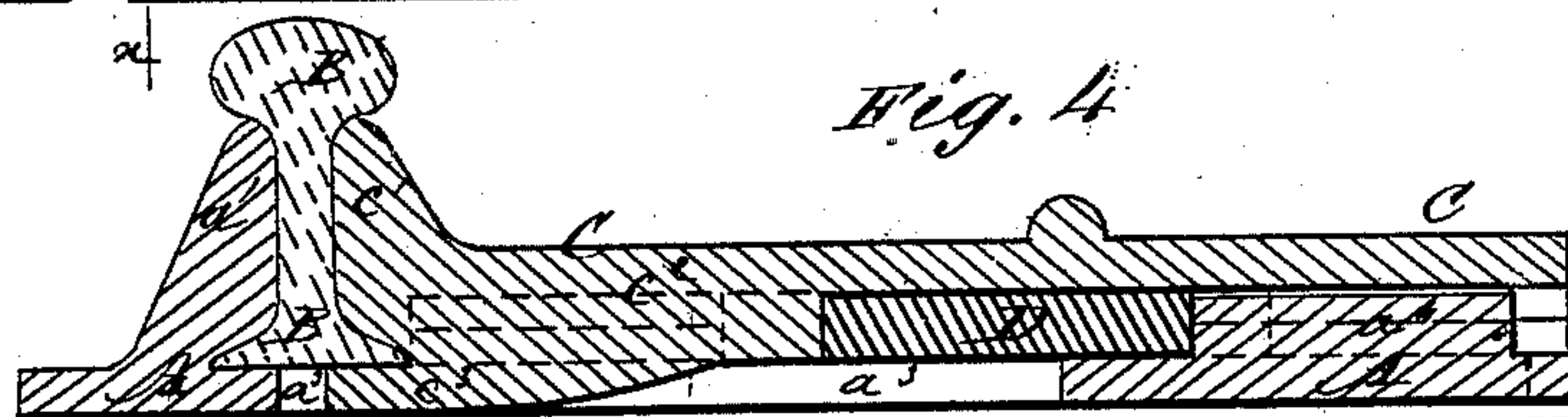
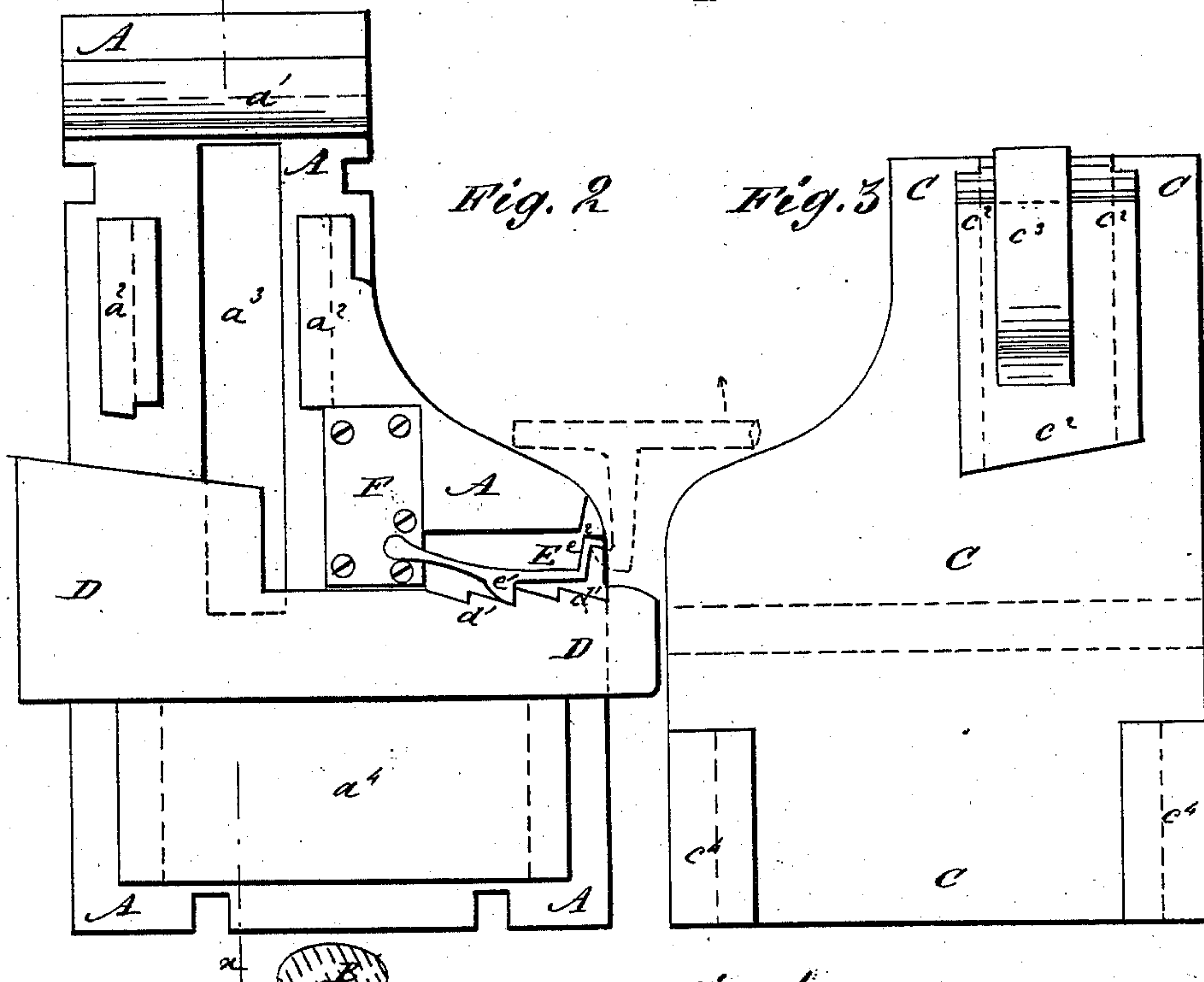
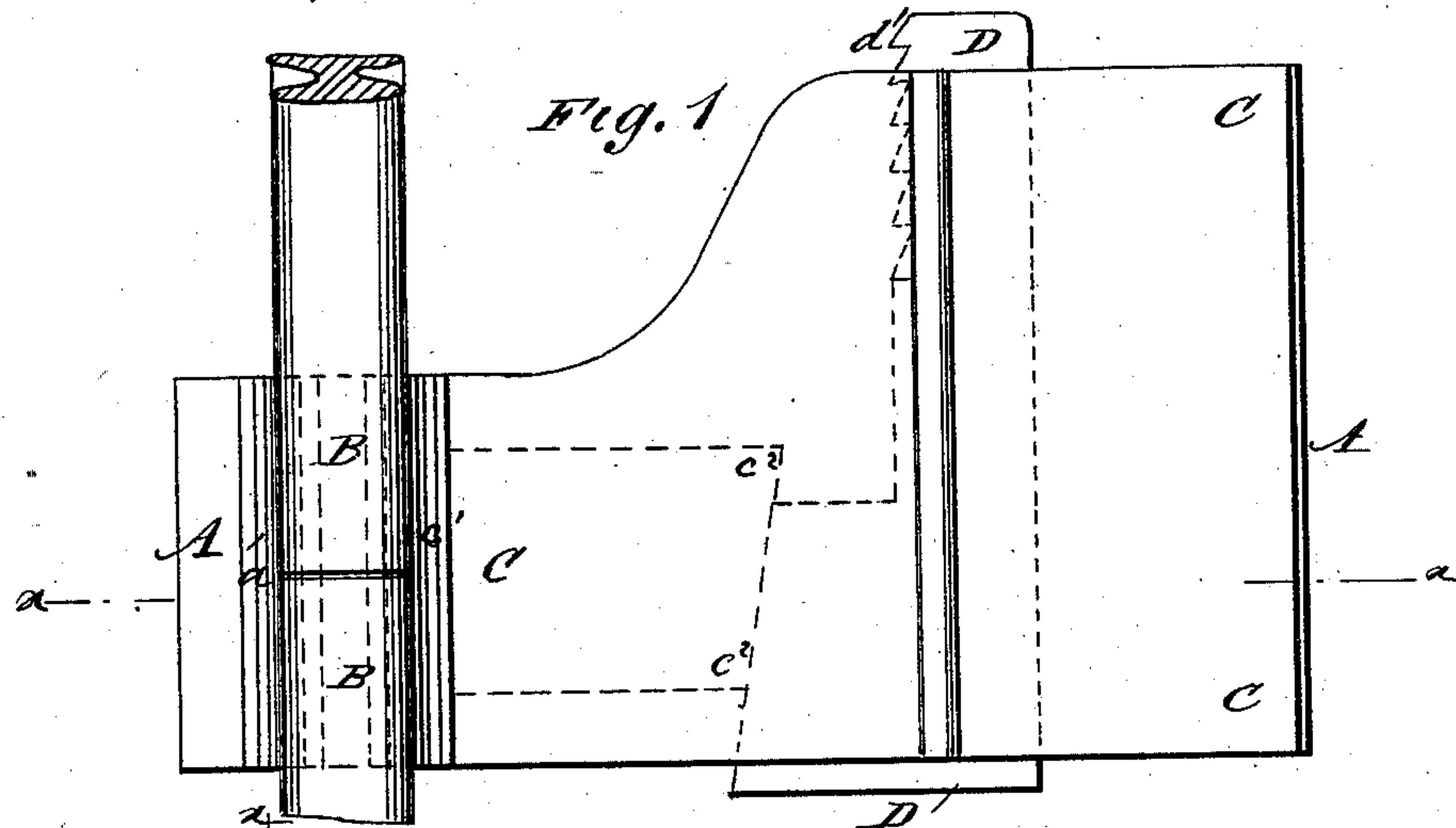


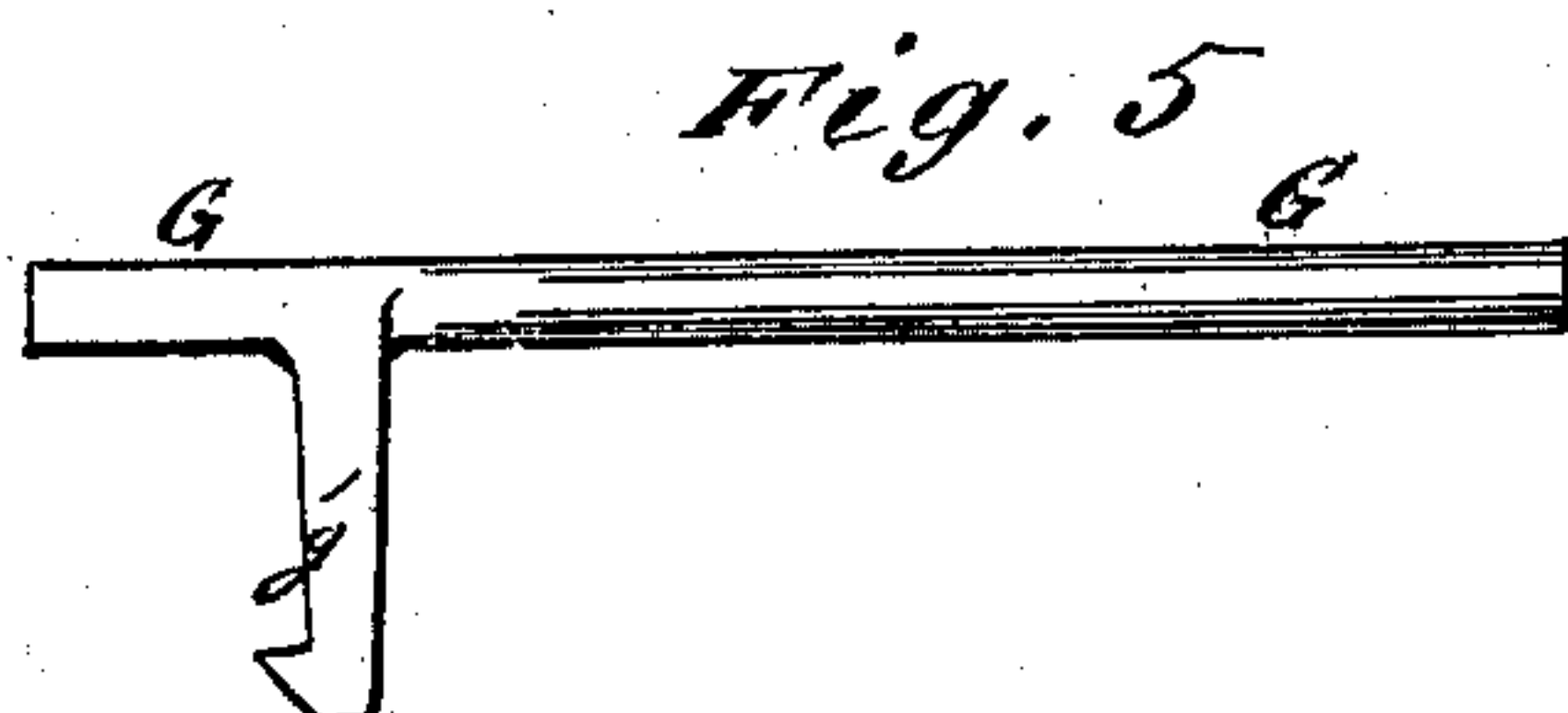
E. F. LOCKE.  
Railroad Lock.

No. 218,990.

Patented Aug. 26, 1879.



WITNESSES:  
*C. Noveux*  
*C. Sedgwick*



INVENTOR:  
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ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ELIJAH F. LOCKE, OF APPONANG, RHODE ISLAND.

## IMPROVEMENT IN RAILROAD-LOCKS.

Specification forming part of Letters Patent No. **218,990**, dated August 26, 1879; application filed February 3, 1879.

*To all whom it may concern:*

Be it known that I, ELIJAH F. LOCKE, of Apponang, in the county of Kent and State of Rhode Island, have invented a new and useful Improvement in Railroad-Rail Locks, of which the following is a specification.

Figure 1 is a top view of my improved lock, illustrating its use. Fig. 2 is a plan view of the same with the top plate removed. Fig. 3 is a detail view of the under side of the top plate. Fig. 4 is a cross-section of the rail-lock, taken through the lines  $x\ x$ , Figs. 1 and 2. Fig. 5 represents a lever-key for unfastening the lock.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved device for locking the adjacent ends of railroad-rails securely in place, so that they cannot rise out of line with each other under the pressure of passing trains and be battered or hammered by the wheels.

The invention consists in an improved rail-lock formed by the combination of the base-plate provided with the jaw, the slot, and the projections, the top plate provided with the jaw and the projections, the wedge-plate provided with the ratchet-teeth, and the spring-ratchet provided with the tooth with each other, for holding the adjacent ends of railroad-rails in line, as hereinafter fully described.

A represents the bed-plate of the lock, upon which the bases of the adjacent ends of the rails B rest, and upon the outer end of which is formed a jaw,  $a^1$ . The inner side of the jaw  $a^1$  is so formed as to fit upon the base and web of the outer side of the rails B, and the said jaw is made of such a height that its upper edge may fit against the under side of the head of the said rails.

C is the top plate of the lock, upon the outer end of which is formed a jaw,  $c^1$ . The jaw  $c^1$  is so formed as to fit upon the base and web of the inner side of the rails B, and the said jaw is made of such a height that its upper edge may fit against the under side of the head of the rails B.

Upon the lower side of the forward part of the plate C is formed a projection,  $c^2$ , which rests and slides upon the upper surface of the plate A, and has its side edges rabbeted to

interlock with the rabbeted edges of the two projections  $a^2$ , formed upon the side parts of the upper surface of the said plate A, and between which the said projection  $c^2$  fits and slides.

Upon the middle part of the projection  $c^2$  is formed a narrower projection,  $c^3$ , which fits and slides in a longitudinal slot,  $a^3$ , in the base-plate A, and the forward end of which is so formed as to pass in beneath the base of the rails B, as shown in Fig. 4.

Upon the under side of the rear corners of the plate C are formed two projections,  $c^4$ , the inner edges of which are rabbeted to interlock with the rabbeted end edges of the projection  $a^4$ , formed upon the upper side of the rear part of the base-plate A.

The forward edge of the projection  $a^4$  is made straight for the straight outer edge of the sliding wedge-plate D to rest and slide against.

The rear part of the wedge-plate D is made wider than the forward part, and its inner edge is inclined to rest against the inclined rear edge of the projection  $c^2$  of the plate C, so that the said plate C may be forced forward to clamp the ends of the rails B between the jaws  $a^1\ c^1$  by driving the wedge-plate D inward.

Upon the inner edge of the forward narrower part of the wedge-plate D are formed ratchet-teeth  $d'$ , with which engages the tooth  $e^1$ , formed upon the side of the spring E, so that the said wedge-plate will be held securely against working out or loose.

The inner end of the spring-ratchet E is enlarged and is attached to the base-plate A, or is inserted in a cavity in a block, F, attached to the said base-plate, so that the said spring-ratchet can be readily detached and replaced should it be broken. The outer end,  $e^2$ , of the spring-ratchet E is bent back, and is then bent outward, so that it may cover the outer end of the space in which the said spring-ratchet works, to prevent dirt from working into the said space and interfering with the working of the said spring-ratchet.

The outward projection of the end  $e^2$  of the spring-ratchet E forms a shoulder for the hook  $g'$  of the lever G to take hold of when it is desired to draw back the spring-ratchet E to release the wedge-plate D, and allow it to be drawn back or withdrawn, as may be desired.

This construction allows the lock to be readily unfastened when it is desired to replace or adjust the rails, and to be readily adjusted as the temperature of the different seasons may require.

With this construction the ends of the rails will be held exactly in line, so that there can be no hammering or pounding of the said ends by the wheels of the cars.

Holes or notches are formed in the base-plate A, to receive the spikes that secure the ends of the rails B to the ties, so that the said spikes may be kept in place and prevented from working out by the top plate, C.

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

An improved rail-lock formed by the combination of the base-plate A, provided with the jaw  $a^1$ , the slot  $a^3$ , and the projections  $a^2$   $a^4$ , the top plate, C, provided with the jaw  $c^1$  and the projections  $c^2$   $c^3$   $c^4$ , the wedge-plate D, provided with the ratchet-teeth  $d'$ , and the spring-ratchet E, provided with the tooth  $e^1$ , with each other, for holding the adjacent ends of railroad-rails in line, substantially as herein shown and described.

ELIJAH FERGUSON LOCKE.

Witnesses:

HARRIET S. CLARKE,  
SAM W. CLARKE.