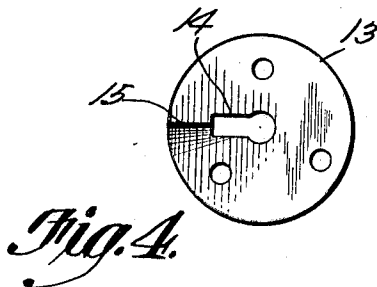
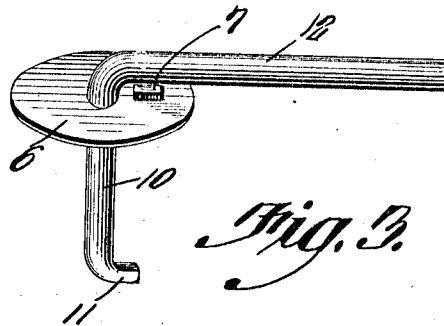
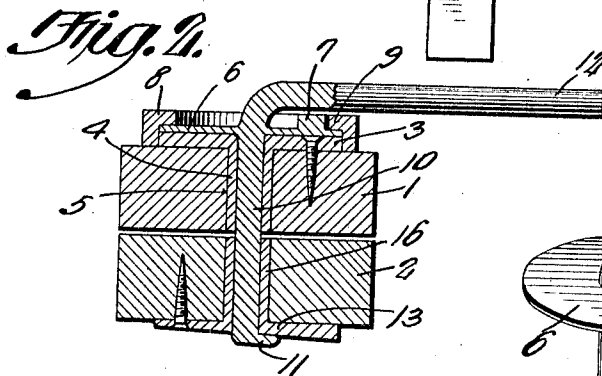
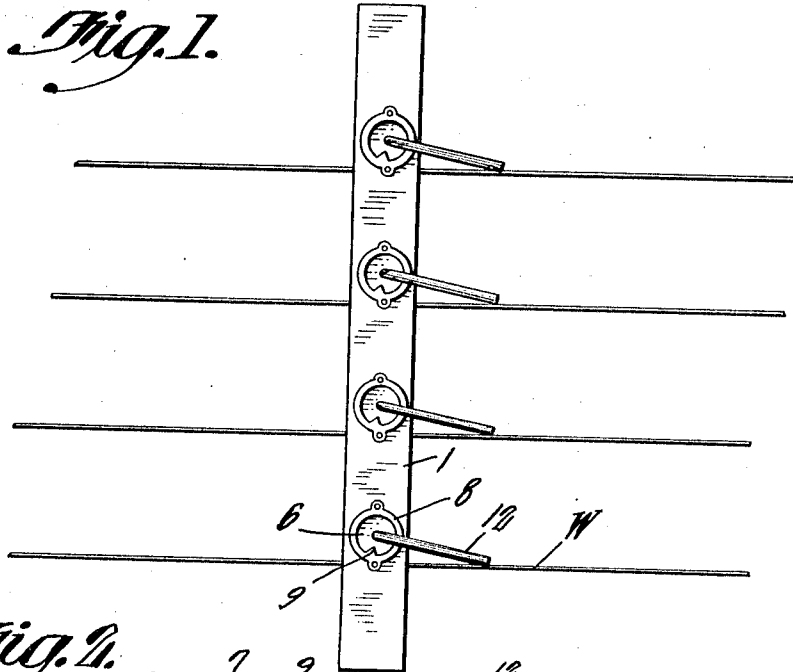


C. H. TOWNSEND, G. E. COLLING & D. W. LIGON.
CLAMPING BAR FOR WIRE STRETCHERS.
APPLICATION FILED NOV. 6, 1912.

1,055,102.

Patented Mar. 4, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES H. TOWNSEND, GEORGE E. COLLING, AND DOUGLAS W. LIGON, OF
WINCHESTER, ILLINOIS.

CLAMPING-BAR FOR WIRE-STRETCHERS.

1,055,102.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed November 6, 1912. Serial No. 729,886.

To all whom it may concern:

Be it known that we, CHARLES H. TOWNSEND, GEORGE E. COLLING, and DOUGLAS W. LIGON, citizens of the United States, residing at Winchester, in the county of Scott, State of Illinois, have invented a new and useful Clamping-Bar for Wire-Stretchers, of which the following is a specification.

The present invention relates to improvements in clamping bars for wire stretchers, the primary object of the invention being the provision of a novel construction of clamp and connecting medium between two bars, the same being so disposed and arranged as to permit of the introduction therebetween of the wires to be stretched, and the disposing of the bars into clamped relation thereupon, the peculiar form of clamping device being so constructed as to permit of the ready assembling or disengaging of the bars relative to each other and the easy assembling and locking of the bars upon the wire.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a front elevation of the clamping bar attached to a plurality of strands of wire. Fig. 2 is a cross section taken through the two bars and one of the clamping devices. Fig. 3 is a perspective view of the handle operated actuating medium. Fig. 4 is a plan view of the cam plate used in connection with the device shown in Fig. 3 for moving the bars to and from each other.

Referring to the drawings, the numerals 1 and 2 designate the clamping bars, each one of which is provided with a plurality of clamps, there preferably being one clamp to each wire strand, and as shown in Fig. 1, four being used.

All of the clamping devices are constructed similarly and consist of the disk or plate 3 having the sleeve 4, said sleeve being disposed in the aperture 5 of the member 1 while disposed for sliding rotary movement upon the outer face of the disk

3 is a disk 6, said disk 6 being provided with a limiting lug 7, the purpose of which will presently appear. Retaining the disks 6 and 3 in the proper relative position as clearly shown in Fig. 2, is a flanged ring 8, which as shown is provided with a lug 9 disposed in the path to be engaged by the lug 7, and thus limit the rotation of the disk 6. Carried concentrically of the disk 6 and disposed for rotation within the sleeve 4 of the disk 3 is a shank or spindle 10, whose free end is offset as at 11 to provide a cam locking device to retain the bars 1 and 2 relatively to each other and at the same time allow them to move to and from each other, as will presently appear. In order to manipulate the disk 6 and consequently the spindle 10, a handle 12 is provided and is disposed upon the opposite side of the disk 6 to the spindle 10.

Mounted upon the outer face of the clamp bar 2 is the disk 13 whose outer face is cam shaped and is provided with the key-hole slot 14 therethrough, as clearly shown in Fig. 4 and with the abrupt shouldered portion 15 at the end of the highest portion of the cam portion of the plate, and the lower portion, such portion 15 being formed at the diametrical center line of the key-hole slot. Formed integral with the cam disk 13 is a sleeve 16, which is of the same shape as the key-hole slot 14 to permit of the easy introduction of the offset end 11 through the sleeve 16, so that the spindle 10 may be properly rotated to move the offset end 11 into locking engagement with the cam surface of the disk 13 to consequently move the clamping bar 2 toward the clamping bar 1, so that the strands of wire W may be clamped therebetween, as clearly shown in Fig. 1.

In constructing the clamping device as herein shown, it is preferable that the various working surfaces as between the disks 3 and 6 and the offset 11 and disk 13 be made of antifrictional metal so that the wear at such points will be reduced to a minimum and thus the life of the clamping device be increased.

By forming the clamp as herein shown, it is evident that the lugs 7 and 9 will limit the movement of the disk 6 to its farthest clamping position when moved in one direction, while when moved in the opposite direction will stop the disk 6 when the offset

11 is placed in alinement with the elongated portion of the key-hole slot 14, thus permitting the withdrawal of the bar 2 with relation to the bar 1 so that the wires W may be placed against one of the bars and the removed bar may then be replaced and the disk 6 rotated in the opposite direction to clamp the two bars upon the wires. By this means the two bars may be operated to stretch the wires after having been placed in position at any intermediate point of the fence, any means being provided whereby the bars may be pulled upon to produce the desired tautness in the wires before or after the fastening thereof.

What is claimed is:

1. In a wire clamping device for wire stretchers, two wire engaging bars, and a plurality of clamping mechanisms carried by the bars and consisting each of a rotatable spindle journaled through one of the bars and provided with an offset end, a disk carried by the spindle and provided with a limiting lug, a retaining ring mounted upon the bar and engaging the disk to retain the same upon the bar, means for rotating the disk, and a cam disk carried by the other bar for coaction with the offset end of the spindle to move the last bar to and from the disk carrying bar.

2. In a wire clamping device for wire stretchers, two wire engaging bars, and a plurality of clamping mechanisms carried by the bars and consisting each of a rotatable spindle journaled through one of the bars and provided with an offset end, a disk carried by the spindle and provided with a limiting lug, a retaining ring mounted upon the bar and engaging the disk to retain the same upon the bar, means for rotating the disk, a cam disk carried by the other bar for coaction with the offset end of the spindle to move the last bar to and from the disk carrying bar, said cam disk being provided with a key-hole slot therethrough for the removable reception of the offset end of the spindle, and whereby the bars may be disconnected from one another.

3. The combination with two separable bars, of a clamping device therefor including a spindle rotatably mounted through

one of the bars and of sufficient length to project through the other bar, the extreme projecting end thereof being provided with an offset, a handle for rotating the spindle, a disk carried by the spindle and provided with a limiting lug, a flanged ring secured to the bar and in which the spindle is rotatably mounted and for retaining the disk relatively to the bar, a lug carried by said ring for coaction with the lug of the disk to limit the rotation of the disk, and a disk mounted upon the other bar for coaction with the offset of the spindle, the outer face of said disk being cam-shaped for coaction with the offset to move the bars to and from each other during the rotation of the handle.

4. The combination with two separable bars, of a clamping device therefor including a spindle rotatably mounted through one of the bars of sufficient length to project through the other bar, the extreme projecting end thereof being provided with an offset, a handle for rotating the spindle, a disk carried by the spindle and provided with a limiting lug, a flanged ring secured to the bar in which the spindle is rotatably mounted and retaining the disk relatively to the bar, a lug carried by said ring for coaction with the lug of the disk to limit the rotation of the disk, and a disk mounted upon the other bar for coaction with the offset of the spindle, the outer face of said disk being cam-shaped for coaction with the offset to move the bars toward each other during the rotation of the handle, the last mentioned disk being provided with an irregular shaped aperture therethrough to permit of the passage therethrough of the offset end of the spindle at the separation of the bars.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

CHARLES H. TOWNSEND.
GEORGE E. COLLING.
DOUGLAS W. LIGON.

Witnesses:

JESSE B. HENDRICKS,
WILLIAM C. COWPER.