A. J. GUSTIN.

CARRIER-ROLLS FOR RAILROAD-RAILS.

No. 190,212. Patented May 1, 1877.

Fig: 1.

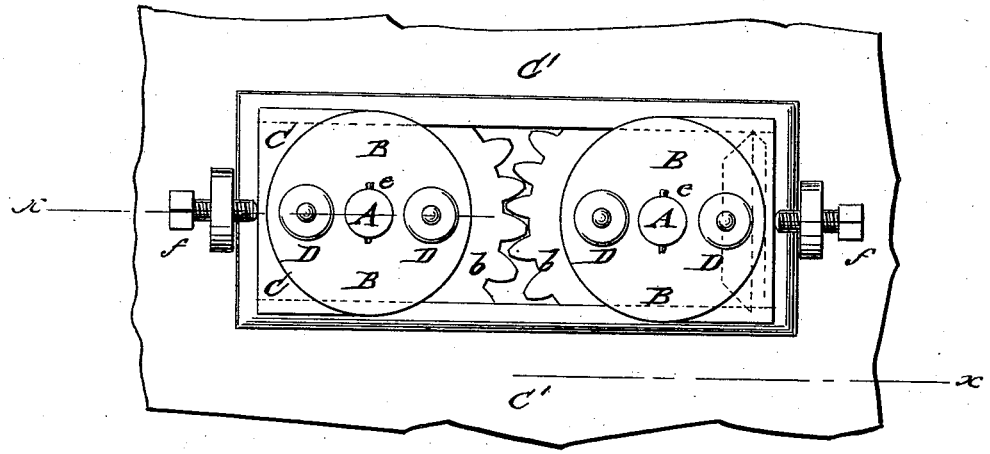
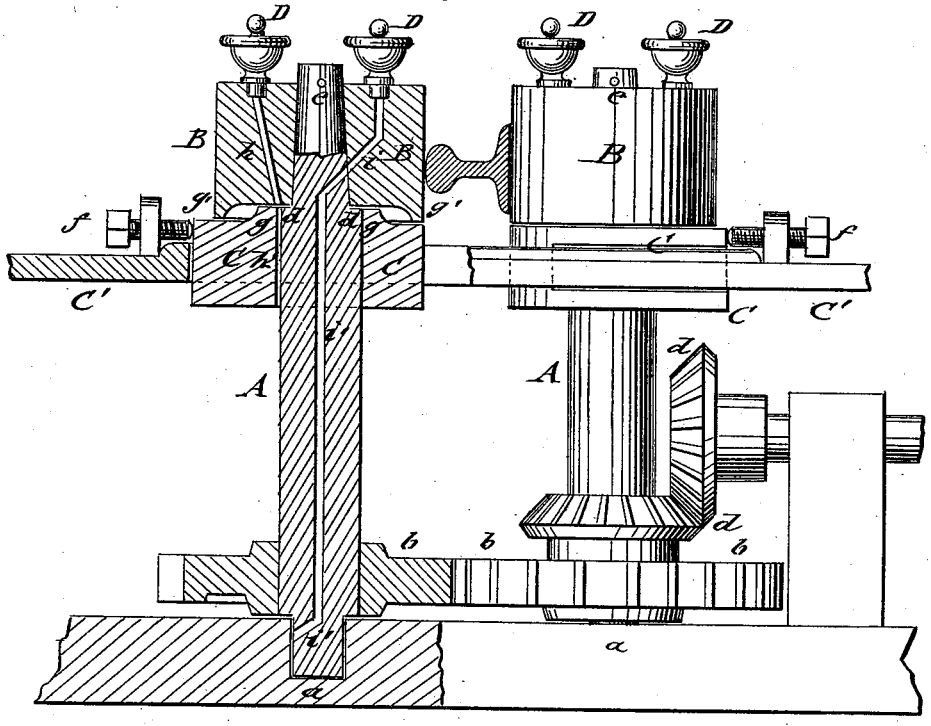


Fig: 2.



WITNESSES:

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ANDREW J. GUSTIN, OF ST. ALBANS, VERMONT.

IMPROVEMENT IN CARRIER-ROLLS FOR RAILROAD-RAILS.

Specification forming part of Letters Patent No. **190,212**, dated May 1, 1877; application filed March 3, 1877.

To all whom it may concern:

Be it known that I, ANDREW J. GUSTIN, of St. Albans, in the county of Franklin and State of Vermont, have invented new and Improved Rail-Carrying Rolls, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a plan view, and Fig. 2 a side elevation, of my improved carrier-rolls for railroad-rails, partly in section on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide, for the purpose of carrying railroad-rails from the finishing-rolls to the saws, an improved set of carrier-rolls, that exert a firm hold on the rails, and move them easily and noiselessly, being lubricated and cooled in suitable manner.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

In the drawing, A A are the upright shafts of my improved rolls for carrying railroad-rails in their course of manufacture from the finishing-rolls to the end-trimming saws. The lower or bottom ends of the shafts A turn in bottom bearings *a* of the base-plate, the shafts being revolved by suitable intermeshing gear-wheels *b* and a bevel-gear, *d*, and also capable of turning in either direction when connected with a suitable reversing-gear.

The fixed top part B of each roll is seated on an annular shoulder, *d*, of the shaft A, and attached to the upper tapering end of the same by a cross-pin or key, *e*.

The shafts A pass through the top bearings C, that are guided in supporting-frame C′, and adjusted horizontally by set-screws *f*, so as to bring the rolls B closer together or wider apart, for fitting exactly to the size of the rails when they are leaving the finishing-rolls. The roll B bears with its base on the top of bearing C, which is provided around the shaft with a raised collar or rim, *g*, while the base of the roll B is concaved to form a circumferential rim or nose, *g′*, for the purpose of shedding the water that runs continually over the top part B, and preventing its getting into the shaft-bearing. The water-nose *g* keeps, at the same time, grit and other impurities out of the shaft-bearing, and protects it thereby against too rapid wear.

The top and bottom bearings are lubricated from cups D at the top part of roll B, of which one cup supplies by a duct, *h*, of the top part B, and by a connecting-duct, *h′*, of the bearing C, the oil, respectively, to the contact-surfaces of the base of the roll and top of bearing C, and to the shaft-journal inside of the top bearing C, as indicated in Fig. 2. The second cup D supplies, by a duct, *i*, of the top roll B, and central duct *i′* of the shaft A, the bottom bearing, so as to produce thus the smooth and steady running of the rolls, and the forward carrying of the rails in reliable and perfect manner.

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

1. The combination of the top bearing C, having raised collar *g* around center shaft A, with the concaved base or bottom of top roll, having circumferential nose, for preventing water and impurities from getting into bearings, substantially as specified.

2. The combination of the top roll B, having lubricating-cups D and ducts *h* and *i*, with the upper bearing C, having communicating duct *h′*, with shaft A, having center duct *i′*, and with lower bearing *a*, substantially as and for the purpose shown and described.

ANDREW J. GUSTIN.

Witnesses:

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