Sept. 25, 1923. 1,469,204

G. SMITH

CLAMP FOR WIRE STRETCHERS

Filed July 6, 1921

Fig. 1.

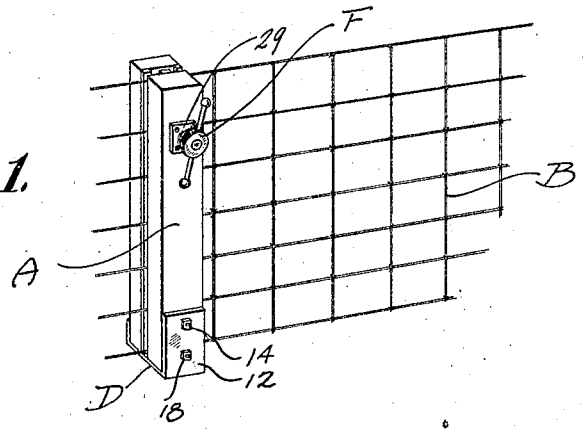


Fig. 2. Fig. 3. Fig. 4.

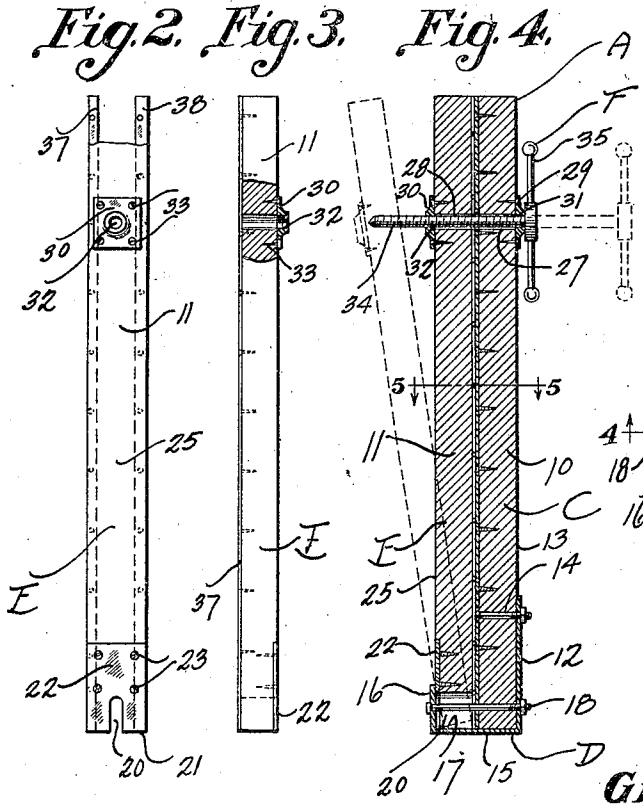
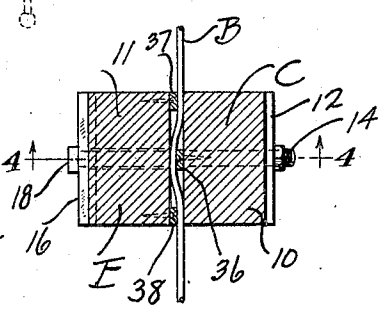


Fig. 5.



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Patented Sept. 25, 1923. 1,469,204

UNITED STATES PATENT OFFICE.

GRANT SMITH, OF BLUEFIELD, WEST VIRGINIA; MARGARET R. SMITH ADMINISTRATRIX OF GRANT SMITH, DECEASED.

CLAMP FOR WIRE STRETCHERS.

Application filed July 6, 1921. Serial No. 482,743.

To all whom it may concern:

Be it known that I, GRANT SMITH, a citizen of the United States, residing at Bluefield, in the county of Mercer and State of West Virginia, have invented certain new and useful Improvements in Clamps for Wire Stretchers, of which the following is a specification.

This invention relates to improvements in clamps for use in connection with wire stretchers.

The primary object of the invention is the provision of a clamp adapted for specific use in connection with stretchers of reticulate or woven wire mesh, embodying but few parts, so related as to provide, a simple, efficient and easily operated clamp.

A further object of the invention is the provision of a clamp specifically embodying a pair of clamping jaws, one of said jaws having a shoe attached thereto to detachably receive the other clamping jaw, and embodying an adjusting means for use in connection with the shoe to securely clamp the jaws to a fence.

Other objects and advantages will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and in which similar reference characters designate corresponding parts throughout the several views.

Figure 1 is a perspective view of a fence, having a clamp attached thereto.

Figure 2 is a fragmentary side elevation of one clamping jaw.

Figure 3 is a view partly in section of the jaw shown in Figure 2, and taken at right angles thereto.

Figure 4 is a cross sectional view of the assembled clamp structure.

Figure 5 is a cross sectional view taken on the line 5—5 of Figure 4.

In the drawings, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the letter A designates a clamp for use in connection with a reticulate, or woven wire fence B.

The clamp A preferably comprises a clamp jaw or member C having a shoe D rigidly attached thereto. A second clamping jaw or member E is adapted for detachable reception within the shoe D. The members C and E are provided with an adjusting means F for use in connection with the shoe D, to maintain the jaws in position to engage a fence.

The members C and E are preferably formed of hard wood posts 10 and 11 respectively, and each substantially rectangular in formation. The post 10 is provided adjacent to one end with the shoe D, said shoe D being preferably J-shaped in formation, and formed of band iron. The longer stem 12 of the shoe D is preferably affixed near its free end to an outer side 13 of the post 10, as by a bolt 14 extending transversely through said post. The bight portion 15 of the shoe D extends over the extreme end of the post 10, and the same being greater in thickness than the post 10, to provide a portion of said bight section projecting laterally from the post 10, to provide, together with the upstanding shorter stem 16 a pocket structure 17. The stems 12 and 16, are preferably in parallel alignment, and spaced a sufficient distance by the bight portion 15, to provide the pocket 17 of just sufficient width to freely receive an end of the second jaw member E. A bolt 18 is detachably positioned transversely through the post 10, being of greater length than the bolt 14, so as to engage the two legs or stems 12 and 16 of the shoe D. It is preferred that the bolt 18 extend parallel with the bight section 15, and spaced a predetermined distance therefrom. By this structure, a portion of the bolt extends transversely in the pocket 17.

The post 11 of the jaw or member E is preferably of the same thickness as the post 10 of jaw C, and provided with a slot 20 extending centrally and longitudinally upward from a bottom end 21. A wear plate 22 is detachably affixed, as by screws 23, to the outer surface 25, of the post 11, and is countersunk in the outer surface 25. The plate 22, is sloted at an end, in order to align with the slot 20 of the post 11, and for a purpose to be subsequently set forth.

The adjusting means F is provided for varying the relative position of the jaws C and E, the same being preferably positioned upon said jaws remote from the shoe D. Apertures 27 and 28, are provided transversely through the posts 10 and 11 respectively, and adapted to align when the jaws C and E are in clamped position. Plates 29 and 30 are detachably positioned, as by screws 33, exteriorly upon the outer surfaces 13 and 25, of the posts 10 and 11 respectively, and in such po-

sition that the bore 31 of the plate 29 and screw threaded aperture 31 of the plate 30 respectively align with the bores 27 and 28 of the posts 10 and 11.

A screw threaded bolt 34 is provided for use in connection with the plates 29 and 30, for insertion through the bore 31 of the former and for engagement in the screw threaded aperture of the latter, to advance or retract the jaws C and E; a crank handle 35 being positioned upon one end of the bolt 34 to facilitate rotation thereof.

A longitudinal strip 36 is centrally and longitudinally positioned upon the inside face of the post 10. Bars or metallic strips 37 and 38, similar to the strip 36, are positioned upon the longitudinal edges of the inside face of the post 11. The strips 36, 37, and 38 are relatively narrow, and are so positioned for cooperation on the posts 10 and 11, as to be spaced from each other, when the abutting inside surfaces of the posts 10 and 11 are in clamping position.

In operation, the jaw C is positioned substantially vertical upon a section of the fence B. The adjusting bolt 34, of course, having been unscrewed from the jaw E, and preferably adjusted as not to project from the inside face of the post 10. The next operation, is to position the post 11 in the pocket 17, as provided by the shoe D and in such position that the vertical slot 20 engages over the portion of the bolt 18, which projects transversely through the pocket 17. When the post E is in this position in the pocket 17, said jaw will be prevented from pulling away from the jaw C or from slipping laterally therefrom, by reason of the bolt 18, and the shorter stem 16. The posts 10 and 11 are then moved relatively together, until they are properly positioned upon the fence B. In this position, the openings 31 and 32 of the plates 29 and 30 respectively are in alignment. The adjusting bolt 34 is then manually rotated by the operator until the same engages through the screw threaded opening 32 of the plate 30. The bolt 34 is tightly adjusted in the jaws C and E, firmly forcing said jaws together, in such manner that the various strands of wire of the fence B are crimped by the strips 36, 37, and 38, substantially as illustrated in Figure 5 of the drawing, and thus preventing the clamp A from disengagement with the fence B.

Various changes in the shape, size, and arrangement of parts, may be made in the form of the invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

I claim:

1. A clamp for wire stretchers comprising a pair of clamping jaws, a shoe engaging an end of one of said jaws to provide a pocket projecting laterally therefrom, a bolt extending transversely through said shoe, a slot in an end of said other jaw adapted to receive the bolt in said shoe pocket, adjusting means for said clamps adapted to position said jaws to engage a wire fence.

2. A clamp for wire stretchers, comprising in combination a pair of longitudinal members, a substantially J-shaped shoe rigidly affixed to the lower end of one of said members to provide a pocket portion projecting therefrom, a bolt extending transversely through said pocket portion and the end of the longitudinal member to which said shoe is affixed, a vertical slot in the other of said longitudinal members extending inwardly from an end thereof, said member adapted to be positioned in the pocket as provided by said shoe, and to have the projecting bolt therein inserted in the slot of said member, and adjusting means on said longitudinal members for positioning them to engage a fence.

3. A clamp for wire stretchers comprising a pair of clamping jaws, a metal member carried by the lower end of one of said jaws including a plate portion extending outwardly flush with the bottom thereof to one side thereof, and having an upstanding retaining flange thereon spaced and in substantially parallel relation with a side of said jaw to provide a socket, said other jaw adapted for disposition in said socket whereby the jaws at their lower ends will be held in proximate relation, and adjusting means carried by said jaws remote from said metal member for relatively moving said jaws to clamp them together.

GRANT SMITH.