

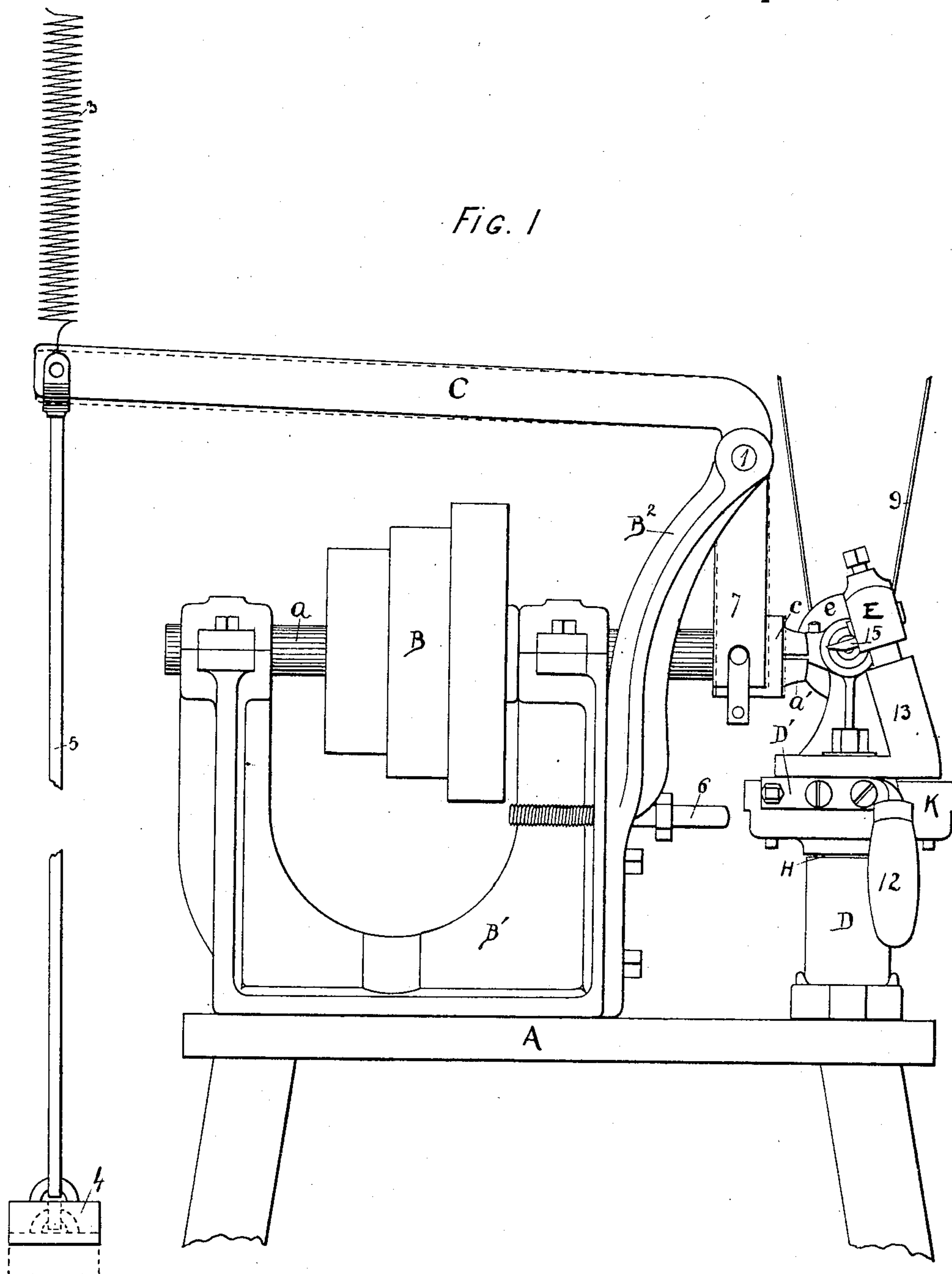
(No Model.)

2 Sheets—Sheet 1.

F. J. KASPAR.
BUTTON MAKING MACHINE.

No. 567,102.

Patented Sept. 1, 1896.



WITNESSES:

W. Kean.
H. Notson

Frank J. Kaspar INVENTOR
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Fig. 2

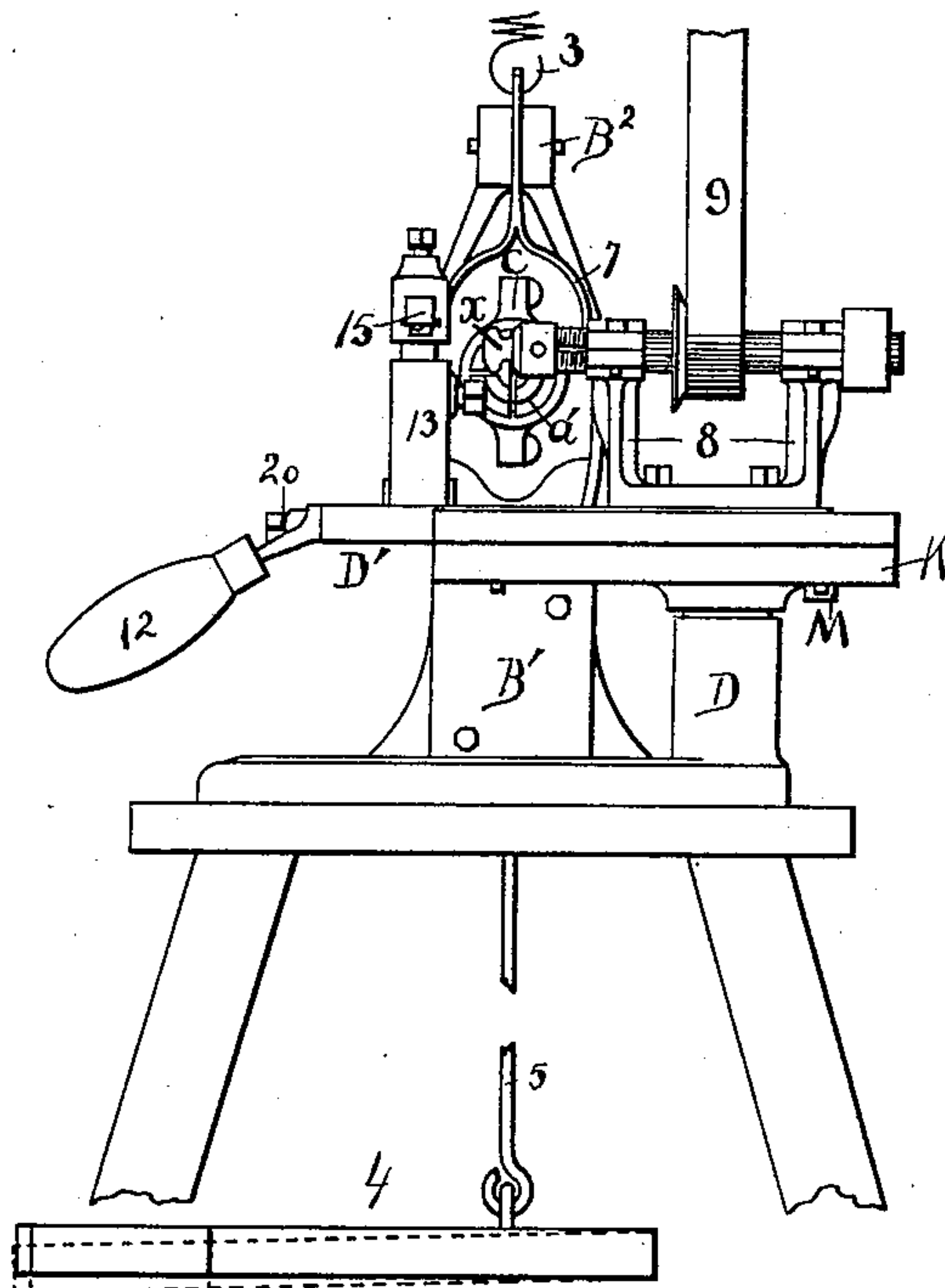
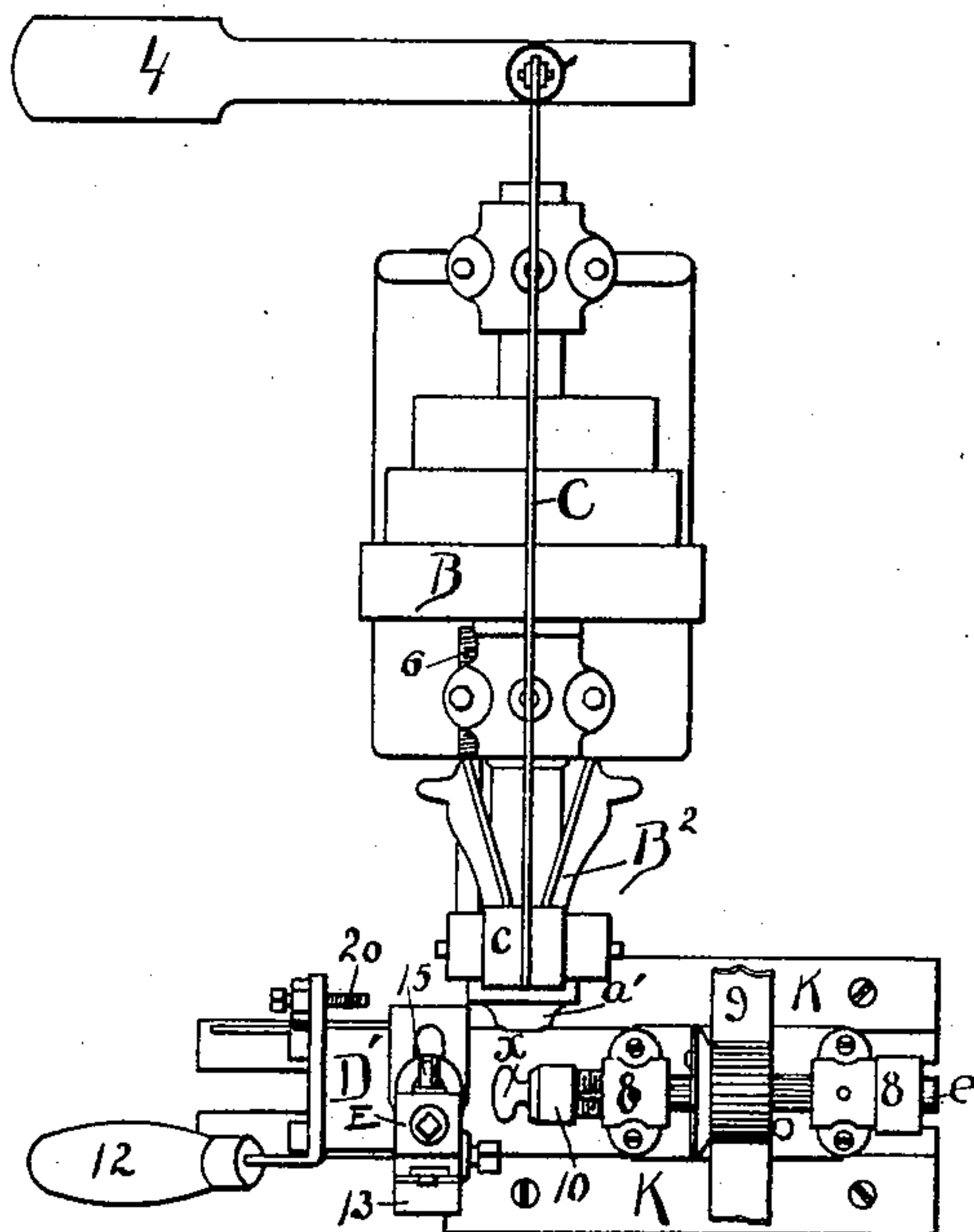


Fig. 3



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UNITED STATES PATENT OFFICE.

FRANK J. KASPAR, OF OMAHA, NEBRASKA.

BUTTON-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 567,102, dated September 1, 1896.

Application filed September 4, 1894. Serial No. 522,148. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. KASPAR, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain useful Improvements in Button-Making Machines; and I do hereby declare that the following is 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, which form a part of this specification.

This invention has relation to a new and novel improvement in button-making machines, the object being to provide a device by means of which the operation of facing buttons shall be expedited and by means of which the button can be dished and faced with one operation.

In the accompanying drawings, Figure 1 shows a side elevation of a machine embodying my invention, while Fig. 2 is a front view thereof. Fig. 3 is a top view of the same.

The aim of my invention is to provide a means whereby the button shall be more promptly manufactured, and also to provide a means whereby the tools shall be made to last longer. This last feature is one of great importance, as the tools are in the shape of cutting-dies, which are not easy to sharpen, so that it is important to keep them in working condition as long as possible.

In the accompanying drawings, A represents a suitable standard, to which the ordinary speed-spindle B, provided with a suitable stock, is secured, as is usual in devices of this kind. The speed-pulleys B are in belt connection with any suitable driving power and impart a rotary motion to the main shaft a, which shaft is provided in front with a button-chuck a'. Extending from the forward portion of the spindle-frame B' is an upwardly-extending arm B², which is provided with a rectangular spring-actuated lever C, connected by means of the pin 1 to said arm B². At its rear end this arm C is provided with an ordinary coil-spring 3, secured above to a suitable support, while below this arm is provided with a treadle 4, connected by means of the rod 5 to the arm C. The spindle-frame B' is further provided with an outwardly-extending screw-stop 6, as shown

in Fig. 1. Mounted upon the button-chuck a' is an ordinary locking-collar c, which is adapted, in sliding forward, to bring the chuck together and so securely clasp the button-blank. This sliding collar is actuated by means of a downwardly-extending collar 7 of the operating-lever C, as is clearly illustrated in Fig. 1. Mounted adjoining the spindle-frame B is an ordinary slide-rest D, suitably secured to the standard A, and within which the slide D' is movably held. This slide D' is provided at the rear with a shaft and pulley e, within a suitable standard 8, the pulley of which is in belt connection 9 with a suitable overhead speed-pulley, so that motion is imparted to this shaft and pulley e. In front this shaft e is provided with an ordinary chuck 10, within the forward end of which is adjustably secured a suitable headed emery-stick x of a suitable conformation, as shown more clearly in Fig. 3. This shaft-standard 8 is secured to the slide D' proper, which slide is provided with an ordinary operating-handle 12, as shown in the figures. Mounted in front of the emery-chuck 10, and adjoining the same, is a chisel-chuck E, which is vertically adjustable within the forward standard 13, which standard is also secured to the slide-rest D'. Secured within this chuck E is a chisel 15, which chisel conforms to the outline and style to be imparted to the button-blank within the chuck a'. The slide K is further provided with a downwardly-extending hub H, which hub slides within the stock D, so that the slide-holder K', which movably contains the slide-rest D proper, can be given radial adjustment. The movable slide D' is provided in front with a set-screw 20, which is adapted to abut against the slide-holder K, as will be noticed by referring to Fig. 3. These instrumentalities comprise my improved button-machine.

The operation of my device would be as follows: The button-blanks to be dished and faced, and which may be of any suitable material, are placed within the chuck a', when the operator depresses the lever C by means of the treadle 4, tightly impinging the button-blank within the chuck a'. The spindle B' is in the meantime revolving at a suitable speed and is carrying the button-blank around. The chuck D is so arranged that

the stem 7 in no way interferes with the revolution of this chuck, it simply controlling it in a horizontal plane. The button-blank is, of course, simply regular in outline. The first
 5 step to be taken is to bring the slide D' forward until it is checked by means of the stop M, which collides in the rear with the slide-holder K, in which position the headed emery-stick α is adjusted to come immediately in
 10 the center of the button. The slide-holder K, as well as the slide D', is then carried toward the chuck until the rapidly-revolving emery-head grinds into the button-blank and forms a suitable dish, which dished portion
 15 later accommodates the buttonholes proper. The circular movement laterally is controlled by means of the screw-stop 6, which prevents the stick from working too deep into the button-blank. This stop 6 is employed in deter-
 20 mining the depth of the dish within the button. As soon as the button has been properly dished the slide D' is again carried radially outward and backward until the stop 20 engages the slide-holder K', when the chisel 15
 25 is supposed to be in proper position for facing the button, and the slide D' is again carried radially inward until this chisel engages the button-blank and imparts the proper outline until it engages the stop 6 for the second time
 30 in the operation of making one button. The slide is then carried away, the foot is removed, when the button is permitted to drop out of its chuck. This operation is, of course, repeated any number of times.

35 Now having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

1. In a button-making machine, the combination with a suitable revolving button-
 40 chuck adapted to removably contain a button-blank, of a slide adjustably held in front of said button-chuck and provided with a grinding-tool at one end, adapted to dish the button and a facing-tool adjustably held at

the other end of said slide, said slide being 45
 revolubly held within a suitable stand and adjustably within a horizontal plane, all substantially as and for the purpose set forth.

2. In a button-making machine, the combination with a suitable chuck adapted to re- 50
 movably contain a suitable button-blank, of a slide positioned in front of said button-chuck provided with a dishing-tool at one end and a facing-tool at the other, said slide
 55 being pivotally held in a horizontal plane and permitted a sliding movement in a horizontal plane, and further being provided with a grinding-tool at one end and a facing-tool at the other end, so positioned that one of said
 60 tools shall be in front of the chuck at one of its extreme positions and the remaining tool in front of the chuck when said slide is in its other extreme position, all arranged substantially as and for the purpose set forth.

3. In a button-making machine, the combination with a suitable button-chuck adapted 65
 to removably contain a suitable button-blank, said chuck being actuated by means of a treadle-operated spring-arm to hold or release said button-blank, in combination with
 70 the slide, D', movably held within the holder, K', said holder, K', being revolubly held within a stock, D, said slide, D', being provided with the stops, M, and 20, checking the movement of said slide at each end, said slide, D',
 75 being further provided with the revolving grinding-tool, α , held within the supports, 8, 8, and the facing-tool, 15, held within the holder, E, said holder and slides being adjustable, all substantially as and for the purpose set forth. 80

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

FRANK J. KASPAR.

Witnesses:

N. P. FEIL,

ROBERT HUNTER.