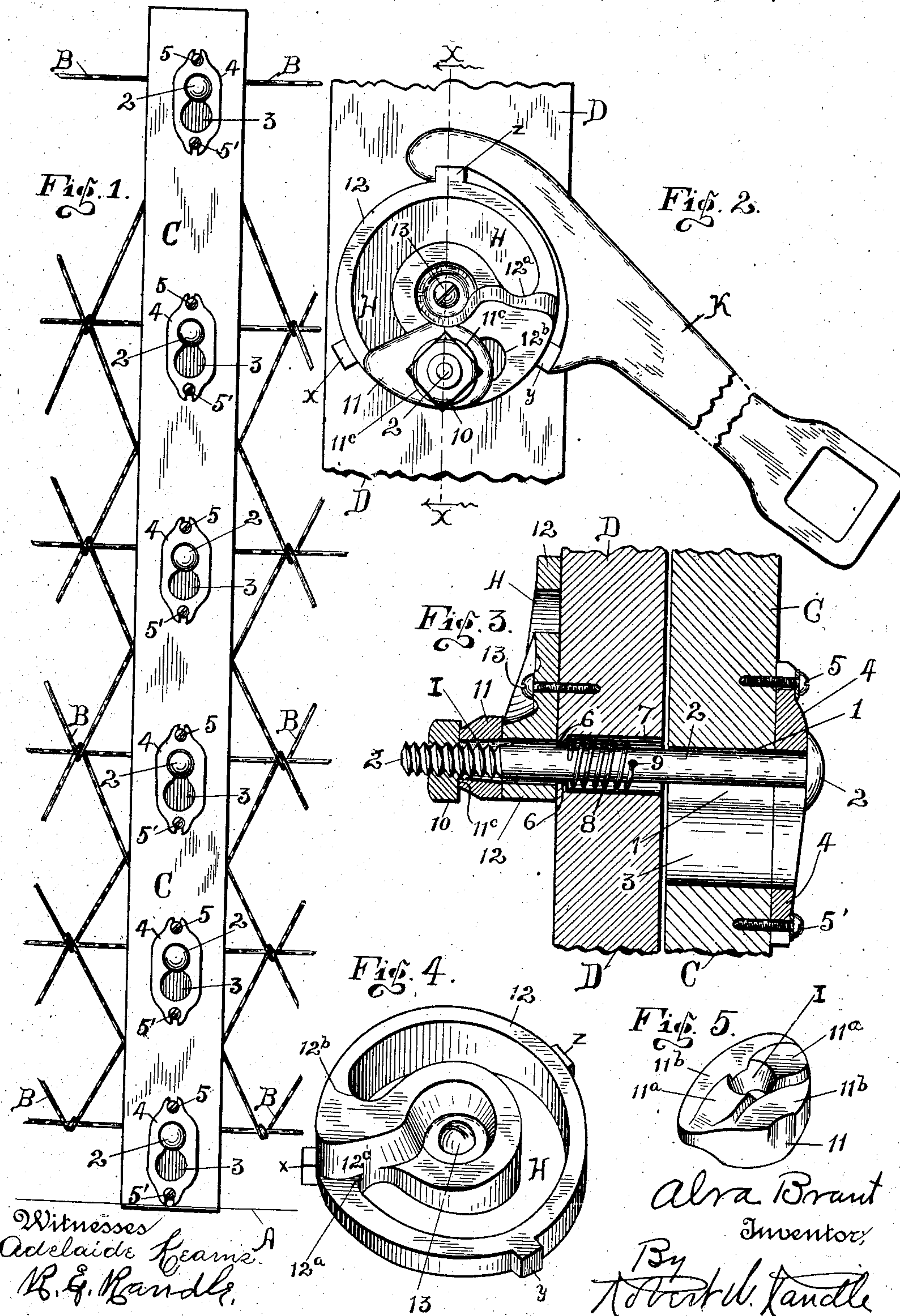


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PATENTED OCT. 23, 1906.

A. BRANT.
FENCE CLAMP.

APPLICATION FILED FEB. 9, 1906.



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FENCE-CLAMP.

No. 833,821.

Specification of Letters Patent.

Patented Oct. 23, 1906.

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To all whom it may concern:

Be it known that I, ALVA BRANT, a citizen of the United States, residing in Richmond, in the county of Wayne and State of Indiana, have invented new and useful Improvements in Fence-Clamps, of which the following is a complete specification, being such as will enable others familiar with the art to which it appertains to make and use the same.

This present invention relates more particularly to means for clamping wire fence or the like whereby it may be stretched by power applied thereto in a well-known manner.

My invention has for its object, broadly stated, the provision of a fence-clamp which will be strong and durable in construction, positive in action, easily operated and controlled, and which may be manufactured and sold at a comparatively low price.

A more particular object is to provide a wire-fence clamp which is adapted to engage wire fabric between its clamping members, whereby it may be firmly secured for the purposes of stretching and to provide means for expeditiously separating said clamping members, whereby the device may be moved to a new location on the fence there to be as expeditiously positioned, again clamping the fence at that point.

Further objects and specific advantages of the invention will be made apparent in the course of the ensuing specification.

The preferred embodiment of my invention is shown most clearly in the accompanying drawings, in which—

Figure 1 shows my invention in elevation as applied to a fence in operative or clamping position and showing the outside face of the negative member of the clamp. Fig. 2 shows an enlarged detail of one of the tightening devices, showing the outside face of positive member of the clamp. Fig. 3 is a central sectional view taken through a fragment of both clamping members and taken on the line X X of Fig. 2, taken in the direction indicated by the arrows. Fig. 4 is an isometrical view of one of the cams, and Fig. 5 is a perspective view of the inside face portion of one of the sliding lugs.

Similar indices denote like parts throughout the several views of the drawings.

In this instance the letter A denotes the ground-line, and the letter B denotes a fragment of a wire fence suspended vertically in its adjusted position.

The letter C denotes the negative member of the clamp, and the letter D denotes the positive member of the clamp, these two members being adapted to be disposed on either side of the fence at corresponding points and are ordinarily clamped together upon the fence by ordinary bolts passing therethrough, which bolts have all to be entirely removed before the clamp can be changed to a new position along the length of the fence. From the above it is apparent that my invention consists in the means for changing the position of the clamp without the necessity of removing the bolts or the nuts therefrom, by which means great economy in time and labor is attained.

At suitable distances apart slots 1 are formed through the member C. Each of said slots is formed vertically in the center horizontally of the member C and are of a width to allow the central or body portion of the bolt 2 to slide therein, as shown in Fig. 3, the position also being that indicated in Fig. 1. Immediately below the slot 1 and opening thereinto is the aperture 3, formed through the member C, which aperture is of a size such as to allow the head of the bolt 2 to pass therethrough. The double aperture formed by the slot 1 and the aperture 3 is surrounded by the escutcheon 4, which is secured to the outer face of the member C by the screws 5 and 5'. At a point corresponding to the slot 1 and of same diameter thereof a round aperture 6 is formed through the member D of a size such as to allow the body of the bolt 2 to pass neatly there-through; but the greater length of the aperture formed through the member D is enlarged, forming the barrel 7 for the helical spring 8, as shown in Fig. 3. The spring 8 is coiled around the bolt 2, one end being secured in the aperture 9 of the bolt, the other end being seated on the base of the barrel 7, as shown in Fig. 3. The object of said spring and the manner of its arrangement is to carry the bolt 2 to the right or headward as the nut 10 is unscrewed, and thereby retain the sliding lug 11 in place, as will presently appear.

The numeral 12 denotes the eccentric cam, which is centrally and revolvably pivoted to the outer face of the member D by the screw-pivot 13. Said cam 12 is of novel construction, having a level back to slide on the face of the member D when being revolved. The face of the said cam is formed as an incline plane, starting at the lowest point (marked

12^a) and rising proportionately around to the highest point, (marked 12^b,) thereby forming the face 12^c, which is parallel with the axis of the cam. Formed in an axial direction through the cam and extending around near the outer edge of the cam and parallel therewith is the slot H, which slot is of a width such as to allow the body of the bolt 2 to travel freely therethrough, as indicated. Said slot, as shown, is formed circular, corresponding to the curvature of the periphery of the cam, and it extends from the point 12^a to the point 12^b, and one portion of its length at all times registers with the said aperture 6.

The slidable lug 11 is adapted to slide around on the face of the cam 12, being guided by its tongue 11^a, which is adapted to fit and extend slightly into the slot H, the under face 11^b, formed on each side of the tongue 11^a, being formed at an angle such as to position the upper face 11^c parallel with the rear face of the cam 12. An aperture I is formed through the lug 11, through which aperture may be placed the body of the bolt 2, as shown in Fig. 3. On the periphery of the cam 12 are formed a plurality of ears, as represented by the letters x, y, and z, with which the wrench K may engage, as shown in Fig. 2, the reverse end of said wrench having an aperture to engage the nut 10 when desired. One of the mechanisms just described, and shown in Figs. 2, 3, 4, and 5, is provided at each of the six points indicated in Fig. 1, and they are located opposite thereto on the outer face of the member D, as indicated, they not appearing in Fig. 1.

Operation: The operation of my invention is very simple, the various parts being proportioned substantially as indicated. For instance, suppose that all of the six devices are in clamping position, as shown in Figs. 1, 2, and 3. I first give the nut 10 a partial turn to loosen it somewhat. I then turn the cam 12 with the wrench K, (oppositely from that indicated by the position of the wrench in Fig. 2,) which will cause the point 12^a to approach near the bolt 2 as the point 12^b recedes therefrom, the lug 11 in this movement traveling down the incline of the cam 12, which will of course loosen the bolt, the spring 8 carrying the bolt to the right as it is loosened, and thereby causing the nut 10 to retain the lug 11 in place. The movement just described will of course remove the head of the bolt away from engagement with the escutcheon 4, after which the member C may be raised up, allowing the heads of all the bolts 2 to come into their respective apertures 3, through which they may pass when the member C is moved outward away from the member D. After the member C and its attachments have been removed from the fence it is apparent that the member D and its attachments may then be removed—that is, simply lifted away from the fence. The parts may

then be moved to a new point in the line of the fence, and the member D is then brought into position, as before, and then the member C is brought into position on the opposite side of the fence, allowing the heads of the bolts to pass through the apertures 3 and projecting beyond the escutcheons 4. I then allow the member C to move down, thereby bringing the bolts into the slots 1, as before. After the above by reversing the movement of the cam 12, operating it by the wrench, as indicated in Fig. 2, the bolts will be tightened, thus clamping the members C and D tightly on fence, and as a final extra tightening a turn may be given to the nut 10 with the reverse end of the wrench.

While I have shown and described the best means for the practical construction and operation of my invention to me known at this time, I desire that it be understood that various changes and variations in the details thereof may be made without departing from the spirit of the invention and the principles therein which are new and novel, and it is also apparent that my invention may with slight modifications be applicable for other uses than that named herein and to which I would be entitled to protection.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A fence-clamp comprising a negative and a positive clamping member for engaging opposite sides of a fence, a series of separate but identical clamping devices located along the length of the clamping members and consisting each of a bolt, means for seating the head of the bolt to the outer face of the negative member, means whereby the bolt-head may pass through the negative member, a nut threaded on the opposite end of the bolt and beyond the face of the positive member, means whereby the bolt may be tightened by said nut, and a cam operating around said bolt and pivoted to the face of the positive member for tightening the bolt independent of said nut, substantially as described.

2. In a fence-clamp, a pair of clamping members having registering apertures there-through for bolts, the apertures in one of said members being enlarged from one point outward to allow the bolt-head to pass there-through, a cam pivoted to the face of the other member, a lug adapted to travel circularly over the face of the cam and to engage the under side of the nut, and means for resiliently forcing the bolt headward when the nut or the cam is being loosened, all substantially as described.

3. A fence-clamp comprising a pair of clamping members for contacting opposite sides of a fence or the like, bolts having nuts threaded on one end and permanent heads located on their other ends and located at proper distances apart for connecting said clamping members, means for removing the

bolts from engagement with one of the
clamping members without removing the nuts
from the bolts, and means independent of the
nuts for tightening the bolts and thereby
5 tightly engaging said clamping members upon
the fence, said means consisting of a cam 12
centrally and revolvably pivoted to the outer
face of one of the clamping members, the face
of said cam being formed as a circular incline
10 plane, a lug 11 adapted to slide on the face of
said incline of the cam at the same time hav-
ing the bolt projecting therethrough with the

nut of the bolt in contact with the face there-
of, and means for resiliently retaining the lug
in contact with the incline of the cam, sub- 15
stantially as set forth.

In testimony whereof I have hereunto
signed my name to this specification in the
presence of two subscribing witnesses.

ALVA BRANT.

Witnesses:

JOS. P. HIATT,
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