

(No Model.)

S. H. GREGG.
WIRE FENCE.

2 Sheets—Sheet 1.

No. 441,005.

Patented Nov. 18, 1890.

Fig. 1.

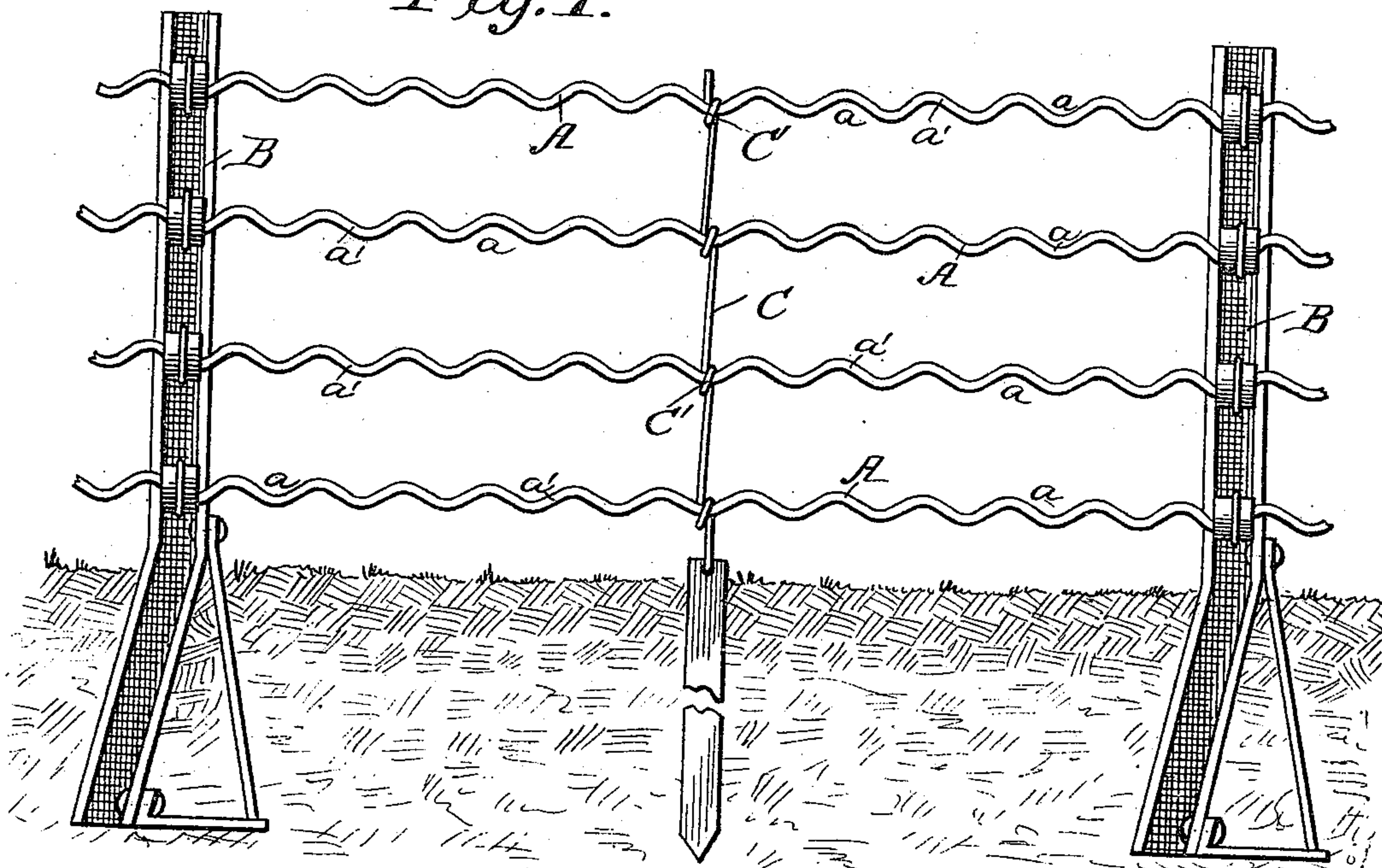


Fig. 2.

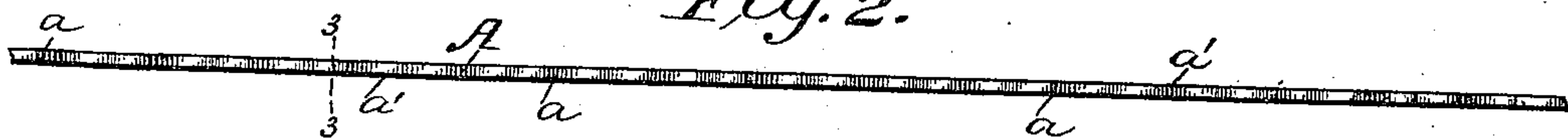


Fig. 3.
A & a'

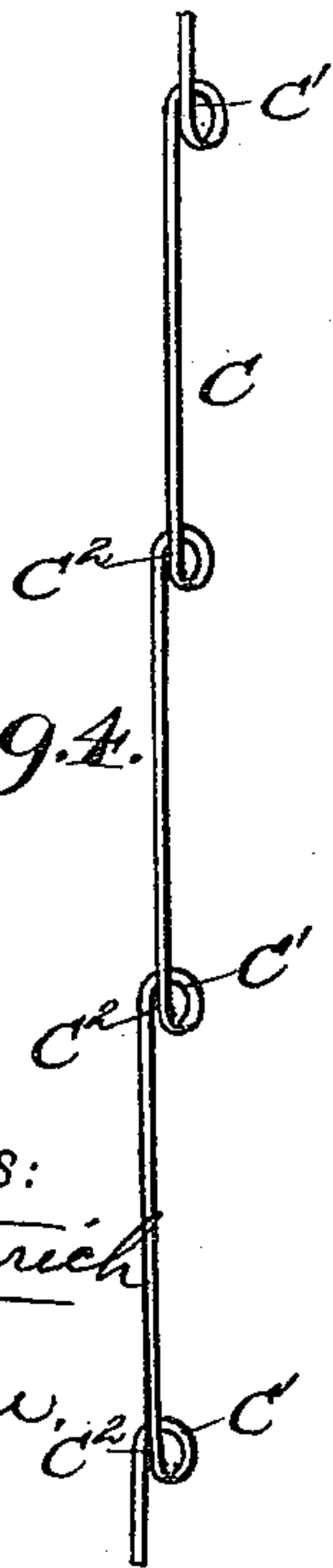


Fig. 5.

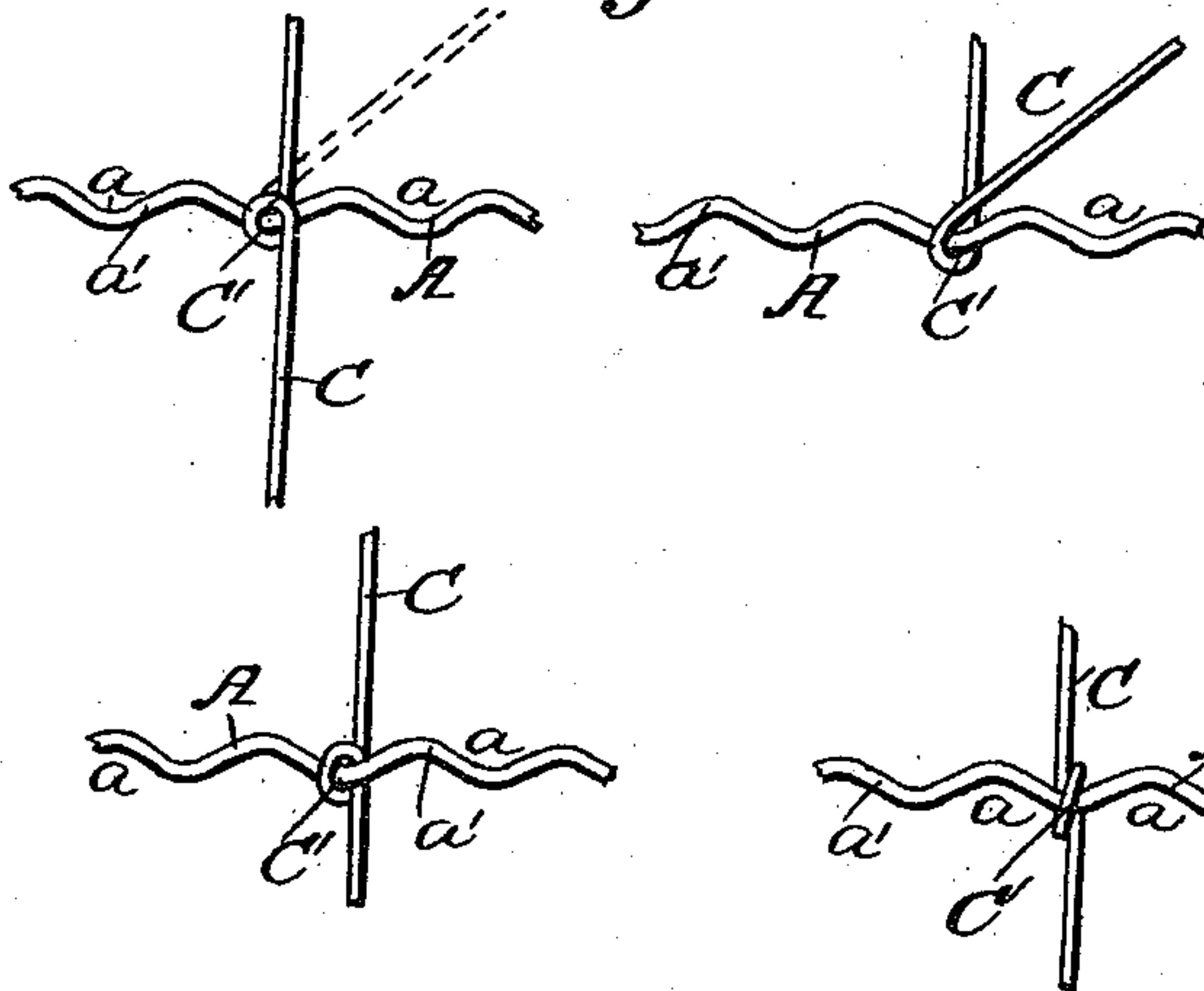
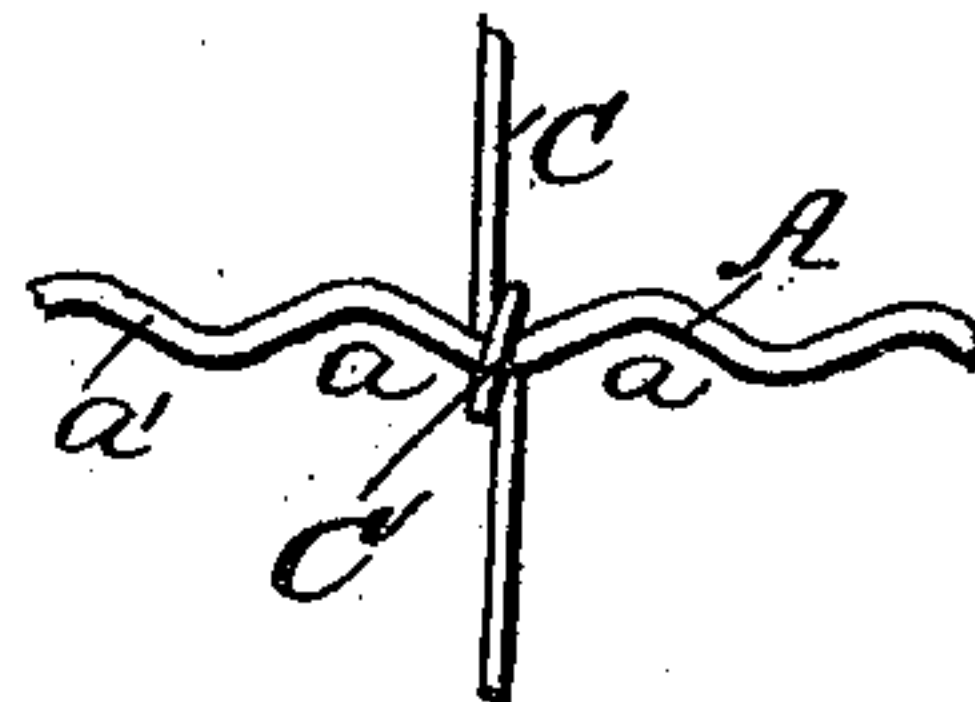
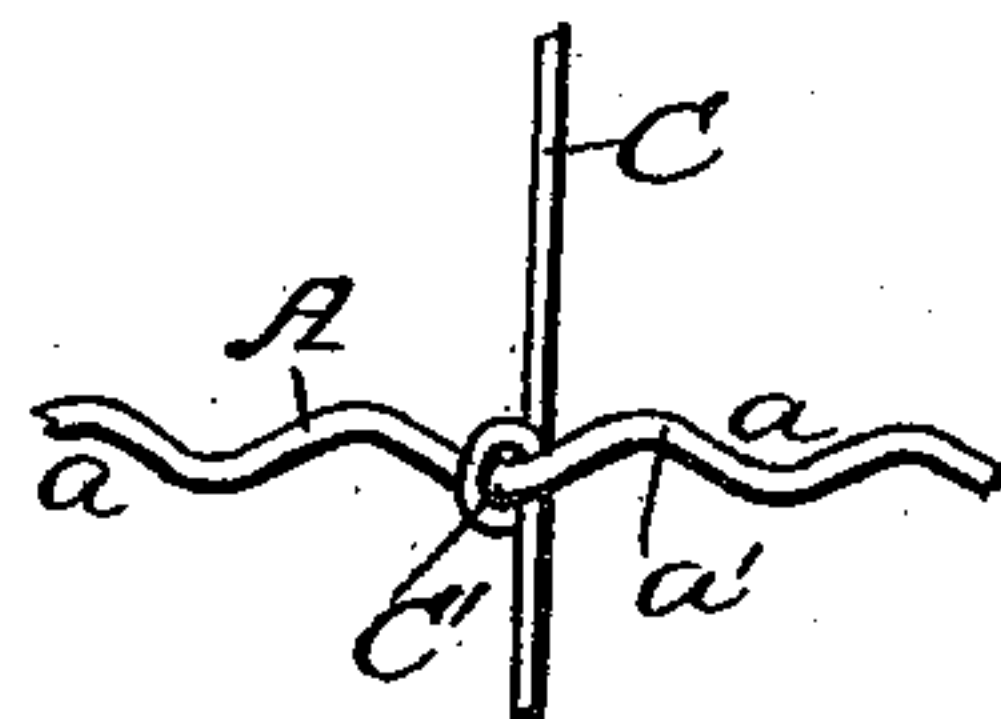


Fig. 4.



WITNESSES:
Fred G. Dietrich
P. B. Turpin, Jr.

INVENTOR
S. H. Gregg.
BY *M. M. L.*
ATTORNEY

(No Model.)

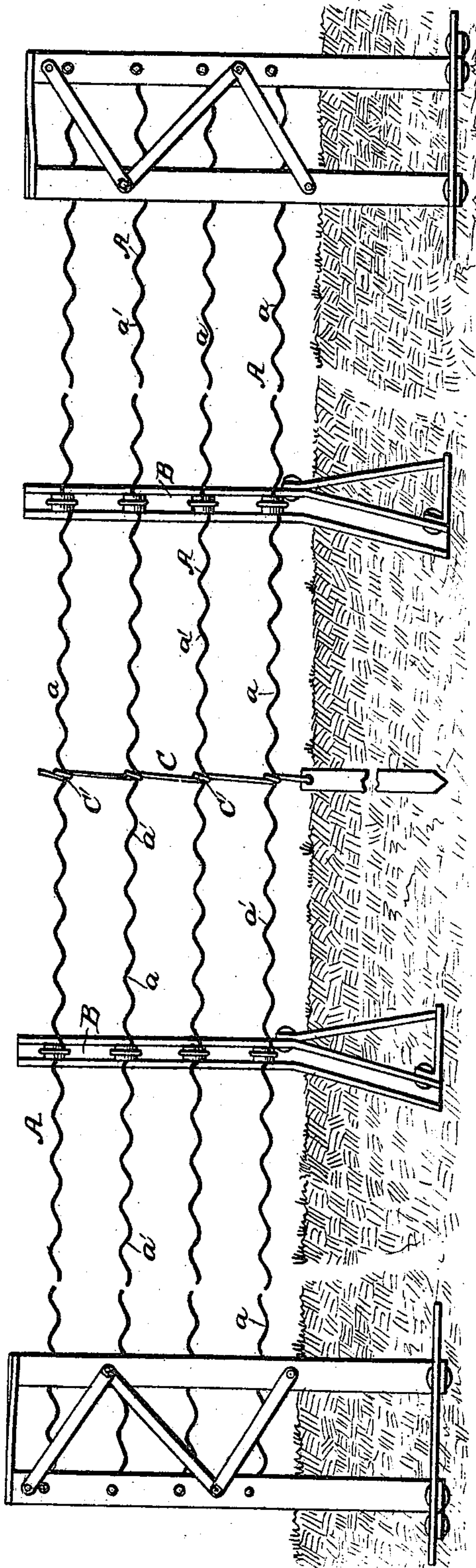
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Fig. 6.



WITNESSES:

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INVENTOR:
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UNITED STATES PATENT OFFICE.

SAMUEL H. GREGG, OF CRAWFORDSVILLE, INDIANA.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 441,005, dated November 18, 1890.

Application filed July 30, 1890. Serial No. 360,423. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. GREGG, of Crawfordsville, in the county of Montgomery and State of Indiana, have invented a new and useful Improvement in Wire Fences, of which the following is a specification.

My invention is an improvement in wire fences, seeking to combine in one fence some of the advantages of both a barbed and a smooth wire fence and at the same time avoid the objectionable features of both such fences.

The invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of a section of fence provided with my improvements. Fig. 2 is a detail top view of one strand of the fence. Fig. 3 is a cross-section of such strand on about line 3 3 of Fig. 2. Fig. 4 is a detail view of one of the stays. Fig. 5 shows the manner of applying the stays to the fence-strands, all of which will be described; and Fig. 6 is a side view of the fence with the intermediate posts and the posts having the tighteners.

The great objections to barbed fences—such as their liability to lacerate, maim, and destroy the lives of animals, rend clothing, and wound persons coming in contact with them, the difficulty of climbing over and passing through the same with teams—are all too well known to be enlarged upon.

Some of the disadvantages of an unbarbed-wire fence—such as the difficulty of seeing the same and the troubles resulting from expansion and contraction under heat and cold—render the use of the plain straight wires impracticable. The cost of barbed wire is also worthy of consideration.

By my invention I seek to provide a fence of unbarbed wire which will be of much less cost than the barbed wire and but slightly greater cost than the smooth unbarbed wire.

My improvement provides a fence-strand composed wholly of iron and steel and coated with a metal that will not oxidize or rust or with a varnish or coating that will resist the action of the elements or acids that may come in contact, thereby rendering the fence practically indestructible.

The fence-strands A are extended between and secured to the posts B, the stays C being

extended between and secured to the several strands, such stays being usually arranged about five feet apart, and being applied to the strands in the manner hereinafter described. These strands are of a special construction to enable them to expand and contract, and at the same time to render them more visible. To this end I make the strand with waves or crimps *a* and with their edges or faces *a'* flattened, such edges *a'* being the sides at right angles to the axes of the waves or flutes. This flattening of the strands has a double purpose. In the first place, it widens out the strands so that they can be more readily seen. Again, by flattening the strands on the side edges in drawing the crimps out of the wire the opening of the said crimps will be edge-wise of the flattened construction, such construction thereby imparting to the crimps the qualities of an elliptic spring and giving them a resilience that will cause them when drawn out and then released to resume their normal positions.

Now, as is well known, the unbarbed wire is the cheapest and the least objectionable fence-strand that can be used; but its use heretofore has been rendered impracticable for the reasons before stated; but when constructed as described the strands are rendered more visible to animals in the field, will not tear the clothing of persons climbing over or walking alongside the fence, and will not pluck the wool from sheep, which delight when in full fleece to rub against such fences. The strands are made from No. 9 wire, larger or smaller, as may be desired, the crimps being formed in them by passing through a pair of horizontal rolls, the faces of these rolls being fluted out in such manner as to form the crimps of equal size. In front of such rolls I provide a pair of upright rolls so arranged and supported that their smooth surfaces may be placed closer together or set farther apart, as may be desired. The wire, after being crimped by the fluted rolls, passes between the second pair of rolls and is flattened at its sides thereby, as will be readily understood. The stays C are formed of wire cut in lengths to suit the height of the fence on which they are to be used, and are formed prior to their application to the fence-strands with the loops *C'* to encircle the strands, such loops being

formed, as stated, before the application of
 the stays to the fence-strands. The stays are
 formed with loops C', having an open space
 C², so that the stay may be slipped up or down
 5 over the fence-strands to adjust the same par-
 tially into the loops C', the entry of the strands
 into the said loops being completed by bend-
 ing the free ends of the stays under or over
 the strands, according as the stay is being ad-
 10 justed up from the bottom or down from the
 top of the fence. The loops C' form gages
 for the application of the stays to the strands,
 so that such strands may be secured at proper
 distances apart, and that by previously bend-
 15 ing the loops in the stays the application
 thereof to the fence-strands is greatly facili-
 tated, as, the proper bends being already in
 the stay, I avoid the necessity of forming such
 bends at the time the stays are applied to the
 20 strands, when the formation of such stays
 around each strand would be impeded and
 interfered with by the other strands. The
 wire loops being bent around the strands and
 the latter being crimped, as described, it will
 25 be understood the movement of the stay along
 the strands will be prevented, so that the
 stays will be retained in proper place and in
 relation to support and stay the strands at the
 desired distance apart. By leaving the loops
 30 loose on the strands the stays may be easily
 removed from the fence when desired. Each
 stay serves the purpose of a fence-post, thus
 making a large saving in the cost of posts in

building a fence. At their lower ends some
 of the stays, particularly those in depressed 35
 portions of the surface, are secured to me-
 tallic anchor-posts or iron rods driven deep
 into the ground, such construction serving as
 a lightning-conductor, as will be readily un-
 derstood. 40

In the formation of my crimped and flat-
 tened fence-strands it will be understood that
 the flattening is effected after the crimping,
 the flattening thus serving in a greater de- 45
 gree to retain the strands in crimp, as de-
 sired. Manifestly the length of the waves or
 crimps may be varied, as desired.

Having thus described my invention, what
 I claim as new is—

1. As an improved article of manufacture, 50
 a fence-strand of indefinite length formed of
 wire crimped, whereby it is adapted to ex-
 pand and contract, and having its sides or
 edges flattened, substantially as described,
 and for the purposes set forth. 55

2. A fence-strand consisting of a length of
 wire crimped or waved and having its sides
 or edges at right angles to the axis of the
 waves or crimps flattened, said flattening be-
 ing effected after the formation of the waves 60
 or crimps, substantially as set forth.

SAMUEL H. GREGG.

Witnesses:

JAMES E. SERGENT,

MELVILLE W. BRUNER.