

(No Model.)

G. L. GRAY.  
SEWING MACHINE ATTACHMENT.

No. 315,935.

Patented Apr. 14, 1885.

FIG. 1

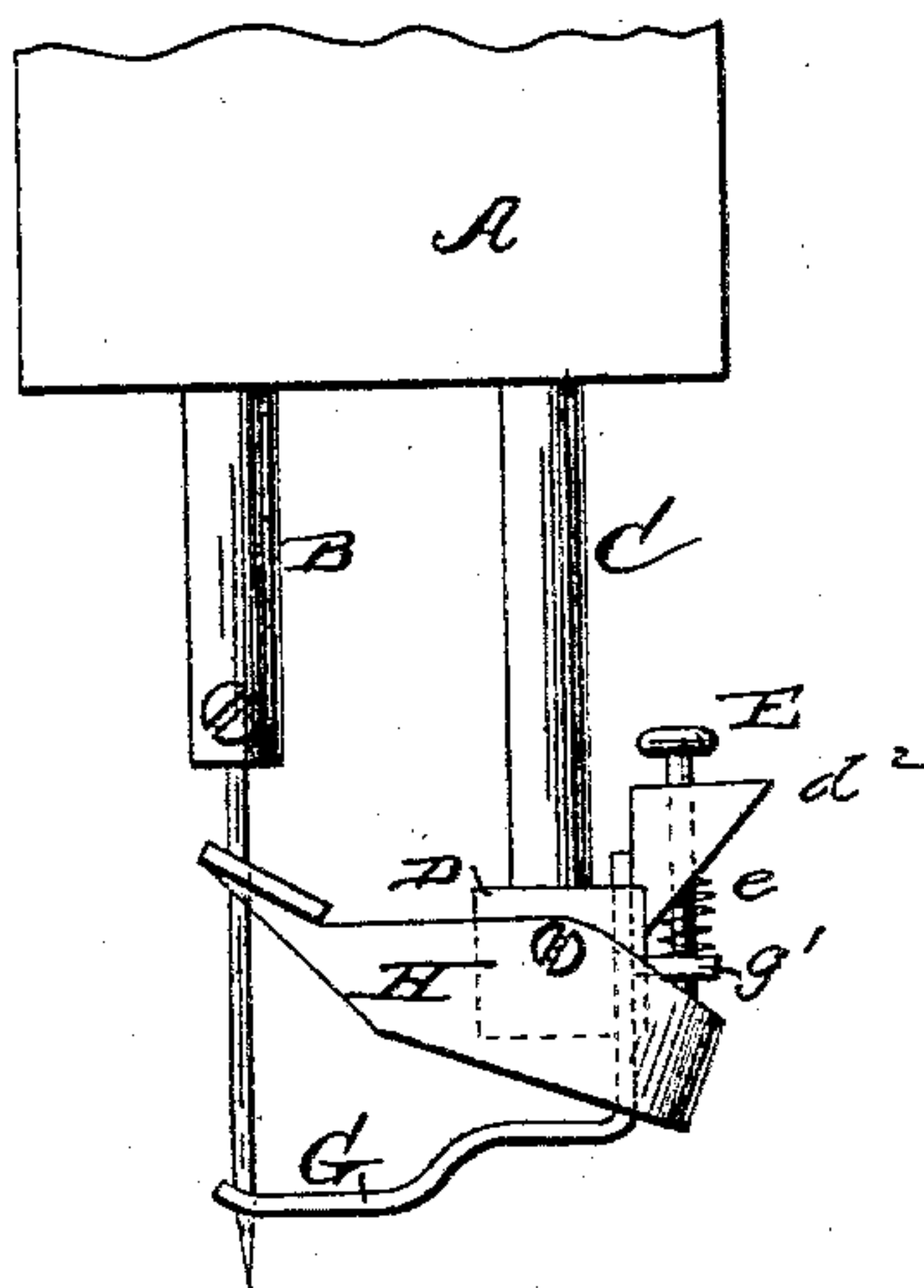


FIG. 2

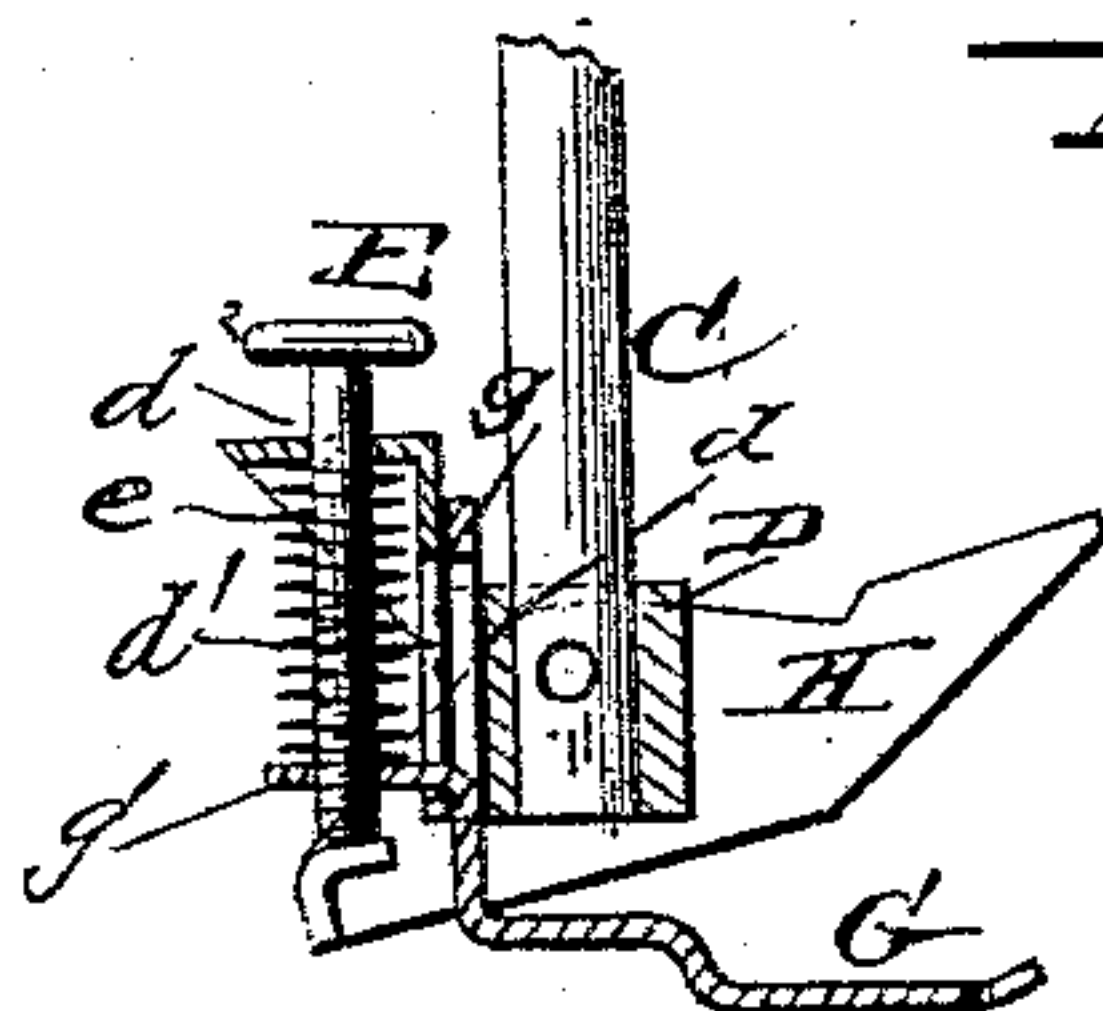
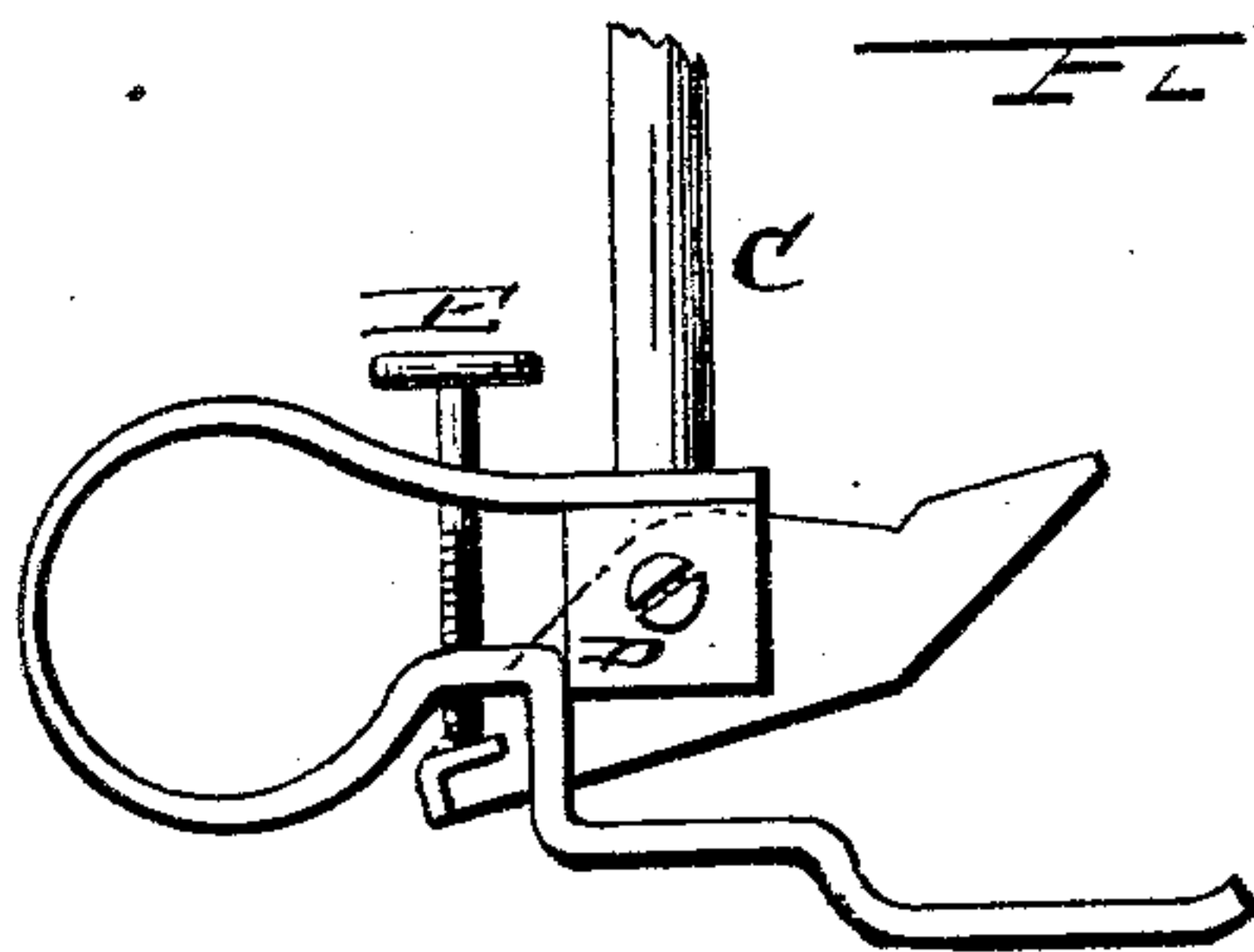


FIG. 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## SEWING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 315,935, dated April 14, 1885.

Application filed March 15, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. GRAY, a citizen of the United States, residing in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sewing-Machine Attachments, of which the following is a specification, to wit:

This invention relates to an improvement in sewing-machines; and it consists in the peculiar construction and arrangement of devices by which the presser-foot is lifted at each stroke of the needle to free the garment and facilitate turning, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a side view of my invention applied to a sewing-machine, and Fig. 2 is a central vertical section of the same, and Fig. 3 is a modification.

A represents the "head" of a sewing-machine, B the needle-bar, and C the presser-bar, of any of the ordinary and well-known constructions.

To the lower end of the presser-bar C is removably secured, by a set-screw, a small block, D, formed with vertical slot  $d$  in rear of the bar and a slot,  $d'$ , in its rear side, as in Fig. 2. To the rear side of the block is also secured (or formed therewith) a projecting frame or flange,  $d^2$ , through which passes loosely a thumb-screw, E. The presser-foot G is formed with a flat shank,  $g$ , passing upward through the slot  $d$ , and provided with a projection or lug,  $g'$ , working in the rear slot,  $d'$ , as shown. Into this lug  $g'$  is passed the end of the screw E, and around the screw, between the lug and the frame or flange  $d^2$ , is a spring,  $e$ , which tends to press the foot down to its lowest point at all times. Upon the side of the block D is fulcrumed a lever, H, its forward end extending out far enough to contact with the needle-bar B, and its rear end bent around beneath the end of the screw E.

By reference to the drawings it will be read-

ily understood that at every downward stroke of the needle-bar it depresses the outer end of the lever H, thereby lifting its inner end, and with it the foot G, thus releasing the goods for an instant, and allowing of their being turned in any direction without twisting or straining them. The amount of motion given to the presser-foot may be regulated or stopped altogether by turning the screw E.

A modification of the device is shown in Fig. 3, in which the presser-foot, instead of sliding vertically through the block D, is secured to or forms a part of a spring arm or loop secured to said block, and provided with the regulating-screw, as shown.

This device is applied readily to any machine without material change, and is of great advantage in binding, braiding, and similar uses requiring sudden turns, and does not twist or strain the material.

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

1. A presser-bar having a slotted block removably secured to its lower end, in combination with a needle-bar and a presser-foot sliding vertically through said block, and provided with a projection through which passes a spring-actuated adjusting-screw, and a lever fulcrumed on the presser-bar, and having its forward end extended out to contact with the needle-bar and its rear end resting beneath the adjusting-screw, substantially as shown and described.

2. The presser-bar C and detachable block or frame D, formed with the slots  $d$   $d'$  and projecting flange or frame  $d^2$ , and needle-bar B, in combination with the foot G, having a shank,  $g$ , and projection  $g'$ , the screw E, spring  $e$ , and lever H, substantially as and for the purpose set forth.

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

GEORGE L. GRAY.

Witnesses:

W. C. MACARTHUR,  
CHAS. KRESSMANN.