

Sheffield & Whitcomb.

Railroad Rail.

No 71417

Patented Nov. 26, 1867.

Fig. 1.

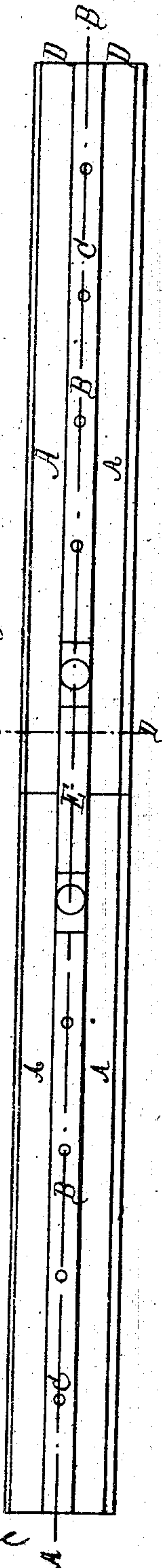


Fig. 2.

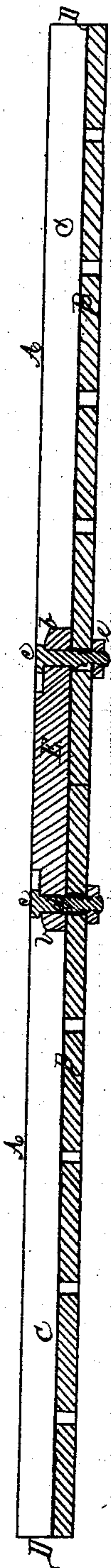
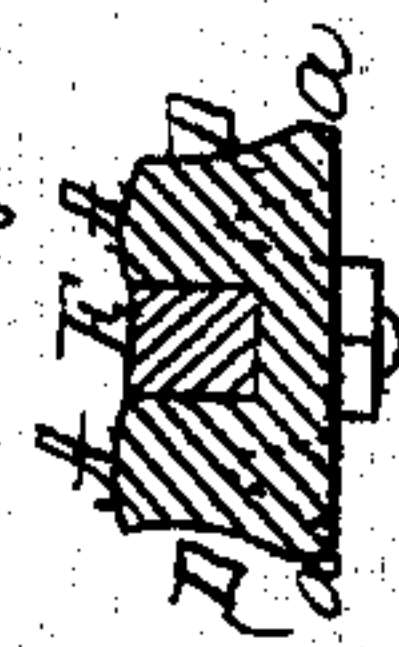


Fig. 3.



Witnesses,

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Letters Patent No. 71,417, dated November 26, 1867.

IMPROVED RAILROAD-RAIL.

The Schedule referred to in these Letters Patent and making part of the same.

KNOW ALL MEN BY THESE PRESENTS:

That we, GEORGE V. SHEFFIELD and BYRON WHITCOMB, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Railroad-Rails; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of two sections of our improved rails as they appear when spliced or connected for use.

Figure 2 represents a longitudinal central section on line A B, fig. 1, and

Figure 3 represents a cross-section on line C D, fig. 1.

To enable those skilled in the art to which our invention belongs to make and use the same, we will proceed to describe it more in detail.

The nature of our invention consists, first, in a new form of rail, the form being shown in figs. 1 and 2; and our invention consists, second, in a new and improved mode of fastening or splicing the rails, as will be hereafter explained.

In the drawings, the parts marked A A are the surfaces which receive the tread of the wheel, and the depressed part B is the part through which the spikes or bolts are passed to fasten the rail to the sleepers. Our rail is rolled with a central groove, C, and has two elevations or treads D D for supporting the wheels of the cars, the wheels running upon the surfaces A A. The base of the rail may be rolled with slightly-projecting sides, as seen at *a a*, fig. 3; and, if preferred in any case, to make the rail light, V-shaped grooves may be rolled in the bottom or base of the rail, as shown in dotted lines, fig. 3. The rails are connected by means of a splice-piece, E, rolled or otherwise formed to fit the groove C, the ends being depressed, as seen at *b b*, so that the heads *c c* of the bolts *d d* shall fall below the surfaces A A of the rails D D. The holes in the base B of the rails, through which the bolts *d d* pass, are made oblong to admit of the proper expansion and contraction of the rails. The bolts *d d* may be held in place by nuts *e e*, or by any other suitable means. The centre part of the splice E extends up high enough to receive the tread of the wheels as they pass from the end of one rail to that of the next, thus preventing all injury to the ends of the rails, while, at the same time, forming, in fact, a continuous and even surface for the passage of the wheels, which renders the motion of the cars very uniform and easy. After the rail D on one side has been worn out, the entire rail may be reversed, and the other side or rail D used.

By the construction of our rail, the tread of the wheel can be brought down quite near to the sleeper, thereby rendering the strain upon the rail much less, and insuring a more uniform and easy motion to the cars. The groove C may be of any desired width and depth to receive the splice E, which is retained in place very perfectly by the sides of the rails D D. The flange of the car-wheel does not, of course, run in the groove C, but on the inside of the inner rail D, precisely as in ordinary railways.

The primary object we have had in view has been to produce a safer, more economical, and, in every respect, better rail than has heretofore been used on steam-railways. The rail is cheaper and more economical in the end by being made in two parts D D, each of which constitutes in itself a tread for the wheels, so that, when the one tread becomes worn or otherwise damaged, the rail can be reversed, so as to bring the other tread to take the place of the first. Moreover, the construction of the rail admits of the bolts and splices being placed within the groove C, where they are held securely and tightly, and protected from injury. The rail is thus, in reality, formed of two separate and distinct rails, each perfect in itself, but having their bases united by the part B. A groove, as it may be called, is thus formed between the two; but this groove is intended to receive the splices and bolts, and for no other purpose.

The broad base of the rail gives it great steadiness and additional strength, and admits of its being employed to very great advantage in place of the ordinary rail.

Having described our improved railroad-rail, what we claim therein as new and of our invention, and desire to secure by Letters Patent, is—

1. A reversible double rail for railways, made substantially as herein shown and set forth, and for the purposes specified.

2. The combination, with the ends of two rails, as described, of the central splice or connecting-piece E, substantially as and for the purposes set forth.

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Witnesses:

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