

(No Model.)

H. HOLGATE & R. BAGNALL.
RAIL STRINGER.

No. 296,567

Patented Apr. 8, 1884.

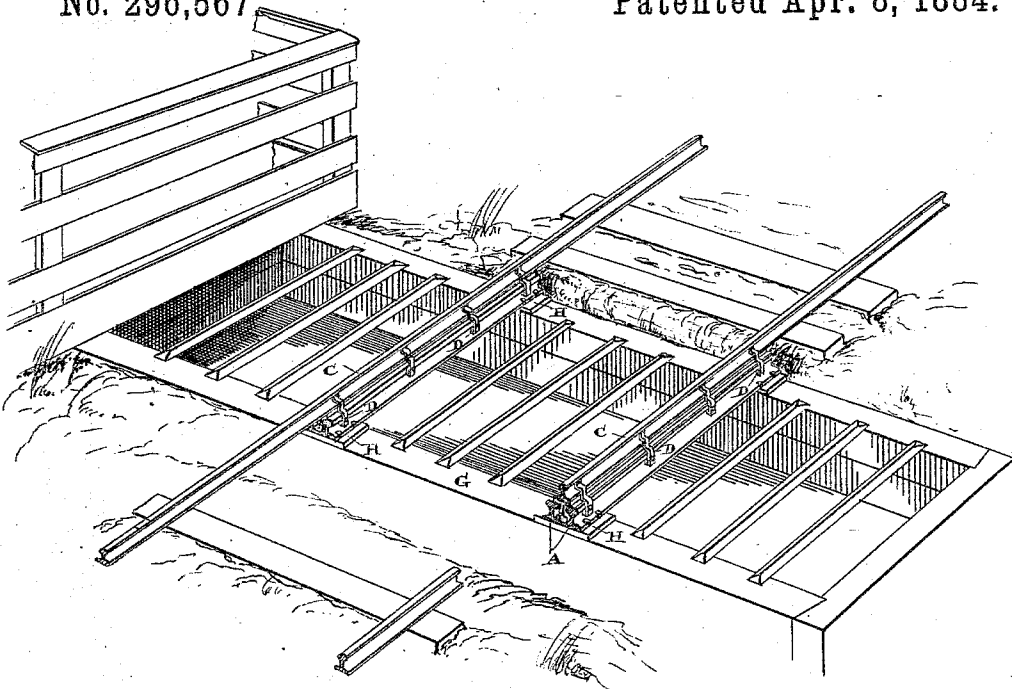


Fig. 1.

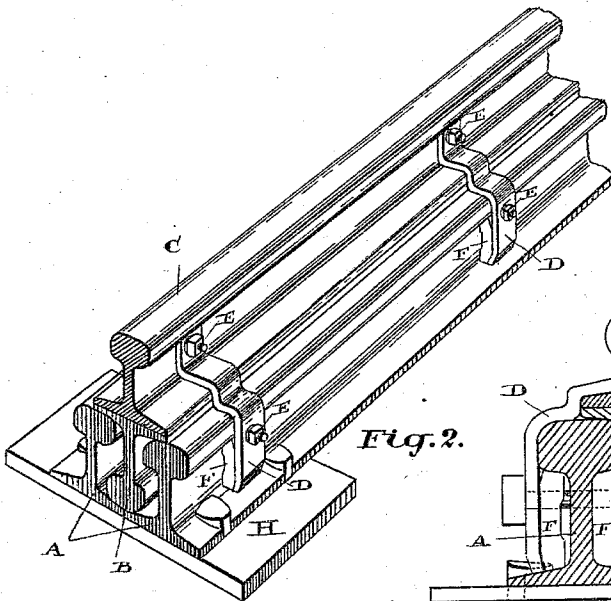


Fig. 2.

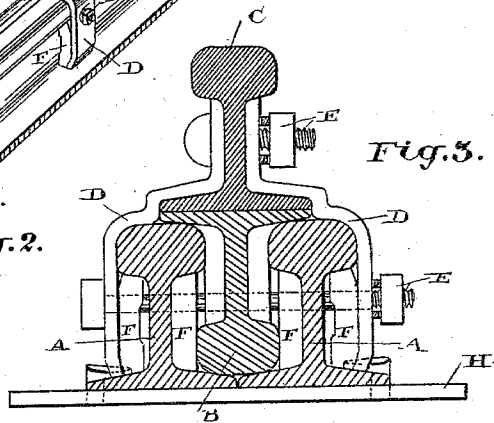


Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY HOLGATE, OF TORONTO, AND ROBERT BAGNALL, OF HAMILTON,
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RAIL-STRINGER.

SPECIFICATION forming part of Letters Patent No. 296,567, dated April 8, 1884.

Application filed December 15, 1883. (No model.) Patented in Canada December 19, 1883. No. 18,332.

To all whom it may concern:

Be it known that we, HENRY HOLGATE, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, civil engineer, and ROBERT BAGNALL, of the city of Hamilton, in the county of Wentworth, in the Province of Ontario, Canada, road-master, have jointly invented a new and useful Rail-Stringer; and we do hereby declare that the following is a full, clear, and exact description of the same.

The object of the invention is to utilize old rails in the construction of rail-stringers for cattle-guards and open culverts; and it consists, essentially, of a rail-stringer formed of two T-rails laid on their bases side by side, the inner edges of their bases touching or nearly touching each other, a similarly-shaped center rail inverted and slipped between the two side rails, the flanges of the center rail resting on the heads of the side rails, and the bottom of its base presenting a level support for the running rails, the said rails so arranged being held together by clips, substantially as hereinafter explained.

Figure 1 is a perspective view of a cattle-guard, showing the running rails crossing it supported by our improved rail-stringer. Fig. 2 is an enlarged perspective detail of our improved rail-stringer. Fig. 3 is a cross-section of the same.

In the drawings like letters of reference indicate corresponding parts in each figure.

A are two ordinary T-rails laid on their bases side by side, so that the inner edges of their bases shall touch each other, or nearly so.

B is also a T-rail, inverted and slipped between the rails A, the flanges of the base on the rail B resting, as indicated, on the heads of the rails A, and as the rails A and B are the same pattern, the head of the rail B will of course be in contact with the top side of the flanged bases of the rails A. As the space between the bodies and heads of the rails A and B, if not filled up, would prevent them being clamped together, we insert, at suitable distances apart, short iron blocks or packing-pieces F, the most suitable material out of which to make these blocks being pieces of old fish-plate, although, of course, we do not confine ourselves. We may also say that, while

for an ordinary culvert or cattle-guard it will be found sufficient to insert the packing-pieces F at either end of the rail, more pieces may be put in, if desired. The running rail C rests upon the base of the rail B.

D are clip-plates bent in pairs opposite to each other on the combined rails, as indicated, fitting close into the body of the running rail C, and thence, descending from its head, follow the outline of the top rail down past its flanges, and thence around the outline of the head of the rails A, extending straight down from that point to the base of the rail A. The space between each clip-plate D and the body of the rail A is filled up by a block or packing-piece, F, similar to the packing-pieces on the other side of the rail. The clip-plates D are preferably placed about two feet apart, and are bolted together by the bolts E, as indicated.

In order to form a solid and substantial support for the rail-stringer constructed as described, we place on the top timber, G, of the cattle-guard or culvert an iron plate, H, having spike-holes bored in each plate at a distance apart representing about the width of the combined bases of the rails A. The outer flanges of these rails are notched opposite to where the holes in the plate H come, so that the spikes which are driven through the holes in the plate H to secure it to the timber G shall fit into the notches cut in the outer edges of the flanges of the rails A, and thus bind them together.

As short rails and old pieces of fish-plate may be used in the construction of our rail-stringer, rail-stringers constructed in accordance with our invention will be exceedingly cheap. Moreover, by resting the stringers thus made on the plates H, the shimming necessary in the winter may be effected under the plates, thus insuring a more secure track than were the stringers to rest immediately upon the top timbers, G, of the cattle-guard or culvert.

What we claim as our invention is—

1. An improved rail-stringer, two T-rails, A, laid on their bases side by side, the inner edges of their bases touching each other, or nearly so, a similarly-shaped center rail, B, inverted and slipped between the two rails A,

the flanges of its base resting on the heads of the side rails, and the bottom of its base presenting a level support for the running rail C, in combination with clips arranged to combine the rails together, substantially as and for the purpose specified.

2. The rails A and B, arranged as described, so as to form a support for the running rail C, the clip-plates D, and bolts E, arranged to combine the rails together, in combination with packing-pieces F, inserted between the rails A and B, and between the rails A and clip-plates D, substantially as and for the purpose specified.

3. In combination with a rail-stringer composed of the rails A and B, arranged and combined together as described, a plate, H, placed on the timber G, and held there by spikes driven into the timbers through holes in the plate, and notches cut in the outer edges of the flanges of the rails A, substantially as and for the purpose specified.

HENRY HOLGATE.
ROBERT BAGNALL.

In presence of—

CHARLES C. BALDWIN,
F. BARNARD FETHERSTONHAUGH.