(No Model.)

M. F. CONNETT, Jr.

HAND FENCE MACHINE.

No. 576,033. Patented Jan. 26, 1897.

Fig. 1.

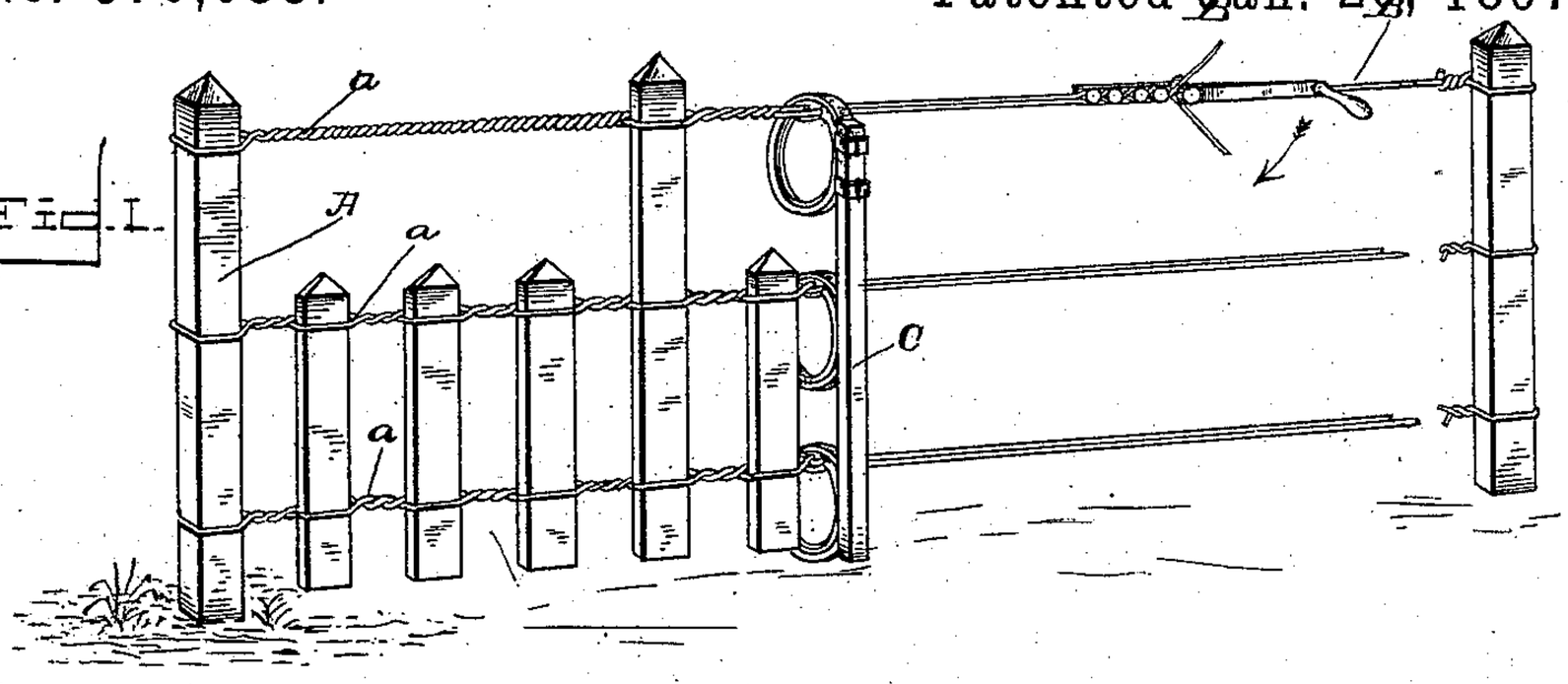


Fig. 2.

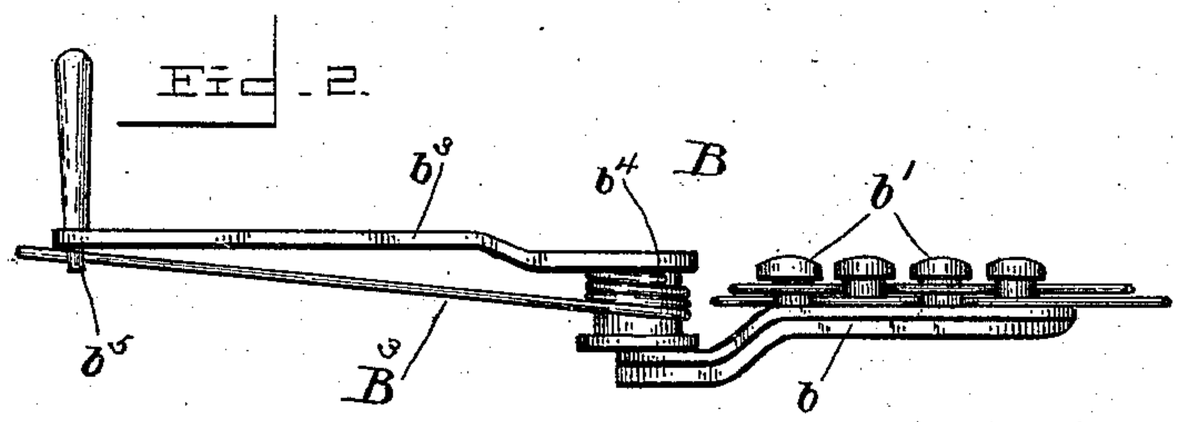


Fig. 3.

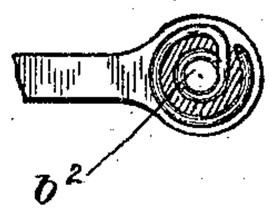


Fig. 4.

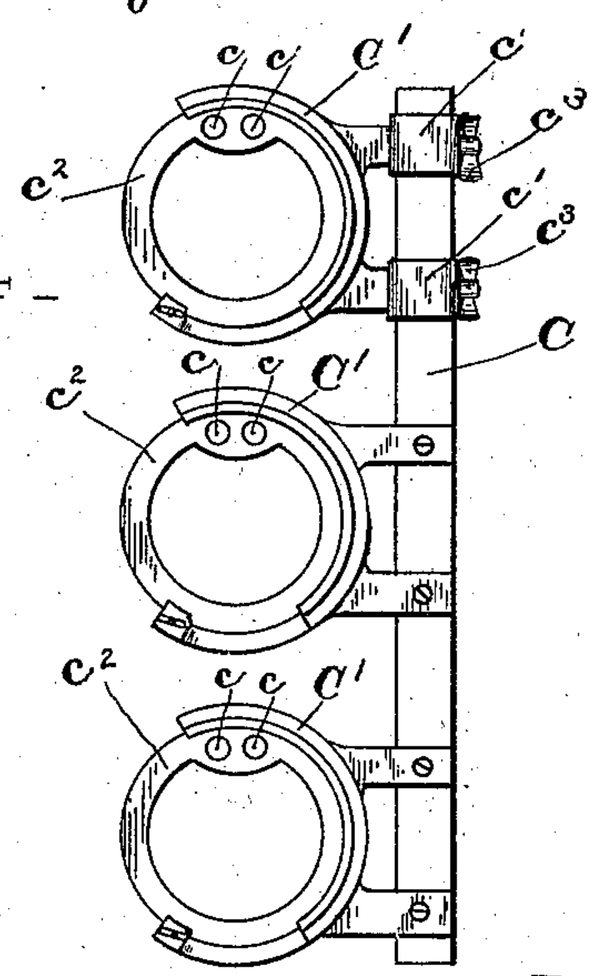
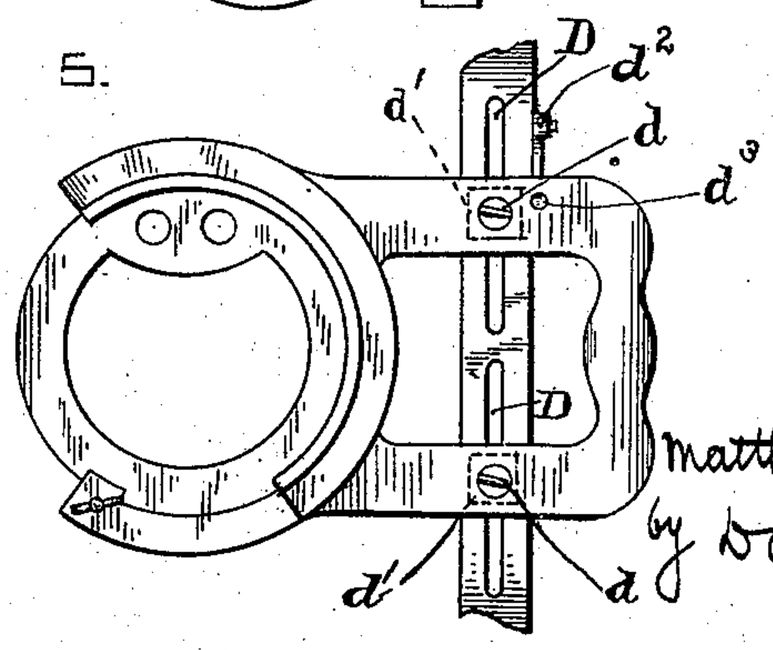


Fig. 5.



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UNITED STATES PATENT OFFICE.

MATTHEW F. CONNETT, JR., OF ST. PAUL, MINNESOTA.

HAND FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 576,033, dated January 26, 1897.

Application filed August 5, 1896. Serial No. 601,687. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW F. CONNETT, Jr., a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Hand Fence-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to hand fence-machines.

The object of the invention is to provide a hand fence-machine of the general kind by which slats or pickets are wound into and thereby secured in place on horizontally-stretched wires, whereby the operation of twisting wires around the slats may be accomplished rapidly and with little exertion on the part of the operator, whereby the wires may be held in a taut position necessary for the proper operation of the machine, and whereby slats of different lengths may with facility be wound into fences.

With these objects in view the invention consists, essentially, of the various novel constructions, combinations, and details, substantially as herein set forth, and as pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a section of fence and of my machine in operative position thereon. Fig. 2 is a plan view of means employed for stretching wire. Fig. 3 is a transverse sectional view of the drum of the wire-stretcher and of the spindle upon which it is mounted, showing a wire in position around the drum. Fig. 4 is a side view of the fence-machine detached from the wires of a fence, and Fig. 5 is a detail view showing a modified means of attaching the twisters to the handle or main portion of the machine.

In the drawings, A represents posts upon which are stretched wires *a*. The wires are arranged in pairs, attached at one end to one of the posts, permanently, in any suitable way, and between this post and the next is arranged a wire-stretcher B. This wire-stretcher B is composed of an arm *b*, upon which are arranged a series of headed lugs *b'*, around which the wires are to be entwined or interwoven, as shown in Fig. 2 of the drawings, in order to be held by frictional contact and at the same time to permit of the ready disengaging of the wires from the stretcher when desired. The arm *b* is bent at one end, as shown, and set on the bent end is a spindle b^2, having around it a circumferential groove.

Mounted on the spindle b^2 is a drum having attached permanently to one end a handle b^3, by which the drum is rotated. The drum is provided at a point b^4 with an opening, and beneath this opening in the spindle b^2 is arranged the circumferential groove. In the use of the tightener the wires *a* to be stretched are passed around the lugs *b'*, as shown in Fig. 2 of the drawings, and a tightener-wire B^3 is attached at one end to a post and at the other end is passed through the opening b^4 in the drum into the groove in the spindle. The drum is rotated, winding the wire B^3 around the drum until the desired tightness is given the wires *a*. The end of the handle b^3 is provided with a projection b^5, which when the drum has been turned to give proper tightness engages the tightener-wire B^3 and thus retains the handle in proper position.

The main operative portions of the fence-machine are mounted on a bar C, which in the use of the device assumes practically a vertical position. Attached to the bar are brackets C', of a number corresponding to the number of pairs of wires to be twisted. These brackets are adapted to receive the circular rotatable wire-holders c^2, and to that end are provided with circular ways permitting the rotation of the wire-holders.

The wire-holders consist of a circular body having therein openings *c* for the introduction of the wires to be twisted.

In order to adapt the machine for use in twisting pickets of different lengths in the wire, as, for instance, as illustrated in Fig. 1, and at the same time allow of the twisting of the upper wires at points above where short pickets are introduced, the upper bracket C' and the wire-holder carried thereby are so ar-

ranged as to be movable longitudinally on the bar C independently of the other brackets and wire-holders.

In the ordinary operation of the machine when pickets of uniform length are used the wires are passed through the openings *c* in the wire-holders, and after the desired tightness is given the wires and pickets are introduced between the wires to be twisted. The bar C is given an up-and-down and forward-and-back movement, resulting in causing the wire-holders to rotate in the brackets and thus twist the wire. In the operation of the device as herein shown, the upper bracket and wire-holder may be operated independently of the others at points where, by reason of the use of the short pickets, the upper horizontal wires of the fence are free. To this end the upper bracket and carrier are capable of movement up and down independently of the remainder of the machine. The upper brackets have on the ends of their arms by which they are connected to the bar C sockets *c'* of a size to receive the bar C and to allow the bracket to move freely up and down on the bar.

The bracket may, when the machine is used on pickets of uniform length, be fixed at a proper point by set-screws c^3, passing through the sockets and bearing on the bar C.

In Fig. 5 of the drawings I have shown a modified form of means for attaching the upper bracket to the bar. This consists in providing the bar in its upper end with slots D and by providing the arm of the bracket with openings through which project bolts *d*, having nuts *d'*, bearing against the faces of the brackets. By loosening the nuts *d'* a free movement up and down of the bracket is permitted, and at the same time the position of the upper bracket and twister relative to the others may be made permanent, if desired. A convenient means of retaining the upper twister in its normal position is provided by a hook d^2, which is attached to the bar C and is designed to enter an opening d^3 in the arm of the upper bracket.

In the operation of the machine when pickets of any desired number which are too short to be engaged by the upper horizontal wires of the fence are to be used and placed between pickets reaching to or above these wires the upper wires between the long pickets and above the short ones are given a continuous twist, insuring their rigidity. To accomplish this by my device, all of the twisters are rigidly attached to the bar C when twisting the wires between the short pickets, and when the machine is moved through the spaces to be occupied by the short pickets the upper twister is released, allowing it an independent movement on the bar. While moving through these spaces the upper twister is given an up-and-down movement on the bar C, and at the same time the upper end of the bar is given a lateral movement. This results in twisting the upper wires independently of the lower ones, and the operation is repeated at each space until the upper wires are twisted a distance corresponding to the width of the short pickets. After each space is passed the upper twister is fastened to prevent up-and-down movement on the bar and the entire number of wires twisted to confine the short pickets and to continue the twist in the upper wires.

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

1. A fence-machine of the kind described, comprising a series of wire-holders, the upper-wire holder being capable of up-and-down movement independently of the remainder of the wire-holders, whereby the upper-wire holders may be operated during the time the lower ones are at rest, and a continuous twist imparted to the upper wires above short pickets when pickets of different lengths are used, substantially as described.

2. A fence-machine of the kind described, comprising a plurality of wire-holders, the upper-wire holder being capable of up-and-down movement independently of the remainder of the wire-holders, a bar for supporting the wire-holders, means for attaching the upper-wire holder to the bar and for disconnecting it therefrom, whereby the upper-wire holder may be operated during the time the lower-wire holders are at rest and simultaneously therewith, thereby producing a continuous twist in the upper wires above short pickets when pickets of different lengths are used, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MATTHEW F. CONNETT, JR.

Witnesses:
WM. KINGSLEY,
G. A. JOHNSON.