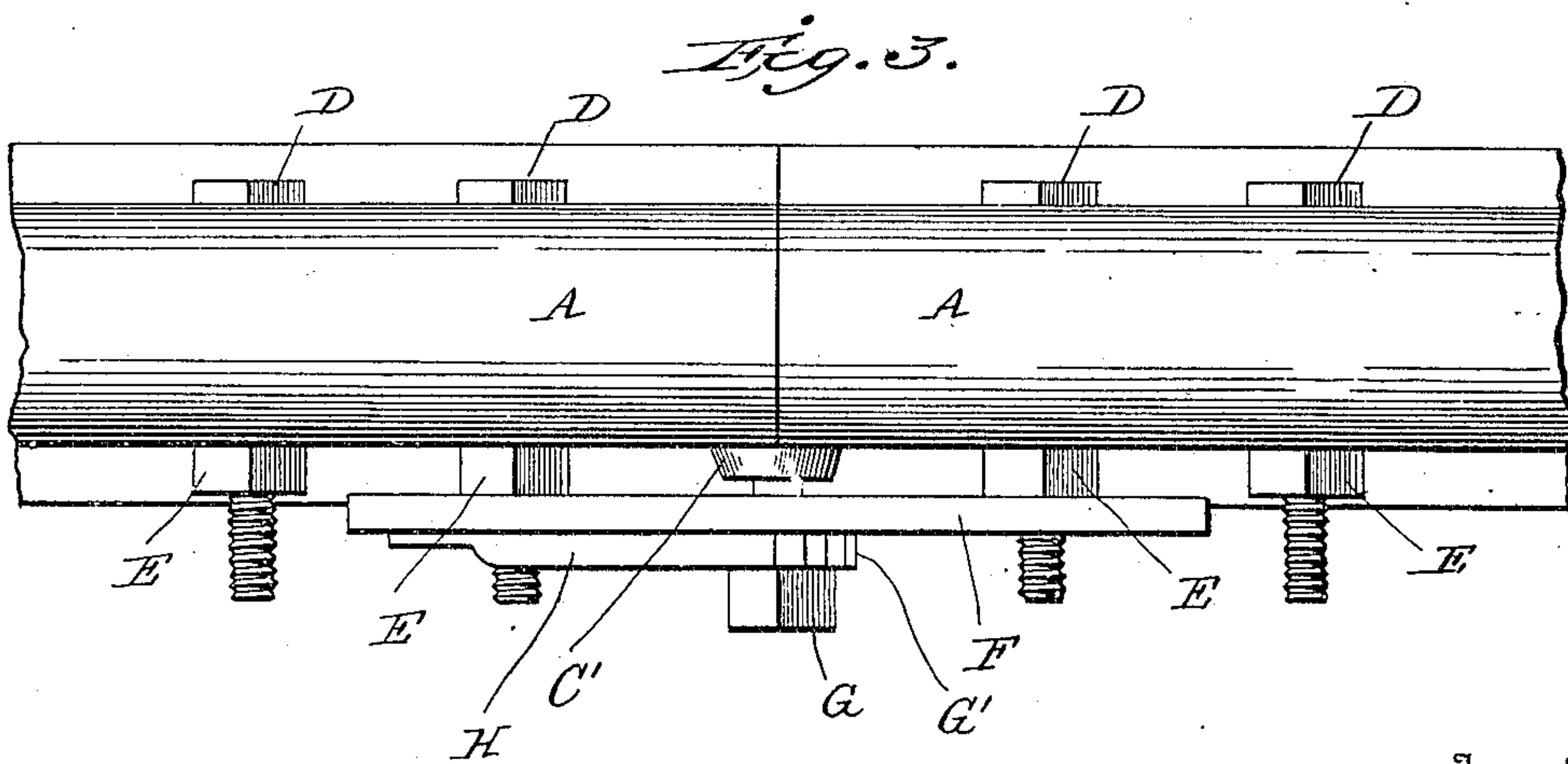
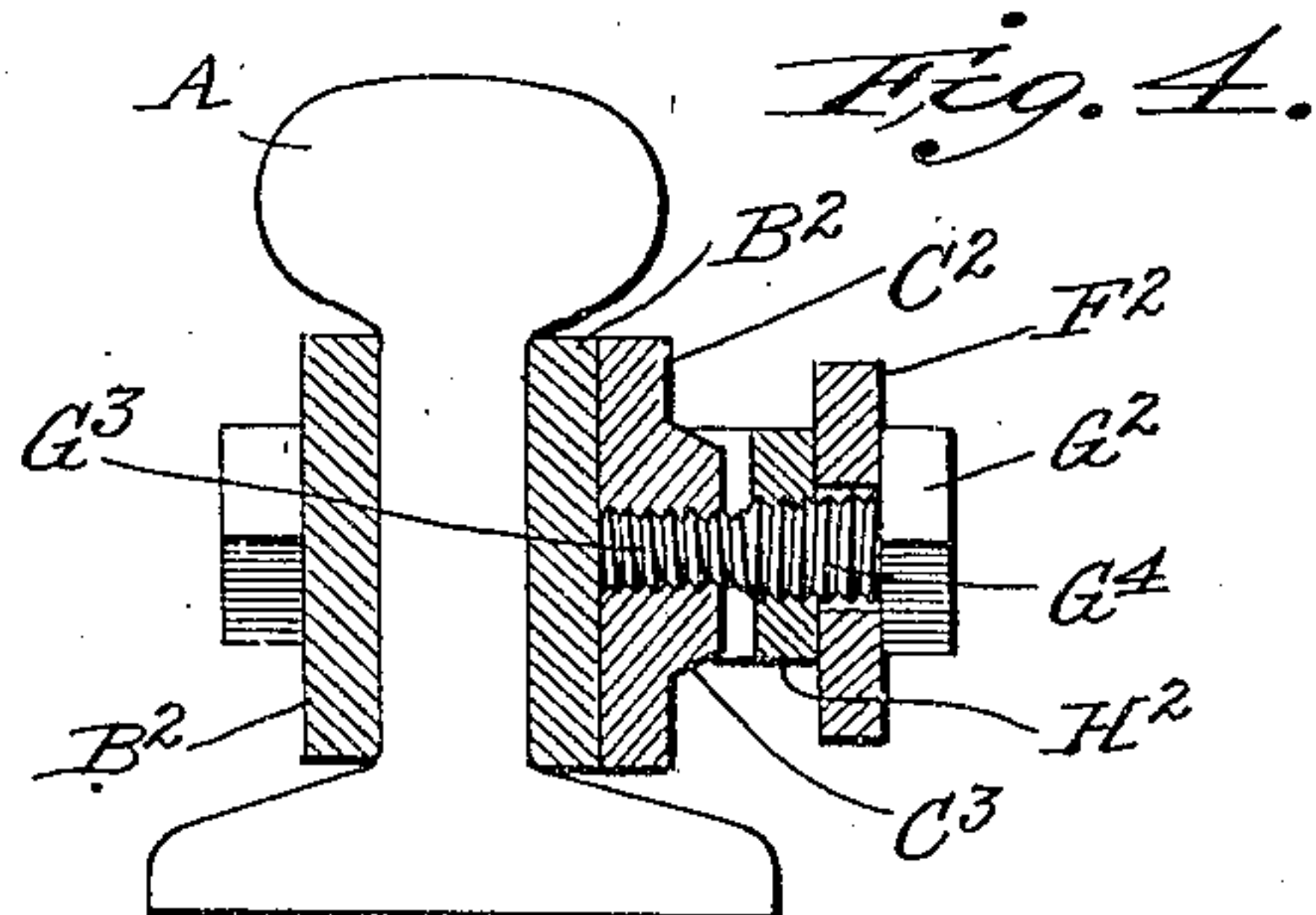
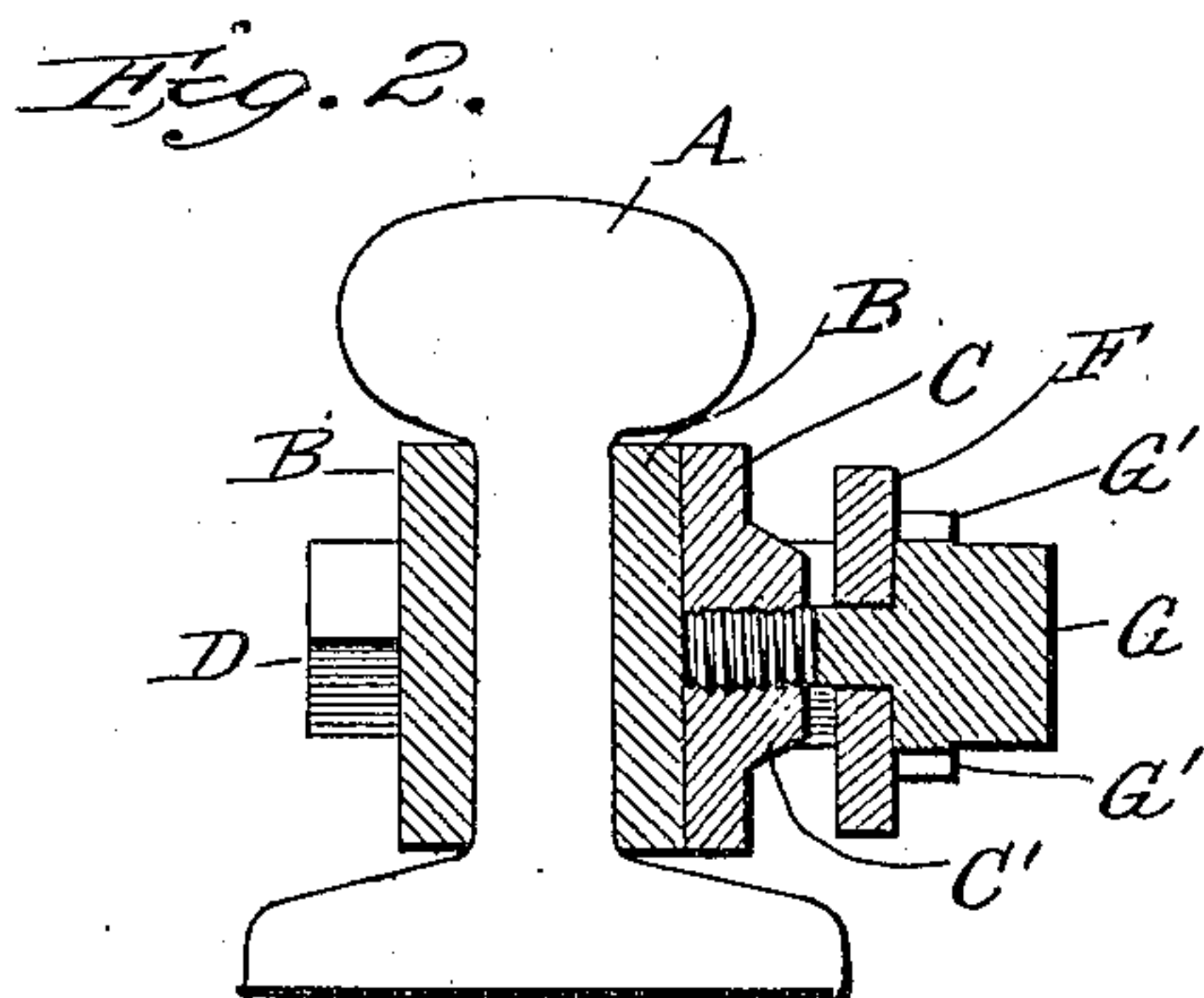
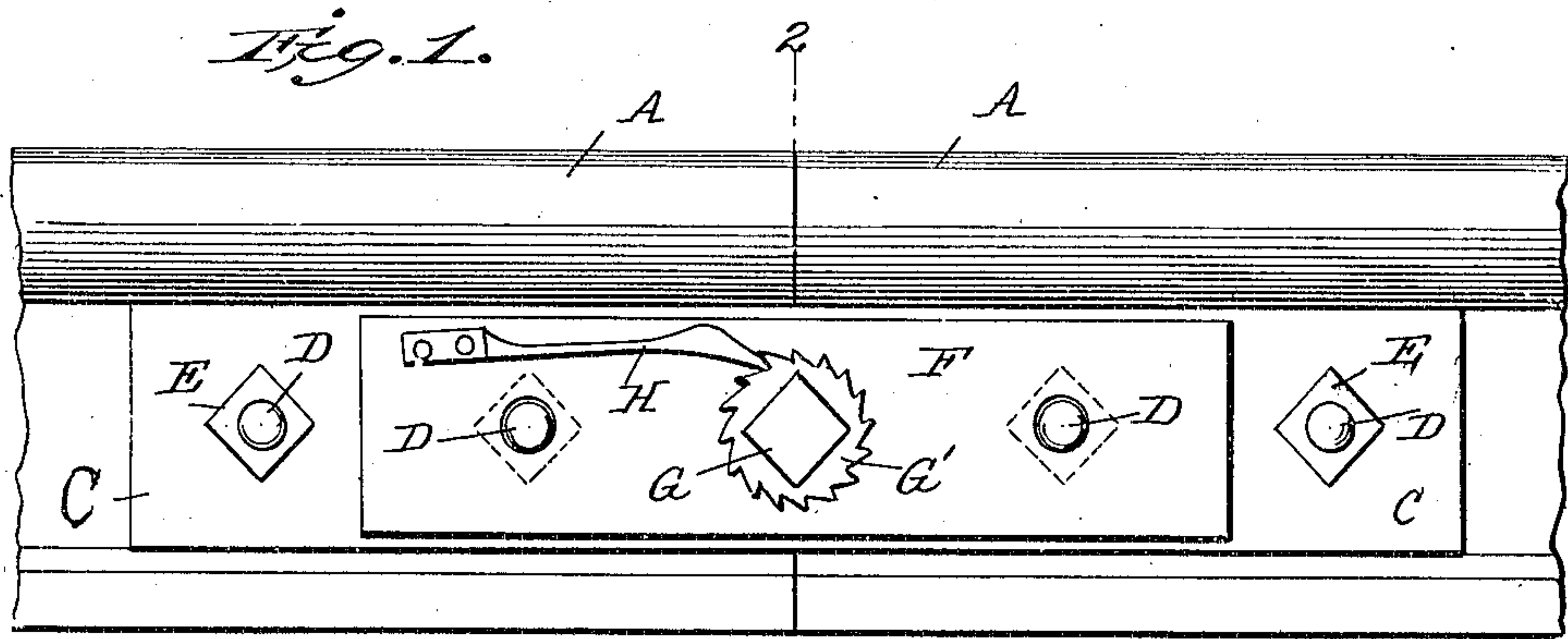


No. 844,588.

PATENTED FEB. 19, 1907.

L. M. GILCHRIST.
NUT LOCK.

APPLICATION FILED MAR. 16, 1906. RENEWED DEC. 20, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

LUTHER M. GILCHRIST, OF CASEYVILLE, KENTUCKY, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO JAMES L. AMES, OF CASEYVILLE, KENTUCKY.

NUT-LOCK.

No. 844,588.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed March 16, 1906. Renewed December 20, 1906. Serial No. 348,826.

To all whom it may concern:

Be it known that I, LUTHER M. GILCHRIST, a citizen of the United States, and a resident of Caseyville, in the county of Union and State of Kentucky, have invented certain new and useful Improvements in Nut-Locks, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The invention relates to nut-locks of that class which are particularly adapted to railway-joints; and it has for its object the provision of means whereby the nuts of such a joint can be secured against accidental displacement and which at the same time will permit the removal of the nuts without injury to any of the parts when it becomes necessary to disjoint the rails.

It consists in the novel construction, combination, and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a side elevation of a railway-joint embodying the invention. Fig. 2 is a cross-sectional view on the line 2 2 of Fig. 1. Fig. 3 is a plan view. Fig. 4 is a cross-sectional view of a joint embodying a modification of the invention.

On opposite sides of the abutting ends of the rails A are the main fish-plates B, and against one of these main fish-plates on one side is the auxiliary fish-plate C. Bolts D pass through the fish-plates and the ends of the rails, and onto their screw-threaded ends are turned the nuts E, which bear against the auxiliary fish-plate and clamp the several parts together. The screw-threaded ends of the bolts project beyond the nuts, and on these ends is the clamping-plate F. In the central part of this clamping-plate is an opening through which passes the bolt G, with its screw-threaded end turned into the abutment C' of the auxiliary fish-plate C, which is screw-threaded to receive the bolt. The bolt is turned into the abutment until its head bears on the clamping-plate F and presses the latter firmly against the nuts E. To prevent the accidental turning of the bolt

G, the head of the latter is provided with the ratchet-teeth G', with which engages the spring-pawl H, secured to the clamping-plate F. The structure of the pawl-and-ratchet mechanism is such as to permit the bolt G to be turned into the auxiliary fish-plate, but prevents it from being turned in the opposite direction. When it is necessary to disjoint the parts, the pawl can be raised and the bolt turned out of the auxiliary fish-plate.

When the several parts are assembled to form the joint and the bolt G turned into the auxiliary fish-plate until its head bears against the clamping-plate, the latter will press on the nuts E and prevent them from turning. Consequently no accidental displacement of the nuts can occur so long as the bolt G is held in place by the pawl-and-ratchet mechanism.

For the sake of clearness the clamping-plate and the auxiliary fish-plate are only shown as extending over two bolts, one in each rail. In practice, however, they will extend over all the bolts. Also the main fish-plate on one side may be replaced by the auxiliary fish-plate.

In Fig. 4 a modification of the means for holding the bolt G² is shown. Instead of the pawl-and-ratchet mechanism the bolt has opposite screw-threads G³ and G⁴, respectively. The main fish-plates G² and the auxiliary fish-plate C², together with the clamping-plate F², are the same as in the first instance. The screw-threaded end G³ of the bolt is turned into the abutment C³ of the auxiliary fish-plate C², and on the oppositely screw-threaded part G⁴ is the nut H². When the bolt is turned into the abutment, the nut H² is turned to bear against the under side of the clamping-plate F². The opposite screw-threads working against each other will hold the bolt in place.

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

1. In a device of the character described, the rails, fish-plates on opposite sides of the rails, bolts passing through the rails and fish-plates, nuts on the ends of said bolts, a clamping-plate on the ends of the bolts outside of the nuts, a bolt passing through said clamping-plate and having a screw-threaded engagement with one of said fish-plates and

operating to press said clamping-plate upon the nuts, and means for preventing the accidental turning of the last-mentioned bolt.

2. In a device of the character described,
5 the rails, fish-plates on opposite sides of the rails, bolts passing through the rails and fish-plates, nuts on the ends of said bolts, a clamping-plate on the ends of the bolts outside of the nuts, a bolt passing through said
10 clamping-plate and having a screw-threaded engagement with one of said fish-plates and operating to press said clamping-plate upon the nuts, and pawl-and-ratchet mechanism for preventing the accidental disengagement
15 of the last-mentioned bolt from the fish-plate.

3. In a device of the character described, the rails, the main fish-plates on opposite sides of the rails, an auxiliary fish-plate on

one of the main fish-plates and having a 20 screw-threaded abutment, bolts passing through the rails and the clamping-plates, nuts on the ends of said bolts, a clamping-plate on the ends of said bolts and bearing on said nuts, a bolt passing through said clamp- 25 ing-plate and turned into said screw-threaded abutment, ratchet-teeth on the head of the last-mentioned bolt, and a spring-pressed pawl on said clamping-plate and engaging with said ratchet-teeth and operating to hold 30 the bolt against accidental displacement.

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

LUTHER M. GILCHRIST.

Witnesses:

GRANT BURROUGHS,
GEO. W. REA.