

G. R. DUNBAR.
RAILROAD-RAIL.

No. 171,782.

Patented Jan. 4, 1876.

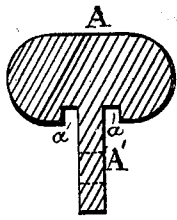


fig. 1.

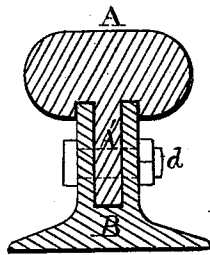


fig. 2.

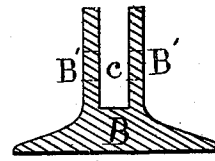


fig. 3.

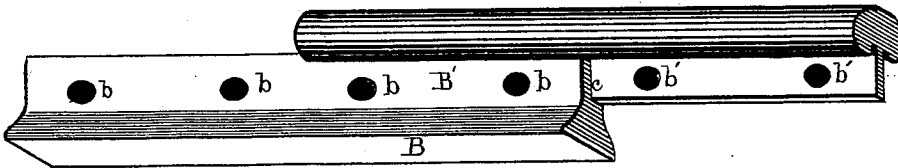


fig. 4.

Attest
C. M. McConnell
W. M. Hall

Inventor
George R. Dunbar
Per. Blanchard & Singleton
Atty.

UNITED STATES PATENT OFFICE.

GEORGE R. DUNBAR, OF LOGANSPORT, INDIANA.

IMPROVEMENT IN RAILROAD-RAILS.

Specification forming part of Letters Patent No. 171,782, dated January 4, 1876; application filed October 20, 1875.

To all whom it may concern:

Be it known that I, GEORGE R. DUNBAR, of Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Railroad-Rails; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a transverse section of the upper rail. Fig. 2 is a transverse section of the bed-rail; Fig. 3, two rails united by bolts, and Fig. 4 is a perspective view.

This invention relates to railroad-rails; and it consists in the method of constructing the sections thereof in such a manner that the upper section shall have three separate rigid bearings directly under its head, as will be more fully described hereinafter.

The sections are to break joints so as to form a continuous compound rail.

In the drawing, A is an upper section, which I prefer to make of steel, having a central web, A', between which and the beads are two shallow square grooves, *a a*. B is the bed section of iron or of steel, having the two flanges or webs B' B' separated by a deep groove or channel, *c*. Holes *b b* are formed in the flanges B' B' and corresponding holes *b' b'* in the web A'. These holes are elongated sufficiently to permit the movement of the bolts *d* from the contraction and expansion of the rails.

It will be noticed in the drawing that the web A' rests fully upon the bottom of the groove *c*, and that the top edges of the flanges B' B' support the upper section under the tread of the wheel in the grooves *a a*, whereby mutual support is obtained from the corre-

sponding parts, and being fitted at right angles the bearings of the sections are all solidly sustained above and below.

In compound rails of this character heretofore made the web has not been supported; hence a tendency to split the bead by the downward pressure of the load. In the present application this difficulty is overcome by the support given to the web or central section upon the bed B in the groove *c*, which fully sustains the section immediately under the tread of the wheel.

I am aware that compound rails have been made with bearing-surfaces for the upper section, which are at a right angle to a line drawn vertically through the center of the rail, as in the one shown in the English Patent No. 697, of 1854, but this differs from mine, in that the upper section or portion has no overhanging lips which embraces the projecting flanges of the lower portion.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

A railroad-rail, composed of two sections, constructed as shown, the upper section having two parallel recesses formed in it, which embrace and support the upper edges of the projecting flanges of the lower section against lateral pressure, said lower section having a recess formed in it for the reception of the web of the upper section, the bearing-surfaces all being at a right angle to and parallel with a line drawn vertically through the center of the rail, as shown and described.

In testimony that I claim the foregoing as my own invention, I affix my signature in presence of two witnesses.

GEORGE R. DUNBAR.

Witnesses:

STEWART T. McCONNELL,
THOS. J. TULEY.