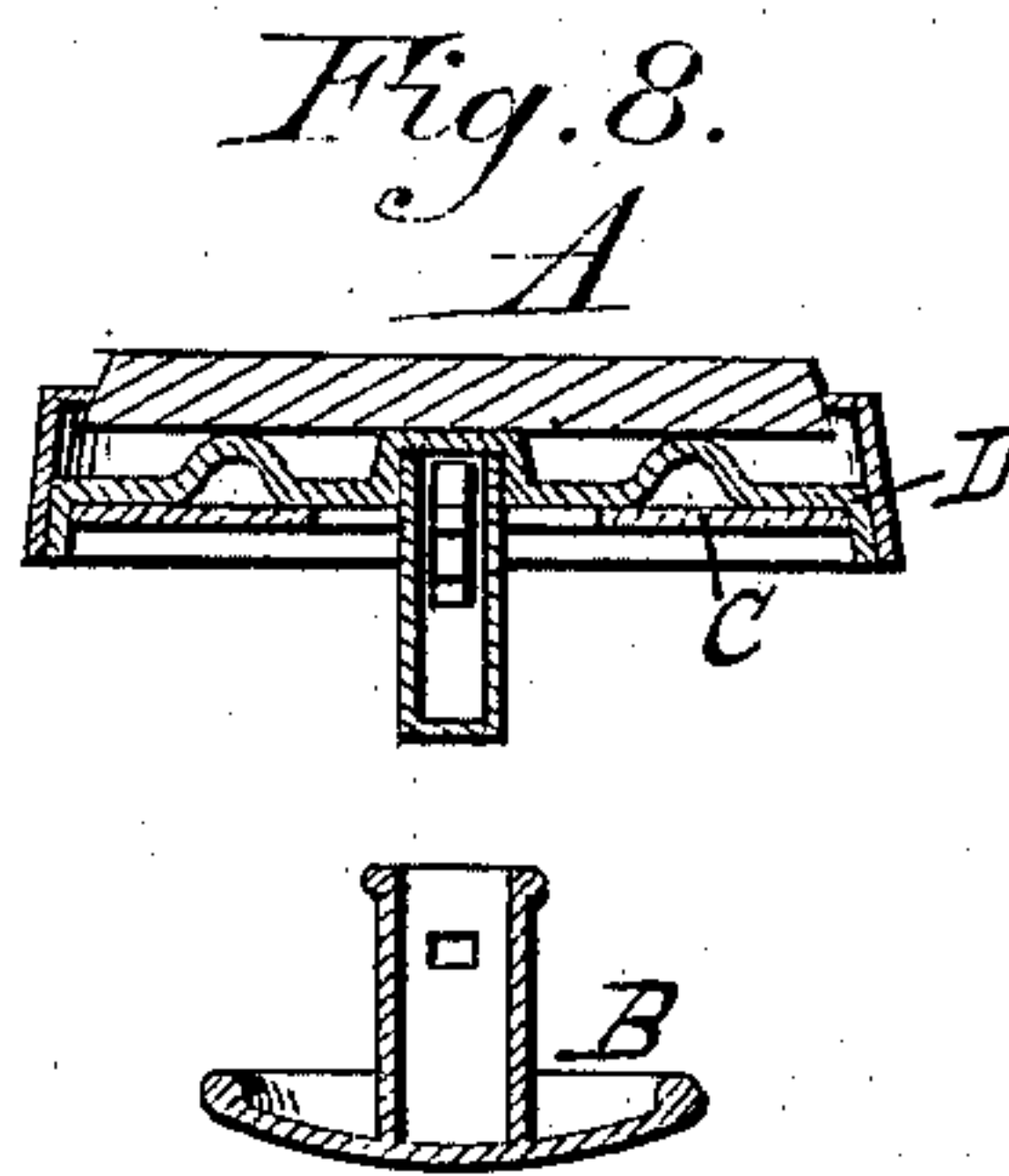
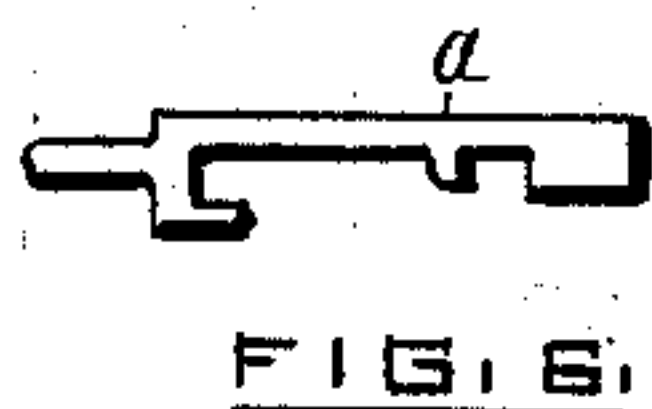
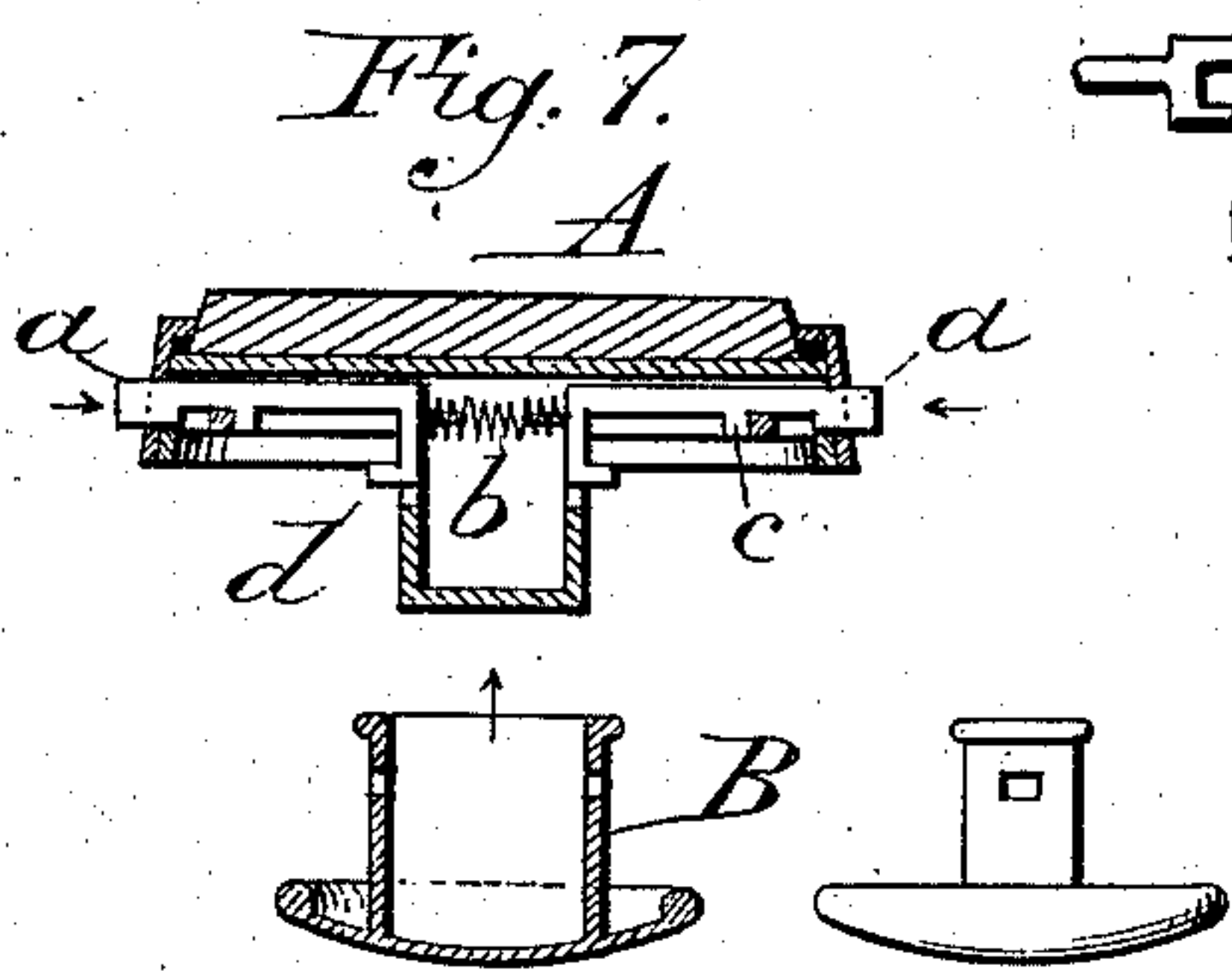
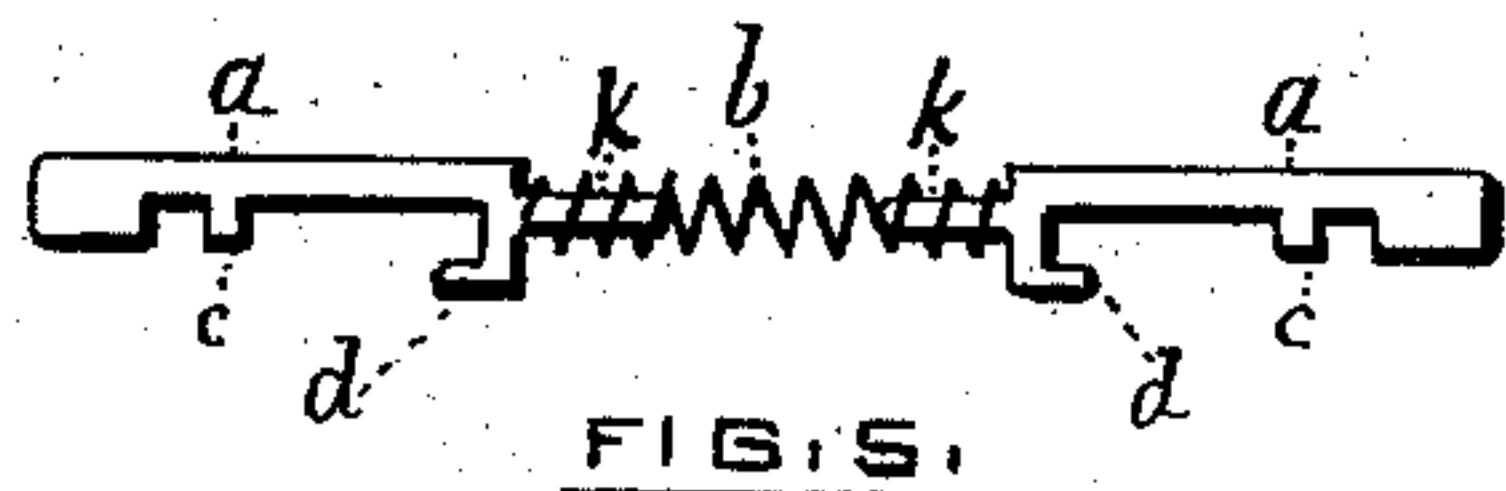
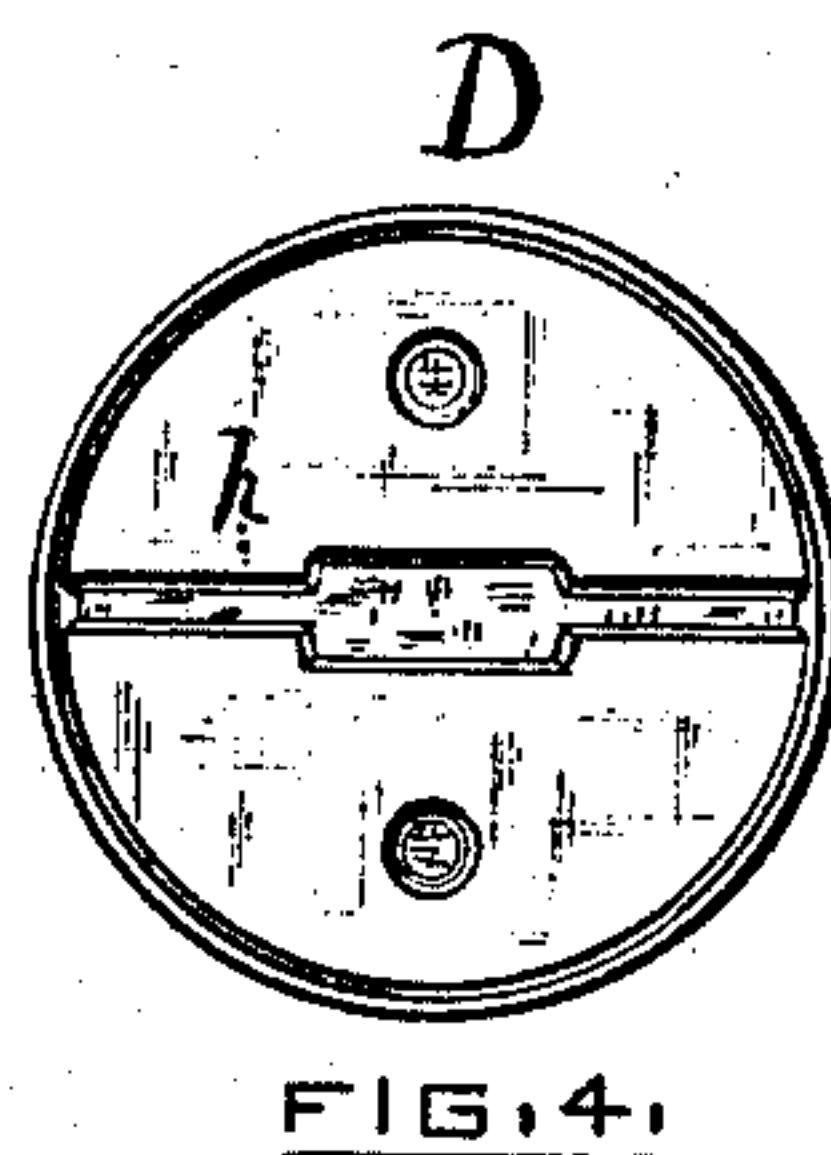
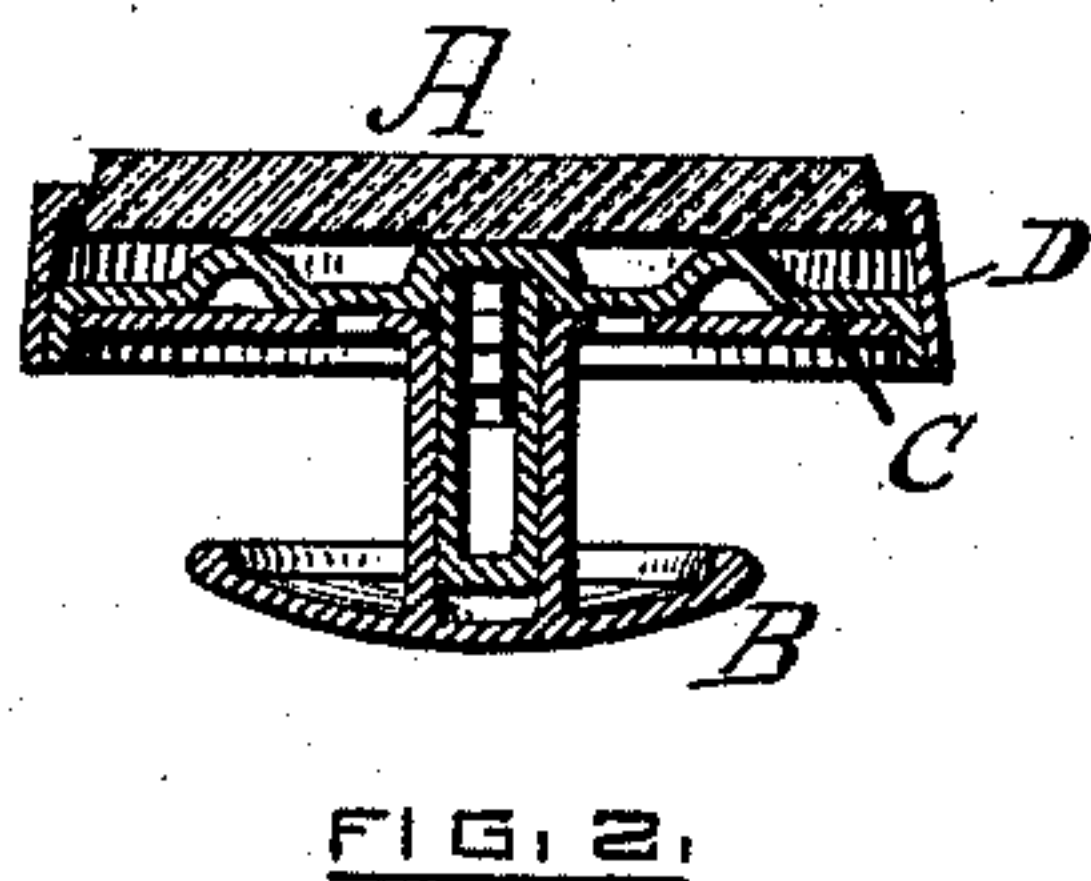
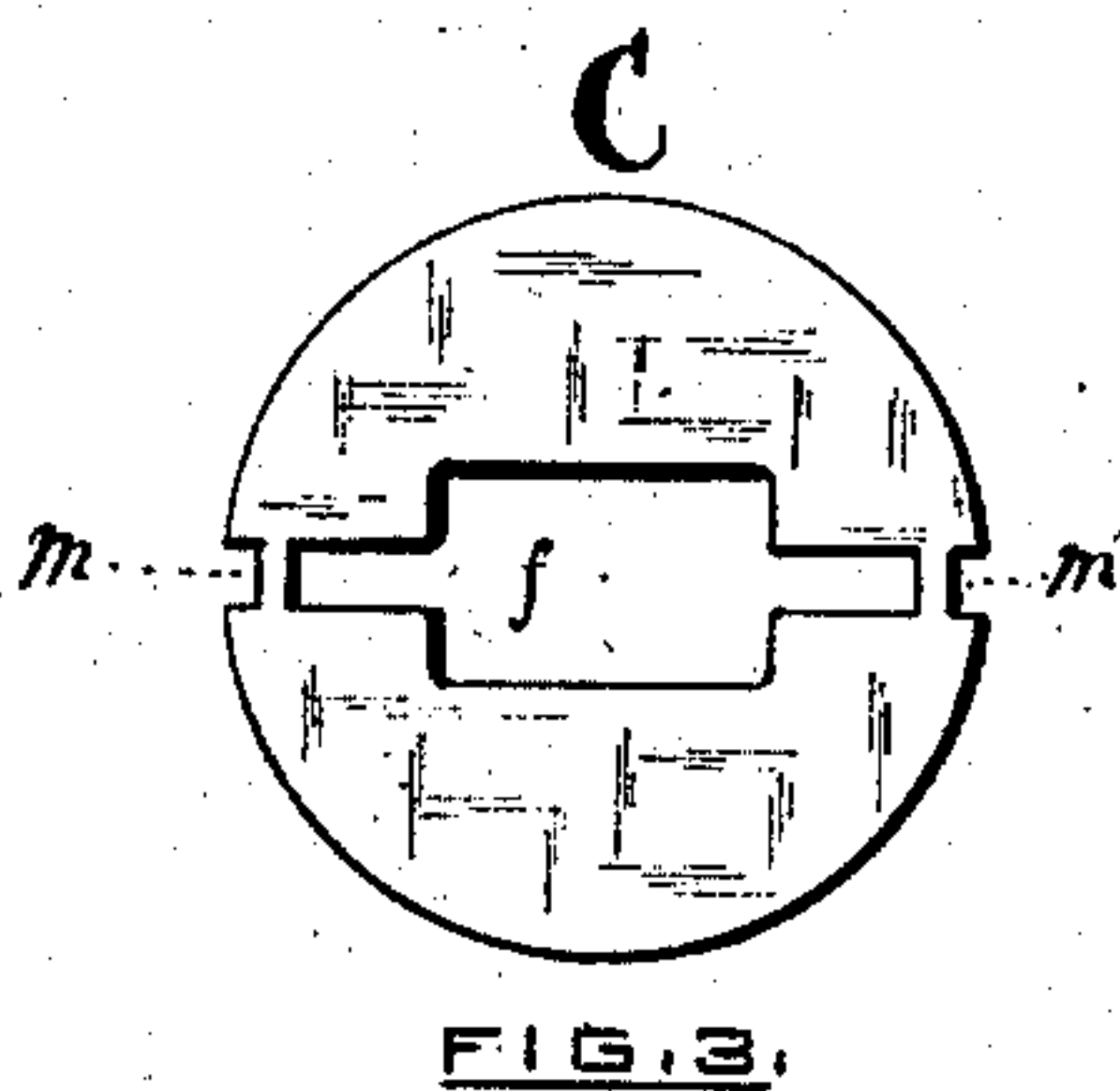
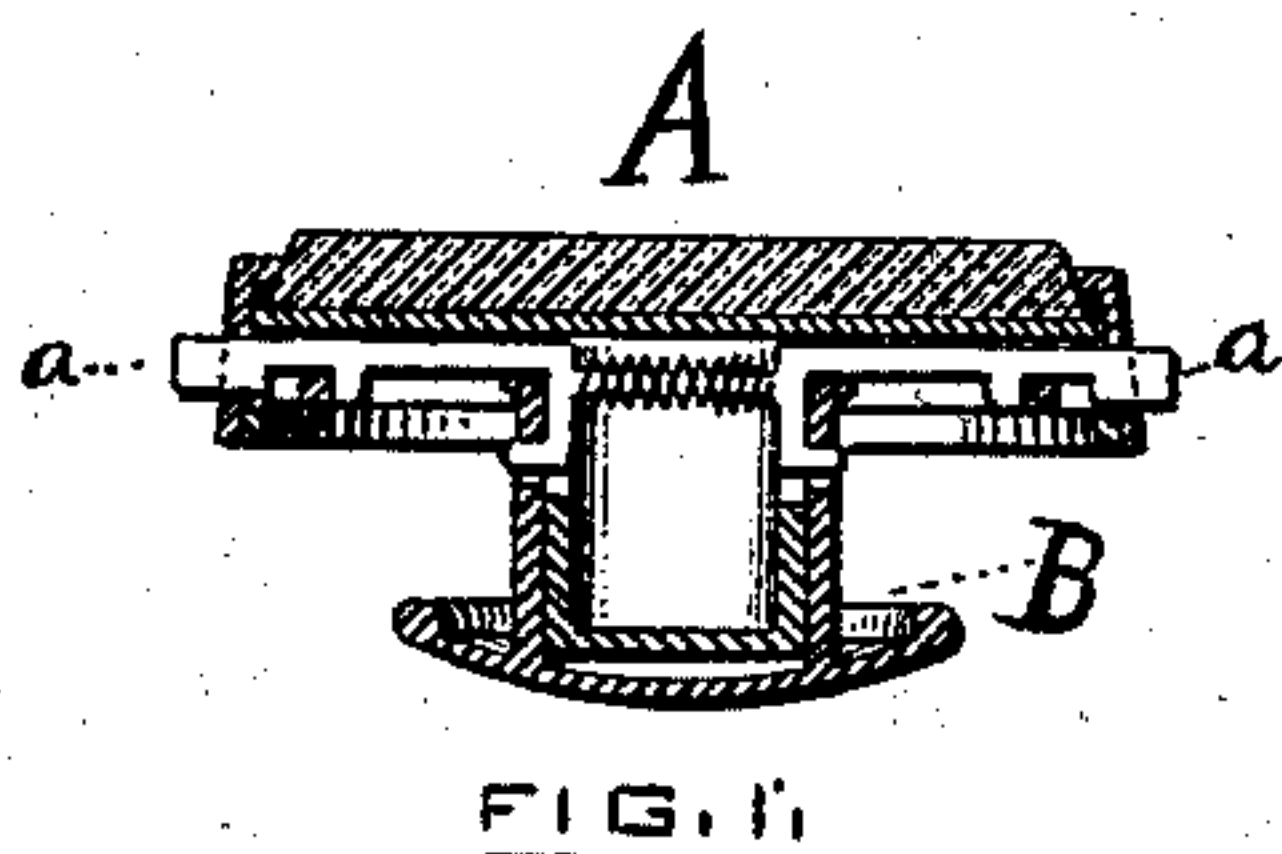


(Model.)

P. LAVELL.
Collar Button, Stud, &c.

No. 237,985.

Patented Feb. 22, 1881.



WITNESSES,

Irving Chauplin
Walter C. Smith

INVENTOR,

Patrick R. Lavell

UNITED STATES PATENT OFFICE.

PATRICK LAVELL, OF PROVIDENCE, RHODE ISLAND.

COLLAR-BUTTON, STUD, &c.

SPECIFICATION forming part of Letters Patent No. 237,985, dated February 22, 1881.

Application filed December 4, 1880. (Model.)

To all whom it may concern:

Be it known that I, PATRICK LAVELL, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Collar-Buttons, Sleeve-Buttons, and Studs; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figure 1 is a vertical longitudinal section of the button through the pushers. Fig. 2 is a vertical transverse section of the button. Fig. 3 is a plan of the outer disk or cap. Fig. 4 is an inverted view of the inner disk or plate. Fig. 5 is a view of the pushers and spring. Fig. 6 is a view of a pusher detached. Figs. 7 and 8 are sectional views of the button front and back detached.

My invention relates to separable buttons; and it consists of a coiled spring into each end of which is inserted the end of a pusher; of pushers constructed with ends adapted to enter the spiral spring, with hooks adapted to engage the post of the shoe of the button through perforations cut in such post, and with notches adapted to engage with the disk or cap; of a recessed disk or plate, across the center of which is a groove, in the center of which groove, widened for such purpose, a slotted hollow post is attached by the slotted end, such plate, with the post so attached, being fastened to the under side of the front of the button, such spring and attached pushers being passed through the slot and placed in said groove so that the spring will remain in the center of the slot; of a cap slotted to pass over the post and to co-operate with the notches in the pushers, such cap being soldered to the plate; of a tubular post attached to the shoe of the button, perforated in the edges, near the top thereof, to engage with the hooks of the pushers, which hooks project beyond the edges of the post attached to the front of the button.

The spring *b*, Fig. 5, is a spiral coil, made of German silver or any suitable metal or metals, and is of a size and shape to receive the ends of the pushers.

The pushers *a a*, Figs. 1 and 5, are formed with slender ends *k k*, adapted to enter the spiral spring *b*, with hooks *d d*, designed to engage the post of the shoe, with notches between the outer ends of the pushers and the

projections *c c*, adapted to engage with the cap *C*, Fig. 3, whereby the movement of the pushers is limited and the pushers held in position.

The plate *D*, Fig. 4, is recessed, grooved, and indented. The groove *h* extends across the center of the plate. The indentations are made upon both sides of the groove, and are of equal depth therewith, so that the plate will rest evenly on the interior of the front *A*. The plate is fastened by soldering, or by turning over the edge of the rim of the button—the rim of the button and edge of the plate being of the same shape, the rim being of just sufficient size to inclose the edge of the plate. A hollow post is slotted through the edges, at one end thereof, and the same end is soldered to the plate in the center thereof, and in that part of the slot widened to receive it, the groove being left unobstructed. The slot in the post is made of sufficient depth to receive the hooks *d d* of the pushers *a a*.

The spiral spring *b*, attached to the pushers *a a*, is, by passing one of the pushers through the slot of the post, placed into the groove in such a position that the outer ends of the pushers will equally project beyond the sides of the front *A*, and the ends of the hooks will equally project beyond the sides of the post of the front *A*.

The cap *C* is made of proper size to fit into the recessed plate *D*. It is provided with a slot, *f*, that is broader in the center than at its ends, so that it may fit over the post of the button-front. The slot *f* separates the cap into two sections, save for the narrow strips or connections *m m*, that are left between the ends of the slot and the notches that are cut on the edge of the cap. This cap, so slotted, is soldered upon the plate *D*, the connections *m m* lying within the notches cut into the pushers, which notches, in connection with the strips *m m*, limit the movement of the pushers.

The hollow post attached to the shoe of the button is perforated in the edges near the top of the same to engage the hooks *d d*. The top of the post is beveled to facilitate the fastening together of the two parts of the button.

The two parts of the button are fastened together by inserting the post of the front *A* into the post of the back *B*, and pressing the two parts together until the hooks *d d* engage

the post of the back by the perforations cut therein. It is separated by pressing the ends of the pushers between the thumb and finger, whereby the spring is contracted, the hooks *d* 5 *d* pressed within the slot of the post, thus allowing the free separation of the parts.

I claim as a novel and useful invention, and desire to secure by Letters Patent—

10 In a button or stud composed of two detachable parts, the combination, with the back B, having a beveled hollow post provided with

perforations in its edges, near the top, of the front A, provided with a recessed, grooved, and indented plate, D, slotted cap C, pushers *a a*, and coiled spring *b*, encircling the inner 15 ends of the pushers, substantially as shown and described.

PATRICK LAVELL.

Witnesses:

IRVING CHAMPLIN,
WALTER C. SMITH.