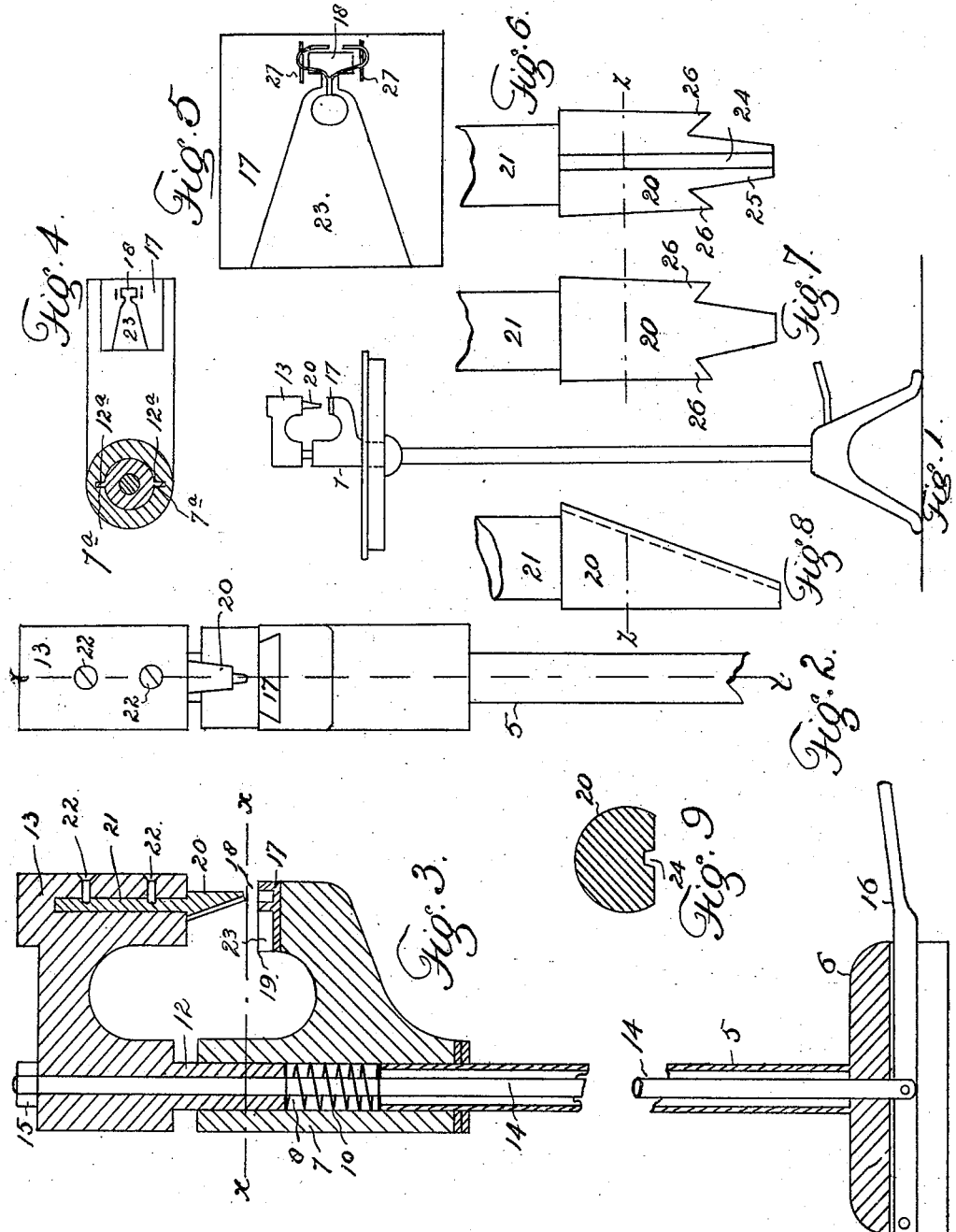
(No Model.)

# P. H. NIELSEN.

## DEVICE FOR REMOVING SHOE BUTTONS.

No. 491,948. Patented Feb. 14, 1893.

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PETER H. NIELSEN, OF DENVER, COLORADO.

## DEVICE FOR REMOVING SHOE-BUTTONS.

SPECIFICATION forming part of Letters Patent No. 491,948, dated February 14, 1893.

Application filed March 15, 1892. Serial No. 425,074. (No model.)

*To all whom it may concern:*

Be it known that I, PETER H. NIELSEN, a citizen of Denmark, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Devices for Removing Shoe-Buttons; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to an improved machine for cutting buttons off from shoes when they are secured by wire, or for removing the so called patent-buttons which are wire-fastened. The hand nippers heretofore employed for removing these buttons render the operation slow, tedious and unsatisfactory.

The object of my invention is to overcome these difficulties and to this end I provide a machine operated by foot power, whereby the wire fastened buttons may be quickly and easily removed, whereby it becomes practicable to fasten the buttons by the use of wire at the factory, which at the present time has not been done, since it is often necessary for the retail merchant to change the location of the buttons upon the shoe in order to subserve the comfort of the purchaser, which could not be profitably done by the use of the hand nippers.

The invention will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a side elevation of the complete device shown on a small scale. Fig. 2 is a front view on a larger scale, the lower portion of the standard being broken away. Fig. 3 is a vertical longitudinal section taken on line *y—y*, Fig. 2. Fig. 4 is a transverse section taken on line *x—x*, Fig. 3. Fig. 5 is a top or plan view of the die on a large scale showing the button in place. Figs. 6, 7 and 8 are rear, front and side views respectively of the cutter shown in a large scale and with the upper portion of its stem broken away. Fig. 9 is a transverse section taken through the cutter head on line *z—z*, Figs. 6, 7 and 8.

Similar reference characters indicating corresponding parts or elements in the several views let the numeral 5 designate a hollow standard rigidly secured to a suitable base 6. To the upper portion of this standard is rigidly secured the block 7, its rear portion being provided with an opening 8 extending therethrough. The top of standard 5 enters the lower portion of this opening while within the central portion of the opening is located a coil spring 10, its lower extremity engaging the top of the standard 5, its upper extremity forming a support for the shank 12 of the movable head block 13, which is normally supported by the spring at a suitable distance above the block 7, allowing the head the required length of stroke for the proper performance of its function. The head 13 is held in place by a bar 14 passing through the hollow standard, the opening in block 8 and in head 13. It is fastened to the top of the head in any suitable manner as by a nut 15. The lower extremity of the bar passes through a suitable opening formed in base 6, and is pivoted to foot lever 16 located in said base and by means of which the head block 13 is moved downward.

The front portion of the block 8 is provided with a die 17 having an opening 18 to receive the extremity of the cutter 20 which is provided with a stem 21 located in a suitable opening formed in the front portion of head 13 and secured in place by a set screw 22. In the rear of recess 18 the die is provided with another recess 23 in which the button lies during the operation of cutting the fastener. The rear portion of the cutter is provided with an outward groove which receives the eye of the button and holds the same in a suitable position for cutting the fastening. The point of the cutter tapers as shown at 25 and is adapted to readily enter the opening in the fastening and between the eye of the button and the surface to which it is secured. As the cutter moves downward the tapering point spreads or opens the fastening wire, while on each side of the point and above the same are the cutting edges 26, which cut the fastening wire on both sides simultaneously. The die is provided with notches 27 for the reception of the edges 26 of the cutter when at its lowest limit of movement.

The shank 12 of head 13 is provided with tongues $12^a$ on either side adapted to engage corresponding grooves $7^a$ in block 7 to prevent the movable head from turning in its socket.

The downward movement of the head 13 is accomplished by pressing lever 16 with the foot while it is automatically raised to its normal position by the spring 10.

Having thus described my invention what I claim is:—

1. A device for removing shoe buttons consisting of a standard provided with a stationary block having a die suitably fashioned to receive the button and the extremity of the cutter, and a spring supported movable block provided with a cutter normally supported above the die and provided with a reduced lower part and shouldered cutting edges lying on either side in a plane higher than the lowest point of the cutter and adapted to engage and cut the button fastening as the cutter is moved downward thereon, substantially as described.

2. In a device for removing shoe buttons the combination with a hollow standard secured to a suitable base, a stationary block rigidly secured thereto and provided with an opening which the upper part of the standard enters, the front part of the block being provided with a die having two recesses, one for the button and the other for the extremity of the cutter, a movable block provided with a shank entering the top of the opening in the stationary block and supported by a coil spring engaging the top of the standard, the movable block being provided with a cutter normally supported above the die, a pin passing up through the hollow standard and openings in both blocks and suitably secured to the movable block whereby the cutter is made to engage and sever the button fastening, substantially as described.

3. In a device for removing shoe buttons the combination of a stationary block having a suitable die and a movable spring supported block connected therewith and having a cutter provided with a reduced guide part and shouldered cutting edges lying on either side thereof and occupying a plane higher than the lowest point of the cutter, substantially as described.

4. In a device for removing shoe buttons the combination of a stationary die block having recesses for the buttons and for the extremity of the cutter and a movable spring actuated cutter block having a cutter provided with a longitudinal groove, a tapering lower extremity and shouldered lateral cutting edges located on either side of the tapering guide and in a plane higher than the lowest point of the cutter, substantially as described.

5. In a device for removing shoe buttons the combination with a die block and actuating mechanism of a vertically movable cutter having a rear longitudinal groove, a reduced lower part, and upper cutting edges, substantially as described.

6. In a device for removing shoe buttons the combination with a die block and actuating mechanism of a vertically movable cutter having a longitudinal groove and cutting edges located above its lower extremity, substantially as described.

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

PETER H. NIELSEN.

Witnesses:
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