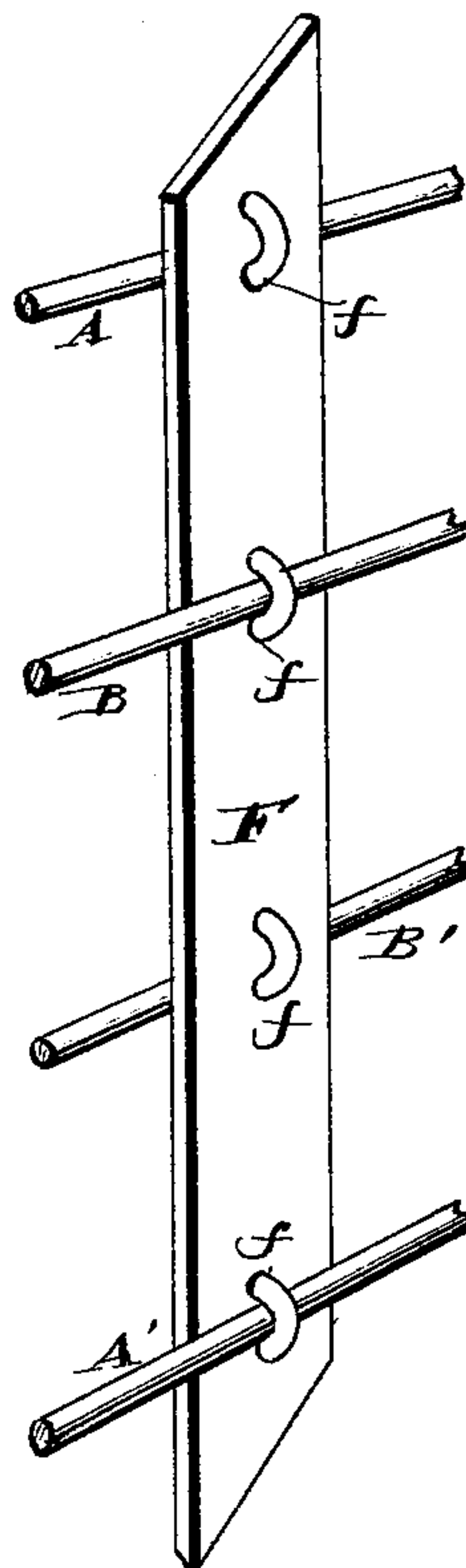
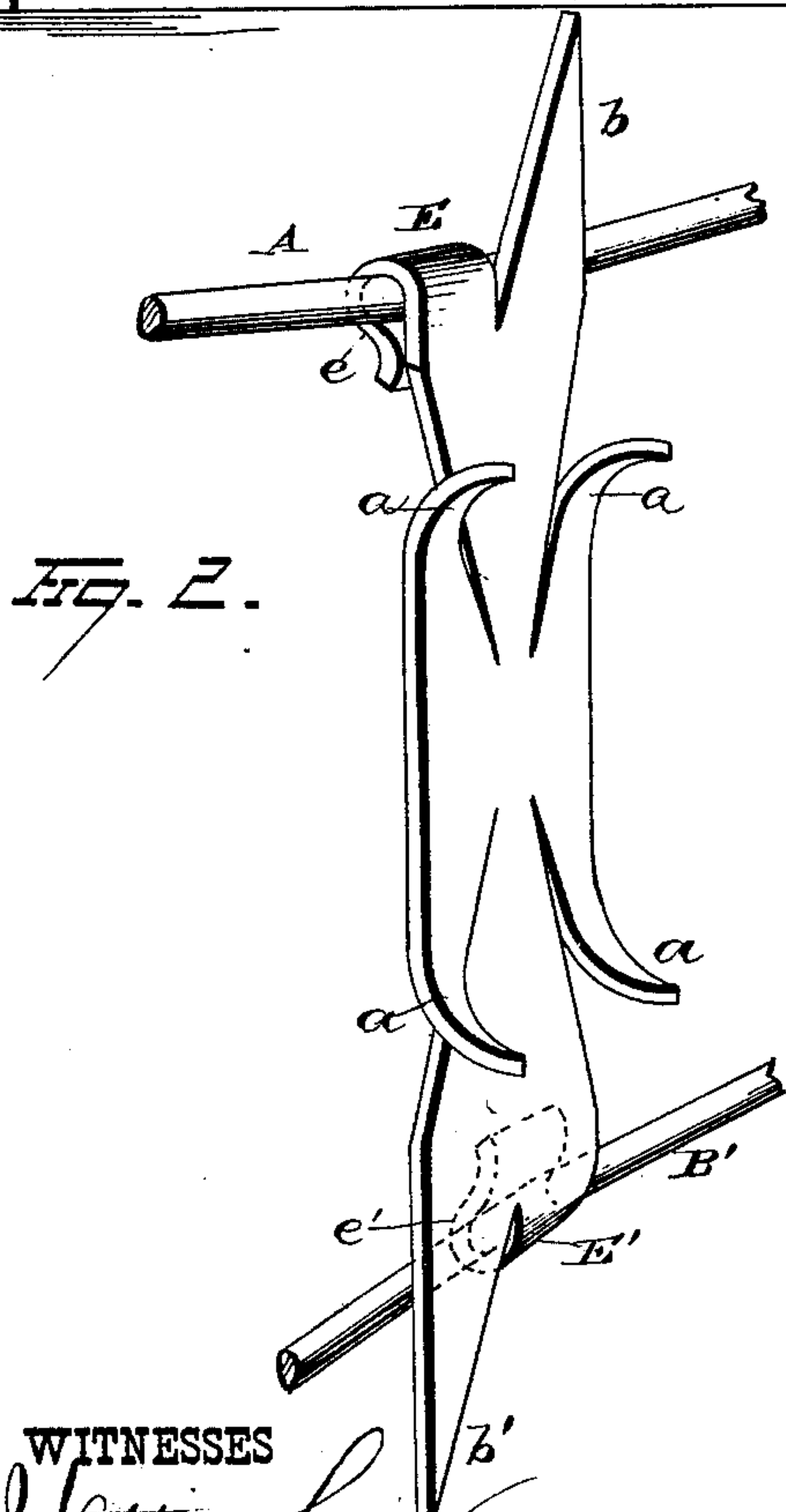
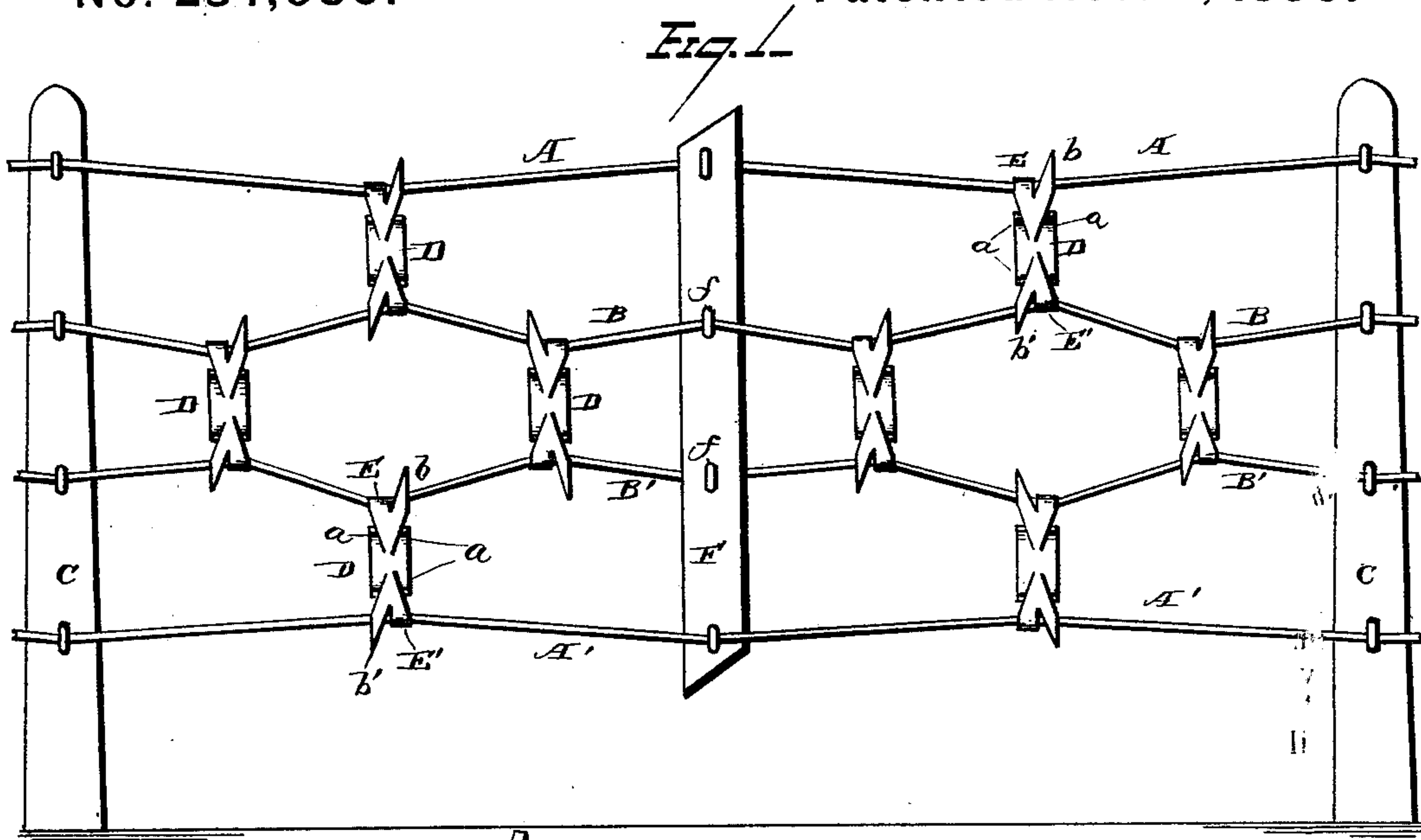


(No Model.)

T. SHUMAN.
Barbed Wire Fence.

No. 234,080.

Patented Nov. 2, 1880.



WITNESSES
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UNITED STATES PATENT OFFICE.

THOMAS SHUMAN, OF CORNING, IOWA, ASSIGNOR OF ONE-HALF TO GEORGE A. MORSE, OF SAME PLACE.

BARBED-WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 234,080, dated November 2, 1880.

Application filed March 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SHUMAN, of Corning, in the county of Adams and State of Iowa, have invented certain new and useful
5 Improvements in Barbed-Wire Fences; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same,
10 reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in
15 barb-wire fences, this invention relating especially to an improvement on my invention covered by Letters Patent No. 211,349, dated January 14, 1879, the object being to provide the several strands of wire composing a fence with
20 barbed stays or strips which may be readily secured to the wires and serve to prevent the fence from being broken down by the cattle within the inclosure, said strips also serving to tighten the wires of the fence and form a
25 durable structure.

To this end my invention consists in the several details of construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

30 In the accompanying drawings, Figure 1 is a side elevation of a fence embodying my invention. Fig. 2 is a detached and enlarged view of one of the barbed stays or strips secured in place. Fig. 3 is a detached view of the supplemental slat, showing the manner in
35 which it is secured to the fence.

A A' represent the upper and lower wires, and B B' the middle wires of a fence, suitably secured, at the desired distance apart, to the
40 fence-posts C. To the adjacent wires are secured the barbed stays D, the latter being of the following construction: Each stay is composed of a flat iron or steel strip having any desired number of side barbs, *a*, formed on its
45 opposite edges by subjecting the strip to shearing cuts and then bending the severed portions laterally outward from the strip to form the barbs, which latter may be made to project from one side only of the strip or stay, leaving
50 the opposite side smooth; or the barbs may

be made to project in opposite directions from the stay. The opposite ends of the stays are formed with large end barbs, *b b'*, which are preferably made at their larger ends of about one-half the width of the stay or strip. The
55 opposite ends of the stays are also provided with spring-attaching loops *E E'*, formed by bending the rectangular strips of which they are composed over against the stay or in close
60 proximity thereto, and bending the end of the loop outwardly, as at *e e'*, thus forming a spring-loop for the ready attachment of the stays to the wires without the employment of any tools
for such purpose. In attaching the stays to the fence-wires the latter are allowed a little
65 slack, and the stays attached by forcing the two adjacent wires toward each other and inserting the wires within the spring-loops of the stays, as illustrated in Fig. 1. This form
70 of barb attachment not only serves to tighten the fence-wires, but it also prevents the displacement of the barbed stays, as they are retained against lateral or vertical displacement
by the strain of the wires on their spring-loops. Another advantage resulting from this construction
75 of barbed fence is, the wires are prevented from breaking by reason of undue contraction when the wires are perfectly straight, and are strained to a high tension in putting
80 up the fence. It is often the case that the wires are broken by their contraction in cold weather.

In my improved construction of fence sufficient slack is given the wires in the first instance, so that they may shorten slightly by contraction without danger of breakage, but
85 simply cause a firm hold upon the looped ends of the barbed stays.

To preserve the proper space between the
several wires of a fence-panel, I employ metal
or wood slats F, in any desired number, between
90 the two posts of every panel, the slats being secured to the wires at equal distances from each other, or at relative distances from each other and the two posts. Slat F may be
secured to the wires in a variety of ways; but
95 the preferable plan of attachment is in the employment of staples *f*, in which the wires are inserted, and the staples then secured to the slat.

It will be observed that the spaces between 100

the wires at their points of attachment to the fence-post are of greater width than the length of the barbed stays, and hence the wires must be drawn toward each other for securing the
5 barbed stays in place, and when the latter are attached to the wires they are prevented from displacement.

I am aware that it is not new, broadly considered, to provide snap-hooks for the purposes
10 of removably securing one device to another. Further, I am aware that I am not the first to provide a wire fence with stays of less length than the width of the spaces between the wires at their points of attachment to the fence-
15 posts, and hence I make no broad claim to such features of construction in a wire fence.

In my former patent, No. 211,349, of January 14, 1879, I provide stays with hooked ends for their attachment to the wires, and hence
20 I make no claim in this case to such construction.

My present invention consists in the combination, with the wires of a fence, of barbed stays of less length than the width of the
25 spaces between the wires at their points of at-

tachment to the fence-posts, said barbed stays provided on opposite ends with spring-loops E E, having outwardly-bent ends *e e'*, and a slat, F, attached to the wires between the fence-posts.

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

The combination, with the wires of a fence, of a slat, F, attached to the wires between the fence-posts and serving to retain the wires at proper distances apart, and barbed stays of less length than the width of the spaces between the wires at their points of attachment to the fence-posts and slats F, said barbed
35 stays provided at their opposite ends with spring-loops E E, having outwardly-bent ends *e e'*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

THOMAS SHUMAN.

Witnesses:

D. A. MCNAIR,
J. W. HOLMES.