

No. 764,940.

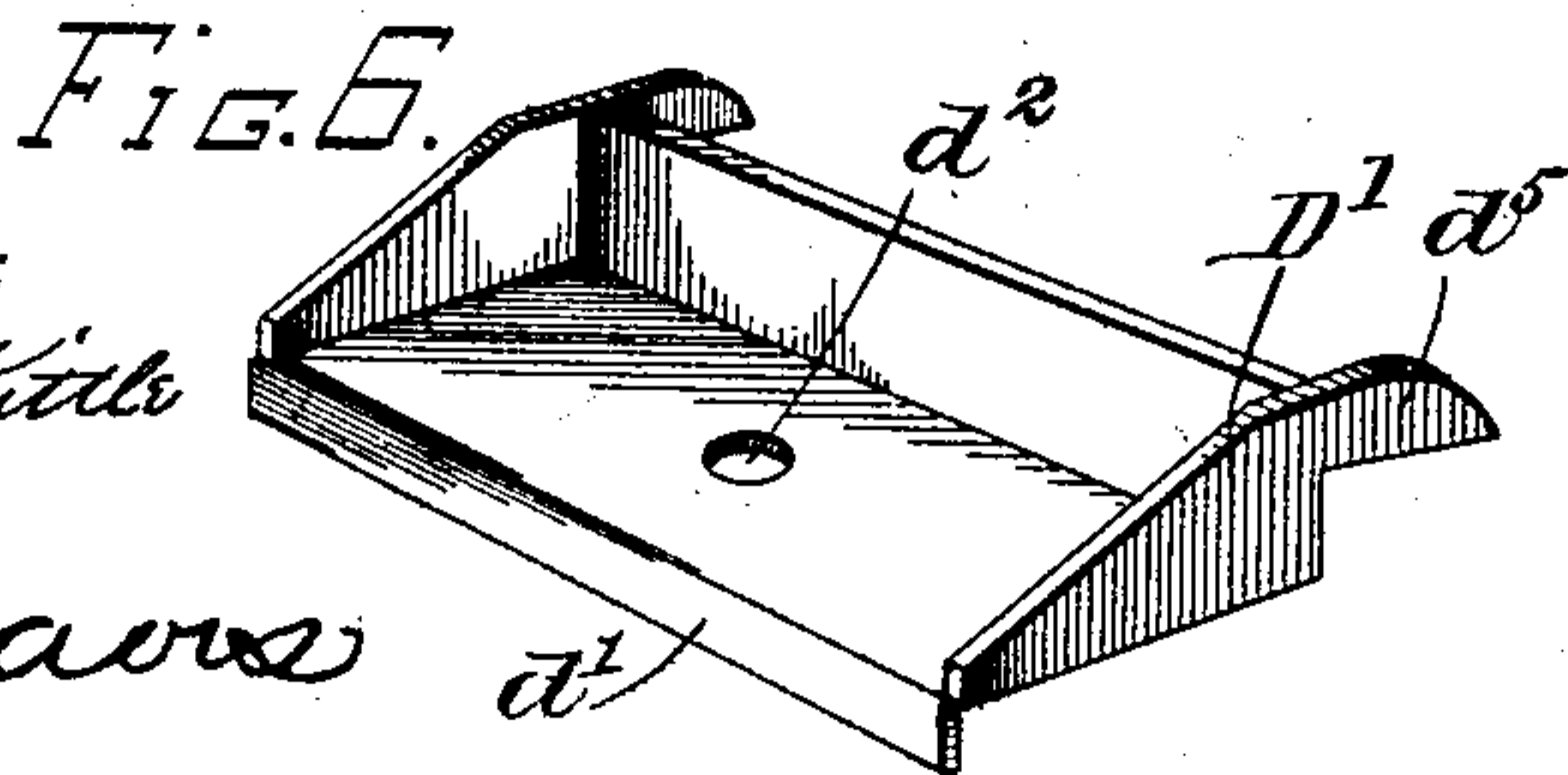
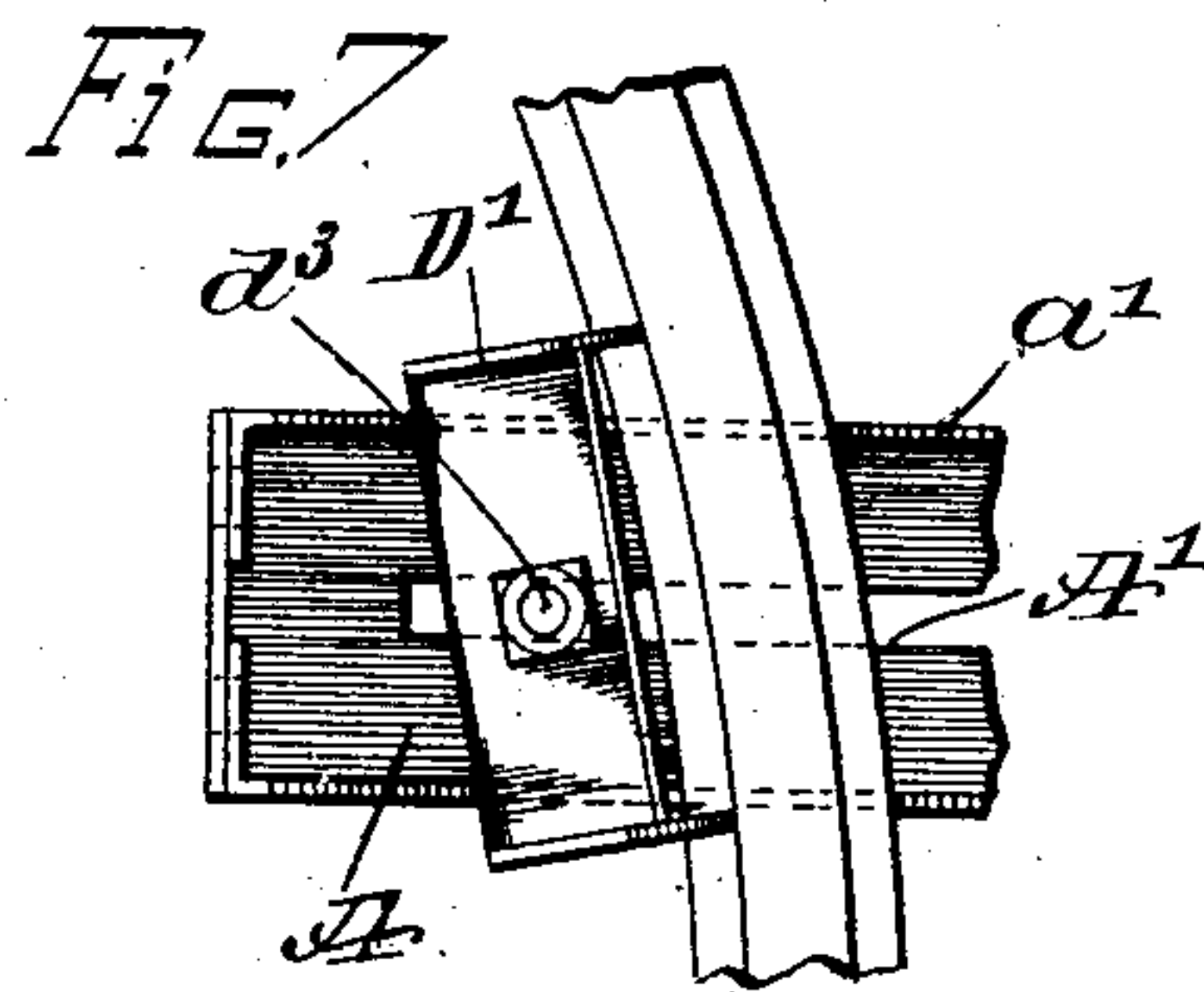
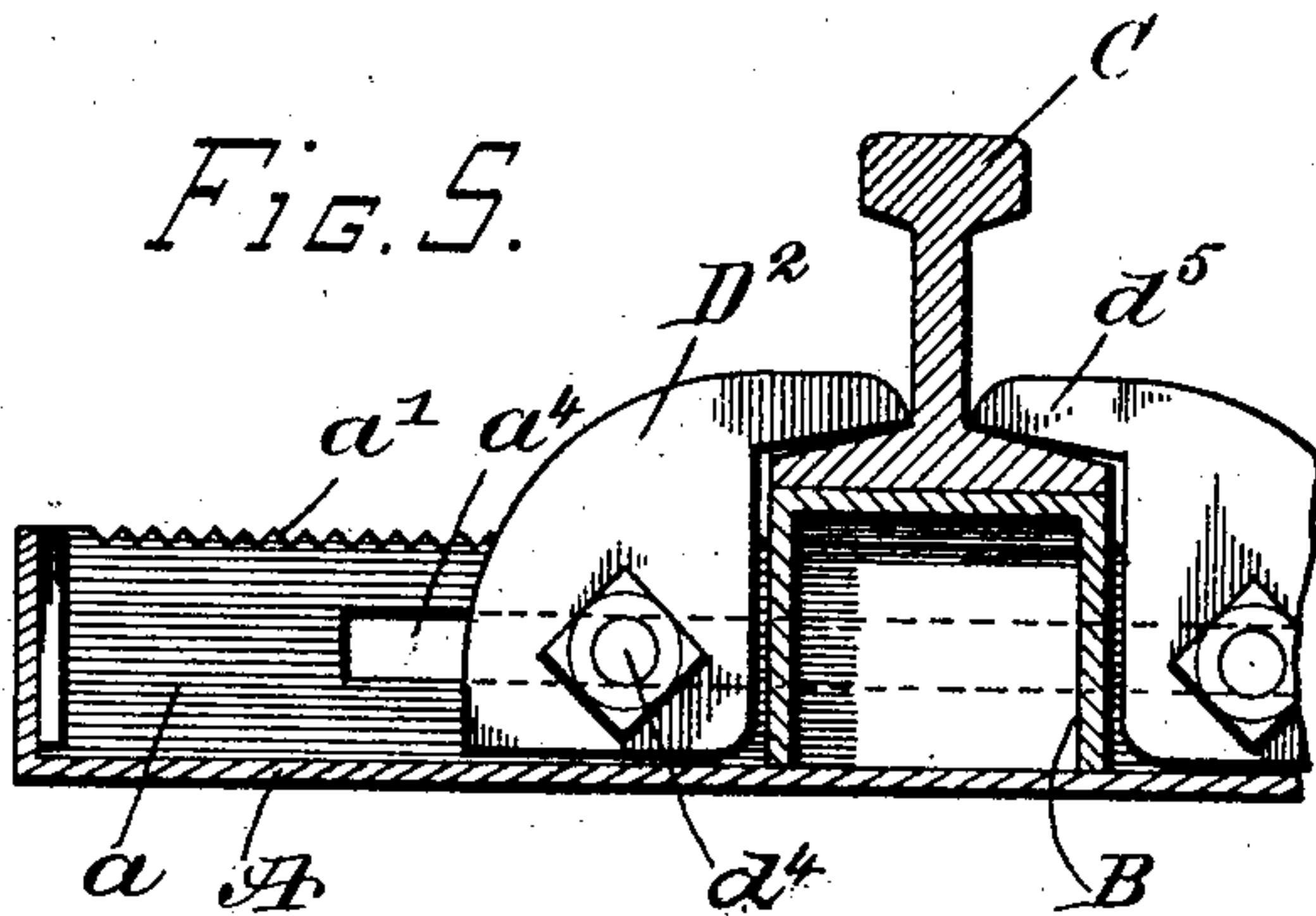
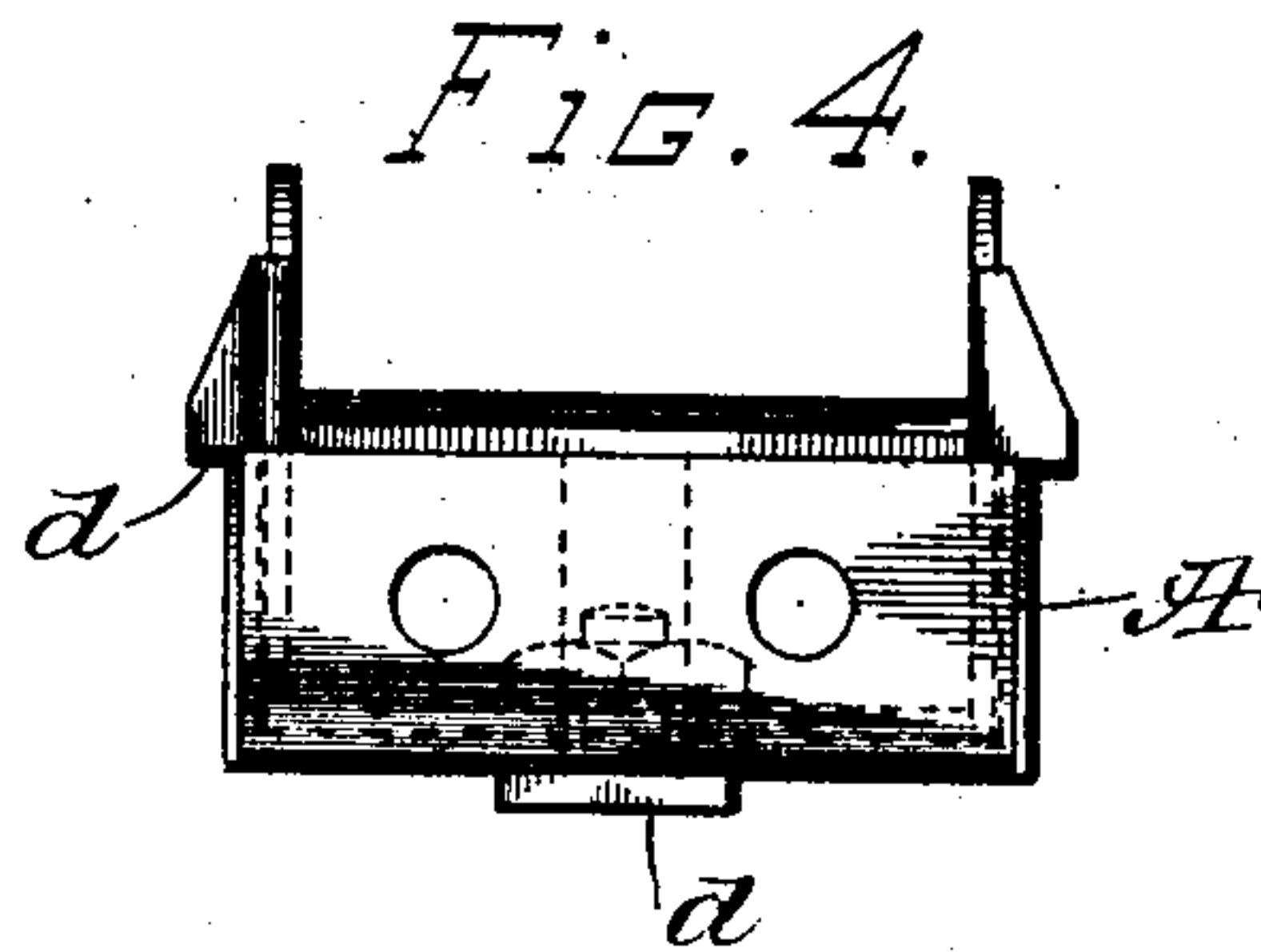
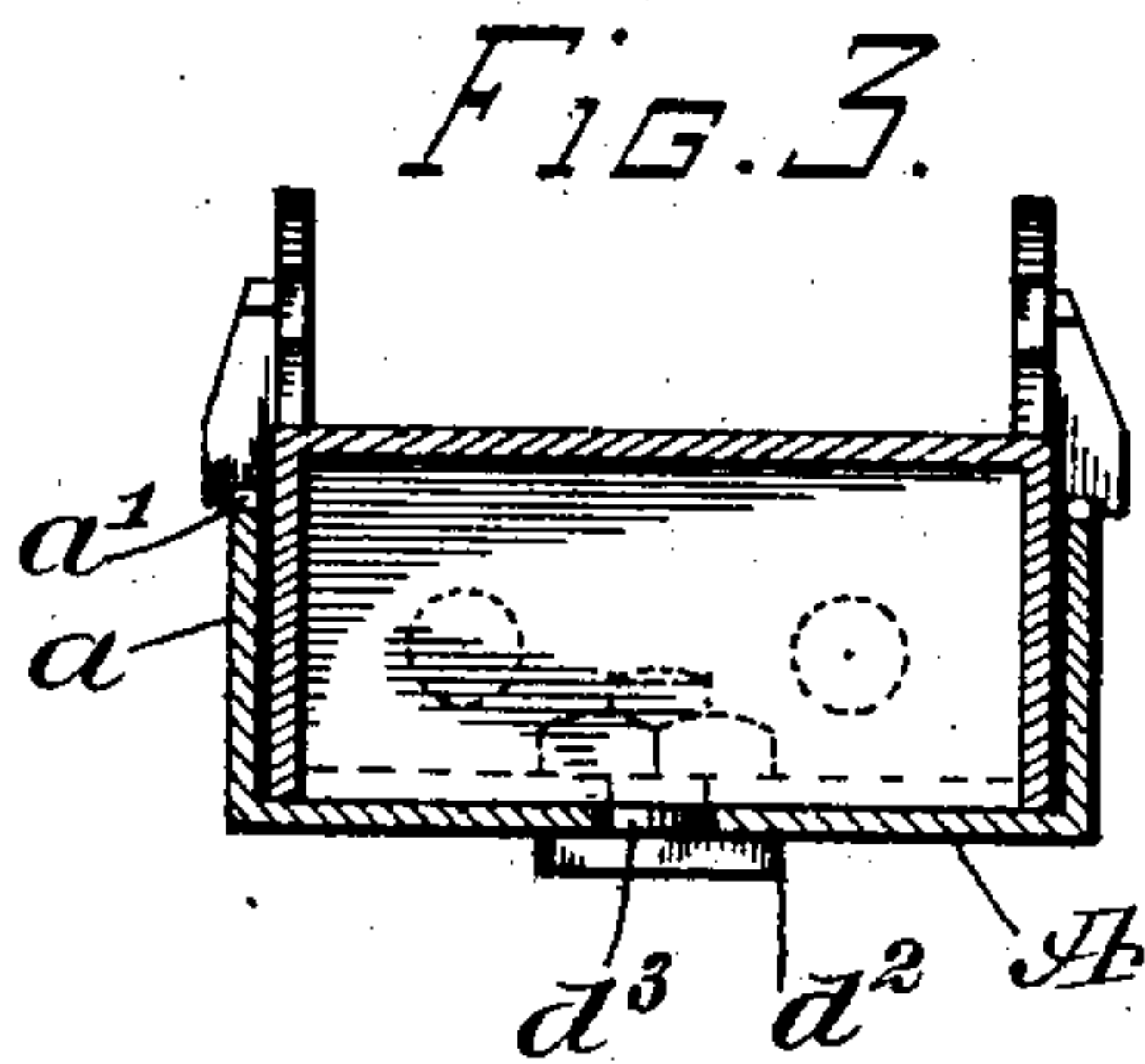
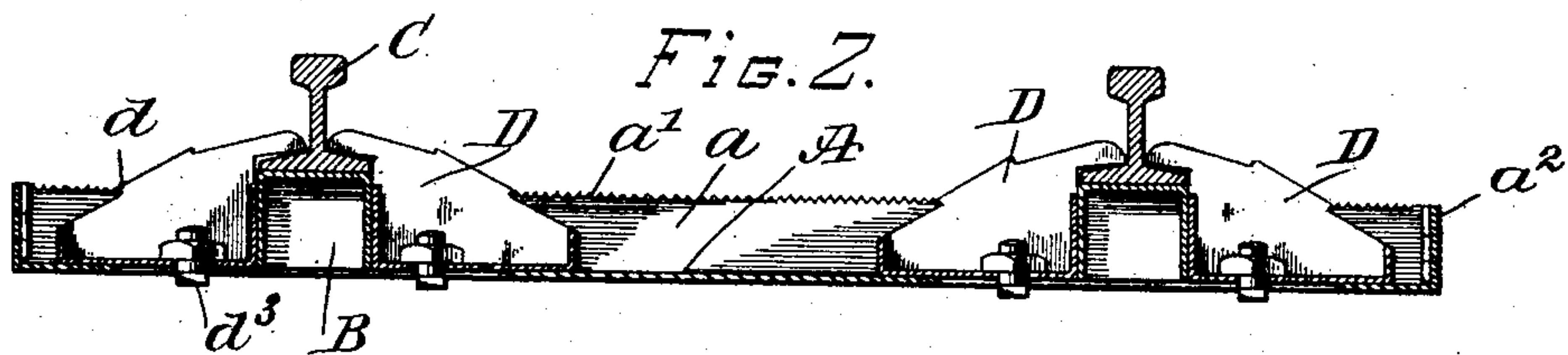
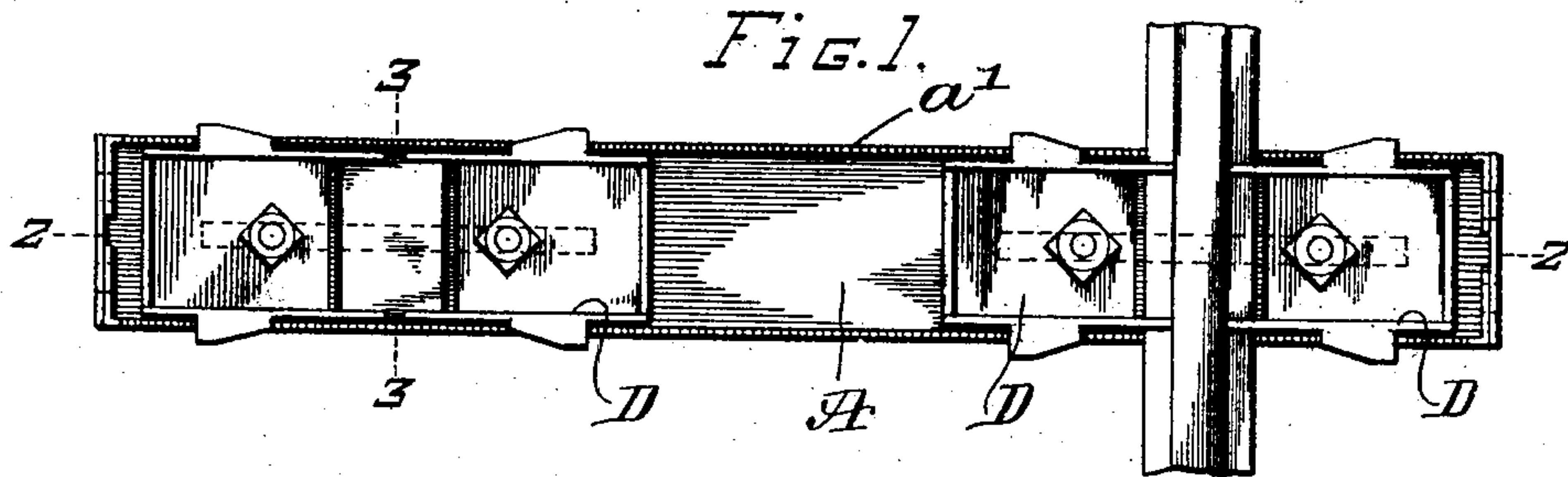
PATENTED JULY 12, 1904.

F. GOWEN.
RAIL TIE.

APPLICATION FILED FEB. 17, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

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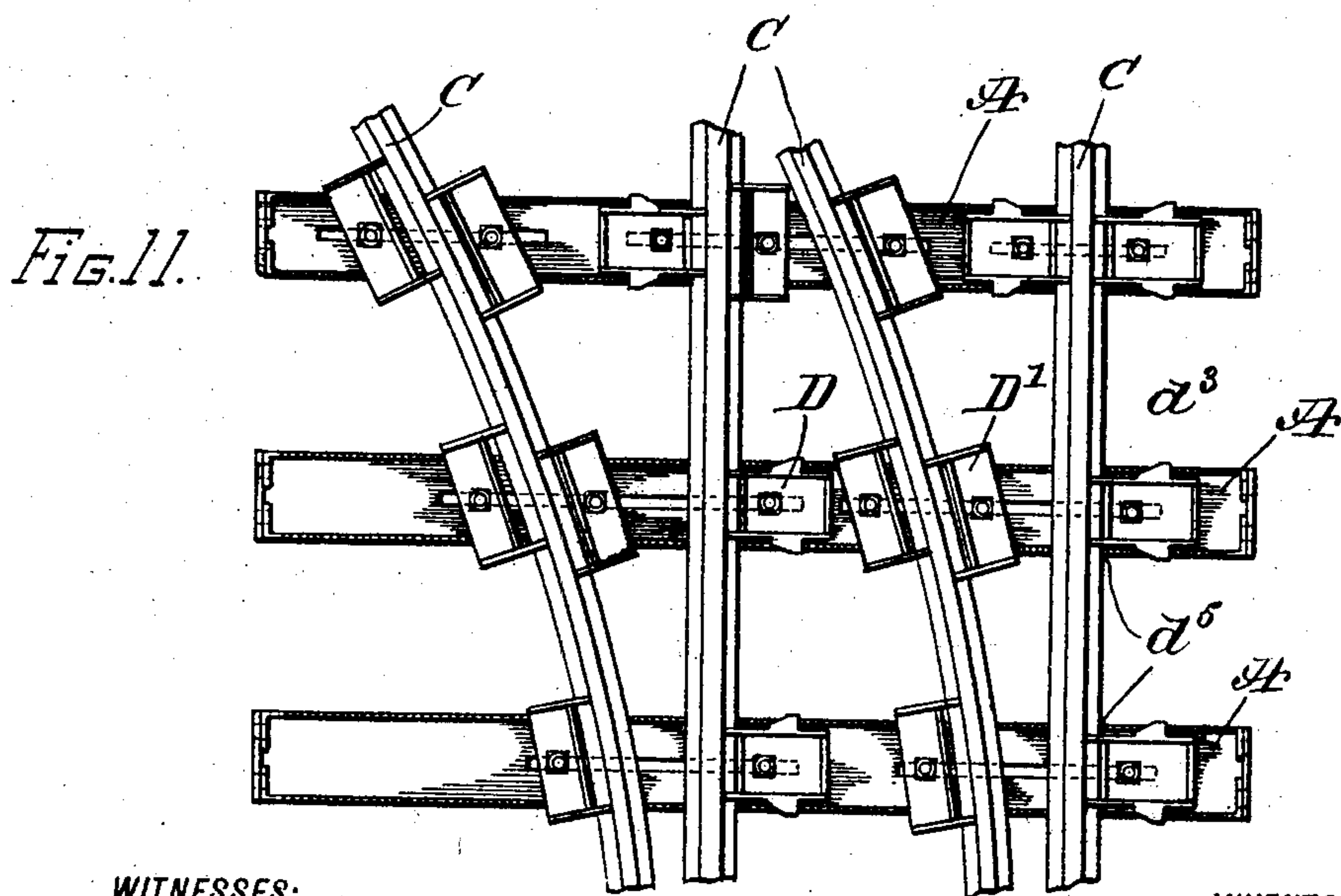
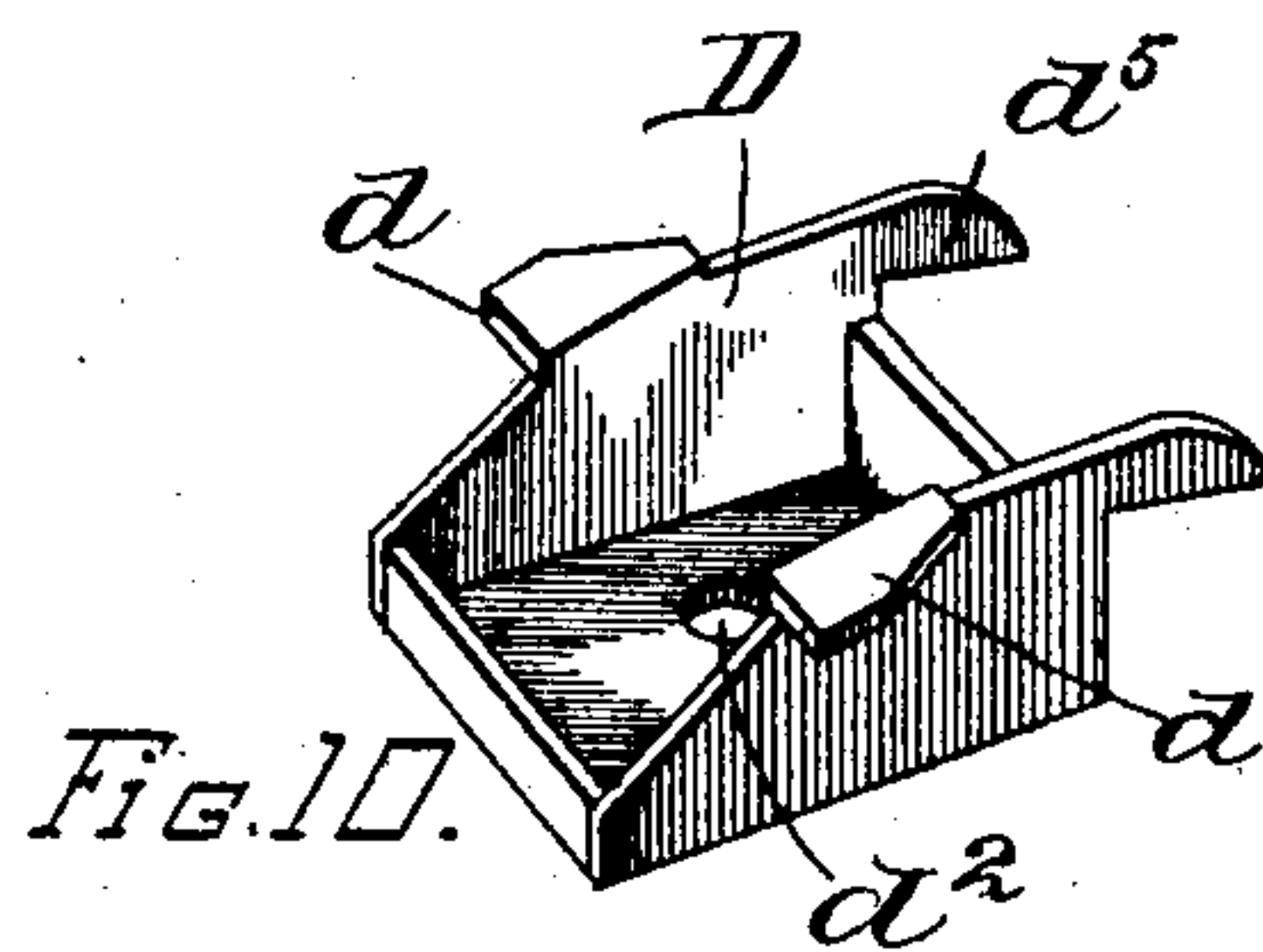
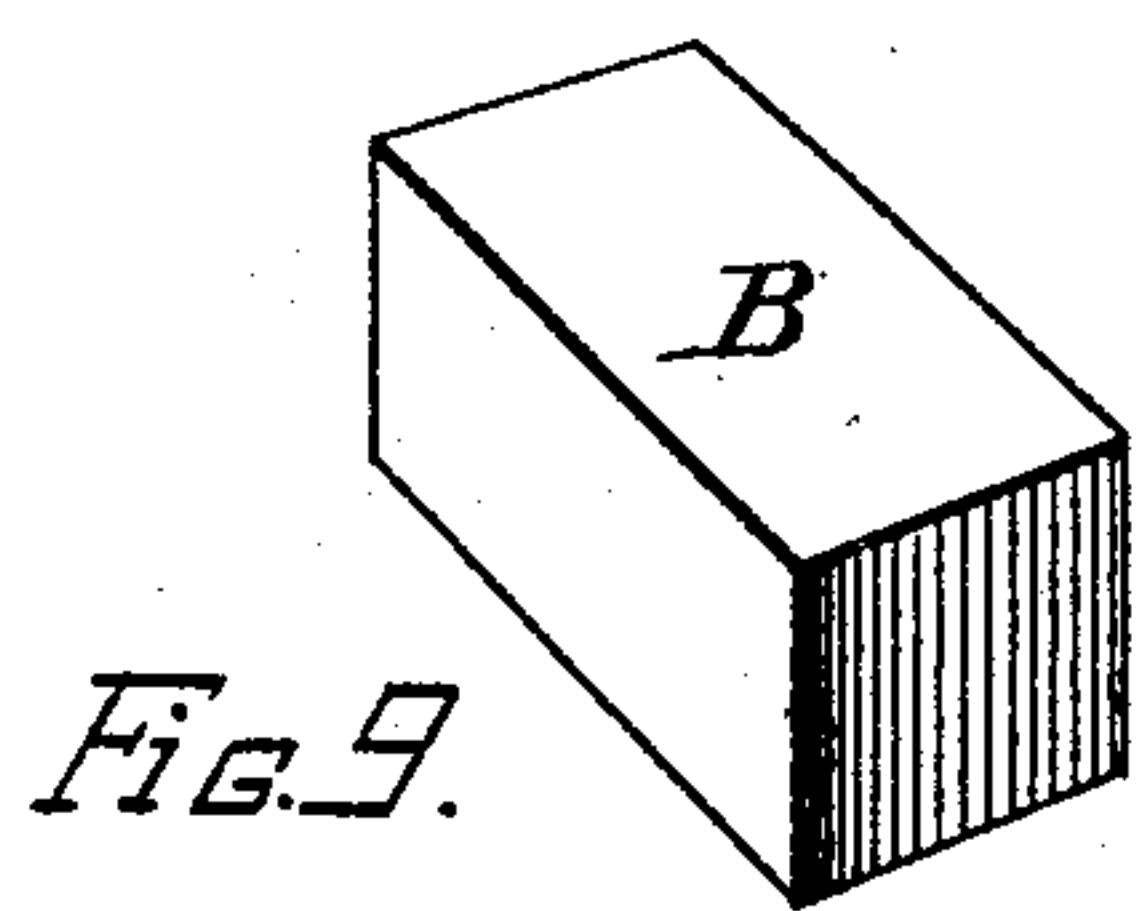
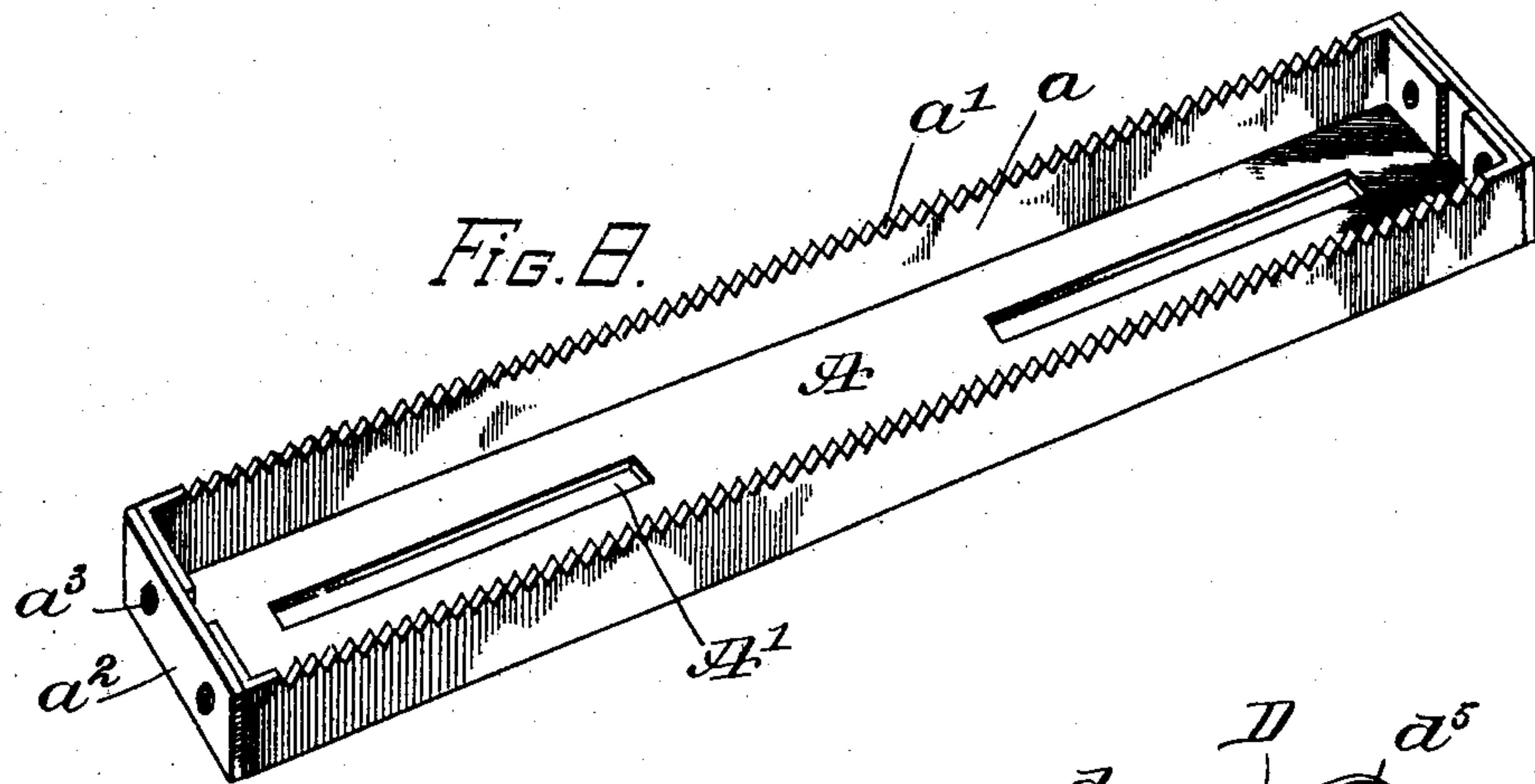
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NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRED GOWEN, OF PEABODY, KANSAS.

RAIL-TIE.

SPECIFICATION forming part of Letters Patent No. 764,940, dated July 12, 1904.

Application filed February 17, 1904. Serial No. 193,944. (No model.)

To all whom it may concern:

Be it known that I, FRED GOWEN, a citizen of the United States, and a resident of Peabody, in the county of Marion and State of Kansas, have invented a new and Improved Rail-Tie, of which the following is a full, clear, and exact description.

My invention relates to metallic rail-ties.

The objects of my invention are to provide a tie which will be light, strong, durable, and simple in construction, easy of application, which will contain few parts, and can be manufactured cheaply and rapidly; and further objects of my invention are to provide a device of the character mentioned in which no strain will come directly on the sides, which will be very light and yet strong, which can be conveniently applied at any place along the track, which can be used in soft or sandy road-beds without danger of sinking into the same, which will not require the use of the many small articles now employed to keep the track and rails in place, which will have no right and left hand parts, all parts being interchangeable, which will have no set-gage feature, which will require only one tool to apply or remove it, and which can be removed and replaced without disturbing other ties or the rails, which will be adjustable to all sizes and kinds of rails and varying widths of tracks that occur, which will do away with the necessity of using fish-plates to join the rails, and which will be of an even strength throughout its entire length.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of one form in which I have contemplated employing my invention, showing one of the rails in place and the other removed. Fig. 2 is a longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is an end view. Fig. 5 is an enlarged longitudinal section showing a slightly-modified form. Fig. 6 is a perspective view of one of the clamps of another modified form. Fig. 7 is a plan view showing the form of clamp of

Fig. 6 in position on the rail. Fig. 8 is a perspective view of the tie itself. Fig. 9 is a perspective view of a block to be placed therein for supporting the rails. Fig. 10 is a perspective view of the first form of clamp shown; and Fig. 11 is a plan view of a road-bed, showing both straight and curved tracks and the use of two forms of my invention in combination.

In the drawings, A represents a metallic tie, B a block placed therein for supporting the rails C, and D indicates clamps used in connection with the ties that will be hereinafter described. The tie A is formed with a floor, as shown, which may have slots A' for fastening the clamps thereto. It has side pieces *a*, which are vertical and have a serrated upper edge *a'* for holding the clamps in any desired position. It also has the upright ends *a''* provided with perforations *a'''*, by means of which a series of ties may be fastened together lengthwise by means of bolts. This construction may be modified, as shown in Fig. 5, by providing a slot *a''* in the sides *a* instead of the slot in the bottom A', or any other means for securing the clamps to these ties may be employed within the scope of the claims.

The block B is adapted to be placed within the tie A upon the floor and to support the rails C. The clamps D are provided with projections or ears *d*, which preferably are shaped so as to permit their resting in the serrations upon the side pieces *a*, as shown in Fig. 2. They are also provided with perforations *d''* in the bottom, through which a fastening device *d'''* may be placed to secure them to the bottom of the tie A, as shown in Fig. 3. This way of fastening the clamp to the tie may be modified, as shown in Fig. 5, by the use of bolts *d''* to correspond with the construction of the tie shown in that figure. In either case the clamp is provided with strong projections *d''*, adapted to fit over the base of the rail and hold it in position when the clamp is tightened. In the construction shown in Figs. 6 and 7 the projection *d'* for coming into contact with the serrations in the edges *a* extends clear across the bottom of the clamp, so that it may rest entirely above the top of the tie,

as shown in Fig. 7 and also in Fig. 11. These three modifications of the clamp are designated by the characters D, D', and D².

It will readily be seen that a tie constructed as hereinbefore described will accomplish the objects set forth above.

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

1. The combination with a rail-tie having a floor and vertical side walls, of blocks for supporting rails, resting on said floor, and clamps for the rails secured to said floor.

2. The combination with a rail-tie having a floor, and slots in said floor, of a plurality of rail-clamps, and means for securing said clamps to said tie through said slots.

3. The combination with a rail-tie having a floor, side walls, and notches on the tops of said walls, of a rail-clamp secured to said tie and having a projection adapted to rest in and be held by said notches and means on said floor for supporting a rail.

4. A rail-tie having a floor, side and end walls, means for securing a clamp to said floor, and a notched surface on the top of said side walls for retaining and holding the clamp.

5. A metal rail-tie having a floor, and vertical end walls, said end walls having perforations therein for securing another tie thereto.

6. The combination of a metal rail-tie having vertical walls with notched upper surfaces and a rail-clamp comprising angular surfaces adapted to rest upon said notched surfaces, projections adapted to contact with and hold the rails, and means for securing said clamp to said tie.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED GOWEN.

Witnesses:

A. D. WAGGONER,
CHAS. DEITRICH.