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W. T. FARLEY.

RAILWAY RAIL.

APPLICATION FILED JAN. 15, 1907.

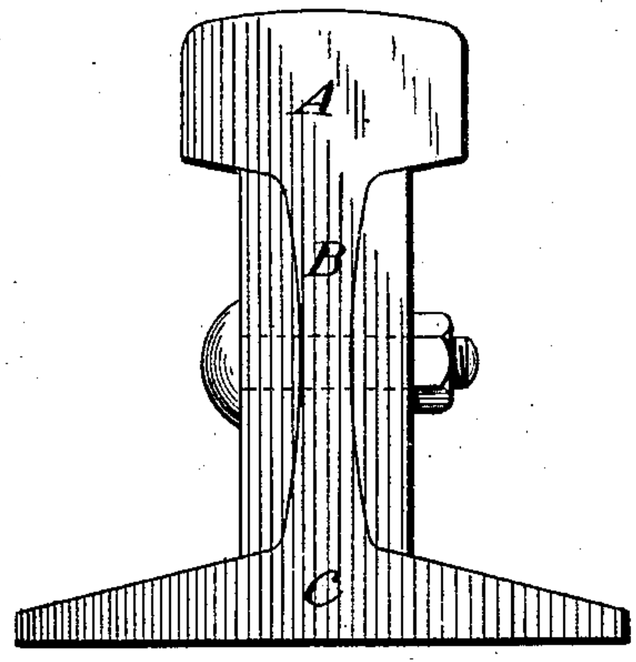

Fig. 1.

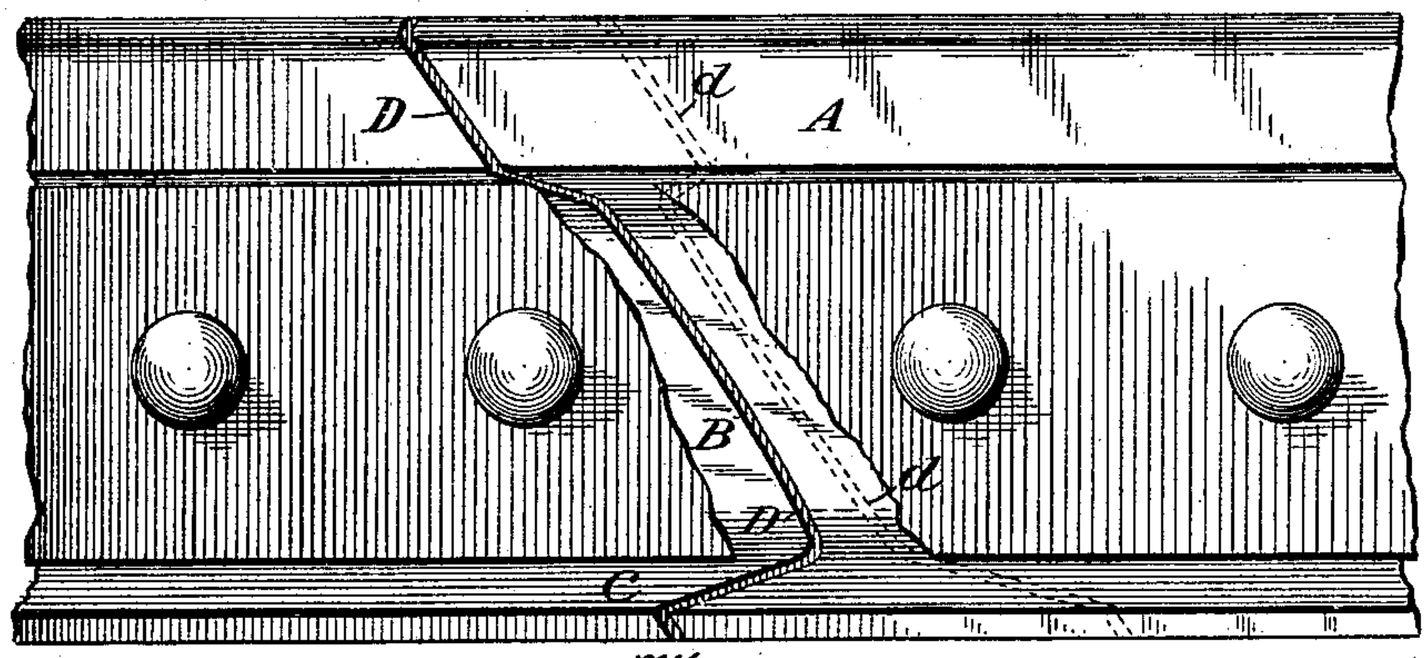

Fig. 2.

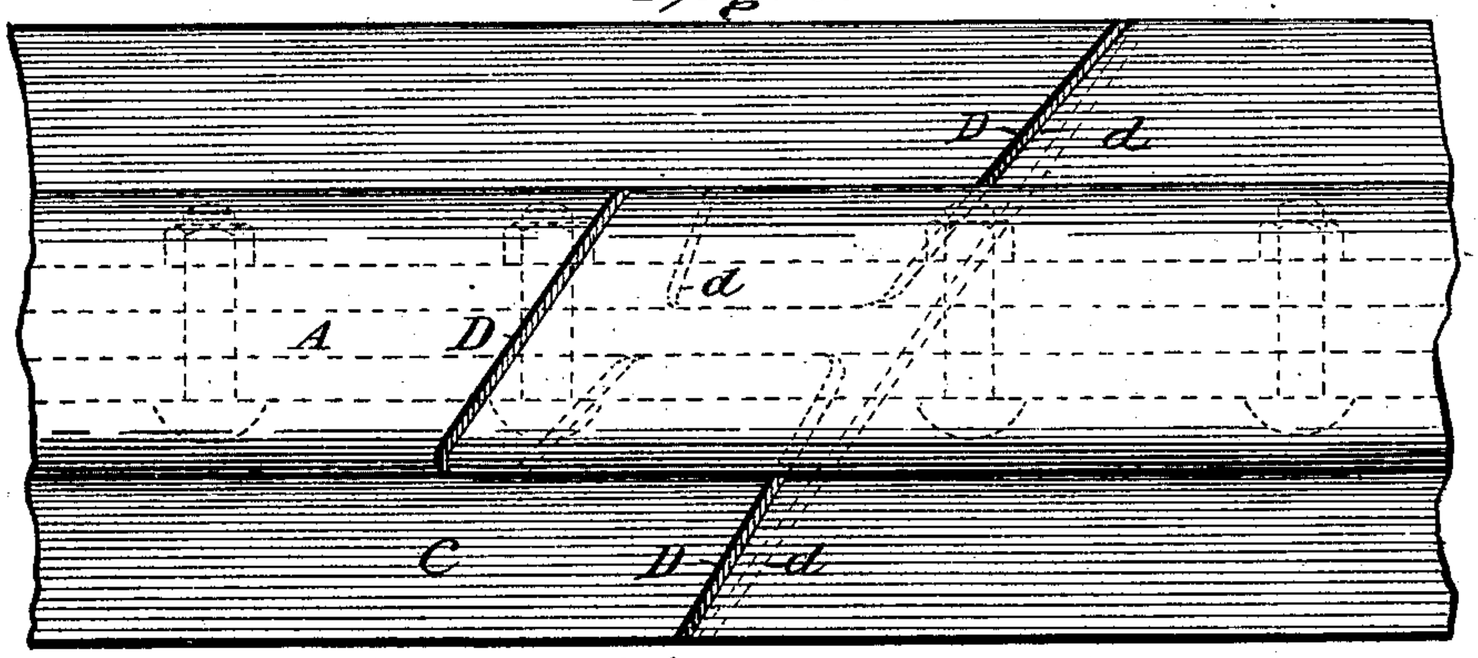

Fig. 3.

Witnesses:
John C. V. Duane Jr.
Hermann Loewenberg

Inventor:
William T. Farley
by his Attorney
Chas. Allen Taber

UNITED STATES PATENT OFFICE.

WILLIAM T. FARLEY, OF NEWTON, MASSACHUSETTS.

RAILWAY-RAIL.

No. 865,878. Specification of Letters Patent. Patented Sept. 10, 1907.

Original application filed July 25, 1906, Serial No. 327,696. Divided and this application filed January 15, 1907. Serial No. 352,550.

To all whom it may concern:

Be it known that I, WILLIAM T. FARLEY, a citizen of the United States, residing at Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Railway-Rails; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This application is a divisional application from one filed by me July 25, 1906, Serial No. 327,696.

The objects of this invention are to produce improved railway rails which shall combine all the practical merits of those now known with a closer connection of the ends, ease and convenience in laying, efficiency and reliability in use and safety and comfort to the travelers over them.

The great weight of the trains now used, and the high speed at which some of them are run, produce a momentum such as require self-support in the rails greater than will generally be found in rails depending on connecting plates alone.

For the purpose of meeting the many requirements for improved rails, I have devised the ends and other features of the rails shown in the drawings, as my preferred forms, in order to combine the merit of cheap construction and economy in laying with the essentials of supporting the ends against the strains produced by the passing of engines and cars.

I cut the ends of my rails at such an angle, oblique both transversely and longitudinally, that the ends of the rails over which the car is passing will be upheld by the forward rails; and the wheels will reach the forward rails before leaving the rear rails. The top of the rails at their ends are depressed to avoid a possible jar, although a jar from this cause is not probable in this form of rails.

My invention consists in devising the forms and shaping the ends of my improved rails according to the figures shown in the accompanying drawings; and in the means for attaching the end of one rail to the end of the adjoining one, so as to produce a combination of rails joined according to the directions in this specification, or as shown in the drawings.

The preferred forms of this invention are shown in the accompanying drawings, in which the same letters refer to similar parts in all the several views, and in which:

Figure 1 shows the end of a rail which has been divided vertically at a right angle to its length. Fig. 2 shows a side view of two rails which have been divided diagonally, both longitudinally and vertically, to the length of the rails, and Fig. 3 shows a view from above of the same rails shown in Fig. 2.

It will be seen in the figures in the drawing that the two ends of a rail are cut complementary to each other so that one end of each rail will fit one end of every other rail, and the other end of the first rail will fit another end of every other rail. This peculiar form of the ends of the rails gives great lateral support and they also sustain the weight of the passing wheels, like continuous rails. On account of the way in which the ends of the rails overlap they allow for the expansion caused by heat and the shrinkage caused by its absence, thus avoiding the evils of continuous rails firmly attached to each other. By this form of the ends of the rails, I avoid the difficulties coming from rails which are split along the center of the web or those which have positive points of contact. This form of rails makes a track which is adapted to carry safely the trains which may pass over them by reason of the lateral support given by the forms into which the ends are cut; and to carry easily heavy trains at high speed with comfort to the passengers by reason of the overlapping of the ends giving some elasticity to the joints.

In the drawings D D *d d* show the line of the ends of the rails, or the planes of their junction, the overlapping end of one rail corresponding to the end of the other. It will be plain to those competent to do the work, that these rails should be laid so that the coming cars should come first upon the overlapping ends of the rails.

What I claim as new and desire to secure by Letters Patent is:

1. A combination of railroad rails each one of which has both ends cut diagonally both transversely and vertically, one end of each rail being cut in a plane to match that of the other end so that one end of each rail will match one end of every other rail, and the other end of the first rail will match one end of every other rail with means for uniting the rails substantially as shown or described.

2. The combination of railroad rails in which the forward end of each rail is cut diagonally both vertically and transversely so that this end shall overlap the rear end of the forward rail which has been cut in a plane to match the end of the adjoining rail, substantially as shown or described.

WILLIAM T. FARLEY.

Witnesses:
HERMAN LOEWENBERG,
CHAS. ALLEN TABER.