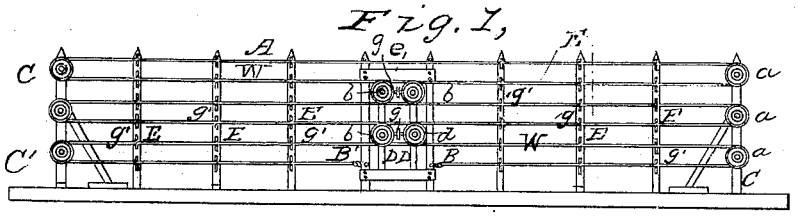
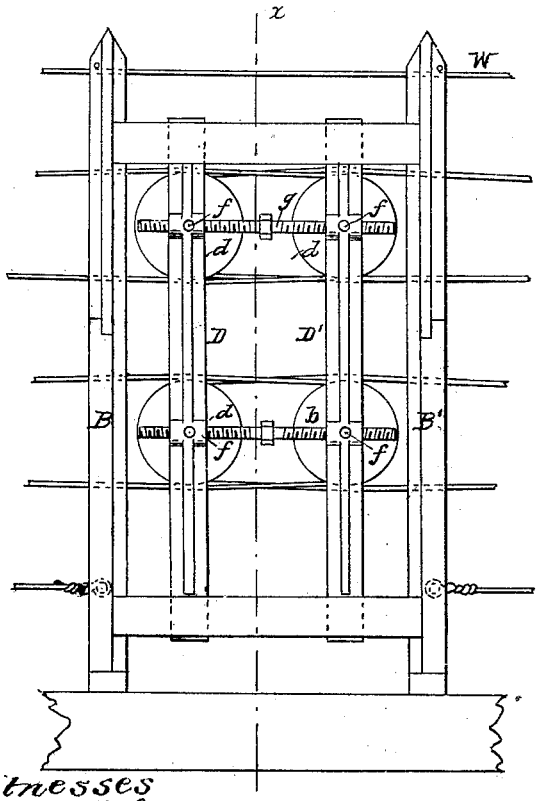
J. W. NORCROSS.

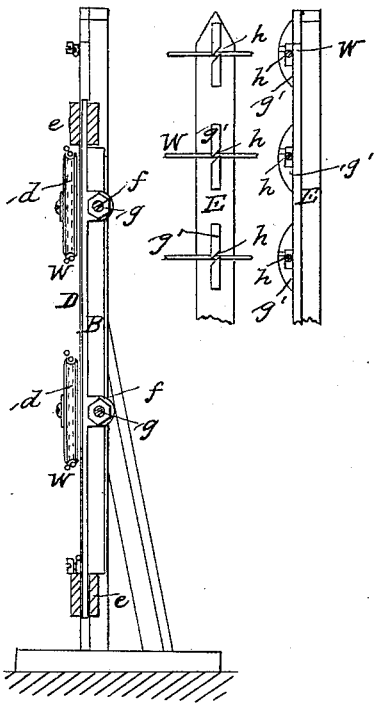
Wire Fence.

No. 45,852. Patented Jan. 10, 1865.

Fig. 1.







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JOSEPH W. NORCROSS, OF MIDDLETOWN, CONNECTICUT.

IMPROVED WIRE FENCE.

Specification forming part of Letters Patent No. **45,852**, dated January 10, 1865.

To all whom it may concern:

Be it known that I, JOSEPH W. NORCROSS, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and Improved Wire Fence; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a face view of a wire fence constructed according to this invention. Fig. 2 is an inside view of the apparatus for straining the wires in a larger scale than the previous figure. Fig. 3 is a transverse vertical section of the same, the line *x x*, Fig. 2, indicating the plane of section. Fig. 4 is a front view of one of the posts, with brackets to support the wires. Fig. 5 is a side elevation of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a wire fence in which each section is constructed of one or two continuous pieces of wire extending over four sets of pulleys, two of which sets have their bearings on the end posts of the section, and the other two sets on adjustable posts in the middle, in such a manner that by moving said adjustable posts toward or from each other the tension of the wire is decreased or increased, and said tension can thus be readily accommodated to the existing temperature, and furthermore, by using a continuous piece of wire the liability of the wire to break is materially reduced. The several strands of wires are supported and held parallel by brackets with oblique slots, cast or otherwise rigidly attached to posts, which may be loose or fastened down to the ground. Before the wires are strained they can be easily introduced into the brackets, and by moving the movable posts an opportunity is obtained to force the wires apart when a person desires to pass through between them. The bearings of the pulleys are cast solid with the posts, so that the fence can be made cheap and durable.

A represents a section of a fence constructed according to this invention. The wire W extends from the post B round pulleys *a b c d* and back to the post B′, or, if desired, it may have four terminations on the upper and lower ends of the posts B B′. The pulleys *a* have their bearings on one of the end posts, C, of the section A, and the pulleys *c* on the post C′ at the opposite end of said section. The pulleys *b d* are secured to posts D D′, which slide between horizontal guide-strips *e*, secured to the posts B B′ at suitable distances apart. Said movable posts are provided with sockets *f*, to receive the right-and-left-handed screw *g*, and by turning these screws the position of the posts is adjusted.

By following the course of the wire it will be noticed that the same extends from the post B round the lowest pulley, *a*; thence to the lowest pulley, *b*; thence to the second pulley *a*; thence to the upper pulley, *b*; thence to the upper pulley, *a*, and thence to the upper pulley, *c*, to the upper pulley, *d*, and so on until it is finally secured to the post B′, as clearly shown in Fig. 1 of the drawings. Instead of having the wire extend from the upper pulley, *a*, to the upper pulley, *c*, however, it might be made to terminate on the upper end of the post B′, and another piece of wire run from the upper end of the post B to the pulleys *c*, and so on to the lower end of post B′. By this arrangement the same effect would be produced. By forcing the movable posts D D′ apart, therefore, the tension of the wire is increased, and by drawing said posts together the tension of the wire is reduced. The tension can thus be easily adjusted to suit the temperature in various seasons of the year, and the breaking of the wire or the derangement of the fence from expansion and contraction by the variations of the temperature can be easily avoided. Furthermore, by using one continuous piece of wire the strength of the fence is increased, since a strain to which one strand of the wire is exposed will be transmitted to all the strands, and the whole series must be strained to their utmost tension before one of them will break.

The several strands extending from the posts C and C′ to the posts B and B′ are supported by brackets *g′*, provided with oblique slots *h*, as shown in Figs. 4 and 5. Said brackets are cast solid with or otherwise rigidly attached to posts E, which may either be movable or secured down to the ground. Before the wires are strained they can be easily passed through the oblique slots, but when

the wire is subjected to the desired tension the brackets retain the strands in a parallel position. The posts E with the brackets are designed to prevent animals from forcing the wires apart, but it is desirable to have the posts, or some of them, movable, so that if a person wishes to pass through the fence he or she can bring one of the posts in such a position that the wires can be forced apart the requisite distance. The damage which the fence would sustain by climbing over it is thereby avoided.

The bearings of the pulleys *a b c*, are cast solid with the posts C C′ D D′, so that very little labor is required to fit the several parts together and to put up the fence.

A fence constructed according to this invention obviates all the difficulties attending wire fences of the usual construction. The wire is not liable to break, and it can be easily kept in the proper tension and position, and when desired the whole fence can be readily taken down and put up again without injury to any of its parts.

I claim as new and desire to secure by Letters Patent—

1. The use in the construction of a wire fence of one continuous piece of wire for each section, substantially as and for the purpose set forth.

2. The pulleys *a b c d*, attached to rigid posts C C′ and to movable posts D D′, and operating in combination with the wire W, and with right-and-left-handed screws, or their equivalents, substantially as and for the purpose described.

3. The brackets *g′*, with oblique slots *h*, applied to movable or rigid posts E, and operating in combination with the wire W, substantially as and for the purpose set forth.

4. Casting the bearings of the pulleys *a b c d* solid with the posts C C′ D D′, substantially as and for the purpose described.

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Witnesses:
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