

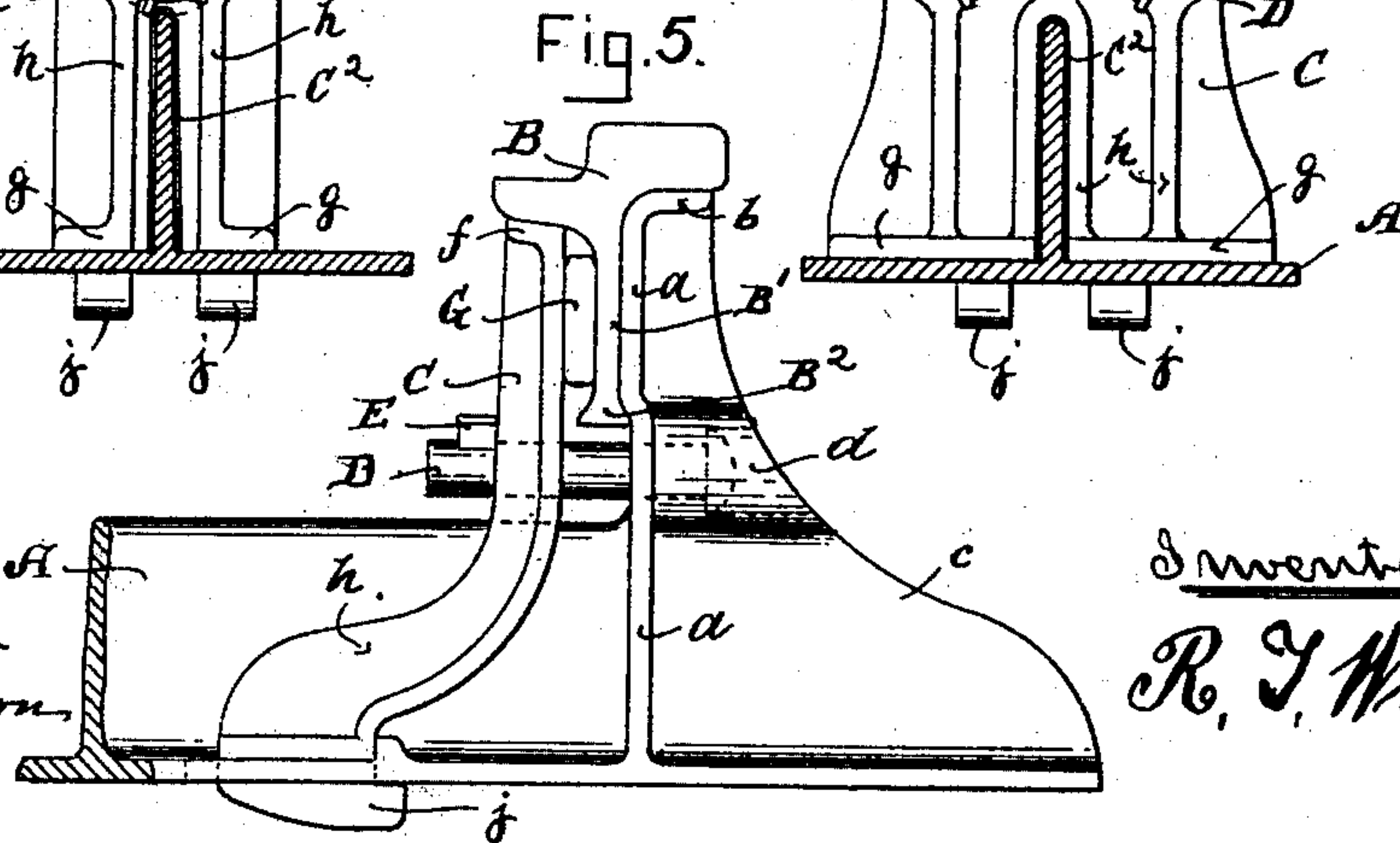
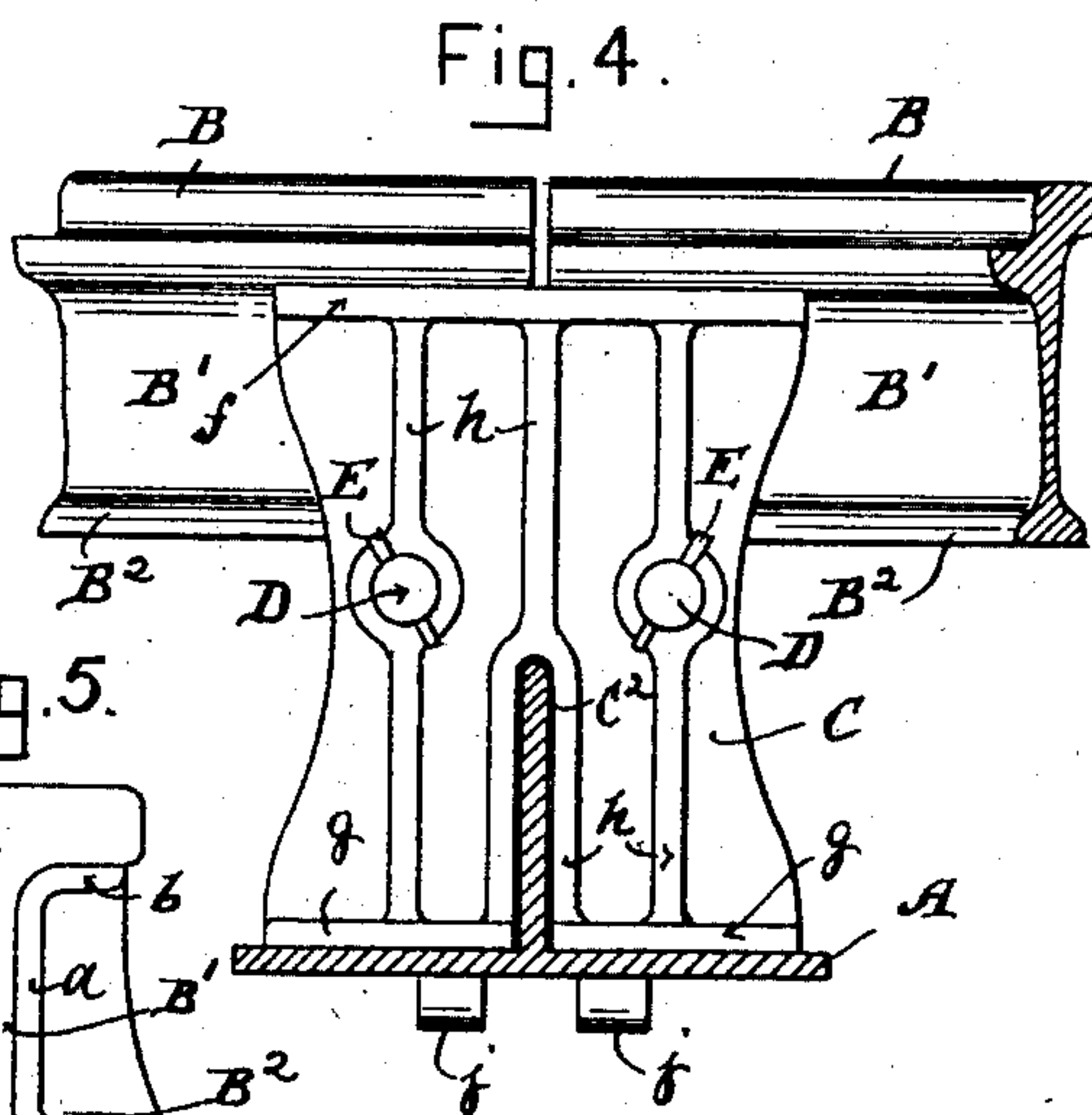
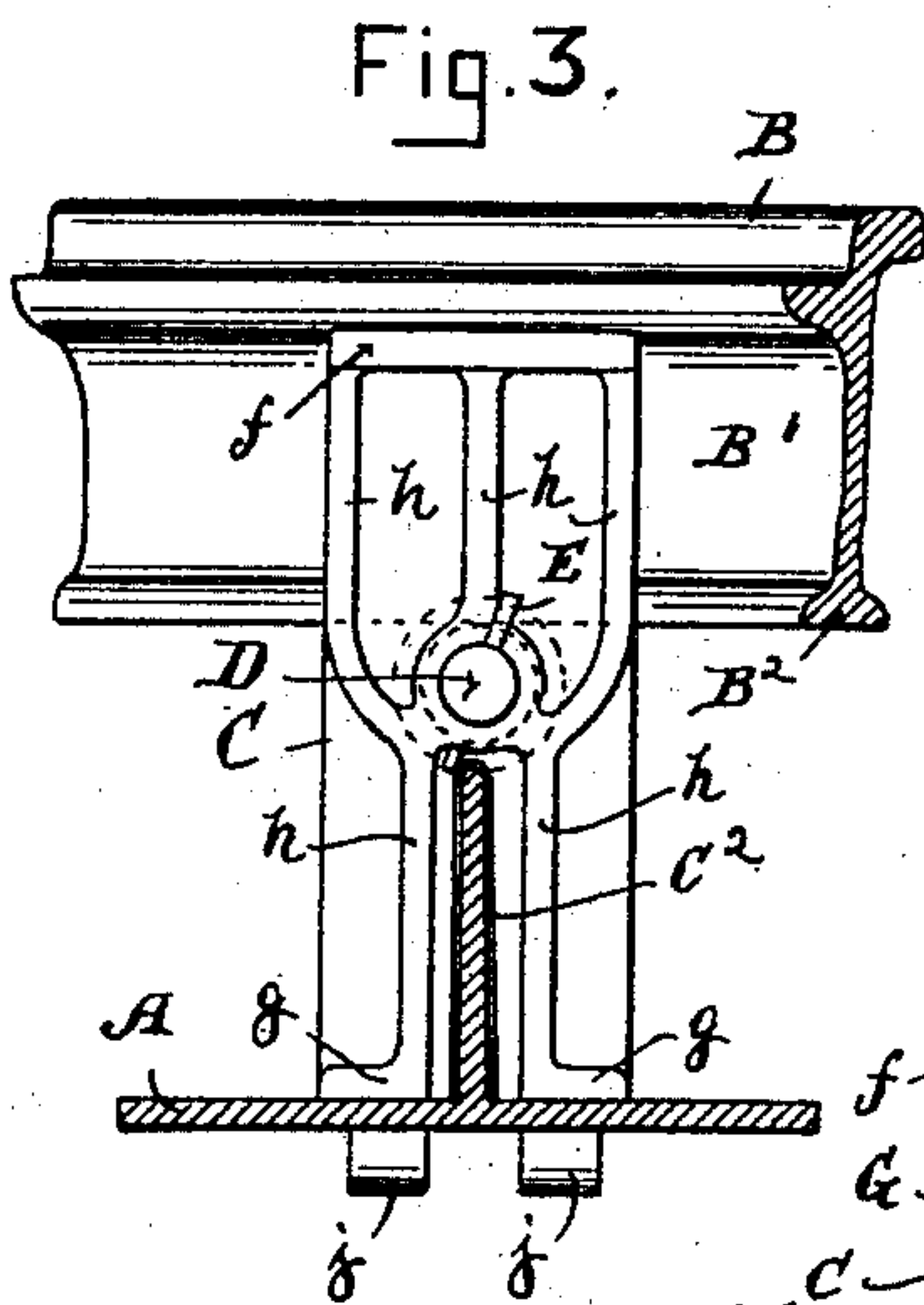
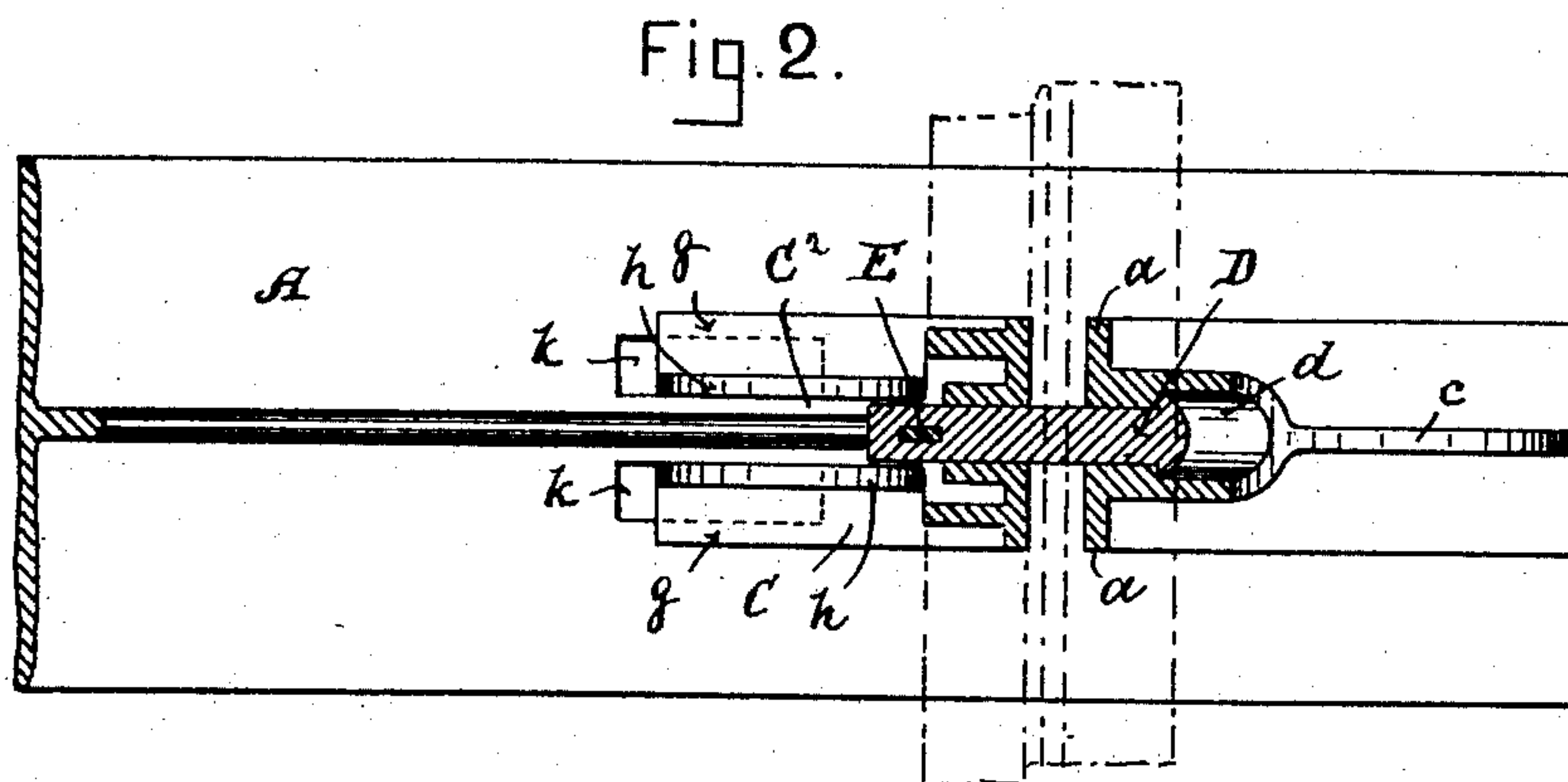
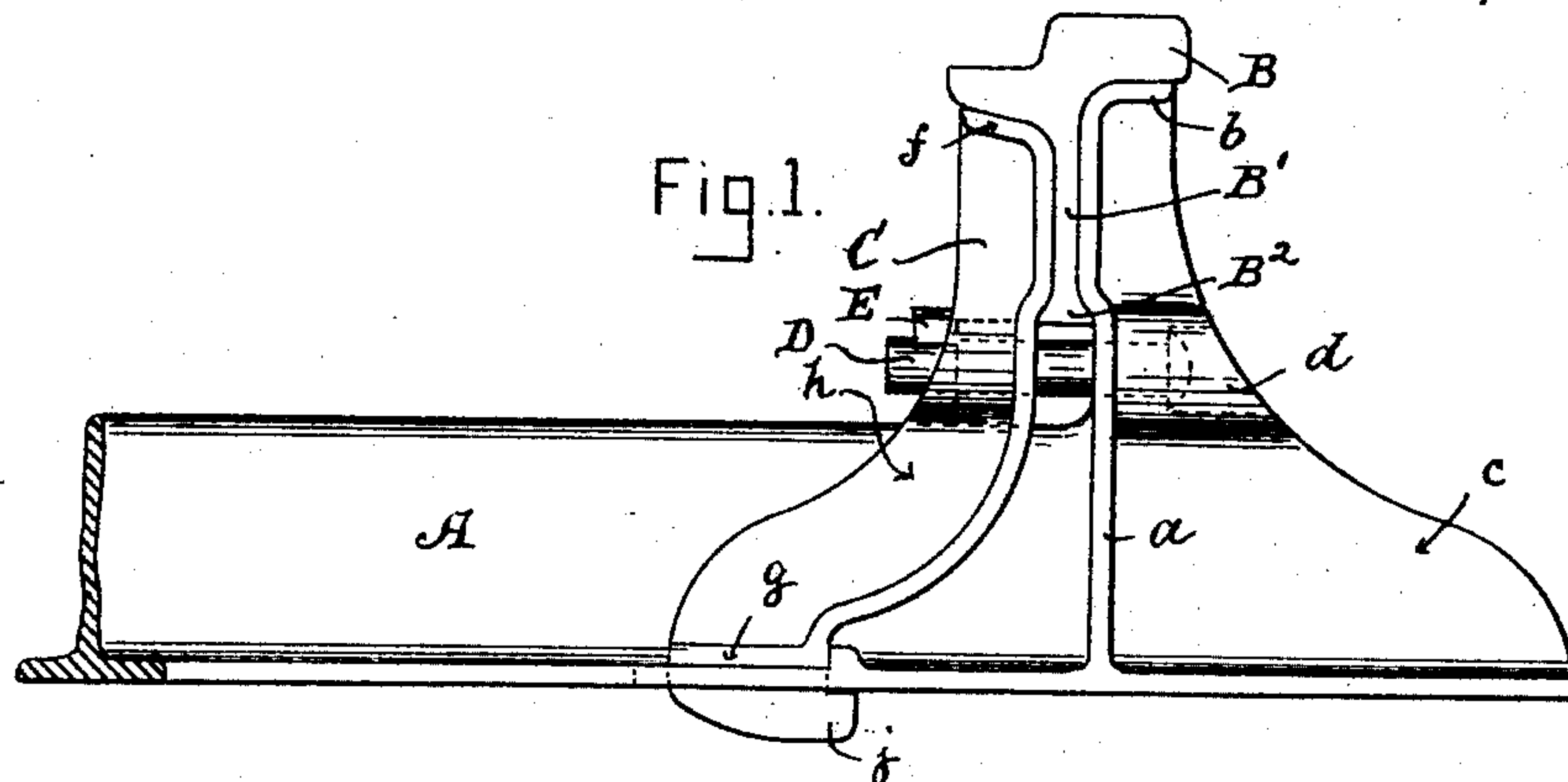
(No Model.)

R. T. WHITE.

COMBINED SLEEPER AND CHAIR FOR STREET RAILROADS.

No. 375,856.

Patented Jan. 3, 1888.



Witnesses  
Charles F. Smith  
Robert B. Wilson

Inventor  
R. T. White



# UNITED STATES PATENT OFFICE.

REYNOLDS T. WHITE, OF BOSTON, MASSACHUSETTS.

## COMBINED SLEEPER AND CHAIR FOR STREET-RAILROADS.

SPECIFICATION forming part of Letters Patent No. 375,856, dated January 3, 1888.

Application filed November 7, 1887. Serial No. 254,477. (No model.)

*To all whom it may concern:*

Be it known that I, REYNOLDS T. WHITE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in a Combined Sleeper and Chair for Street-Railroads, of which the following is a specification.

The object of my invention is to produce a combined sleeper and chair for street-railroads in which any kind of rail having a central web and bulb can be secured without bolts passing through the web of said rail.

The invention consists in certain details of construction, hereinafter fully set forth, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a side view of one end of a combined sleeper and chair embodying my invention. Fig. 2 is a horizontal section of the same taken through the center of the bolt. Fig. 3 is a transverse vertical section of the sleeper and side view of the chair. Fig. 4 is a transverse vertical section of the sleeper and side view of a double chair for connecting the ends of two adjacent rails. Fig. 5 shows a modification of my invention.

A represents a sleeper of the form of an inverted T, on each end of which is cast the outer half of a chair, consisting of an upright piece, *a*, which at the point where the bulb *B*<sup>2</sup> of the rail *B* comes is projected inward, so as to form a bearing for the upper part of the bulb *B*<sup>2</sup>, and at the top of the upright piece *a* is provided a flange, *b*, for the rail *B* to rest upon, the upright piece *a* and flange *b* being strengthened by one or more ribs, *c*. A boss, *d*, is provided at or about the center of the upright piece *a*, which boss is provided with a hole to receive the bolt *D*, and a recess to receive the head of same, as shown. The web of the sleeper *A* connects with the inside of the upright piece *a*. (See Figs. 1 and 5.) The inner or loose portion of the chair *C* is made to fit against the web *B*<sup>1</sup>, and is provided at the top with a flange, *f*, for the inner portion of the rail *B* to rest upon; and it is also formed to fit over the top of the bulb *B*<sup>2</sup>, and provided at its base with flanges *g g*, that rest upon the flanges of the sleeper *A*, an aperture, *C*<sup>2</sup>, being formed in this loose piece to fit over the web of the

sleeper. The loose piece *C* is also provided with a boss corresponding to the boss on the other half of the chair for the bolt to pass through, and it is strengthened by means of ribs *h h*, as shown, and held down upon the sleeper by means of hooks *j j*, that pass through apertures *k k*, formed in the flanges of the sleeper *A*. When the sleeper *A* is laid and the rail *B* and loose piece *C* placed in position, they are all firmly secured together by means of a single bolt, *D*, and key *E*, the bolt passing under the bulb *B*, whereby all drilling of the rails is prevented.

In Fig. 4 I have shown a side view of a double chair—that is, a chair for receiving the ends of two adjacent rails. This chair is constructed the same as the one just described, only of about double the width and with two bolts.

In Fig. 5 I have shown a modification in which the rail is secured in the chair by means of a key, *G*, the space between the fixed half of the chair and the loose half being sufficient to allow the bulb *B* to be passed down between them. When the key *G* is driven home, the rail is firmly secured.

When the rails are to be secured by a key, *G*, if desired, the entire chair can be cast in one with the sleeper, in which case all bolts would be dispensed with. It will be seen that by this construction solid bearings are obtained for the rails, which bearings are well braced, and as the outer portions of the chairs are cast in one piece with the sleeper there is no liability of the rails spreading, rolling, or twisting by the action of heavy teams passing over them.

The chairs will receive and hold any form of rail having a web and bulb, and the cost of laying and repairing the track is reduced to a minimum; and in repairing the track the keys can readily be knocked out, when the rail is free to be removed and another inserted, which is secured by again inserting the key. Thus the continuity of the track is preserved, thereby preventing obstructions of street traffic.

What I claim as my invention is—

1. A combined sleeper and chair consisting of a sleeper cast in one piece with the two outer portions of the chairs and loose inner pieces having hooks on their lower ends engaging openings in the tie and being secured to the



fixed portion by means of a bolt and key, whereby the web and bulb of the rail are held between them, substantially as shown and described.

5 2. The sleeper A, cast in one piece with the outer portion of the chairs, in combination with the loose inner portions, C, provided with an aperture, C<sup>2</sup>, hooks *j*, bolts D, and key E, substantially as shown and described.

10 3. The sleeper A, provided with openings *k* and cast in one piece with the outer portions of a chair consisting of the upright *a*, flange *b*, rib *c*, and boss *d*, in combination with loose inner portions, C, provided with an aperture, 15 C<sup>2</sup>, flanges *f g*, ribs *h h*, and hooks *j j*, substantially as shown and described.

4. A combined sleeper and chair consisting of a sleeper cast in one piece with two outer portions of chairs, in combination with inner 20 portions, the space between the outer and inner portions of the chair being sufficient to admit the bulb of the rail, which is securely held by a key, substantially as set forth.

5. In street-railway construction, a combined 25 iron sleeper and chair for receiving the ends of two adjacent rails, the outer portion of the chair being cast in one piece with the sleeper and provided with strengthening-ribs, in combination with a removable inside jaw secured

in position by bolts and provided with hooks 30 engaging the tie, substantially as shown and described.

6. In street-railway construction, a combined iron sleeper and chair having a rigid outside jaw and a removable bifurcated inner jaw fitting over the center vertical rib of the tie, in 35 combination with a rail having a web and bulb, the removable jaw being securely held in contact with the web and over the bulb of the rail by a bolt passing through said jaws 40 under the rail, substantially as shown.

7. In street railway construction, a combined cast-iron chair and sleeper made of the form shown, the outside chair or seat for the rail being cast integral with the bottom and rib, said 45 rib being of suitable size and running on top of bed-piece from one outside jaw to the other, in combination with an inside jaw provided with an opening, C<sup>2</sup>, and fitting over said rib, and a rail having a web and bulb, substan- 50 tially as set forth.

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

REYNOLDS T. WHITE.

Witnesses:

HENRY W. FOLSOM,  
FREDERIC H. MOORE.