(No Model.)

# M. R. PERKINS.

## RAILWAY RAIL BRACE.

No. 287,573. Patented Oct. 30, 1883.

*Fig. 1.*

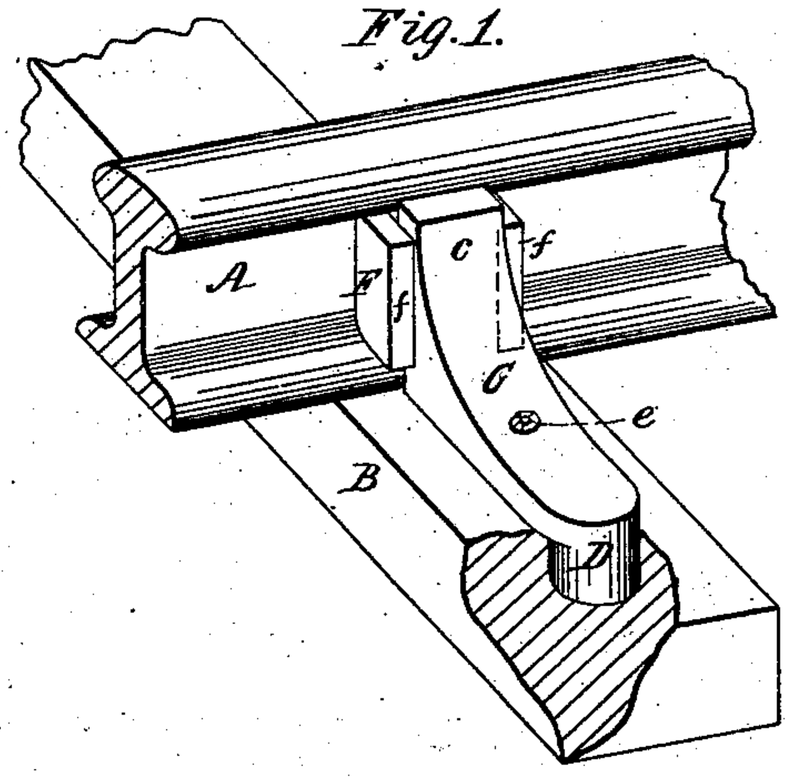



*Fig. 2.*

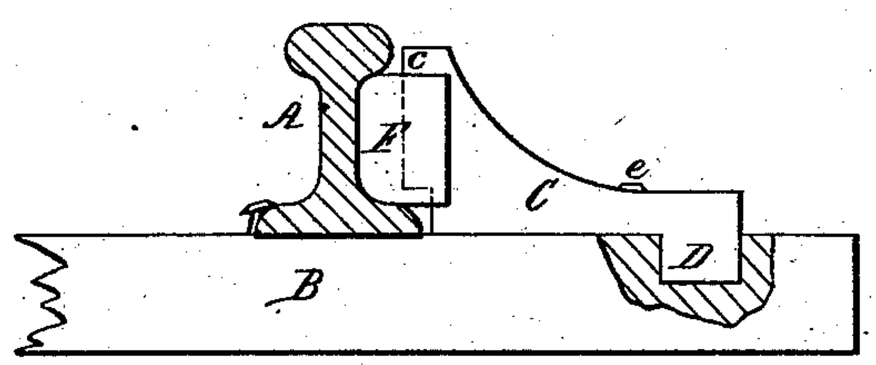
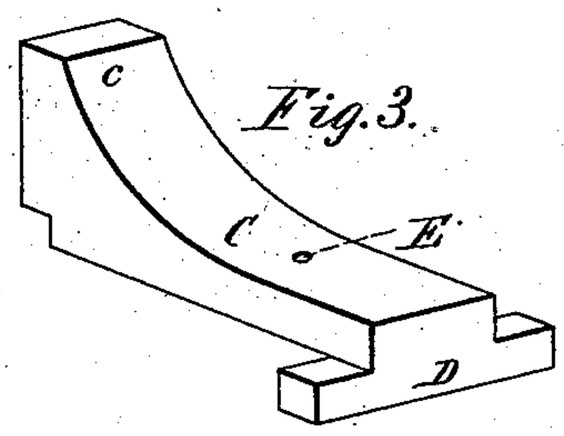



*Fig. 3.*




*Witnesses:*

W. C. Jordinston

W. A. Ruffe

*Inventor:*

Michael R. Perkins

by Brock & Johns

his Attorney.

# UNITED STATES PATENT OFFICE.

MICHAEL R. PERKINS, OF PORTSMOUTH, NEW HAMPSHIRE.

## RAILWAY-RAIL BRACE.

SPECIFICATION forming part of Letters Patent No. 287,573, dated October 30, 1883.

Application filed July 3, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL R. PERKINS, a citizen of the United States of America, residing at Portsmouth, in the county of Rockingham and State of New Hampshire, have invented certain new and useful Improvements in Railway-Rail Braces; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a perspective showing the brace in position against a rail. Fig. 2 is a side elevation, and Fig. 3 a modification, of my invention, showing the heel made square.

My invention relates to certain improvements in braces for preventing the lateral spreading of railway-rails; and it consists in certain novel construction, whereby the maximum of strength and resistance is presented to the lateral pressure exerted on the rails by passing trains, all of which I will now proceed to point out and describe.

Referring to the drawings, similar letters of reference indicate like parts.

A is the rail; B, the tie; C, the brace, having the raised portion *c*, which extends up to the tread of the rail.

D is a heel or projection, which may be formed round, square, or rectangular, as shown in the drawings. Said heel D is let down into the tie in a hole or slot, which is bored when the heel is round, or may be sawed or mortised out when the heel is square or rectangular.

E is a hole for a spike. *e* is a spike passing through the brace into the tie.

F is a block of wood or any other suitable material interposed between the brace and the rail, and is provided with flanges *f*, which prevent the same from slipping out. Said block F acts as a cushion between the rail and brace, and receives the entire blow or pressure caused by a passing train.

By the use of this brace the greater part of the pressure is received by the portion of the tie against which the heel rests, and the brace is not dependent on the spike alone to hold it in place.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The brace C, having the heel D, in combination with the block F, interposed between the rail and brace, substantially as and for the purpose shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL R. PERKINS.

Witnesses:

CHARLES E. BATCHELDER,

HOWE CALL.