

No. 610,116.

Patented Aug. 30, 1898.

G. W. ANSLEY.
STAPLING MACHINE.

(Application filed Jan. 3, 1898.)

(No Model.)

Fig. 1.

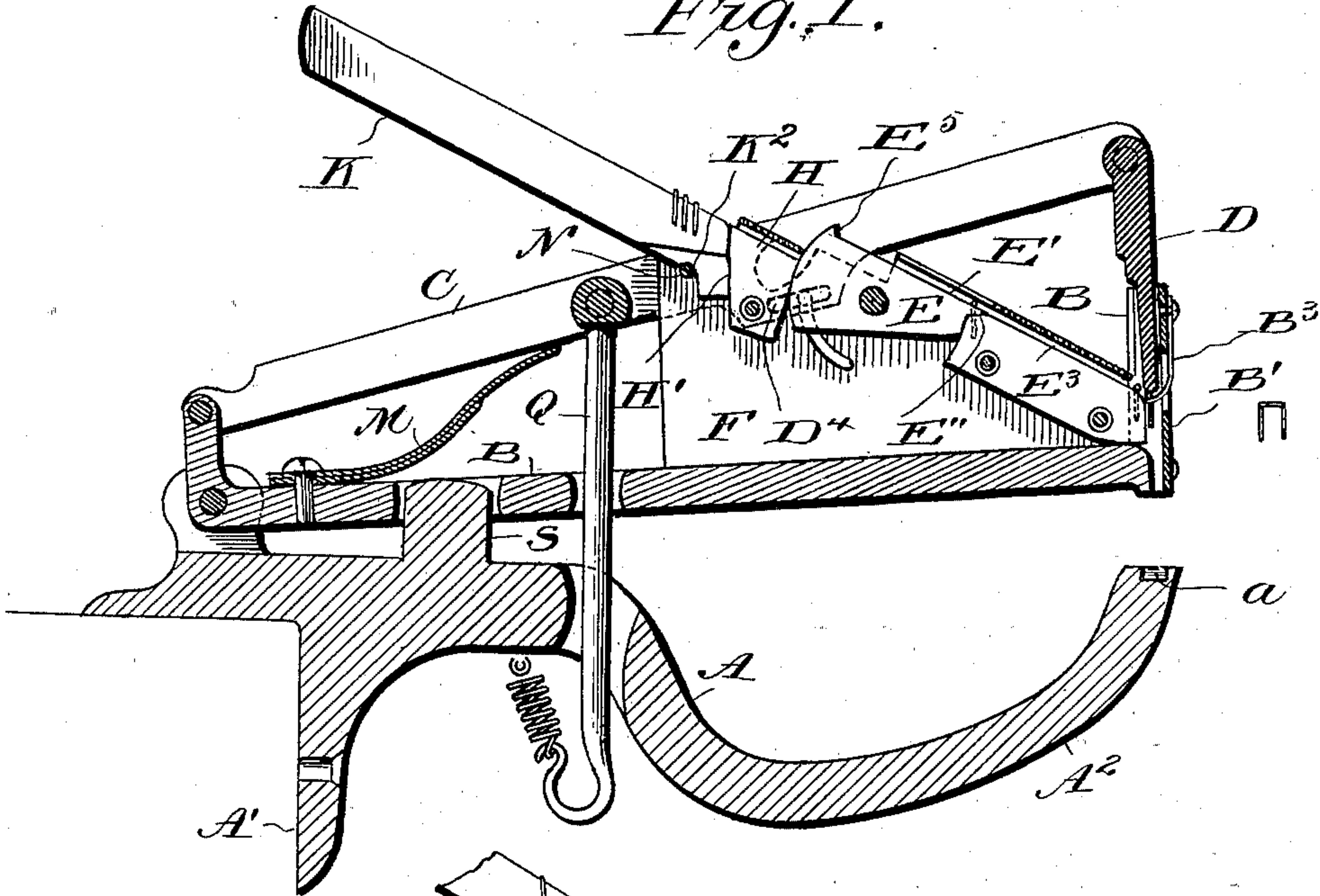


Fig. 2.

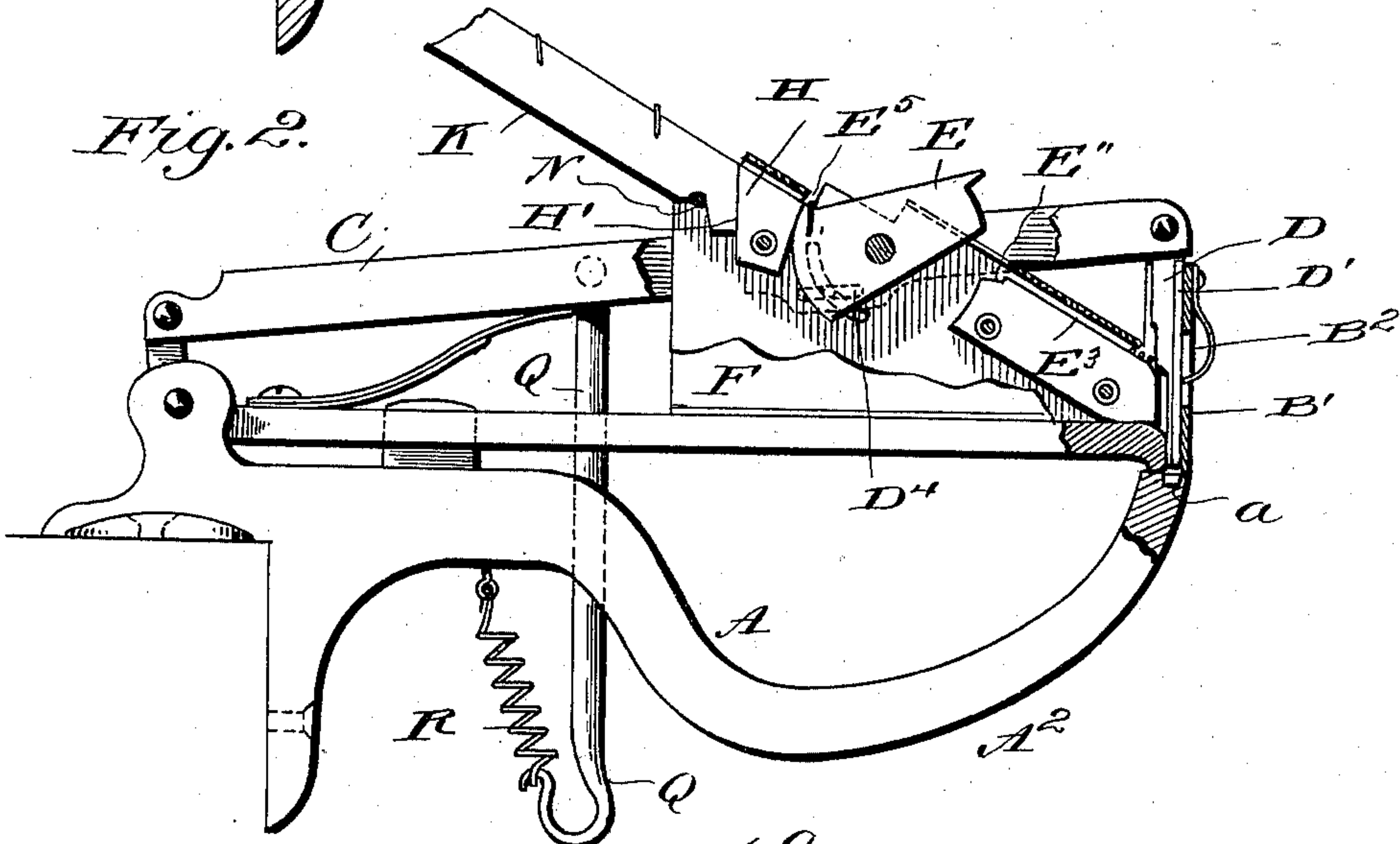
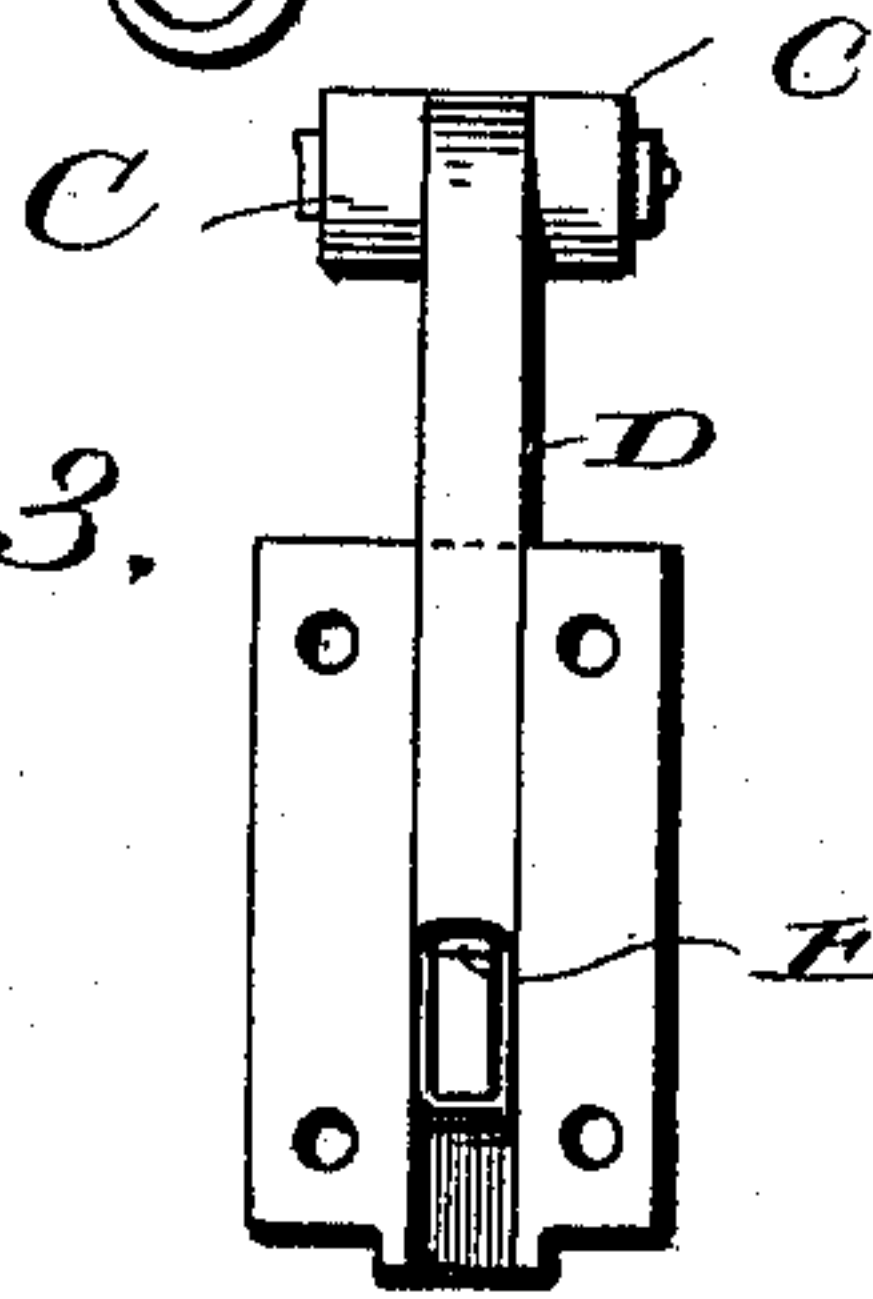


Fig. 3.



Witnesses

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STAPLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 610,116, dated August 30, 1898.

Application filed January 3, 1898. Serial No. 665,376. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ANSLEY, a citizen of the United States, residing at Medical Lake, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Stapling-Machines; 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 letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in stapling-machines, and especially to a machine which is designed for automatically delivering a staple to a location in the machine where it is driven through into the leather or other article which it is desired to staple and clamp, the whole operation being automatic in its action and actuated by means of a treadle.

More specifically the invention resides in the provision, in a stapling-machine, of inclined tracks mounted on the frame thereof and a tilting staple-carrying member, on the edge of which staples are adapted to be picked up singly from the upper track and slide by gravity to the lower inclined track, at the bottom of which lower track the staple is driven by a plunger.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of parts, as will be hereinafter more fully described, and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a central vertical longitudinal section through my improved track, showing the machine in its normal position before the staple-driving mechanism is depressed. Fig. 2 is a similar view showing the staple-driving member depressed or at its lowest limit.

Fig. 3 is an end elevation of the staple with the plate removed to better illustrate the parts behind the said plate.

Reference now being had to the details of the drawings by letter, A designates a casting which is adapted to be secured to a table, shelf, or other suitable place by means of a screw in arm A', and the forward end of the said casting is bent, forming the curved portion A² for convenience in moving the article to be stapled in its proper position to receive the staple. At the free end of this bent portion is a die *a*, in which the ends of the staple are clenched. Hinged to the rear end of the said casting is the member B, which has its forward end bent up at right angles to its body portion and has a central longitudinal recess in said upturned portion. At the rear upturned end of the said member is pivoted the lever C, which carries, pivoted to its outer end, the staple-driving rod D. This staple-driving rod has a flange D', which is guided by the shouldered edges of the said longitudinal recess in the upturned portion of the said member B. Secured to the outer face of the upturned portion of the member B is a plate B', which is apertured at B², and a spring B³ is secured at one end to the outer face of the said plate, with its free end bent against the outer face of the said staple-driving bar. Mounted on the upper face of the said member is the casing F, with a space intervening between its walls. In the walls of this casing is pivoted the staple-conveying plate E, which is actuated by means of a pin which extends laterally from its face and travels in the elongated slot D⁴ in the said lever. This staple-conveying member has a straight edge E', which before the truss is depressed is held in alinement with the inclined track E³, which is shouldered, as at E', and on which shoulder the extended end of the said staple-conveying member is adapted to rest. This inclined track is secured to the walls of the casing and extends down adjacent to the inner face of the staple-driving rod. The rear or upper end of the said staple-conveying member is made on the arc of a circle, and when the said lever is depressed to its lowest limit the shouldered portion E⁵ comes

in alinement with the inclined plate H, which is covered by means of a portion of the casing mounted on the said member B. This inclined track H has a shouldered portion H', and K is a removable section of the inclined track, which when in place is held so that its upper margin will be in alinement with the said inclined track H. This removable inclined staple-carrying member or track has one end bent at an angle and recessed out, as at K², adapted to fit into the shouldered portion of the said incline track H and held in position by means of a pin N, as clearly illustrated in the drawings. Secured to the upper face of the said member B is a spring M, the free end of which is adapted to bear against the under surface of the lever and holds the same at its farthest upward limit. Mounted between the strips forming the said lever is the rod Q, which passes down through apertures in the said member B, and the casting beneath it is provided with a hook at its lower end, over which the chain of a treadle may be attached. In order to hold the lower face of the said member B a slight distance above the end of the casting containing the die for the purpose of allowing the article to be stapled to be placed over the die, a spring R is mounted on the said rod Q, one end of which is secured to a plug on the under face of the casting, while its other end may be secured to a collar on the said rod, as illustrated. Secured to the upper face of the casting is a guide-block S, which works through a similarly-shaped aperture in the member above, thus preventing any lateral movement to the machine while in operation.

In equipping the device in readiness for use the staples may be caught over the inclined removable track and the said track arranged in position between the strips forming the lever. At the first depression of the said lever by means of its connection with the treadle the staple-conveying member will assume the position shown in Fig. 2 of the drawings, in which position a staple will be carried over the shoulder, which when the lever is in its depressed condition is in alinement with the inclined track containing the staples, and when pressure is removed from the treadle and the springs are in the act of returning the parts to their starting positions the said staple-conveying member will tilt upon its axis and the staple which has been caught by the shoulder thereon when the said staple-carrying member has returned to its starting position will fall down the incline and through the chute on the continuous inclined track to a location adjacent to the staple-driving rod and will be held against the end of the inclined track by means of the spring mounted on the plate secured to the upturned portion of the said member until the staple-driving member is forced down, in which movement the staple will be drawn by the free end of the driver down through a channel in the upturned end of the said mem-

ber through the article to be stapled and the ends of the staple will be clenched in the die at the end of the said casting. When pressure is relieved from the treadle, the action of the springs will return the parts to their starting position or that illustrated in Fig. 1 of the drawings.

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

1. A stapling-machine consisting of a frame, inclined tracks mounted thereon and a tilting staple-carrying member on the edge of which staples are adapted to be picked up singly from the upper track and slide by gravity to the lower inclined track, and means for operating the device.

2. A stapling-machine consisting of the inclined tracks mounted in the frame as set forth, combined with a tilting staple-carrying member having a flat edge, down which edge a staple is adapted to slide from the upper track to the lower one of the inclined tracks, as the said member is tilted, and means for operating the same.

3. A stapling-machine consisting of a casting which is adapted to be secured to a table or other suitable place, a die secured to the outer bent end of the said casting, a member pivoted to the said casting, a lever pivoted to one end of the said member, and a staple-driving rod at its other end, combined with the inclined tracks, down which the staple falls by gravity, and a staple-conveying member adapted to transfer singly the staples from one incline to another, and means for operating the same, as shown and described.

4. In a stapling-machine, the casting having a die at its outer curved end, the member pivoted to said casting, having its outer upturned end channeled, a lever pivoted at the opposite end of the said member, a staple-driving rod pivoted to the outer end of the said lever, adapted to work in the said channel, a plate secured over the outer face of the upturning portion of the said member, and a spring B³ mounted thereon designed to hold a staple, the inclined tracks, casing and the staple-conveying member, arranged substantially as shown and described.

5. In a stapling-machine, the combination of the casting having a die at its outer end, of the member pivoted to the said casting, the lever pivoted to one end of the said member, a spring interposed between the member and lever, the casing, the inclined tracks mounted therein, the staple-carrying member pivoted between the walls of the casing, pins mounted on the said conveyer, adapted to travel in slots in the said truss, of the staple-driving rod, plate and spring, as set forth.

6. In a stapling-machine, the casing, the casting member B and lever with the staple-driving member as described, the inclined sectional track mounted in the casing, a detachable section of the inclined track adapted to be held in alinement with a sec-

tion of the track which is mounted within
the casing, and the staple-conveying mem-
ber pivoted to the walls of the casing and
having a straight edge terminating at one
5 end in a shoulder, which is adapted to pick
singly the staples and allow the same to fall
down its straight inclined surface and fall by
gravity to a location adjacent to the staple-
driving rod, and the spring adapted to hold

the staple in readiness to be driven by the rod
as the lever is depressed, as set forth.

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

GEORGE W. ANSLEY.

Witnesses:

A. L. HOUGH,
J. M. PFEIFFER.