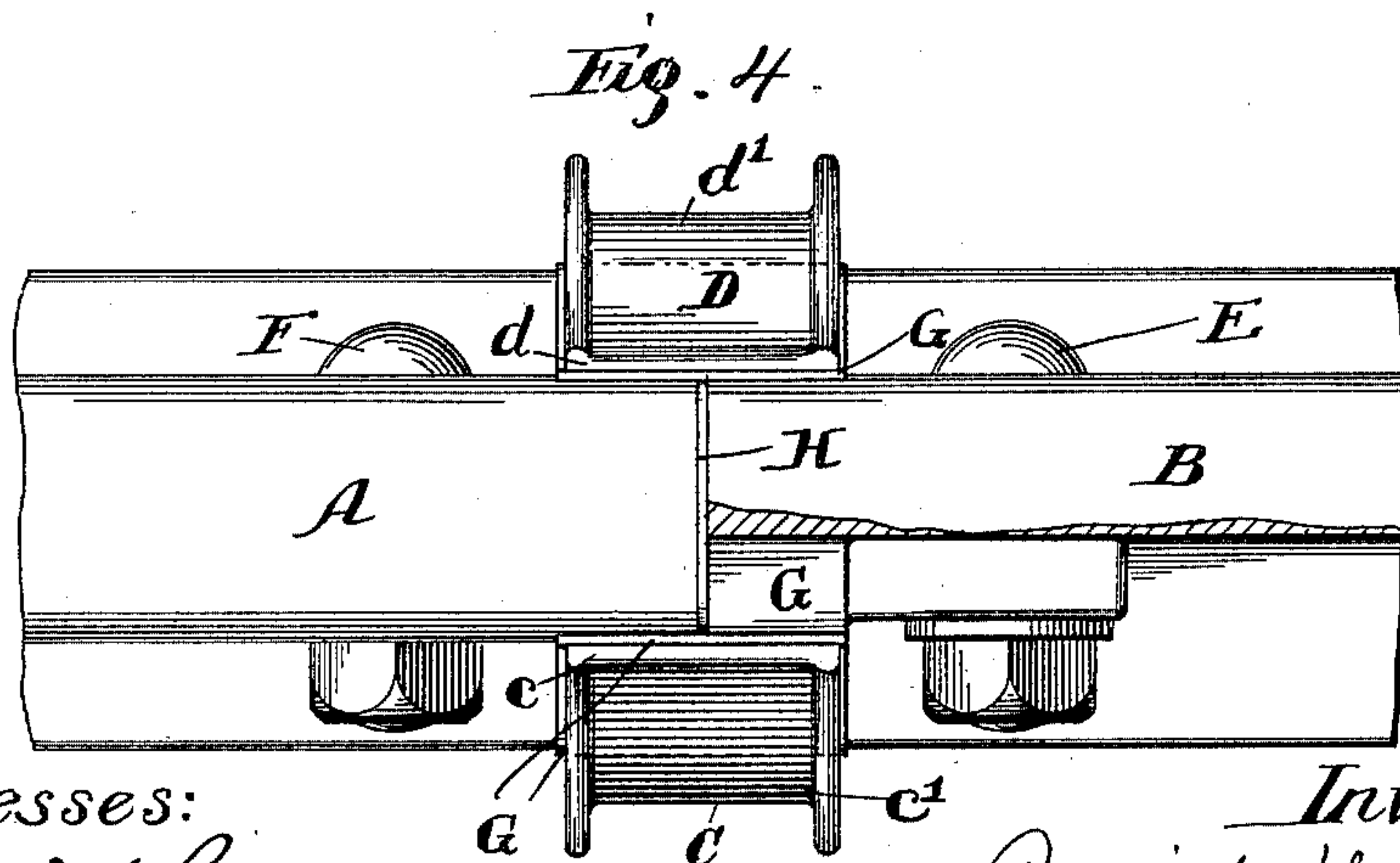
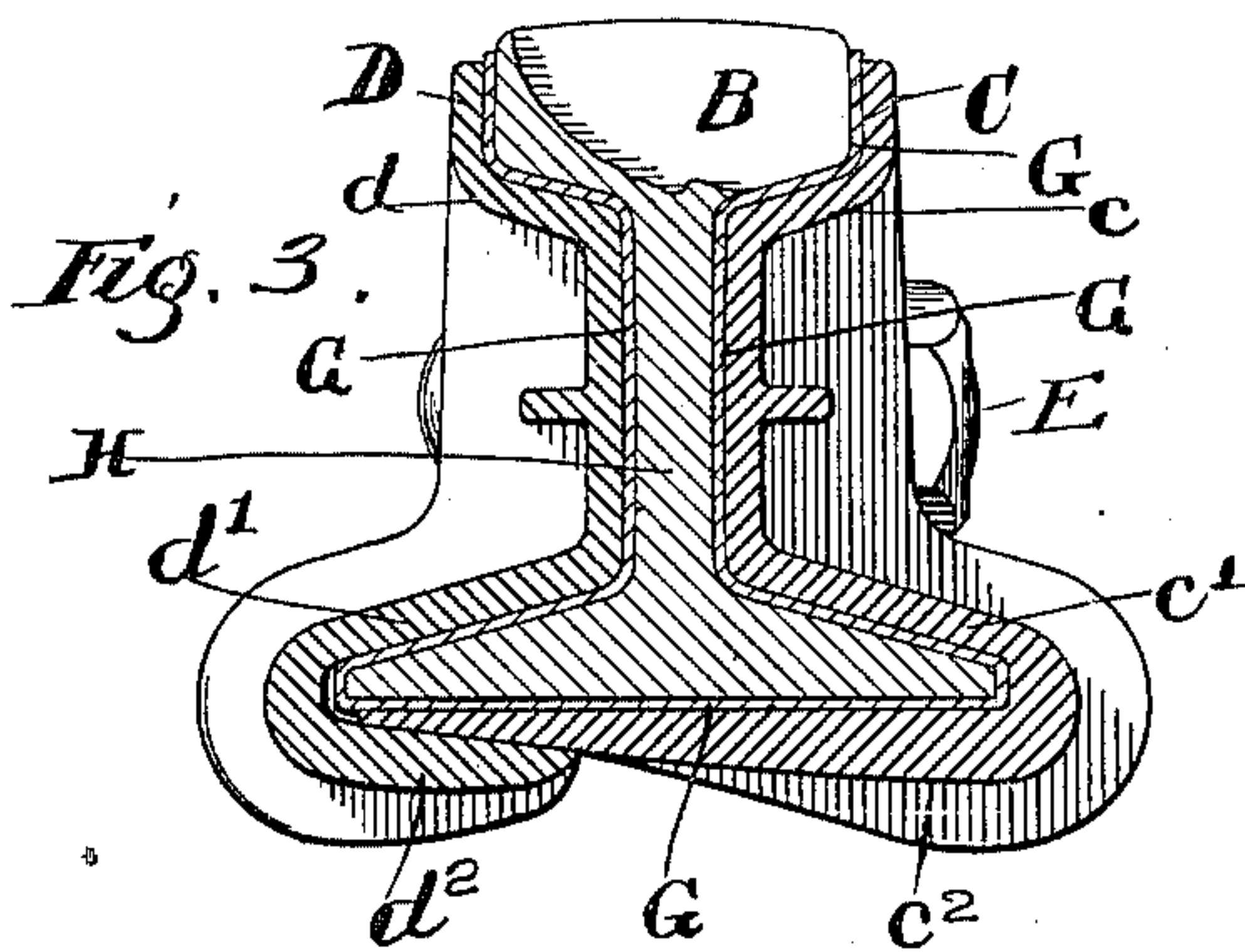
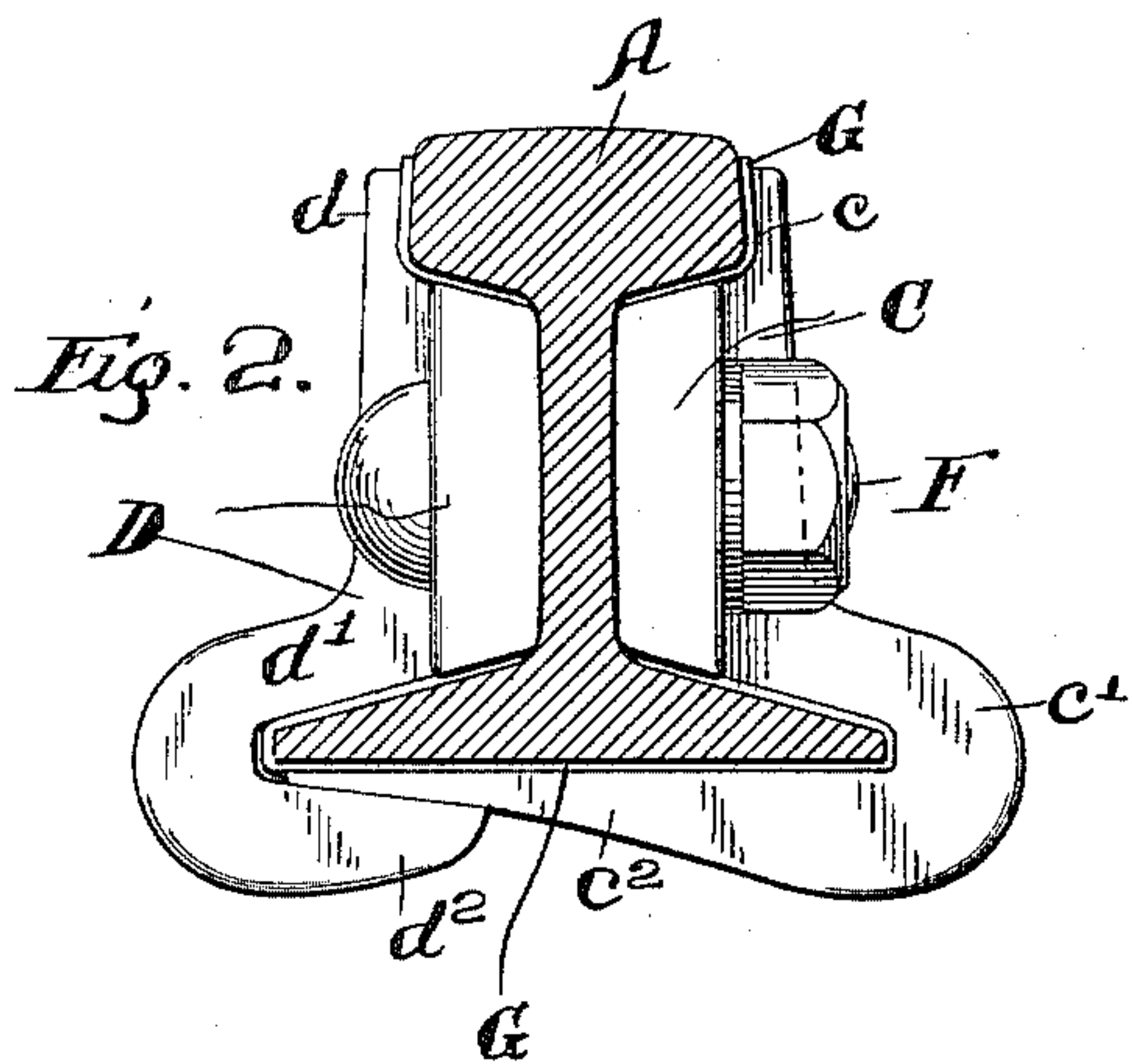
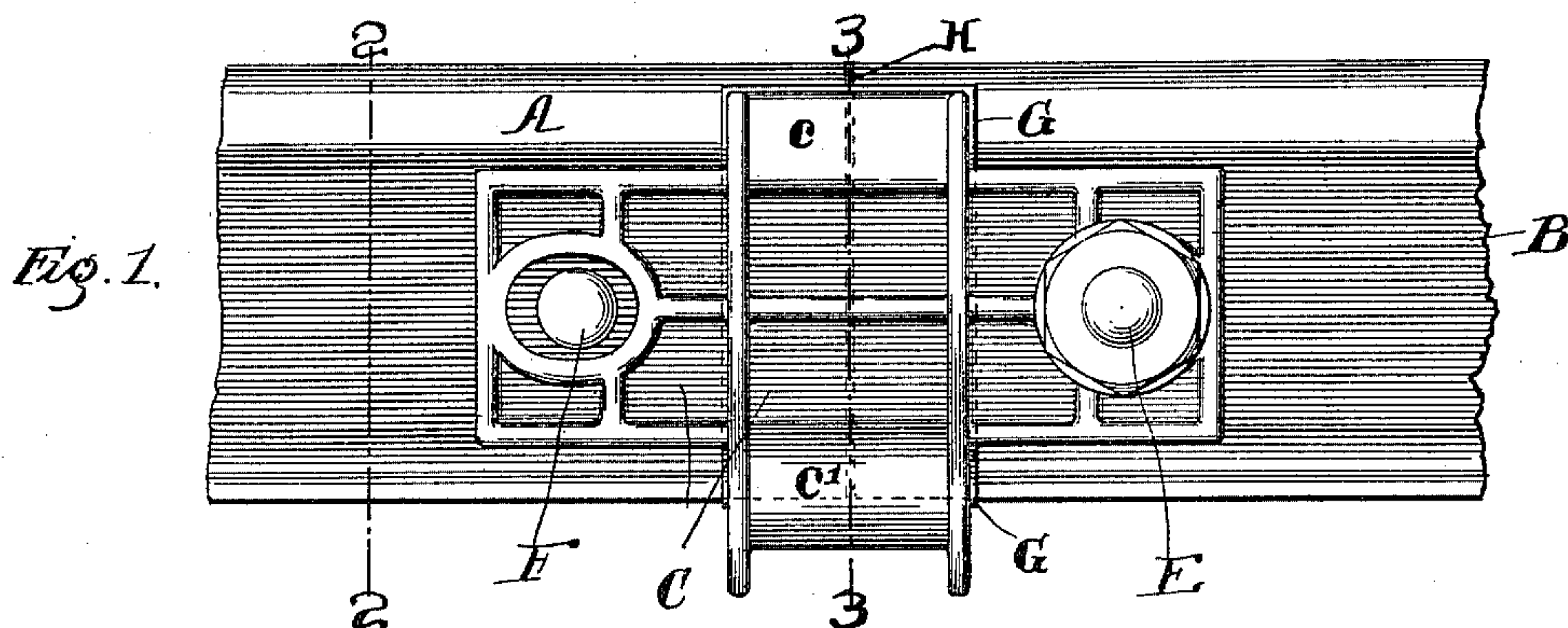


(No Model.)

P. HALEY & P. P. THOMPSON.
JOINT FOR THIRD RAIL FOR ELECTRIC RAILWAYS.

No. 592,565.

Patented Oct. 26, 1897.



Witnesses:
Chas. A. Hervey.
R. B. Bailey

Inventors:
Patrick Haley and
Paul P. Thompson
by
Wm. M. M. Bittan
Their atty.

UNITED STATES PATENT OFFICE.

PATRICK HALEY AND PAUL P. THOMPSON, OF CHICAGO, ILLINOIS.

JOINT FOR THIRD RAILS FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 592,565, dated October 26, 1897.

Application filed March 22, 1897. Serial No. 628,684. (No model.)

To all whom it may concern:

Be it known that we, PATRICK HALEY and PAUL P. THOMPSON, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Joints for Third Rails for Electric Railways, of which the following is a specification.

Our invention relates to a certain new and improved joint designed for use upon electric railways or other places where a maximum carrying capacity is desired.

The invention consists of certain novel features which will be described in connection with the preferred construction of our rail-joint and essential features of the same carefully pointed out.

For the purpose of illustrating the invention the drawings herewith presented show four figures, of which—

Figure 1 is a side elevation of the complete joint. Fig. 2 is a vertical cross-section in line 2 2 of Fig. 1, looking from left to right. Fig. 3 is a similar section in line 3 3 of the same figure, also looking from left to right; and Fig. 4 is a top plan with a part of the top of the rail broken away.

Referring to the drawings, the ends of two rails are shown at A B. Said rails are joined by means of a pair of fish-plates or splice-bars C D, the main portions of which embrace the flanges of the two rails, as is customary, and are clamped tightly against the same by means of two bolts E F. The middle portion of each fish-plate is extended upwardly at $c d$ and downwardly at $c' d'$, the latter extension being continued around the base of the rail at $c^2 d^2$. The extension c^2 preferably fits close up to the bottom of the rails, and the extension d^2 is adapted to slip over the end of the same and wedge it tightly against said rail. Between the portions of the fish-plates which contain these extensions and the rails is placed a thin sheeting G, which may be of light sheet metal or other suitable material to fit closely against the rails. The purpose of this thin sheeting is to make a tight joint with the ends of the rails and to close the bottom and sides of the joint between the same. This joint is substantially filled with a good plastic conductor H—as, for instance, some alloy of mercury or other material which

can be crowded into the joint and which will readily accommodate itself to any unevenness in the ends of the rails and make a perfect contact with the entire surface thereof. This plastic substance is retained between the rails while in its plastic condition by the thin sheeting G, and the latter is held closely against the rails on all sides by the fish-plates designed especially for such purpose.

It should be noticed that with this joint the entire cross-section of the rail is practically uninterrupted at the joint, so that the maximum carrying capacity is obtained.

We claim as new and desire to secure by Letters Patent—

1. In a rail-joint, the combination with the adjacent ends of two rails, of plates adapted to close the bottom and sides of the joint, and a good conductor filled in between the ends of the rails and held therein by said plates; substantially as described.

2. In a rail-joint, the combination with the adjacent ends of two rails, of a sheeting closely fitting said rails at the joint, means for clamping said sheeting to the rails, and a plastic conductor between the ends of the rails, held therein by said sheeting; substantially as described.

3. In a rail-joint, the combination with the adjacent ends of two rails, of a sheeting fitted over the joint between said rails, a pair of fish-plates having vertical extensions adapted to hold said sheeting against the sides and bottoms of the rails, and a plastic conductor between the ends of the rails; substantially as described.

4. The combination with the rails, A, B, of the fish-plates, C, D, having the extensions, c, c', c^2, d, d', d^2 , the sheeting, G, fitted to the rails and held against the same by the said fish-plates, and a plastic conductor, H, between the ends of the rails; substantially as described.

In witness whereof we have hereunto set our hands, at Chicago, in the county of Cook and State of Illinois, this 18th day of March, 1897.

PATRICK HALEY.
PAUL P. THOMPSON.

Witnesses:

CHAS. O. SHERVEY,
R. O. BAILEY.