(No Model.)

D. W. AYLWORTH & N. B. LESLIE.

HAND CLAMPING TOOL.

No. 539,331. Patented May 14, 1895.

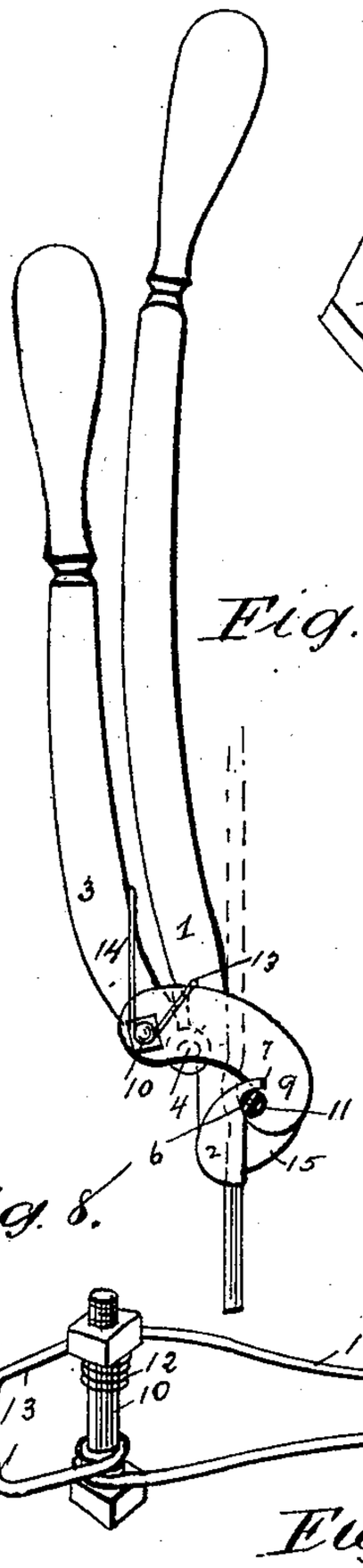


Fig. 8.

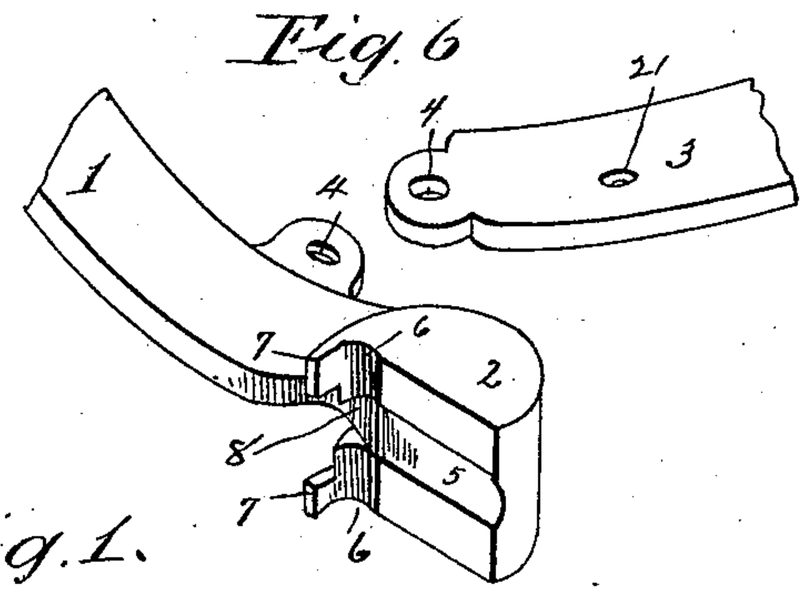


Fig. 6

Fig. 1.

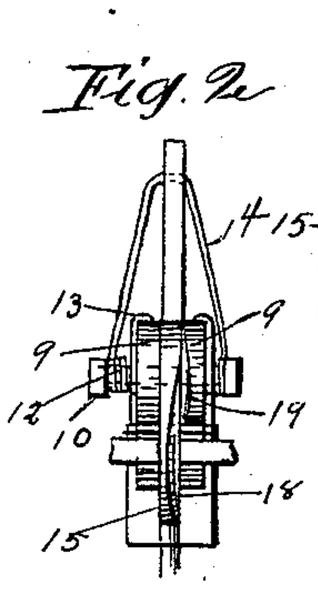


Fig. 2

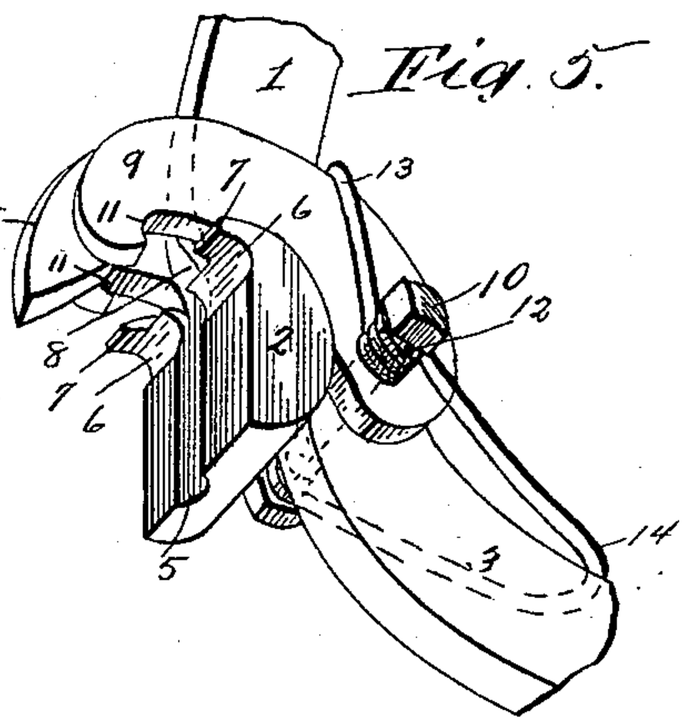
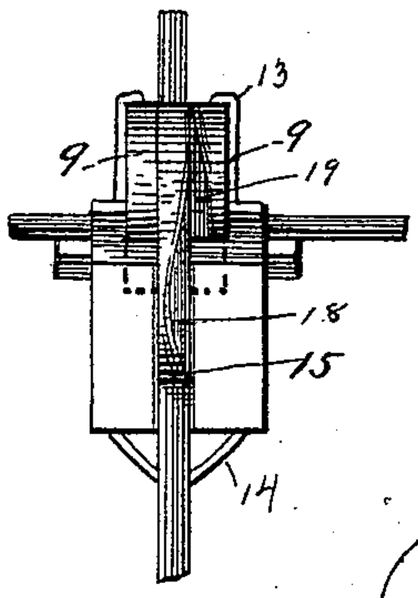


Fig. 5.

Fig. 4.



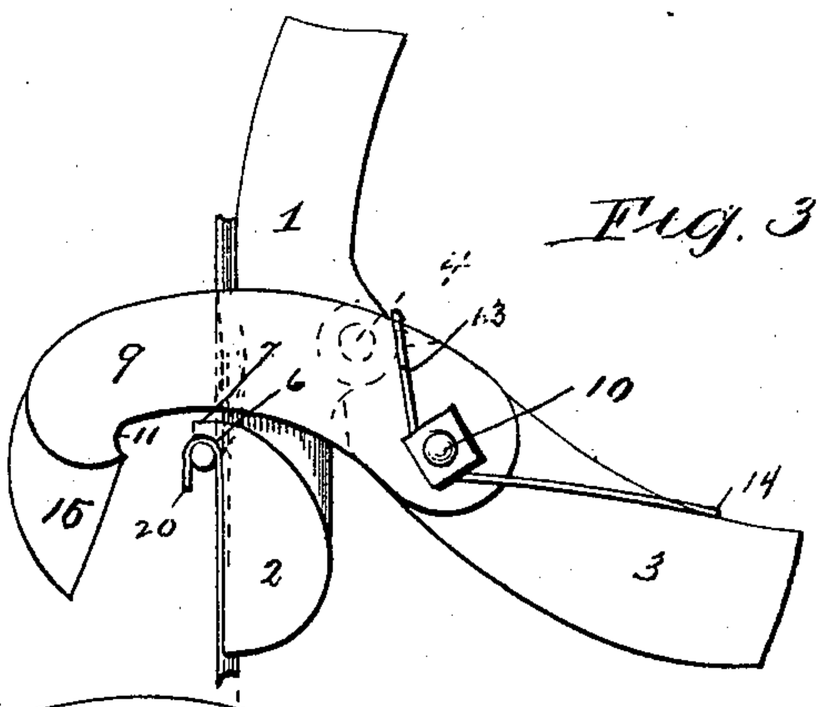


Fig. 3

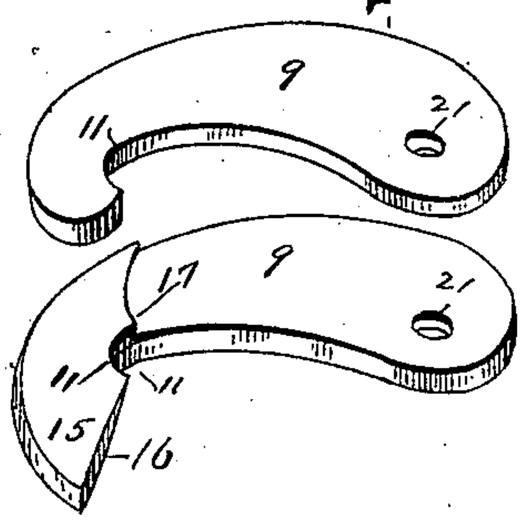


Fig. 7.

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UNITED STATES PATENT OFFICE.

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HAND CLAMPING-TOOL.

SPECIFICATION forming part of Letters Patent No. 539,331, dated May 14, 1895.

Application filed June 20, 1894. Serial No. 515,205. (No model.)

To all whom it may concern:

Be it known that we, DANIEL W. AYLWORTH and NOBLE B. LESLIE, citizens of the United States, and residents of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Clamps, of which we hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in hand clamping devices adapted to be employed in securing the crossings of wire fences with a clamp like the one described in our Patent No. 516,291, dated March 13, 1894.

Our invention consists in the vertically and transversely grooved stationary dies, and pivoted compressing dies, with operating levers and details of construction and combination of parts as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the device. Fig. 2 is an edge view of same, both figures showing the device closed upon the wire and clamp. Fig. 3 is a side view showing clamp opened. Fig. 4 is an edge view of the same. Fig. 5 is a perspective view of the same. Fig. 6 is a detail view of vertical die-head and lever attachments. Fig. 7 is a detail of compressing-dies. Fig. 8 is a detail of pivot-bolt for compressing-dies and spring.

In the figures 1 is the vertical lever for the die head, and 2 the head.

3 is the operating lever for compressing dies, and 4 the pivotal point of both levers.

5 is a vertical groove in die 2, recessed at 8 to receive and bend the vertical wire.

6, 6, are transverse grooves to receive the horizontal wire.

7, 7, are projections which overlap the compressing dies 9—9 pivoted at 10 at either side of the lever, 3, when said compressing dies are closed together and passing on either side of the lever 1. The compressing dies are provided with transverse grooves 11 corresponding to the grooves 6, and these dies are pivoted at a slight distance back from the pivot point 4 at 21 so that when the clamp is opened the compressing dies are thrown up and away from the vertical die.

In order to introduce the vertical wire between the compressing dies they are pivoted on the bolt 10 loosely between the spring coils 12 the extremities of which at 13 and 14 are passed one over the compressing dies and the other over the lever 3, which assists in holding the clamp normally open and prevents the dies from spreading too far. The central plate 15 is secured to one of these dies, and is provided with the inner edge 16 which engages the vertical wire. The inner corner 17 presses the vertical wire into the groove 8, and bends the clamp and wire to prevent the clamp from slipping on the vertical wire. The inner edges of one compressing die and of the plate 15 are beveled off at 18 and 19 to admit the vertical wire easily.

In operation, the clamp is adjusted to lie on the vertical wire and the wire crossing is placed on the vertical die, so that the grooves correspond, when the levers are brought together and the loops 20 of the clamp are bent about the wire, and the vertical wire and clamp bent into the recess 8. Fig. 3 shows the arrangement before closing the levers.

The advantages of this device are obvious, in its extreme simplicity and adaptability to the purposes for which it is intended.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The clamping dies, comprising a handle, a stationary die secured thereto and provided with a vertical groove and horizontal grooves and projections, and a second handle pivoted upon the first one in the rear of said die, combined with compression dies at either side of the stationary die, a central plate placed between the compression dies, and a spring applied to both the second handle and the compression plates, substantially as shown.

2. In clamping dies to compress the loops of a metal clamp about a horizontal wire in a wire crossing, the combination of a vertical die, provided with a vertical groove recessed at 8, and provided with an operating lever, compression dies adapted to pass on either

side of said lever, provided with transverse grooves and engaging plate for vertical wire, and loosely pivoted upon an operating lever, which last lever is pivoted in turn to said lever for the vertical die, a spring adapted to retain said compression dies in position while permitting the passage of the vertical wire, and projections on the vertical die adapted to secure said compressing dies when the dies are closed together, substantially as set forth.

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