H. G. ANGLE.

Machines for Dressing Wood-Rails.

No. 142,608. Patented September 9, 1873.

Fig. 1.

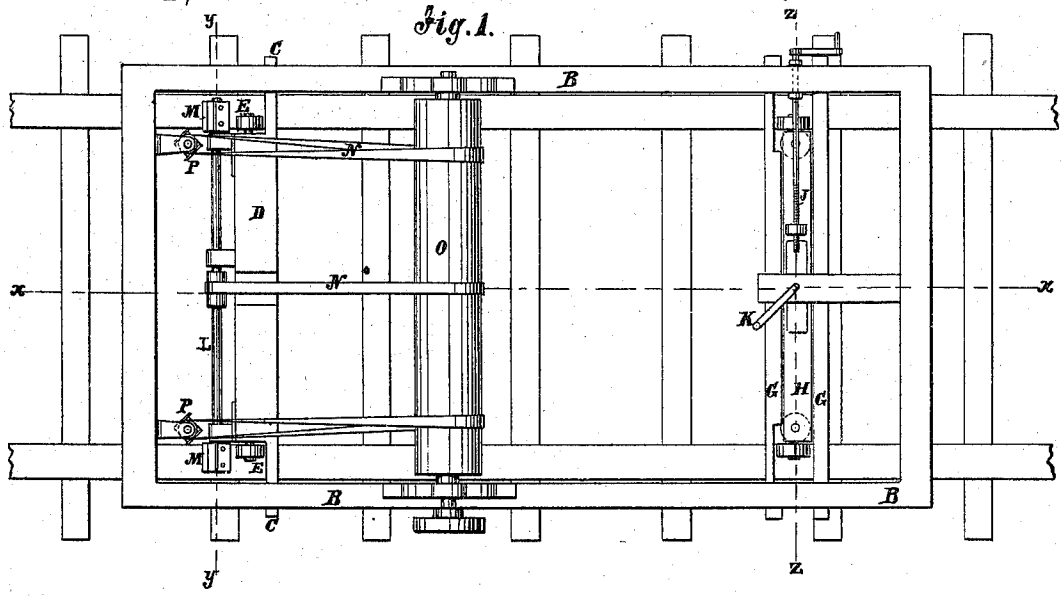


Fig. 2.

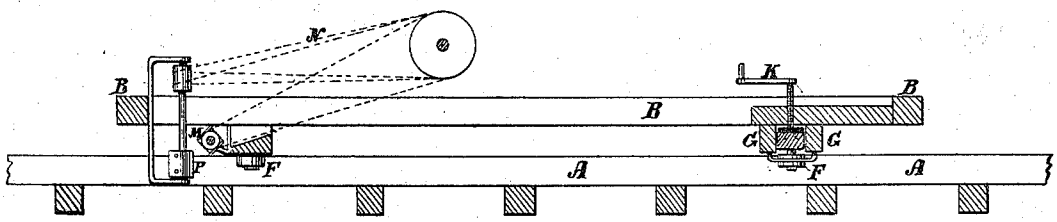


Fig. 5.

Fig. 3.

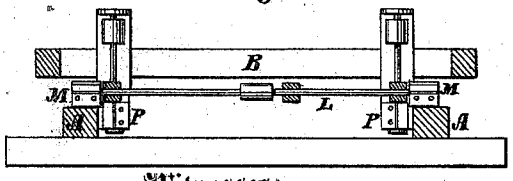
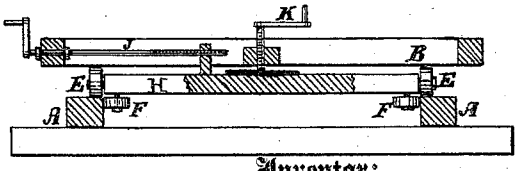


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

HORATIO G. ANGLE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MACHINES FOR DRESSING WOOD RAILS.

Specification forming part of Letters Patent No. **142,608**, dated September 9, 1873; application filed March 15, 1873.

To all whom it may concern:

Be it known that I, HORATIO G. ANGLE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Machine for Dressing Wood Rails, for the application of metal angle-rails, of which the following is a specification:

My invention consists of a small truck on ordinary wheels, and having lateral guide-wheels adapted to run along the wood rails or stringers after they have been laid, and having vertical and horizontal rotary planing-tools arranged in advance of the front wheels to plane the upper and inner surfaces of the stringers as the truck is moved along, the planing being gaged by the wheels of the truck, and the planing-tools being operated by belts and pulleys in the ordinary way, driven by steam or by any power. The depth of the cutting on the upper surface is regulated by a vertical adjustment of the frame on the front truck-axle, and the adjustment of the vertical cutters for turning curves and the like is effected by a lateral adjustment of the frame at the rear relatively to the axle and wheels.

Figure 1 is a plan view of my improved machine. Fig. 2 is a longitudinal section taken on the line *x x* of Fig. 1. Fig. 3 is a transverse section taken on the line *y y*. Fig. 4 is a transverse section taken on the line *z z* of Fig. 1, and Fig. 5 is a cross-section of the metal rail to be fitted on the wood stringers.

Similar letters of reference indicate corresponding parts.

A represents the rails or stringers of wood to be dressed on the upper surfaces, and the inner vertical surfaces for preparing them for the application of angle-bar-shaped rails, such as represented in Fig. 5, the said rails or stringers being first laid upon the ties and secured in place. B represents the truck-frame, which is near the front and rests on the projections C of the axle D, which has small rollers or wheels E fitted to run on the top of the rails; also, the horizontal guide-wheels F, which run against the inner sides of the rails and control the truck laterally. At the rear said frame is mounted on the two parallel bars G, between which is an axle, H, having truck-wheels E and horizontal guide-wheels F, and which supports the frame by the vertical cranked screw K, and on which the frame is laterally adjusted by the cranked screw J. Immediately in front of the front truck-wheels is a horizontal shaft, L, extending from side to side, and carrying a rotary planing-tool, M, at each end, adapted to dress the rails on the upper surface to a certain depth, which is governed by the front truck-wheels and the height of the frame behind, and in front of this shaft, at each side, is a vertical rotary planer, P, arranged for dressing the rails on the inside. These two sets of planers are worked by belts N from a drum, O, mounted on the truck, and turned by any approved means.

By the vertical adjusting-screw K the amount of surface removed by the planers M can be varied as may be required, and by the horizontal adjusting-screw J the vertical cutters can be changed as may be required for curves and straight lines; but they are always maintained the same distance apart to correspond with the gage of the track.

It will be seen that with this machine the uneven, irregular, and winding surfaces of the rail-timbers can be brought into the requisite condition with great facility and exactness, and that this difficult work is accomplished by the machine passing but once over the rails with about the same celerity that lumber is driven through a stationary planing-machine.

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

1. The combination of the horizontal and vertical rotary cutters and driving mechanism therefor with a truck adapted to run on the rails to be dressed, the said cutters being arranged to act upon the rails as the truck is moved along on them, substantially as specified.

2. The combination of the adjusting-screw K with the truck B and cutters M M, as and for the purpose specified.

3. The combination of the adjusting-screw J with the truck B and cutters P P, as and for the purpose specified.

HORATIO G. ANGLE.

Witnesses:
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