C. B. PHILLIPS.

Railway-Rail Joint.

No. 160,277. Patented March 2, 1875.

Fig. 2

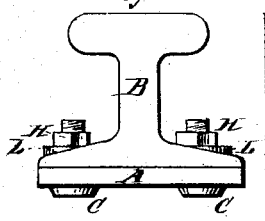


Fig. 1

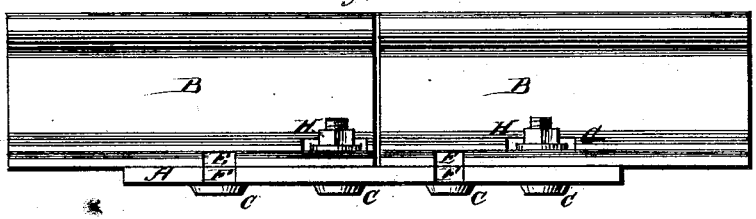


Fig. 3

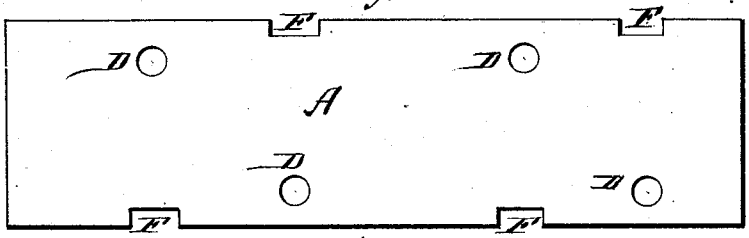
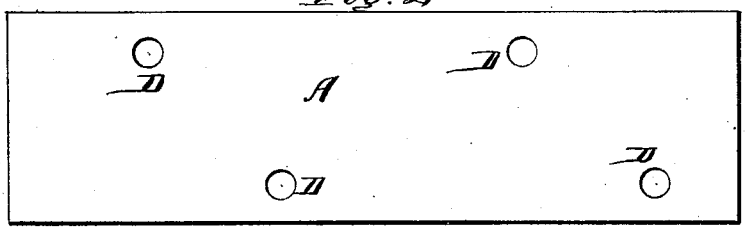


Fig. 4



Witnesses

P. McHugh

Geo. M. Bogue.

Inventor.

Charles Burton Phillips.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

CHARLES B. PHILLIPS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RAILWAY-RAIL JOINTS.

Specification forming part of Letters Patent No. **160,277**, dated March 2, 1875; application filed February 16, 1874.

To all whom it may concern:

Be it known that I, CHARLES BURTON PHILLIPS, of the city of Chicago, county of Cook and State of Illinois, have invented certain Improvements for Coupling together Railroad-Rails by means of a perforated iron, steel, or other plate, to be placed beneath the flanges of the rails, and passing under the joint, so as to connect, support, or hold the ends of contiguous rails or bars in position, and fastened or attached to the rails by bolts, rivets, or other suitable devices, thus preventing disjointure of the rails at the point of contact, and making the joint flexible, thus supporting and forming, as it were, a continuous rail, combining safety as well as economy in its construction and uses.

Figure 1 is a side elevation, showing the application of a perforated plate, A, to the ends of the rails B B. C C C C represent the heads of bolts, which pass through the perforated plate A, and up through the flanges of the base on alternate sides of rails B B, with nuts H H above washers L L, in slots cut on the flanges of rails B B at G G. These bolts may be straight or bent at an angle, to allow the nut to fit the flanges of the base of the rails, and thus dispense with the slots G G. E E and F F represent slots cut in the edges of plate A and rails B B, to receive spikes to fasten the rails and plate to the ties or sleepers of the road-bed.

Fig. 2 is an end elevation of the same, and represents the position of bolts C C on each side of the web of the rail B.

Fig. 3 is a horizontal view of a short plate, A. D D D D represent oval perforations, to receive the shoulders of bolts made to fit them, to prevent their turning. F F F F represent slots in the edges of the plate, to receive spikes for holding the plate and rails to the tie.

Fig. 4 is also a horizontal view of plate A, with oval perforations D D D D, but without slots, as in Fig. 3, so that in case it should make the joint too rigid the plates may be used in this form.

I claim—

The rails B B, secured beneath the joint by the flat metallic plate A, equal in width with the base of the rails, and fastened thereto by bolts and nuts, substantially as specified.

CHARLES BURTON PHILLIPS.

Witnesses:
GEO. M. BOGUE,
JAS. M. HILLS.