all substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY J. DELANEY.

Witnesses:

JAS. B. ERWIN,

C. L. ROESCH.