

No. 610,489.

Patented Sept. 6, 1898.

J. T. T. KISINGER.
WIRE FENCE BUILDING APPLIANCE.

(Application filed Sept. 23, 1897.)

(No Model.)

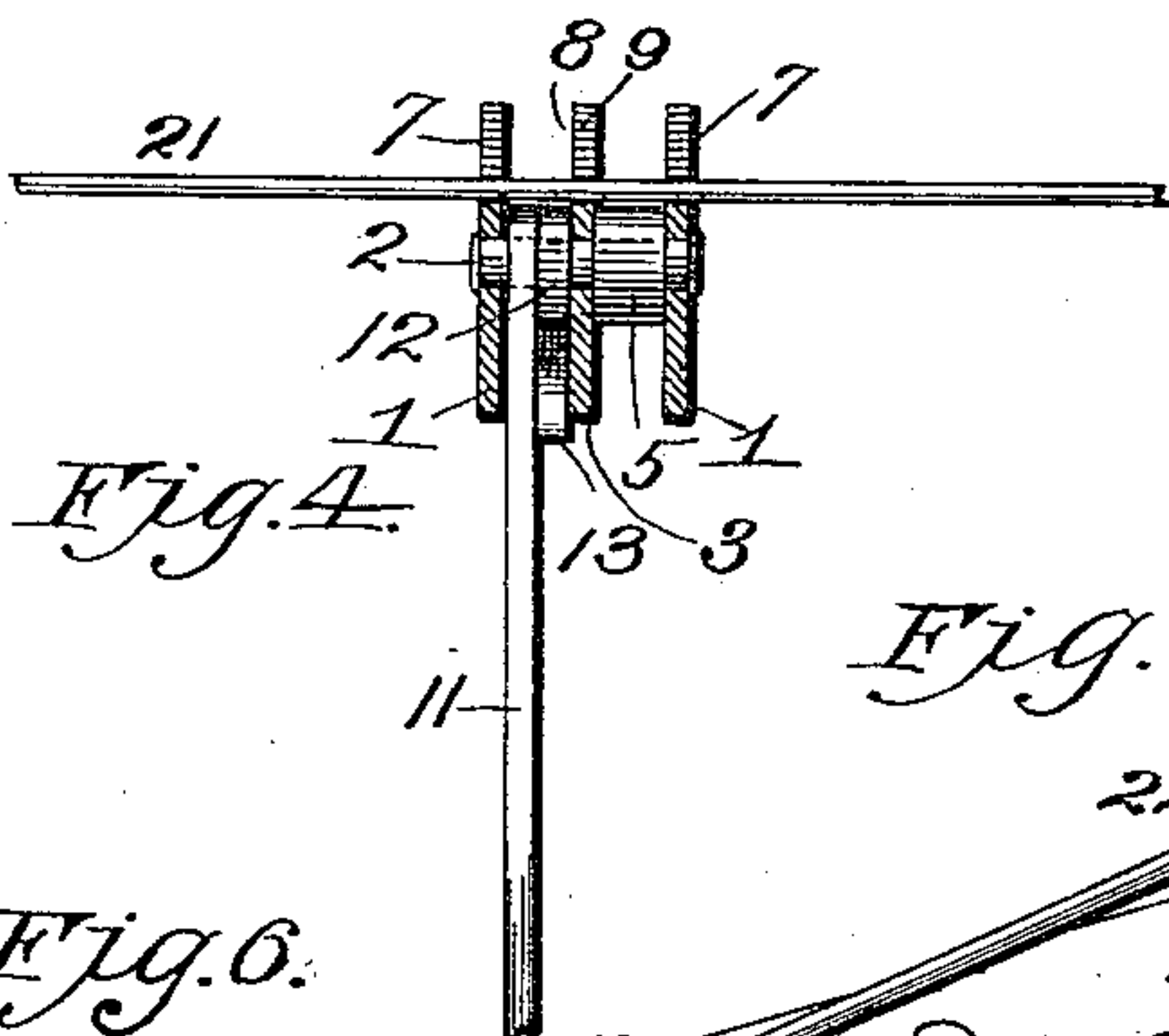
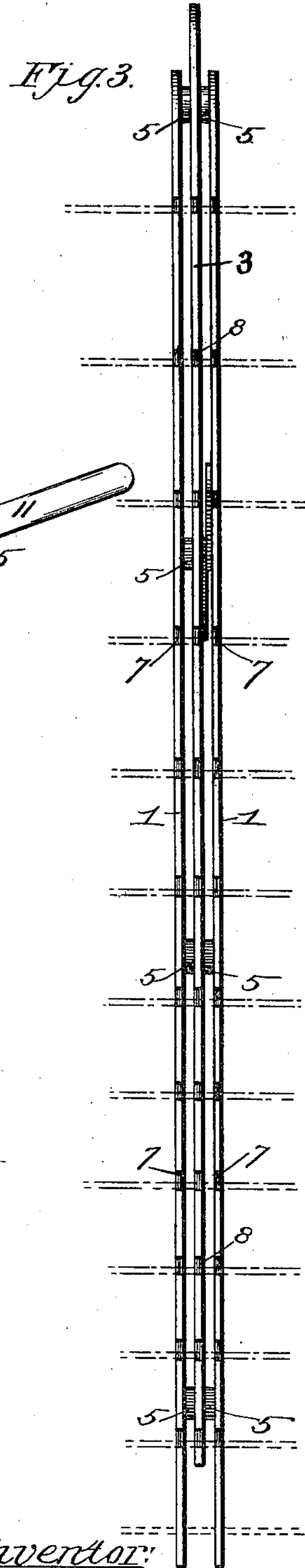
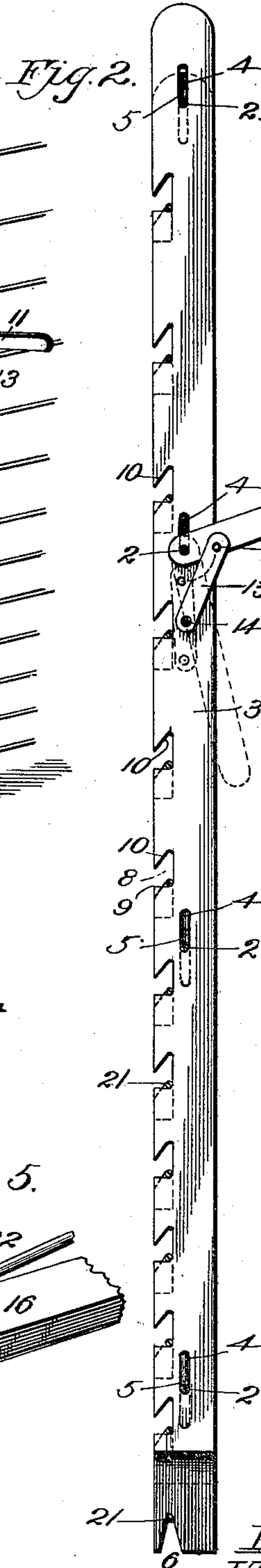
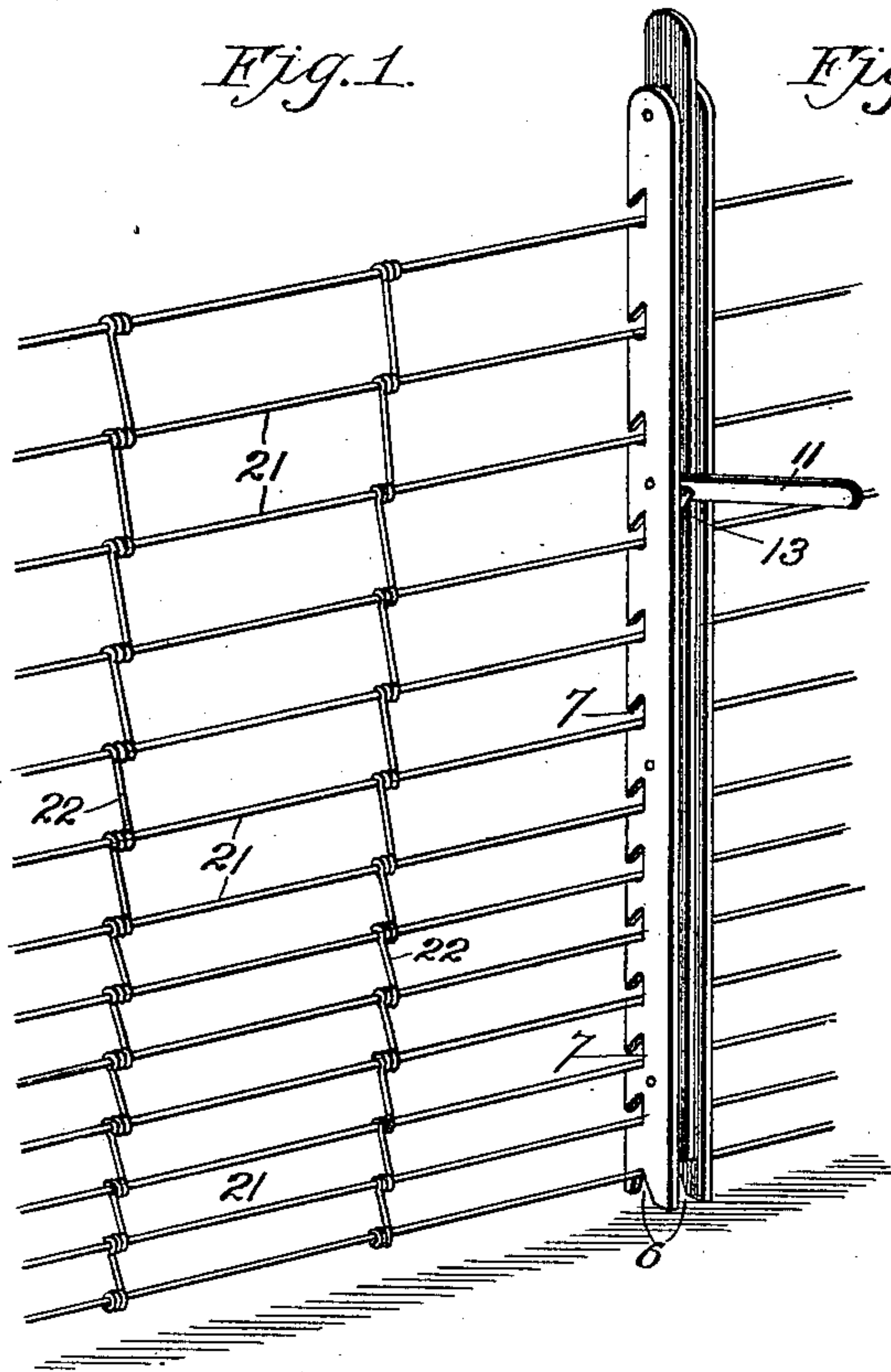
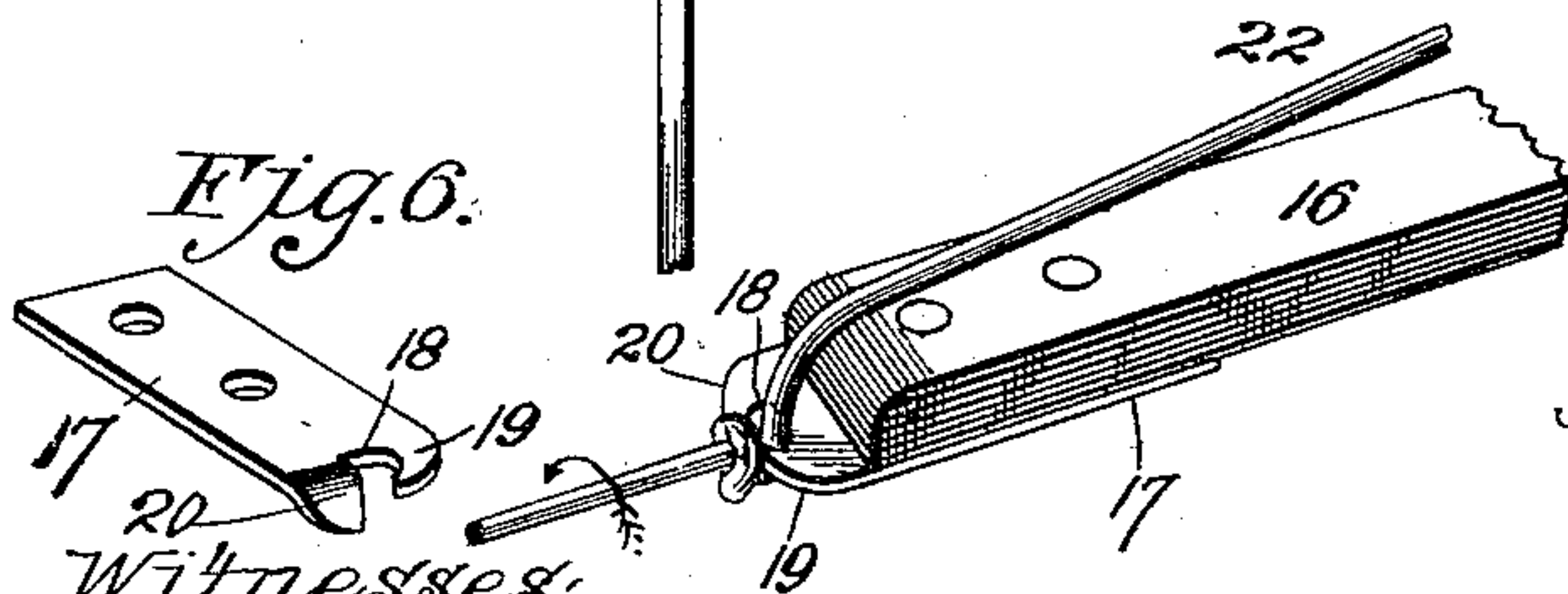


Fig. 5.



Witnesses:

M. R. Remley.
L. P. Thorpe.

Inventor:
J. T. T. Kisinger.
By Higdon & Higdon Attys.

UNITED STATES PATENT OFFICE.

JOHN T. T. KISINGER, OF STILWELL, KANSAS.

WIRE-FENCE-BUILDING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 610,489, dated September 6, 1898.

Application filed September 23, 1897. Serial No. 652,782. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. T. KISINGER, of Stilwell, Johnson county, Kansas, have invented certain new and useful Improvements in Wire-Fence-Building Appliances, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to wire-fence-building appliances; and my object is to produce devices of this character by which a strong and durable fence may be quickly and cheaply built.

To this end the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents in perspective a view of part of said appliances arranged in operative position with relation to a wire fence constructed with said appliances. Fig. 2 is a vertical sectional view of the appliance shown in Fig. 1, on an enlarged scale, such appliance being hereinafter termed the "wire-spacing and clamping member." Fig. 3 is a front view of the wire spacing and clamping member. Fig. 4 is a horizontal section of the wire spacing and clamping member on a larger scale. Fig. 5 is a perspective view of the member for securing stay-wires in position. Fig. 6 is a detail perspective view of the twisting-plate proper.

I will first proceed to describe the construction in detail of the appliances and then refer to the construction of the fence as built with said appliances.

The spacing and clamping member comprises a pair of parallel bars or strips 1 of metal or its equivalent, and said bars or strips are connected together permanently by means of a series of rivets or bolts 2. A third bar or strip 3 of about the same length is arranged parallel with and centrally between the bars or strips 1 and is provided with longitudinal slots 4, through which said rivets or bolts extend in order that said central bar may reciprocate vertically, for a purpose to be hereinafter explained. The bars

are spaced properly by means of washers or collars 5, mounted upon the bolts 2 and interposed between the central or slide bar and the outer or stationary bars, and these washers are preferably of slightly-greater thickness than the bars themselves in order that the runners or the wires of the fence adapted to be engaged by the clamping appliance may be firmly and reliably gripped, irrespective of a slight variation in diameter, as will be hereinafter more particularly explained.

The side bars 1 are preferably formed with the oppositely-disposed inverted-V-shaped notches 6 in their lower ends, said notches being situated at a point below the lowest point obtained by the middle or slide bar. Said side bars are also provided at intervals in their front edges with notches 7 of substantially right-angle-triangle form, so as to provide a horizontal shoulder at the lower end of the vertical side of each notch and an inclined shoulder which tapers upwardly and inwardly to the upper end of said vertical side of the notch.

The slide-bar is provided in its front edge with a corresponding series of triangular notches 8, the horizontal shoulders of said notches being numbered 9 and the sloping shoulder 10. In this connection it may be well to know that the use of the lower shoulders of the stationary or side bars 1 is important and that the peculiar sloping formation of the upper shoulders is not essential; but this statement must be reversed when the slide-bar is taken into consideration, as in that element the sloping shoulders are important, while the lower shoulders perform no particular function. In other words, in actual practice the lower shoulders of the stationary bars form a series of resistance-points or stationary jaws, while the upper or sloping shoulders of the slide or middle bar perform the function of movable jaws, which are adapted to clamp the horizontal wires of the fence firmly and securely down upon said stationary jaws.

11 designates a lever which is mounted pivotally upon one of the rivets or bolts 2 between the middle and one of the side bars and is held from lateral movement by means of a narrow collar 12, interposed between it and said middle bar preferably.

13 designates a link which is pivoted, as

at 14, to the middle bar vertically below the rivet or bolt 2, forming the pivot of the lever. At its opposite end said link is pivoted, as at 15, to said lever, the connection being made
 5 at such point that when the lever is depressed to the position shown in dotted lines, Fig. 2, said pivotal point 15 shall be in advance of the vertical plane occupied by the pivotal points 2 and 14. As a result the tendency of
 10 the lever is to maintain this position irrespective of the immensity of the strain imposed upon it by reason of the clamping of a plurality of wires down upon the lower shoulders or jaws of the side bars.

15 When the lever occupies its elevated or inoperative position, as shown in full lines in the drawings, the middle or slide bar is raised, and its notches 10 register with the notches 7 of the stationary bars.

20 Referring now to the appliance for securing the stay-wires of the fence in position, 16 designates a handle, of wood or other suitable material, and 17 a plate secured thereto, projecting beyond the end of the handle portion, and the middle of said projecting end
 25 is formed with a notch 18, guarded at opposite sides by means of arms or lugs 19 and 20, one of which projects forward and the other downward, the former being provided with a
 30 concave face and adapted to receive the stay-wire and the latter to bear against the wire around which the stay-wire is being twisted.

In building a fence with these appliances the horizontal wires 21, corresponding in number, if desired, to the notches 7, are suitably
 35 secured at their ends in the customary manner. The spacing and clamping member, arranged as shown in full lines, is then caused to engage said wires at the required distance
 40 from one end, those wires above the bottom wire engaging the series of notches and said bottom wire engaging the notches 6 of the side bars relieves the operator of the necessity of supporting them as he grasps the lever 11 and forces it down to the position shown
 45 in dotted lines, Fig. 2. By so doing he forces the slide-bar downwardly, and the sloping or upper shoulders 10, engaging the upper sides of the wires, as shown in dotted lines, Fig.
 50 2, force them inwardly and downwardly into the angle at the junction of the horizontal and vertical sides of the notches 7. By the time the slide-bar has assumed this position the lever is entirely depressed and the pivotal point 15 is in front of the vertical plane represented by the pivots 2 and 14. Consequently any lifting tendency of the wires upon the slide-bar only tends to clamp them more reliably in position and provides a positive and reliable guard against the accidental
 55 release of the wires. The wires being thus secured at the required distances apart, the twisting appliance is arranged upon the bottom wire at the right-hand side of and close
 60 to the post when building to the right. If it be desired to twist the stay-wire in the direc-

tion indicated by the arrow, Fig. 5, the depending arm 20 is caused to engage the off side of the wire with the handle resting on top of the same. The stay-wire 22 is bent
 70 near its lower end, so that the greater portion of its length may extend horizontally between the bottom wire and that next above, while the short vertical portion may extend down through the notch of the twister at the inside
 75 of the horizontal wire. Such end is grasped by means of a wrench or nippers, (not shown,) and then the twister is rotated bodily around said horizontal wire in the direction indicated by the arrow, so as to twist the stay-wire one
 80 or more times around said horizontal wire. The twister is then removed and the kink taken out of the stay-wire, so that it shall extend vertically to a point between the second and third wires from the bottom and at the
 85 off side of the same preferably. At such point it is again bent so that its upper portion shall occupy a plane between said second and third wires and below said bend; but above the second wire its vertical portion is
 90 again engaged by the twister and the previous operation repeated, so as to twist it one or more times around the second wire, and this operation is repeated until the stay-wire extends from the lowest to the topmost wire and
 95 is twisted tightly around them all, this twisting operation serving to kink the runners or horizontal wires slightly at the points of engagement and as a result prevents the slippage of the stay-wires upon the runners or
 100 horizontal wires. After the stay-wire is thus secured the lever 11 is raised and the clamping device slid along the fence until it reaches the point of the next stay-wire, which is then secured in position, as above explained. These
 105 stay-wires when arranged at regular intervals apart provide a cheap and strong fence which will insure the retention of animals within the inclosure and which at the same time can be built with great rapidity and at small cost. 110
 When it is desired to build the fence in the opposite direction, the arm 19 of the twister will be the fulcrum or guide by which said twister is turned around and upon each horizontal wire as the stay-wire is twisted thereon. 115
 By reason of the fact that more or less space is left between the bars composing the clamp it is obvious that it is immaterial whether the horizontal wires of the fence be all of the same gage or diameter, as the heavier
 120 wires, which are first engaged by the slide-bar of the clamp, will be bent downwardly between the outer bars, so as to permit the smaller wires to be reliably clamped in position also. If insufficient space were left between said side bars, it is evident that the central bar could not obtain sufficient leverage, in hand manipulation, at least, to kink the heavy wires to this end; nor would there be room, possibly, between said bars for the
 125 bend to be made if sufficient power could be brought to bear. It is obvious, therefore, 130

that this spacing of the bars by means of the washers or their equivalents is of importance in the practical working of the machine.

5 Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In wire-fence-building appliances, a spacing and clamping member, comprising a clamp consisting of a pair of parallel stationary bars provided with registering notches and suitably spaced, a sliding member arranged between and parallel with said bars and provided with a corresponding series of notches, and means to reciprocate said member and thereby clamp the horizontal wires of the fence down upon the lower shoulders formed by the notches of the stationary bars, or to release said wires, substantially as described.

20 2. In wire-fence-building appliances, a spacing and clamping member, comprising a pair of parallel bars riveted or bolted together, provided in their front edges with registering notches, a slide-bar arranged centrally between said first-named bars and provided with slots engaging said rivets or bolts, and with a corresponding series of notches, a lever mounted upon one of said bolts, and a link pivotally connecting said lever with the slide-bar, substantially as described.

3. In wire-fence-building appliances, a spacing and clamping member, comprising a pair of parallel bars riveted or bolted together, provided in their lower ends with notches, and provided in their front edges with registering notches, a slide-bar arranged

centrally between said first-named bars and provided with slots engaging said rivets or bolts, and with a corresponding series of notches, a lever mounted upon one of said bolts, and a link pivotally connecting said lever with the slide-bar, substantially as described.

4. In wire-fence-building appliances, a spacing and clamping member, comprising a pair of stationary bars provided with notches to receive the horizontal wires of the fence, a slide-bar arranged between the first-named bars and provided with a corresponding series of notches in its front edge; said notches having their upper sides or shoulders sloping upwardly and inwardly, and means to reciprocate said slide-bar, substantially as described.

5. In wire-fence-building appliances, a spacing and clamping member, comprising a pair of parallel bars connected at some distance apart, and provided with notches in their front edges, a slide-bar arranged centrally between the first-named bars, and provided with a corresponding series of notches, spacing-collars or their equivalents spacing the slide-bar from the first-named bars, and means to reciprocate the slide-bar, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN T. T. KISINGER.

Witnesses:

M. R. REMLEY,
G. Y. THORPE.