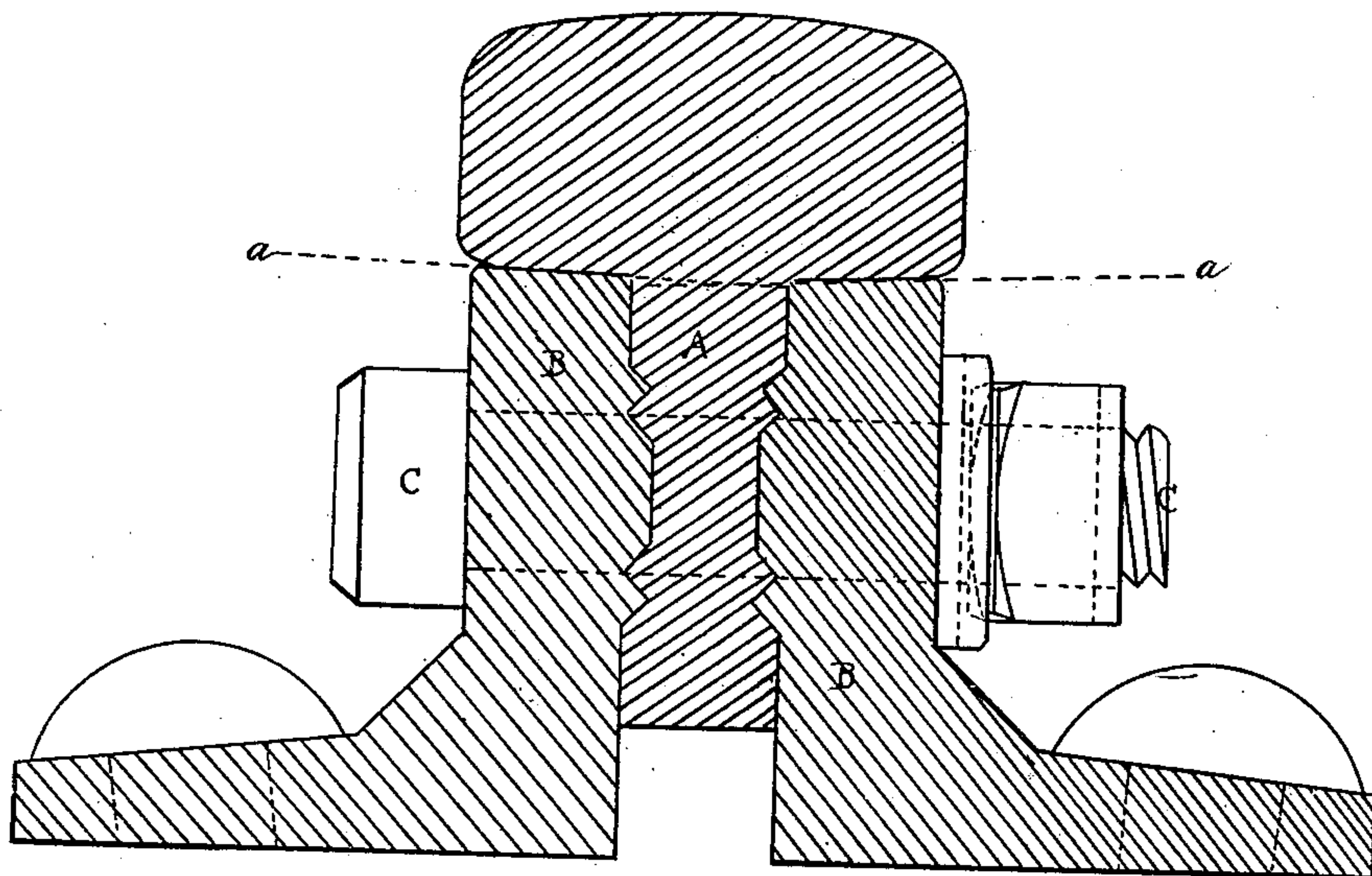


P. ASHCROFT.  
RAILROAD RAIL.

No. 73,282.

Patented Jan. 14, 1868.



Witnesses:

*W. A. Ashcroft*  
*W. A. Ashcroft*

Inventor:

*P. Ashcroft*  
*Geo. H. M. Ashcroft*

# United States Patent Office.

PETER ASHCROFT, OF RICHMOND ROAD, DALSTON, AND GEORGE FREDERICK LEE MEAKIN, OF LONDON, ENGLAND.

*Letters Patent No. 73,282, dated January 14, 1868.*

## IMPROVED RAILROAD-RAIL.

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

### TO ALL WHOM IT MAY CONCERN:

Whereas we, PETER ASHCROFT, of Richmond Road, Dalston, in the county of Middlesex, civil engineer, and GEORGE FREDERICK LEE MEAKIN, of Martin's Lane, in the city of London, surveyor, have invented "An Improved Construction of Compound Rail," we do hereby declare that the following is a full and exact description of the said improvements.

This invention relates to a novel construction of compound rail for railways, whereby an economical track may be obtained, with the advantage of the rails not being liable to deflect either vertically or laterally under the pressure of a passing train.

In the accompanying drawing our improved compound rail is shown in cross-section. It is composed of a middle T-rail, A, formed of steel, clamped securely between two wrought-iron girders or angle-irons, B B, and made fast by means of transverse screw-bolts and nuts, C. On the opposite faces of the web of the T-rail are rolled indentations with inclined sides, into which counterpart double wedge-shaped ribs or projections, formed on the inner face of the girders B B, take, for the purpose of producing an interlocking of the parts, or the position of the indentations and ribs or projections may be reversed. When, therefore, the screw-bolts C, (which are passed through holes made in the side girders and the steel rail,) are tightened up, the middle rail can have no independent motion, or, in other words, it cannot spring and work loose between the clamping-girders, as it would otherwise be liable to, notwithstanding the passing of the screw-bolts through the three thicknesses of metal, if there were no interlocking of the parts as described. The head of the steel rail beds upon the upper edge of the girders, as in previously-designed compound rails, but the form of the abutting surfaces in this case is such as to insure close contact between them when the screw-bolts are tightened up. This is clearly shown in the drawing, the contact surfaces having a slight inclination inwards, as indicated by the red lines, *a a*. In combining the parts care must be taken that the T-rail and girders are arranged so as to "break joint," as is well understood by railway-engineers.

Having now set forth the nature of our invention, and explained the manner of carrying the same into effect, we wish it to be understood that we do not claim, generally, forming a compound rail by combining together bars of wrought iron and steel; but

What we do claim as our invention, and desire to secure by Letters Patent, is—

A compound steel and wrought-iron rail, in which the adjacent (or bearing) vertical surface of the steel and iron portions are formed with angular interlocking ribs and grooves, and the upper faces of the iron plates and lower faces of rail-head form taper bearings, all substantially as described.

In witness whereof, we, the said PETER ASHCROFT and GEORGE FREDERICK LEE MEAKIN, have hereunto set our hands and seals, the twenty-second day of October, in the year of our Lord one thousand eight hundred and sixty-seven.

PETER ASHCROFT, [L. s.]  
GEO. F. L. MEAKIN. [L. s.]

### Witnesses:

FRED. WALKDEN, Clerk to Newton & Son, 66 Chancery Lane, London.  
M. WYNN, Clerk to Messrs. Scorer & Harris, Public Notaries, London.