

No. 834,976.

PATENTED NOV. 6, 1906.

W. H. HAMPTON.
FENCE WIRE CLAMP.
APPLICATION FILED MAY 29, 1908.

2 SHEETS--SHEET 1.

Fig. 1.

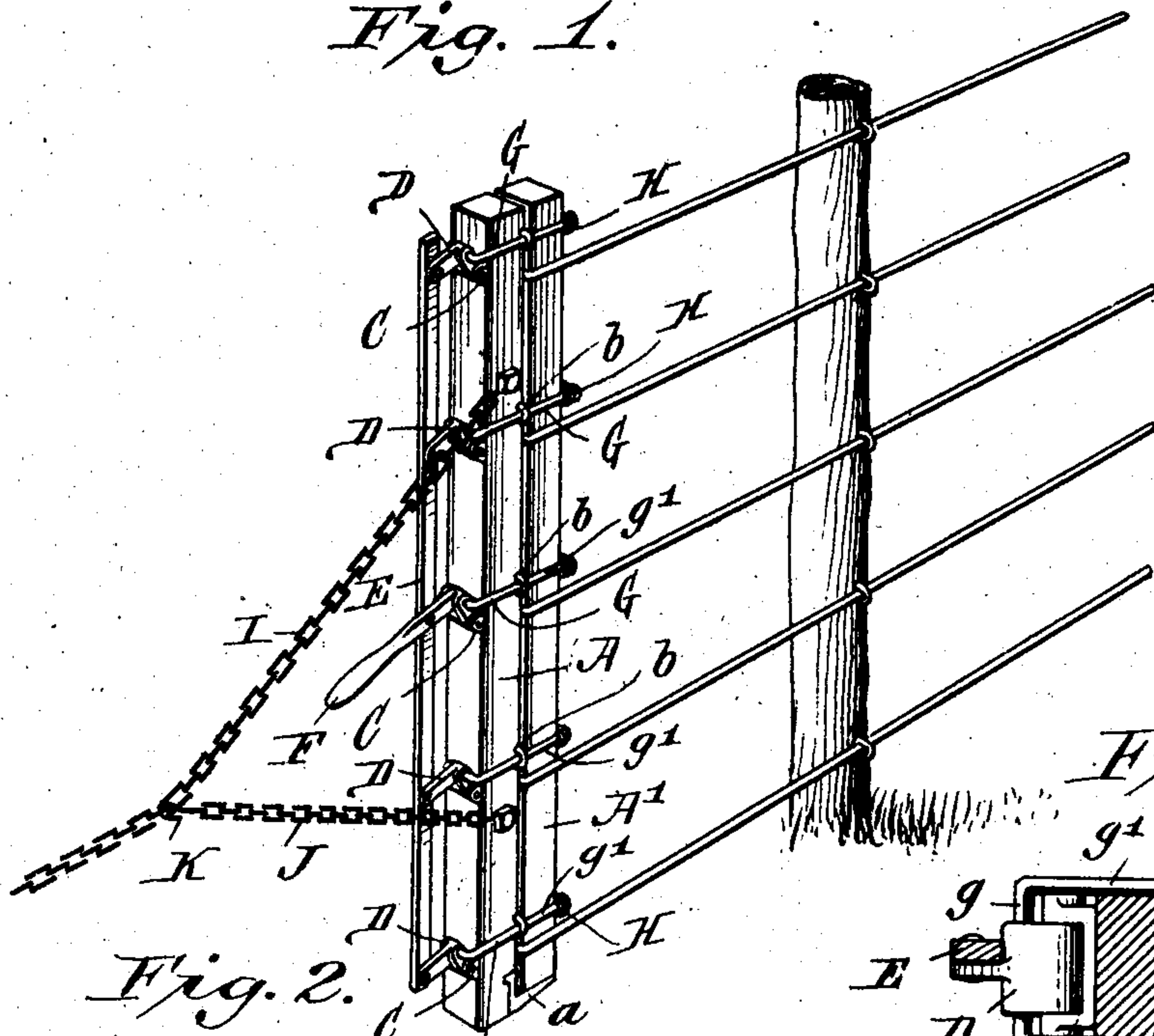


Fig. 2.

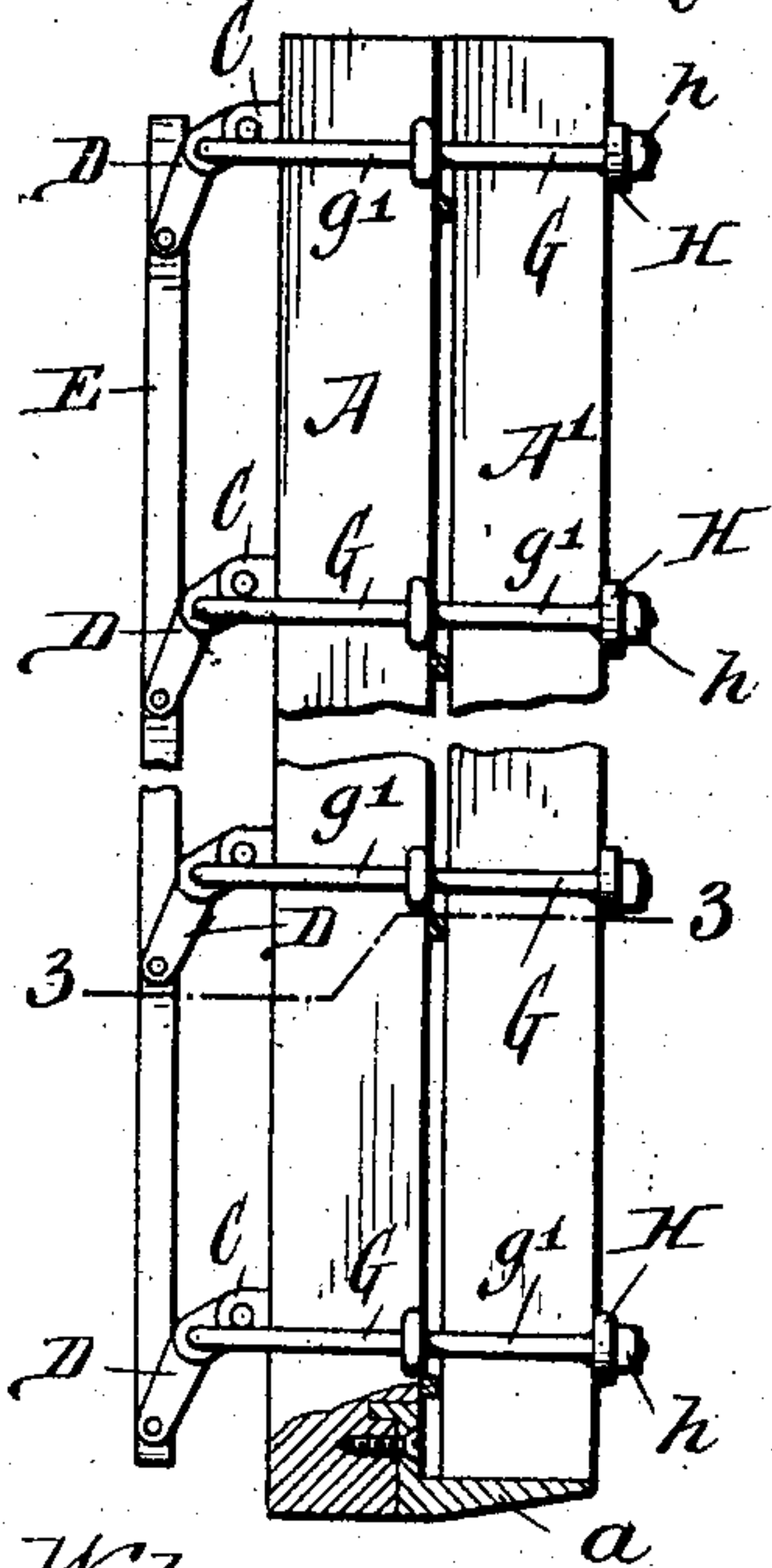


Fig. 4

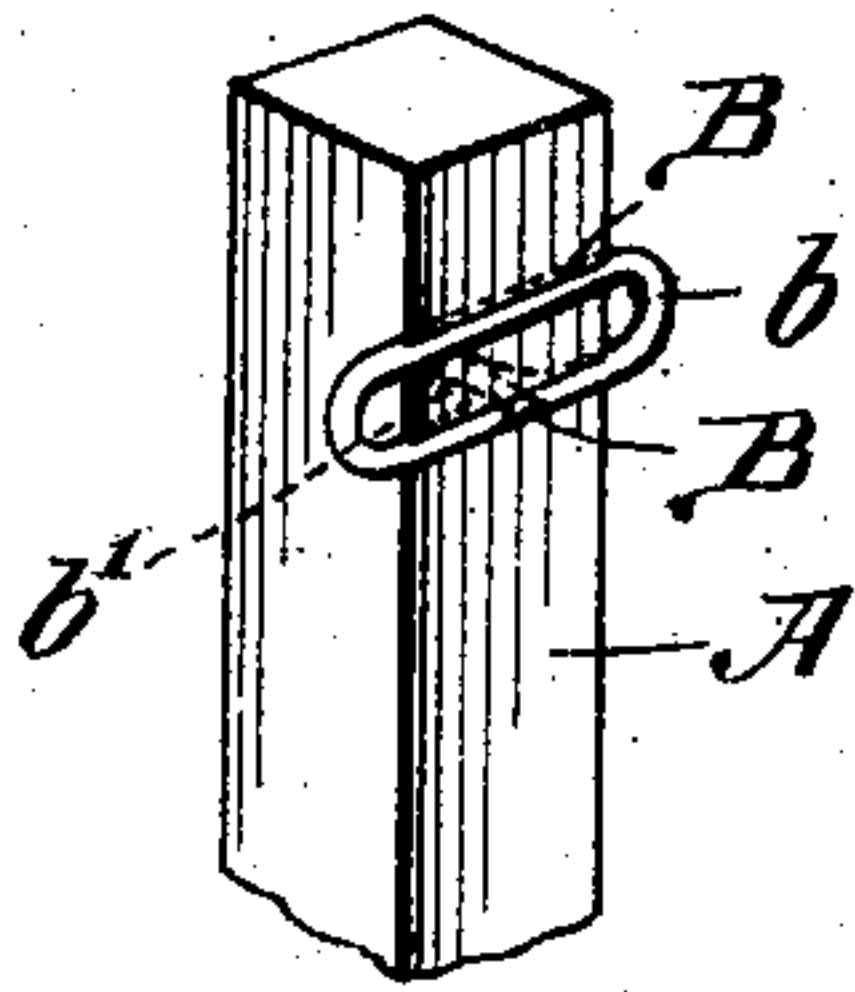


Fig. 6.

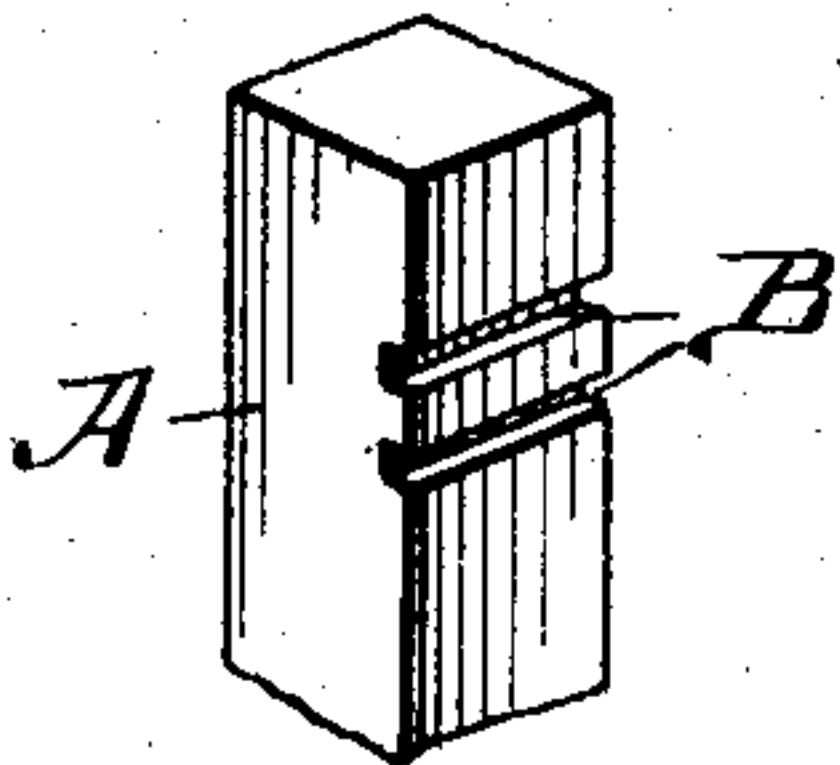


Fig. 3.

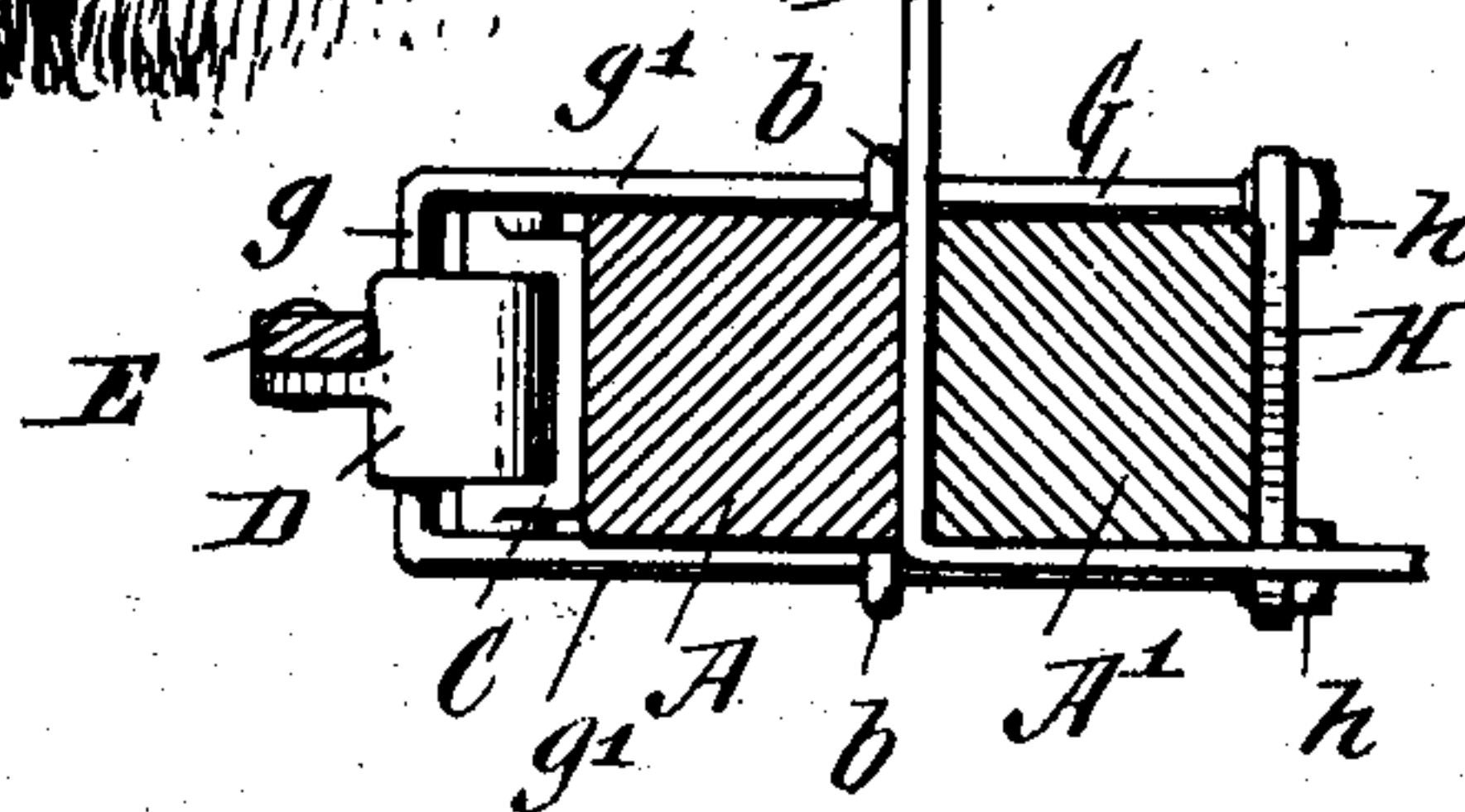


Fig. 5.

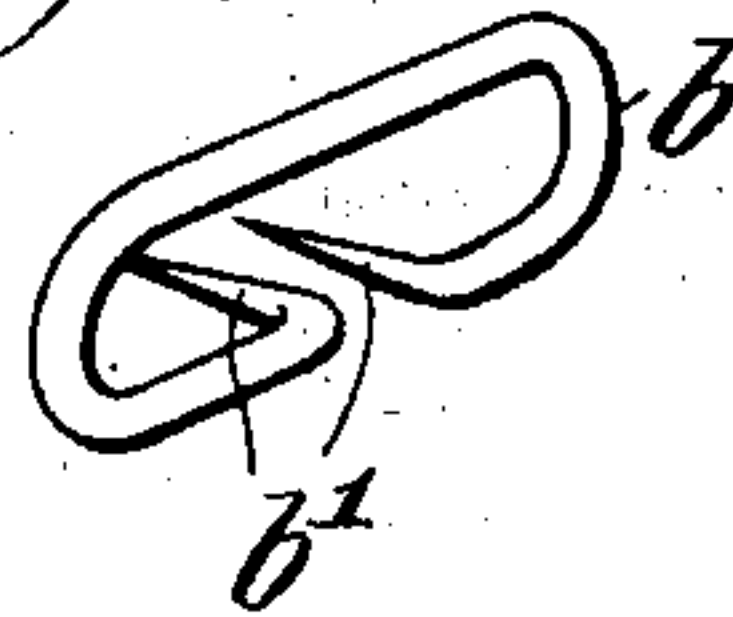


Fig. 7. 9²

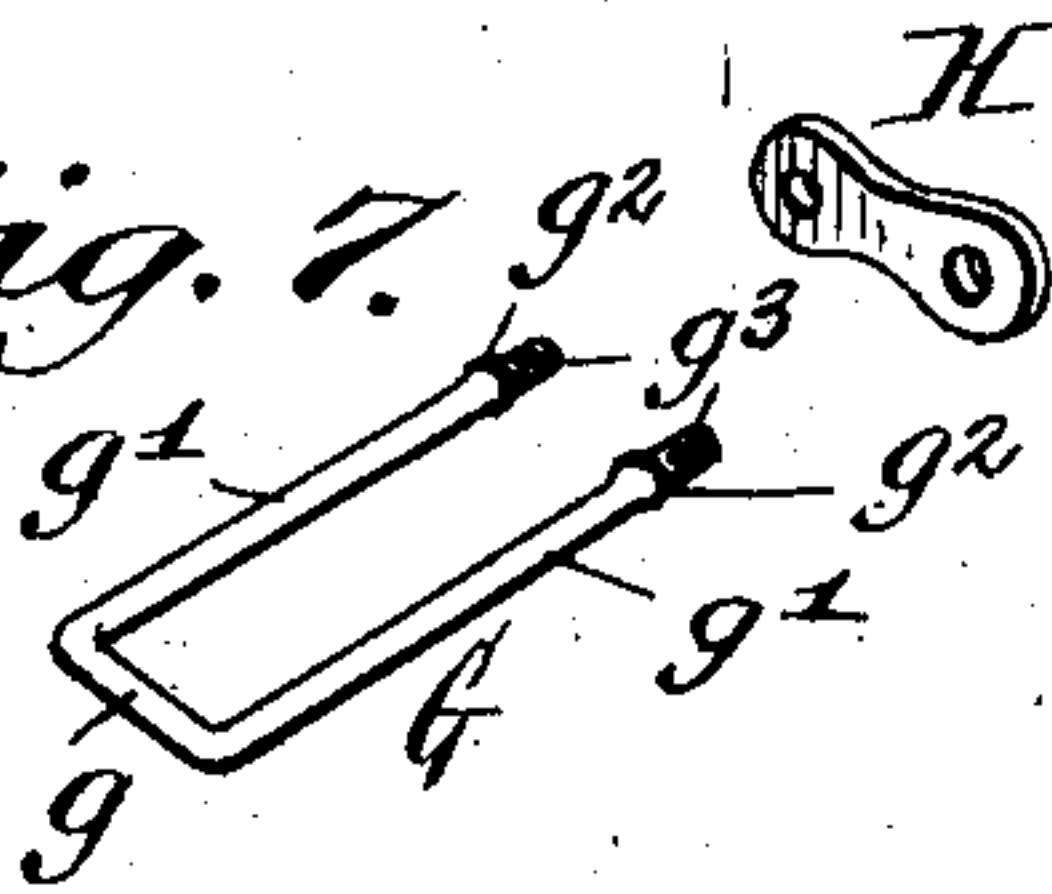
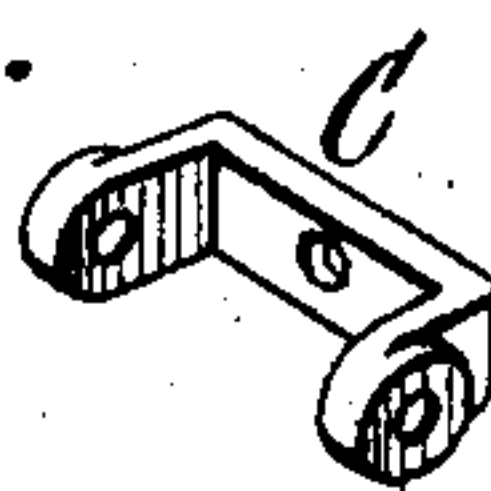


Fig. 8.



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2 SHEETS—SHEET 2.

Fig. 9.

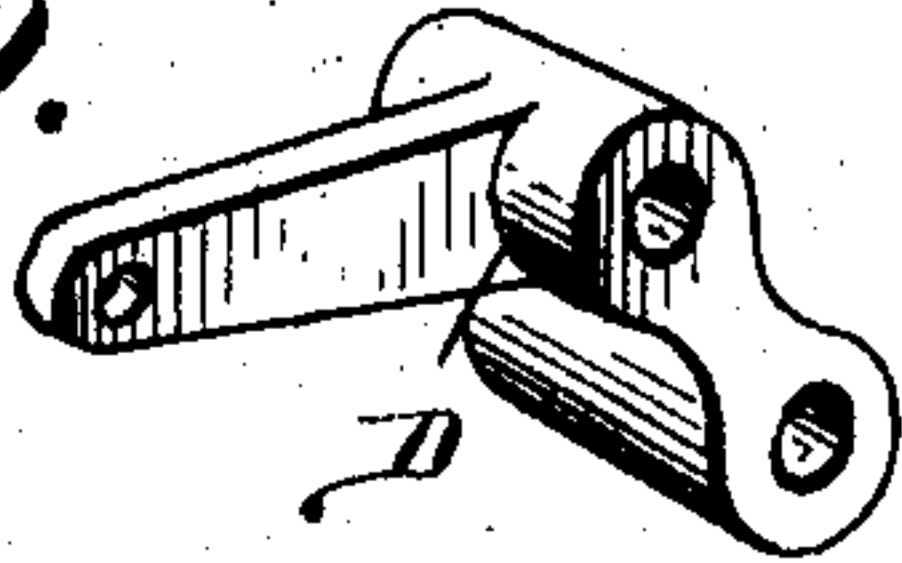


Fig. 10.



Fig. 11.

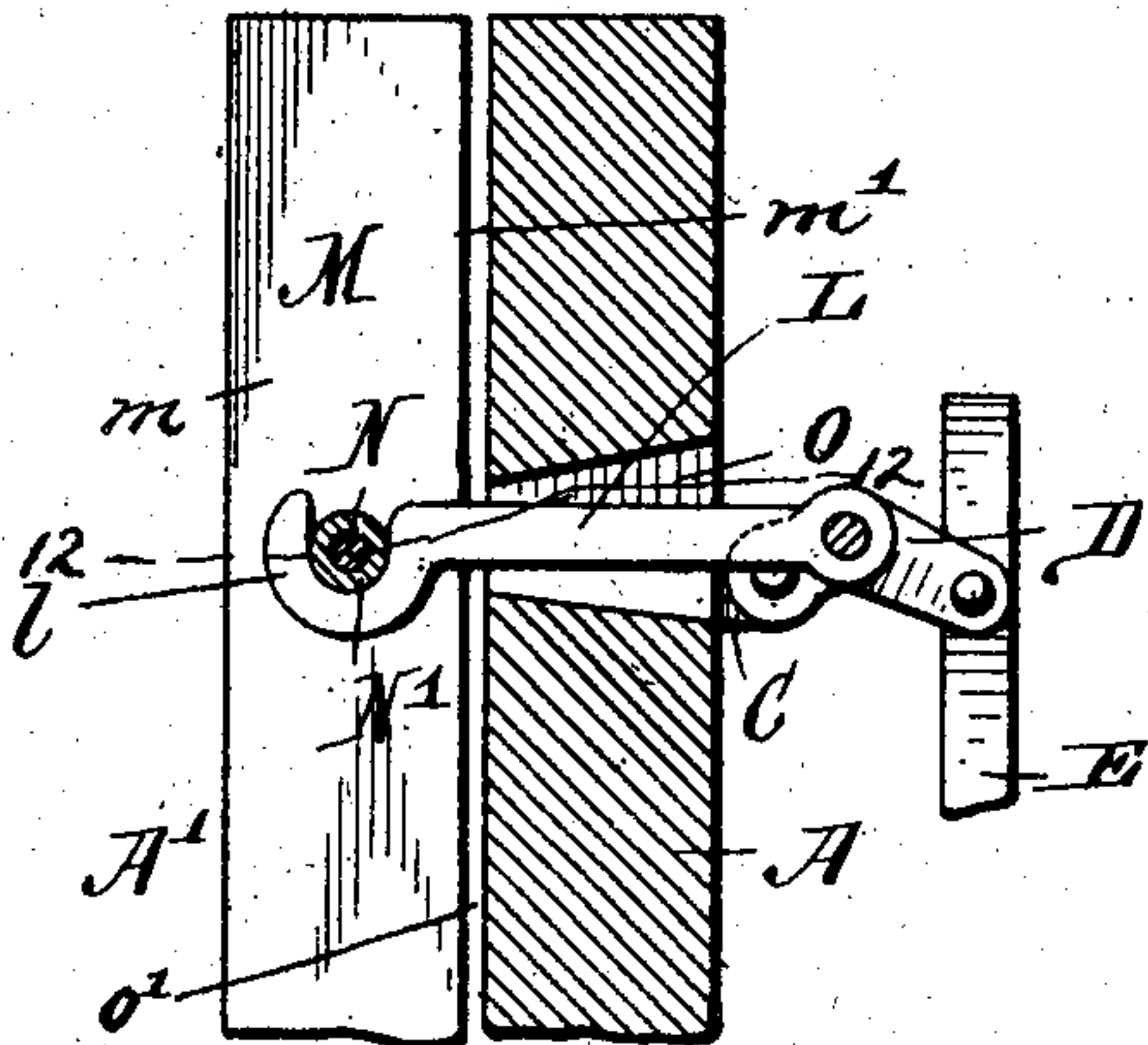


Fig. 12.

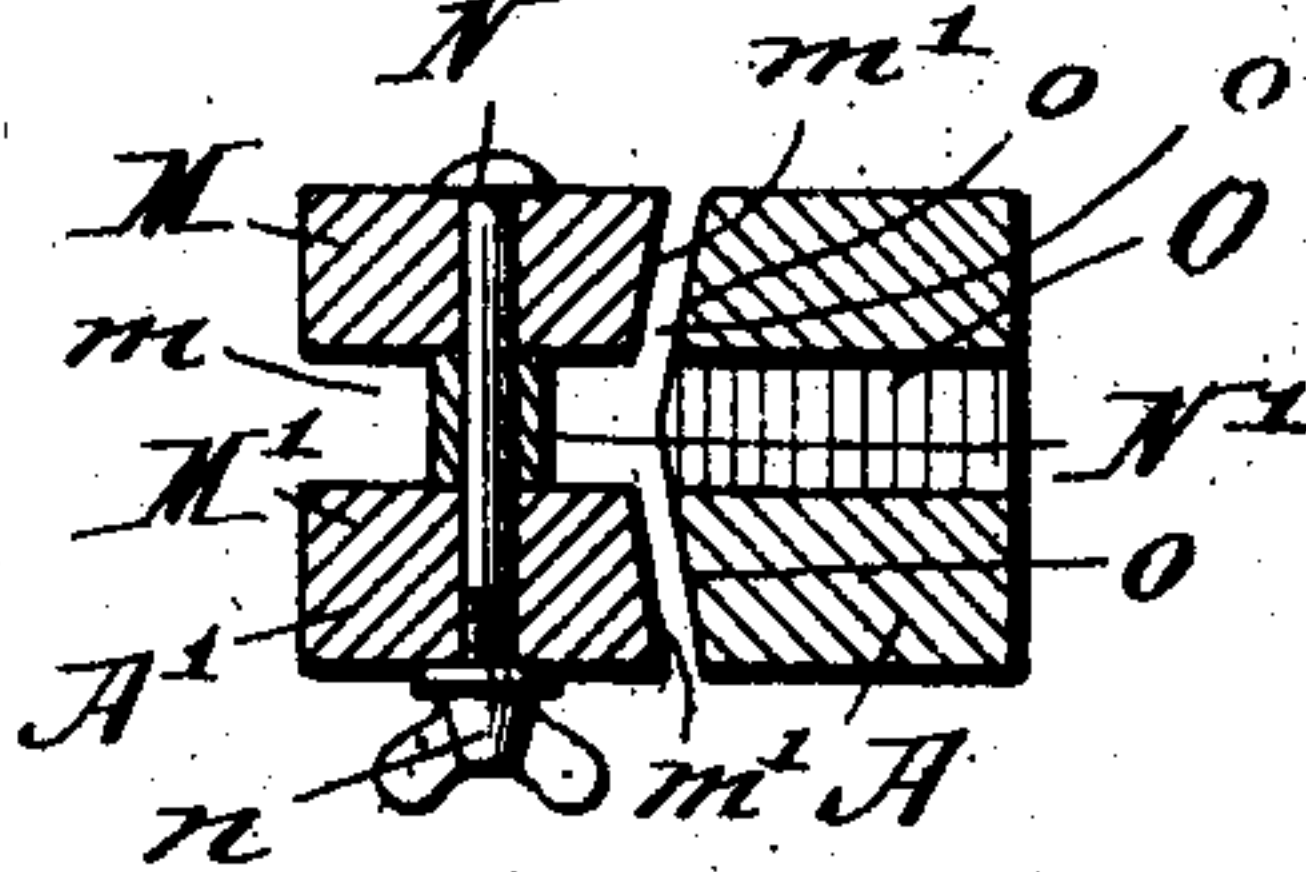


Fig. 15.

Fig. 13.

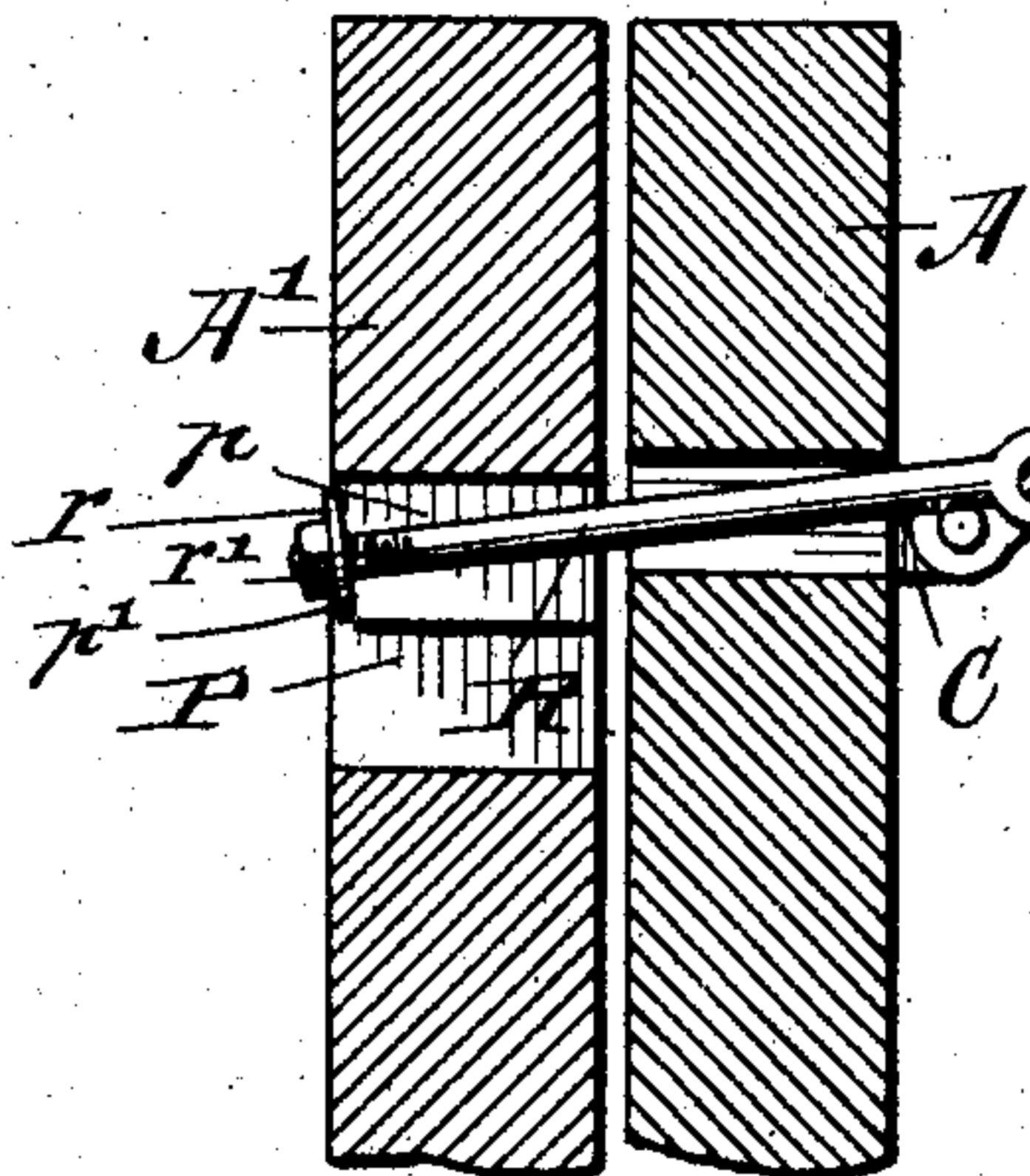
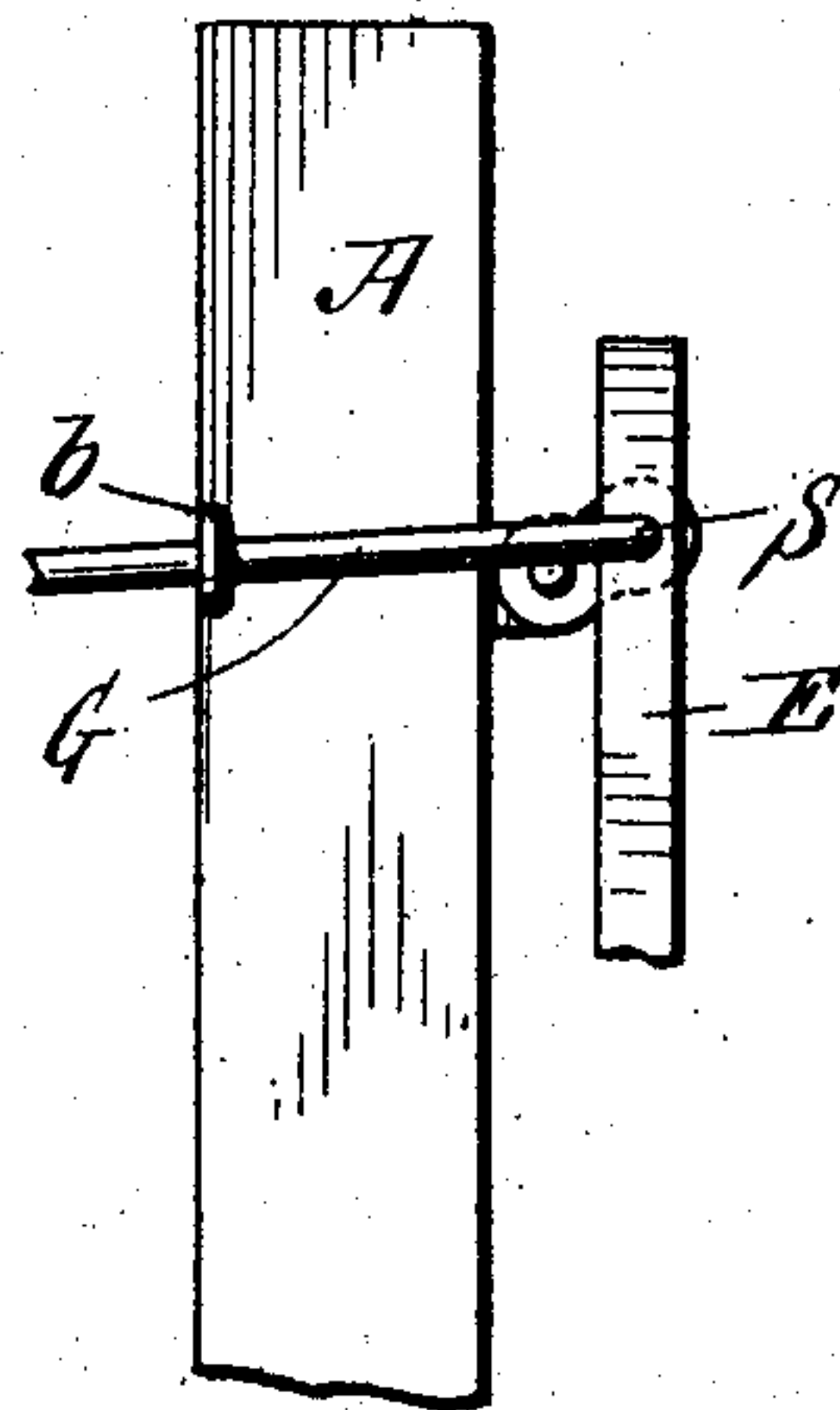
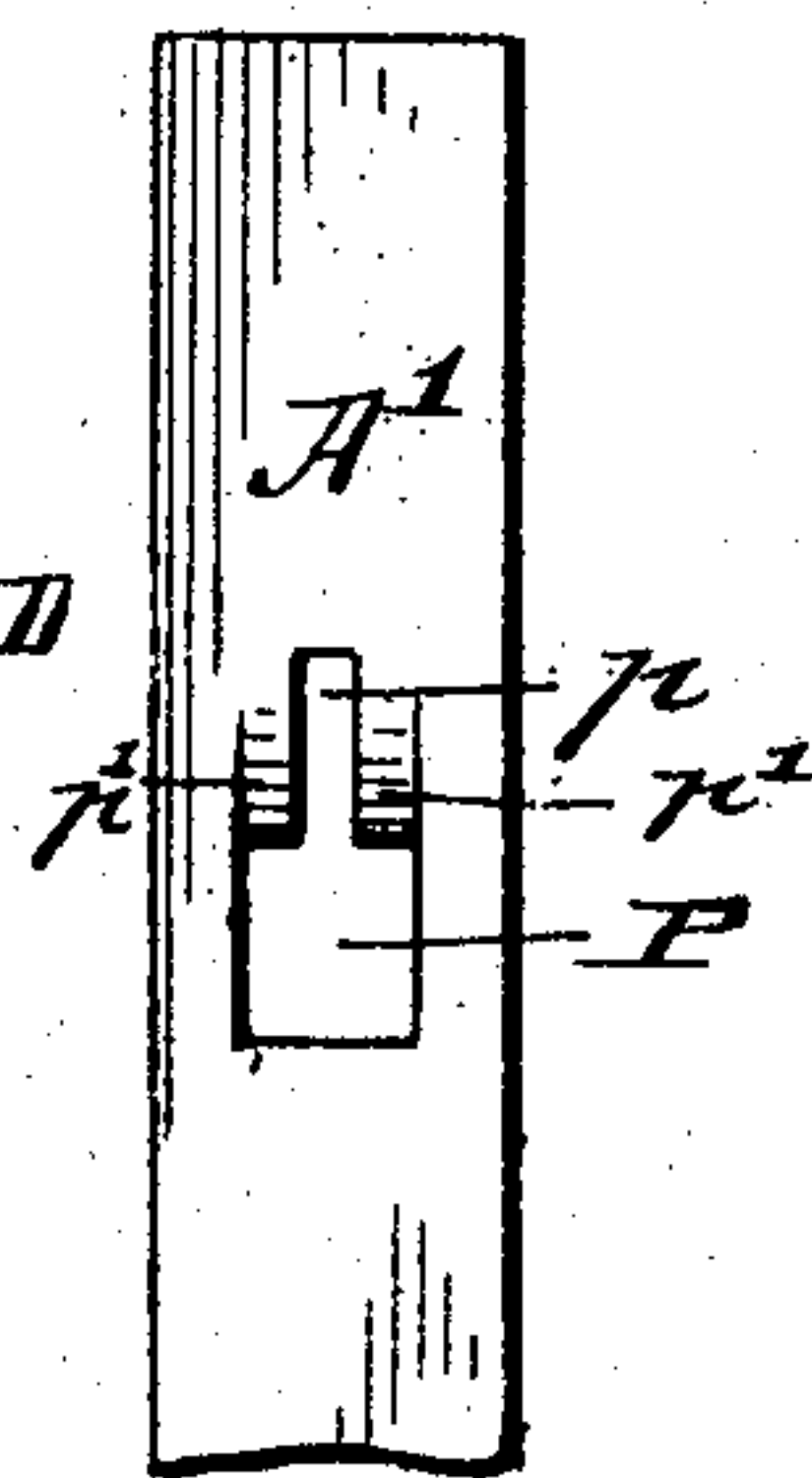


Fig. 14.



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UNITED STATES PATENT OFFICE.

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FENCE-WIRE CLAMP.

No. 834,976.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed May 29, 1906. Serial No. 319,396.

To all whom it may concern:

Be it known that I, WILLIS H. HAMPTON, a citizen of the United States, residing at Canaseraga, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Fence-Wire Clamps, of which the following is a specification.

This invention relates to improvements in fence-wire clamps for clamping a series of wires and stretching the same preparatory to fastening to the fence-post.

The primary object of this invention is the construction of a simple, light, strong, and inexpensive clamp whereby the several wires in the height of a fence may be stretched simultaneously and to the same extent.

Other objects are to provide an improved locking device which is positive in action, possesses greater power and retains the clamping members in proper position, and to otherwise improve on wire clamps now in use.

With these objects in view the invention consists in the construction, arrangement, and combination of parts to be hereinafter described, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of my improved wire clamp, showing the manner of using the same, the apparatus being applied to the wires preparatory to clamping. Fig. 2 is a broken side elevation of the same, the lower end of one of the clamping members being shown in section. Fig. 3 is an enlarged horizontal section taken on line 3 3, Fig. 2. Fig. 4 is a perspective view of the upper end of the fixed clamping member, showing the uppermost clevis-guide. Fig. 5 is an enlarged detached perspective view of one of the clevis-guides. Fig. 6 is a perspective view of the upper end of the fixed clamping member, the uppermost clevis-guide being removed to show the transverse groove in which it fits. Fig. 7 is a detached perspective view of one of the U-shaped clevises and its end bar. Fig. 8 is a detached perspective view of one of the brackets on the fixed clamping member. Fig. 9 is an enlarged detached perspective view of one of the angle lock-levers. Fig. 10 is a detached perspective view of the manipulating angle lock-lever. Fig. 11 is a central vertical section of the upper portion of a fence-clamp, showing my invention in modified form. Fig. 12 is a transverse section taken on line 12 12, Fig. 11, the locking device being omitted. Fig. 13 is a central ver-

tical section of the upper portion of a fence-clamp in another modified form. Fig. 14 is a rear elevation of the movable clamping member shown in Fig. 13. Fig. 15 is a fragmentary view of a fence-clamp, showing a still further modified form of the invention.

Referring to the drawings in detail, corresponding letters of reference refer to corresponding parts in the several figures.

The reference-letter A designates the fixed clamping member of the fence-wire clamp, and A' the movable and removable clamping member. Member A has at its lower end a metallic rearwardly-extending support *a* on which the movable clamping member rests. Said fixed member has on its inner or rear face several pairs of transverse grooves B, which are adapted to receive wire-guides *b* in the form of elongated loops having their ends bent inward, as at *b'*, to be driven into member A, said guides having their ends extending beyond the sides of said member for a purpose to appear hereinafter.

Brackets C are affixed to the outer or front face of the fixed clamping member, and pivotally secured to each bracket is one arm of an angle lock-lever D, which have their other arms connected by a rod E, at least one of said lock-levers having one of its arms lengthened to provide a manipulating-lever F to operate said lock-levers in unison through rod E.

The reference-letter G designates U-shaped clevises which have the cross members *g* passing through the lock-levers at the angles thereof and their side arms *g'* passed through the extending portions of guides *b*, the free ends of said clevises being provided with shoulders *g²* and the extremities thereof threaded, as at *g³*. The threaded extremities of said clevises are passed through apertured cross-bars H, which latter are secured to said clevises by securing-nuts *h*. The movable and removable clamping member is confined at the sides by the side arms *g'* of the clevises and at the rear and front by cross-bars H and fixed clamping member A, respectively.

For the purpose of straining or stretching the wires a chain I is affixed to the fixed clamping member A, near one end thereof, a short chain J being also provided, which is affixed at one end near the other end of said clamping member and which has at its other end a hook K for detachable connection with the chain I. By engaging hook K in a suit-

able link in chain I, which varies with the position of pulling force, an even strain can be produced throughout the height of the fence by any device adapted to stretching. By means of this arrangement the line of direct strain on the chain can be conveniently changed at will to bring it to the center of resistance. Therefore in building a fence along an uneven surface the point of connection of hook K can be quickly changed to meet the changing conditions, so that all wires are strained evenly.

Attention is directed to Figs. 9 and 10 of the drawings, which clearly show that one arm of each lock-lever is considerably heavier than the other, this being done to provide a long bearing for the pivot-pins and the cross-bars of the clevises, thereby greatly increasing the strength of the device where most strain is applied.

In Fig. 1 of the drawings the device is shown applied to the strands of fence-wire preparatory to clamping, the angle of the lock-levers being in a plane above the pivotal points of connection to the fixed clamping member. In clamping the wires the manipulating-lever F is taken hold of and forced downward, thereby causing rod E to swing the several lock-levers downward also until the pivotal connections of the clevises thereto are in a plane below the points of connection of said levers to member A, in which position the levers are locked by reason of their having passed the "dead-center." Therefore unclamping of the wires can only be brought about by exerting upward force against the manipulating-lever to swing the points of connection of the clevises to the lock-levers above the dead-center. When swinging the lock-levers down in the act of clamping the wires, the clevises are drawn forward, the front ends moving downward as well. When clamping begins, the points of connection of the clevises to rock-levers are moving nearly perpendicular with a small horizontal component and are exerting their maximum power at the moment said points of connection pass the dead-centers. As the points of connection pass down below the dead-centers the rear ends move upward slightly, the guides for the clevises acting as fulcrums for the same, thereby positively locking each and every clevis in a clamped condition.

In the modification shown in Figs. 11 and 12 the movable clamping member A' is shown as constructed of two pieces M M', separated by an intervening space m and having inwardly-beveled faces m'. Bolts N are passed through member A' and through separators N', held between the two parts M M', thumb-nuts n or other suitable nuts being applied to the threaded end of said bolts to draw the two parts together. The fixed clamping member A has apertures O, through which hook-le-

vers L are passed, which have their hooked ends l in engagement with separators N and their opposite ends pivotally connected to the angles of the lock-levers D. A downward-pulling action on the rod E will cause the movable member A' to be drawn toward the fixed member to securely clamp the strands of wire between the two members. The inner face of member A is beveled from the longitudinal center outwardly, as at o, to correspond to the bevel of clamping member A'. On drawing the two parts of member A' together the wire-receiving space o' between the clamping members is diminished in size.

In the modification shown in Figs. 13 and 14 the movable clamping member is provided with apertures P, having a reduced upper portion p, and its outer face beveled on opposite sides of said reduced portion, as at p'. Clamping-bolts R are pivotally connected to the angle of the lock-levers D and at their free or rear ends have a washer r and nut r' applied thereto. In applying the clamping-bolts to the movable clamping member they are passed through the wide lower portions of the apertures, then drawn up into the narrow or reduced portion p, after which the nuts are tightened.

In the modification shown in Fig. 15 the lock-lever is straight, the connection of rod E and the clevises being coincident at the outer end of said levers, as at S.

Having thus described my invention, what I claim is—

1. A fence-wire clamp comprising two clamping members, lock-levers secured to one of said members, a clevis secured to each of said lock-levers and guided for movement on said last-mentioned member and embracing the other member, and means for actuating said lock-levers to cause the strand of wire to be clamped between said members.

2. A fence-wire clamp comprising a fixed clamping member, a movable clamping member, brackets secured to said fixed clamping member, a lever pivotally secured to each bracket, clevises movable on the fixed clamping member and connected to said lock-levers, said clevises embracing the movable clamping member, and a rod connecting said lock-levers to cause the same to act in unison.

3. A fence-wire clamp comprising a fixed clamping member, a movable clamping member, brackets secured to said fixed clamping member, an angle lock-lever pivotally connected to each of said brackets, U-shaped clevises passing through said lock-levers and guided for lengthwise movement of the fixed clamping member, a bar connecting the free ends of each of said clevises and bearing against the movable clamping member, and a rod connecting said lock-levers to cause the same to act in unison.

4. A fence-wire clamp comprising a fixed

clamping member, a movable clamping member, brackets secured to said fixed clamping member, an angle lock-lever for each bracket having the end of one arm pivotally connected therewith, a rod having connection with the ends of the other arms of said lock-levers, U-shaped clevises passing through said lock-levers at the angles thereof, a bar connecting the free ends of said clevises and bearing against the movable clamping member, and guides for said clevises affixed to the fixed clamping member.

5. A fence-wire clamp comprising a fixed clamping member, a movable clamping member, brackets secured to said fixed clamping member, an angle lock-lever for each bracket having the end of one arm pivotally connected therewith, a rod having connection with the ends of the other arms of said lock-levers, U-shaped clevises passing through said lock-levers at the angles thereof, a bar connecting the free ends of said clevises and bearing against the movable clamping member, the points of connection of said clevises to the lock-levers being in planes respectively above and below the points of connection of said levers to the brackets when in unclamped and clamped condition, and guides for said clevises affixed to the fixed clamping member.

6. A fence-wire clamp comprising a fixed clamping member, a movable clamping member, clevises surrounding said clamping member, means for moving said clevises lengthwise to cause the movable clamping member to be moved toward and from the fixed clamping member, and guides for said clevises secured to the fixed clamping mem-

ber and consisting each of a wire loop having laterally-extending pointed ends driven into the said fixed clamping member, said loops having the ends thereof extending beyond the sides of said last-mentioned member.

7. A fence-wire clamp comprising a fixed clamping member having several pairs of transverse grooves, a movable clamping member, guides consisting of wire bent into loops extending beyond the side of the fixed clamping member, each loop having the sides thereof fitting into a pair of the transverse grooves in the fixed clamping member and having pointed ends to be driven into said member, clevises surrounding said clamping members and guided for lengthwise movement in said guides, and means for moving said clevises lengthwise to cause the movable clamping member to be moved toward and from the fixed clamping member to clamp the strands of wire between the two.

8. A fence-wire clamp comprising two clamping members, a chain secured near one end of one of said clamping members, and a second chain secured at one end near the other end of said clamping member and having detachable connection at its other end with the first-mentioned chain so as to permit of connection with the latter at different points in the length thereof.

In testimony whereof I have affixed my signature in the presence of two subscribing witnesses.

WILLIS H. HAMPTON.

Witnesses:

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OSCAR E. SHAY.