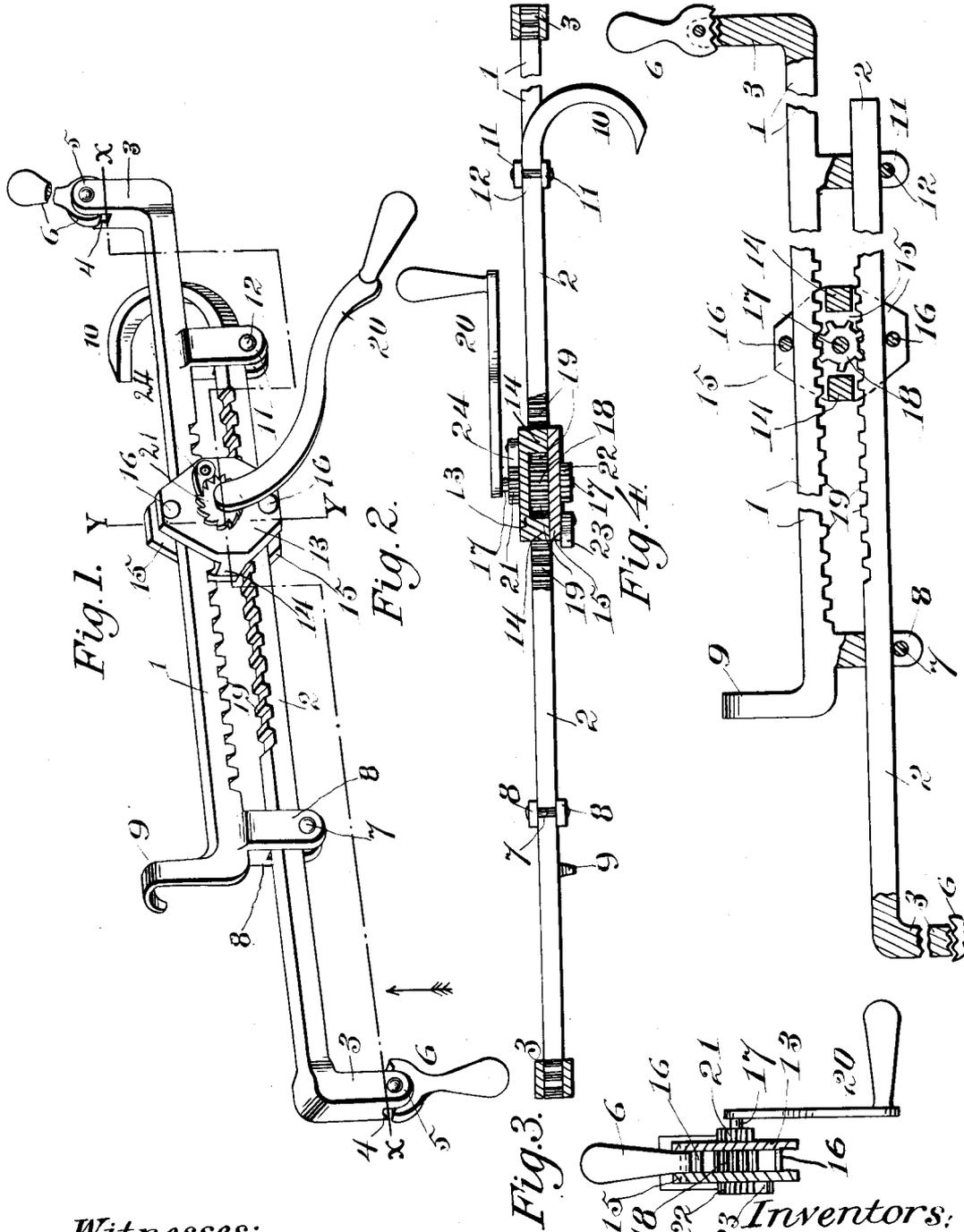


(No Model.)

A. R. INGRAM & J. PAUGH.  
WIRE STRETCHER.

No. 592,226.

Patented Oct. 19, 1897.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ARTHUR R. INGRAM AND JAMES PAUGH, OF LA GRANGE, KENTUCKY.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 592,226, dated October 19, 1897.

Application filed June 23, 1897. Serial No. 641,902. (No model.)

*To all whom it may concern:*

Be it known that we, ARTHUR R. INGRAM and JAMES PAUGH, citizens of the United States, residing at La Grange, in the county of Oldham and State of Kentucky, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention relates to wire-stretchers, and particularly to a wire-fence stretcher; and the object of the invention is to provide a device to grasp a wire and stretch it from one fence-post to another and automatically hold the wire in position while it is secured to such post.

A further object of the invention is to provide a wire-stretching device adapted to grasp separate wires and draw them together from opposite directions and hold them in such positions while they are tied or otherwise united.

Other objects and advantages accruing from the special construction and arrangement of parts will be revealed in the specification and claims to follow.

The invention consists in the novel construction and arrangement of parts, and resides, essentially, in a pair of rack-bars having wire-grasps and operated by a toothed wheel controlled by a pawl and ratchet.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of our improved wire-stretcher. Fig. 2 is a section on the line  $x x$ , looking in the direction indicated by the arrow. Fig. 3 is a vertical section on the line  $y y$  of Fig. 1. Fig. 4 is a longitudinal section.

The rack-bars 1 and 2 have upon one end a wire-gripping device comprising a lug 3, having a serrated face, a projection 4, and a flange 5. To the flange 5 is pivoted a lever 6, having teeth between which and the said face of the lug 3 the wire is grasped. The other end of the rack-bar 1 has flanges 8, through which one end of the bar 2 extends, and has a pin 7 to keep the bar in place. This end of the rack-bar 1 has a hook 9, which extends from the bar 1 in the opposite direction to the said flanges 8. The hook 9 has a double function, in that it forms a guide for the wire and holds the stretcher in substantially parallel position as the wire is

stretched through it. Flanges 11 are formed on the other end of the bar 1, between which the bar 2 is operated, and is kept in place by a pin 12.

Upon the end of the rack-bar 2, opposite its gripping device, is a lateral extension or arm 10, adapted to engage a fence-post.

The rack-bars are worked in opposite directions through a housing comprising a plate 13, having lugs 14 and a cap or cover 15, suitably secured to the plate 13 by pins 16, which prevent the rack-bars from springing away from the housing. A shaft 17 is journaled in the housing and carries a toothed wheel 18, in mesh with the teeth 19 of the rack-bars, said shaft having a suitable hand-lever 20.

The automatic means for holding the wire in stretched condition while it is being secured consists of ratchets 21 and 22, secured to the shaft 17 upon each side of the housing, and pawls 23 and 24 are pivoted thereto.

It is obvious that by turning the shaft 17 to the right, with the pawl 23 in engagement with the ratchet 22, the rack-bars will be extended or moved outwardly, and immediately upon stopping the shaft the pawl 23 will keep the same and rack-bars fixed against movement and hold the wire in such position as desired.

To retract the bars or move them inwardly with a wire in each grip for securing the ends of the wire together or for other purposes, the pawl 23 is thrown out and the pawl 24 is put in engagement with the ratchet-wheel 21 and the shaft turned to the left, the pawl 24 performing in this operation the same function as the pawl 23 in the former operation.

It will be seen from the foregoing description that when the wire is stretched to the desired position both hands of the operator are perfectly free, inasmuch as the machine is supported entirely from the fence-post and the wire being stretched.

We do not wish to be understood as limiting ourselves to any particular size, shape, or character of material of which the machine is composed; but,

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

1. In a wire-stretcher, the combination with the rack-bars one of which has an upturned

end and the other of which a downwardly-  
turned end, the faces of said ends being serrated and provided with flanges, a lateral  
hook on one end of one of said bars, a verti-  
5 cal hook on one end of the other of said bars,  
flanges secured to one bar through which the  
other bar slides, and a grip-lever pivoted to  
the said upturned and downwardly-turned  
ends of the housing, the shaft, the toothed  
10 wheel, and the pawl and ratchet, as set forth.

2. The combination of the rack-bar having  
one end turned upwardly and provided with  
a serrated face, the other end having a verti-  
15 cal hook, and a like bar having one end  
turned downwardly and provided with a serrated  
face, the other end terminating in a lateral  
hooked arm, and a grip-lever pivoted to  
each of said serrated ends, with the hous-  
ing, the toothed wheel, and the shaft, as set  
20 forth.

3. The combination with the rack-bars one  
having a lateral hook and the other a verti-

cal hook, a gripper at the ends of the bars  
opposite the hooks, the wheel, and the shaft  
for operating the bars, of the housing com- 25  
prising a plate having lugs to keep the bars  
in mesh with the wheel, and a cap or cover  
secured to the lugs, as set forth.

4. In a wire-stretcher, the combination with  
the rack-bars having a hook, a like bar hav- 30  
ing a lateral arm or extension, and a grip  
upon each bar, of the housing, the shaft jour-  
naled in the housing, the toothed wheel in  
mesh with the rack-bars, and the pawls and  
ratchets for locking the parts against move- 35  
ment, as set forth.

In witness whereof we hereunto set our  
hands in the presence of two witnesses.

ARTHUR R. INGRAM.  
JAMES PAUGH.

Witnesses:

ROGER B. HITT,  
WILLIAM WHEELER.