J. M. DILLON.

FENCE CLAMP.

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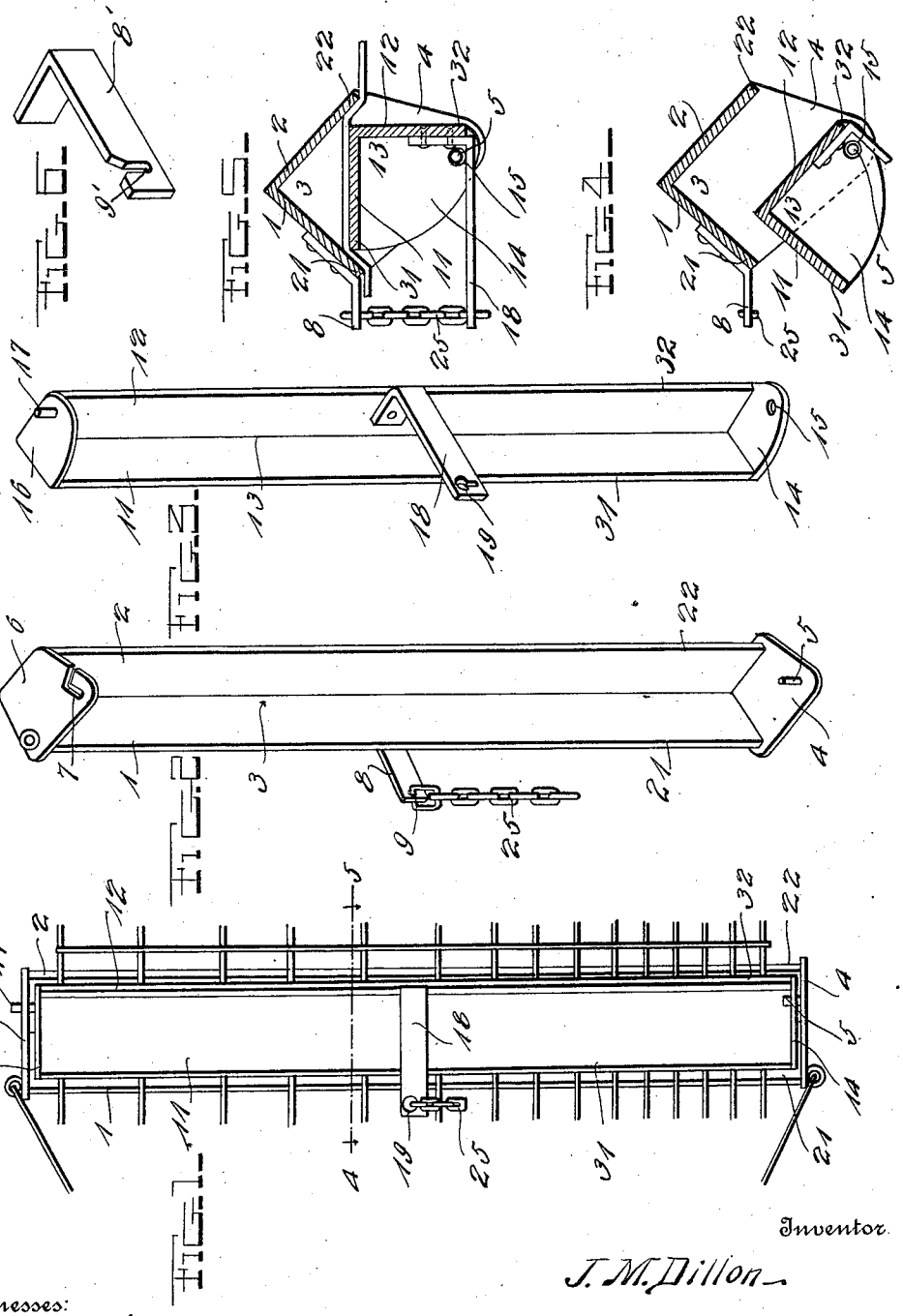
1,046,450.

Patented Dec. 10, 1912.



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FENCE-CLAMP.

1,046,450. Specification of Letters Patent. Patented Dec. 10, 1912.

Application filed December 28, 1911. Serial No. 668,198.

To all whom it may concern:

Be it known that I, JOHN MARTIN DILLON, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Fence-Clamps; 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.

This invention relates to fence stretchers, and more especially to the grips employed therein; and the object of the same is to produce an extremely cheap and simple gripping device or clamp for engaging and holding a fence made up of wire fabric or of a series of strands. This and other objects are accomplished by the construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a front elevation of this clamp in position upon a fence; Figs. 2 and 3 are perspective views of the outer and inner members respectively; Figs. 4 and 5 are enlarged cross sections on the line 4—5 of Fig. 1 showing the inner member as turned part way into the outer, and the inner member turned farther into the outer member, a wire or fence clamped between them, and the connecting means engaging said members; Fig. 6 is a perspective detail of a slightly modified form of one of the arms of the connecting member.

In the drawings I have not considered it necessary to illustrate the stretching means, because the fence having once been clamped by this improved grip, any desired means may be employed for moving the grip to stretch a section of the fencing. The grip itself is made up of metallic members of any suitable size and proportion, and the metal employed may be of iron or steel angle iron whose leaves are of equal or unequal width, and of sufficient weight to stand the strain of stretching without bending.

The grip comprising the subject matter of this invention is composed of two members, each bent along its midlength into V-shaped cross section with the extremities of one side or leaf turned in and secured as by riveting or soldering to the extremities of the other leaf so as to close the ends of a trough-like structure as will be seen in the drawings. The outer member is slightly larger than the inner, and the construction of both is much the same. That is to say, the outer member comprises two leaves 1 and 2 with a right-angle 3 between them extending throughout the length of this member, a lower closed end 4 of substantially diamond shape with a pin 5 rising from the outer point thereof, an upper closed end 6 of similar shape with an angular or L-shaped slot 7 through its body near its outer point and the inner extremity of which stands over said pin 5. From one leaf, as that numbered 1, and at about the center of its length projects an arm 8 pierced with an eye 9. The other member comprises two leaves 11 and 12 with an angle 13 between them, a closed lower end 14 having an eye 15 disposed in a manner to appear hereinafter and adapted to be engaged by said pin 5 in the outer member, a closed upper end 16 having a pin 17 adapted to engage the L-shaped slot 7 in a manner to appear below, and an arm 18 projecting from the leaf 12 and pierced with an eye 19.

As will be seen from Fig. 2, the pivots of the outer member (by which term I include the pin 5 rising from its lower end 4 and the inner extremity of the L-shaped slot 7 in its upper end), are so disposed in the diamond-shaped ends 4 and 6 that they stand a little nearer the edge 22 of the leaf 2 than the edge 21 of the leaf 1; whereas the pivots of the inner member are shown in Fig. 3 as standing relatively considerably nearer to the outer edge 32 of the leaf 12 than they are to the outer edge 31 of the leaf 11. It follows, therefore, that when the two members are engaged with each other and turned, the inner member moves around its pivots eccentrically within the outer member as the two arms approach each other. For causing them to so approach, any suitable mechanism may be employed, but in the present instance I have illustrated a chain 25 connected with the eye 9 of the arm 8 and passing through the slot 19 of the arm 18 which slot is of key-hole shape so that the links of the chain may be drawn through its larger end and then moved to its other end and engaged therein to hold the two members in their clamping position. Any other equivalent means may be employed for moving the members relatively to each other, but this is sufficient for illustration.

With the parts constructed as above de-

scribed, the operation of this improved grip or clamp is as follows: The outer member is placed to one side of the article to be clamped, as for instance a section of fence wire fabric, and held in upright position; then the inner member is brought into place on the other side of said section and the eye in its lower end engaged over the pin in the lower end of the outer member, and the pin in its upper end passed into the L-shaped slot in the upper end of the outer member so that the two members become pivotally connected. The device is then moved along the fence, or the fence drawn through the device, until the stretch of fencing is as tight as may be and the stretching mechanism proper (not shown) is in position to work. The grip-actuating devices are then moved, and in the present instance this means that the chain is drawn upon so that the inner member is turned within the outer; and, moving on the pivotal connection between the two, its angle 13 first passes the outer edge 21 of the leaf 1 of the outer member and the wire fabric will be clamped or clasped between these two parts if it be of sufficient thickness. If not, as the inner member is further turned around its pivots, the fence fabric is given a slight crimp or bend between the angles of the two members, and if said fabric have stiffness enough this will clamp it. If not, still further rotation of the inner member within the outer member will cause the free outer edge 31 of the leaf 11 to approach the free outer edge of the leaf 1 so that the fabric is finally clamped between these edges if not elsewhere. The chain is then engaged with the smaller end of the slot 19 to hold the members in such position, and the stretching means actuated to stretch the fence. The latter is then stapled to the post as usual, after which the clamp is disengaged and moved elsewhere for renewed operation. As above suggested, the slot 19 in the arm 8 is by preference made in such shape that the chain may draw through one end thereof but will be engaged in the other end thereof, and in Fig. 3 I have shown it of key-hole shape for this purpose. In Fig. 6, however, is shown a slight modification of this detail wherein the arm 8′ is provided with a key-hole slot 9′ whose larger end opens out the upper edge of the arm. When a chain is employed at this point, the open slot may be preferable because in the act of applying this device to a fence wire fabric the chain will have to be passed through the mesh thereof and engaged with the eye to hold the grip closed, and disengaged from the eye and removed from the mesh afterward so that the entire grip can be withdrawn. I repeat that any other suitable form of mechanism might be substituted without departing from the principle of my invention. Also it will be clear that this grip could be used in other connections than for stretching fences, and details could be modified to a considerable extent. The inner member might, in fact, be solid, and both members could be made of other material than sheet metal although I prefer the latter for the sake of cheapness and lightness.

What is claimed as new is:

1. In a fence wire stretcher, a grip comprising an outer member having an angular face and its ends inturned, the lower end being provided with a pivot pin and the upper end with an L-shaped slot whose inner extremity is in line with said pin and both of them being disposed at different distances from the faces of this member; an inner member having an angular exterior and inturned ends, the lowermost having an eye and the uppermost having a projecting pin forming pivots detachably engaging those in the ends of the outer member, and means for turning one member within the other.

2. In a fence wire stretcher, a grip comprising an outer member having an angular face and its ends inturned, the lower end being provided with a pivot pin and the upper end with an L-shaped slot whose inner extremity is in line with said pin and both of them being disposed at different distances from the faces of this member; an inner member having an angular exterior and inturned ends, the lowermost having an eye and the uppermost having a projecting pin forming pivots detachably engaging those in the ends of the outer member, and the pivots of the inner member being also disposed at different distances from its faces; and means for turning one member within the other.

3. The herein described grip for the purpose set forth, comprising an outer sheet metal member of V-shaped cross section having inturned ends, the lower end being provided with a pivot pin and the upper end with an angular slot whose inner extremity is in line with said pin and both of them being disposed at different distances from the faces of this member; an inner member also of sheet metal and of V-shaped cross section with inturned ends, the lowermost having an eye and the uppermost having a projecting pin forming pivots detachably engaging those in the ends of the outer member, and the pivots of the inner member being also disposed at different distances from its faces; arms projecting outward from one leaf of the outer member and the relatively opposite leaf of the inner member, and means for drawing said arms toward each other so as to approximate the outer edges of certain leaves of both members.

4. The herein described grip for the pur-

pose set forth, comprising an outer sheet metal member of V-shaped cross section having inturned ends, the lower end being provided with a pivot pin and the upper end with a slot whose inner extremity is in line with said pin; an inner member also of sheet metal and of V-shaped cross section with inturned ends, the lowermost having an eye and the uppermost having a projecting pin forming pivots detachably engaging those in the ends of the outer member, and the pivots of the inner member being disposed at different distances from its faces; arms projecting outward from one leaf of the outer member and the relatively opposite leaf of the inner member, and pierced with openings near their outer extremities, one of said openings being of key-hole shape, and a chain whose extremity is attached to the plain opening and whose links are removably engaged with said key-hole opening.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN MARTIN DILLON.

Witnesses:
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