

No. 616,787.

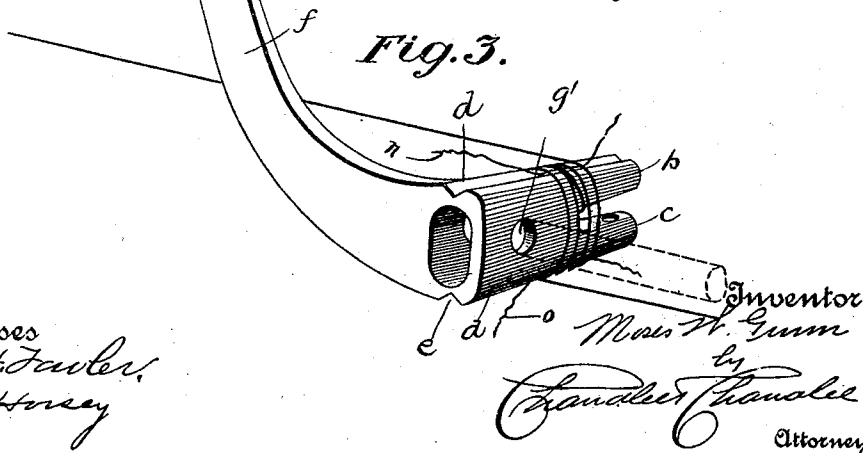
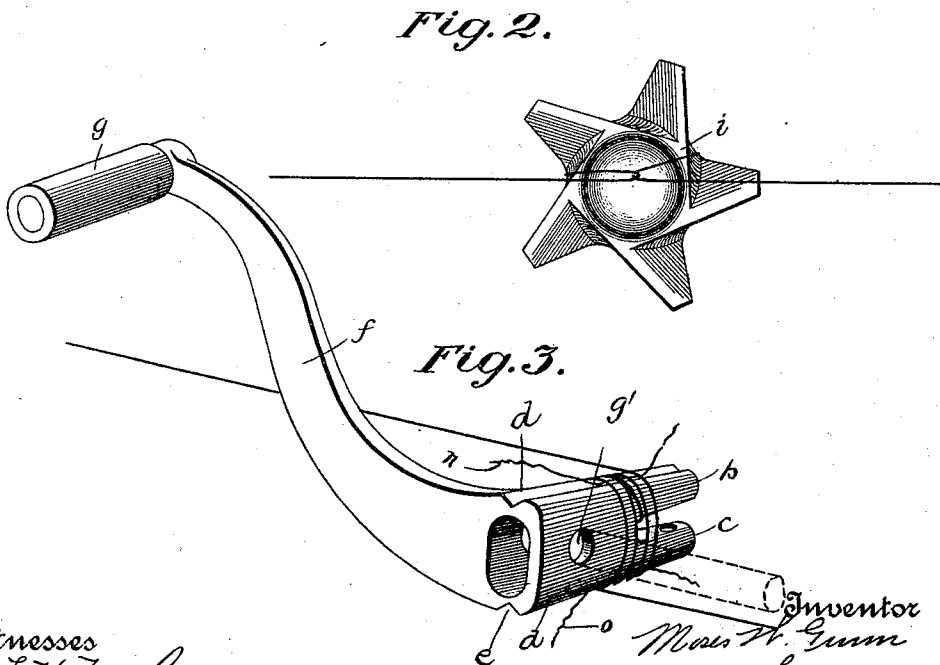
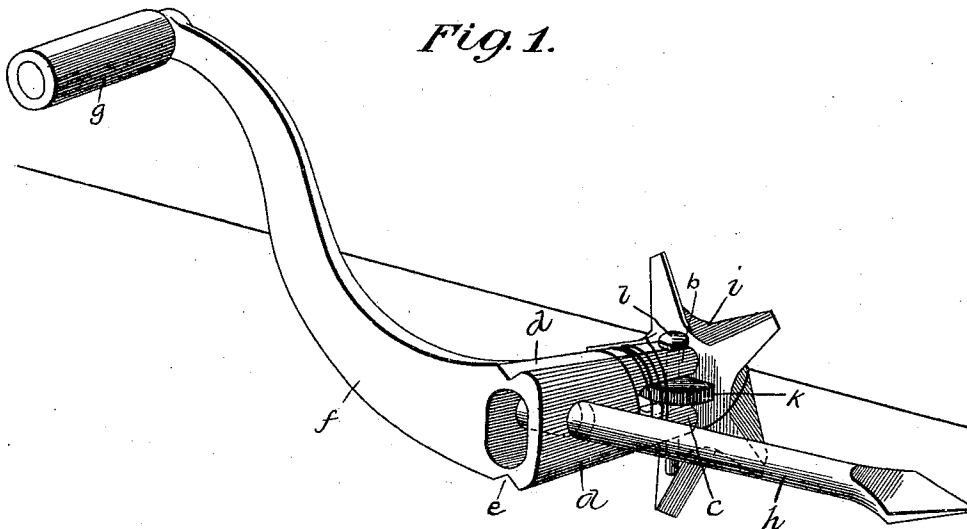
Patented Dec. 27, 1898.

M. W. GUNN.

COMBINED WIRE TIGHTENER AND STAPLE PULLER.

(Application filed Aug. 5, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

MOSES W. GUNN, OF LA SALLE, ILLINOIS.

COMBINED WIRE-TIGHTENER AND STAPLE-PULLER.

SPECIFICATION forming part of Letters Patent No. 616,787, dated December 27, 1898.

Application filed August 5, 1898. Serial No. 687,804. (No model.)

To all whom it may concern:

Be it known that I, MOSES W. GUNN, a citizen of the United States, residing at La Salle, in the county of La Salle, State of Illinois, have invented certain new and useful Improvements in a Combined Wire-Tightener and Staple-Puller; 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.

My invention relates to wire-tighteners in general, and more particularly to that class intended for tightening wires in wire fencing, the object of my invention being to provide a cheap and simple device with which the wires may be tightened by manipulation intermediate the posts or at the posts in an easy manner.

A further object of my invention is to provide a supplemental handle which will have the twofold function of pulling staples and assisting in the operation of the device when tightening wires.

In the drawings forming a portion of this specification and in which like letters of reference indicate similar parts in the several views, Figure 1 is a perspective view of my complete device and showing it in position upon a wire to be tightened, the staple-puller being in place for assisting in the operation of tightening. Fig. 2 is a front elevation of the star-wheel of my implement. Fig. 3 is a view similar to Fig. 1, showing the operation of my device when the star-wheel is omitted.

Referring now to the drawings, in operating in accordance with my invention I form a hub *a*, which is substantially elliptical in cross-section, as shown, which said hub is bifurcated at its forward end to form two legs *b* and *c*. The hub *a* is formed hollow to secure lightness, and longitudinally of the exterior surface of each leg is formed a groove *d* and *e*, for a purpose which will be presently explained.

Formed integral with the hub *a* and extending from the base thereof at right angles thereto is a crank *f*, having a handle *g* for manipulation.

A perforation is formed through the hub *a* laterally, as shown at *g'*, to admit a rod *h*, which rod is extended in an opposite direc-

tion from the crank *f* for a purpose as will be hereinafter explained.

A star-wheel *i*, having a rib *k* on its rear face, is secured to the outer end of the hub *a* by passing said rib between the legs *b* and *c*, a pin *l* being passed through registering perforations in the legs and rib to hold the wheel in place.

The operation of my invention in this form is as follows: The star-wheel *i* being removed, the hub *a* is manipulated to receive a wire *m* between the legs *b* and *c*, after which the wheel *i* is replaced and secured in position by means of the pin *l*. By grasping the handle *g* with one hand and the rod *h* with the other the hub is then revolved until the required tension of the wire is secured. The tool is then turned backwardly two points of the wheel *i*, and the opposite spurs of the wheel are caused to engage the wire on opposite sides of the hub. By continuing to revolve the implement the wires are crossed in front of the wheel *i*, as shown in Figs. 1 and 2. The bend of one wire across the other then enables the operator to hold the wire taut while he severs the wire at the back of the wheel and wraps one severed end around one of the wires and the other end around the opposite wire, when the operation may be repeated at another place.

When desired, the tool may be used without the use of the star-wheel *i*, in which event the hub is engaged with the wire to be tightened in the manner first described. By revolving the hub the wire is wound upon the hub until sufficient slack has been taken up, as shown in Fig. 3 of the drawings. If the operation is at a post, a staple may then be placed over the convolutions at each side of the hub by running one leg of the staple through a groove in the leg *b* and subsequently one leg of a staple through the groove in leg *c*. With a hammer the staple may then be driven into the post to hold the convolutions and prevent them slipping.

If the operation has been intermediate the posts, a wire, as shown at *n* and *o*, may be slipped through the grooves in the legs *b* and *c* and then wrapped together to hold the convolutions against unwinding.

It will be noted upon reference to Fig. 1 of the drawings that one end of the rod *h* is

formed as an arrow-head, which enables the rod when removed from the hub *a* to be inserted beneath a staple for removal of the latter.

5 It will be readily understood that I may vary the specific construction and arrangement herein shown and described without departing from the spirit of my invention.

10 It will also be appreciated that, if desired, the hub of the tool may be formed solid instead of hollow, and also that the twisting of the ends of the wire around the body thereof after cutting behind the star-wheel may be accomplished in any desired manner, pliers
15 being used when wished in order to insure against slipping.

Having thus described my invention, what I claim is—

20 1. A wire-stretcher comprising a hub having a bifurcated end resulting in legs, grooves formed longitudinally of the legs throughout their lengths and on opposite sides thereof and means for revolving the hub.

25 2. A wire-stretcher comprising a hub having a bifurcated end resulting in the forma-

tion of legs, grooves running longitudinally of the legs throughout their lengths, a crank extending from the base of the hub at right angles thereto, a perforation through the hub, and a rod passed through the perforation, said rod being adapted when removed to be passed beneath a staple.

3. In a wire-stretcher, the combination of a hub having a bifurcated extremity, a star-wheel attached to the hub, grooves on opposite sides of the hub and means for revolving the hub.

4. The combination of a hub having a bifurcated extremity, a star-wheel having a rib entering the slot of the bifurcation, a pin
40 passed through the hub and rib to hold the star-wheel in place, grooves formed in the sides of the hub, longitudinally thereof, and means for revolving the hub.

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

MOSES W. GUNN.

Witnesses:

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