

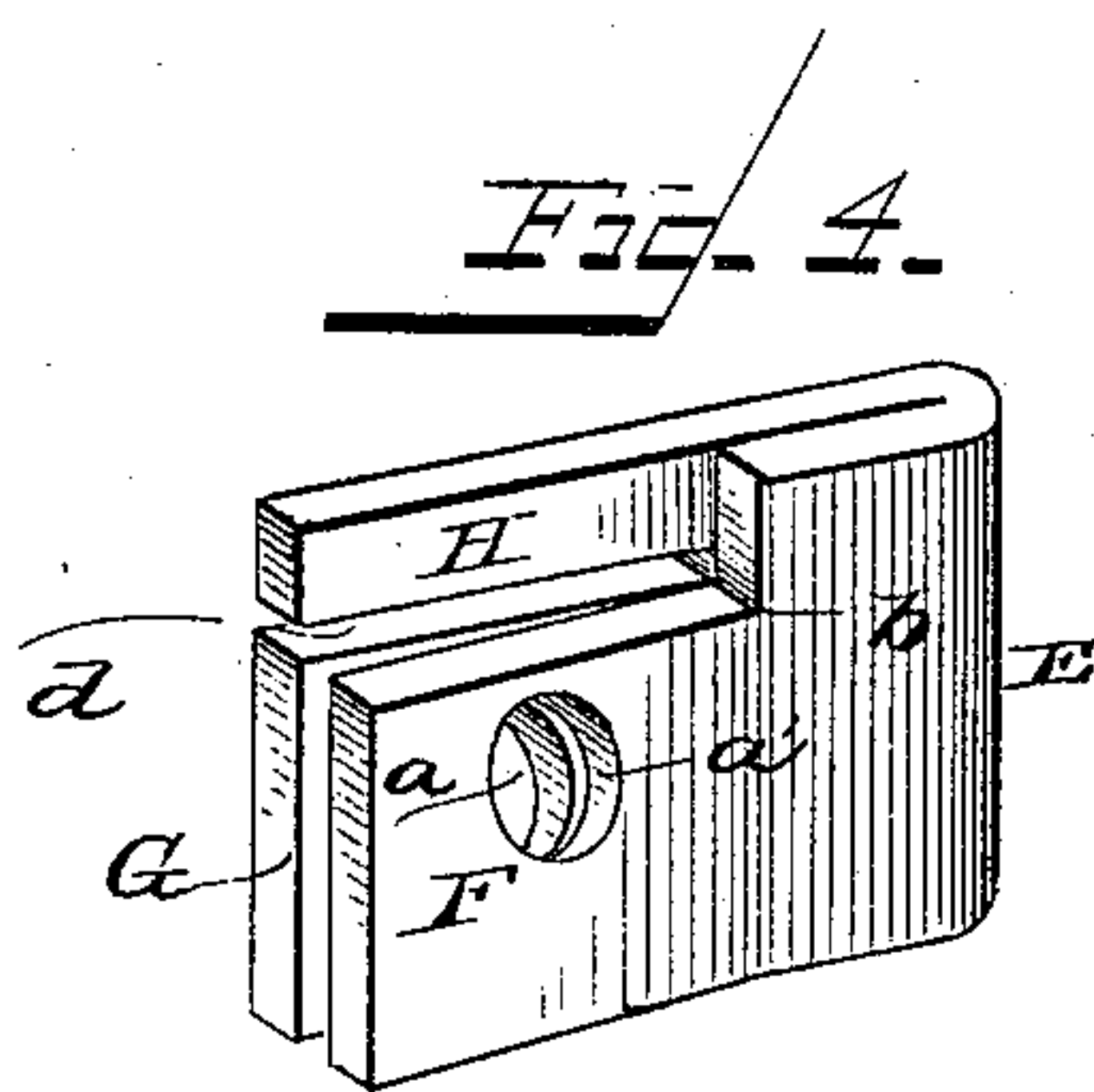
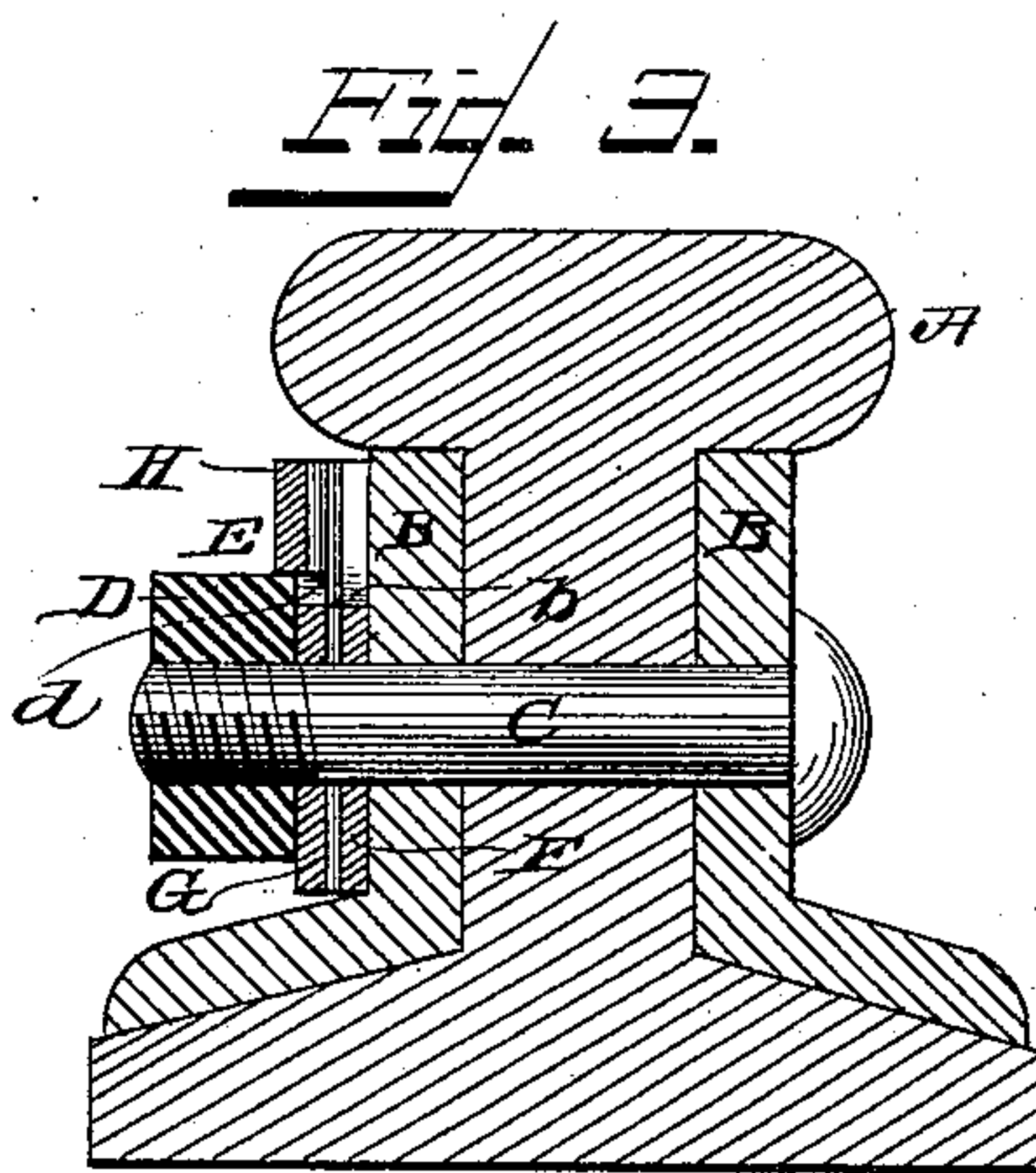
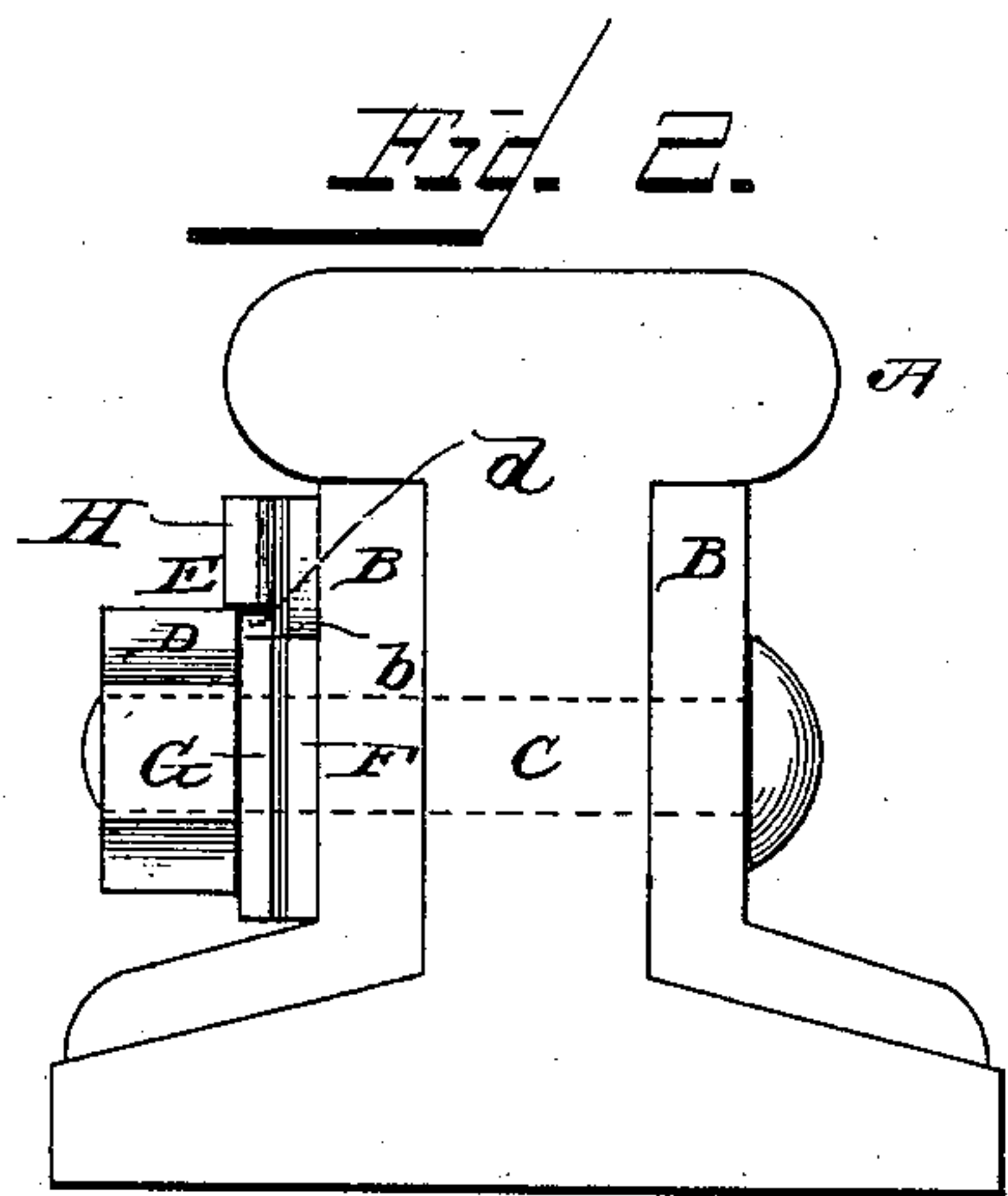
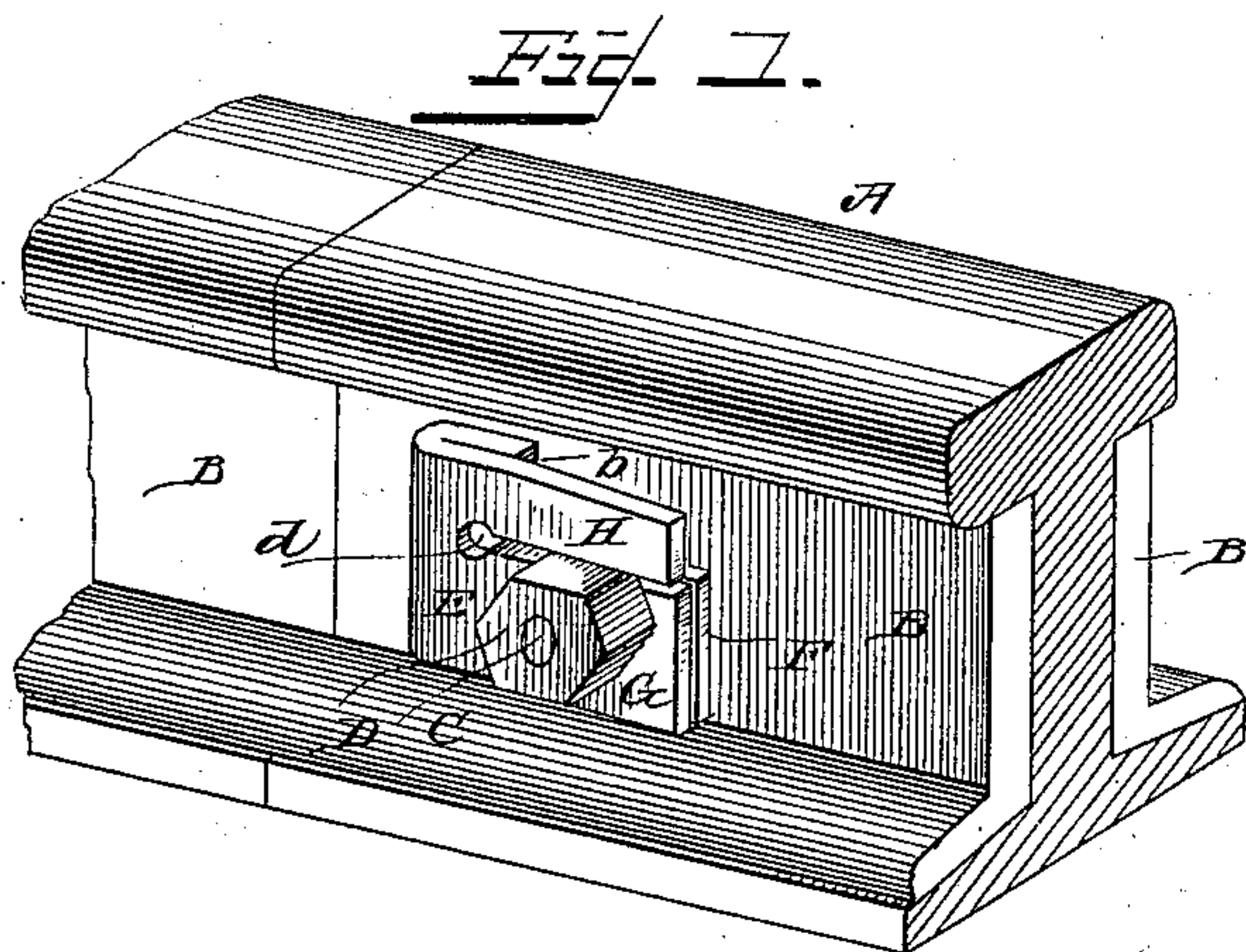
(No Model.)

J. C. COOKERLEY.

NUT LOCK.

No. 320,914.

Patented June 30, 1885.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOSIAH C. COOKERLEY, OF SOUTH MILFORD, INDIANA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 320,914, dated June 30, 1885.

Application filed April 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH C. COOKERLEY, a citizen of the United States, residing at South Milford, in the county of Lagrange and State of Indiana, have invented a new and useful Improvement in Nut-Locks, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to nut-locks, and to that class of the same in which a washer plate is interposed at the base of the nut to lock it from further movement after it has been tightened.

The object of the present invention is to provide a device of this character which will be simple in its construction, and which will be proof against accidental displacement, owing to expansion or contraction, and which may be readily applied in position and detached at will.

The said invention consists in certain details of construction and novel combinations of parts, as will be hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved nut-lock, showing the same in its locked position. Fig. 2 is a front elevation. Fig. 3 is a transverse vertical section of the same, and Fig. 4 is a perspective view of the washer-plate detached.

Like letters are used to indicate corresponding parts in the several figures.

Referring to the drawings, A designates the rail; B, the fish-plate; C, the bolt; and D, the nut. These several parts being of the usual construction, therefore need not be further described here.

E designates my improvement, which consists of a rectangular piece of metal of any suitable thickness, slitted or divided on a horizontal line nearly its entire length to form spring-sections F G. These sections are each provided with an opening, *a a'*, respectively, which are aligned with each other, so as to allow the passage of the bolt through the same. The upper portion of the section F is cut out in a longitudinal line, as at *b*, and the corresponding portions of the section G are slotted longitudinally, as at *d*, the remaining portion of the section G, above this slot, forming a spring-tongue, H, for the purpose presently described.

It will be observed that by slotting the plate E on a horizontal line nearly its entire length, as before described, this plate is divided into spring-sections, the outer portion of this horizontal slot being greater in width than the inner portion, so that the front ends of the spring-sections will have increased elasticity and may be forced together by the operation of the nut.

It will also be seen that the spring-tongue H is normally on a horizontal line with the outer spring-section, G, and thus, when said section is pressed inward toward the other, this tongue will come up and rest against one of the faces or sides of the nut. Since the inner section, F, is cut out below the tongue, the latter is enabled to have a spring-action inwardly, so as to be pressed or forced inward by a hammer or the like out of engagement with the nut when unlocking the latter.

The operation of my invention is as follows: After the bolt has been properly adjusted in position the washer-plate is passed around the bolt over the fish-plate, the tongue H being at the top and below the head of the rail. The nut is then turned over the threaded end of the bolt, and in this action presses the outer or front end of the spring-section G inwardly, forcing it toward the inner section, F. Since the tongue H rests on a horizontal plane with the outer section, G, when the latter is in its normal position, this tongue will remain in its position while the outer section is being compressed by the operation of the nut. This being so, the nut, as it is forced inward by reason of the yielding of the outer section, G, comes below (at its inner edge) the horizontal plane of the tongue H, so that the latter will catch partly around the side of the nut, facing the tongue, and hold it from movement. Should this engagement of the tongue with the nut be insufficient, the operator can, by means of a chisel or like instrument, pry or force this tongue further outward to provide a more firm engagement and avoid all possibility of accidental detachment. In unlocking, the tongue is pressed inwardly toward the fish-plate until it is thrown out of engagement with the nut, when the latter may be screwed off in the usual manner.

My improvement provides simple means for locking the nut, and cannot be influenced by

sudden changes of the temperature to cause the accidental detachment of the nut. The nut is securely held in place, is readily unlocked, and the application of the improvement may be made with ease and facility.

I have shown my improvement as applied to rail-joints, this being the special adaptation of the same; but I would have it understood that I do not wish to be limited to this special use, for it will be obvious that the lock may be applied to all parts of machinery where it is desired to hold the nut from becoming detached, and thus prevent trouble and annoyance to the workmen.

Having described my invention, I claim—

1. In a nut-lock, the bolt and nut, in combination with the washer, slitted or divided horizontally to form two spring-sections, the outer one of which is adapted to be forced inward by the pressure of the nut, said washer being slitted longitudinally to form a spring-tongue which is normally on a line with the outer spring-section, so that when the latter is pressed inward during the operation of the nut the tongue will come up against one of the sides of the nut, as set forth.

2. The herein-described nut-locking washer formed in a single piece, comprising two spring sections having their outer ends sprung apart to give increased elasticity and allow them to yield, and a tongue provided on one side of the sections so as to come up against the side of the nut, as set forth.

3. In a nut-lock, the bolt and nut, in combination with the washer formed with two spring-sections having the front or outer ends sprung apart, aligned perforations provided through the sections, a longitudinal slot formed in the outer section to provide a spring-tongue which is on a line with the normal position of the outer section, and a cut-away portion formed in the inner section to allow the movement of the tongue inwardly, whereby said tongue remains in its position while the nut is being operated to press the outer spring-section inward, as set forth.

4. In a nut-lock, the bolt and nut, in combination with a washer, comprising a plate slitted or divided horizontally for a portion of its length to form two spring-sections, the outer ends of which are sprung apart, aligned perforations provided through the latter, a longitudinal slot formed in the outer section to provide a spring-tongue which is on a line with the normal position of the outer section, and a cut-away portion formed in the inner section to allow the movement of the tongue, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSIAH C. COOKERLEY.

Witnesses:

THOMAS L. GRAVES,
FRANK H. KINGLER.