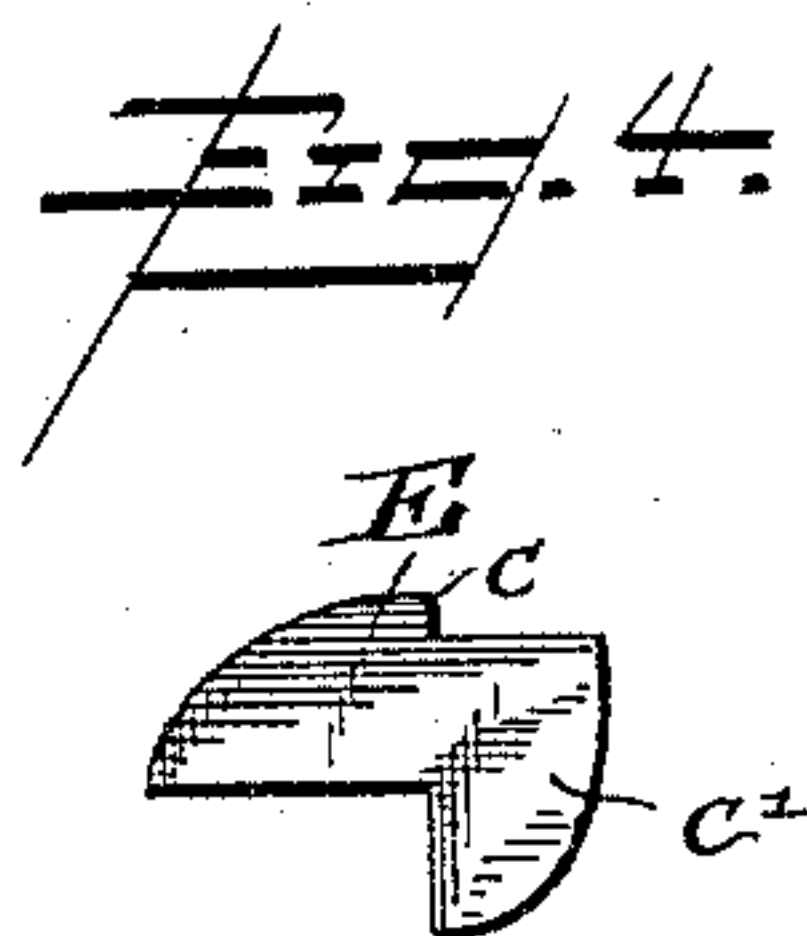
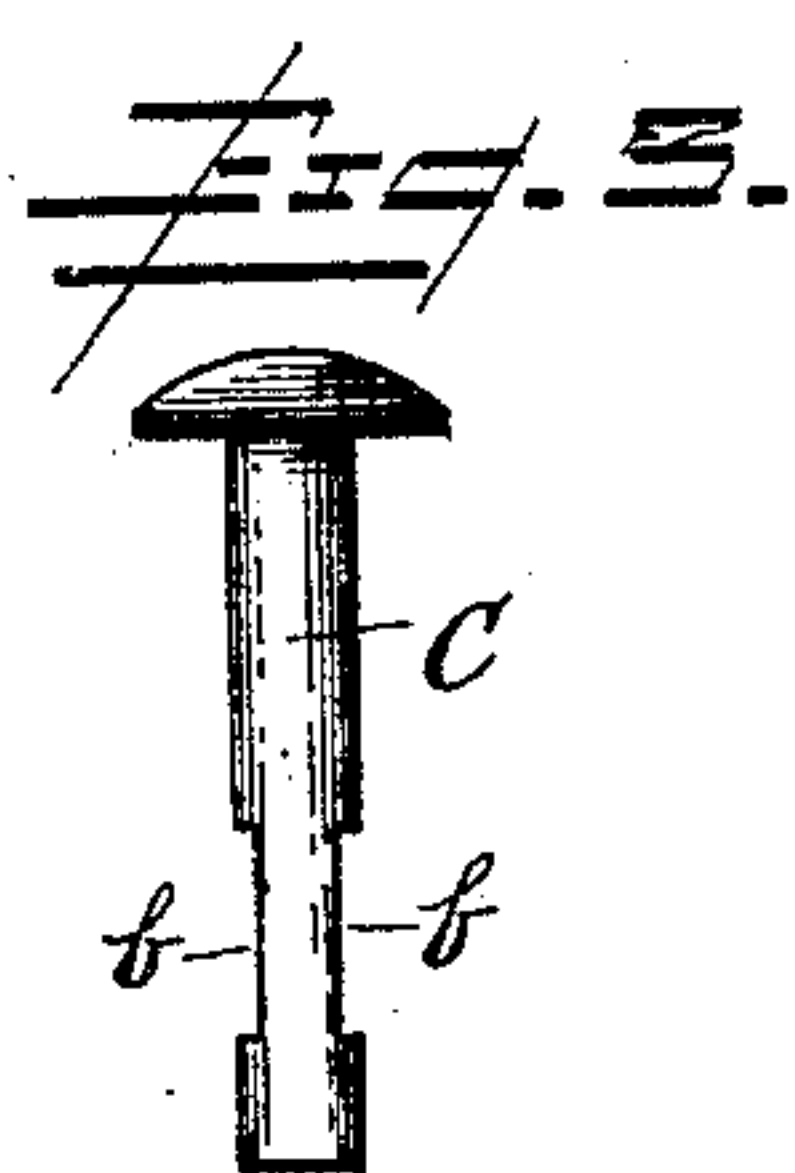
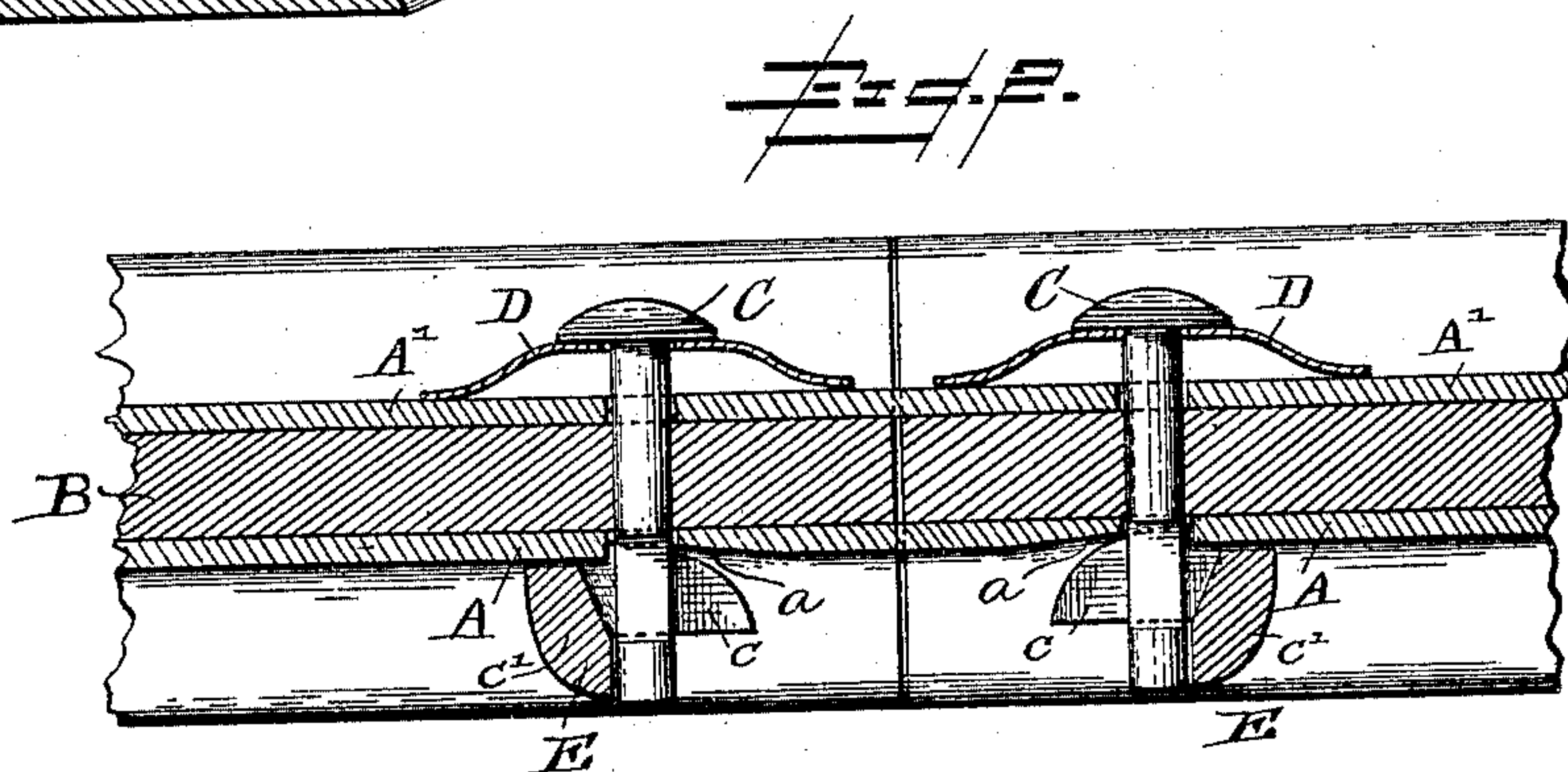
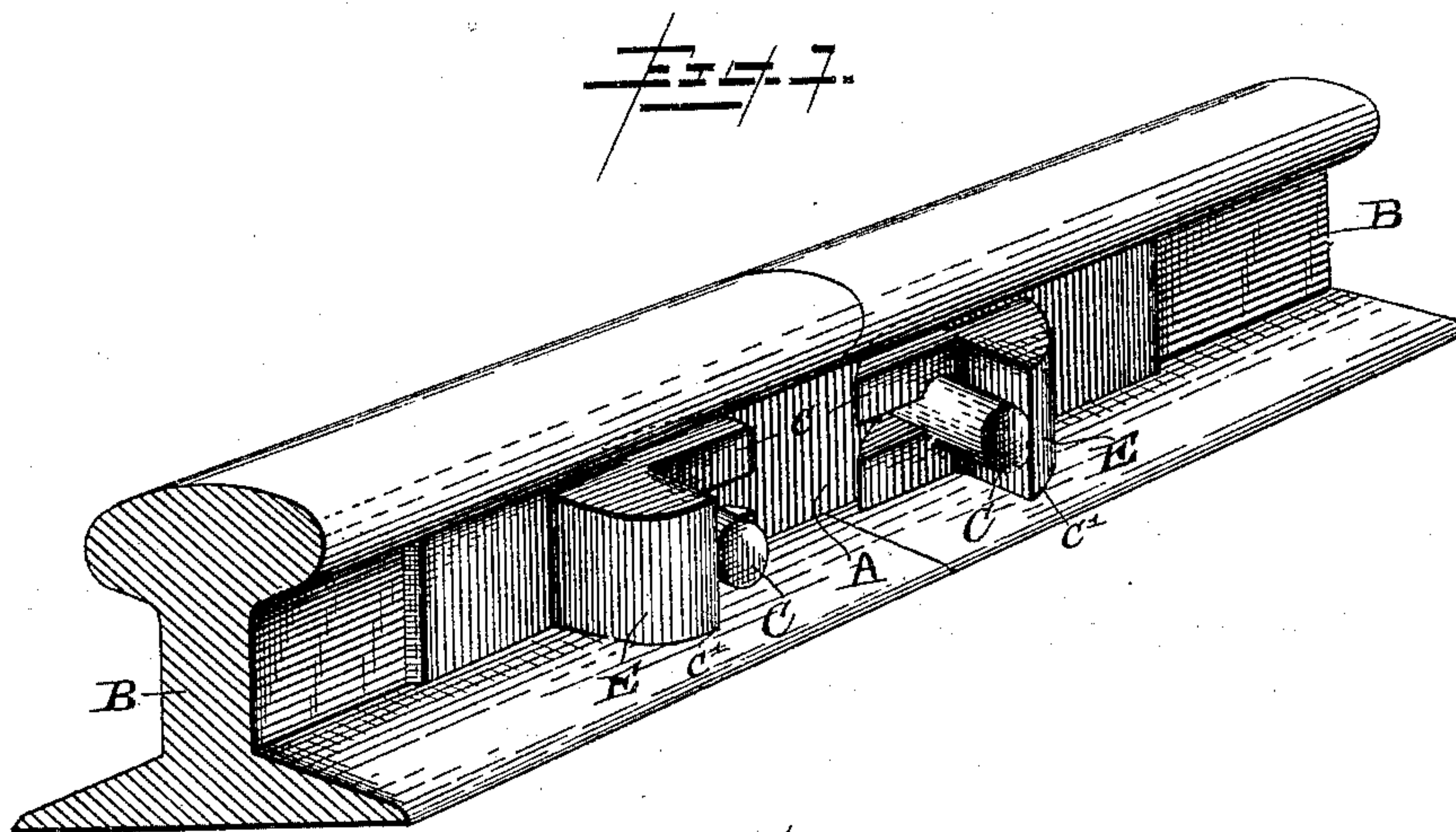


(No Model.)

D. J. MULLIN.
RAILWAY JOINT OR FASTENING.

No. 467,674.

Patented Jan. 26, 1892.



WITNESSES:

Jos. H. Blackwood.
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INVENTOR

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UNITED STATES PATENT OFFICE.

DANIEL J. MULLIN, OF CHICAGO, ILLINOIS.

RAILWAY JOINT OR FASTENING.

SPECIFICATION forming part of Letters Patent No. 467,674, dated January 26, 1892.

Application filed March 6, 1891. Serial No. 383,981. (No model.)

To all whom it may concern:

Be it known that I, DANIEL J. MULLIN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Railway Joints or Fastenings; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to certain improvements in railway joints or fastenings, having for its object, among other things, to provide more especially against the easy surreptitious removal of the bolts and their fastenings, as well as to prevent the accidental displacement of the same, thus guarding against the derailment and consequent wrecking of trains and the disastrous results attending the same; and to these ends the invention consist in the detailed construction and combination of parts, as hereinafter fully set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my invention as applied for use in connection with the rails of a railroad. Fig. 2 is a horizontal section thereof, and Figs. 3 and 4 are detail views showing more fully the construction of the bolts and their fastenings.

In the organization of my invention I provide the fish-plate A with a notched or indented surface *a* on its outerside, and through this plate the rail B and the opposite plain fish-plate A' are passed, the bolt C also passing through a powerful elliptic spring D, bearing against said plain fish-plate, and whose tension is such that it will yield only after the application of a maximum pressure. Thus, in order to displace or remove the bolt, it will be necessary to use more than ordinary force to overcome the pressure of said spring as exerted by the fingers or hand alone, therefore preventing the tampering with said bolt and its easy removal or displacement by unauthorized or malicious persons, often causing the wrecking of trains, with the attendant disastrous results to life and limb. The unheaded end of the bolt C is provided with opposite lateral recesses or notches *b*, and fitted thereon is a bifurcated locking or fastening device E, having upon its inner side a tooth

c, engaging the notched surface *a* of the fish-plate A, and whose arms or prongs engage said notches, and which is provided with a shoulder or stop *c'* at one side to engage that side of the bolt next to the shoulder of the notched surface *a* of the fish-plate A, thus with the action of the spring securely locking the parts together. From this arrangement it will be seen that before the bolt can be displaced or removed it is necessary to effect the compression of the spring D (whose pressure, as before stated, cannot be overcome, except by the application of maximum force) until the tooth *c* of the locking or fastening device E becomes disengaged from the coincident notch of the fish-plate A, to provide for the movement or sliding of said locking or fastening device oppositely to the facing direction of the notch, thus allowing the withdrawal of the arms or prongs of said device from the notches or recesses of the bolt, freeing said device from and permitting the final removal of said bolt. In order to effect the interlocking of the aforesaid parts, the prongs or arms of the locking or fastening device E are, after the insertion again in place of the bolt C, passed into the notches or recesses of the bolt and driven or forced home, or until the shoulder or stop *c* of said device engages the bolt, when the tooth *c* of said device drops into engagement with the coincident notch of the fish-plate A, which is effected by the spring securely locking the same in place.

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

1. The railway joint or fastening having the notched fish-plate, the spring-pressed notched or recessed bolt, and the locking or fastening device adapted to jointly engage said fish-plate and bolt, substantially as specified.

2. The railway joint or fastening having the notched fish-plate, the spring-pressed bolt having lateral notches or recesses, and the locking or fastening device having the arms or prongs, and a tooth, the former engaging the notches or recesses of said bolt, and the latter engaging said notched fish-plate, substantially as set forth.

3. The railway joint or fastening having the notched fish-plate, the bolt having opposite lateral notches or recesses, the spring through

which passes said bolt, and the locking or fastening device having prongs engaging the notches or recesses of said bolt, said locking device also having a tooth engaging said
5 notched fish-plate, and a shoulder or stop engaging the side of said bolt, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

DANL. J. MULLIN.

Witnesses:

EDWARD F. THOMAS,
T. O. REEME.