

No. 762,342.

PATENTED JUNE 14, 1904.

E. OTT.
RAILWAY TRACK STRUCTURE.
APPLICATION FILED OCT. 22, 1903.

NO MODEL.

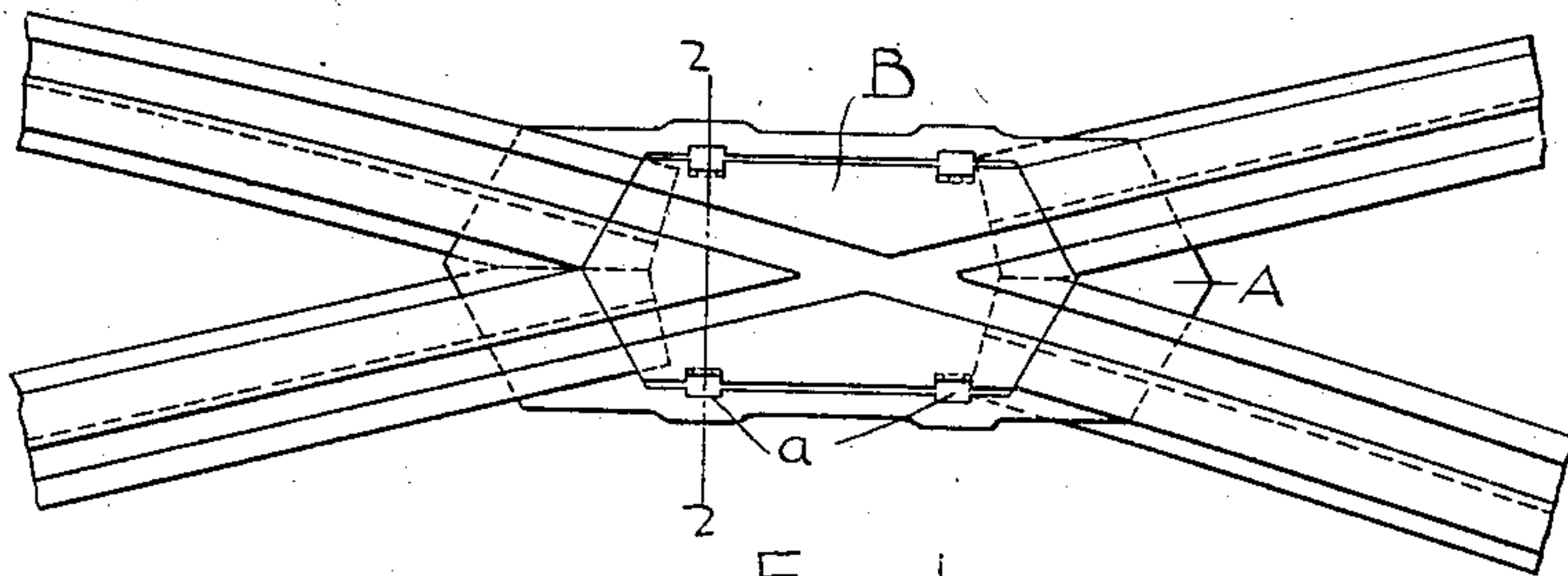


FIG. 1

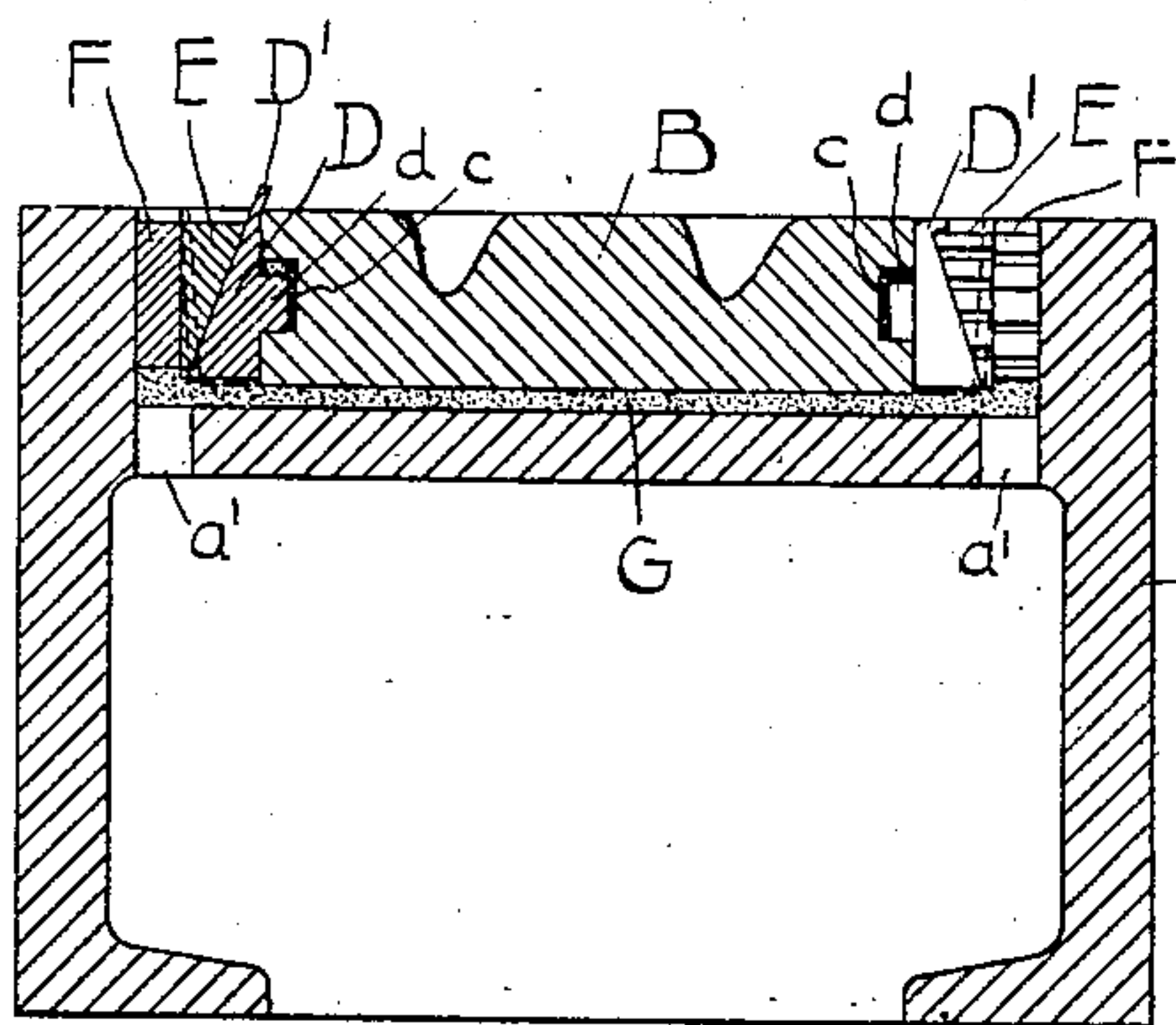


FIG. 2

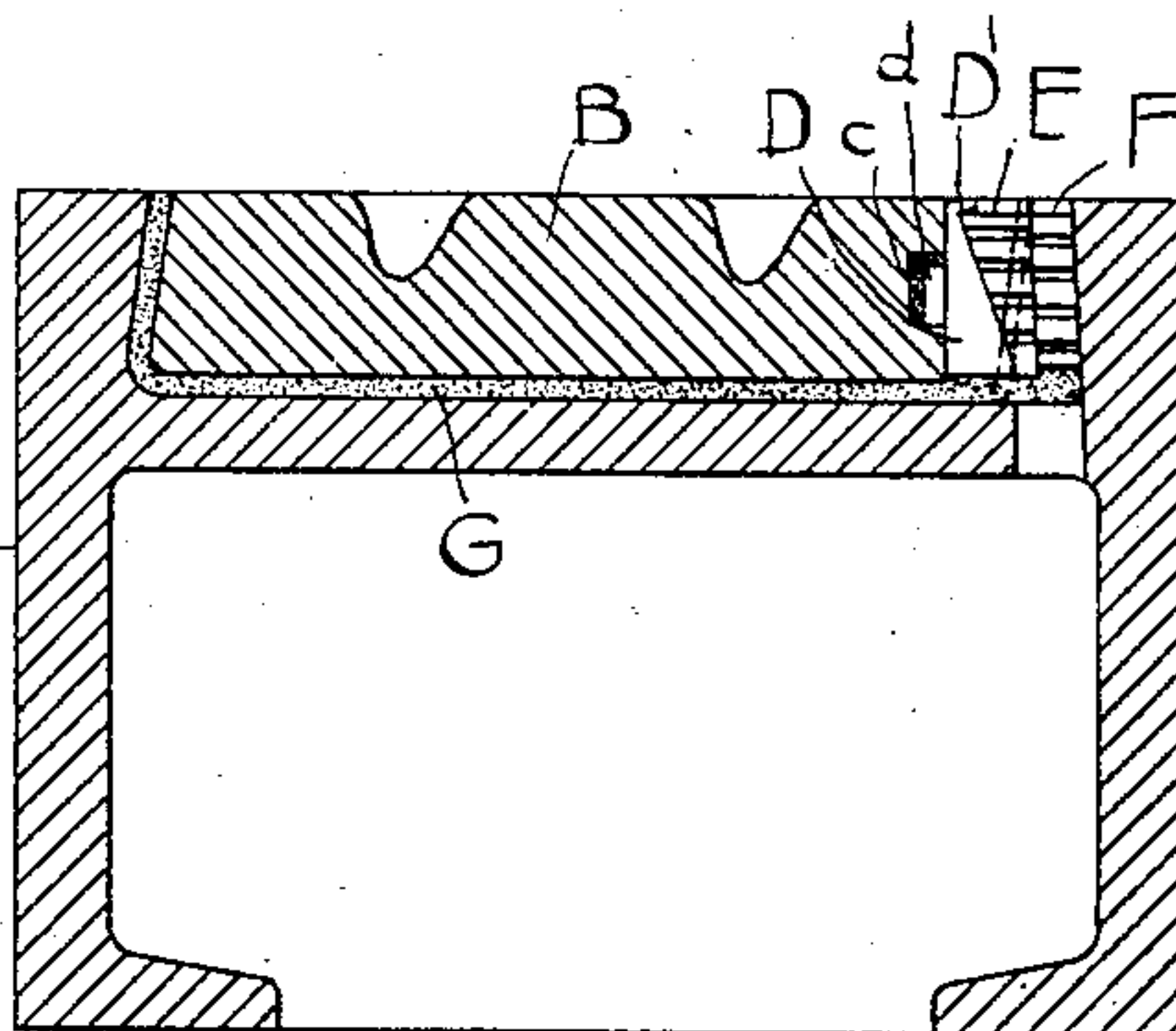


FIG. 3

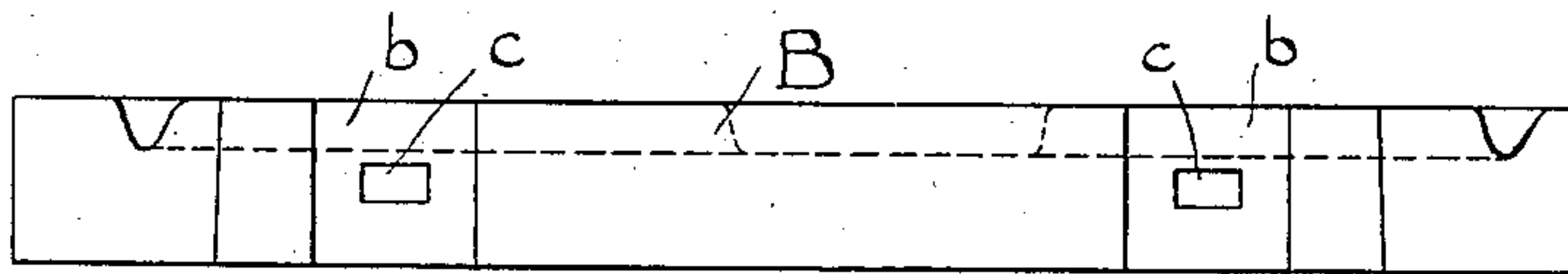


FIG. 4

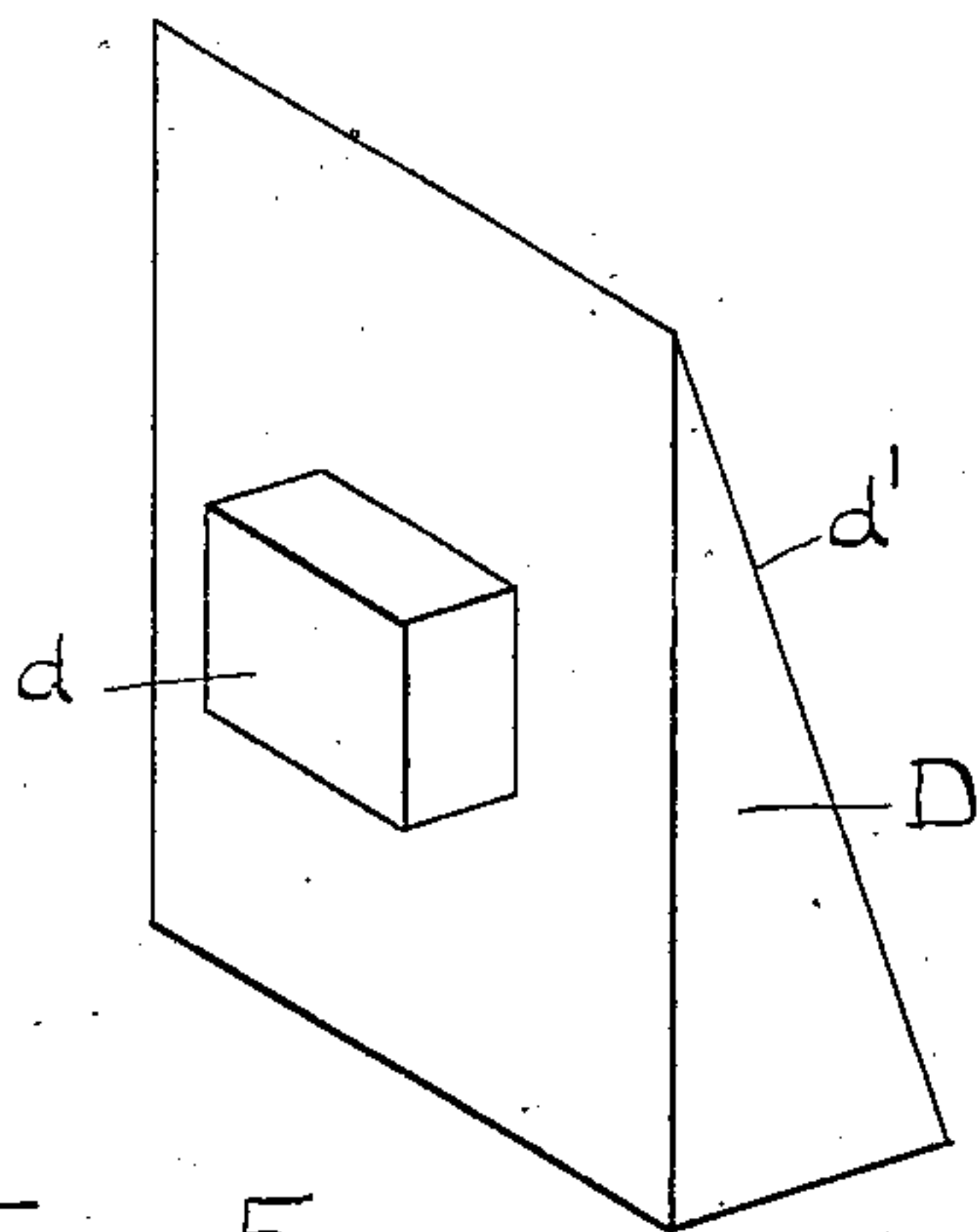


FIG. 5

WITNESSES:
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UNITED STATES PATENT OFFICE.

EDWARD OTT, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE
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RAILWAY-TRACK STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 762,342, dated June 14, 1904.

Application filed October 22, 1903. Serial No. 178,043. (No model.)

To all whom it may concern:

Be it known that I, EDWARD OTT, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful
5 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.

10 My invention has relation to certain new and useful improvements in railway-track structures, and more particularly to those structures in which removable plates of durable material are employed to form those
15 portions of the structure subject to the greatest wear.

My invention is designed to provide means of novel character for securing the plates in the body of the structure whereby they may
20 be readily removed and replaced from the surface of the street.

With this object in view my invention consists in the combination, in a railway-track structure formed with a pocket for a plate and
25 with key-seats and with a plate adapted to seat in said pocket, of key-bearings detachably engaged with said plate and compound keys or wedges driven between said key-bearings and the key-seats of the body structure and so arranged that a member of each key may be
30 driven through the structure to release the holding action of the key.

My invention also preferably comprises means whereby the keys may be positively
35 locked after they have been seated and driven, so that they cannot work loose in service.

My invention also consists in the novel construction, combination, and arrangement of parts, all substantially as hereinafter described, and pointed out in the appended
40 claims, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a track structure embodying my invention; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a transverse vertical section similar to that of Fig. 2, but showing a modification; Fig. 4, a side view of

the plate removed, and Fig. 5 a perspective view of one of the key-bearings detached.

In the figures the letter A designates the 50 body portion of the structure, and B the plate portion seated in a pocket in said body portion and constituting the track-surface of the structure at the parts subject to greatest wear.

In the construction shown in Figs. 1 and 2 55 both lateral walls of the plate-pocket are formed with key-seats *a*, which are extended by the openings *a'* through the floor of the structure. The side edges of the plate B are formed with recesses *b* opposite the key-seats 60 *a*, and in the rear walls of these recesses are formed the slots *c* to receive the lugs *d* of key-bearing pieces D. These pieces D, as shown in Fig. 5, are of triangular form with the inclined key-bearing faces *d'*. 65

The keys consist each of a wedge E and a block F, the wedge being driven between the bearing-faces *d'* and the said blocks F. The pieces D are preferably of malleable material, so that after the wedge E has been driven the 70 upper projecting end portion D' can be driven over and down upon the upper end of the said wedge. As the piece D is engaged with the plate by means of its lug *d*, it is evident that the wedge cannot work loose when thus secured. Said wedges, together with the blocks 75 F, may also be grooved or corrugated to receive the spelter or other retaining material G in which the plate is bedded. While this spelter is being poured, the openings *a'* are 80 closed by means of suitable plugs. (Not shown.) To release the fastenings, the blocks F are, by means of suitable drifts, driven down through the openings *a'*. The wedges E and pieces B can then be readily driven 85 back out of engagement with the plate, and by means of pry-bars or lifting devices inserted in the slots *d'* the plate can be readily removed from its seat. A new plate can then be seated. The use of the piece D, which can 90 be readily separated from the plate, enables the latter to be made of such shape that as soon as the fastenings are released it is left entirely free from binding engagement with

the spelter or other bedding material. It is not necessary that the lugs d shall have an exact fit in the slots d' , since any space around these lugs will be filled by the bedding material.

In the modification shown in Fig. 3 keys are used at one side only of the plate, which is held at the opposite side by its dovetailed or undercut engagement with the walls of the pocket. This construction is not, however, practicable except with rectangular plates, since it is difficult to seat the plates in this manner when they are of the polygonal form shown in Fig. 1.

Fig. 3 also illustrates a second modification, in that the block F has an undercut engagement with the wall of the pocket, which prevents any tendency it might have to work upward. This feature may be used in the construction shown in Figs. 1 and 2.

Although I have illustrated my invention in connection with a curve cross or frog, it is equally applicable to other track structures in which a removable plate is secured in a pocket in the body portion of the structure.

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

1. In a railway-track structure, the combination with a body portion having a plate-seating pocket therein, and key-seats in the wall of said pocket extending through the floor portion of said structure, of the plate having key-bearings detachably engaged therewith, and compound keys driven between said bearings and the seats of the structure.

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

nation with the body portion, of the plate seated therein, the key-bearing pieces engaged with said plate, and the compound keys, consisting each of a wedge or tightening member and a releasing member.

3. In a railway-track structure, the combination with the body portion, of the plate seated therein, the key-bearing pieces engaging the said plate and having the malleable upper end portions, and the compound key whose wedging member is arranged to be locked in place by said end portion.

4. In a plate-fastening for railway-track structures, a compound key having a wedging or tightening member and a releasing member, and holding-down means engaging the upper end of the tightening member.

5. In a railway-track structure of the class described, the combination with a removable wear-plate, having recessed edges, of key-bearing pieces detachably engaging said edges.

6. In a plate-fastening for railway-track structures, a key-bearing having at one side a lug for engagement with the plate, and at the opposite side an inclined key-seating surface.

7. In a plate-fastening for railway-track structures, a key-bearing having at one side a lug for engagement with the plate and at the opposite side an inclined key-seating surface, and also having a malleable upper end portion.

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

EDWARD OTT.

Witnesses:

LORETTO O'CONNELL,
H. W. SMITH.