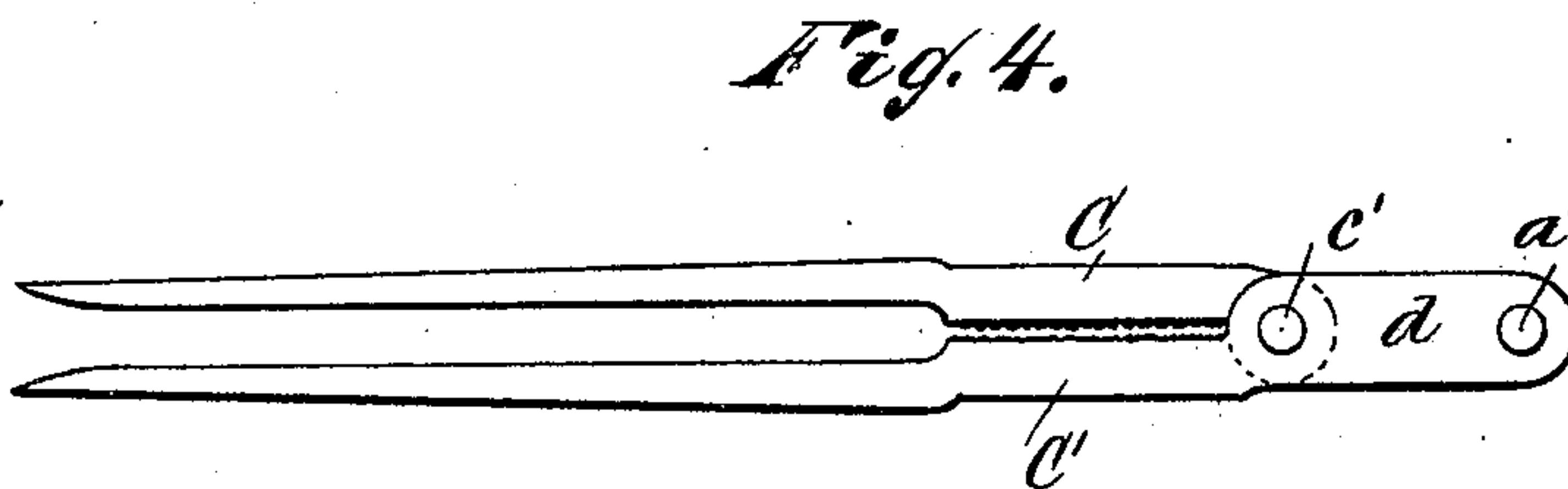


Patented Jan. 31, 1882.



BY *Mum Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY H. HUTCHINS, OF FENNVILLE, MICHIGAN.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 253,058, dated January 31, 1882.

Application filed December 10, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY H. HUTCHINS, of Fennville, in the county of Allegan and State of Michigan, have invented a new and useful Improvement in Wire-Stretchers, of which the following is a full, clear, and exact description.

My invention consists of a hooked bar or plate carrying pivoted jaws at its hooked end, and provided near its center with a hooked lever provided with a pawl for securing the device to the fence-post, and carrying at its straight end a clamping device for retaining the wire while a hold is being taken with the jaws, a suitable guide being provided for guiding the wire to and through the clamping device.

The invention also consists of the details of construction and the combination of parts, all as hereinafter more fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved wire-stretcher as it appears when applied for use. Fig. 2 is a side elevation, partly in section. Fig. 3 is an end elevation, showing the clamping device; and Fig. 4 is an edge view of the jaws for stretching the wire.

A represents the main bar or plate, which is formed at one end with the pointed hook *b*, and is provided at the straight end with the bell-mouthed or hopper-shaped guide B. The hooked end of the bar or plate is formed with the lugs *c c*, between which the link *a* is pivoted, and the jaws or stretching-levers C C' are hinged or pivoted to this link. The jaw or lever C' is made larger than the lever C, and the extended portion is flattened to form the vertical flange or plate *d*, and the lever C is pivoted to this flange by the pivot *c'*, as shown clearly in Figs. 1 and 4, and the jaws thus secured together are pivoted to the link *a*, as above mentioned, by the pivot *a'* passing through this vertical flange. The faces of the jaws or levers, where they come together for grasping the wire, are creased or serrated, as clearly shown in Fig. 4. Near the center of the length of the bar or plate A the same is formed with the slot *f*, through which the

hooked lever D passes, as clearly shown in Fig. 2.

The upper or outer edge of the main bar or plate is formed with the series of teeth *e*, with which the pawl F, which is pivoted to the hooked lever D, engages for holding the lever back when it is drawn toward the straight end of the main bar or plate, for embedding its point and the point of the main bar or plate in the post for securing the device in position for use. The two sides of the main bar or plate are correspondingly perforated with the holes *i* for the passage of the bolt *t*, for adjusting the hooked lever D different distances away from the hook *b* of the main bar or plate to suit posts of different sizes.

The diagonal plates *o* and *q* of the hopper-shaped guide reach past the edges of the eccentric H, as clearly shown in Fig. 3; and form a narrow throat or passage for the wire, so there will be no danger of the barbs catching over the edges of the eccentric while the inner edge of the diagonal plate *p* of the guide is flush with the bed-plate *n'* of the guide. The plate *o* is extended, as shown at *g* in Figs. 2 and 3, above the plate *q*, and this extended portion is provided with the arm or shaft *h*, upon which the said eccentric H is placed. The eccentric is formed with the handle *j*, and is held forward by the spring *k*, which is placed upon the arm or shaft *h* and wound around the handle, as shown. The face of the cam is provided with the steel plate *l*, which is roughened, and which comes in contact with the roughened steel plate *n*, placed upon the bed-plate *n'* of the guide, so that when the wire is passed between these two plates it will be firmly held by the eccentric while a new hold is being taken upon the wire by the jaws or levers.

In use the stretcher is first to be placed in a horizontal position against the post, with its straight end toward the direction from which the wire is to be stretched, and secured to the post by forcibly drawing back upon the hooked lever D, which embeds its point and that of the main plate or bar into the post, in which position they will be held by the pawl F. The wire to be stretched is first to be placed in the guide, which is done by lifting the eccentric and passing the wire over the edge of the di-

agonal plate *q* and under the eccentric. The wire is then to be forcibly grasped by the levers or jaws *C C'*, and the levers are then to be carried forward, stretching the wire. When the jaws or levers are loosened upon the wire, for taking a new hold for still further stretching the wire, the wire will be automatically retained by the eccentric *H*, as will be clearly understood.

To remove the stretcher after the wire has been stretched and secured to the post it is only necessary to lift the pawl *F* and turn the eccentric *H* by the handle *j* and pass the wire from under the eccentric over the short or narrow plate *q* of the guide.

The guide *B* is secured to the main bar *A* by means of the pin *m*, as clearly shown in Figs. 1 and 2, so that the guide can be removed and replaced in a reverse position when it is desired to draw the wire from the opposite direction.

By this construction it will be seen that the device is easily and quickly attached to and detached from the wire and post and easily handled, and that the jaws *C C'* furnish a long purchase for drawing the wire with great force.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The hooked plate or bar *A*, in combination with the levers or jaws *C C'*, guide *B*, hooked lever *D*, and eccentric *H*, substantially as and for the purposes set forth.

2. The hooked plate or bar *A*, formed with

the lugs *c c*, in combination with the pivoted link *a* and the levers *C C'*, pivoted thereto, substantially as described.

3. The hooked bar or plate *A*, formed with the slot *f*, in combination with the hooked lever *D*, provided with pawl *F*, the plate being formed with the notches *e*, substantially as and for the purposes set forth.

4. In combination with the plate or bar *A*, the eccentric *H* and the hopper-shaped guide *B*, substantially as and for the purposes set forth.

5. The guide *B*, formed of the diagonal plates *o, p*, and *q*, and the bed-plate *n*, the plate *o* being extended above the plate *q*, and carrying the eccentric *H*, in combination with the main bar or plate *A*, substantially as described.

6. The combination, with the eccentric *H*, of the diagonal plates *o q*, reaching past the edges of the said eccentric, substantially as shown and described, whereby a narrow throat or passage is formed and the danger of the barbs catching over the edges of the eccentric avoided, as set forth.

7. The guide *B*, secured to the bar or plate *A* by means of the bolt or pin *m*, substantially as and for the purposes set forth.

HENRY H. HUTCHINS.

Witnesses:

SOLON C. KEMON,
AMOS W. HART.