

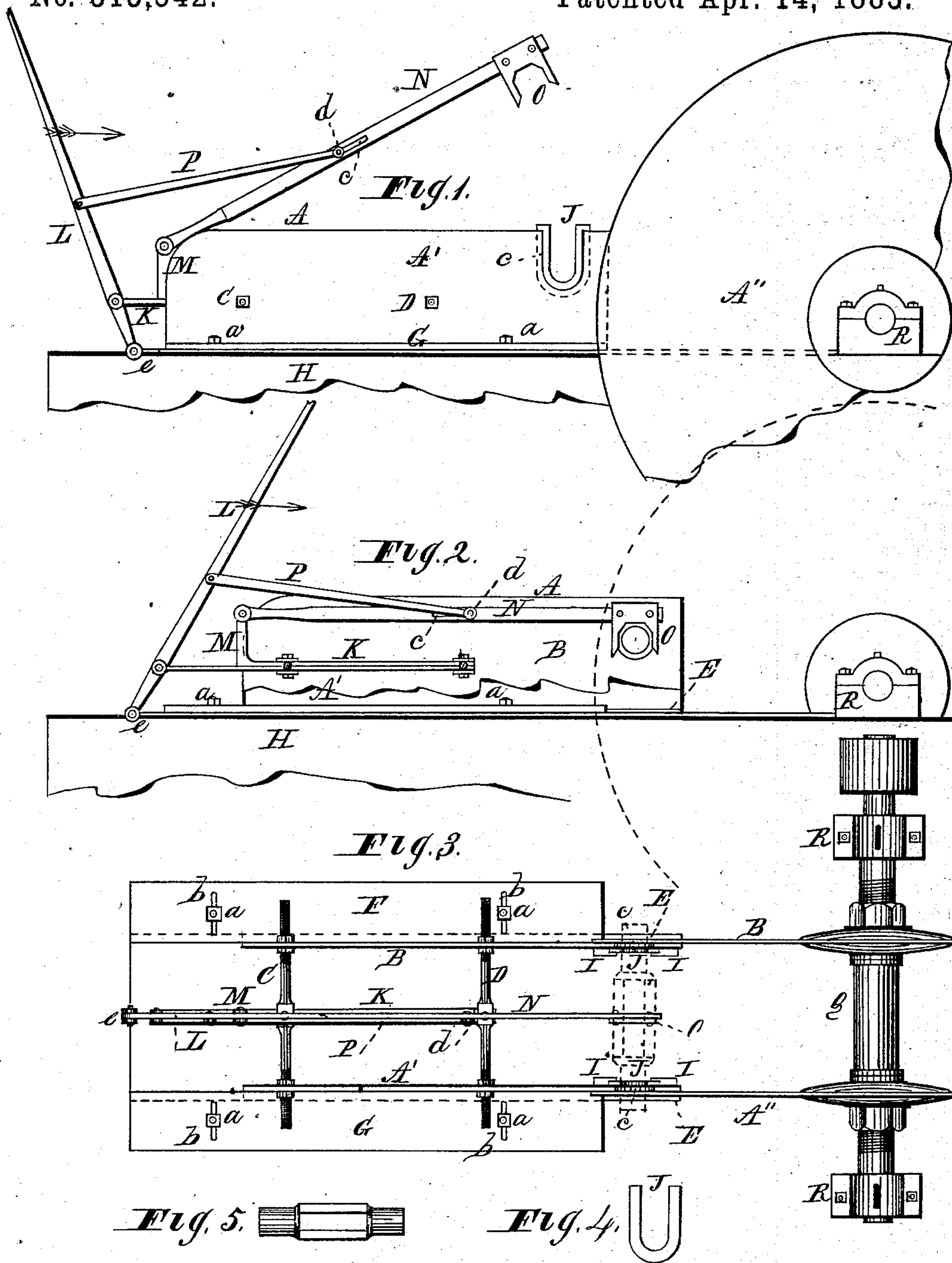
(No Model.)

H. P. PHIPPS.

MACHINE FOR TRIMMING THE ENDS OF SLEEVE NUTS.

No. 315,542.

Patented Apr. 14, 1885.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY P. PHIPPS, OF CLEVELAND, OHIO, ASSIGNOR TO THE KING IRON
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MACHINE FOR TRIMMING THE ENDS OF SLEEVE-NUTS.

SPECIFICATION forming part of Letters Patent No. 315,542, dated April 14, 1885.

Application filed July 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. PHIPPS, of Cleveland, Cuyahoga county, and State of Ohio, have invented a Machine for Sawing or Dress-
5 ing Off the Rough Ends of Sleeve-Nuts, thereby rendering the ends smooth and even and the sleeve-nuts all of a uniform length.

The machine is fully described and set forth in the following specification and shown in
10 the annexed drawings, making a part of said specification, in which—

Figure 1 is a side view of the machine when open. Fig. 2 is a side view when closed. A
15 portion of the side thereof is shown as broken away that the interior parts of the machine may be seen. Fig. 3 is a plan view; Fig. 4, a detached section; and Fig. 5 represents a sleeve-nut.

Like letters denote like parts in the several
20 drawings.

The machine above alluded to consists of a sliding carriage, A, composed of two side plates, A' and B, braced and connected to each other by the adjustable stay-bolts C and
25 D. The lower edge of each of the sides is bent outward at a right angle, forming a projecting flange, E, along the sides, as shown in Figs. 2 and 3. The said flanges are adapted to slide under the edges of the adjustable
30 plates F and G, the inner edges of which are rabbeted, thereby forming ways for the flanges E of the carriage to slide in. The plates are secured to the bed H by set-bolts a, inserted in slots b, that the plates F and G may be
35 adjusted laterally for a purpose presently shown. In the end of each of the sides of the carriage is a notch or opening, c, Figs. 1 and 3. On each side of the notch is a rabbeted cleat, I, in which is fitted a U-shaped
40 nut-holder, J, a detached view of which is shown in Fig. 4. This nut-holder is removably fitted to the notch c, for a purpose hereinafter shown. To the cross-bolts or braces C and D is secured a draw-bar, K, the outer
45 end of which is pivoted to the handle or lever L. To a standard, M, on the draw-bar is hinged an arm, N, on the outer end of which is detachably secured a nut-clamp, O. The arm N is secured to the lever L by a link, P.

The connection of the link with the arm is by 50 means of a pin, d, projecting from the end of the link into a slot, c', in which the pin moves when operating the lever. The end of this lever is pivoted at e to the bed of the machine. Shaft Q has its bearings in pillow-blocks R, 55 on which shaft are adjustably secured a pair of circular saws, A'' and B', so arranged in their relation to the carriage as to be close to the sides A' and B, as seen in Fig. 3. As before stated, the machine is for dressing off the 60 crude rough ends of sleeve-nuts, similar to the nut shown in Fig. 5, but having rough ragged ends to be cut off, so that the ends shall be smooth and even, as shown in the drawings, Fig. 5, and also to have all the sleeve-nuts of 65 the same length. To this end the carriage, consisting of the sides A' and B, above mentioned, is drawn back from the saws, so that the opening J shall be in front of the edge of the saws, as seen Fig. 1. In this position of 70 the carriage the arm N is elevated by means of the link P on pulling the lever from its position shown in Fig. 2 to that seen in Fig. 1. An untrimmed sleeve-nut is laid in the notches or openings J of the sides, as indicated 75 by the dotted lines n in Fig. 3, so that the rough ends thereof may project each way beyond the edges of the saws.

To bind the sleeve-nut in the openings while being operated upon, is the purpose of the 80 clamp O. Pushing the lever in the direction of the arrow causes the pin b to slide forward in the slot c. The pin on reaching the end of the slot turns the arm down from the position shown in Fig. 1 to that shown in Fig. 2, there- 85 by causing the clamp O of the arm to engage the nut, as seen in Fig. 2, thereby holding it securely in place while both its ends are being cut off, which is done by the saws as the carriage is continued to be pushed forward to- 90 ward the saws by means of the draw-bar K operated by the levers. As the carriage moves forward, the rough projecting ends of the nut are cut off by the saws, leaving it in the condition as represented in Fig. 5. A reverse 95 movement of the lever L draws upon the link P, and brings the pin a to the end of the slot c, as seen in Fig. 1. A continued pull upon the

lever will cause the link to lift the arm and the clamp from the nut, and at the same time will draw back the carriage and the sleeve-nut beyond the edges of the saws, as seen in Fig. 1. The sleeve-nut can now be removed, and another inserted in its place to be trimmed.

It will be noted that when the arm N is in the position shown in Fig. 2, it cannot lift upward, as it is braced in that position by the link P, the pin *d* of which being forced by the lever against the end of the slot prevents the arm from rising, and therefore keeps the sleeve-nut securely in position while being operated upon by the saws, which, being a certain distance apart will trim all the sleeve-nuts to a uniform length.

Sleeve-nuts of different sizes may be trimmed by the cutters or saws in the same way by substituting for the U-shape holder J a larger or smaller one, as the case may be; also, nuts of different lengths may be sawed by adjusting the saw-cutters on the shaft nearer or farther apart, and adapting the sides A' and B of the carriage to them as may be required.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for trimming the ends of

sleeve-nuts, a sliding carriage consisting of the sides A' and B, having in the ends thereof an opening or notch to receive, respectively, the ends of a sleeve-nut, brace-bolts C and D, draw-bar, and lever for moving the carriage, constructed and arranged to operate in relation to and in combination with the saws, substantially as and for the purpose set forth.

2. In combination with the carriage A, the arm N, and clamp secured to the end thereof, with link P, connecting the arm to the lever, said link being attached to the arm by a pin adapted to move in a slot, *c*, in said arm for operating the same in the manner substantially as and for the purpose set forth.

3. In combination with the sliding carriage, consisting of the sides A' and B, provided with openings *c*, a removable nut holder or holders constructed and arranged in the manner and for the purpose, substantially as described.

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

HENRY P. PHIPPS.

Witnesses:

J. H. BURRIDGE,
W. H. BURRIDGE.