

(No Model.)

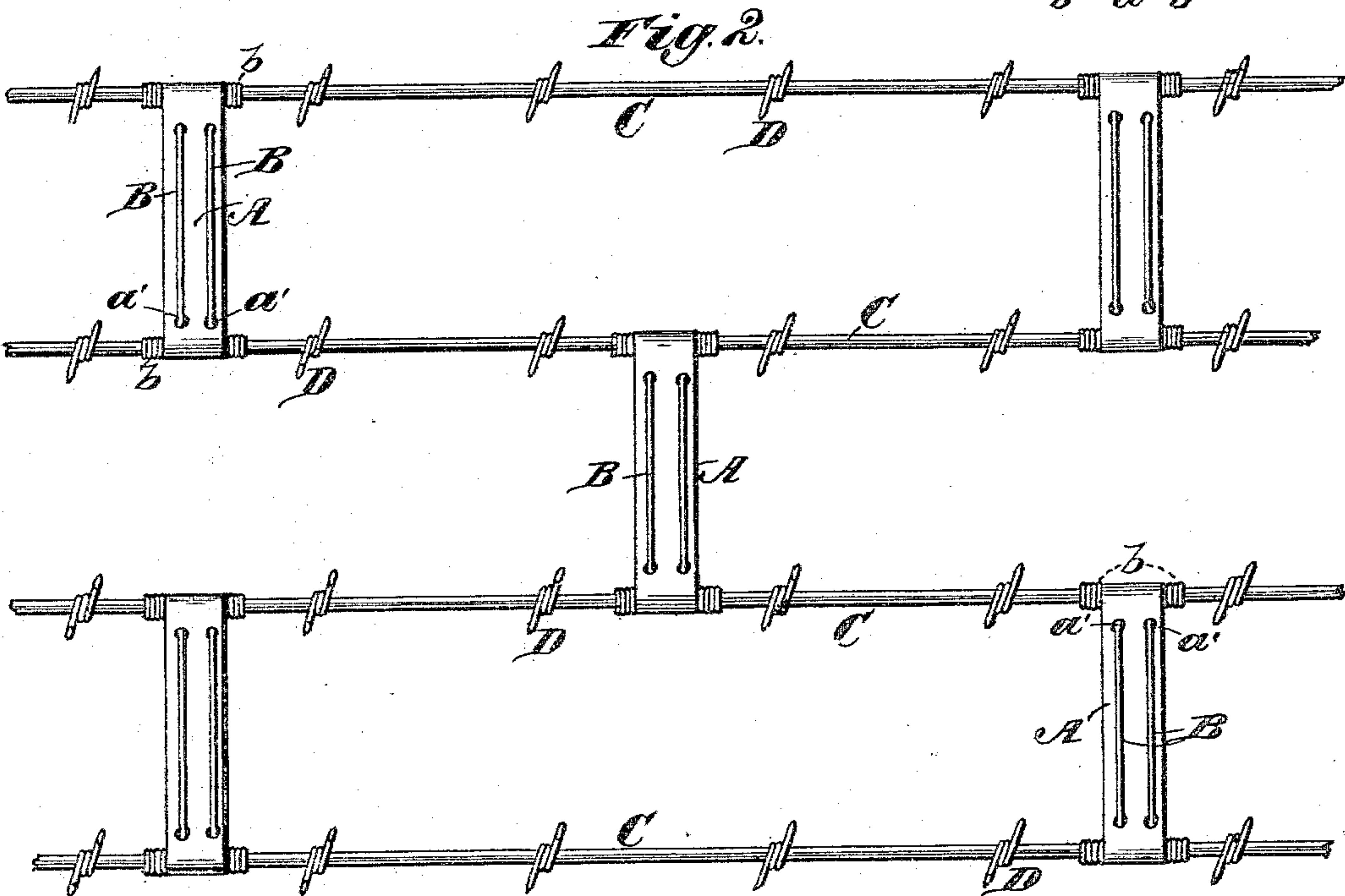
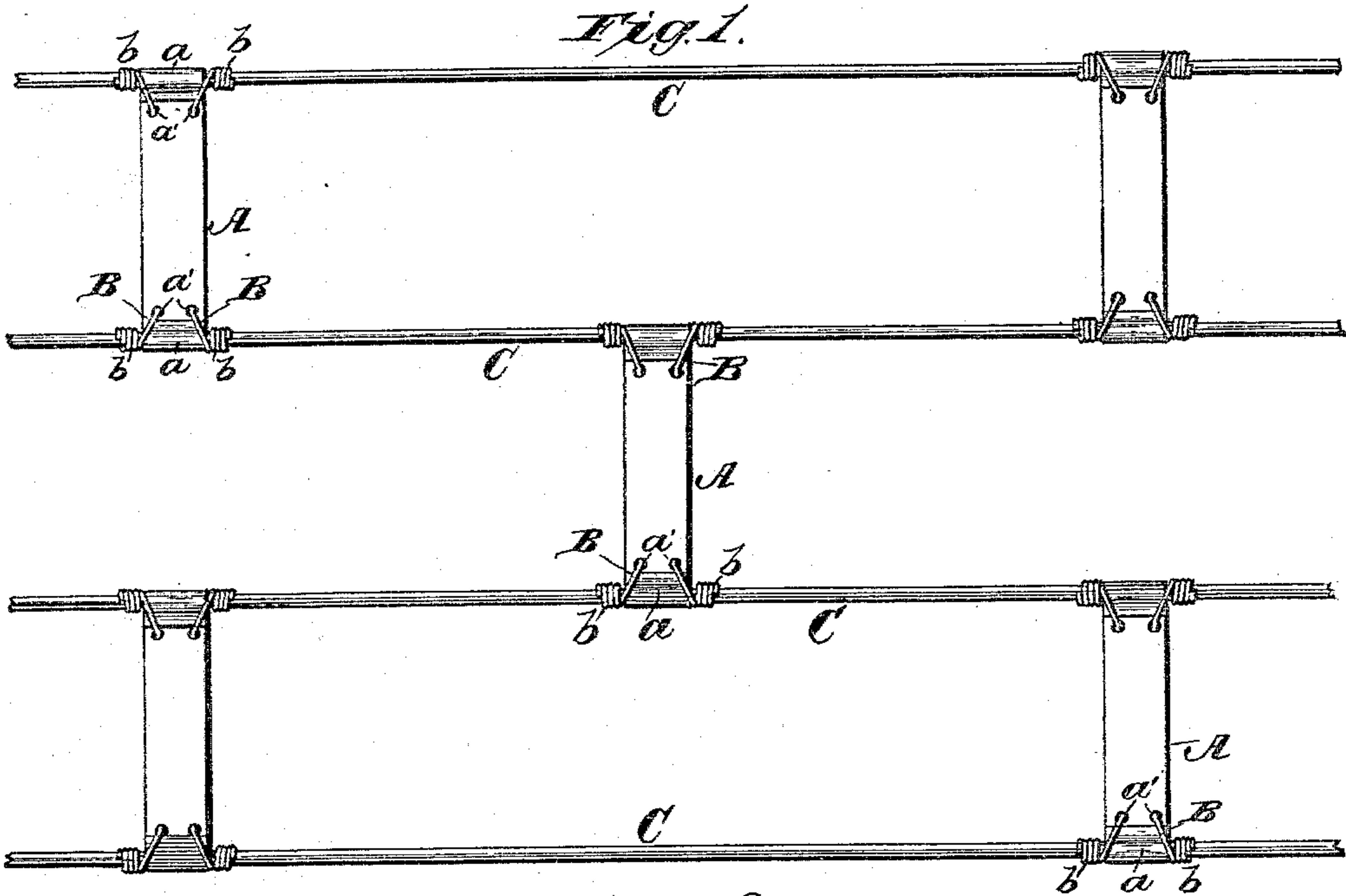
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S. F. DUNCAN.

STAY PIECE AND GUARD FOR WIRE FENCES.

No. 356,711.

Patented Jan. 25, 1887.



Witnesses.  
Robert Everett.

J. A. Rutherford

Inventor.  
Sylvester F. Duncan.

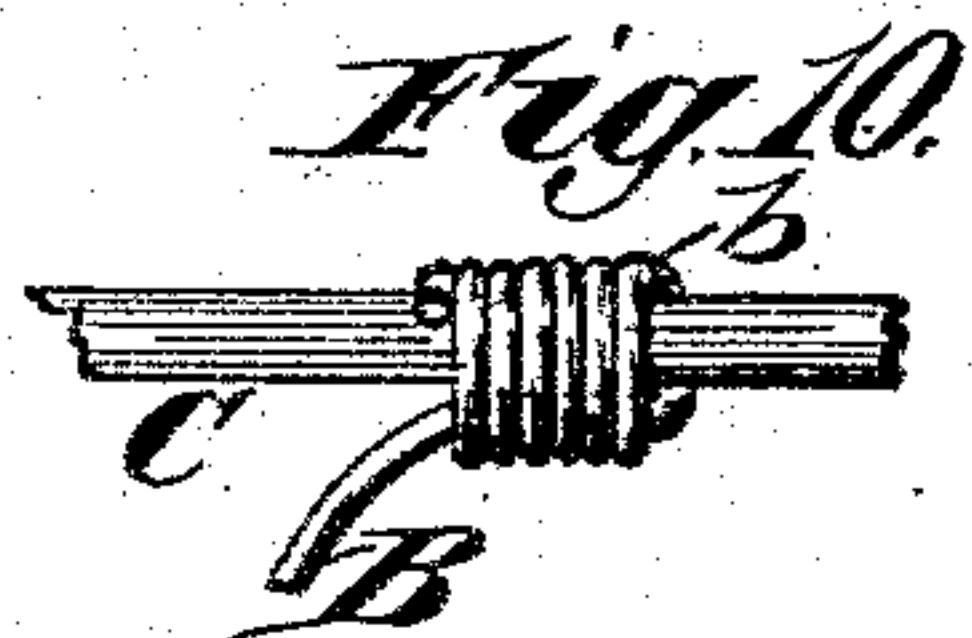
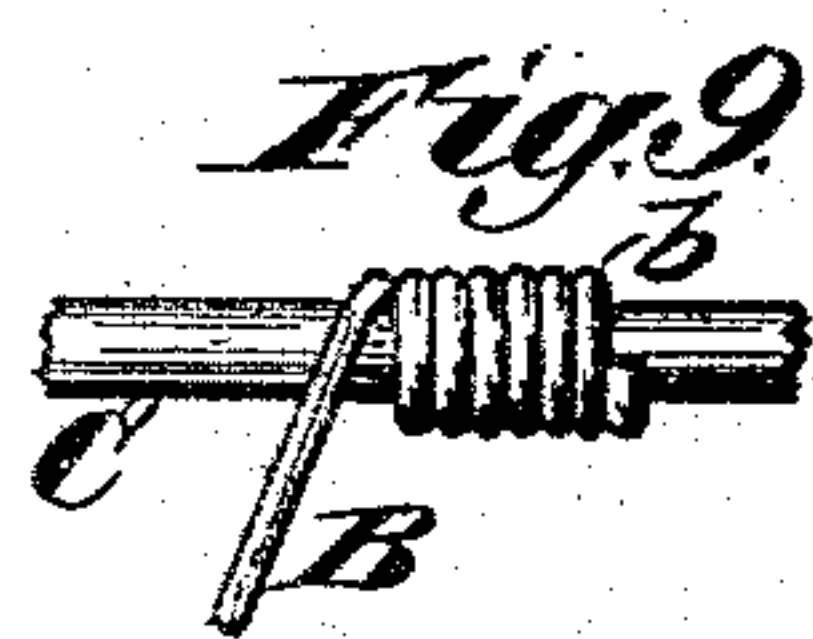
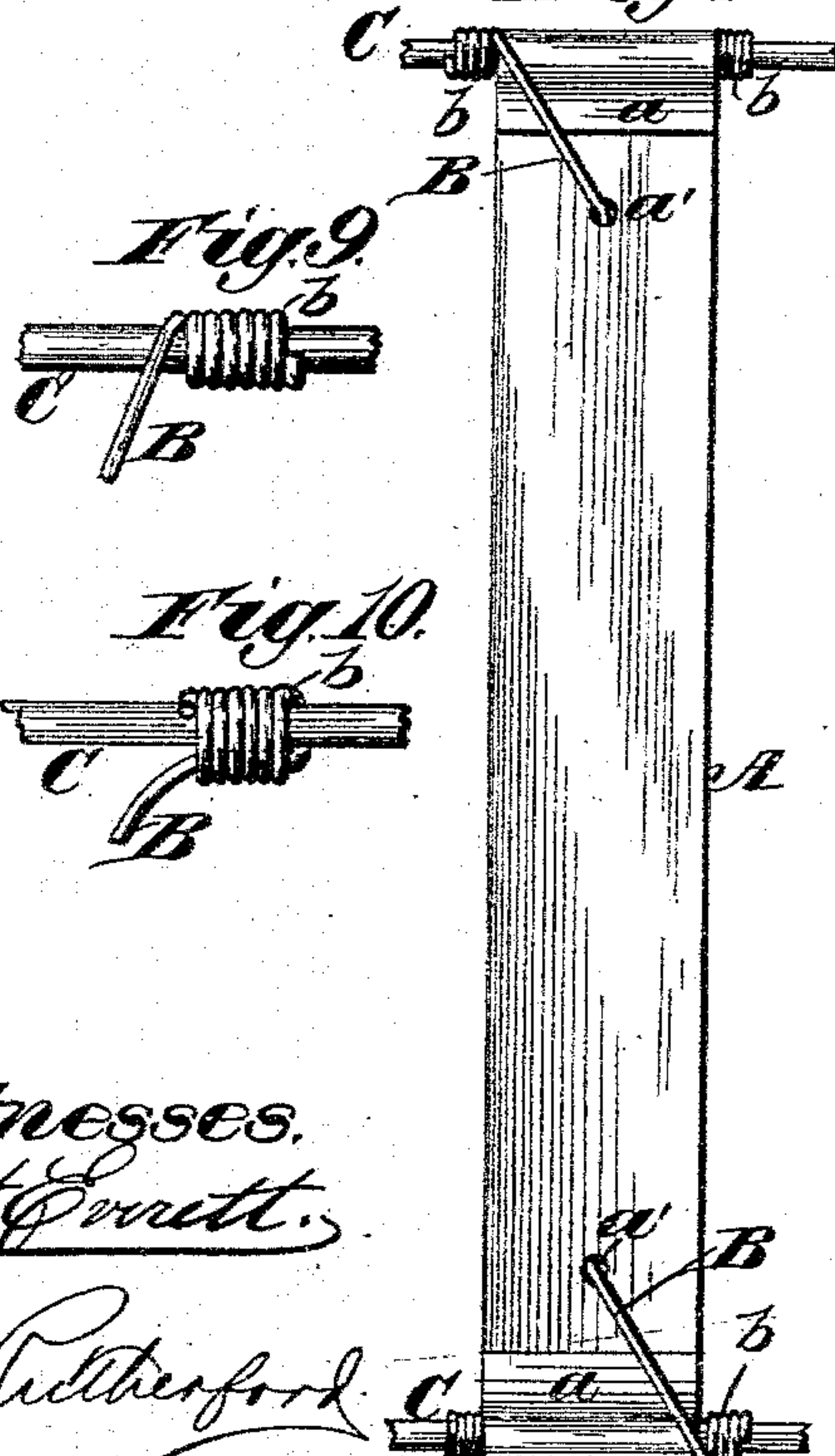
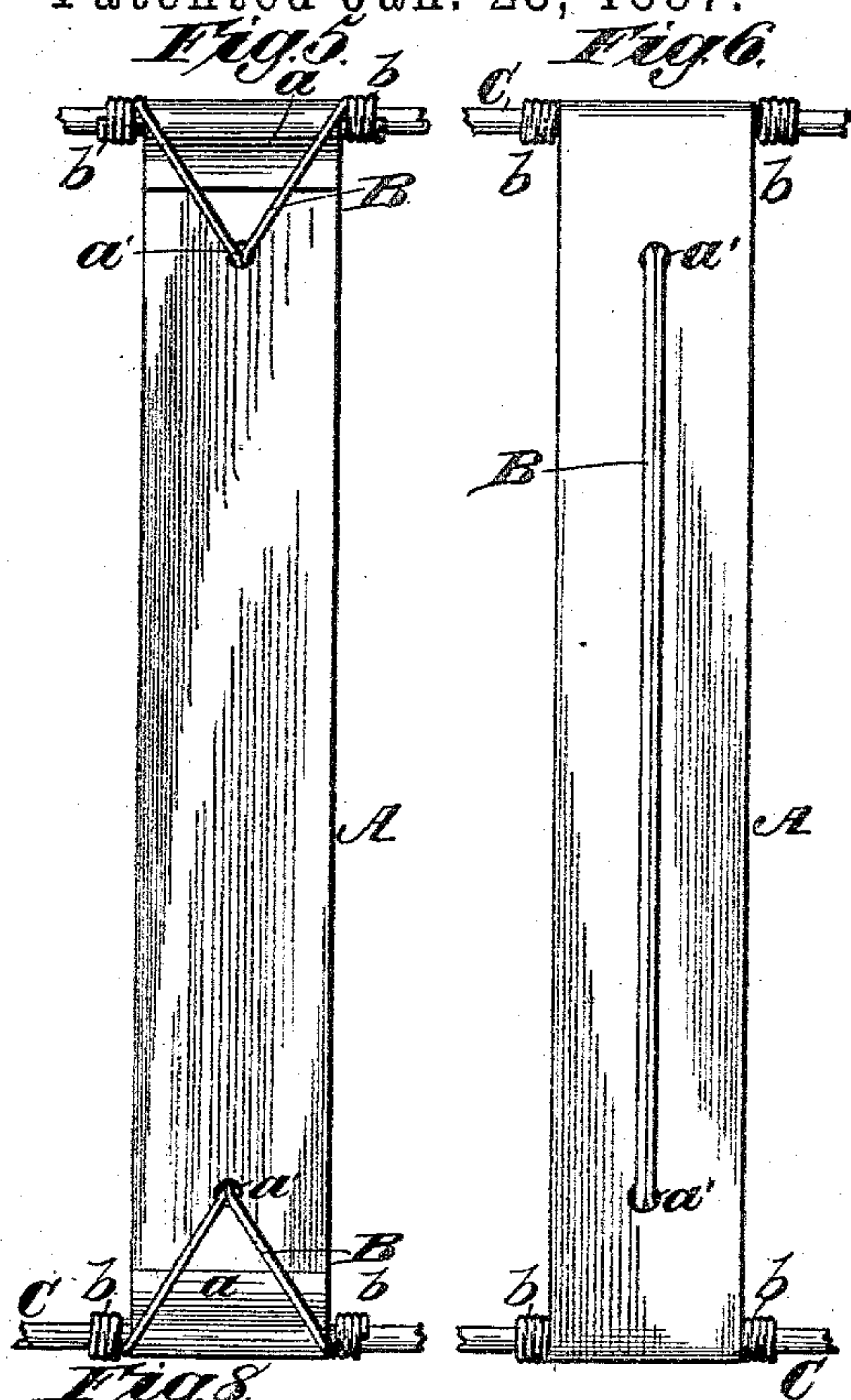
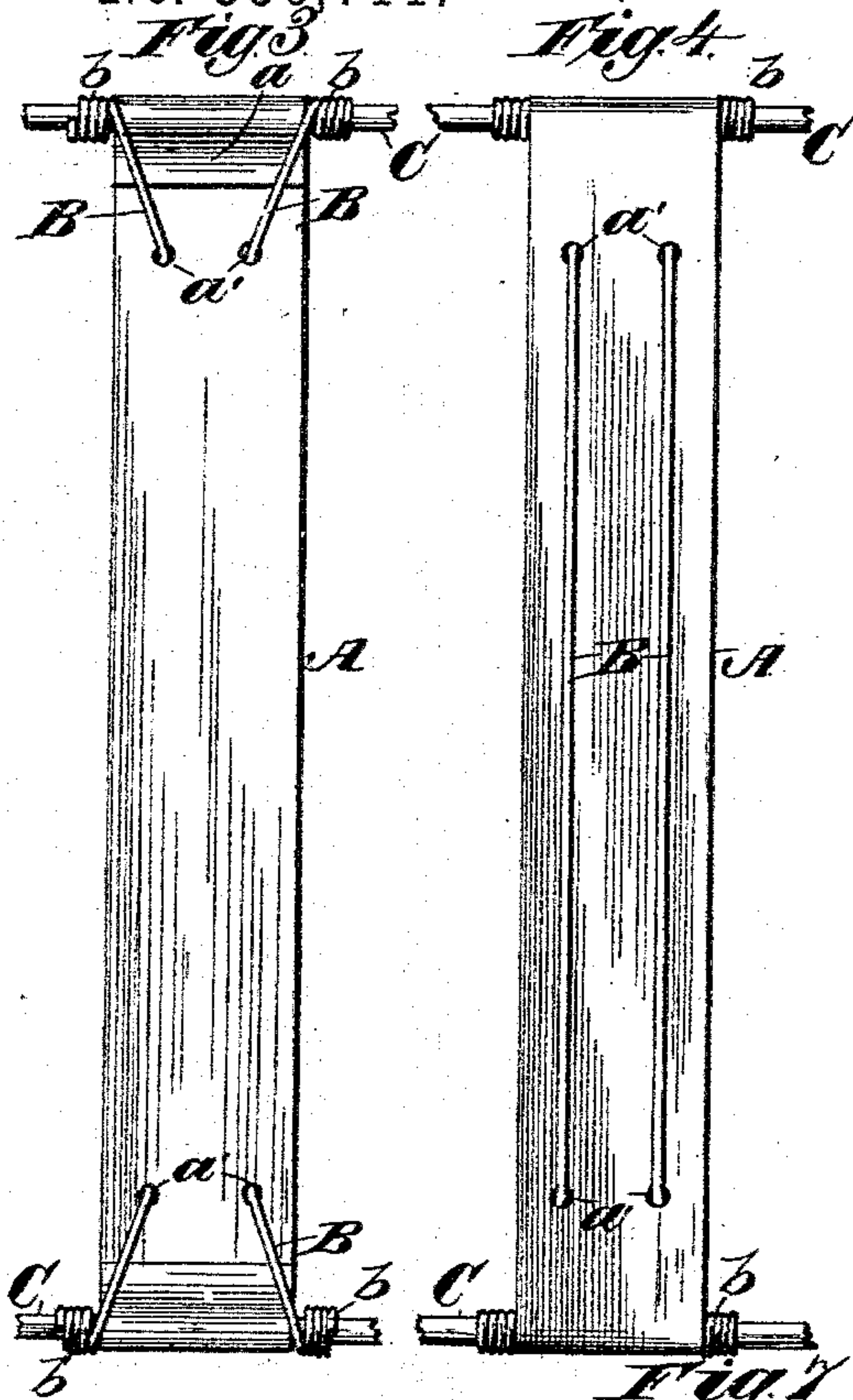
By James L. Norris  
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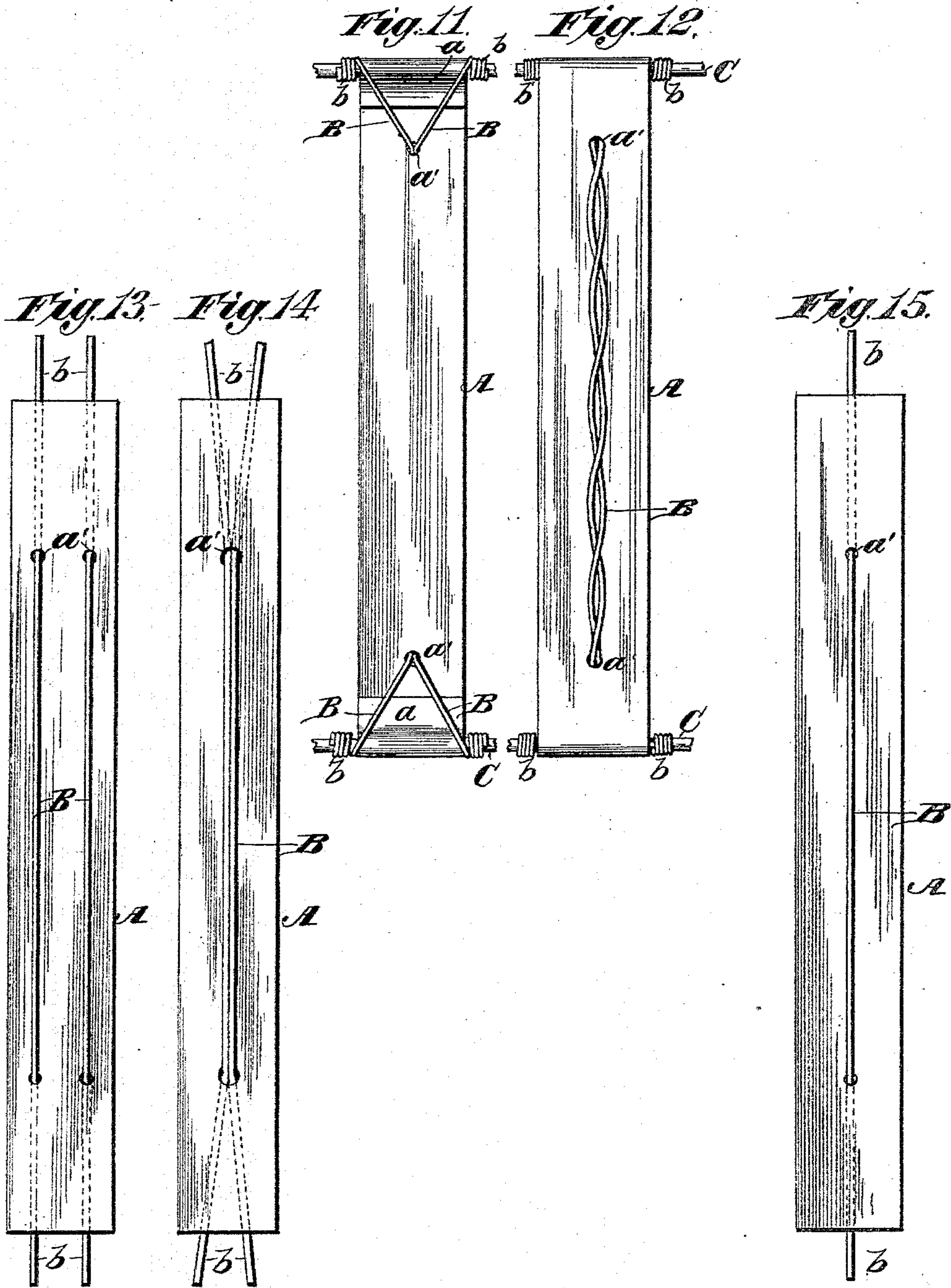
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*Robert Everett,*  
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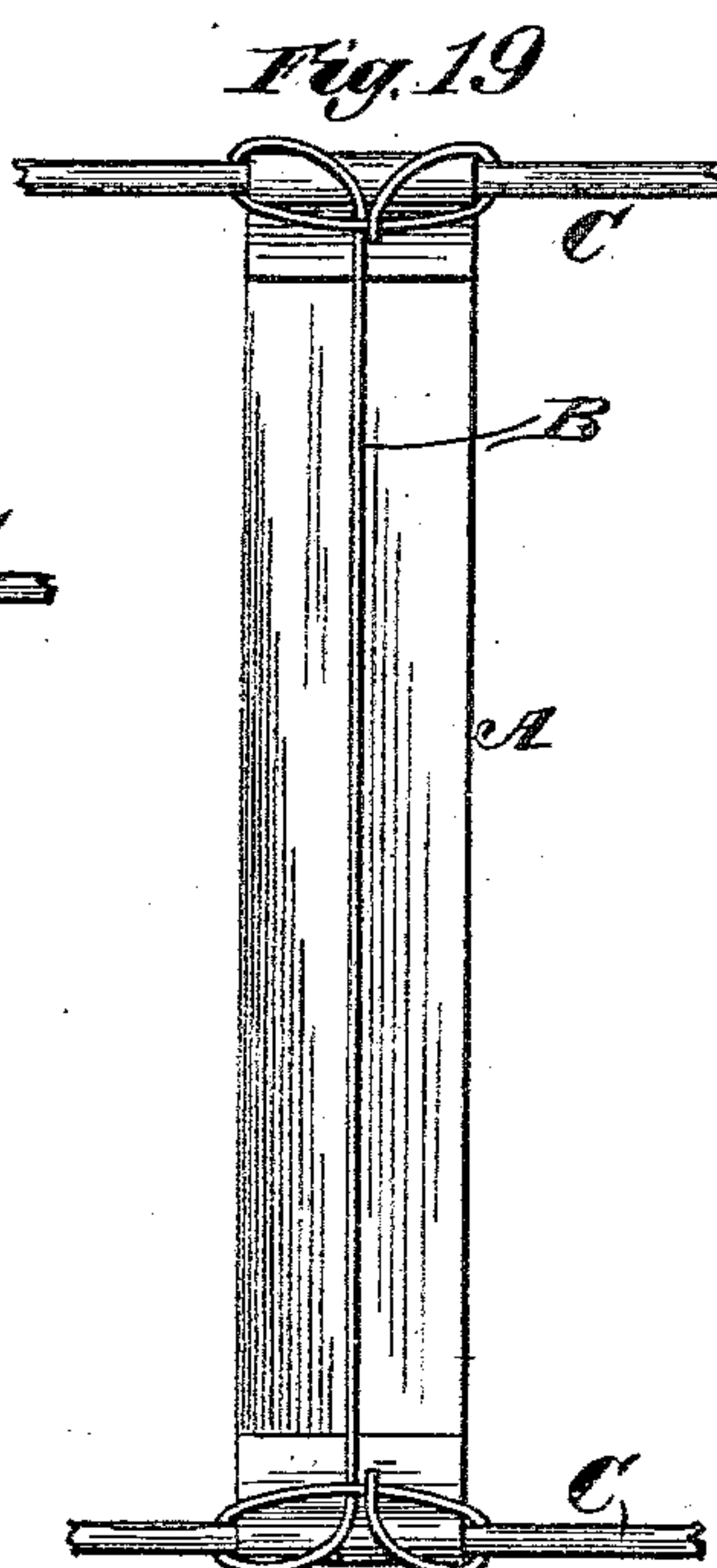
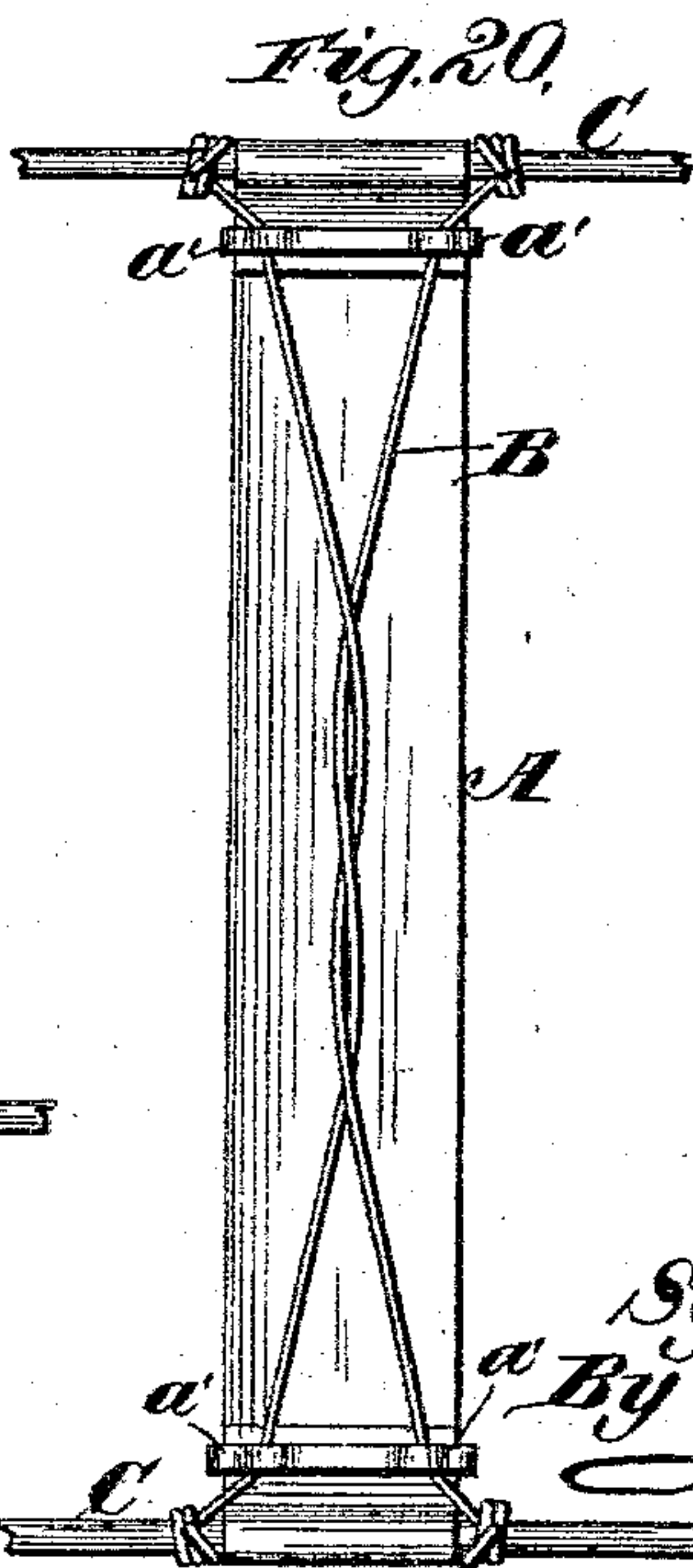
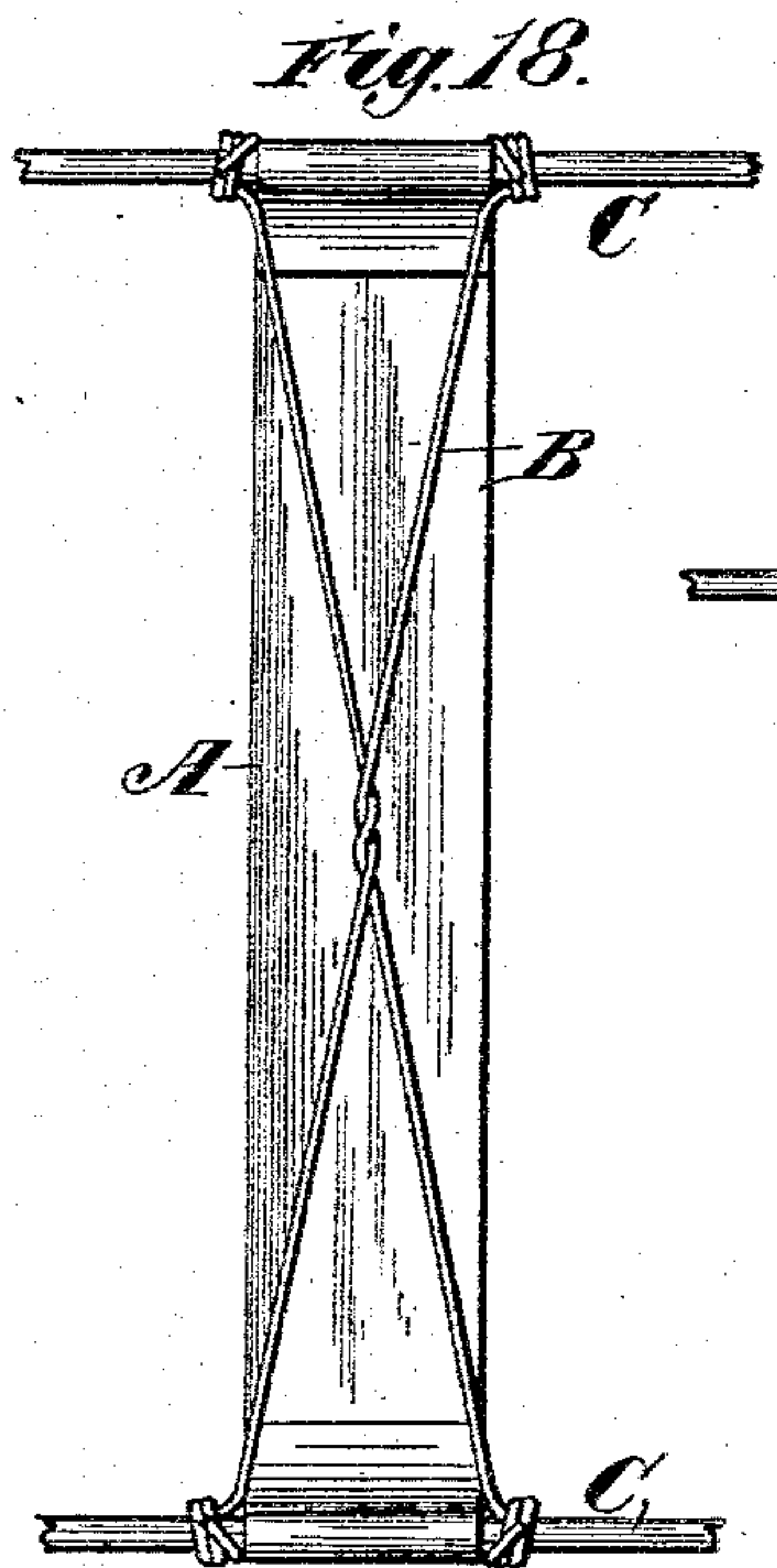
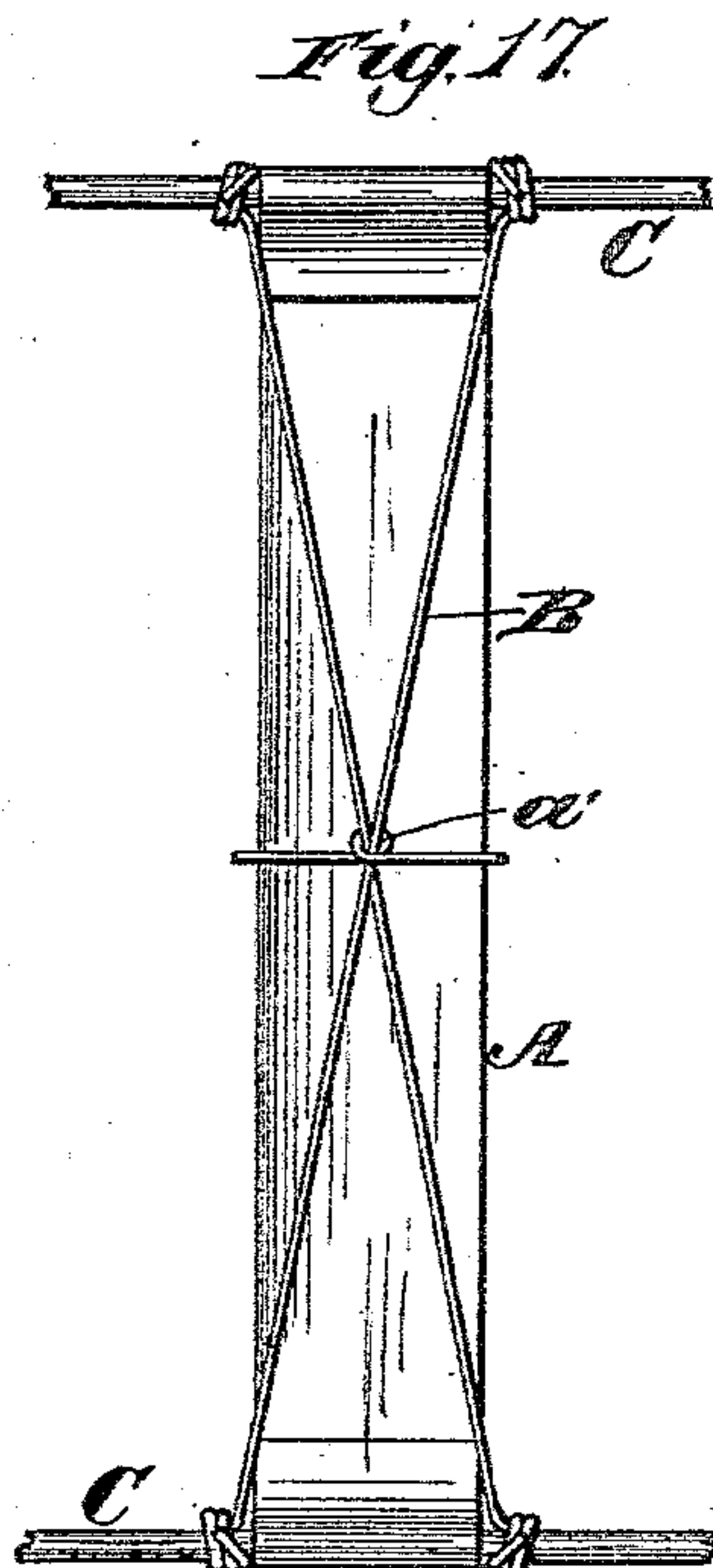
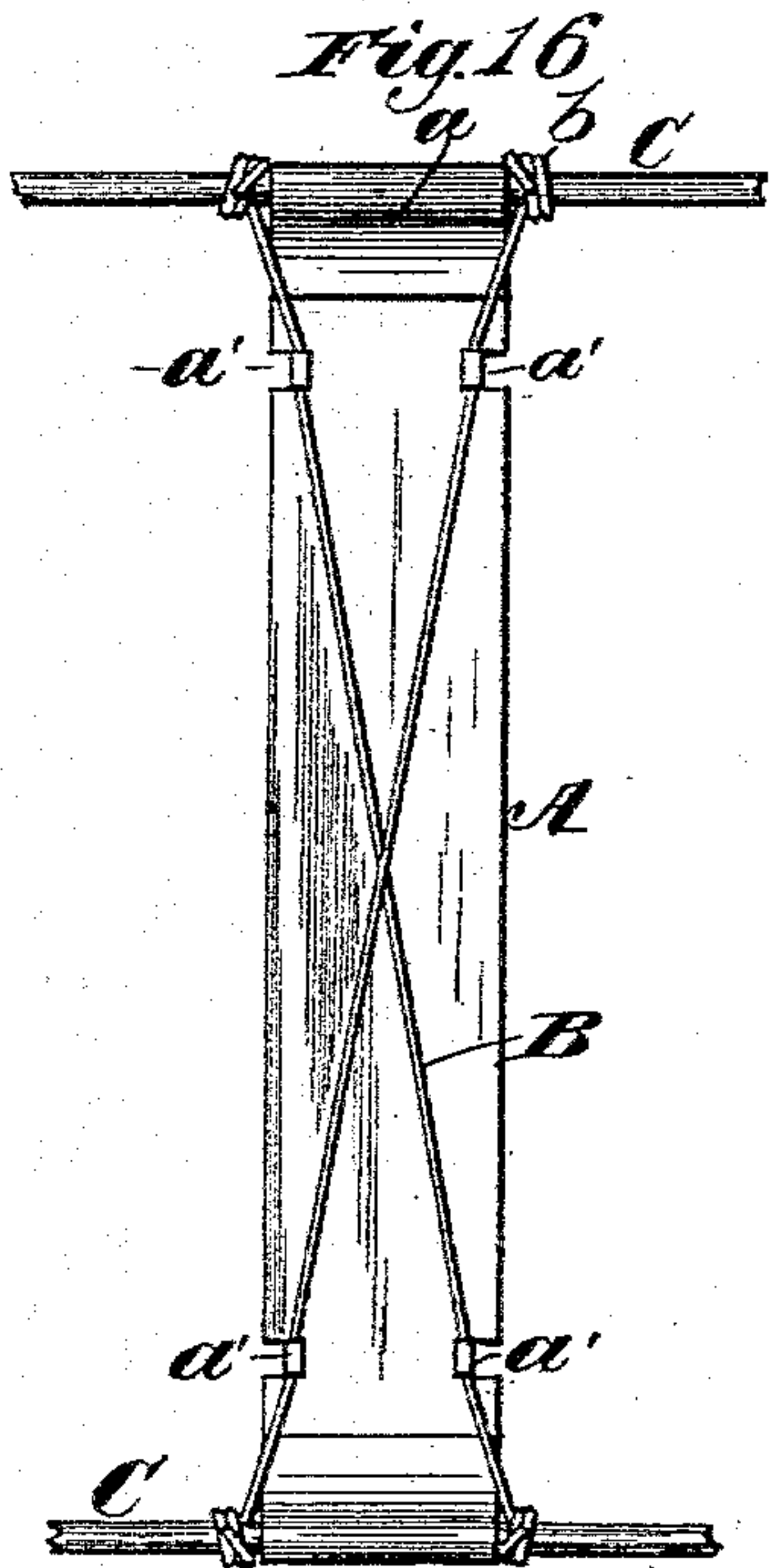
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*Sylvester F. Duncan.*

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# UNITED STATES PATENT OFFICE.

SYLVESTER F. DUNCAN, OF CHICAGO, ILLINOIS.

## STAY-PIECE AND GUARD FOR WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 356,711, dated January 25, 1887.

Application filed August 5, 1886. Serial No. 210,093. (No model.)

*To all whom it may concern:*

Be it known that I, SYLVESTER F. DUNCAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Stay-Pieces and Guards for Wire Fences, of which the following is a specification.

This invention has for its objects to construct a stay-piece and guard of light material which can be readily applied to the runners of a wire fence, and which, when applied, will add to the strength of the fence and maintain the runners in proper relations one with the other, and at the same time give all of the flexibility required for the fence as a whole; and it consists in the novel construction and combination of parts, hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an elevation showing the invention applied to a plain wire; Fig. 2, an elevation showing the invention applied to a barbed wire; Figs. 3 and 4, details, being views of opposite sides of the stay-piece and guard in one form of construction; Figs. 5 and 6, similar views showing another form of construction; Figs. 7, 8, and 15, similar views showing another form of construction; Fig. 9, a detail showing a wrap for the stay-piece wire wound around the runner; Fig. 10, a detail showing a modification in the wrap of the stay-piece wire around the runner; Figs. 11 and 12, similar views to Figs. 3 and 4, showing a cord of twisted wire; Figs. 13 and 14, views showing the stay-piece and guard formed ready for attachment to the runner, the figures showing, respectively, different modifications in the construction. Figs. 16, 17, 18, 19, and 20 are modified forms of applying the invention.

In said drawings, A designates a strip of thin metal, of sufficient length to span the space between two runners of a wire fence and have each end overlap and pass around each runner. This strip may be of any desired width, and is to be provided with a hole or holes or eyes, *a'*, at each end for the passage of the coacting cord, which combines with the metal strip to make a complete stay and guard.

B is the cord, which may be arranged in relation to the metal strip in various shapes.

As shown in Figs. 1, 2, 3, and 4, two wires are used to form the cord, the wires being at some distance apart and each wire passing through holes *a'* at opposite ends of the metal strip, as shown in Figs. 3 and 4, and each wire is of a length sufficient to extend from runner to runner and leave an end to be wound around the runner.

As shown in Figs. 5 and 6, the cord is formed of two wires lying side by side, the wires passing through a hole, *a'*, at each end of the strip A, and being of sufficient length to run from runner to runner and for the ends to wind around the runners.

As shown in Figs. 7 and 8, the cord is formed of a single wire, located centrally crosswise of the strip and passing through holes *a'* at each end of the strip and of sufficient length to have the ends extend to and be wound around the runners.

As shown in Figs. 11 and 12, the cord is formed of two wires, twisted together for that portion which lies adjacent to the metal strip, the wire passing through holes *a'* at each end of the strip, and the two strands, after passing through the hole, being divided and the ends carried to and wrapped around the runners; and it is evident that other modifications in the combining of the thin metal strip and the cord could be used without departing from the essential feature of the invention, which is the production of a stay and guard from a combined metal strip and cord.

As shown in Fig. 16, the cords are crossed and passed through eyes *a'* in the strip, by cutting lips from the edges of the strip and turning them over to form eyes and winding the wires around the runners C.

As shown in Fig. 17, the cords B are crossed and passed through eyes *a'*, formed by wrapping a piece of wire around the strip, as shown.

As shown in Fig. 18, the cords B are twisted, as shown, and then wound around the runners.

As shown in Fig. 19, a single cord is used, it being passed around the runners at opposite ends of the strip, then across itself and the strip, then around the runners, and then secured to itself.

As shown in Fig. 20, two cords are used, which are twisted together and passed through holes or eyes *a'*, formed by strips of metal



passed around opposite ends of the strips A and then secured to the runners by wrapping around the same.

C are the runners for the wire fence, which  
5 may be of plain wire, as shown in Fig. 1, or  
of wire having barbs D thereon, as shown in  
Fig. 2. The end of the cord may be wound  
around the runner in a single coil, as shown  
in Fig. 9, or the connection may be, as shown  
10 in Fig. 10, by winding the end around the  
wire itself as well as the runner, or such con-  
nection may be of any form that will secure the  
cord firmly to the runners.

The strips and wire are to be combined one  
15 with the other, in any of the forms shown, and  
left in that form to be applied to the runners,  
and such stay-pieces and guards can be sent  
to the parties using them to be applied by the  
users to fences already erected, and their con-  
20 struction when ready for use is represented in  
Figs. 13 and 14.

The device is applied to the runners by lap-  
ping the ends *a* around the runners C, as  
shown in the drawings, the thin metal strips  
25 being of sufficient length to have the ends over-  
lap and lie upon the body of the strip in prox-  
imity to the runners, and the cord is secured  
in place by drawing the end or ends of the  
wire across the end of the metal strip where it  
30 passes over the runner and then winding the  
end *b* around the runner, and by drawing the  
end or ends of the wires across the end of the  
strip *a*, which passes around the runners and  
on the lap side of the strip, such cord is not  
35 only attached to the runners, but the cross end  
forms a fastening for holding the lap end of the  
strip in place and securing such strip to the  
runner, so that it cannot be detached there-  
from without unwinding the cord and loosen-  
40 ing the same or breaking the strip.

This construction of stay-piece and guard  
enables a thin metal strip to be used without  
destroying its flexibility, as the strip and cord  
coact to produce the strength required, and at  
the same time the two are independent of each  
other, leaving each piece free to adapt itself  
45 to the give required without impairing the  
strength. Each part forming the strip pre-  
serves its own flexibility, and at the same time  
the device has the combined strength of the  
50 metal strip and the wire cord, so that the de-  
vice as a whole can be readily and quickly ap-  
plied to the runners of the fence, and in use  
will preserve their strength and coact one with  
the other to resist strain and keep the fence  
55 taut and in proper condition.

Having thus described my invention, what I  
claim is—

1. As an improved article of manufacture,  
a stay-piece composed of a flat flexible strip of  
60 metal and a flexible parallel wire cord adapted  
to be connected with said strip, substantially  
as described, and to lock each other in posi-  
tion on fence-wires, substantially as specified.

2. The combination of the main wires or  
65 runners C with the flexible strips A, sepa-  
rately attached thereto, and wire or wires B,  
connected with said strips, substantially as de-  
scribed, and attached to the main wires at the  
sides of the strips and locking the parts in  
70 position, substantially as described.

In testimony whereof I have affixed my sig-  
nature in presence of two witnesses.

SYLVESTER F. DUNCAN.

Witnesses:

O. W. BOND,  
ALBERT H. ADAMS.