G. D. Teller,

Railroad Rail,

No. 44,562. Patented Oct. 4, 1864.

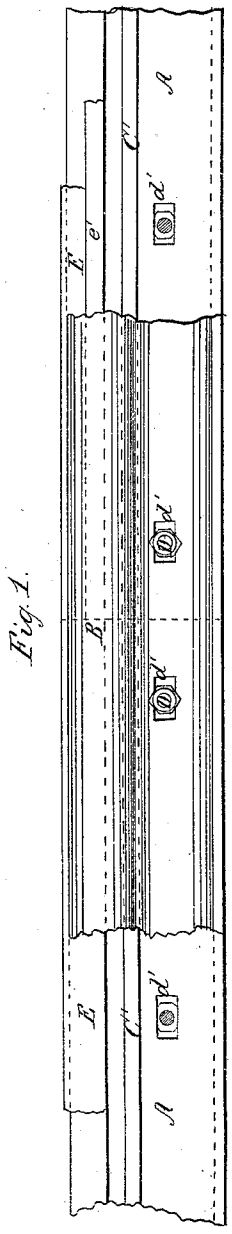

Fig. 1.

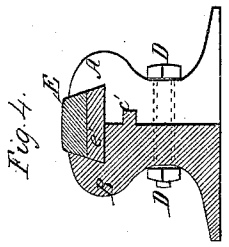

Fig. 4.

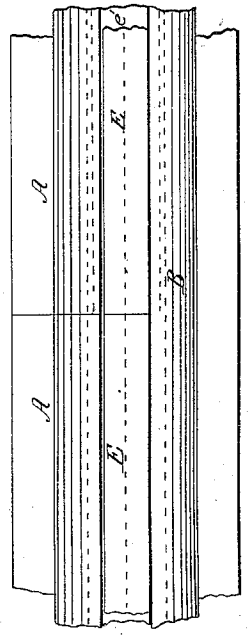

Fig. 2.

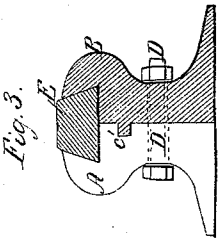

Fig. 3.

Witnesses;
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UNITED STATES PATENT OFFICE.

GEORGE D. TELLER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN RAILROAD-RAILS.

Specification forming part of Letters Patent No. **44,562**, dated October 4, 1864.

To all whom it may concern:

Be it known that I, GEORGE D. TELLER, of the city of Buffalo, county of Erie, and State of New York, have invented a new and Improved Railroad-Rail; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a longitudinal elevation. Fig. II is a top plan. Fig. III is a transverse section. Fig. IV is a transverse section.

The nature of this invention relates, first, to making a groove in the top of the main rail for the reception of a secondary rail, which secondary rail shall project slightly above the main rail and take the tread of the wheels; second, in the combination of a secondary rail with a compound continuous rail, so inserted into the top of the compound continuous rail as to project slightly above and take the tread of the locomotive and car wheels; third, in locking the two parts of a compound continuous rail together by means of a tongue and groove, or other equivalent device, in combination with bolts passing transversely through the two parts of the rail, so that the rise and fall of both parts of the rail must be equal, and in that respect give it the character of a solid rail.

The main rail is made in two parts, A representing one half, and B the other half. These two parts are rolled separately, and so formed that when they are put together a dovetail groove is made in the top, as shown in Figs. III and IV. The corners of the groove will be rounded instead of being made sharp, so as to preserve the strength of the iron. A tongue is made in one half of the rail and a groove in the other, as shown at *c'*, Figs. III and IV; or, instead thereof, a half-round groove may be made in one and a corresponding ledge in the other, so as to avoid sharp angles in the construction. This device will prevent one part of the rail from settling more than the other, and in this respect will give the compound rail all the qualities of the solid rail.

Slots *d'* are made in each part of the rail, through which bolts D pass, and by which bolts the two parts of the rail are held together. The slots will allow the metal to expand and contract without straining the bolts.

The two parts of these rails are so put together as to break joints, as shown in Fig. II, and thereby give the rails the quality of one continuous rail, and prevent the jar or blow which is now experienced as the wheels pass from one rail to another of the ordinary-constructed rail.

E represents a secondary rail, which is made of steel or best quality of iron, and so formed as to fit nicely in the groove made in the top of the main rail, and so that it will project slightly above the main rail and take the tread of the locomotive and car wheels. This secondary rail may be made solid in one piece, as represented in Fig. III, or it may be made in two pieces, as shown at E *e'* in Fig. IV. The part *e'* may be made of soft iron. In some cases the lower part, *e'*, may be made of wood or rubber or other elastic material, forming a sort of cushion for the upper part, E, and causing the cars to run without much jar or noise. These secondary rails will take the tread of the locomotive and car wheels, and hence the wear will be upon them, and therefore they should be made of steel or of the best quality of iron. When they are worn down to the top of the main rail, then they may be removed and new ones put in their place, and hence the road can be kept in good running order at a much less expense than when ordinary rails are used.

It will be noticed that no actual wear comes upon the main rail, and hence such rails will last a great many years longer than they would if the tread of the wheel were upon them.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A secondary rail, E, made of steel or the best quality of iron, and inserted into a groove made in the top of the main rail, for the purposes and substantially as described.

2. The part *e'*, whether made of iron, wood, or other elastic material, in combination with the main rail A B and secondary rail E, for the purposes and substantially as set forth.

3. Making the rails A and B with a tongue in one and a groove in the other, as represented at *c'*, (or the equivalent thereof,) in combination with the bolts D, for the more securely locking or fastening the said parts together, as described.

Witnesses: GEO. D. TELLER.

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