

No. 658,360.

Patented Sept. 25, 1900.

E. B. ENTWISLE.  
RAILWAY TRACK STRUCTURE.

(Application filed Mar. 18, 1900.)

(No Model.)

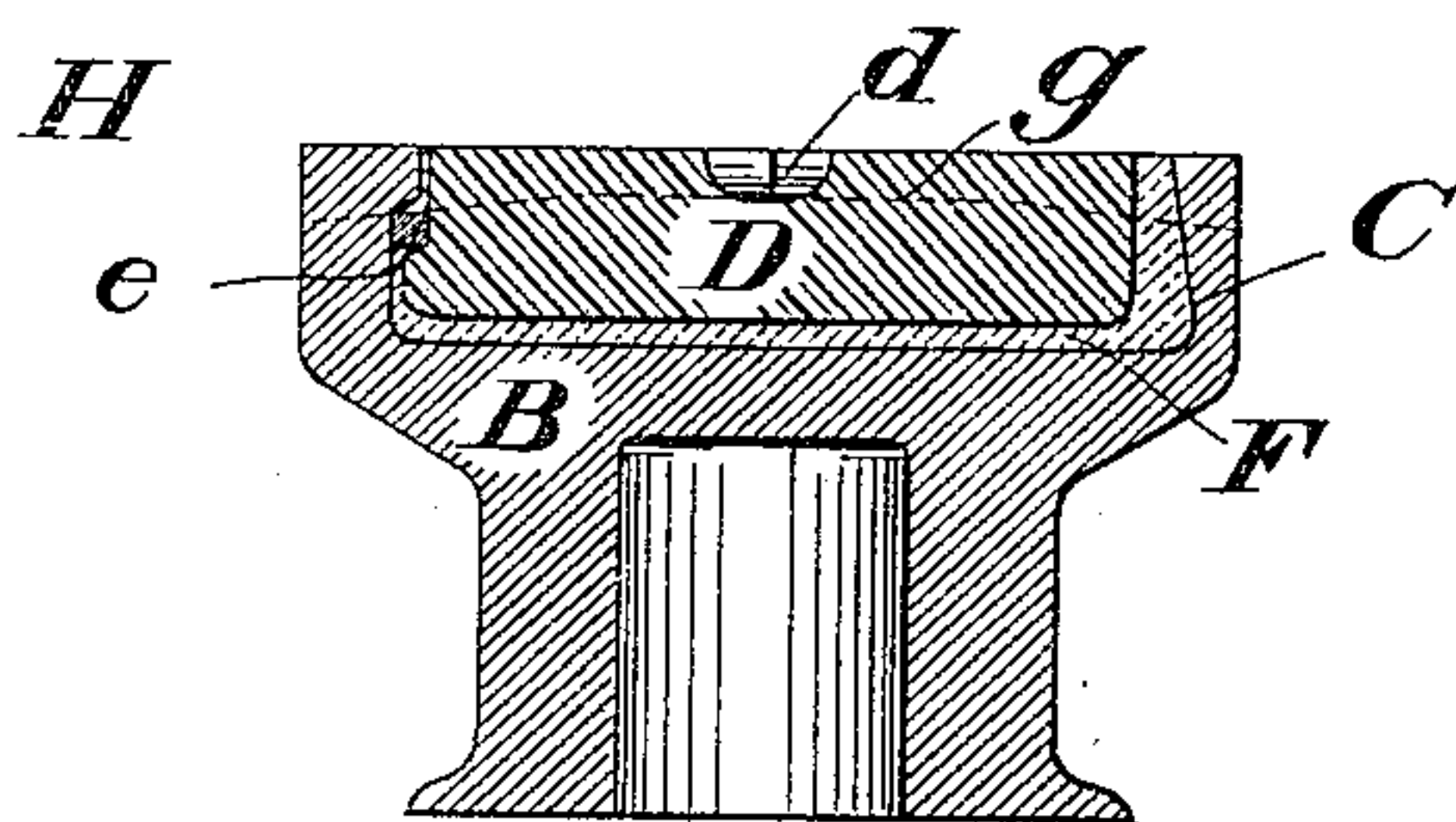
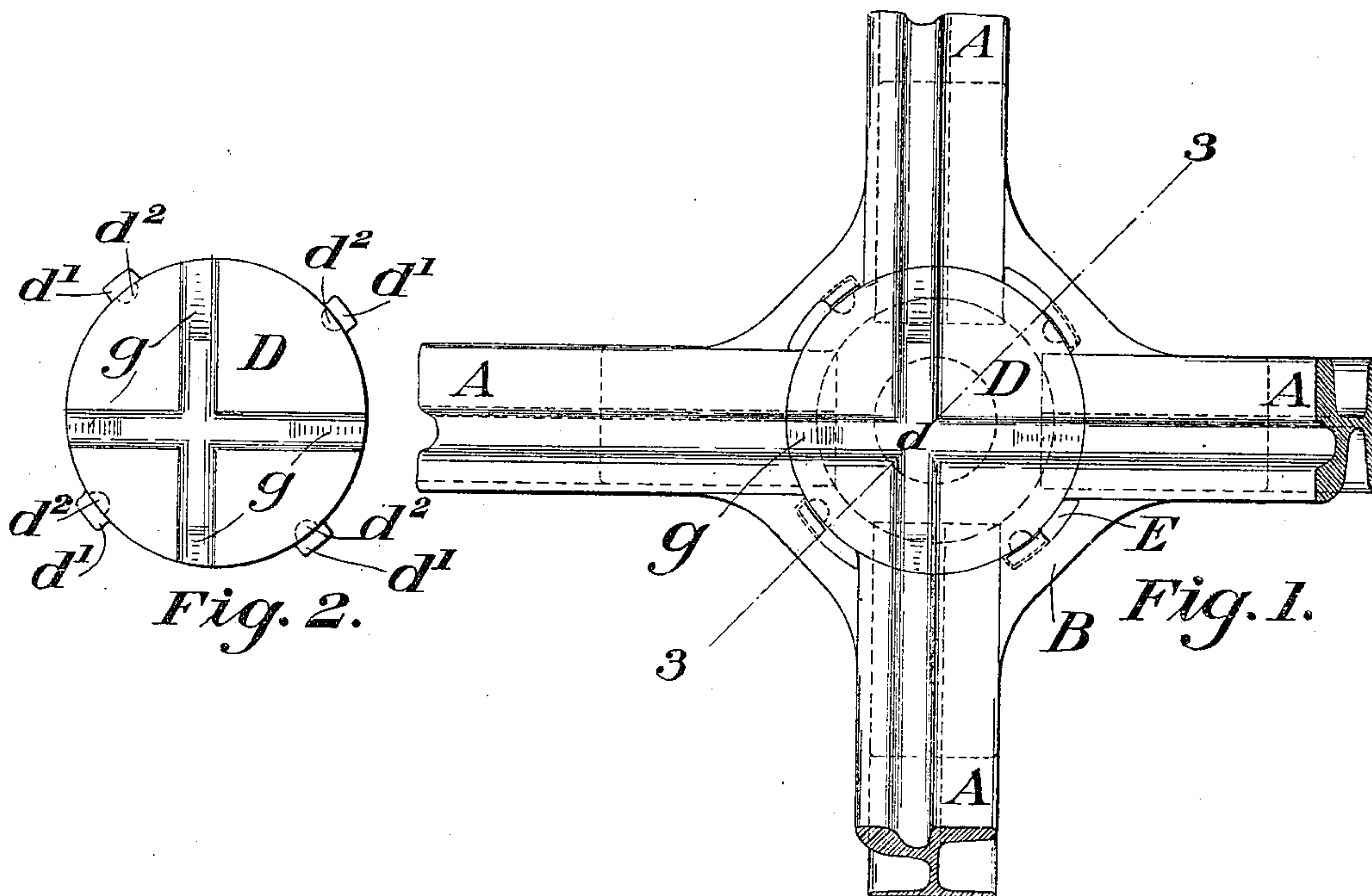


Fig. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TRACK STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 658,360, dated September 25, 1900.

Application filed March 19, 1900. Serial No. 9,197. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD B. ENTWISLE, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Railway-Track Structures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention has relation to railway-track structures of that class which are provided with wear-plates of hard metal which form the intersecting portions of the track, said plates being removably seated in the structure, so that they can, if necessary, be removed and replaced.

My object is to provide means which will facilitate the removal of these wear-plates; and my invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims, reference being had to the accompanying drawings, which form a part of this specification.

In the drawings, Figure 1 is a plan view of a portion of a track-crossing embodying my invention. Fig. 2 is a plan view of the wear-plate removed, and Fig. 3 is a section on the line 3 3 of Fig. 1.

The letter A designates the rail members of the crossing structure, which are shown as united at their adjacent ends by a body B, of metal, cast about the rails. Said body and rail members may, however, form one integral casting. Cored or otherwise formed in the upper face of the body B is a pocket C, which is of circular form, the inner ends of the rail members being milled to form portions of its circular walls.

D designates the hardened wear or intersection plate, having the intersecting wheel grooves or flangeways  $d$ , which are formed with risers  $g$  in their floorways to carry the flanges of passing car-wheels. This plate is of circular form and is made to fit neatly in the pocket C. It is formed with peripherally-projecting lugs or projections  $d'$ , extending at intervals from its lower portion. To receive these lugs, the pocket C is provided with offset recesses E, adjacent to which the walls

of the pocket are undercut, as shown at H. The plate is placed in the sockets with the lugs  $d'$  entering the recesses E and is then turned to the position shown in Fig. 1, in which the gage-lines of its wheel-grooves register with the gage-lines of the rail members A. The lugs  $d'$  now engage the undercut portions H. Keys E are then driven in between the shoulders formed by the upper wall of the said undercuts and the upper faces of the lugs. Spelter F or other suitable soft retaining material is then poured in through the openings formed by the recesses E and flows around and underneath the plate D, as shown in Fig. 3. To provide the space for said material underneath the plate, the latter may be held slightly away from the bottom wall of the pocket by means of thin blockings. (Not shown.)

When it is desired to remove the wear-plate, the retaining material in the recesses E can be chipped out and the wedges  $e$  loosened. By means of a suitable wrench-like device, with jaws made to fit the wheel-grooves  $d$  and having a long bar-handle, sufficient power can be applied to the plate to rotate it until its lugs are brought out of the undercuts into the recesses E. The plate can then be lifted out of the pocket, and to facilitate this it is provided with peripheral recesses  $d^2$  for the engagement of suitable lifting-hooks.

In the manner above described I overcome the difficulty experienced in loosening the plates sufficiently to permit them to be removed. I do not, however, claim, broadly, a plate which can be loosened by circular movement thereof, as I believe that to be the invention of C. F. Kress, Jr., of Johnstown, Pennsylvania, as described and claimed in his pending application for patent, Serial No. 9,225. I do not, however, limit myself to the exact construction and combination of parts which I have herein shown and described, as some variations in the details thereof may be made without departing from my invention as it is pointed out in the appended claims.

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

1. In a railway-track structure, the combi-



1 nation with a body portion having a circular pocket formed therein, the lateral walls of said pocket having offset open recesses and adjacent undercut portions, of a circular wear or intersection plate adapted to fit said pocket and having circularly-spaced peripheral projections designed to enter said recesses and engage said undercut portions.

2. In a railway-track structure, the combination with a body portion having a circular pocket formed therein, the lateral walls of said pocket having offset open recesses and adjacent undercut portions, of a circular wear or intersection plate adapted to fit said pocket and having circularly-spaced peripheral projections designed to enter said recesses and engage said undercut portions, and means for preventing circular movement of the said plate.

3. In a track structure, a body portion having a circular pocket formed therein, the lateral wall of said pocket being formed with offset undercut portions communicating with open recesses, of a circular plate seated in said pocket and having circularly-spaced peripheral projections engaging said undercut

portions, and soft retaining material around said plate and filling said recesses.

4. In a track structure, a body portion having a circular pocket formed therein, the lateral walls of said pocket being formed with offset undercut portions, and with open recesses leading thereto, of a wear or intersection plate fitted in said pocket and having peripheral segmental lugs or projections which engage said undercut portions, and wedges which normally prevent circular movement of the said plate.

5. In a track structure, the combination with a body portion having a circular pocket therein, of a circular wear-plate seated in said pocket and having portions thereof engaging lateral offsets of the pocket, said body portion also having openings to pass the said portions into and out of engagement with said offsets.

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

EDWARD B. ENTWISLE.

Witnesses:

BLANCHE M. SMITH,

H. W. SMITH.