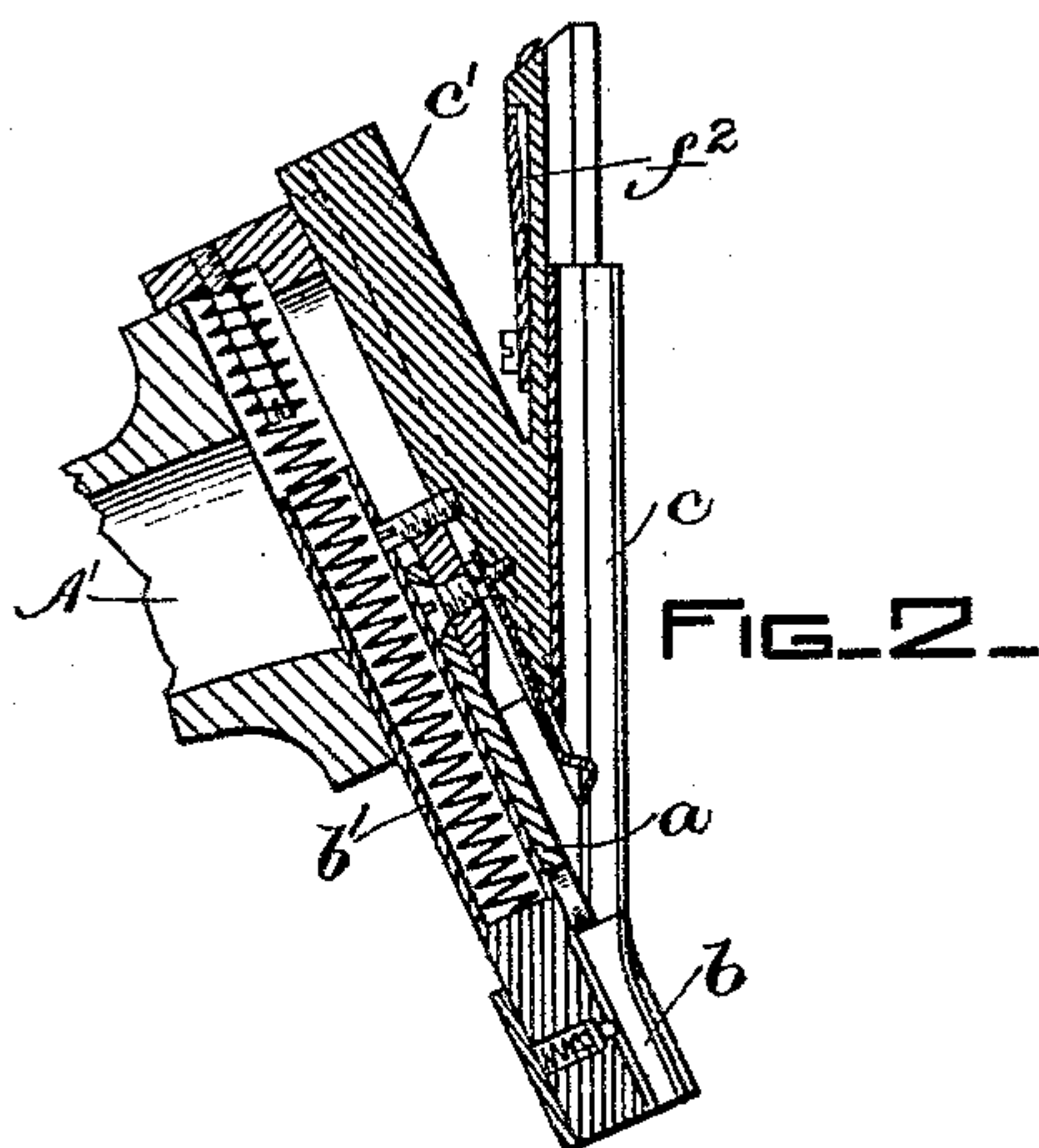
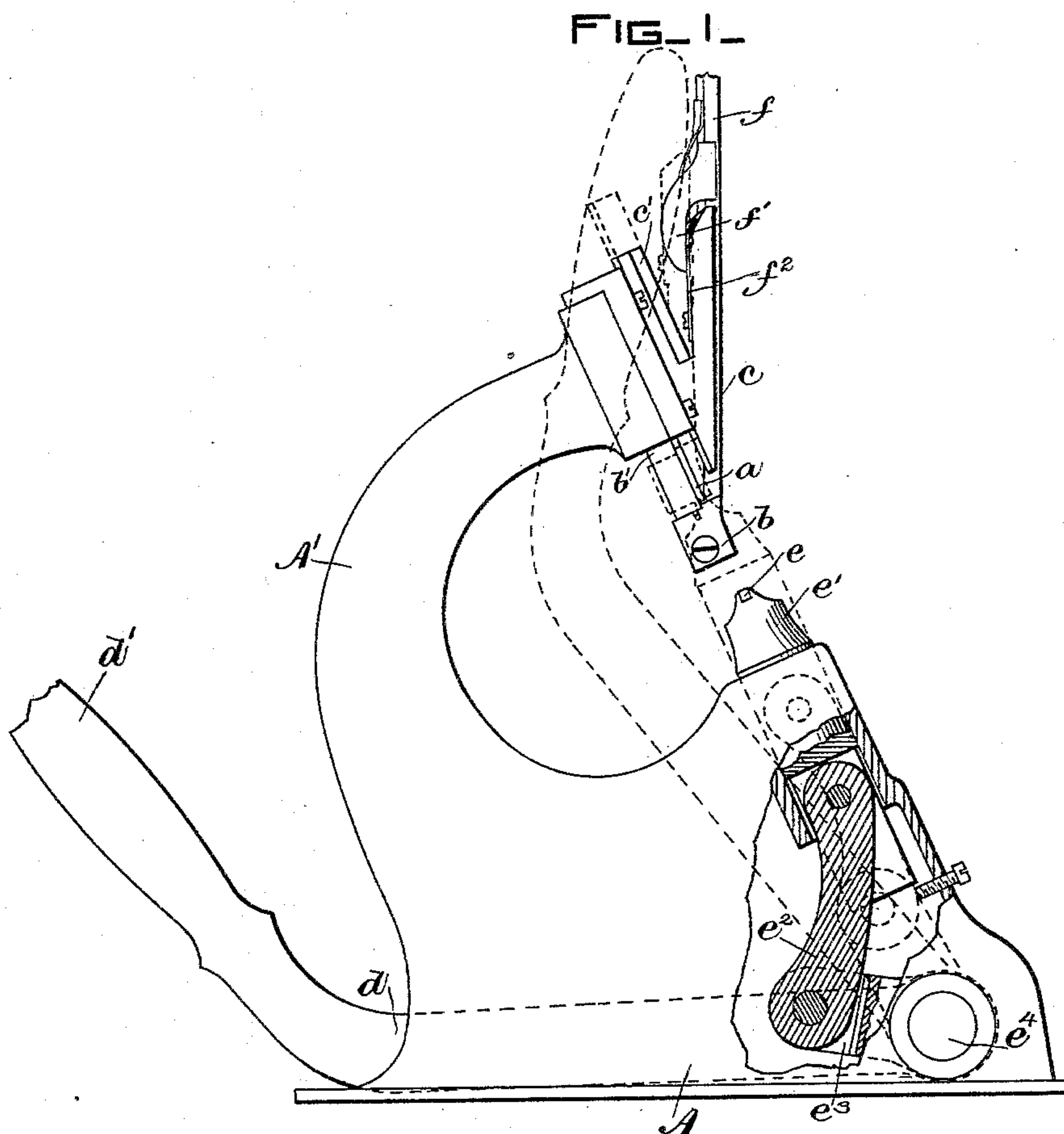


(No Model.)

J. H. VINTON.
BUTTON SETTING MACHINE.

No. 401,393.

Patented Apr. 16, 1889.



WITNESSES.

John F. C. Prentiss.
Frederick L. Emery

INVENTOR

John H. Vinton
by Crosby & Gregory
attys

UNITED STATES PATENT OFFICE.

JOHN H. VINTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE PENINSULAR NOVELTY COMPANY, OF GRAND RAPIDS, MICHIGAN.

BUTTON-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 401,393, dated April 16, 1889.

Application filed January 17, 1888. Serial No. 261,041. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. VINTON, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Button-Setting Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In an application, Serial No. 228,309, filed by Edward O. Ely, February 21, 1887, a button-setting instrument is shown containing a driver and a movable or yielding carrier and raceway, the said carrier being arranged to present the fastening and attached button directly beneath the driver, and also a movable anvil which is adapted to lift or raise the carrier to cause the driver to force the fastening and attached button from the said carrier and to set the fastening. In the said application the anvil was attached to or formed as a part of the lower movable jaw, and its movement was in the arc of a circle toward the driver about the pivot of the jaw as a center.

This invention has for its object to improve the construction of the button-setting machine shown in the said application, making a very much more powerful and better operating machine.

In accordance with this invention the driver, the yielding carrier, and raceway are substantially the same as in the said application, and the anvil is designed to be moved in a straight line toward the driver, instead of in the arc of a circle.

The anvil-block is moved, preferably, by toggle-jointed levers, which are in turn moved by a bent hand-lever. The driver and anvil-block are arranged at a rearward inclination from the operator, and the bent hand-lever is designed to be moved in the arc of a circle toward the operator, which arrangement presents the entire button-setting device to the operator in a much more convenient manner for use than in any machine heretofore known to me.

Figure 1 shows in side elevation a button-setting machine embodying this invention, the main frame-work being broken away to expose the toggle-jointed levers employed to move the anvil-block and anvil; and Fig. 2, a

vertical section of the driver, carrier, and raceway and a portion of the main frame-work in which it is mounted.

The main frame-work comprises the base A and the overhanging arm A'. The driver *a*, attached rigidly to the frame-work, the spring-controlled yielding carrier *b*, and the raceway *c*, attached to the bar *c'*, sliding in the main frame simultaneously with the bar *b'* of the carrier *b*, are all as in the said application referred to. The anvil *e* is fixed in a slot in the anvil-block *e'*, which enters a socket in the base portion of the main frame and lies in a straight line with relation to the driver, so that it may be moved toward the driver in a straight line in contradistinction to moving toward the driver in the arc of a circle.

The lever *e*² is loosely jointed or connected with the lower end of the anvil-block *e'*, and the lower end of the said lever *e*² is loosely jointed or connected with a short lever or arm, *e*³, fixed to the shaft *e*⁴, having its bearings in the base of the main frame, said levers *e*² and *e*³ forming toggle-levers, by which the anvil-block is raised.

The shaft *e*⁴, as herein shown, has rigidly attached to it a hand-lever, *d*, which, as represented, is extended from the front of the machine rearwardly and has an upwardly-turned end, *d'*. The said bent lever is employed to rock the shaft *e*⁴, it being moved from the full to the dotted line position, Fig. 1, to effect said result, and when said shaft *e*⁴ is rocked the lever or arm *e*³ will be raised or made to occupy a very nearly vertical position to raise the lever *e*², or, in other words, to cause the toggle-levers *e*³ *e*² to occupy a position substantially in line with each other, thereby forcing the anvil-block *e'* upward to strike the anvil *e*, to cause the driver to force from the carrier the fastening and attached button and to set the fastening.

By moving the anvil-block in substantially a straight line toward the driver the material will be clamped between the carrier and anvil and the button-fastening set without any movement of the anvil across the face of the carrier.

The anvil-block and remaining co-operative parts of the button-setting devices are ar-

ranged at a rearward inclination from the front of the machine or from the operator, while the rearwardly-extended bent lever is adapted to be moved upward toward the operator, and such arrangement has been found in practice to be very convenient, while the toggle-levers afford great power for moving the anvil-block.

I do not herein desire to limit myself to the precise construction shown for moving the said anvil-block, nor its combination with any particular form or construction of the other co-operative parts of a button-setting device, as it is obvious that the anvil moving in a straight line is equally efficient and co-operative with other forms of button-setting devices.

A detachable raceway or tube, *f*, is applied to the raceway *c*, said tube *f* having prongs *f'*, which bear upon flat springs *f''*, secured to the rear side of the raceway *c*. The tubes *f*, being thus connected in a yielding manner, may be moved slightly forward, so that when they are quickly detached they will not be bent at their lower ends.

I claim—

1. In a button-setting machine, the rigidly-attached driver *a* and yielding carrier *b*, arranged to automatically present a single fastening having a button attached thereto beneath the driver, combined with the anvil movable in a straight line toward the driver, as set forth.

2. In a button-setting machine, the button-setting devices mounted in the face of a stationary frame-work which is inclined rearwardly from the operator, and a substantially-vertical attached chute, substantially as described.

3. In a button-setting machine, the button-setting devices, combined with a rearwardly-extended hand-lever movable upward in the arc of a circle to effect the upward movement of the movable member of the button-setting devices, substantially as described.

4. In a button-setting machine, the driver and carrier, combined with the anvil movable toward the driver in a straight line, the rearwardly-extended toggle-jointed levers, and bent hand-lever, the said lever having an upward and forward movement, substantially as described.

5. In a button-setting machine, the raceway and detachable tube, and its yielding connection between the said detachable tube and the raceway, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. VINTON.

Witnesses:

BERNICE J. NOYES,
J. C. SEARS.