

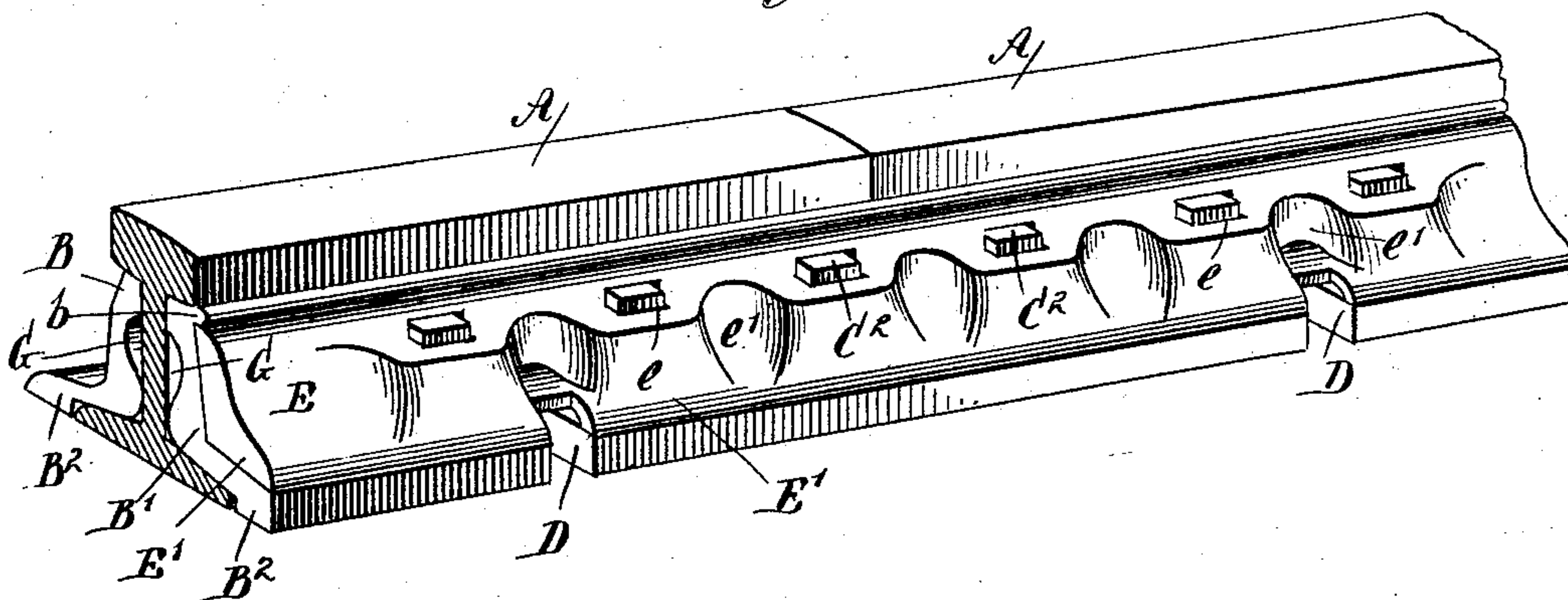
(No Model.)

M. MULLINS & C. FLEMING.
RAIL JOINT AND NUT LOCK.

No. 605,739.

Patented June 14, 1898.

Fig. 1.



Fig²

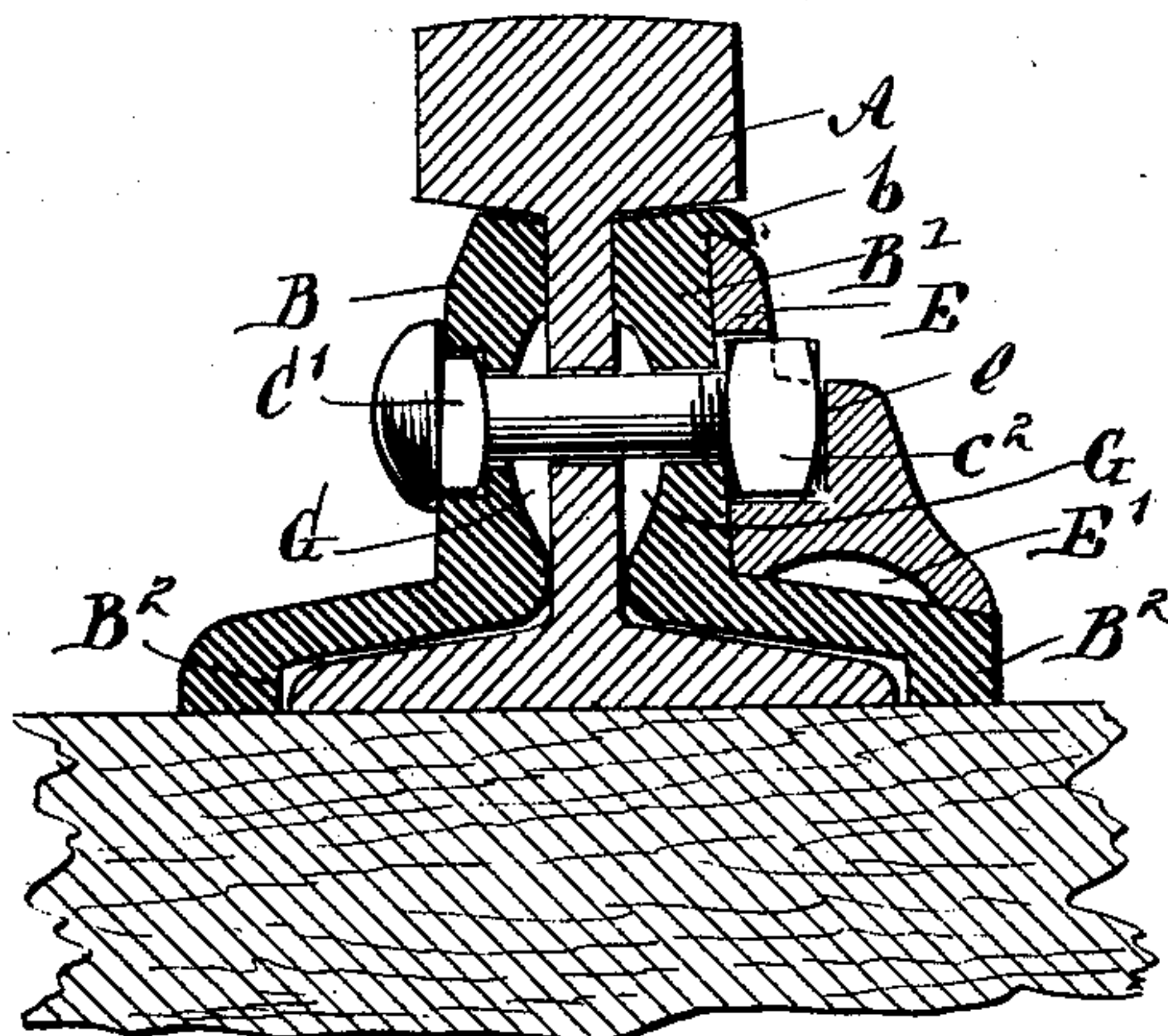


Fig. 3.

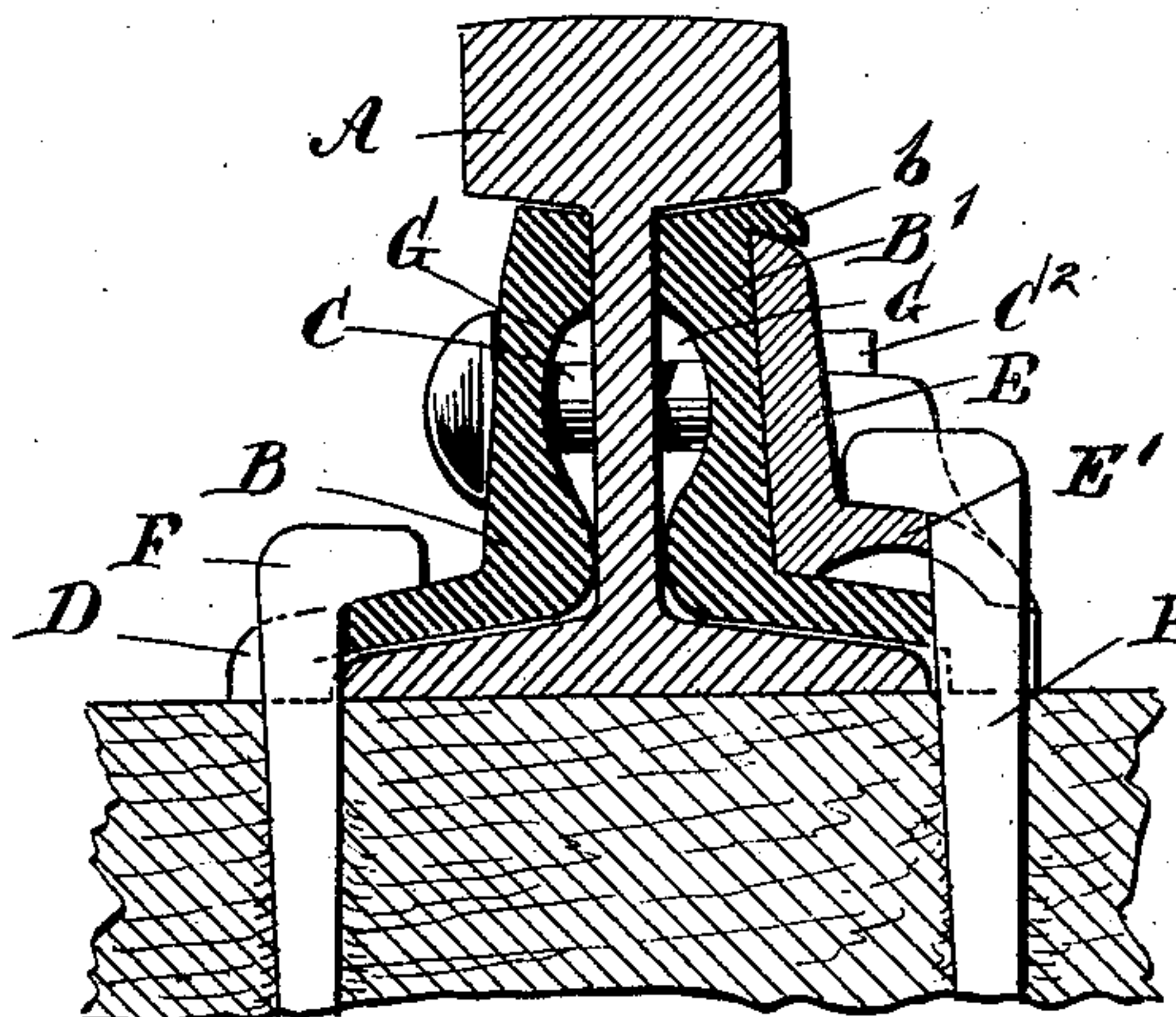
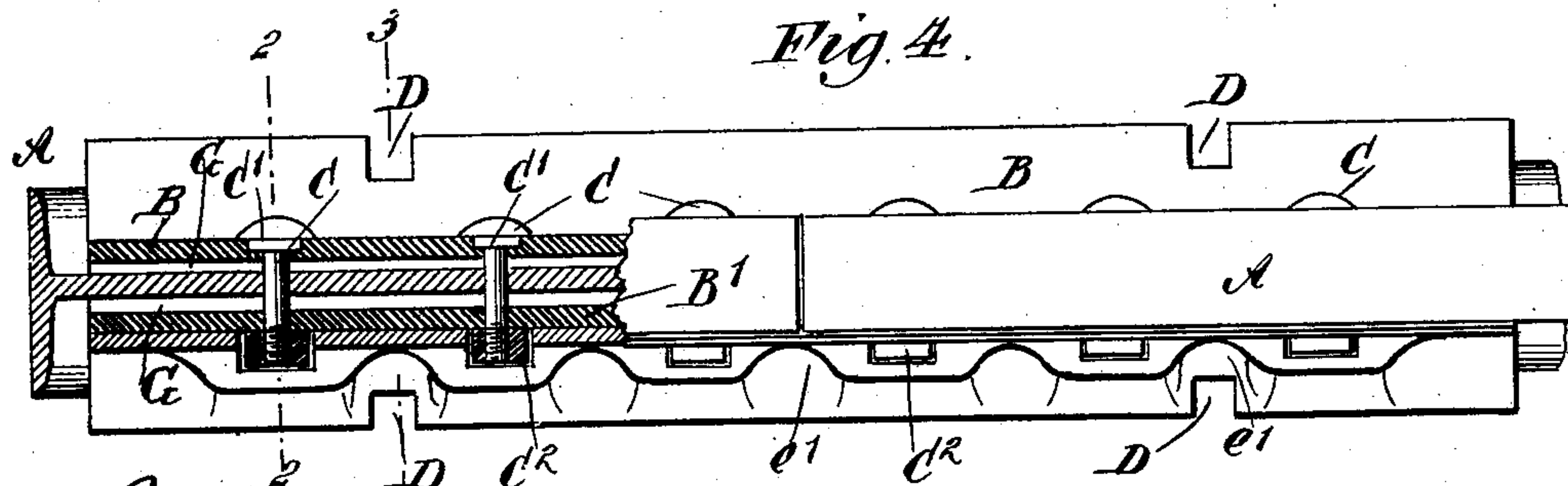


Fig. 4.



WITNESSES :

WITNESSES:
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UNITED STATES PATENT OFFICE.

MICHAEL MULLINS AND CEPHAS FLEMING, OF THE UNITED STATES ARMY.

RAIL-JOINT AND NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 605,739, dated June 14, 1898.

Application filed January 22, 1898. Serial No. 667,577. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL MULLINS and CEPHAS FLEMING, of the United States Army, at present residing in Plattsburg, in the county of Clinton and State of New York, have invented a new and Improved Rail-Joint and Nut-Lock, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in rail-joints and nut-locks; and it consists of certain features which will be hereinafter described and claimed.

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

Figure 1 is a perspective view of a rail-joint constructed in accordance with our invention. Figs. 2 and 3 are cross-sectional elevations taken, respectively, on the lines 2 2 and 3 3 in Fig. 4; and Fig. 4 is a top plan view, partially in section.

The object of our invention is to produce a rail-joint and nut-lock combined which will more firmly hold the rail in place and prevent any possible unscrewing of the bolts which bind the fish-plates to the rail.

The rails A are of any usual construction and are connected at their ends by means of the fish-plates B and B'. These fish-plates are made in general as angle-irons and are provided with a base having its outer edge projecting beyond the edge of the rail-base and downward toward the rail, forming a downwardly-projecting lug B². The upper flange of the fish-plate which is alongside of the rail-web is hollowed out, forming a cavity G. These plates are provided with the usual holes adapted to receive the bolts C to bind the fish-plates and the rail together. These bolts are provided with squared heads C', and one of the fish-plates B is provided with squared recesses adapted to receive the heads of the bolts, and thus to prevent the bolts turning. The other fish-plate B' does not have the squared recess surrounding the bolt-hole, but at its upper edge is provided with an outwardly-extending flange b just beneath the head of the rail. The nut-locking plate E is used in connection with this joint and is made of a general angular cross-section having upper and lower members or flanges. The

upper edge of the upper flange projects beneath the projecting flange b upon the fish-plate B'. This locking-plate E is provided with squared recesses e, adapted to receive the nuts C² upon the ends of the bolts. The body of the plate is carried out beyond the recesses e, said projecting wall extending a little short of the top of the nut, so as to form an opening through which the upper edge of the nut is visible. Between the bolts the plate E is recessed, as shown at e'. This results in a considerable saving of material.

The fish-plates B and B', as well as the nut-locking plate E, are provided with notches D in their outward lower edges, adapted to receive the spikes F, by which the rails and plates are secured to the ties. The lower flange of the nut-locking plate E is also provided with a cavity E' upon its under side, so that the plate bears upon the fish-plate only at its edge. This construction permits the plate to yield somewhat, and thus enables the spikes F to hold the same more securely, as it is not as liable to be pulled out.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A rail-joint fastening and nut-lock, comprising angle-iron fish-plates having a foot extending beyond the rail-base and down toward the tie, and having spike-receiving notches in the outer edge, one of said plates having squared bolt-head recesses about its bolt-holes, and the other plate having an outwardly-projecting rib or lip at its upper edge, and a nut-locking plate fitting the angle of the latter fish-plate with its upper edge beneath the rib or lip and having squared recesses adapted to receive the nuts on the bolts, and with the walls thereof removed to expose the upper outer corner of the nuts, the lower flange of the nut-locking plate having notches corresponding with those in the fish-plates to receive the spikes, and also having an under concave groove extending longitudinally, substantially as described.

2. A rail-joint, having a nut-lock comprising angle-iron fish-plates having a foot extending beyond the rail-base and down toward the tie, and having spike-receiving notches in their outer edges, one of said plates having squared bolt-head recesses about its bolt-

holes, and the other plate having an out-
wardly-projecting rib or lip at its upper edge,
and a nut-locking plate fitting the angle of
the latter fish-plate with its upper edge be-
5 neath the rib or lip, and having squared re-
cesses adapted to receive the nuts on the
bolts, the lower flange of the nut-locking plate
having notches corresponding with those in

the fish-plates, to receive the spikes, substan-
tially as described.

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Witnesses:

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