

(No Model.)

E. C. ROLLS.

NUT LOCK.

No. 379,523.

Patented Mar. 13, 1888.

Fig. 1.

Fig. 2.

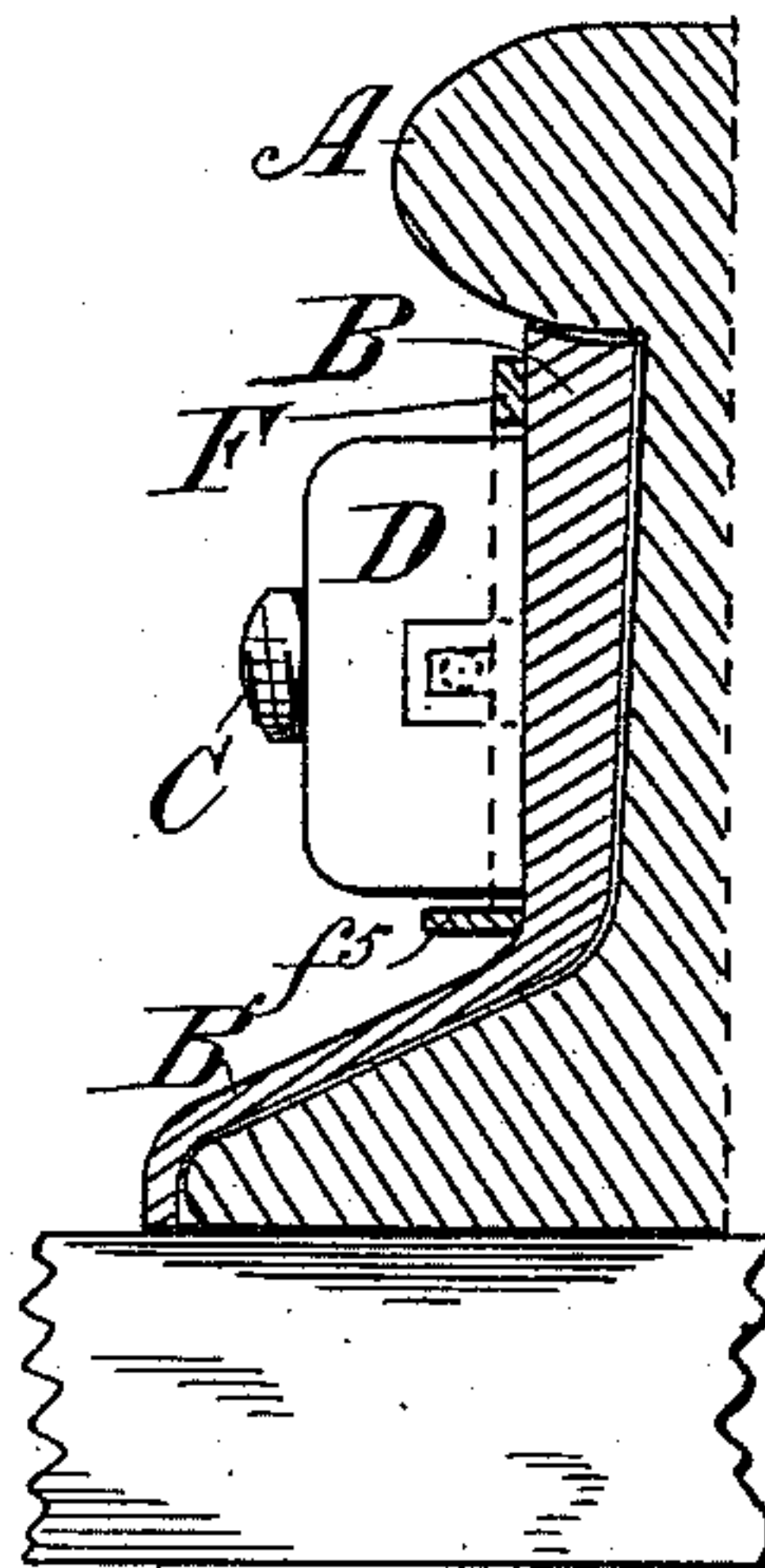
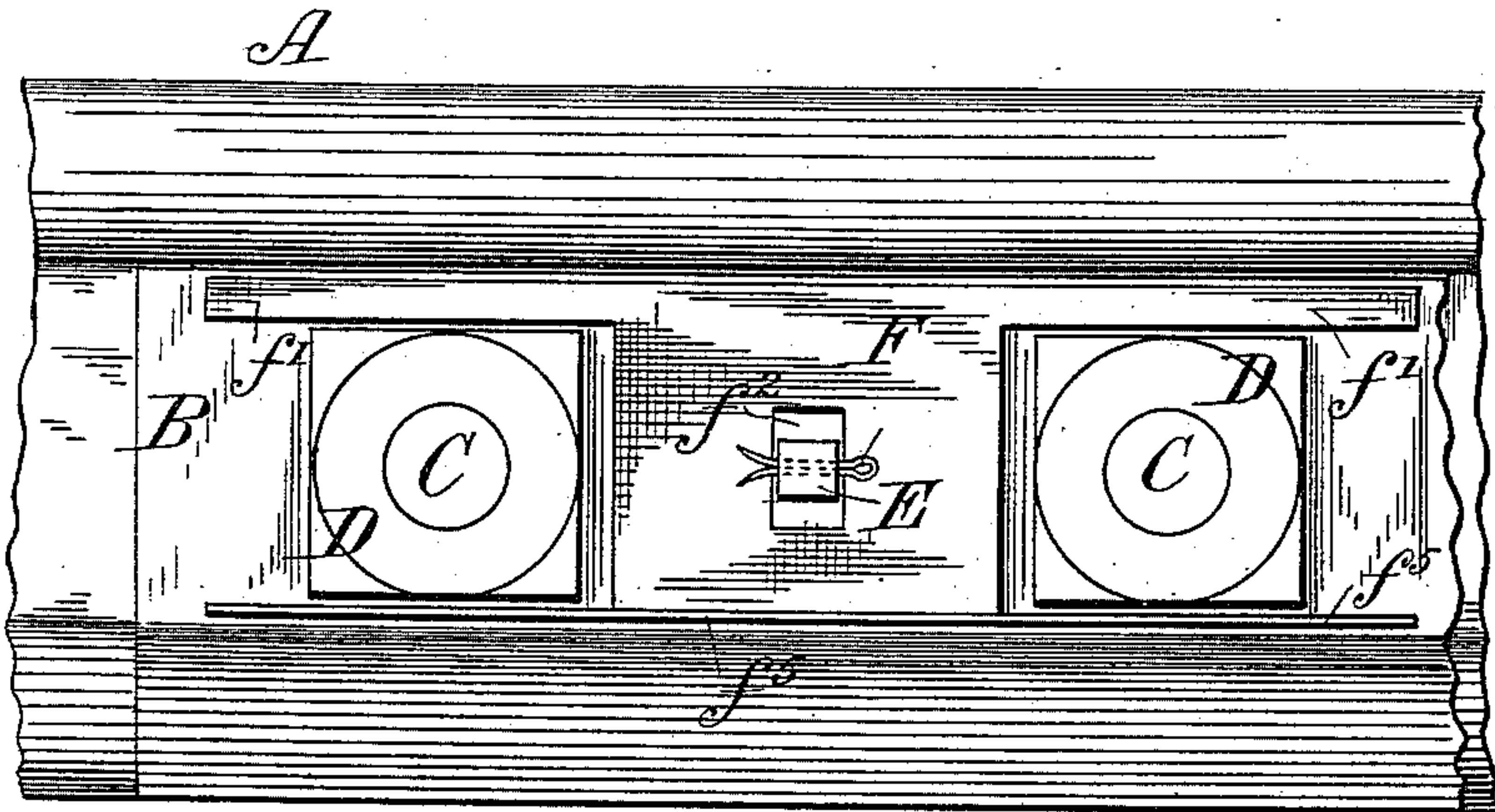


Fig. 3.

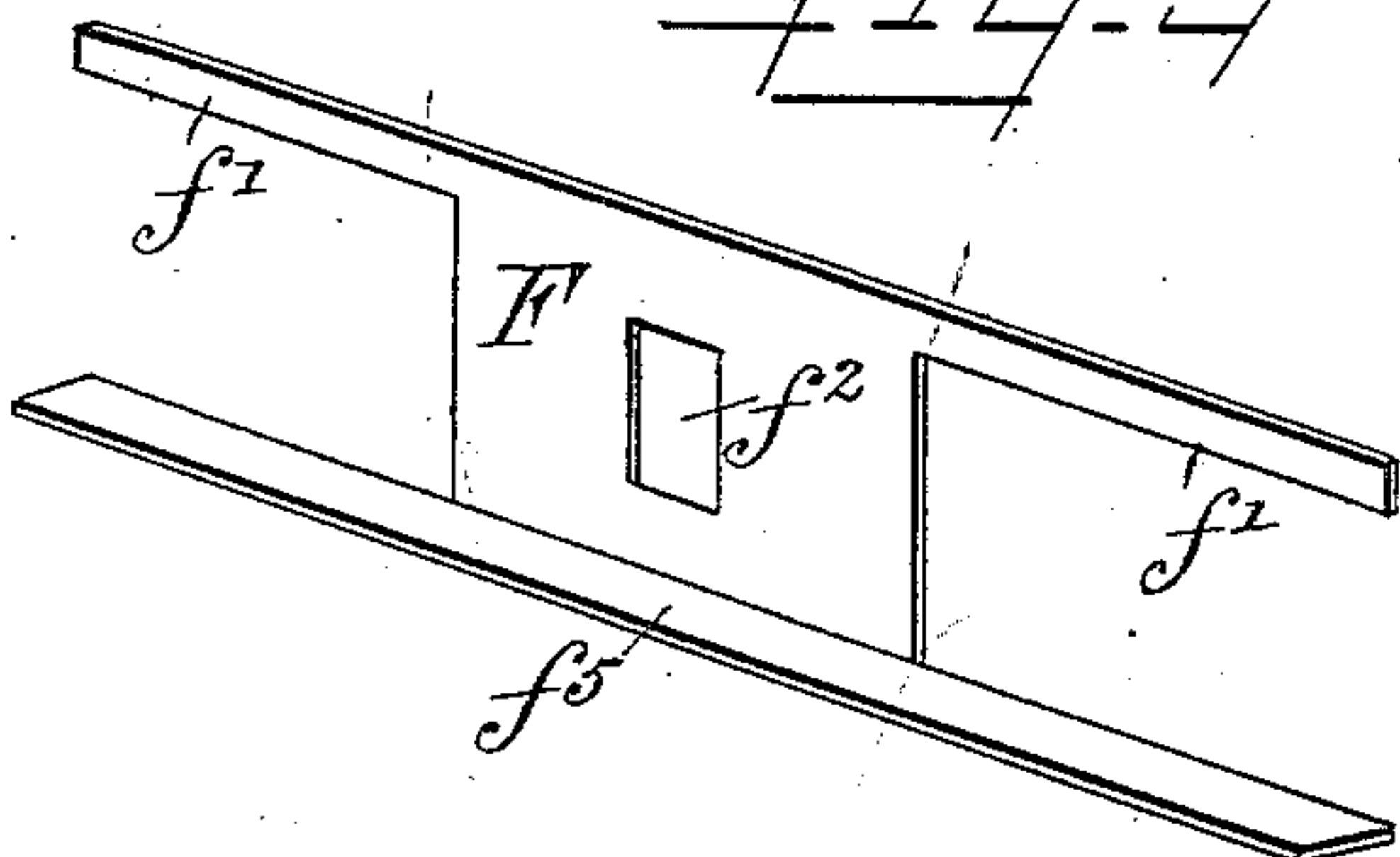


Fig. 4.

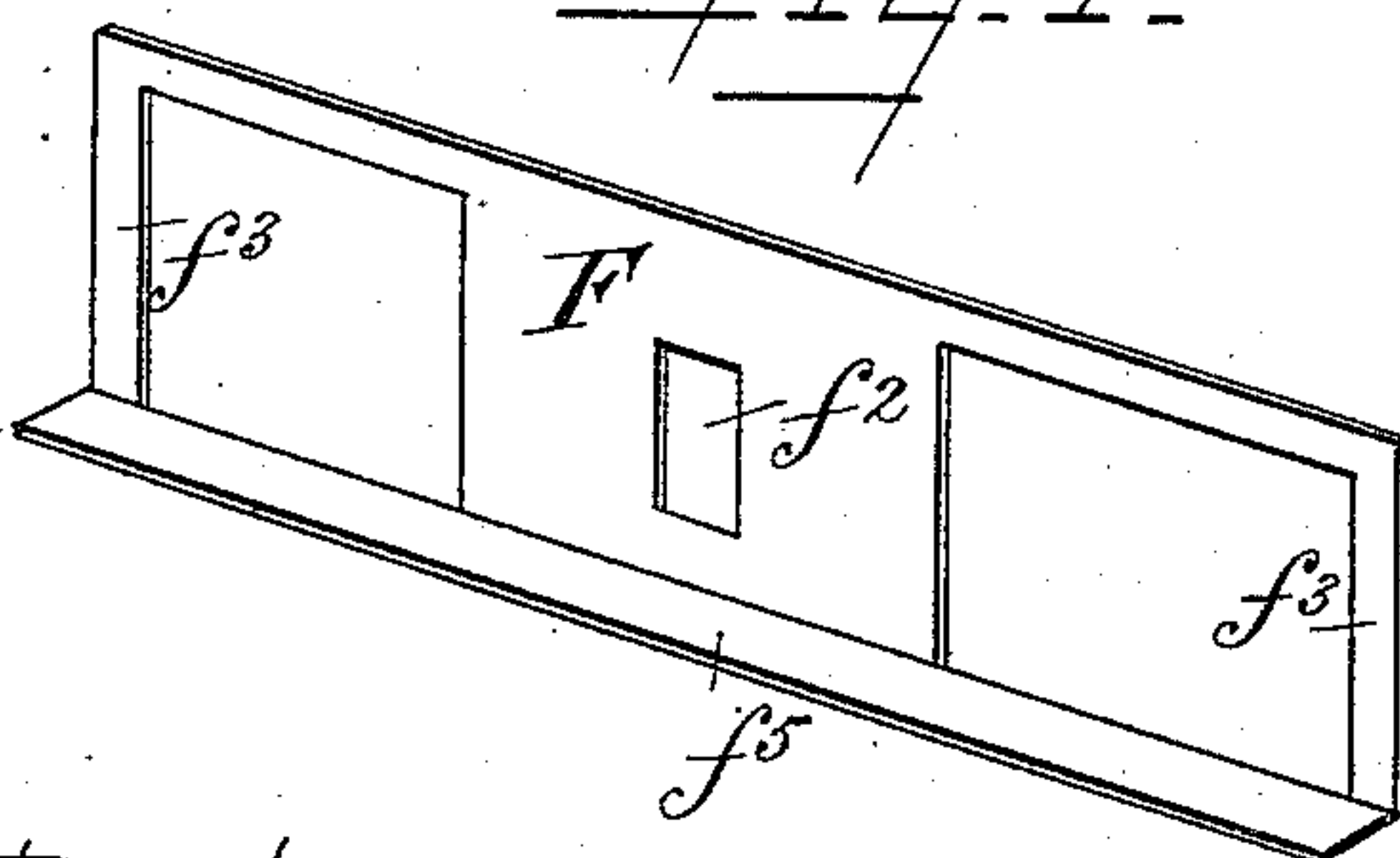
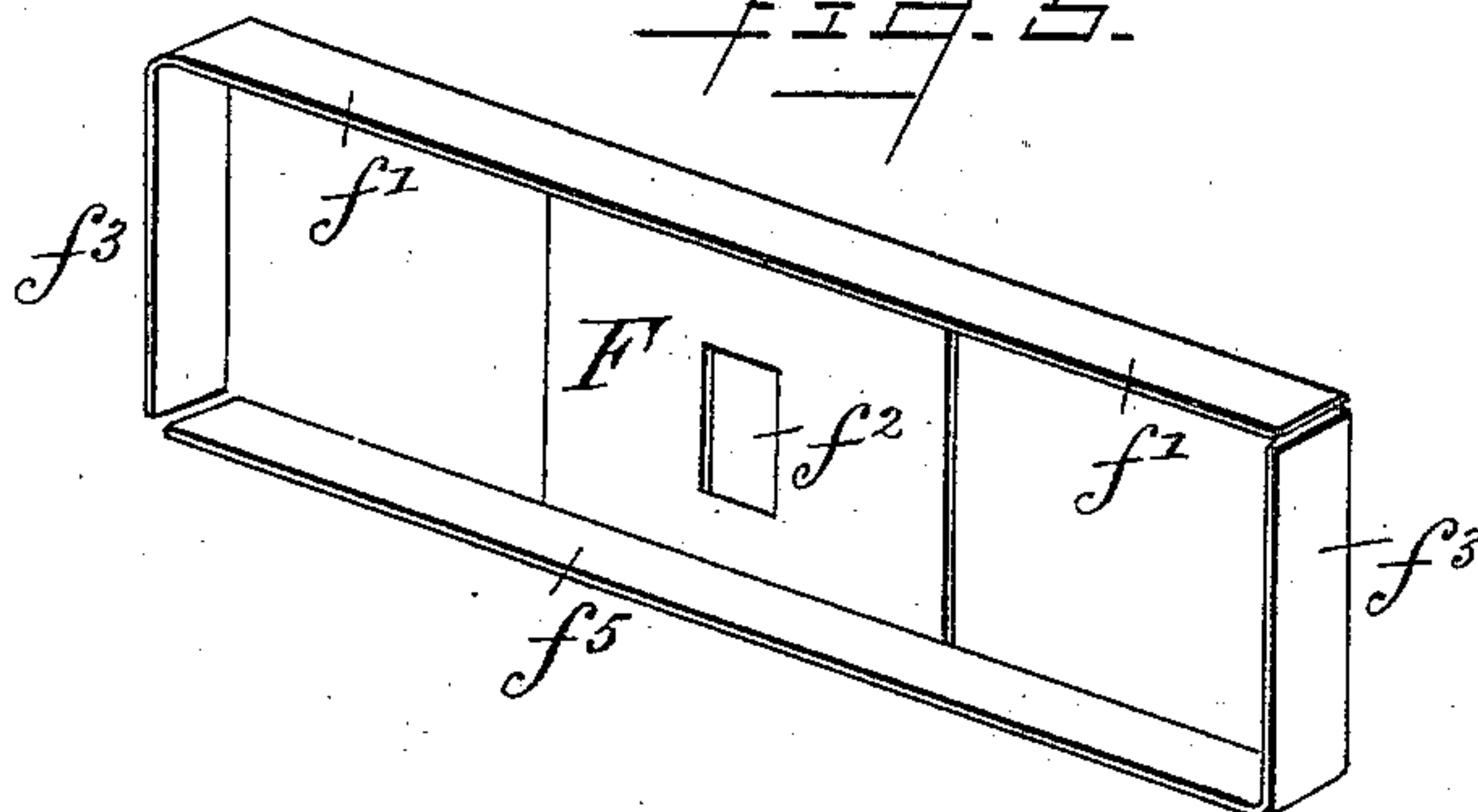


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDWIN CECIL ROLLS, OF CHATHAM, ONTARIO, CANADA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 379,523, dated March 13, 1888.

Application filed November 9, 1887. Serial No. 254,942. (No model.)

To all whom it may concern:

Be it known that I, EDWIN CECIL ROLLS, of the town of Chatham, in the county of Kent and Province of Ontario, Canada, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full, clear, and exact description of the same.

My object is to provide a locking device for nuts used on rails having fish-plates which bear beneath the upper flange of the rail and extend outwardly beyond the lower flange, resting upon the ties. In this class of fish-plates a very small space is left in practice between the lower edges of the nut and the outwardly-turned flange of the plate, and it is necessary, therefore, that the locking device used shall occupy but very little space at this point. I therefore arrange a locking-plate loosely supported between contiguous nuts, with extensions or projecting arms adapted to partially or wholly surround the nut, with the lower extensions or projecting arms turned at an angle to the body of the plate on the bottom line of the opening formed for the nut, whereby a minimum amount of space is required, and at the same time a broad bearing is formed for the under face of the nut.

In the drawings, Figure 1 is an elevation showing the locking plate in place upon a rail. Fig. 2 is a cross section of same. Fig. 3 is a detached view of the plate, and Figs. 4 and 5 are modifications.

A is the rail, B the fish-plates, C the bolts, and D the nuts. The fish-plates as described have a bearing beneath the rail-head, and at their lower ends bear against the ties. Upon a stud, E, projecting from the fish-plate or an intermediate plate, I support my locking-plate F loosely by a central elongated slot, f^2 , which allows the plate to be used on rails varying in width or in the position of the bolt relatively to the lower bearing. The plate, by reason of its connection, being adapted to all ways rest upon the lower bearing. A simple holding-pin retains it from displacement outwardly. The plate shown is made to lock two contiguous nuts, but may of course be arranged for one. The plate has arms f' projecting from the body at the top, and these arms may

be provided with the downward extensions f^3 , if desired, as shown in Fig. 4, or be made without them, as in Figs. 1 and 3. These arms are adapted to bear upon the upper side of the nuts and to keep them from turning. As this class of fish-plates occupies most of the space between the rail-flange and the nuts, the lower locking flange or arm must be of minimum width, and I provide for this by bending the lower flange, f^5 , at right angles, or to follow the angle of the fish-plate on the line of the lower edge of the opening for the nut. If desired, the top and ends may be turned up in like manner, as in Fig. 5. In this construction the lower extensions of the locking-plate may be inserted beneath the nuts of any splice without regard to the space between the nuts and the flange below, and the loose connection of the plate F with the fish-plate always insures its dropping to a steady and firm seat on the lower flange.

The space between the upper and lower arms of the locking-plate is greater than the diameter of the nuts, so that when used upon contiguous nuts the plate allows for variation in the position of the nuts, and as the central slot is also greater in extent than its supporting-post it will be seen that the plate has free vertical movement within certain limits, and will always seat itself, whatever the position of the nut or nuts.

I claim as my invention—

1. A nut-lock consisting of a base-plate loosely supported so as to have limited vertical movement, and provided with lower arms extending beneath the nuts and arranged at an angle to the body of the base-plate, substantially as described.

2. A nut-lock consisting of a base-plate having an elongated central slot and loosely supported so as to have vertical movement, a post for supporting the same, upper bearing-surfaces for the nuts, and a lower bearing-flange therefor, bent at an angle to the body of the plate and on the line of the opening for the nut, substantially as described.

EDWIN CECIL ROLLS.

Witnesses:

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