M. B. STAFFORD.
Railway-Rail.

No. 209,302. Patented Oct. 22, 1878.

Fig. 1.

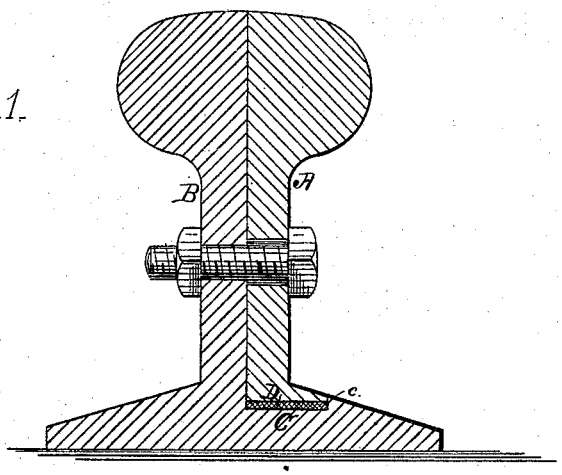
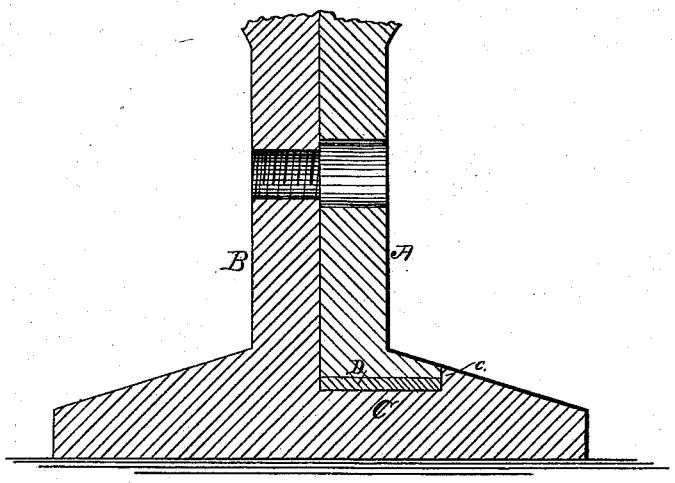


Fig. 2.



WITNESSES=
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UNITED STATES PATENT OFFICE.

MARSHALL B. STAFFORD, OF NEW YORK, N. Y.

IMPROVEMENT IN RAILWAY-RAILS.

Specification forming part of Letters Patent No. **209,302**, dated October 22, 1878; application filed October 12, 1878.

To all whom it may concern:

Be it known that I, MARSHALL B. STAFFORD, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Railway-Rails, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to improvements in railway-rails; and consists in constructing the rail in two parts or sections, male and female, by dividing an ordinary rail upon a longitudinal vertical plane passing through or near its center, the lower part of the male section, which forms the inner side of the rail, being rectangular and adapted to fit in a corresponding rectangular horizontal seat or socket in the female part. The female part or section carries the base of the rail, and the two parts or sections are bolted together in any suitable manner. By preference, a cushion, of some suitable material of greater elasticity than either steel or iron, is placed in the seat or socket, and the apertures of the male section through which the bolts are passed are elongated vertically. The rails are laid to form a continuous rail in the usual way.

The details of construction and other matters requiring explanation are fully set forth hereinafter, and illustrated by the accompanying drawings.

The object of the invention is to provide a railway-rail that may be used in the construction of a track, which, while lessening the wear and tear of machinery and possessing other advantages, serves to reduce the volume of sound caused by the movement of rolling-stock.

In the accompanying drawings, Figure 1 is a central vertical transverse section of the invention. Fig. 2 is an enlarged view of the lower part of same.

A is the male, and B the female, part or section, constructed in the form and shape and attached together in the position shown in Fig. 1. The distinguishing characteristic of the part A is its lower portion, which is made with two right angles, the surface of its base being horizontal. By preference it is formed of steel, but may be made of iron or other material.

The part B, distinguished as the female part, carries the base of the rail, and is provided with the seat or socket C, which is of sufficient depth to properly accommodate the cushion D, and also to form the shoulder *c*, the function of which is to assist in holding the section or part A in place. The construction and strength of the seat C and shoulder *c* will therefore be such as to effectually perform these two functions. The seat or socket C is constructed with rectangular corners with relation to the lower part of the section A, which fits into the socket in contact with the cushion D, as shown in Fig. 1. The part B will preferably be made of iron; but other material may be used.

D represents a cushion or strip, which is fitted in the lower part of the seat or socket C. This cushion I prefer to construct of lead; but any other material softer or more elastic than steel or iron may be employed with good results.

The two sections are secured together by bolts, the apertures in the part A, by preferrence, being elongated vertically, as shown with sufficient accuracy in Fig. 2.

The object of the elongation of the apertures in the part A is to avoid restricting the elasticity of the rails and the action of the cushion.

The details of construction may be varied in some particulars; and I do not therefore limit my claim other than as hereinafter recited.

What I claim is—

1. A railway-rail consisting of the two parts A and B, the latter provided with the cushion D and the former with elongated slots, the two being bolted together, substantially as described.

2. A railway-rail divided at or near the vertical plane through its longitudinal center into the parts A and B, the part B carrying the base of the rail, and having a socket at the foot of the line of section to receive the base of the part B, substantially as set forth, and for the purposes specified.

3. A railway-rail divided vertically into two longitudinal sections, the interior section being rendered elastic by means of a cushion, substantially as specified.

4. A railway-rail divided longitudinally and vertically at or near its center into the parts A B, the part B carrying the base of the rail, and being provided with a socket, C, and cushion D, for the uses and purposes substantially as described.

In testimony that I claim the foregoing improvement in railway-rails, as above described, I have hereunto set my hand this 10th day of October, 1878.

MARSHALL B. STAFFORD.

Witnesses:

CHAS. C. GILL,

THOMAS GREENWOOD.