

(No Model.)

G. E. CLARKE & F. HARBRIDGE.

NUT LOCK.

No. 359,132.

Patented Mar. 8, 1887.

Fig. 1.

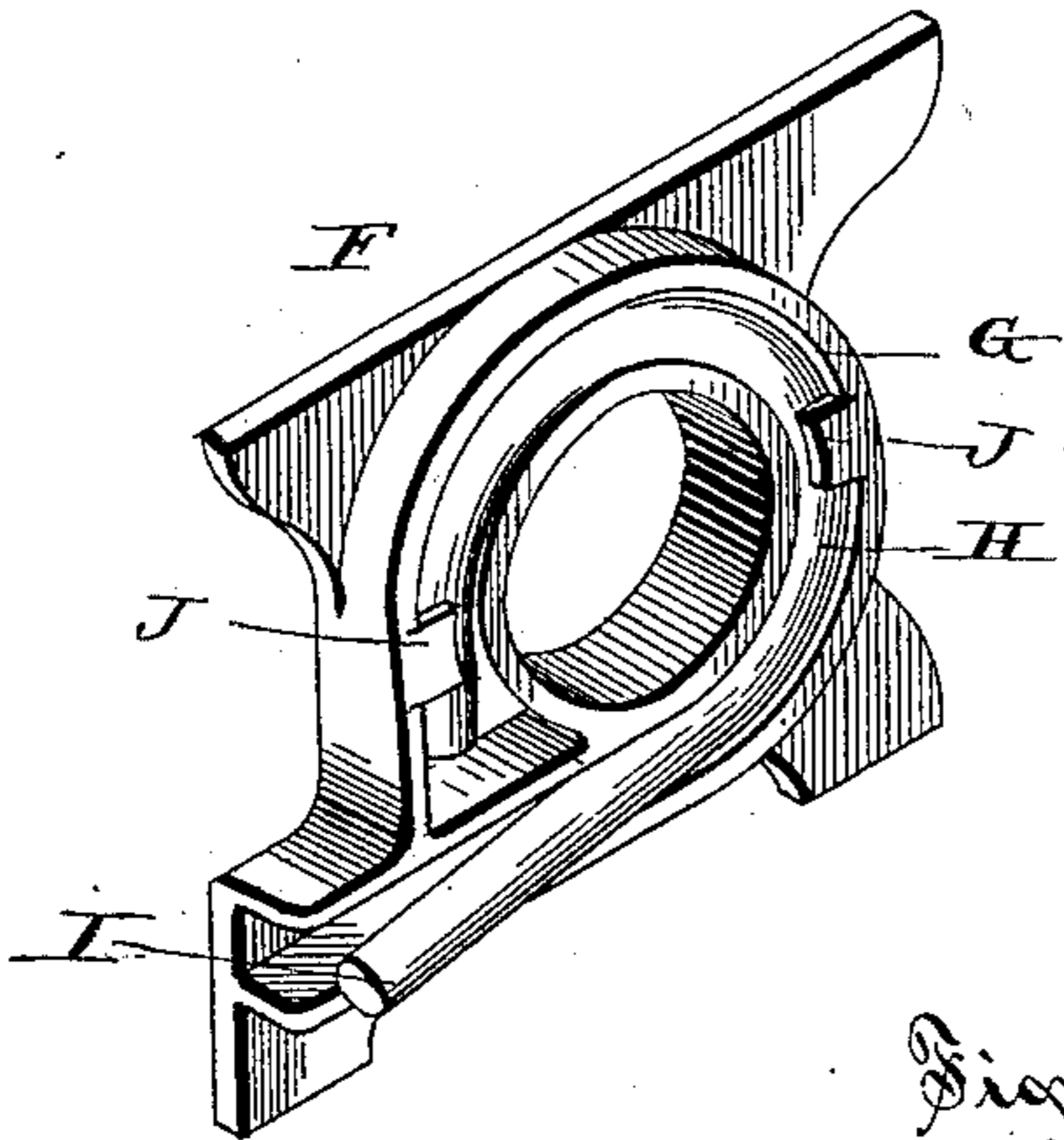


Fig. 2.

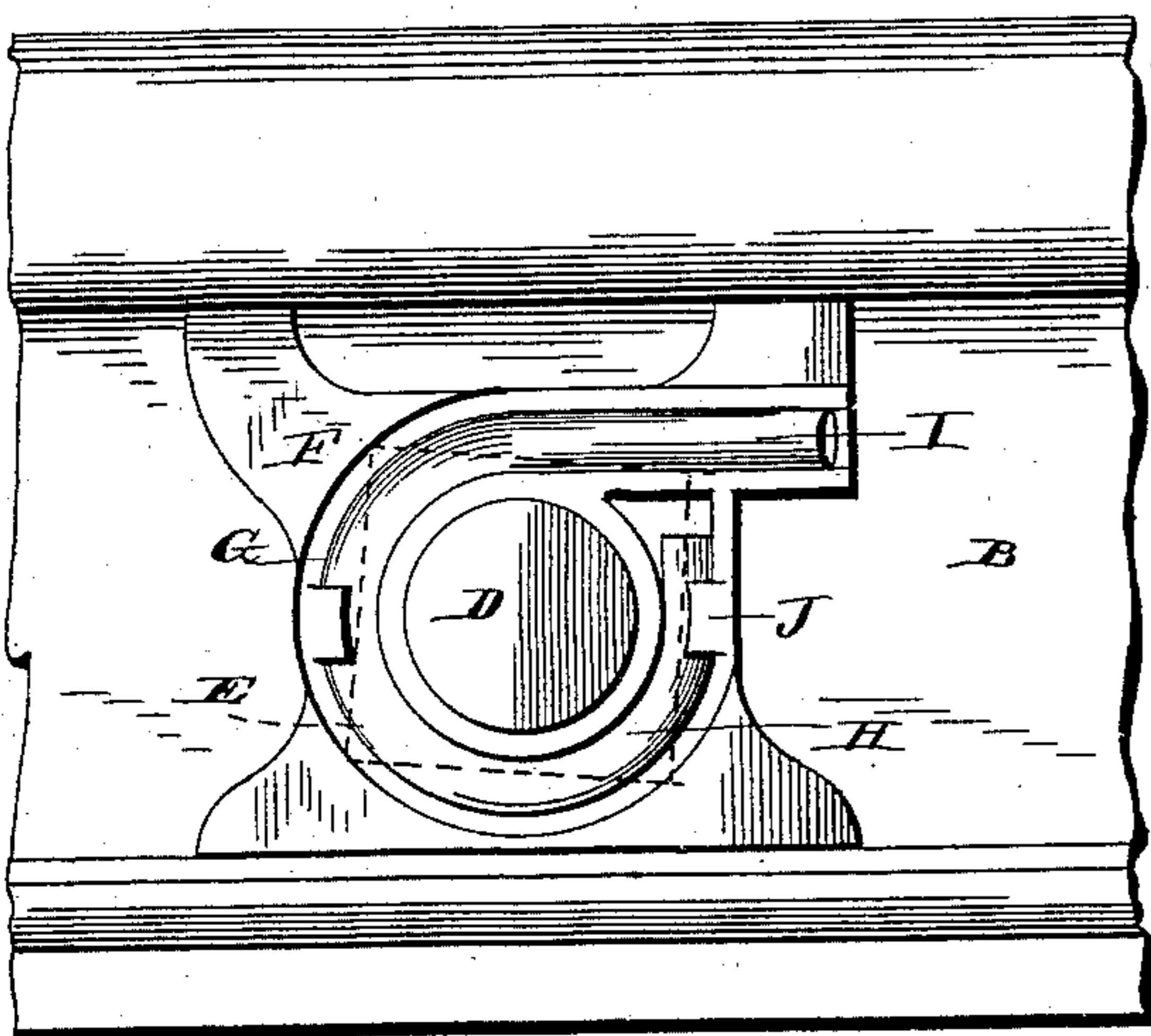


Fig. 3.

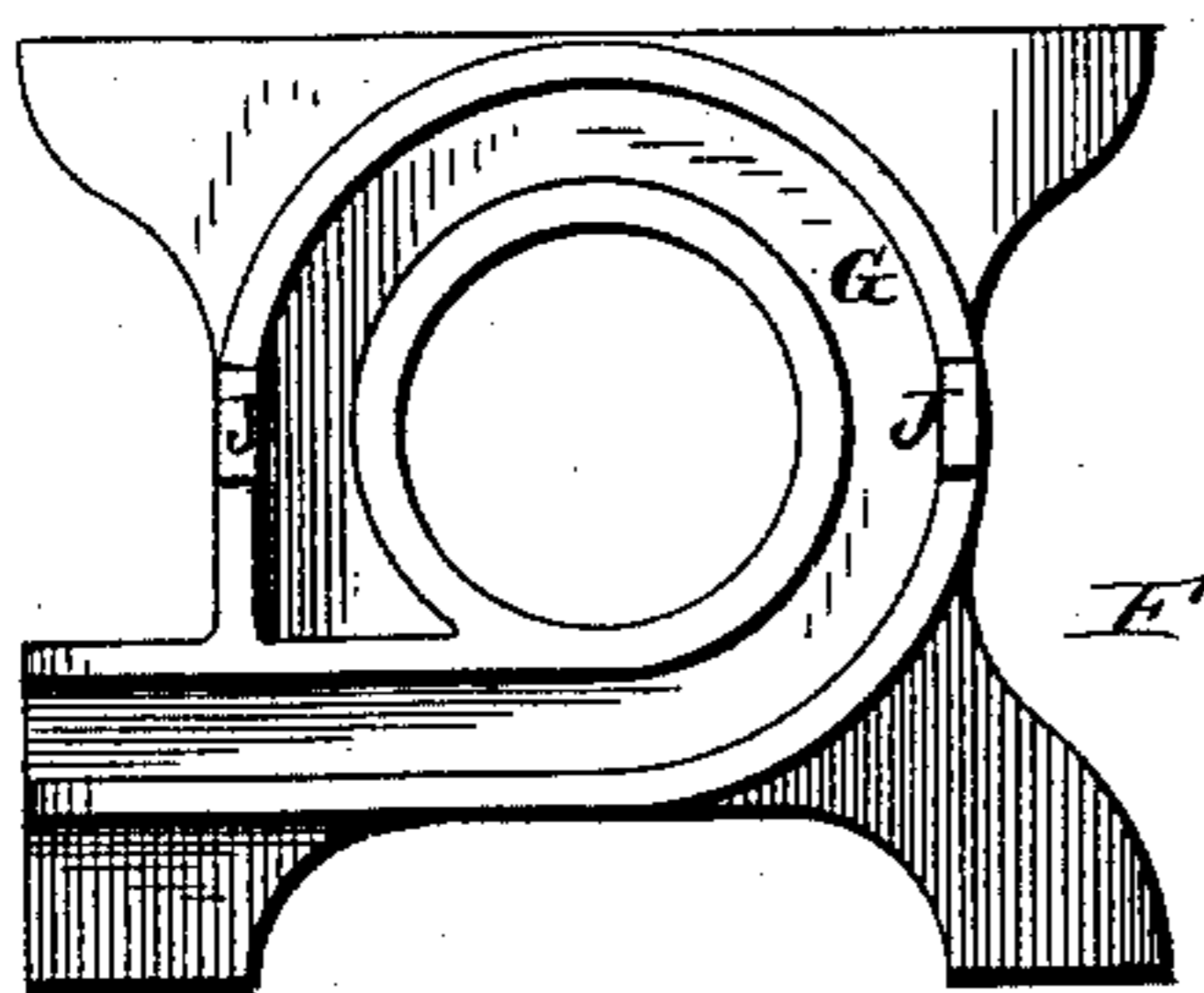
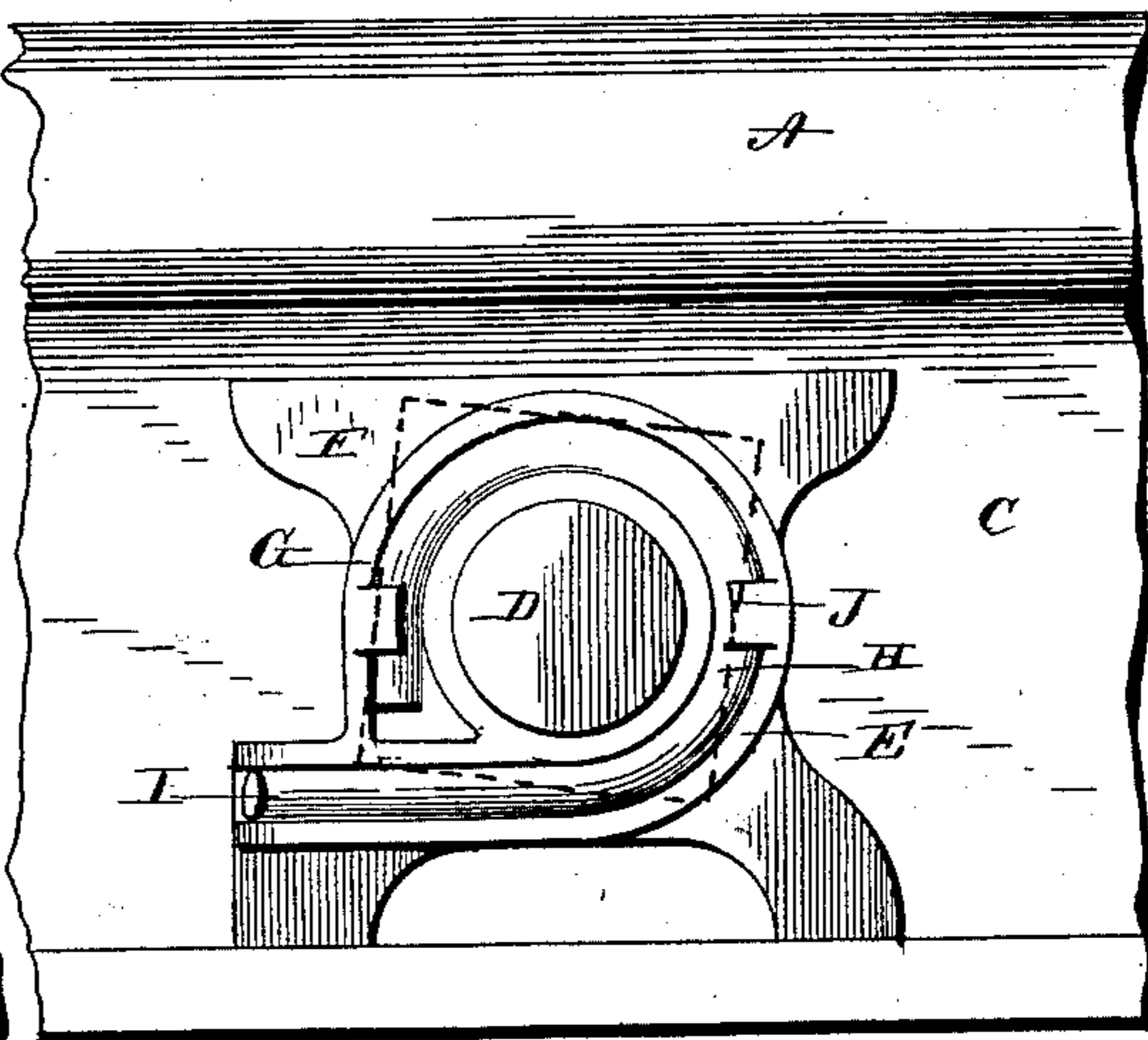
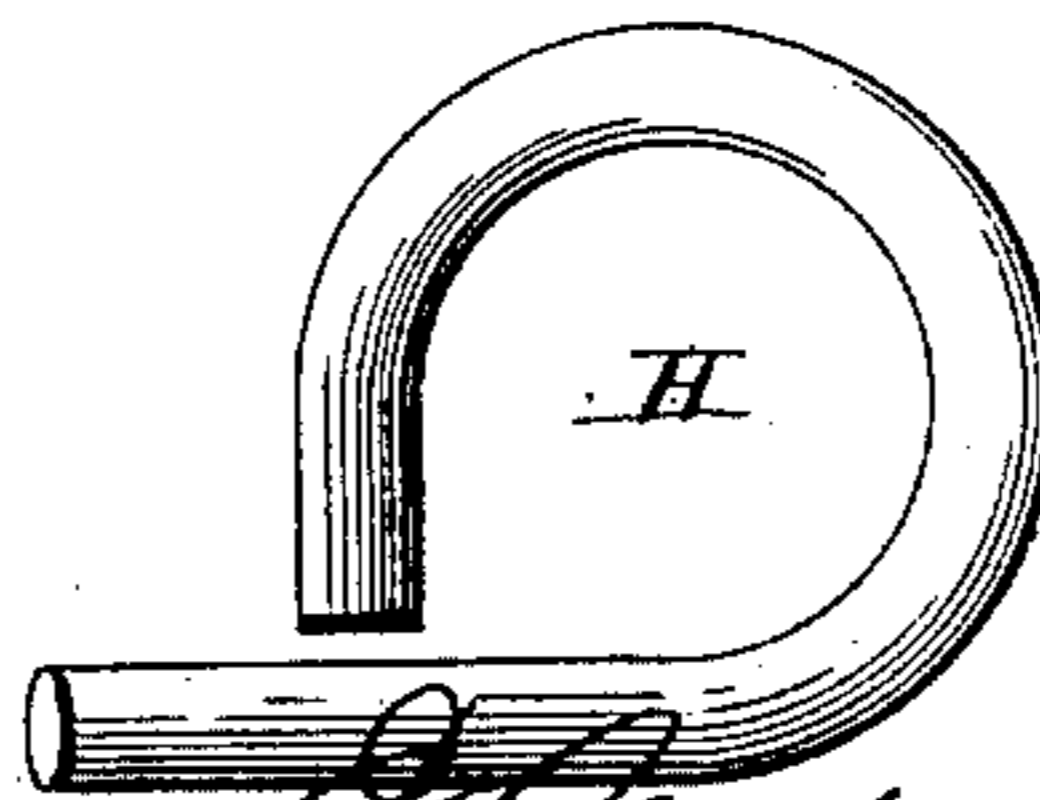


Fig. 4.



Witnesses
F. L. Curran
Benjamin Jones

Genl. E. Clarke,
Frederick Harbridge, Inventors

By their Attorneys
Louis Rogers & Co.

UNITED STATES PATENT OFFICE.

GREVILLE E. CLARKE AND FREDERICK HARBRIDGE, OF RACINE, WISCONSIN.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 359,132, dated March 8, 1887.

Application filed November 20, 1886. Serial No. 219,483. (No model.)

To all whom it may concern:

Be it known that we, GREVILLE E. CLARKE and FREDERICK HARBRIDGE, both residents of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Nut-Locks; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved nut-lock. Fig. 2 represents said lock as applied to an angle fish-plate, the nut being shown in dotted lines. Fig. 3 is a similar representation of the lock when used with a plain fish-plate, and Fig. 4 is a plan view representing the spring-lock and washer separated.

Like letters of reference indicate corresponding parts throughout all the figures.

Our invention has relation to nut-locks; and it consists in the improved construction and combination of parts constituting such lock, as will be hereinafter fully set forth.

Referring to the accompanying drawings by letters, A represents a portion of a railroad-rail, B an angle fish-plate, C a plain fish-plate, D a connecting-bolt, and E its nut, all of which parts are of the ordinary construction.

The nut-lock is, more properly speaking, a combined washer and nut-lock, the washer F consisting of a piece of malleable metal provided with the usual central hole for the bolt, about which is formed a channel, G, which has at one side thereof a straight continuation. This channel is formed to receive the spring-lock H, the curved portion of which is all in one plane, while the tangential portion I is bent upwardly from said plane.

The curved portion of the lock rests in the curved part of the channel in the washer, and is retained there simply by the nut or by the lugs J, which project from the outer walls of said channel and are turned over said lock after it is put in place in the washer. The straight portion of the lock, which rests in an inclined manner above the continuation of the

channel G, is readily depressed into said continuation as the nut is turned off or on the bolt, and yet it bears with sufficient force against the corners of the nut to keep it from turning off of itself.

The washer has two parallel sides, the edge of one of which is at a greater distance from the central hole of the washer than is the edge of the other, which construction renders the washer applicable to the different fish-plates, as represented in Figs. 2 and 3, said edges bearing against the lower portion of the angle fish-plate and the rail, or simply against the rail. The nuts used with this lock, as may be seen in Figs. 2 and 3, may be of different sizes; but the smallest ones, in consequence of the location of the lock, rest partially upon the tangential portion of the lock, so that said portion of the lock can at no time bear flatly against a side of the nut, but must, when the nut is locked, bear at a slight upward inclination across the lower edge of one face of the nut, thereby rendering it possible to force the nut back over said lock with a wrench, and without using an extra tool for depressing the lock. The walls of the continuation of the channel prevent the tangential portion of the lock from being forced out of place when the nut is turned off.

Having thus fully described our invention, we claim—

In a nut-lock, the combination of a washer having a channel around the central aperture, one end of said channel being continued or extended at a tangent, and a lock consisting of a piece of metal bent into a single coil, one end of which is extended at a tangent and bent out of the plane of the coil, said end projecting beyond and being adapted to engage with the under edges of the nut and to be forced into the extension of said channel.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

GREVILLE E. CLARKE.
FREDERICK HARBRIDGE.

Witnesses:

JOHN T. RICE,
F. W. BRUCE.