

(No Model.)

2 Sheets—Sheet 1.

J. JESSOP.  
HAND NAILING IMPLEMENT.

No. 428,105.

Patented May 20, 1890.

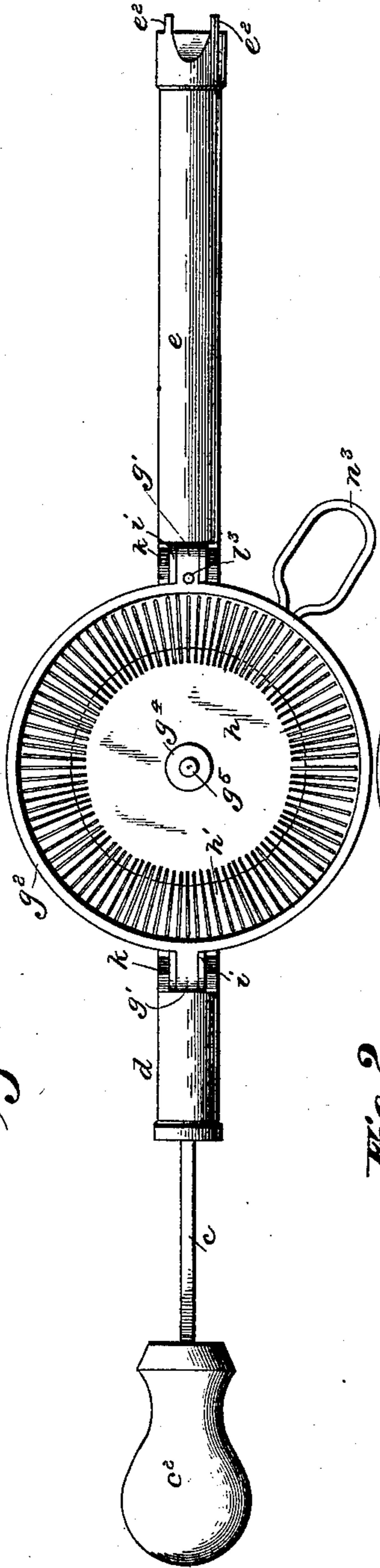


Fig. 1.

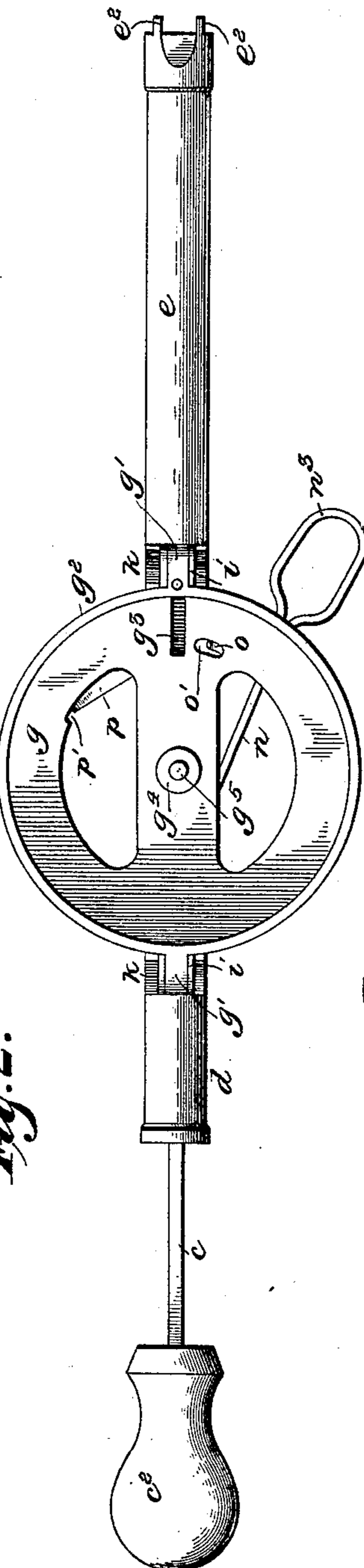


Fig. 2.

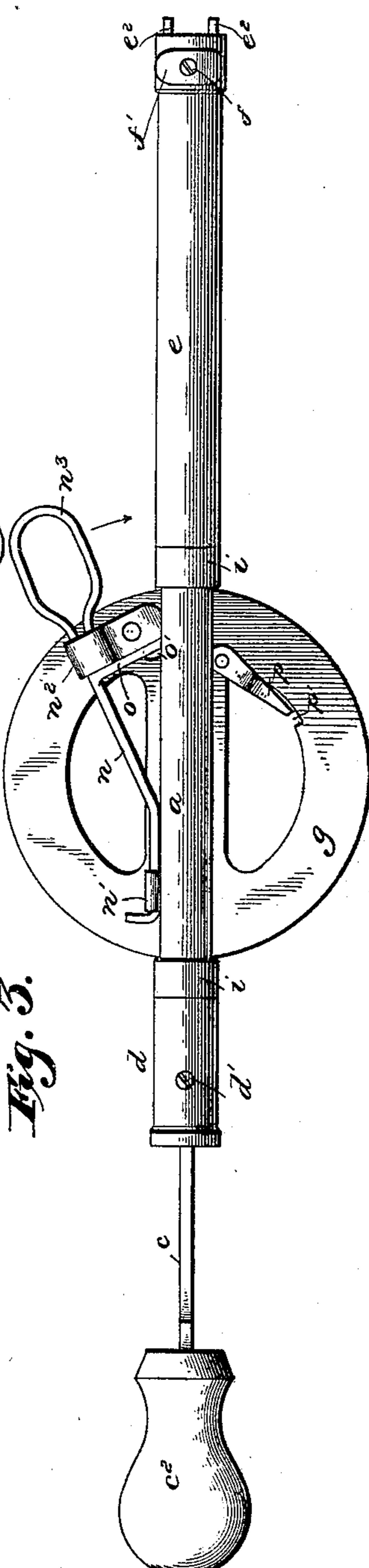


Fig. 3.

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2 Sheets—Sheet 2.

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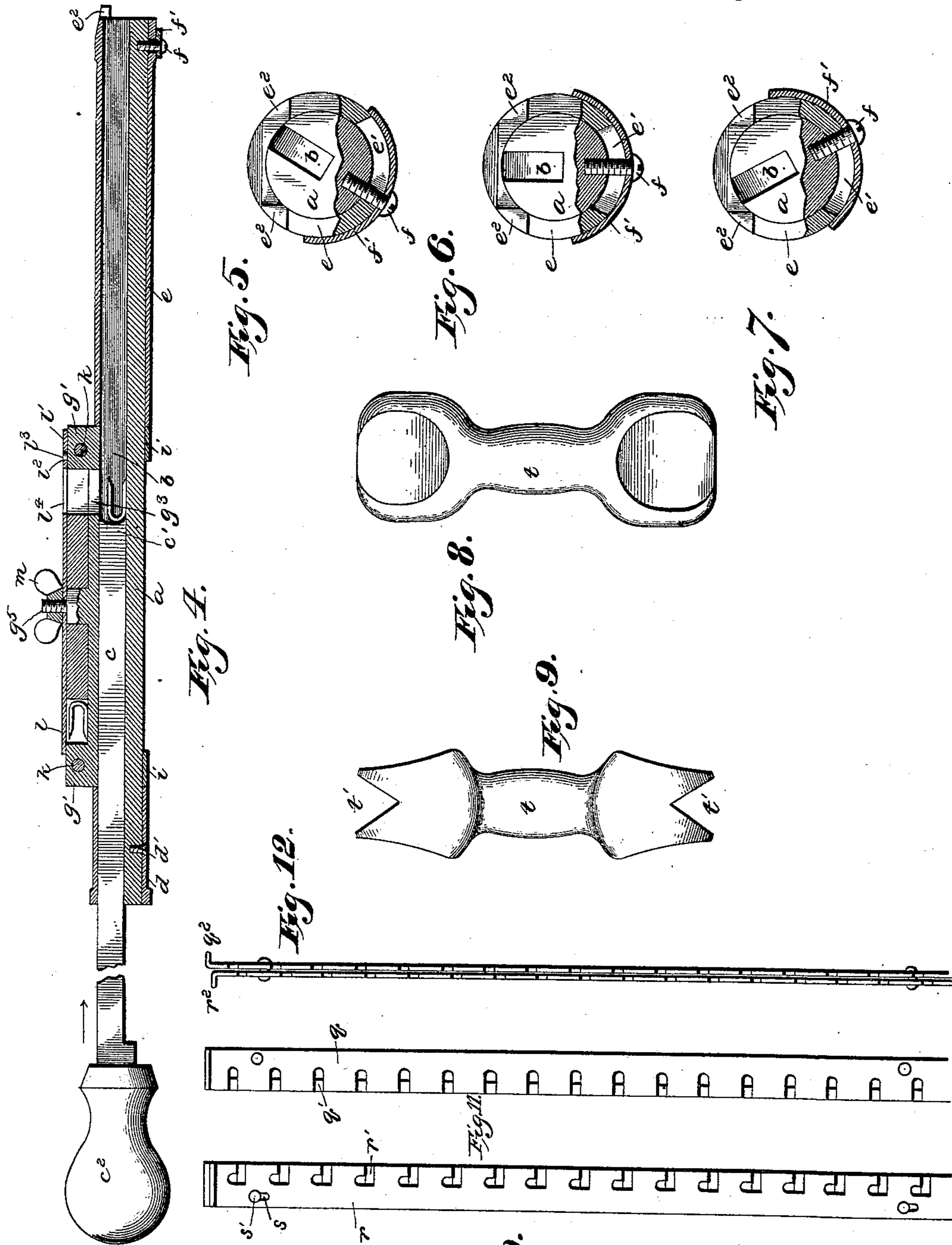


Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 4.

Fig. 9.

Fig. 12.

Fig. 10.

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# UNITED STATES PATENT OFFICE.

JONATHAN JESSOP, OF YORK, PENNSYLVANIA.

## HAND NAILING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 428,105, dated May 20, 1890.

Application filed February 8, 1890. Serial No. 339,683. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN JESSOP, a citizen of the United States, residing at York, in the county of York and State of Pennsylvania, have invented a certain new and useful Improvement in Machines for Driving Staples, of which the following is a full, clear, and exact description.

The object of this invention is to provide an efficient apparatus especially adapted for stapling the wires used to support the plants in hedge fences, although I do not limit the invention to this one use. For the sake of conciseness, however, I will describe my invention as applied to apparatus for this use.

The invention will be described first, and then particularly pointed out in the claims.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a top plan view with the cover removed from the magazine. Fig. 2 is a similar view with the feed-wheel of the magazine removed and also the magazine-cover. Fig. 3 is a bottom plan view. Fig. 4 is a longitudinal section. Figs. 5, 6, and 7 are end views, partly sectional, showing various positions of the raceway. Figs. 8 and 9 are respectively edge and side views of an anvil which may be employed for turning in the ends of staples. Figs. 10, 11, and 12 are respectively side views and an end view of a gage for setting the wires.

The letter *a* represents a stock, which, as shown more particularly in Fig. 4, is provided with a longitudinal groove *b*, extending from end to end thereof, and which groove constitutes a raceway. In this raceway is arranged the driver *c*, having an end *c'* shaped to conform to the head of the staple to be driven, and also having a handle *c<sup>2</sup>*, which may be weighted, in order to aid in delivering a blow. This driver is arranged to be moved longitudinally in the raceway.

*d* is a sleeve secured upon one end of the stock by means of a screw *d'*, and *e* is a sleeve loosely arranged upon the other end of the stock and provided with an opening or slot *e'*, (see more particularly Figs. 4, 5, 6, and 7,) through which a screw *f* is passed,

which screw is tapped into the stock *a* to connect the sleeve and stock. Between the head of the screw *f* and sleeve *e* is interposed a plate or washer *f'* to cover the slot *e'*. The sleeve *e* is provided with prongs or projections *e<sup>2</sup>* on its outer end, which serve as rests or guides for the apparatus when in use for driving staples.

The magazine for containing and feeding the staples to be driven to the raceway consists of a bed-plate *g*, having oppositely-projecting lugs *g'*, and the annular flange *g<sup>2</sup>*, projecting from its outer edge and substantially at right angles thereto. This bed-plate also has a throat *g<sup>3</sup>*, which opens into and is arranged in alignment with the raceway in the stock to provide for the egress of the staples from the magazine into said raceway. The bed-plate, further, is provided with a boss *g<sup>4</sup>*, rising therefrom, and which serves as a journal for the rotary feed-wheel or carrier *h* of the magazine. This carrier *h* is provided with pockets *h'*, in which the staples are arranged.

The magazine is secured to the stock by means of clamps *i*, passing around the stock and having ears which straddle the lugs *g' g'*, and are secured thereto by nuts and bolts or other fastening devices *k*, so that the said magazine may be rigidly secured in position upon the stock. These clamps may be applied to the stock before the sleeves *d* and *e* are placed in position, the said magazine being arranged upon the stock between the said sleeves, and the said sleeves co-operate with the clamps, if need be, to hold the magazine in position; but I do not limit my invention to this particular manner of securing the magazine to the stock. The boss *g<sup>4</sup>* terminates in or is provided with a screw *g<sup>5</sup>*.

The cover *l* is provided with a central opening to fit over the screw *g<sup>5</sup>*, and also with a tongue *l'*, having an opening *l<sup>2</sup>* to fit over a pin *l<sup>3</sup>*, rising from one of the lugs *g'* to secure the aligning of the cover over the magazine. A winged nut *m* is applied to the screw *g<sup>5</sup>* to secure the cover to the magazine. The cover, moreover, is provided with an opening *l<sup>4</sup>* in alignment with the pockets of the carrier and with the throat *g<sup>3</sup>* of the magazine, in order

to form a sight or peep hole to enable the operator to see that the feed of the staples is progressing.

$n$  is a carrier-rotator, which in this instance is shown as constructed of spring-wire fastened at  $n'$  to the bed-plate, and having its motion limited by a loop  $n^2$ , also secured to the bed-plate and terminating in a handle  $n^3$ . To this rotator is secured a pawl  $o$ , which projects through an opening  $o'$  in the bed-plate, (see Figs. 2 and 3,) and is adapted to engage the walls of the pockets  $h'$  in the carrier, so that when the said rotator is moved in the direction of the arrow, Fig. 3, the carrier is rotated the distance of one pocket, so as to drop a staple through the throat into the raceway. A detent  $p$  is fastened to the bed-plate and projects through an opening  $p'$  in the said bed-plate, so as to engage also the walls of the pockets of the carrier to prevent retrograde motion of said carrier.

By using the walls of the carrier-pockets, in connection with the rotator and the detent, I dispense with separate ratchets or other devices for feeding the carrier, and hence simplify and reduce the cost of construction.

In order to insure the horizontal arrangement of the wires used to connect the several plants of a hedgefence, I employ a gage, (shown in Figs. 10, 11, and 12,) which consists of two flat pieces of metal, one of which  $q$  has the straight slots or notches  $q'$ , and the other of which  $r$  has the L-shaped slots or notches  $r'$ , registering with the slots or notches  $q'$ , and these two plates are secured together by means of slots  $s$  and pins  $s'$ , so that the said plates may have a longitudinal motion one upon the other to bring the parallel portions of the slots or notches  $q'$  and  $r'$  into alignment, and thereafter to cause the right-angled portions of the slots or notches  $r'$  to cross the straight notches in the plate  $q$  to lock therein the wire or wires and hold them against displacement while the said wires are being stapled to the plants. The ends of the plates of this gage may be turned over, as at  $q^2$  and  $r^2$ , to afford finger-holds for adjusting the plates one upon the other. As already indicated, the wires are placed in the appropriate notches or slots in the gage and locked therein and the gage set at proper relation to the plants in upright position to support the wires while being stapled and to support them in proper position relatively to the plants and to one another.

Where the stems of the plants are small and the staple is so long that when driven it would pass entirely through such stems, it is sometimes desirable to turn over the projecting points of the staples. For this purpose I employ the anvil shown in Figs. 8 and 9. The said anvil consists of a metallic casting  $t$ , by preference, having in its ends V-shaped seats  $t'$   $t'$ , which, as is obvious, will turn the points of the staples toward one another.

In order to provide for the driving of the staples at various angles relatively to the plant, the stock  $a$  may be rotated within the

sleeve  $e$ , so as to present the raceway at various inclinations, as indicated in Figs. 5, 6, and 7, and this is done without changing the position of the magazine relatively to the stock, and of course without interfering with the feed of the staples from the magazine into the raceway. It will be observed that the sleeve  $d$  in the example shown is fast to the stock and moves with it as it is rotated in the other and independent sleeve  $e$ .

The operation is as follows: The magazine being supplied with staples, the driver is moved until its leading end is behind the throat, as indicated in Fig. 4. The staple then drops into the raceway, and then by a movement of the driver in the direction of the arrow, Fig. 4, the staple is forced along the raceway and out of the same and around the wire and into the plant. Then by actuating the rotator  $n$  the magazine is advanced one pocket, so as to present another staple to the throat, and then the driver being again withdrawn to the position shown in Fig. 4, the said staple drops into the raceway and may be expelled by the driver.

What I claim is—

1. An implement for driving fastenings, comprising a stock having a raceway, and a driver arranged in said raceway, combined with a magazine having lugs  $g'$   $g'$ , and clamps  $i$   $i$ , encircling the said stock and provided with ears which are rigidly connected to the said lugs to secure the magazine in position upon the stock, substantially as described.

2. An implement for driving fastenings, comprising a magazine consisting of a bed-plate having a rim-flange, projecting lugs  $g'$   $g'$ , and a central boss, a pocketed carrier arranged upon said bed-plate and adapted to be rotated upon said boss, and a detachable cover applied to the bed-plate and carrier, combined with a stock and clamps  $i$ , by which the magazine is applied to the stock, the said stock having a raceway, and a driver arranged in said raceway, substantially as described.

3. An implement for driving fastenings, comprising a magazine having a pocketed carrier, the walls of the pockets of which carrier also serve as a ratchet, a bed-plate in which the carrier is arranged, and a stock having a raceway in open communication with the magazine, and a driver arranged in said raceway, combined with a rotator constructed as a spring having a pawl  $o$  adapted to engage the walls of the pockets of the carrier to rotate the said carrier, and also having the handle  $n^3$  for operation by hand, and a detent pivoted to the bed-plate and projecting through an opening in it to engage the carrier to prevent retrograde motion of the carrier, substantially as described.

4. An implement for driving fastenings, comprising a stock having a longitudinal raceway, a driver arranged in said raceway, and a magazine applied to the stock and communicating with the raceway, combined with a

sleeve *e*, applied to the exit end of the stock, and in which sleeve the stock is rotatable in order to vary the inclination of the raceway relatively to the article operated upon, substantially as described.

5 An implement for driving fastenings, comprising a stock having a longitudinal raceway, a driver arranged therein, and a magazine connected to the stock, combined with

sleeves *d* and *e*, applied to the stock on opposite sides of the magazine, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 7th day of February, A. D. 1890.

JONATHAN JESSOP.

Witnesses:

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EDWARD A. GARRETZ.