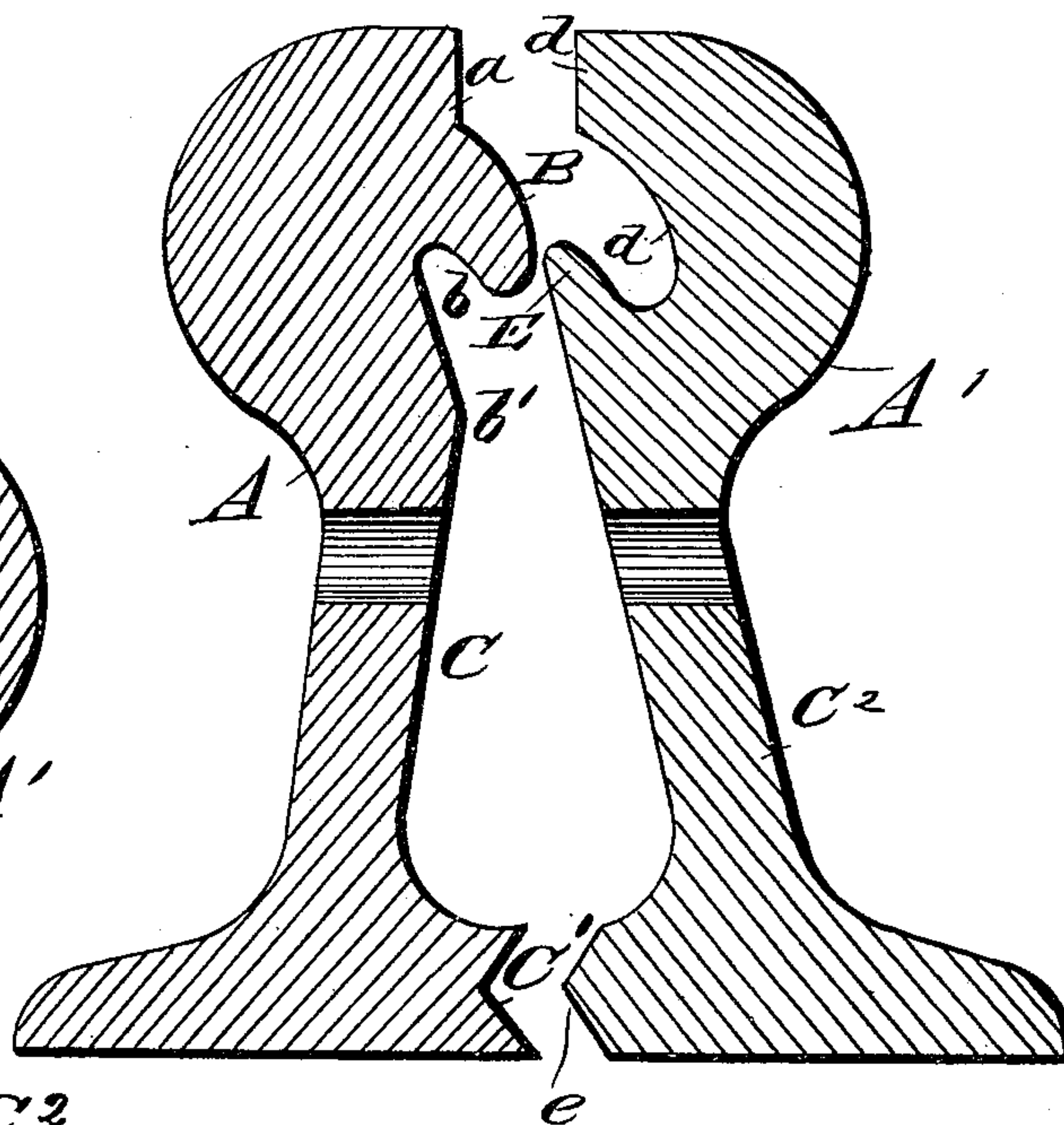
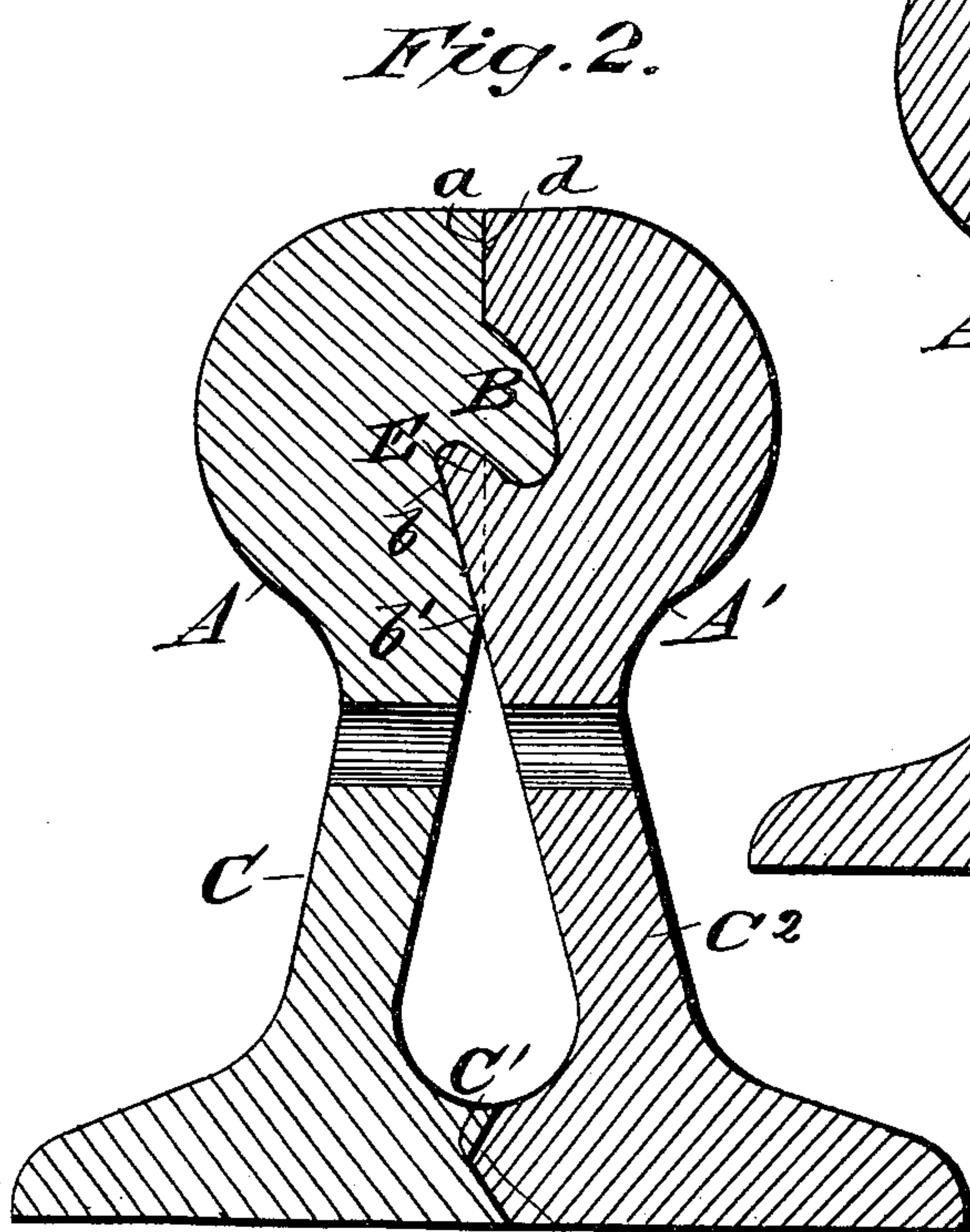
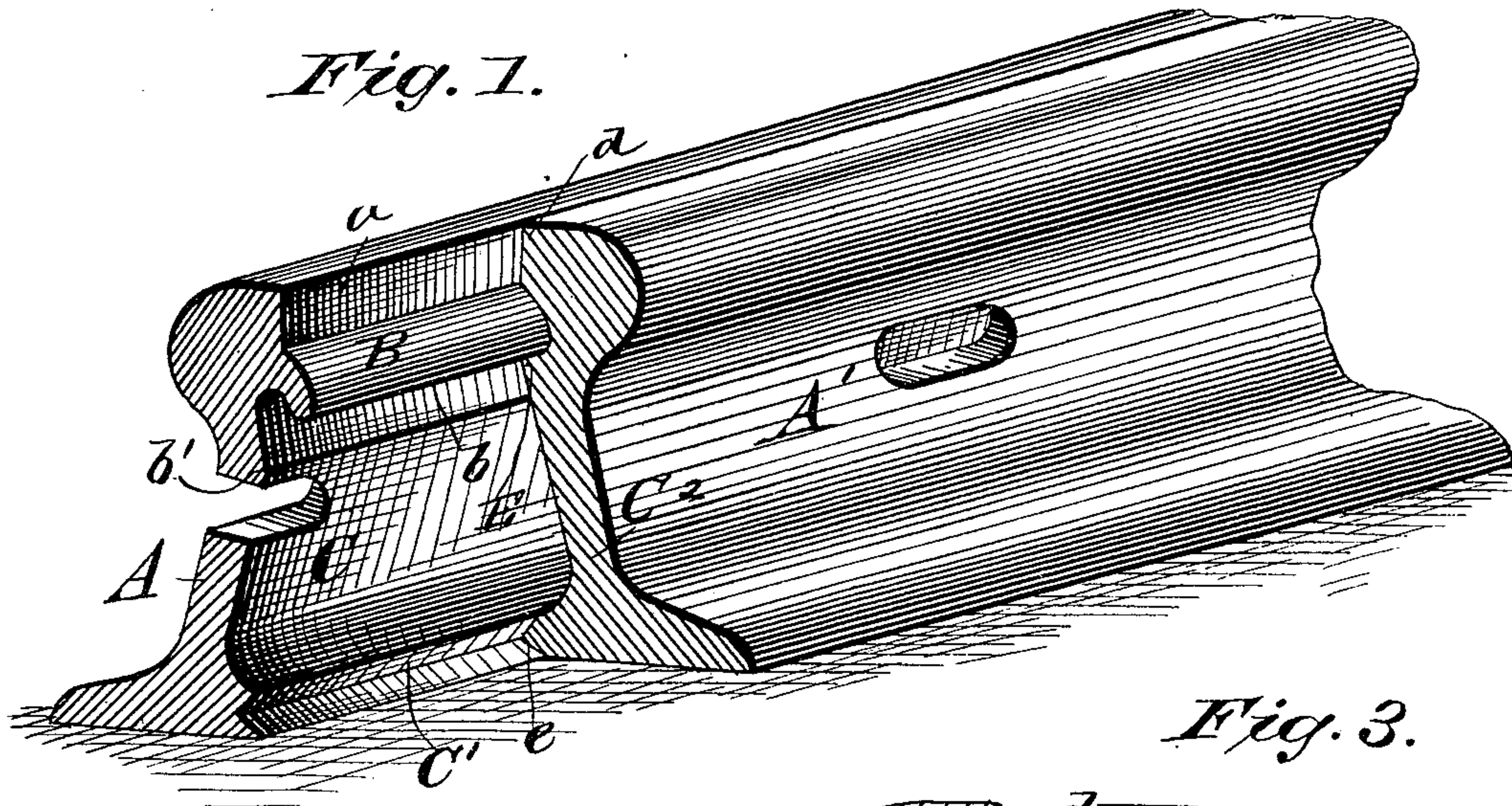


(No Model.)

G. A. EWING.
RAILROAD RAIL.

No. 388,188.

Patented Aug. 21, 1888.



WITNESSES:

Phil. C. Dietrich.

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UNITED STATES PATENT OFFICE.

GILBERT A. EWING, OF JACKSON, OHIO.

RAILROAD-RAIL.

SPECIFICATION forming part of Letters Patent No. 388,188, dated August 21, 1888.

Application filed February 29, 1888. Serial No. 265,651. (No model.)

To all whom it may concern:

Be it known that I, GILBERT A. EWING, of Jackson, in the county of Jackson and State of Ohio, have invented a new and useful Improvement in Railroad-Rails, of which the following is a full, clear, and exact description.

My invention relates to an improvement in railroad-rails, and has for its object to provide practically an endless rail or a continuous bearing for the wheels of the locomotive and its train, a rail in connection with which chairs or fish-plates will not be needed, and wherein but few locking devices will be required; also to carry and protect insulated telegraph-wires in the oval space between the webs of sections, thus entubing them in said improved railway-rail, thereby obviating the necessity for the use of telegraph-poles and the costs and accidents incident to their use.

My invention is an improvement in the class of railroad-rails which are formed of two longitudinal interlocking sections.

The construction and combination of parts embodying the invention are as hereinafter described and claimed.

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

Figure 1 is a perspective view of the complete rail. Fig. 2 is a transverse section through Fig. 1, and Fig. 3 is a similar section illustrating the members as separated.

In carrying out the invention the rail consists of two mating parts or sections, A and A'. The section A is provided upon the inner face with a straight vertical surface, *a*, extending from the tread a slight distance downward. Below said straight surface a downwardly-curved longitudinal rib, B, is produced, and the said inner face of the head below the rib is carried inward beyond the perpendicular line of the face at the top to form a recess, *b*. The oval space, Fig. 2, between the rail-sections may be utilized for containing insulated telegraph-wires. The remaining portion of the inner head-surface is carried in a straight line at an inclination outward to a point in alignment with the straight surface, *a*, as shown at *b'*. The web C is carried downward and outward in straight lines, then curved inward to meet the base, which base upon the

inner face is provided with a longitudinal angular recess, C'.

The section A' is provided with a straight vertical surface, *d*, upon the inner face of the head, corresponding to the surface *a* of the approaching section A. Below the surface *d* a downwardly-curved recess, *d'*, is produced corresponding to the contour of and adapted to receive the rib B of the opposing section. Below the said recess *d'*, and forming one wall thereof, an upwardly and outwardly inclined longitudinal rib, E, is formed, adapted to snugly fit into the recess *b*.

The web C² is carried downward and outward in a straight line, curving to meet the base, as in the opposing section, the inner line of the web being carried upward to the top of the rib E. In the inner face of the base an angular projection, *e*, is provided, adapted to enter the base-recess C' of the section A.

In laying the rails the projections of one section are made to enter the recess of the opposing section, the two sections being so placed as to break joints, thus forming a practically solid as well as an endless rail. At intervals in the length of the sections slots are made in the web, and through said slots any approved form of bolt is passed. The flanges of the rail are secured to the ties in the usual manner.

It will be observed by reference to Figs. 1 and 2 that the two sections form a firm compound rail having a continuous support for the wheels of the locomotive and its train, overcoming the jar incident to abutting solid rails, increasing their durability and preventing wear and splitting at the ends of the rails. Any superimposed weight is at all times transmitted from one section to the other, so that each continually sustains its equal portion thereof. At no time can one section be made to sustain all the weight. The interlocking projections or ribs B and E, extending at each side of a central perpendicular line, serve to bind the two sections in substantially a solid mass, and also to equalize the strength of the two sections at that point, and the interlocking at the base and inclination of the web serves to prevent lateral motion at the top of the rail.

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

In a railroad-rail consisting of two sections, A and A', having independent outwardly-inclined webs, the combination, with the section A, provided with a vertical head-surface, *a*,
5 longitudinal downward-curved rib B, head-recess *b*, and base-recess C', of the interlocking section A', provided with a vertical head-

surface, *d*, recess *d'*, the upwardly-inclined rib E, and base projection *e*, all combined substantially as and for the purpose specified.

GILBERT A. EWING.

Witnesses:

W. H. MILLER,
S. K. EWING.