

(No Model.)

P. A. REID.
MACHINE FOR STRETCHING FENCES.

No. 551,788.

Patented Dec. 24, 1895.

Fig. 1.

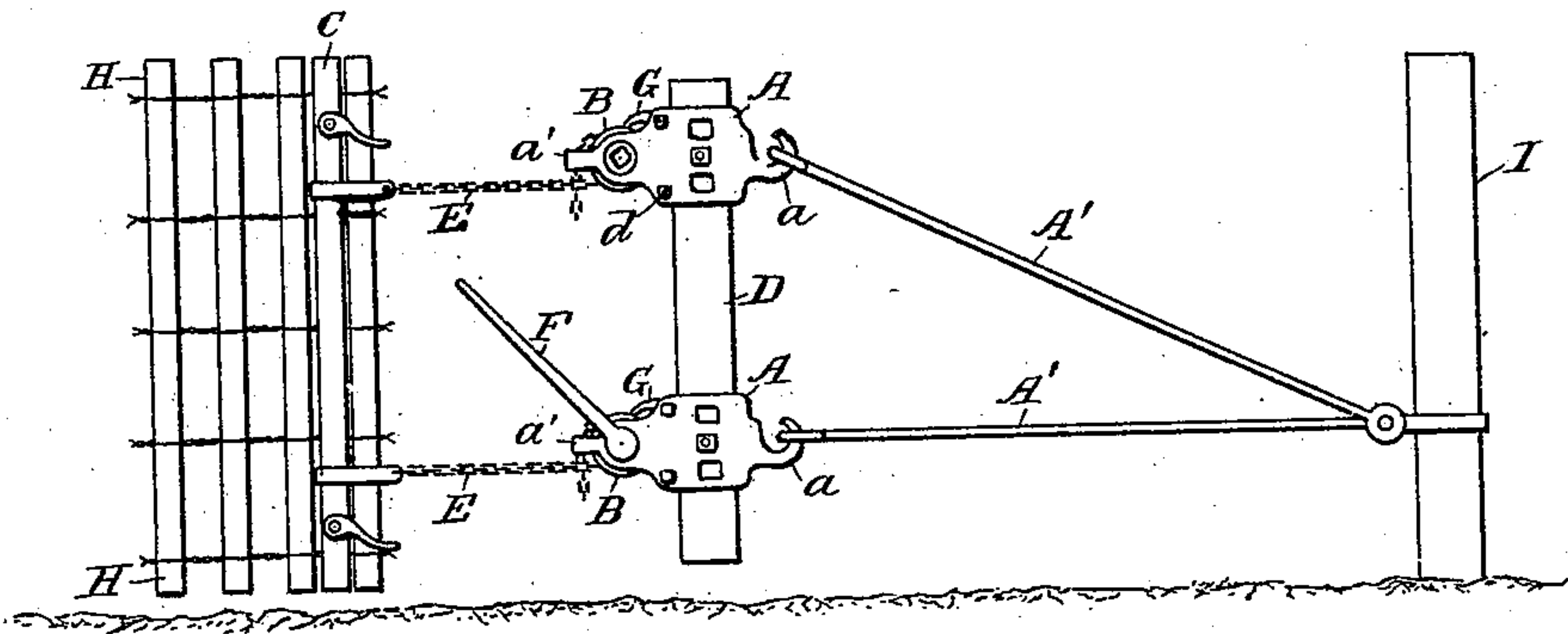


Fig. 2.

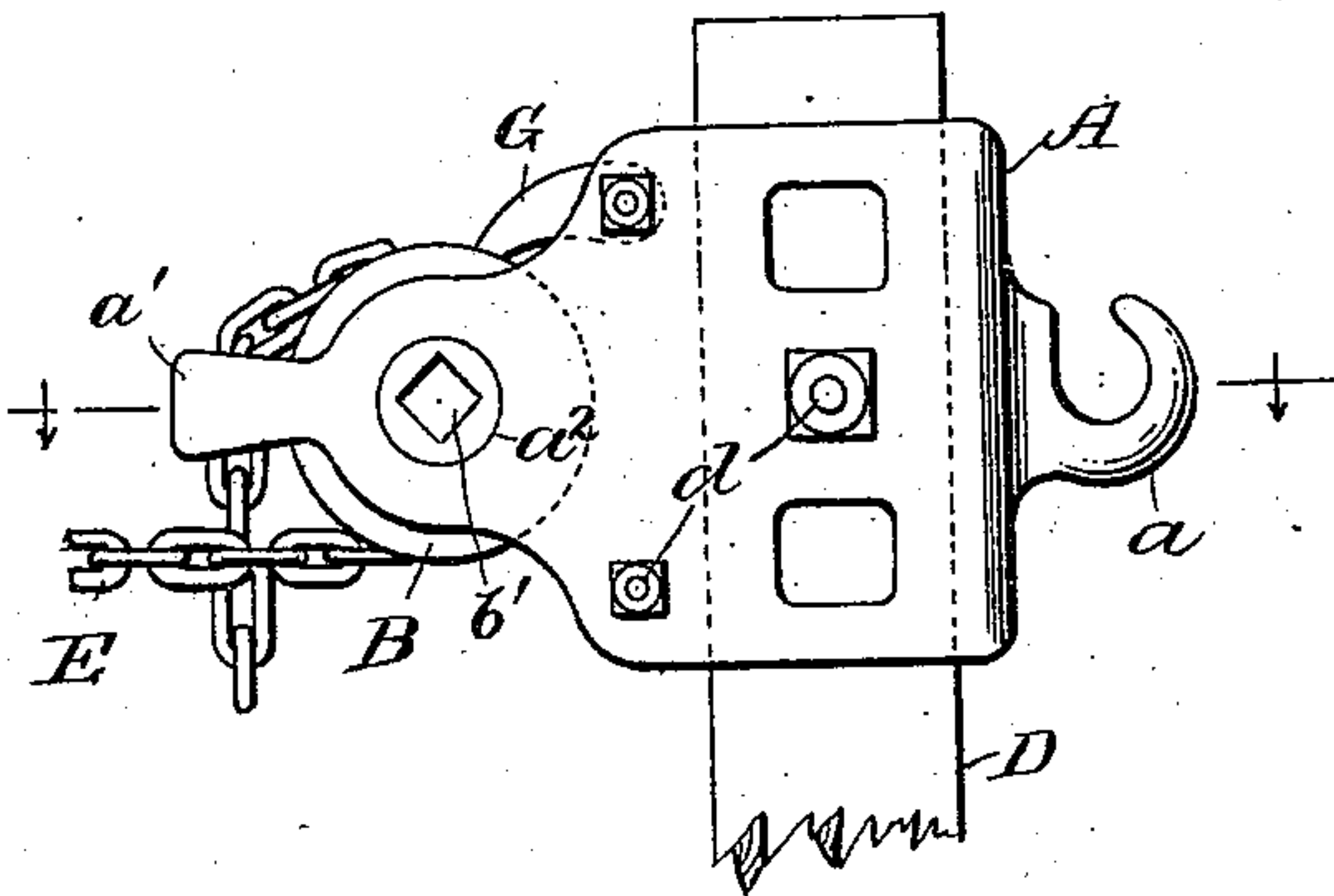


Fig. 3.

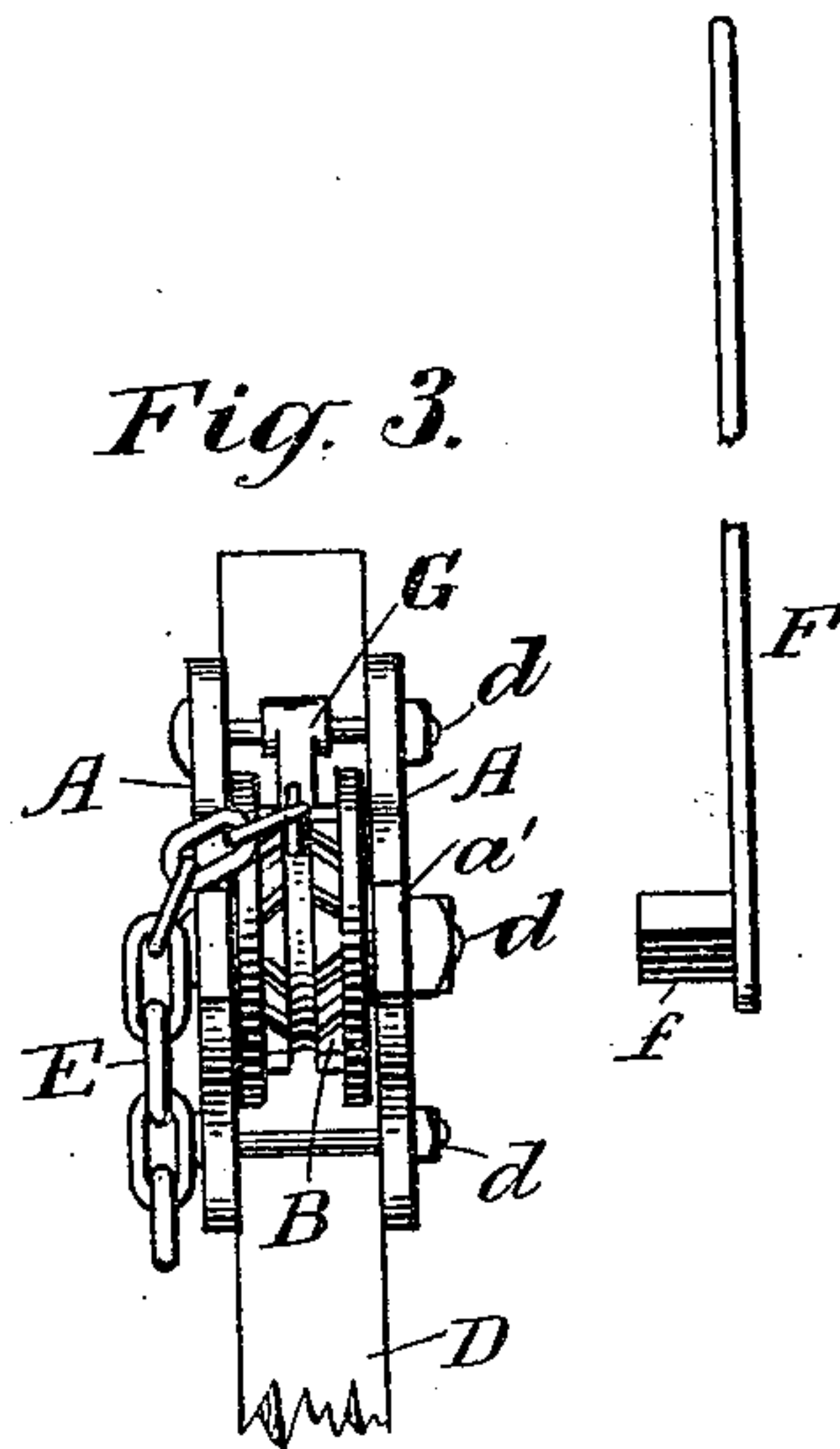
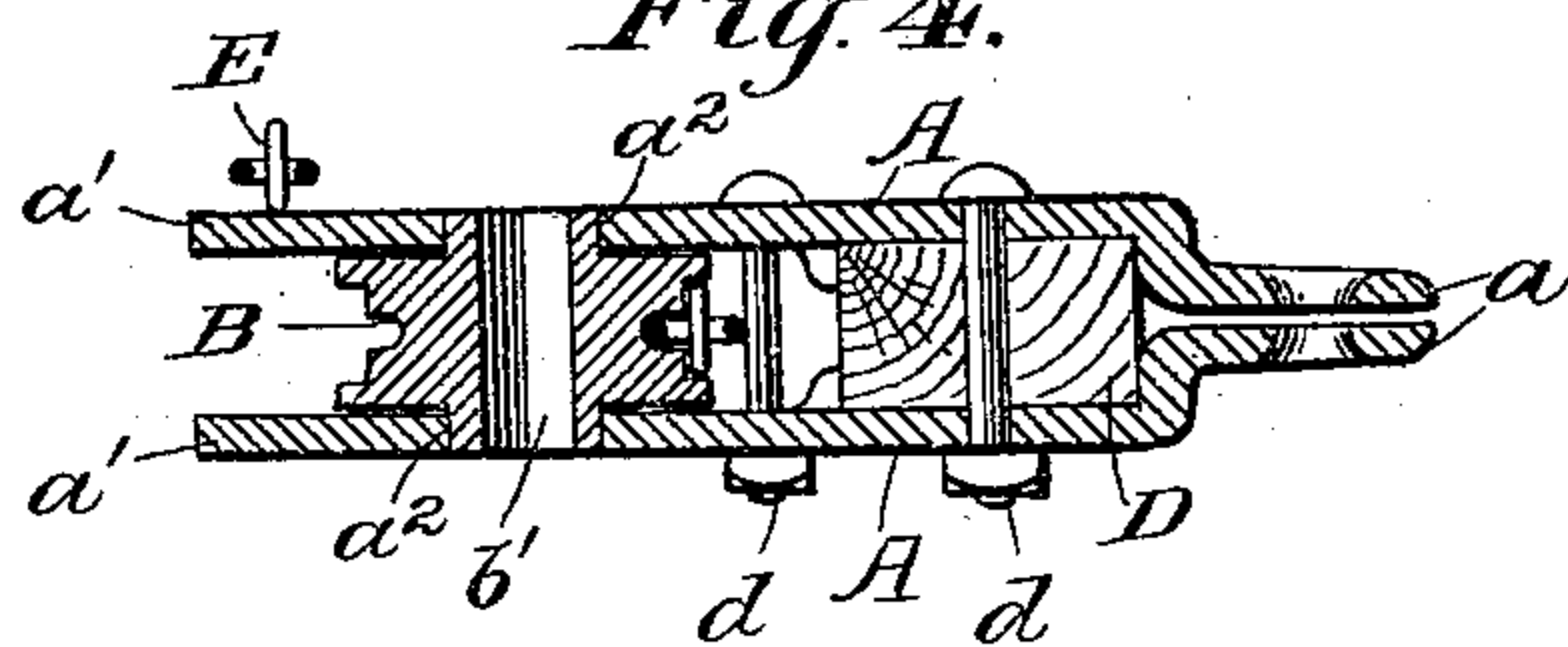


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

PETTIS A. REID, OF RICHMOND, INDIANA.

MACHINE FOR STRETCHING FENCES.

SPECIFICATION forming part of Letters Patent No. 551,788, dated December 24, 1895.

Application filed December 16, 1893. Serial No. 493,830. (No model.)

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 Machines for Stretching Fences; 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 for stretching fences, but more particularly to that class of machines which are especially designed for use in stretching flexible fences composed of wire and pickets, or similar fences, such as are made in sections by means of looms or otherwise.

The main object of the invention is to provide a simple, inexpensive, efficient and durable machine or stretching device adapted to be easily, but firmly and securely, attached to a staff or standard with provision for easily and quickly connecting and disconnecting the same with the usual stays or braces which extend therefrom to an anchor post or stay, and to avoid mortising and thereby weakening the staff or standard on which the machine is mounted.

Other objects are to provide an improved chain-wheel and method of mounting and journaling the same upon the staff, together with co-operating elements of simple and economical construction, but less in number than is usually employed, so as to simplify the construction and reduce the cost of manufacture and repairs, while increasing the efficiency and durability of the machine.

The invention consists essentially of a composite clamp of peculiar construction for attachment to a staff provided at one end with a duplex hook for connection with a brace or stay extending therefrom to an adjacent anchor-post and at the opposite end thereof with journal-bearings for the chain-wheel which is journaled therein.

The invention also consists in other features of construction and combinations of parts, all as will be hereinafter more particularly described, and then pointed out in the claims at the end of the description.

In the accompanying drawings, which are

to be taken as a part of this specification, Figure 1 represents in front elevation a section of a flexible fence with my improved stretching machine or device operatively connected therewith. Fig. 2 is a detail side elevation of the composite clamp, illustrating the method of attaching the same to the standard and showing the chain-wheel and chain in position. Fig. 3 is an edge or front view showing the chain-wheel journaled between the jaws of the two-part clamp; and Fig. 4 is a horizontal sectional view, the section being taken centrally through the jaws of the clamp and showing the bearings for the journals of the chain-wheel and the method of attaching the two parts of the clamp to the standard and to each other.

Referring to the drawings, A A denote the two parts of the composite clamp which are adapted to be rigidly attached to the vertical staff or standard D, each part being provided at one end with a hook *a* and at its opposite end with a plate which preferably terminates in a projecting portion or finger *a'*, Fig. 2. The two parts of the clamp are exactly similar in form, one being the counterpart of the other. The hooked end of each part is bent or inclined inwardly in such manner that when the two parts are attached to an intervening staff the two hooks will approach each other so as to form, as it were, but a single hook for the attachment of the stays or braces which connect the staff or standard with an anchor post or stay. On that side of the standard opposite the hook and anchor-post and between the two parts of the clamp is placed a chain-wheel B, having preferably at each side thereof a projecting boss or journal adapted to fit an opening *a*², formed to receive the same in each of the side plates of the clamp A A, as shown more clearly in Fig. 2. The periphery of the wheel B is recessed and transversely ribbed at both sides of the recess, so as to form intervening depressions to correspond with the shape of the links of the chain which is to be used for stretching the fence and to adapt the wheel to clutch and prevent the chain from slipping as it is carried over the wheel in its revolutions. The fingers *a'* are designed to permit the free end of the chain to be placed and held on the outer side of one of said fingers, so that as the chain is

paid out by the wheel it may be carried to one side and thereby prevented from passing around the wheel a second time and doubling up between the wheel and staff so as to choke
5 and lock the wheel, which usually results in injury or damage thereto or to other parts of the device.

C in Fig. 1 denotes a clamp which may be secured to the fence that is to be stretched,
10 and E E chains which are removably secured at one end to said clamp, the one near the upper end and the other near the lower end thereof, the opposite ends of the chains being passed partially around the wheels B B. Said
15 chains may be composed of links of any desired length or shape to correspond with the ribbed and chambered or recessed formation of the periphery of the wheel B, into the recesses of which the links are adapted to fit.
20 Said wheel is also provided with a square or angular opening *b'*, Figs. 2 and 4, through the center thereof adapted to receive a similarly-shaped lug or projection *f*, formed upon an operating-lever F, by means of which the
25 wheel B may be made to revolve and carry with it the chain. The chain may be prevented from receding by means of a pawl G engaging the links of the chain, so that any strain exerted on the clamp C tending to cause
30 the chains to recede will be thrown upon the pawl. The two parts of the clamp may be readily and securely attached to the staff or standard D by means of bolts *d d*, and they are preferably formed on the inner sides
35 thereof adjacent to the projecting side plates with flanges or ribs, between which and the shoulders or offsets formed at the bends in the hooked ends of the clamp the staff may be clamped, so as to prevent lengthwise or rock-
40 ing motion of the clamp under the strain exerted thereon in stretching a fence.

I denotes an anchor post or stay planted or located in proper position a short distance from the staff or standard D and connected
45 to the clamp or clamps upon the staff by means of suitable stays or braces A' A', said stays being suitably connected at one end to said anchor-post and having their opposite ends detachably connected to the hook or
50 hooks *a*.

By forming the chain-wheel with bosses or journals fitting the openings in the clamp-plates I dispense with the usual independent spindle and eliminate the cost of fitting the
55 same and the wheel, which, as heretofore constructed, requires costly hand, forge, and ma-

chine work and involves considerable additional expense for repairs, such parts being easily damaged in use; and by means of the composite clamp I dispense with the necessity
60 for mortising or recessing the staff or standard on which the stretching device is mounted, thus making it possible to make a much lighter staff and increasing the efficiency and durability of the device. 65

I have hereinbefore described the construction of but a single machine, but two are usually employed together, as shown in the drawings. They are, however, alike in construction and operation. 70

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a machine for stretching fences, the composite clamp consisting of two members, 75 each having a hook formed upon one end thereof and a plate at its opposite end having an opening therein to provide a journal bearing, and terminating in a projecting finger; said members being adapted to embrace the
80 staff and provide at one side thereof a composite hook and at the opposite side suitable bearings for the journals of a wheel supported by said plates, together with a finger for directing the chain to one side as it is
85 paid out by the wheel, substantially as described.

2. A machine for stretching fences, comprising a composite clamp consisting of two members each having a hook at one end in- 90 tegral therewith, and at its opposite end a plate with an opening therein forming a journal bearing; said plate terminating in a projecting finger, and said members being arranged to embrace the staff, so as to provide 95 at one side thereof a composite hook and at the opposite side suitable bearings for the journals of a chain-wheel; a sprocket wheel having axially projecting bosses or journals adapted to fit said openings and an angular 100 opening therethrough to receive a similarly shaped lug or projection upon an operating lever, and a pawl arranged to engage the links of a chain passing around said wheel, so as to prevent the chain from receding, substan- 105 tially as described.

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

PETTIS A. REID.

Witnesses:

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