

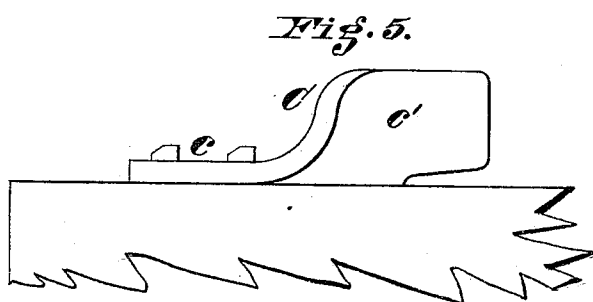
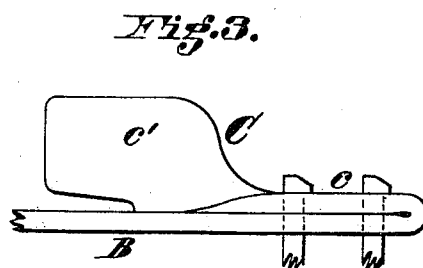
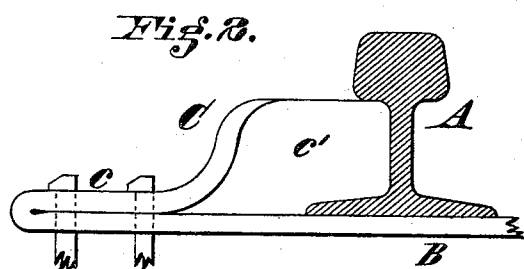
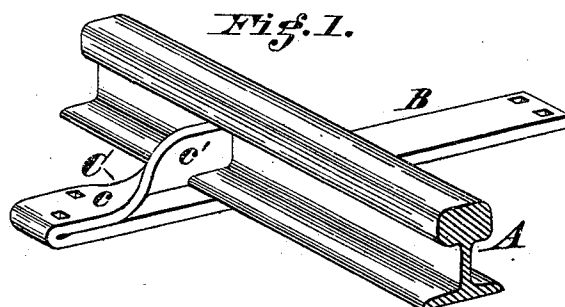
(No Model.)

F. C. WEIR.

BRACE FOR RAILWAY SWITCHES AND RAILS.

No. 273,786.

Patented Mar. 13, 1883.



Attest
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Notary Public

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UNITED STATES PATENT OFFICE.

FREDRIC C. WEIR, OF CINCINNATI, OHIO.

BRACE FOR RAILWAY SWITCHES AND RAILS.

SPECIFICATION forming part of Letters Patent No. 273,786, dated March 13, 1883.

Application filed January 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, FREDRIC C. WEIR, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Rail-Braces for Railway Switches and Rails, of which the following is a specification.

My invention relates to improvements in rail-braces for railway switches and rails.

The object of my invention is to provide a rail-brace which will not be liable to break, and at the same time will be both cheaper and stronger than those now in use.

The rail-brace now used is made of cast metal, of block form, one end of which is shaped to fit the contour of the rail against which it abuts, so as to brace it against lateral strain. It is held in position by means of spikes which pass through holes in the casting, and are driven into the sleeper or tie. In practice the driving of the spike home is apt to break the casting. The casting is also frequently broken by shocks from passing wheels when it is unduly contracted by cold weather. My improvement overcomes these objections, furnishing a wrought-iron rail-brace which is not only cheaper, but better to do the work, than cast braces.

Figure 1 is a perspective view of a rail, showing my improved brace applied thereto in position for spiking. Fig. 2 is a transverse sectional elevation of the same on an enlarged scale, showing the brace spiked in position. Fig. 3 is a reverse view of Fig. 2 with the rail

omitted. Fig. 4 is a plan view of my invention. Fig. 5 is a modified form of rail-brace.

A represents the ordinary railway-rail; B, a friction-plate, upon which the main-track rail abutting the switch is supported.

C represents my improved rail-brace, made integral with the plate B, the whole of which is made of wrought-iron. The shank *c* of the brace is horizontal, and the web *c'* is twisted, as shown in Fig. 1, so as to bring the abutting end into a vertical or nearly right-angular line with the shank, the end being shaped to fit the contour of the web and flange of the abutting rail which it supports.

In Fig. 5, I have shown the brace as being made of a separate piece of metal and spiked without the friction-plate B to the tie. It is obvious it may be used as an independent brace without the plate B, as shown in said Fig. 5.

I claim—

1. The wrought-iron rail-brace C, constructed to support the rail, substantially as herein set forth.

2. In combination with the friction-plate B of a railway-switch, the twisted brace C, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDRIC C. WEIR.

Witnesses:

HENRY G. SCUDDER, Jr.,
JNO. E. JONES.