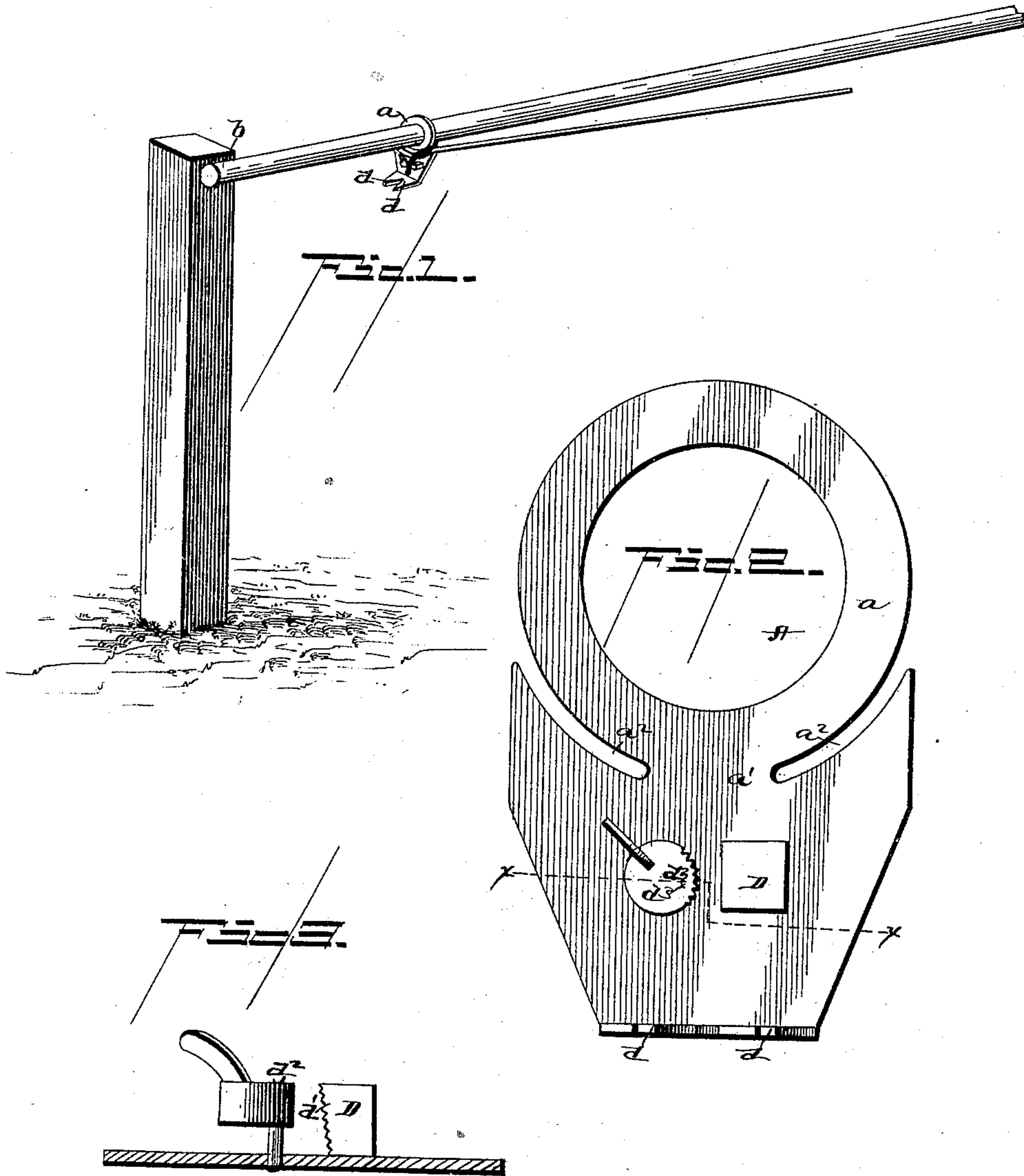


(No Model.)

J. H. BIRCH.  
WIRE STRETCHER.

No. 390,556.

Patented Oct. 2, 1888.



WITNESSES  
W. H. Pumphrey  
Francis J. Quinlan

INVENTOR  
James H. Birch  
By *[Signature]*  
Attorney &



# UNITED STATES PATENT OFFICE.

JAMES HALSTEAD BIRCH, OF PLATTSBURG, MISSOURI.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 390,556, dated October 2, 1888.

Application filed June 23, 1888. Serial No. 278,019. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES HALSTEAD BIRCH, a citizen of the United States of America, residing at Plattsburg, in the county of Clinton and State of Missouri, have invented certain new and useful Improvements in Wire Stretchers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to certain new and useful improvements in wire-stretchers, having for its object the provision of a simple and highly efficient device whereby fence-wire can be readily and easily stretched, and can also  
15 be removed by forcing the staples from the posts.

The invention comprises the peculiar construction and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

20 In the accompanying drawings, Figure 1 is a view in perspective of my improved wire-stretcher. Fig. 2 is an enlarged elevation thereof; and Fig. 3 is a sectional view on the  
25 line *x x*, Fig. 2.

Referring to the drawings, A designates my wire-stretcher, composed of a ring, *a*, and a normally-lower supplemental plate or extension, *a'*. On opposite sides of this plate or  
30 extension *a'* are formed between said plate and the ring *a* two curved slots or recesses, *a<sup>2</sup> a<sup>2</sup>*, which extend inwardly to within a short distance of each other, as shown. Within these  
35 slots is passed a fence-wire, and the inner ends of said slots are sufficiently far apart to allow the wire to be readily inserted, and a tight and secure grip is had on the wire which cannot be easily loosened, or which will not slip. After thus securing the wire and in-  
40 serting a pole or lever, B, through the ring *a*, and resting the end of said pole or lever on a fence-post, as *b*, by turning said lever a straight pull will be had on the fence-wire, whether plain or barbed, and the same can then be  
45 readily pulled to any desired tension.

Two claws, *d d*, are formed at right angles to the extension *a'*, as shown. These claws are designed for use in extracting staples from a fence-post by simply striking said extension  
50 and forcing the claws between the wire and the post and over the staple.

D is a block, rigidly secured at its narrowed end in an aperture of the plate or extension *a'*, and this block has an inner beveled toothed  
55 surface, *d'*, as shown. Adjacent to this bev-

eled block is secured a cam or eccentric, *d<sup>2</sup>*, having an arm or pivotal rod, *d<sup>3</sup>*, which is secured after being projected through an aperture of said plate *a'*, so that when the eccentric closes against the wire, after the latter has been  
60 passed through slots or recesses *a<sup>2</sup>*, the pull on said wire will greatly tighten it, and by pressing it under the beveled edge of the block D it will be impossible for said wire to become  
65 loose until the leverage is removed. This cam or eccentric is provided with a handle, *d<sup>4</sup>*, by which the same is turned in the desired direction.

It will be seen that by means of the pole or lever and the wire-stretcher great purchase  
70 can be had, and the wire can be pulled to any desired tension, either straight or curved, and by employing the claw or arm every desirable feature for use in constructing and repairing  
75 a fence is obtained, as well as for splicing broken wire.

My invention is extremely simple, cheap, and durable, and by means thereof the operator avoids all injury to the hands heretofore experienced in constructing and repairing  
80 wire fences.

I claim as my invention—

1. The herein-described wire-stretcher, consisting of the ring and the slotted plate or extension, as described. 85

2. The wire-stretcher consisting of the ring having the plate or extension provided with slots and having claws extending at right angles thereto, substantially as shown and described. 90

3. As an improvement in wire stretchers, the combination of the ring having the slotted plate or extension, and the lever inserted through said ring, substantially as shown and described. 95

4. The combination, with a lever, of the ring having a plate or extension provided with curved slots, and with claws extending at right angles thereto, substantially as shown and described. 100

5. The combination, with the ring having a plate or extension with curved slots, of the beveled block secured to said plate, and the cam or eccentric disposed adjacent to said block, substantially as shown and described. 105

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

Witnesses: JAMES HALSTEAD BIRCH,

JAS. W. JOHNSTON,

JOHN STONE.