

(No Model.)

C. F. DARNELL.
FENCE.

No. 415,383.

Patented Nov. 19, 1889.

Fig. 1.

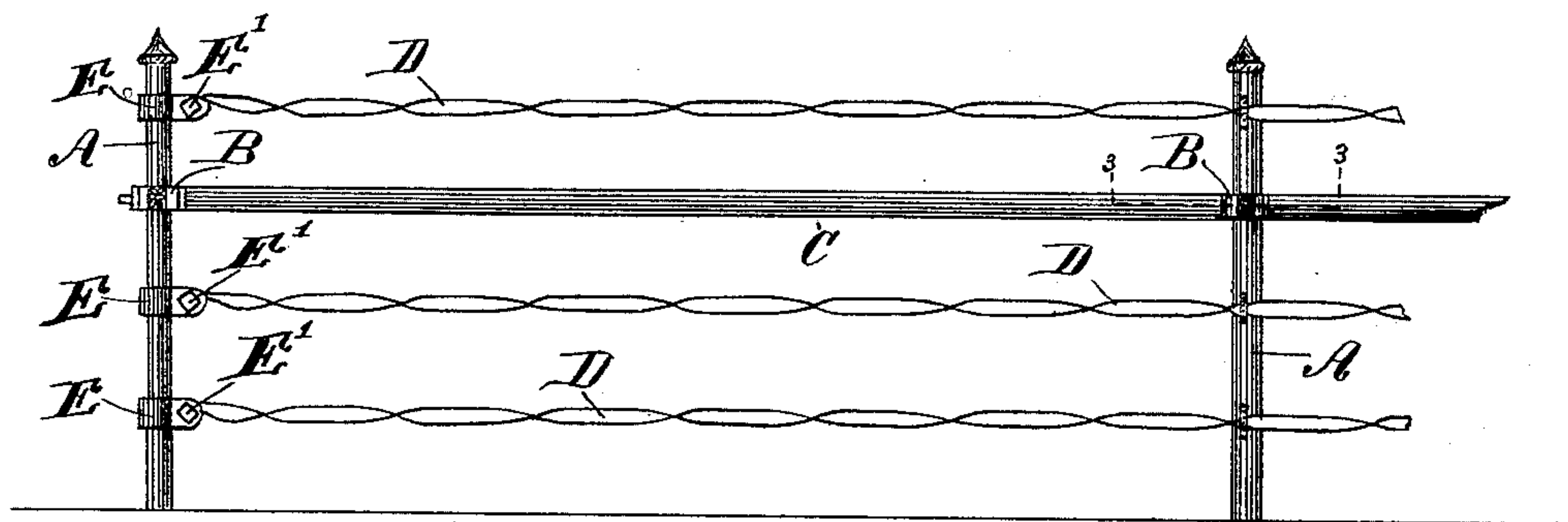


Fig. 2.

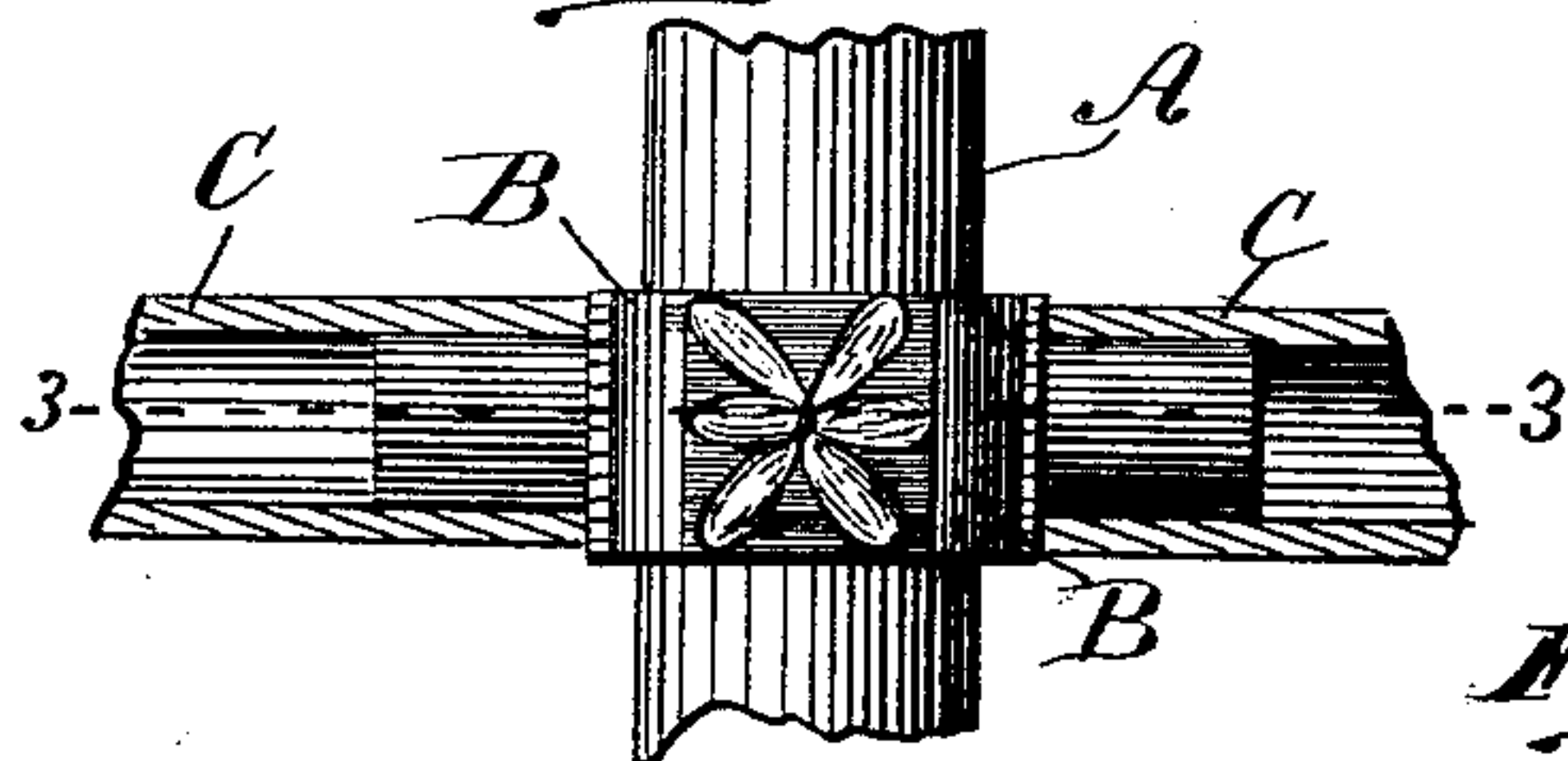


Fig. 3.

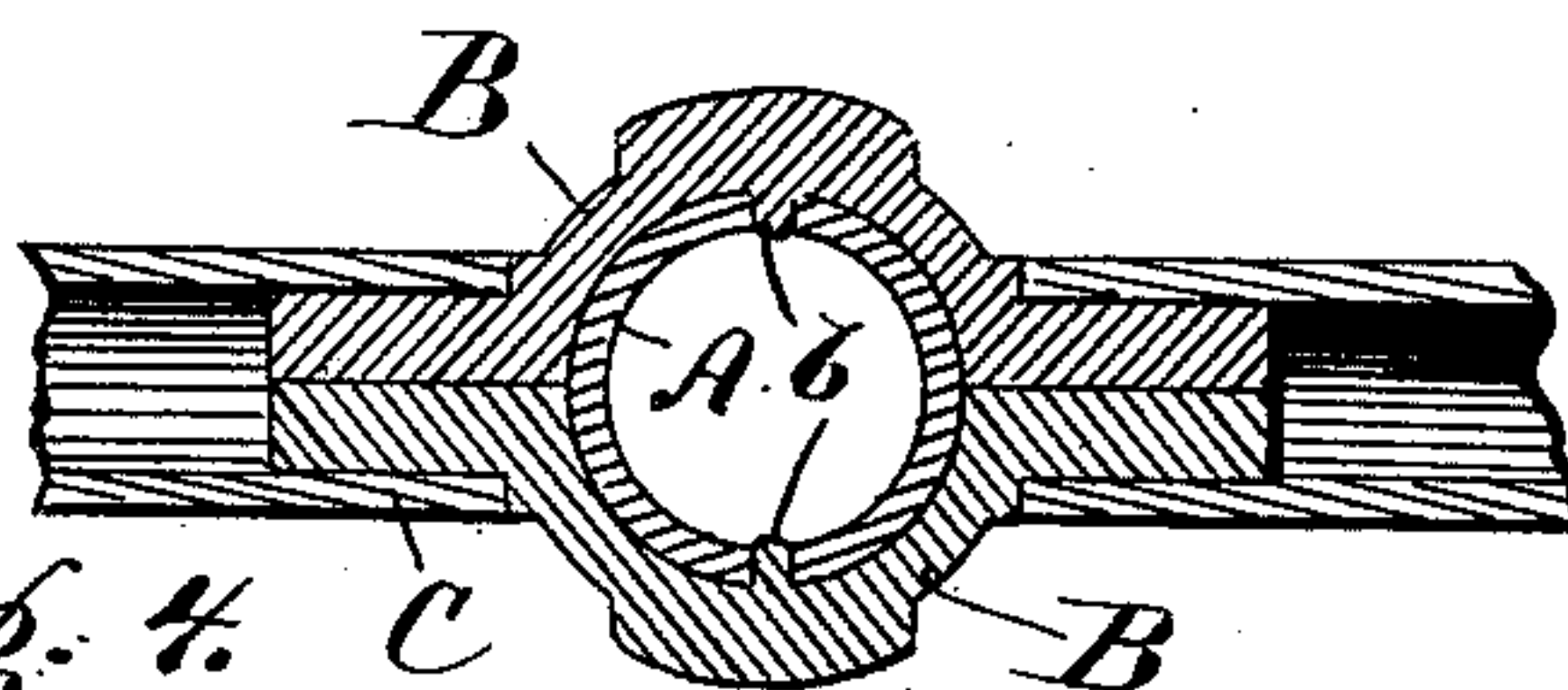


Fig. 4.

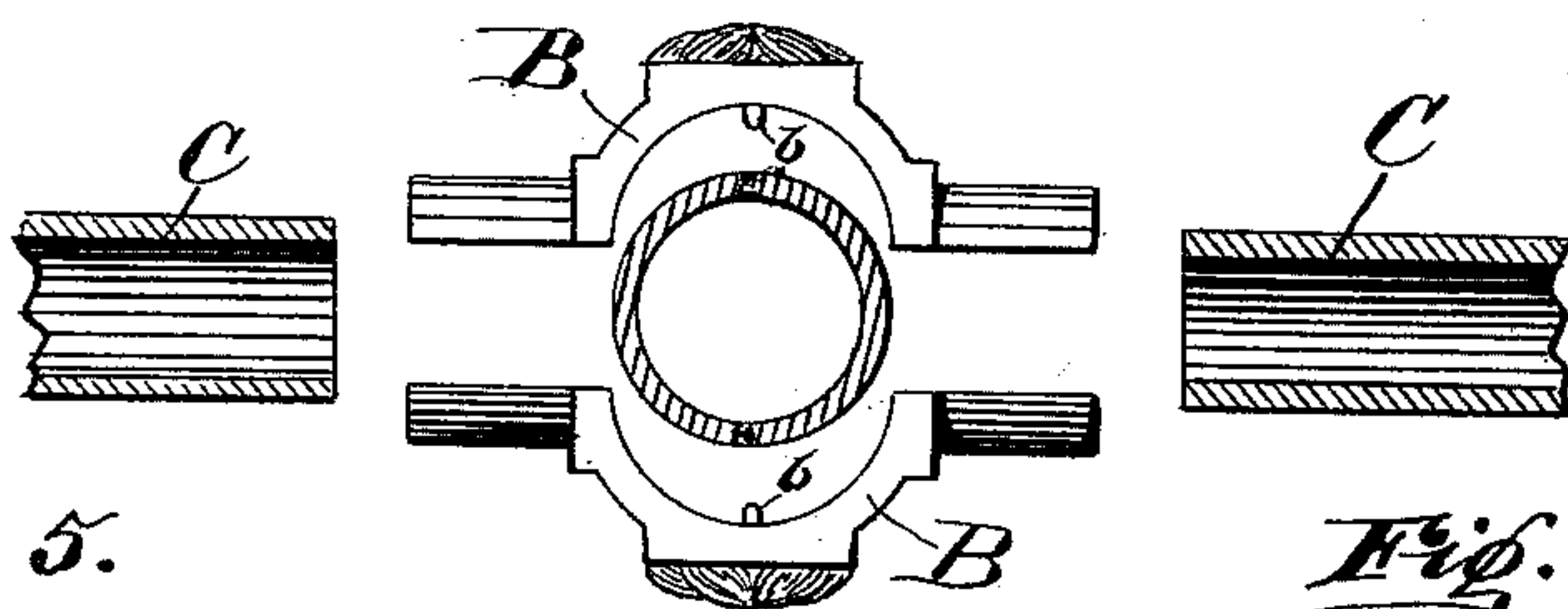


Fig. 5.

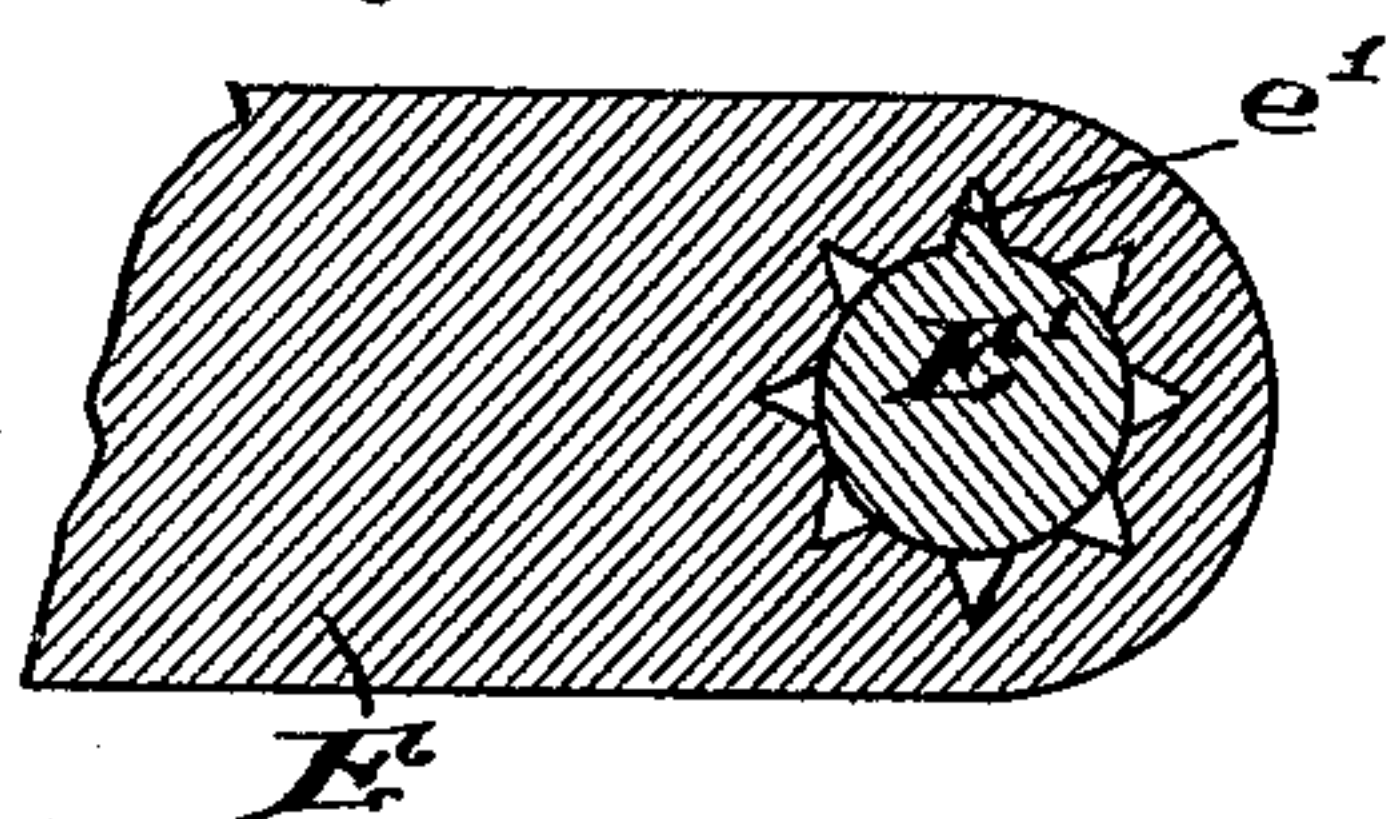


Fig. 7.

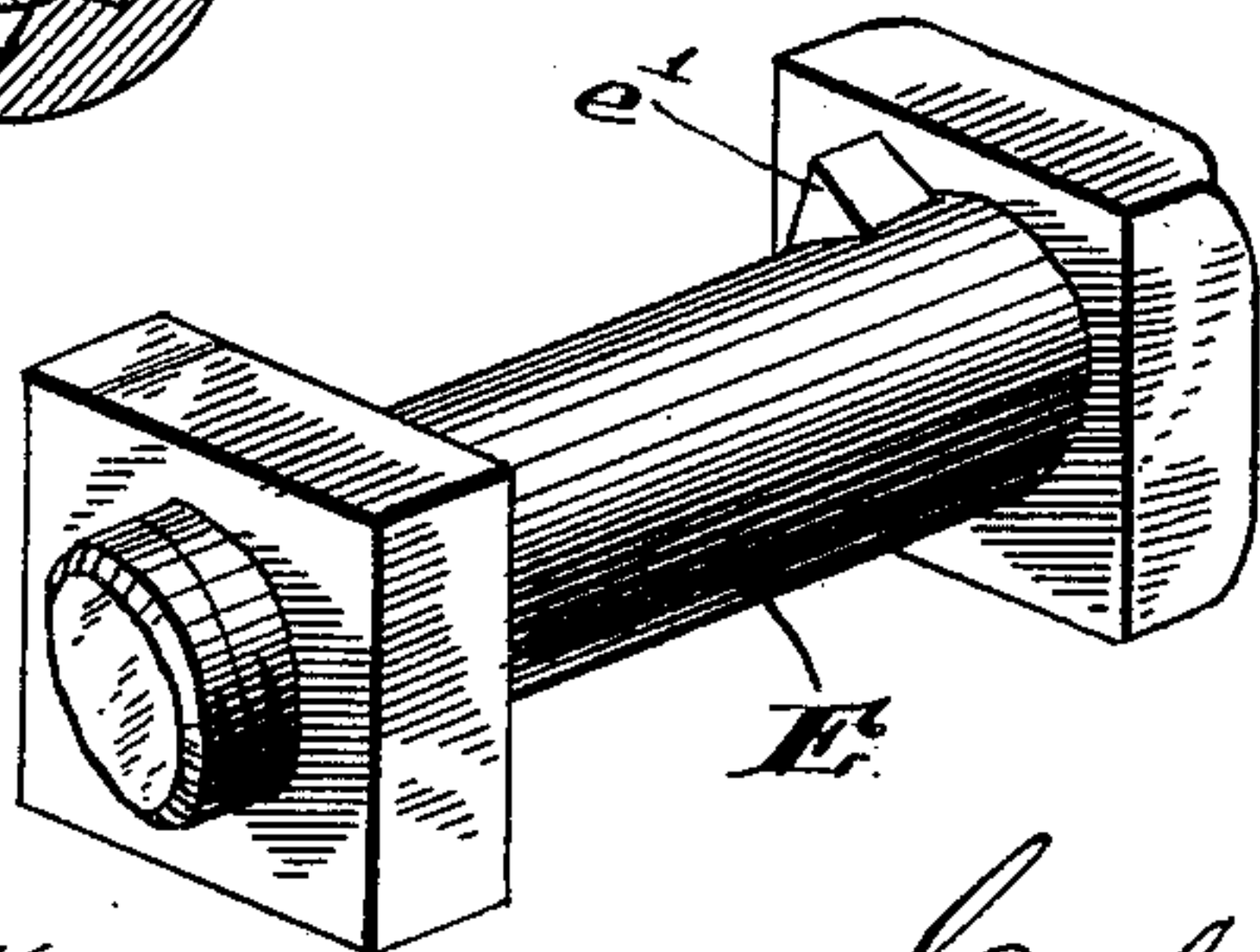
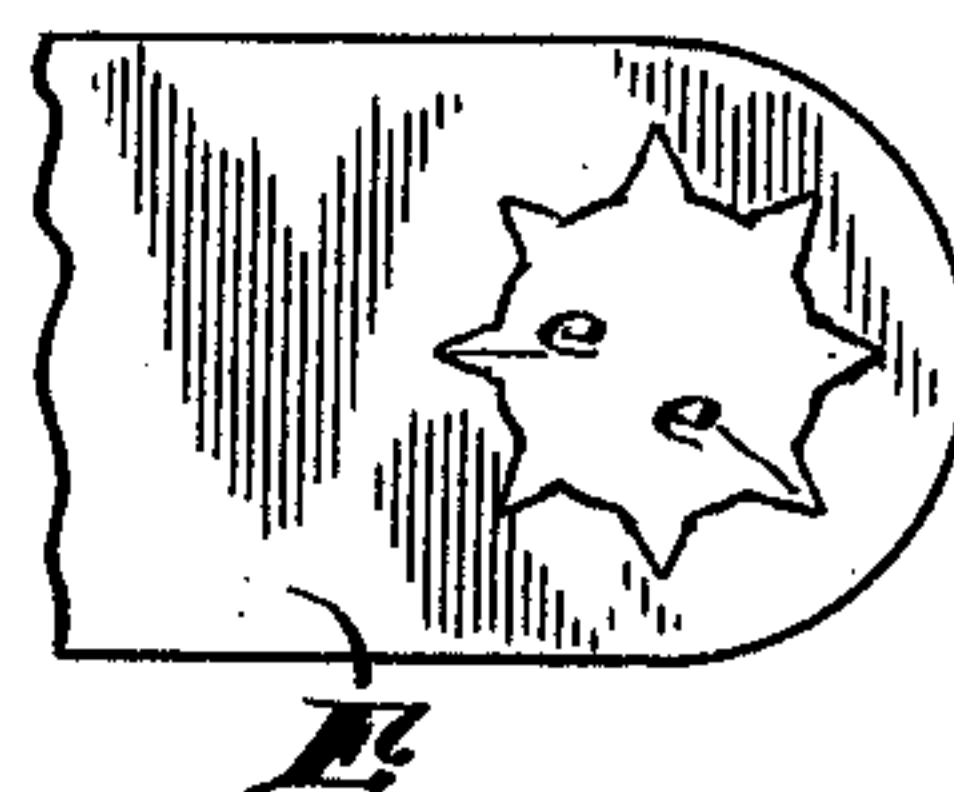


Fig. 6.



WITNESSES.

G. W. H. Brown,
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Calvin F. Darnell,
per E. W. Bradford,
ATTORNEY.

UNITED STATES PATENT OFFICE.

CALVIN F. DARNELL, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF
TO GRANVILLE S. WRIGHT, OF SAME PLACE.

FENCE.

SPECIFICATION forming part of Letters Patent No. 415,383, dated November 19, 1889.

Application filed July 1, 1889. Serial No. 316,128. (No model.)

To all whom it may concern:

Be it known that I, CALVIN F. DARNELL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Fences, of which the following is a specification.

My said invention consists of certain improvements upon the construction of certain features of the fence shown and described in my application, Serial No. 310,731, filed May 14, 1889, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a section of fence embodying my said improvements; Fig. 2, a detail side elevation, on an enlarged scale, of one of the joints between sections of a fence, including a fragment of the fence-post; Fig. 3 a horizontal sectional view of the same on the dotted line 3 3 in Fig. 2; Fig. 4, a plan view of said joint, including a cross-section of the fence-post, and a horizontal sectional view of the adjacent ends of the connecting stay-rods, the parts being distributed at a little distance from each other; Fig. 5, a vertical sectional view through the bolt and one side of the strap by which the wires of the fence are secured to the posts; Fig. 6, an elevation of one end of the strap separately, and Fig. 7 a perspective view of the bolt separately.

In said drawings, the portions marked A represent the fence-post; B, the joint-irons; C, the stay-rods; D, the wires; and E and E' the strap and bolt, respectively, composing the clip by which the wires are secured to the post.

The fence-posts A, as in said application already filed, are preferably pieces of gas-pipe set in proper feet and having proper tops or caps.

The joint-irons B instead of being divided transversely, as in my said former application, are now divided longitudinally, so that those portions which enter the ends of the stay-rods are each in two parts instead of being each in a single part, as before, and the small points *b*, which enter the small holes in the

sides of the fence-posts are at points at right angles with those in the previous construction. As the stay-rods are tubular and surround the portions of the joint-irons which enter them, the two parts of said joint-irons are held together thereby, and said joint-irons held securely against the posts, maintaining the engagement between the points *b* and the holes in said posts at all times, whether the stay-rods are quite firm in their positions or not. This is a decided improvement, as while the joint-irons shown in said former application form a valuable improvement in the art of fence-building, still in some cases, through bending of said stay-rods or otherwise, their engagement with the posts became loosened, and said rods would permit the joint-irons to recede far enough from the posts to disengage the small projections thereof from the holes, which of course resulted in the stay-rod and joint-irons falling from place, leaving the fence unsupported between posts by any rigid portion. In the present construction the stay-rod may recede nearly the whole length of the distance the joint-irons enter into its end without any danger of disengagement of the parts. Said stay-rods C, as before, are preferably pieces of gas-pipe. Their hollow ends slip over the divided ends of the joint-irons B, as plainly shown, particularly in Fig. 3. Said stay-rods resist the pull of the wires as they are tightened up in forming the fence, and serve as a stiff bar to render the fence rigid generally; but in these latter functions, however, they are not different from said stay-rods as used heretofore. The wires D are also such as are generally used in fences of this character. They are secured to the bolts E' of the clips and are tightened thereby, as will be presently described.

The clips are formed of the straps E and bolts E'. The straps E pass around the posts, as shown, and the bolts E' pass through holes in the ends of said straps. The hole in one end of the strap has a number of notches, as shown most plainly in Figs. 5 and 6, and the bolt E' has a small projection *e'*, as shown in Figs. 5 and 7, which is fitted, when said bolt is drawn up tightly, to enter one of the notches in the strap E.

In operation the wire is first attached to

the bolt, and the nut is left loose enough on said bolt so that said projection is outside the strap. The bolt is then turned by means of a wrench until the wire is drawn to the required tension, when the nut is turned up, drawing the said bolt endwise and drawing the projection thereon into one of the notches, which of course holds said bolt securely against being turned backward by the tension on the wire. There being a number of these notches, a very accurate tension can be secured, as will be readily understood.

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

1. The combination, in a fence, of the post, joint-irons divided longitudinally into two parts, which parts when brought together surround the posts, and hollow or hollow-ended stay-rods extending between said posts, which hollow ends pass over the divided ends of the joint-irons, and thus secure said joint-irons in position.

2. The combination of the post A, having holes in its sides, the joint-irons B, divided longitudinally and provided with projections b, which enter said holes, and stay-rods C, which pass over the ends of said joint-irons and hold them together, substantially as set forth.

3. The combination, in a fence, of posts A, stay-rods between said posts, divided joint-irons B, uniting said posts and stay-rods, wires also extending between said posts, and a clip consisting of a strap E, one hole whereof has one or more notches, and a bolt extending through the holes in said clip, and to which the wire is attached, and having a corresponding projection adapted to enter said notches, substantially as set forth.

In witness whereof I have hereunto set my hand and, seal at Indianapolis, Indiana, this 25th day of June, A. D. 1889.

CALVIN F. DARNELL. [L. S.]

Witnesses:

E. W. BRADFORD,
C. W. H. BROWN.