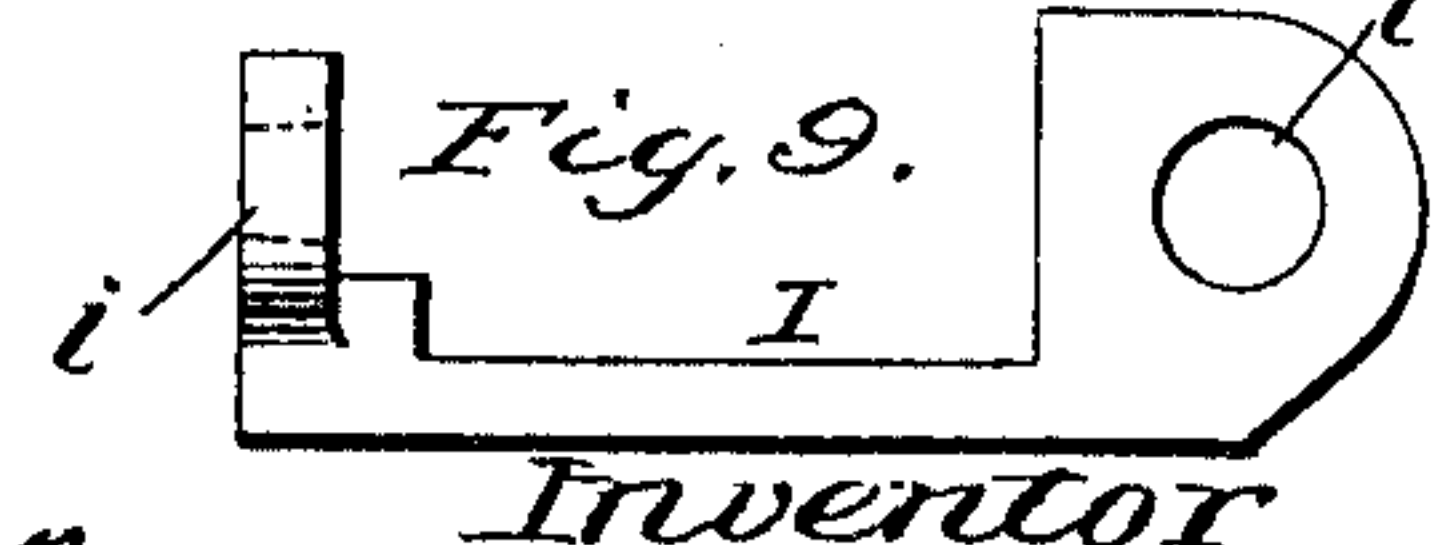
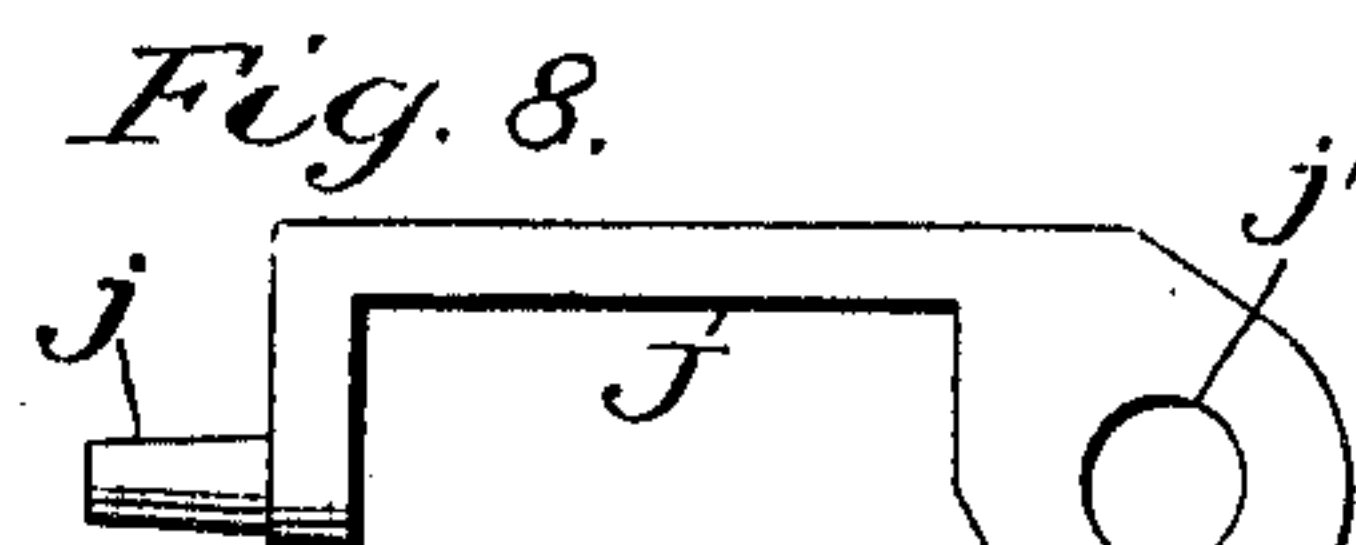
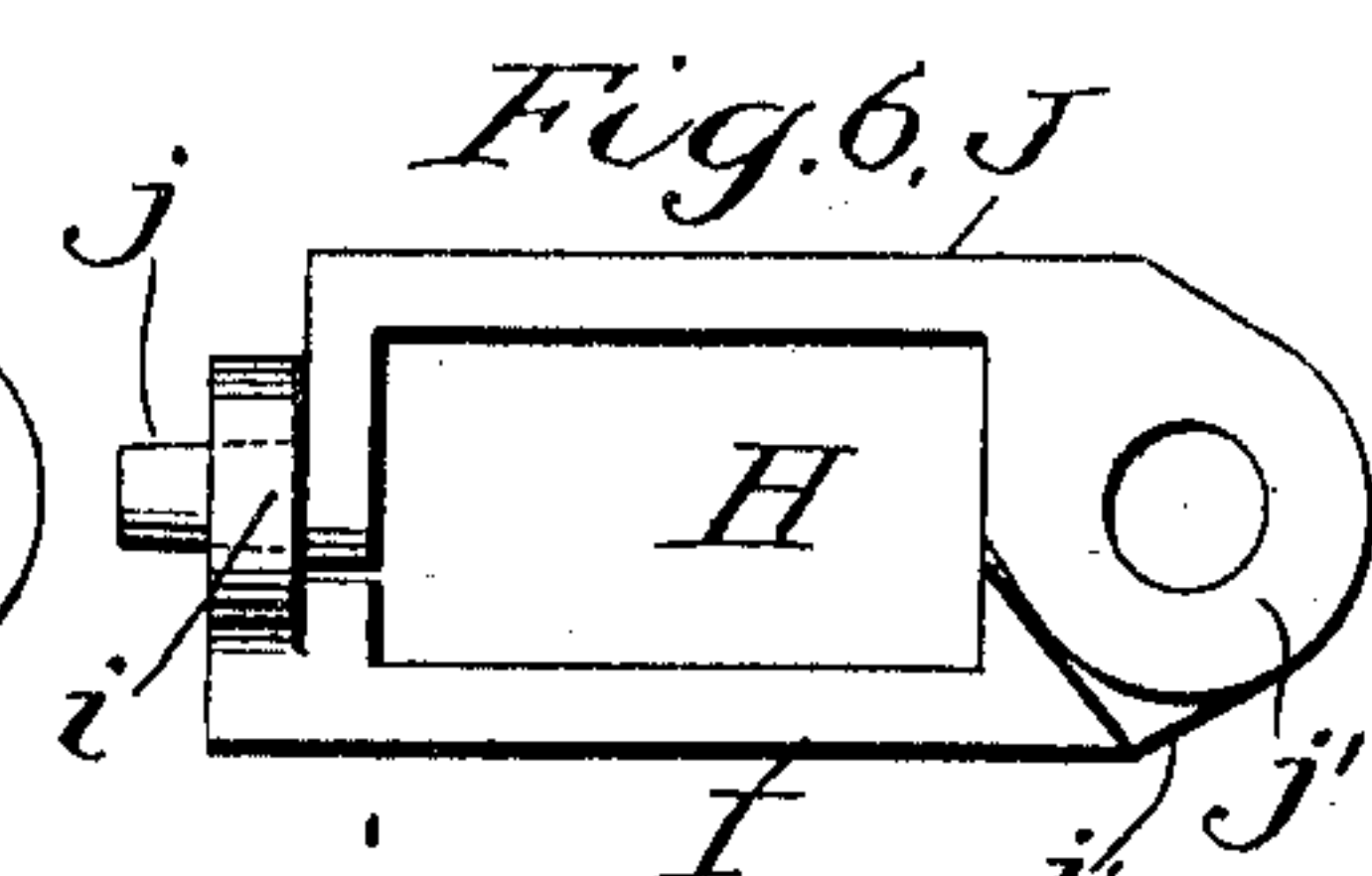
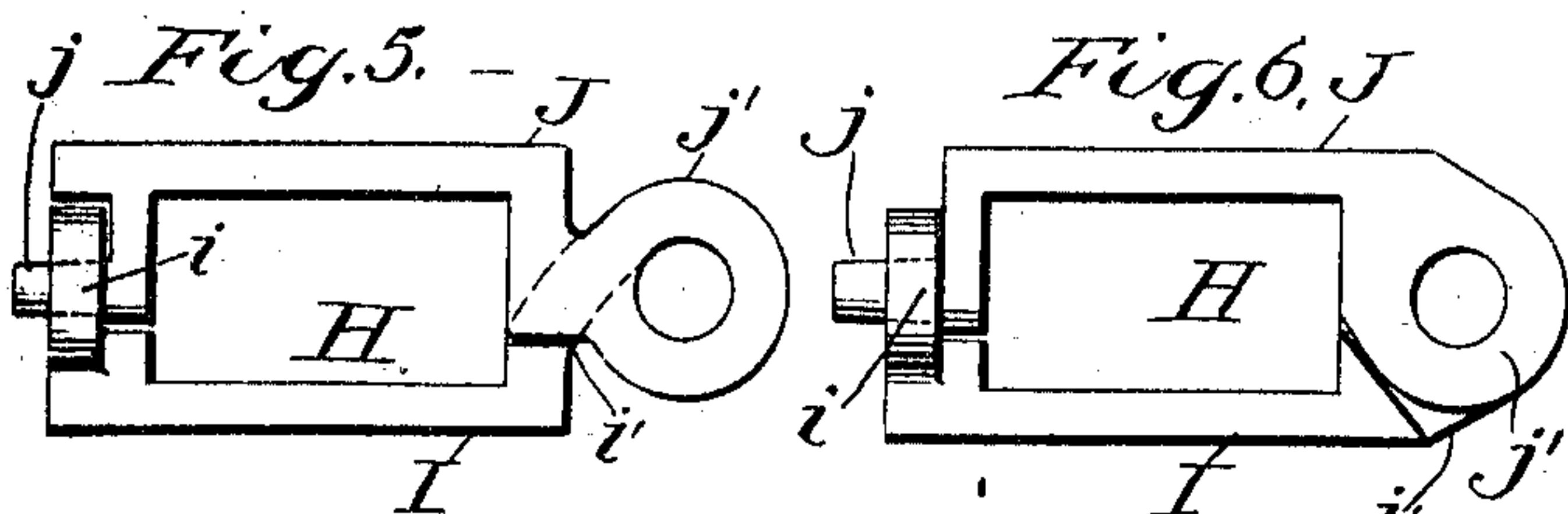
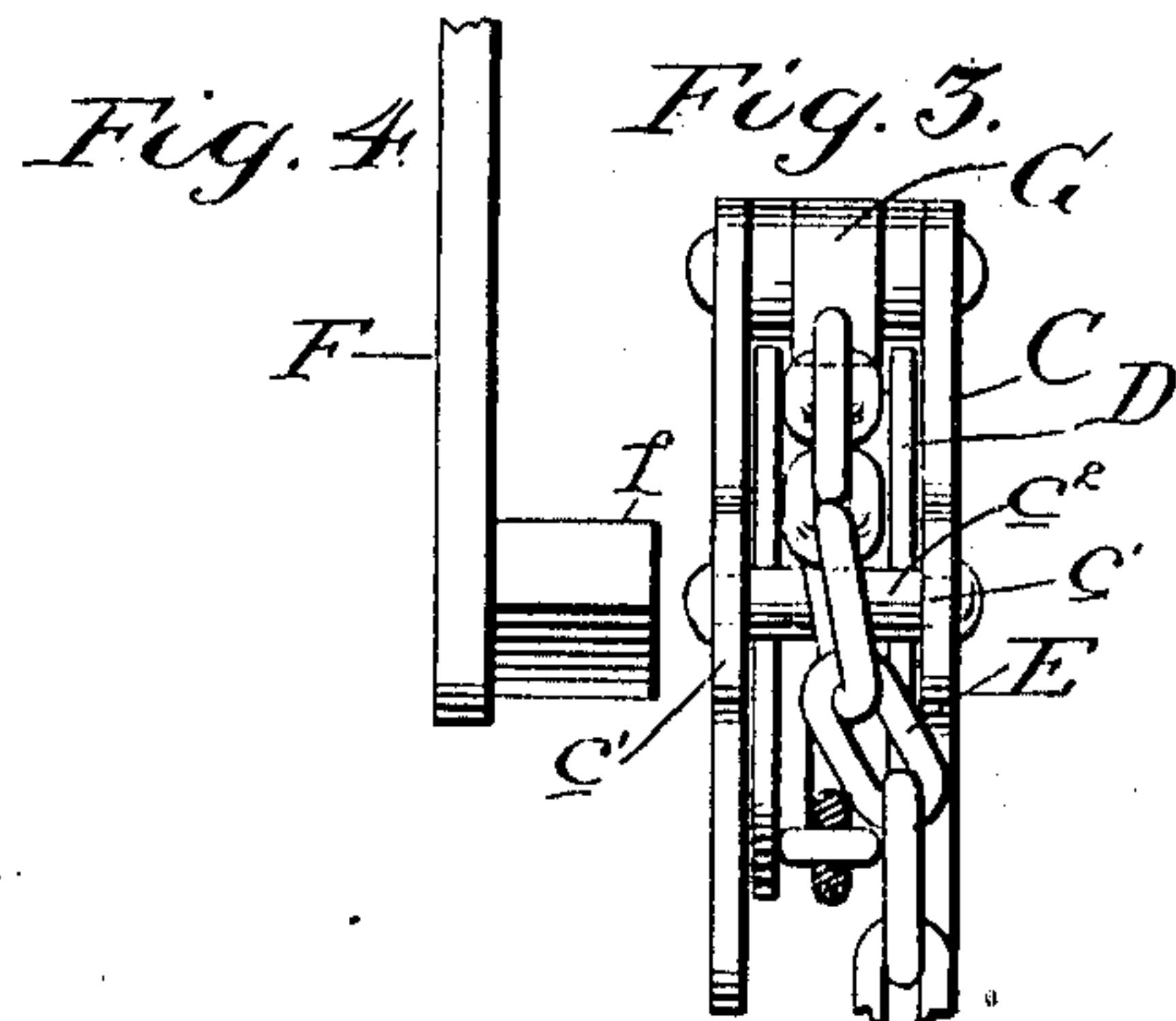
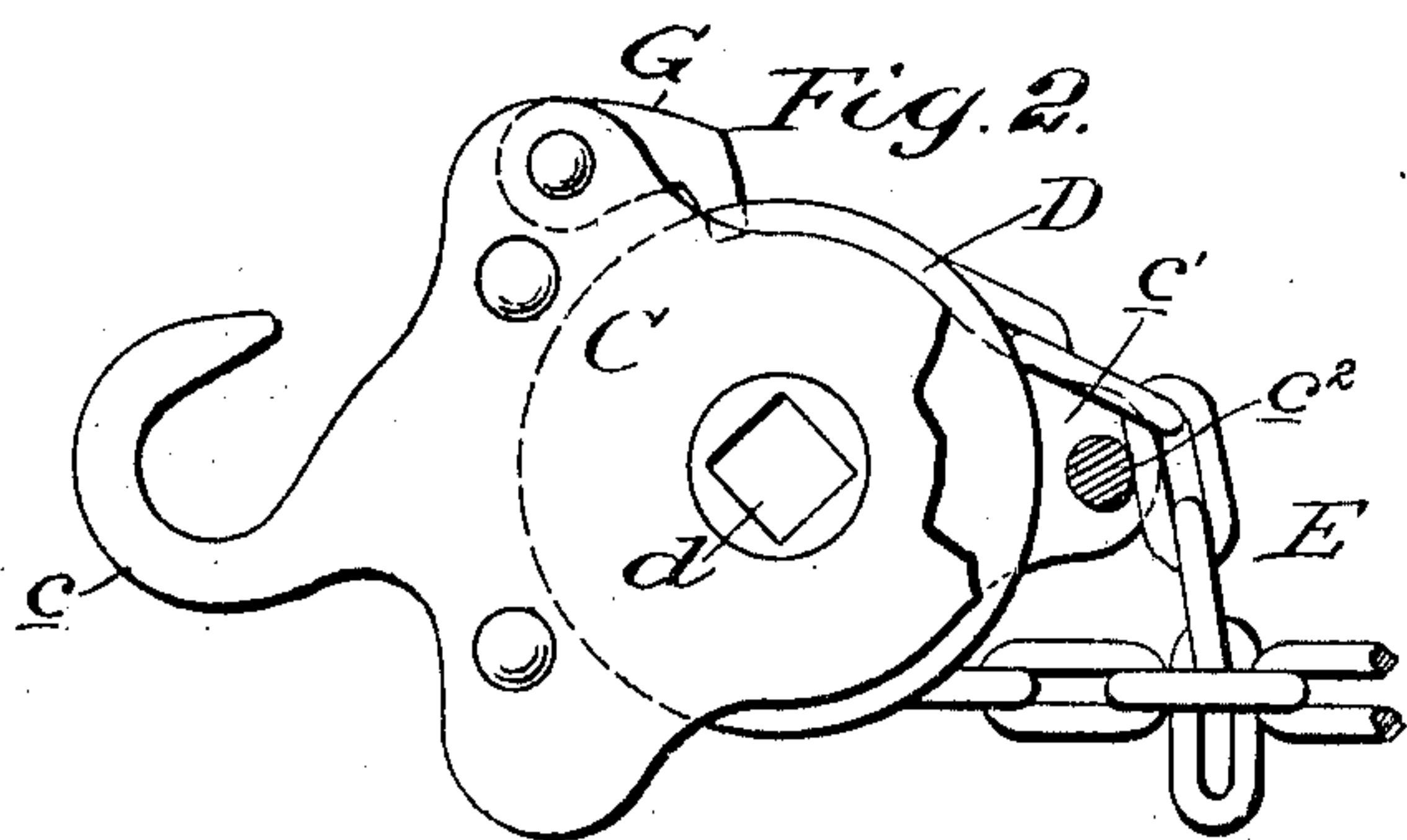
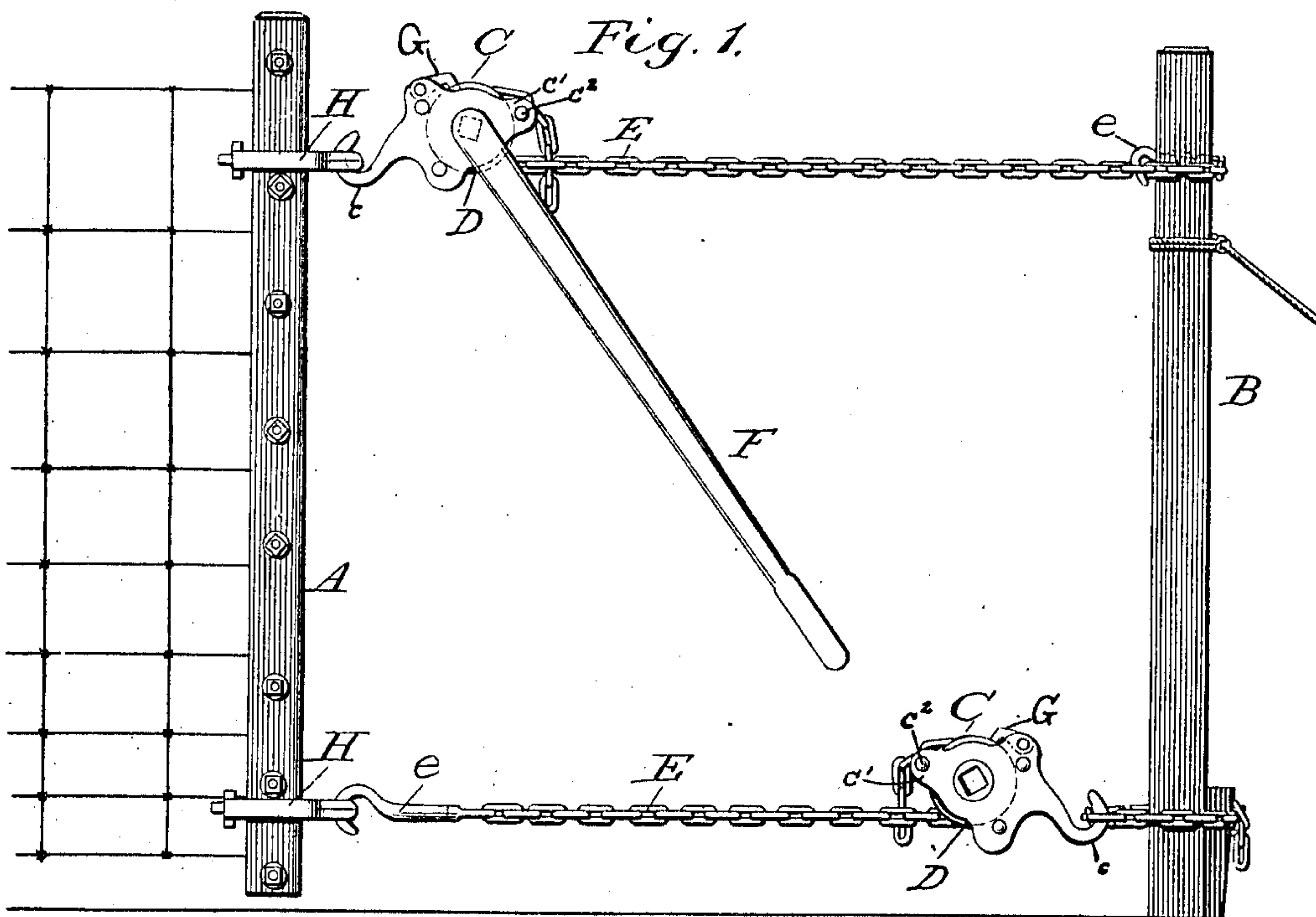


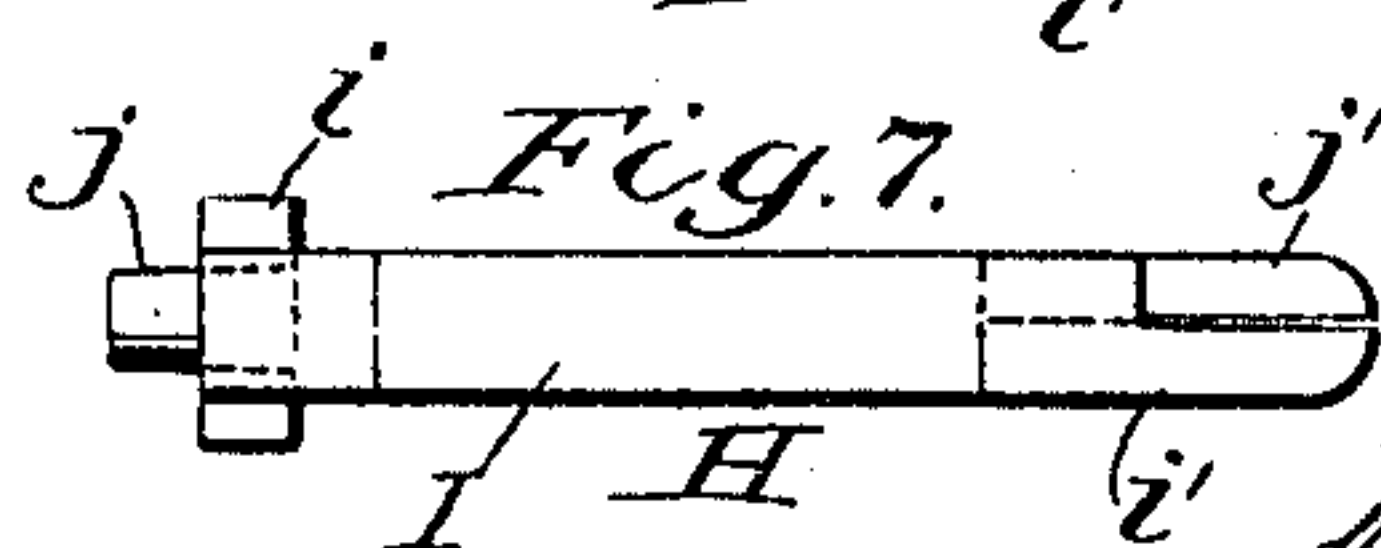
P. A. REID.  
FENCE STRETCHER.  
APPLICATION FILED MAY 29, 1906.

969,980.

Patented Sept. 13, 1910.



Witnesses:  
Telephonically.  
Paul A. Blair.



Inventor  
Pettis A. Reid  
By Julian C. Dowell  
his Attys



# UNITED STATES PATENT OFFICE.

PETTIS A. REID, OF RICHMOND, INDIANA.

FENCE-STRETCHER.

969,980.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed May 29, 1905. Serial No. 262,897.

*To all whom it may concern:*

Be it known that I, PETTIS A. REID, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Fence-Stretchers; and I do hereby 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 machines and apparatus for stretching fences, such as woven wire, slat or other elastic fencing, and for performing analogous kinds of work, such as pulling, drawing or lifting.

The main objects and accomplishments of the invention are: (1) simplification and improvement of the construction, operation and efficiency of chain-wheel stretching machines of the character disclosed in my prior U. S. Patent No. 551788 of December 24, 1895, in which a pulling chain attached to the fence or fence-clamp is passed around a crank-operated and dog-retained chain-wheel whose bearing or holder is connected to a suitable anchor-post, so that the fence is stretched by turning the chain-wheel to take up or shorten the taut run of its chain; (2) elimination of the usual wood stock or staff for supporting the chain-wheel holders, where two or more machines are used in a gang or double arrangement for independently stretching the top and bottom of a fence; and provision of an improved double-draft stretching apparatus of simpler, cheaper and more efficient character, adapted for obtaining independent strain of either the top and bottom of the fence, without affecting the pull of one machine when the other is operated; said apparatus being also well adapted for other uses, as for lifting or pulling loads, drawing stumps, etc., in which case the machines can be arranged in tandem so that the operator may take up first the run of one chain and then the run of the second; (3) provision of a simple and convenient stirrup for quickly attaching the chains or connections of the machines to the fence-clamps without the use of bolts or other manipulative fastenings.

The invention will be fully described with reference to the accompanying drawings, which form a part of this specification, and then more particularly pointed out and de-

fined in the claim at the end of description.

In said drawings: Figure 1 is a side view of a double-draft fence-stretching apparatus embodying my invention. Fig. 2 is a side view of one of the chain-wheel machines. Fig. 3 is a front end view thereof. Fig. 4 shows the end of the lever for turning the chain-wheel. Figs. 5, 6, 7, 8 and 9 are detail views of the stirrup; Fig. 5 showing a slightly different form from that shown in the remaining figures.

A denotes an ordinary fence-clamp, in which the end of a wire fence is shown clamped in the usual manner.

B indicates an anchor-post, which sustains the pull on the fencing; the stretching apparatus being arranged between the fence-clamp and post and connected to both.

C C denote a pair of chain-wheel stretchers, which are alike, wherefore a description of one will suffice.

The machine is similar to that disclosed in my aforesaid prior patent, but without the supporting staff which in the old construction was clamped between a two-part wheel-block or holder. The holder of the present machine is smaller, lighter and stronger. It is in the form of a compact pulley-block, having a hook *c* (for connection by a chain, link or otherwise to either the fence-clamp or anchor-post), and having the chain-wheel D mounted between its side-plates, which preferably terminate in projecting portions or fingers *c' c'* with an interposed brace *c<sup>2</sup>*. As in the former machine, the chain-wheel may have central bosses journaled in openings in the sides of the block, and may have an axial squared or polygonal opening *d* to receive a corresponding lug or projection *f* on an operating lever F, which lever may of course serve for operating both machines. The chain E, which may be provided with a hook *e*, is attached either to the fence-clamp or anchor-post (the chain-wheel holder being attached of course to the other); and said chain passes preferably under and around over the chain-wheel, and its free end hangs down over the brace *c<sup>2</sup>* out of the way, where it is not liable to wind or double up or otherwise interfere with the proper action of the chain-wheel. The chain-wheel D is of course suitably toothed or otherwise formed for engagement by the links of the chain, having preferably



a peripheral groove to accommodate the alternate vertical links and transverse ribs and intervening recesses or depressions to receive the alternate horizontal links. The chain is prevented from receding by a suitable dog or pawl G.

The machine in this simplified and improved form is particularly suitable for the independent work explained in the present specification, and is therefore preferred; nevertheless it will be understood that I am not restricted thereto in the double-draft apparatus now to be described, or in respect to other features of my invention.

The two machines C C are shown in gang arrangement, one connected to the upper parts of the fence-clamp and anchor-post, the other connected to the lower parts of the same; whereby the use and operation of each machine is wholly independent, allowing independent stretching of either the top or bottom of the fence, without affecting the other machine or causing slack of its chain.

Each machine may be directly attached either to the anchor-post or fence-clamp, by a link, chain or otherwise, and may have its chain-wheel connected by the chain to the other member, that is the clamp or post as the case may be; and the machines may be arranged in most convenient or expedient position between the post and clamp; this faculty for independent use and disposition or arrangement being afforded by elimination of the usual stock or staff for supporting the chain-wheel holders, and the absence of any connection between the two machines.

As shown, the upper machine is attached to the fence-clamp, and its chain is connected to the anchor-post; while the lower machine is reversed, it being attached to the anchor-post and its chain connected to the fence-clamp. This arrangement, which as aforesaid, is permitted by virtue of elimination of the staff, is preferable because it affords greater convenience, freedom and ease of operation of the lever for each chain-wheel, to which the power may be applied by a downward stroke in the unobstructed space between the post and clamp; avoiding interference by either the fence, clamp, post or by the other machine. It also enables a workman to conveniently operate two machines simultaneously, if desired, in which event the two levers may be attached to opposite sides of the apparatus and both thrown downward in the same direction, for applying the pull, since the chain-wheels act reversely and take up the chains in opposite directions.

With this apparatus, great pulling power is attained, in addition to independent strain of the top and bottom of the fencing. Should the fabric slip from between the clamp-plates when nearly taut, it is not nec-

essary to undo the clamp and readjust it, but all that is required is to draw the clamps together and pull up the fence plumb, by means of the chain-wheels.

The apparatus is well adapted for such uses as lifting heavy loads, wagon-beds, or cotton bales, moving buildings, drawing stumps, etc., in which case one machine may be used alone, or two may be employed in tandem arrangement, so as to permit taking up first one chain and then the other.

For the purpose of quickly and conveniently attaching either the chain-wheel block or the chain to the fence-clamp A, without the use of bolts or other fastenings, I have devised a special stirrup H, composed of two parts I and J which embrace the clamp and are self-locked together when the chain or other connection to the machine is attached thereto; member J having at its rear end an outstanding finger or projection *j* which fits loosely in an aperture *i* in the same end of the other member I (or it may be an apertured lug on the end of said member I as in Fig. 5); while at the opposite ends said members I and J have registering eyes or apertured extensions *i'* *j'* turned preferably flatwise and overlapping so as to constitute a single eye to receive the hook *e* of the chain E, or the hook *c* of the chain-wheel holder C, according to which one is attached to the stirrup. Two constructions of the stirrup are shown, in Figs. 5 and 6, each embodying the same principle. To connect one of the machines to the clamp, it is simply necessary to bring the two parts I and J together around the clamp, engaging the finger *j* in the eye or aperture *i*, and then engage either the chain-hook *e* or the block-hook *c* in the eyes *i'* *j'*. To disconnect, it is only necessary to disengage the chain-hook or block-hook and take apart the members I and J.

I claim as my invention and desire to secure by Letters Patent of the United States:

In a fence-stretcher, the combination with a fence-clamp, of a stirrup comprising two separable half-parts adapted to embrace said clamp and to be self-locked in position, one half-part formed at one end with an eye at right-angles to the plane of the stirrup, and the other half-part having at the same end a rearwardly or outwardly projecting stud to enter and lock in said eye, and both half parts formed at their opposite ends with eyes turned flatwise in the plane of the stirrup and overlapping so as to constitute a single eye for engagement by the hook of a fence-stretcher.

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

PETTIS A. REID.

Witnesses:

JOHN H. ZIMMERMAN,  
EVERETT R. LEMON.