(Model.)

R. B. COMBS.

WIRE FENCE.

No. 301,683. Patented July 8, 1884.

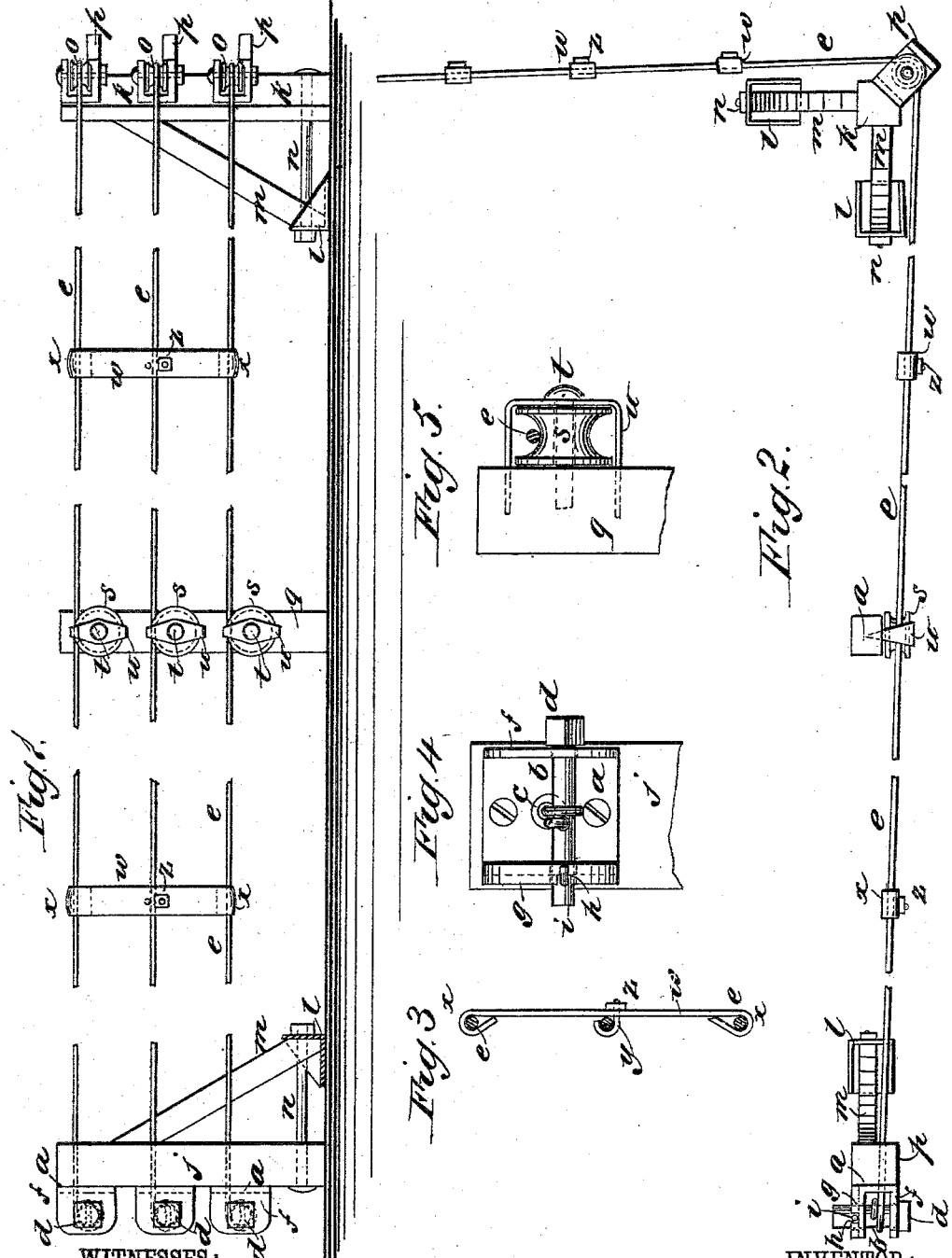

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES:

H. McArdle.

C. Sedgwick

INVENTOR:

R. B. Combs

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD B. COMBS, OF CINCINNATI, OHIO.

WIRE FENCE.

SPECIFICATION forming part of Letters Patent No. 301,683, dated July 8, 1884.

Application filed April 2, 1884. (Model.)

To all whom it may concern:

Be it known that I, RICHARD B. COMBS, of the city of Cincinnati, county of Hamilton and State of Ohio, have invented a new and Improved Wire Fence, of which the following is a full, clear, and exact description.

My invention consists of the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a short section of wire fence constructed according to my invention. Fig. 2 is a plan view. Fig. 3 is a transverse section of the wires of a fence. Fig. 4 is a front elevation of a stretcher and fastener for the end of a wire, and Fig. 5 is a side elevation of a support for the wire on an intermediate post.

I propose to provide for stretching and supporting long sections of a quarter of a mile or more of wire with intermediate posts a hundred feet apart or thereabout, and with stays at suitable intervals between the posts to prevent the wires from being forced apart. For this purpose I provide a cast-metal bracket consisting of base *a* and sides *f g*, with a roller, *b*, for the end of each wire *e*. This end is to be passed through a hole, *c*, in said bracket and the post, and connected to the roller—say, by being passed through a hole in it—and hooked over it, so that the wire will be wound up and drawn taut by turning the roller, which is provided with a square head, *d*, for the application of a crank or wrench for turning it. The roller is arranged across the base of the bracket through which the wire is drawn, and is supported on the flanges *f g* of said bracket, which are made with holes for the purpose, and the flange *g* is made considerably thicker than the other, with a notch or groove on the outside traversing the hole for the roller, in which groove a pin or key, *i*, is to be lodged to hold the roller after the wire has been wound up tight, said pin passing through a hole made for it transversely through the roller. These straining-brackets *a* are to be attached to the end posts, *j*, which, as also the corner-posts *k*, must be substantially braced for support against the stress of the wires *e*. This I propose to accomplish by providing a metallic socket or shoe, *l*, preferably of cast metal, for the foot-rest of a brace, *m*, and connecting said foot-rest with the base of the post by a rod, *n*, said rod being preferably arranged through the lower end of the brace, as well as through the end plate of the foot-rest, to connect them both to the base of the post for effectually holding the foot-rest of the brace, so that the upper end of the brace will stay the post. The foot-rest is to be placed on some substantial support—as a flat stone of sufficient size—to prevent the foot-rest from sinking into the ground. The rod *n* will then hold the foot-rest effectually, so that the brace held by it will give permanent support to the post. In the case of corner-posts *k*, two of these braces and foot-rests will be used to protect the posts from the strains of the wires in both directions.

On the corner-posts I arrange a grooved roller, *o*, for each wire, in a bracket, *p*, over which the wire is to be strained, and is to run freely when tightened up, and in the groove of which roller the wire is to be held by the stress under which it is placed. The brackets *p* are to consist of a base-plate with two flanges perforated to carry the roller-pivots, and they are to be boxed into the corners of the posts, and bolted or screwed thereto, so as to project at the proper angle for guiding the wires alike in the two directions and over the two sides of the posts along which the wires range.

For the intermediate posts, *q*, I use a carrying-roller, *s*, for each wire, fitted on a center-pivot, *t*, driven into the post through the roller, and also through a staple, *u*, that is also driven into the post, with one of its prongs above and the other below the roller, for keepers to prevent the wires from being displaced. The wires are to be placed on the rollers before the staples are driven in, and they are to be placed either above or below the rollers, according as the inclination of the surface may require.

To stay the wires one by the other at intervals of twenty feet or so between the posts, and prevent the wires from being forced apart, I fit a short bar, *w*, to the upper and lower wires by bending and hooking the ends over

them, as at *x*, and connect the intermediate wires to said bar by hooks *y*, which I prefer to secure by a nut, *z*, so that they can readily be disconnected, if preferred; but the hooks may be riveted in the bars, and be bent over the wire to secure them after being placed in the hooks.

The brackets *a* and *p*, and the brace-supports *l*, will preferably be made of cast-iron, as the simplest and most inexpensive means of making them.

The wires will be fastened at one end to the post from which they are strained by any approved means, as the straining-rollers will only be required at one end.

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

1. The improved wire straining and fastening device consisting of the bracket *a f g*, the roller *b*, and the fastening-pin *i*, said bracket having the hole *c* for the wire and the groove *h* for the fastening-pin, and the roller having the holes for the wire and fastening-pin, and the head *d* for the turning device, substantially as described.

2. The improved post-brace for wire fences, consisting of the socket-rest *l*, the brace *m*, and the rod *n*, passing through the post, the lower end of the brace and the socket for connecting said socket-rest with the base of the post, substantially as described.

3. The support for the wires on the inte, mediate posts, consisting of the staple *u*, a in *t*, approximately as long as the arms of the staple, passing through the cross-piece of the staple, and the roller *s*, journaled on said pin, whereby a wire may be inserted between the roller and either arm of the staple and be securely held in place and all extra screws or nails be dispensed with, substantially as set forth.

4. The combination, in a wire fence, of straining-brackets *a f g* and roller *b*, intermediate roller-supports, *s*, and staples *u*, and intermediate stays, *w y*, substantially as described.

5. The combination, in a wire fence, of straining-posts *j*, straining-brackets *a f g*, rollers *b*, intermediate posts, *q*, supporting-rollers *s*, staples *u*, corner-posts *k*, corner-brackets *p*, rollers *o*, intermediate stays, *w y*, braces *m*, brace-rests *l*, and connecting-rods *n*, substantially as described.

RICHARD B. COMBS.

Witnesses:
C. SHOTWELL, Jr.,
W. W. SYMMES.