

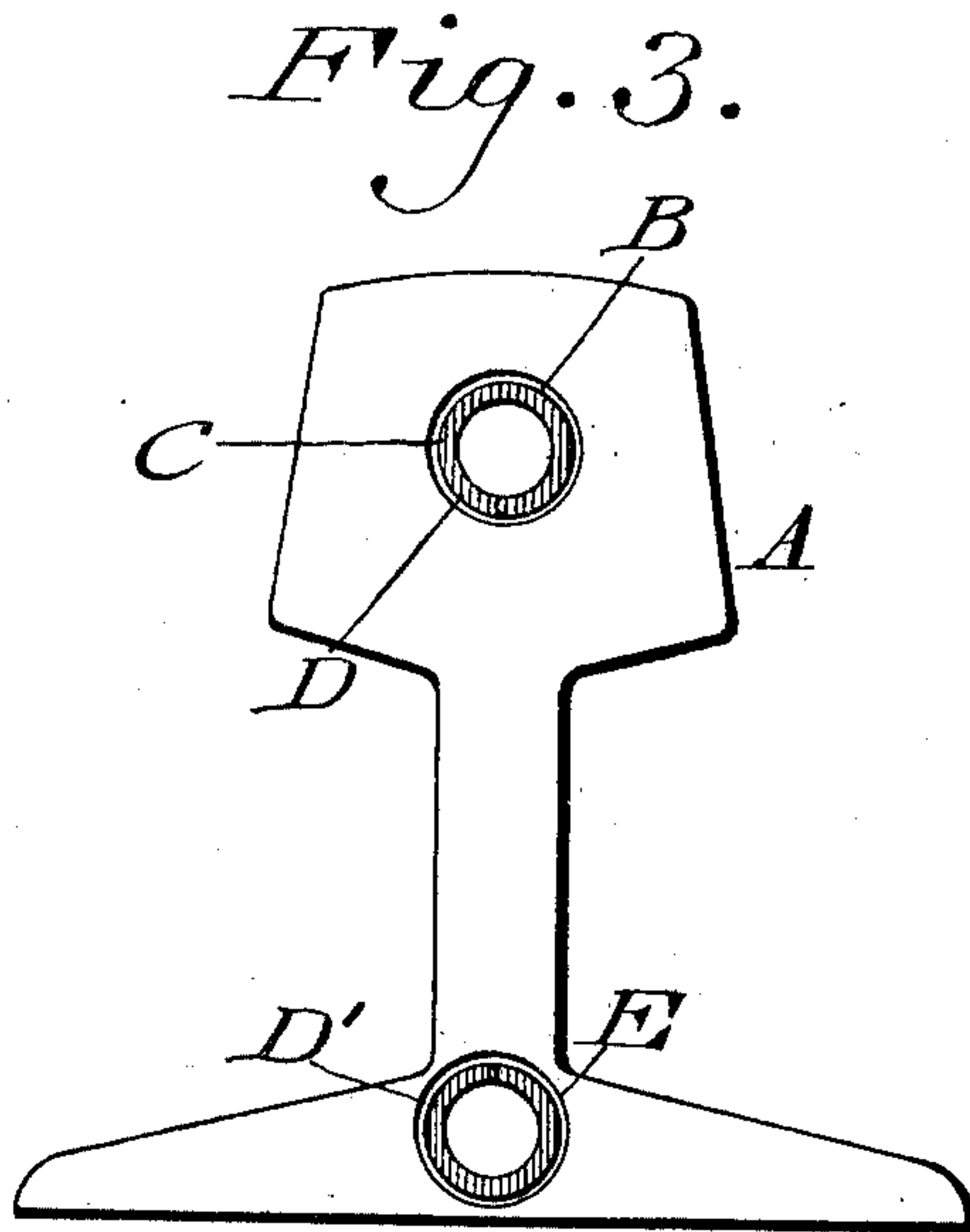
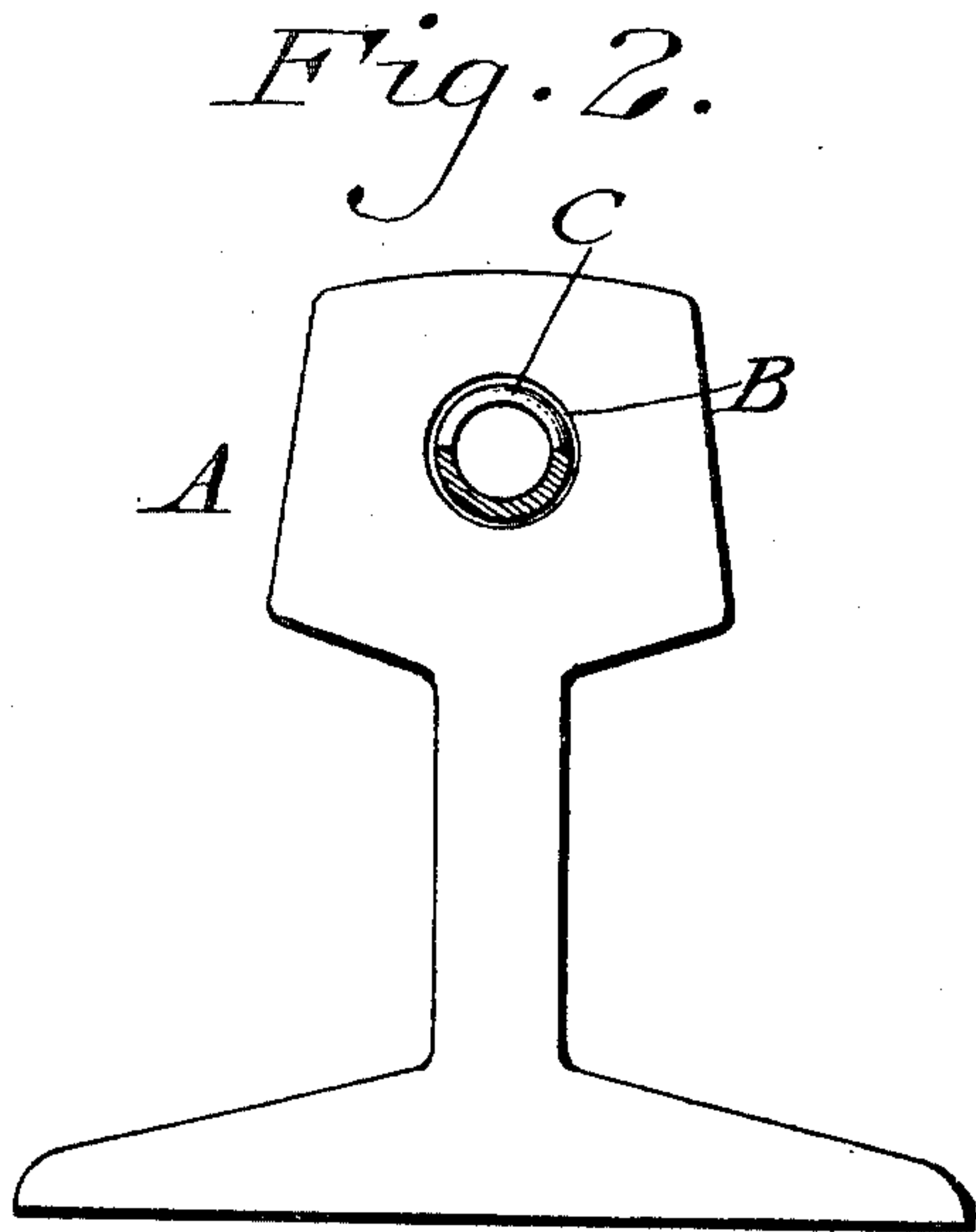
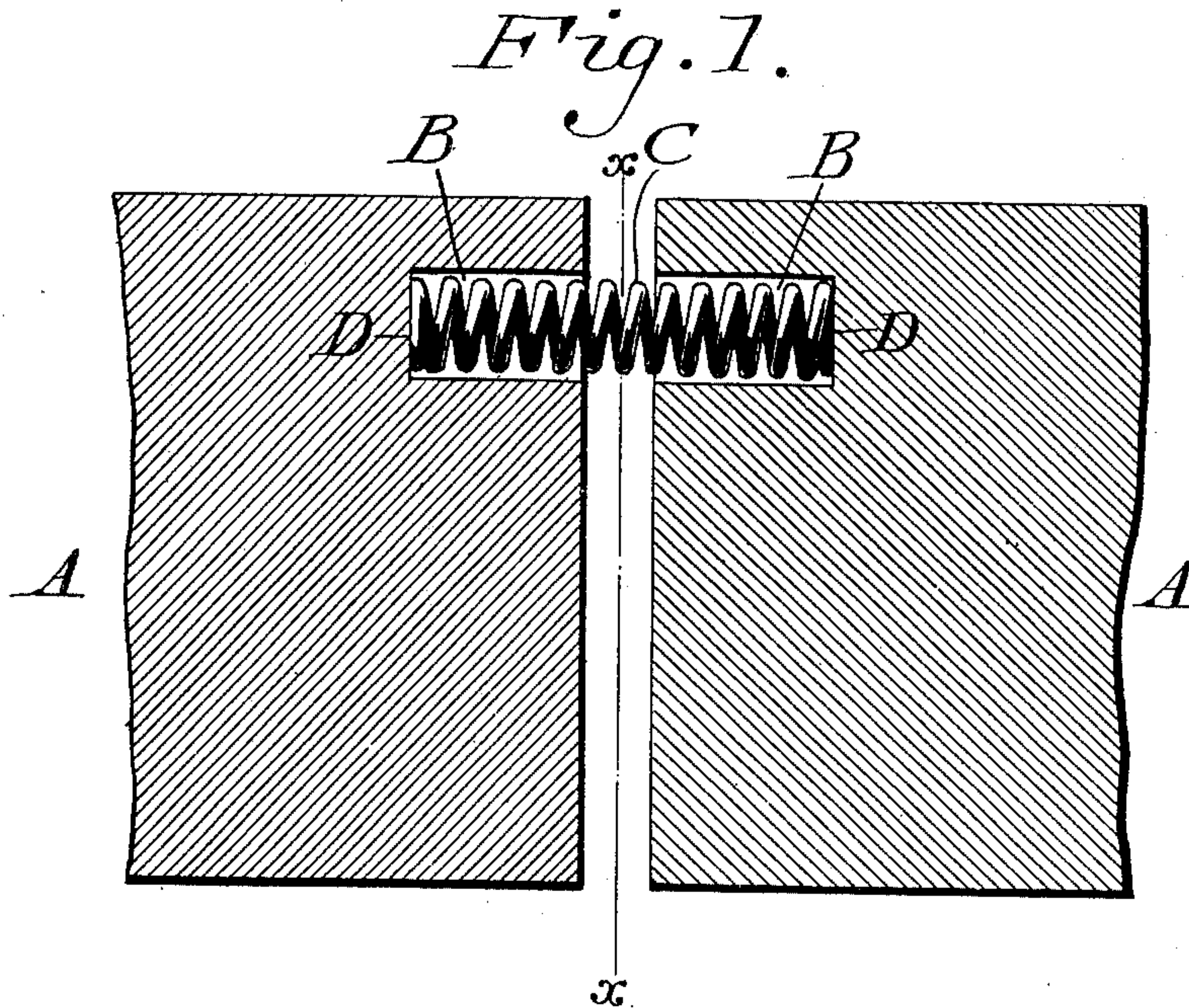
No. 737,896.

PATENTED SEPT. 1, 1903.

H. M. BELLOWS.
RAILROAD BOND.

APPLICATION FILED MAY 18, 1903.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

HORACE M. BELLOWS, OF HUNTINGDON VALLEY, PENNSYLVANIA.

RAILROAD-BOND.

SPECIFICATION forming part of Letters Patent No. 737,896, dated September 1, 1903.

Application filed May 18, 1903. Serial No. 157,535. (No model.)

To all whom it may concern:

Be it known that I, HORACE M. BELLOWS, a citizen of the United States, residing at Huntingdon Valley, in the county of Montgomery, State of Pennsylvania, have invented new and useful Improvements in Railroad-Bonds, of which the following is a specification.

My invention consists of a railroad-bond which is formed of a coiled spring of helical or spiral nature, the same occupying sockets in the ends of railroad-rails and being adapted to make perfect electrical contact for conductivity, allow for expansion and contraction of the rails and the vertical and lateral motions of the same, and prevent the bond from being stolen or damaged.

Figure 1 represents a longitudinal section of adjacent railroad-rails having a bond embodying my invention applied thereto. Fig. 2 represents a section on line $x x$, Fig. 1. Fig. 3 represents an end view of a modification.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates adjacent portions of railroad-rails in the ends of the heads of which are the openings or sockets B B.

C designates a coiled spring of helical or spiral form or nature, the same occupying said sockets, the end convolutions of the spring being flattened or made right-lined and resting snugly against the inner terminals of said sockets, so as to assure the fullest contact of the spring with said terminals. The spring is formed of copper or other suitable conductive material and is compressed when placed in position while laying the rails, it being seen that the spring preserves the continuity of the rails, and so forms an effective and reliable electrical bond for the same.

It is apparent that during the expansion and contraction of the rails the spring conforms to the same, and so maintains its elec-

trical contact with the inner terminals of the sockets B, and consequently with the rails, while the latter may raise and lower or move sidewise without affecting the service of the bond. Furthermore, the spring is sufficiently inclosed in the sockets so as to be in a measure concealed, and thus it is protected against improper removal or theft or from being damaged while a track is being repaired. If desired, sockets E may be formed in the bases or other parts of the rails to receive the spring or a plurality of bonds may be employed, in which case they may be applied in sockets in both the heads and bases of the rails, as in Fig. 3, or any other parts of the rails.

Various changes may be made in the details of construction without departing from the general spirit of my invention, and I do not, therefore, desire to be limited in each case to the same.

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

1. An electric connection comprising rails having coacting recesses in their adjacent ends and a longitudinally-expansible spring movable in said recesses and abutting against the ends thereof.

2. An electric connection comprising rails having coacting recesses in their adjacent ends and a compressed coiled spring movable in said recesses and abutting against the ends thereof.

3. An electric connection comprising rails, having coacting recesses in their adjacent ends and a compressed coiled spring having its ends flattened, movable in said recesses and abutting against the ends thereof.

HORACE M. BELLOWS.

Witnesses:

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