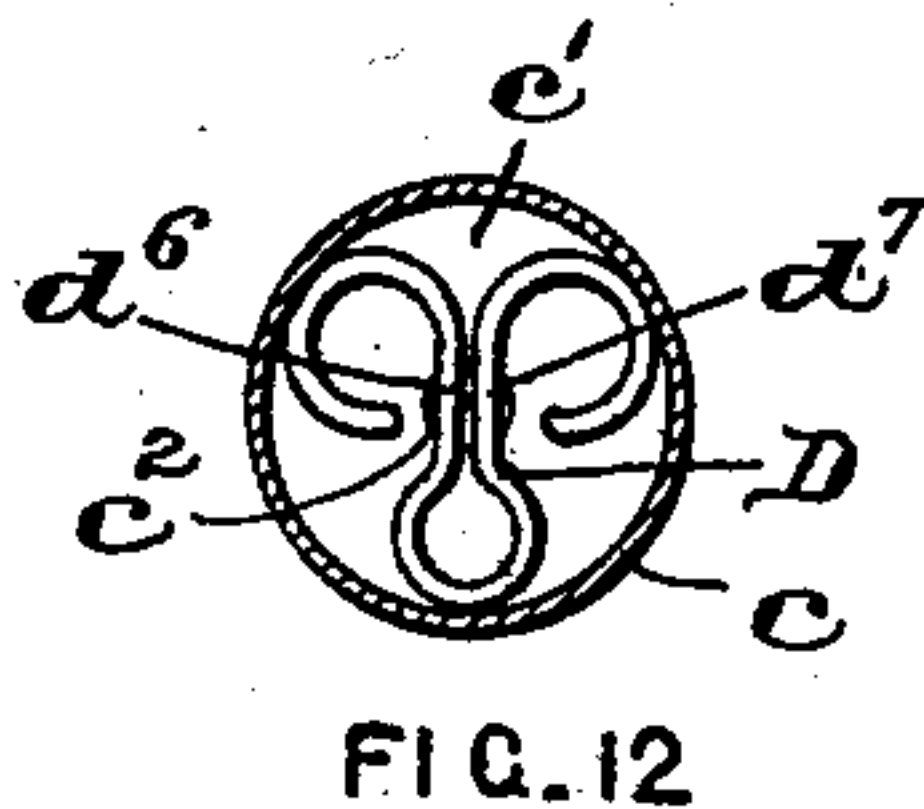
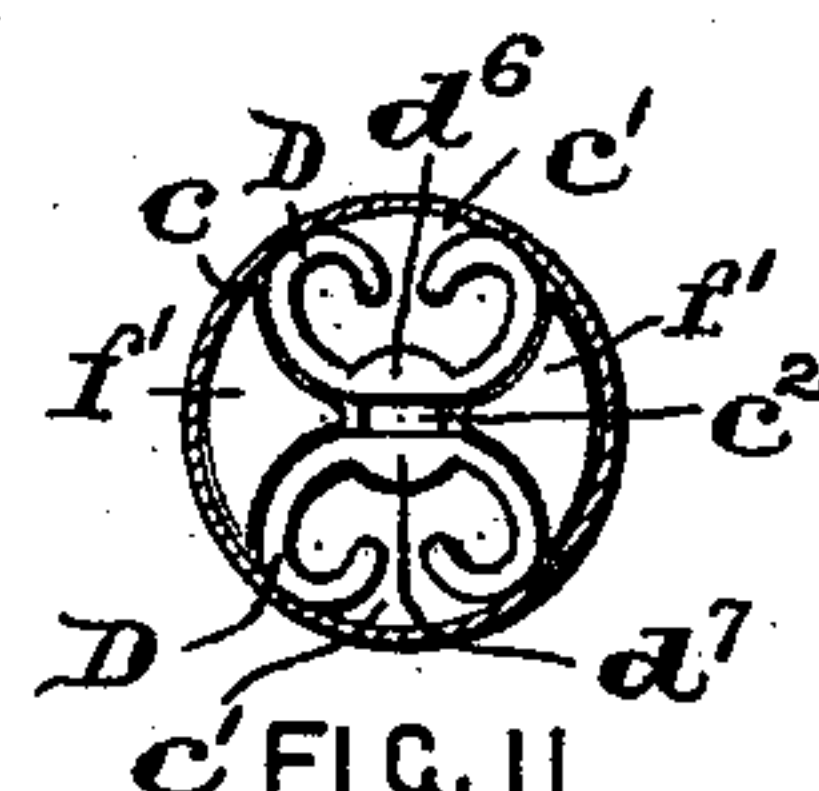
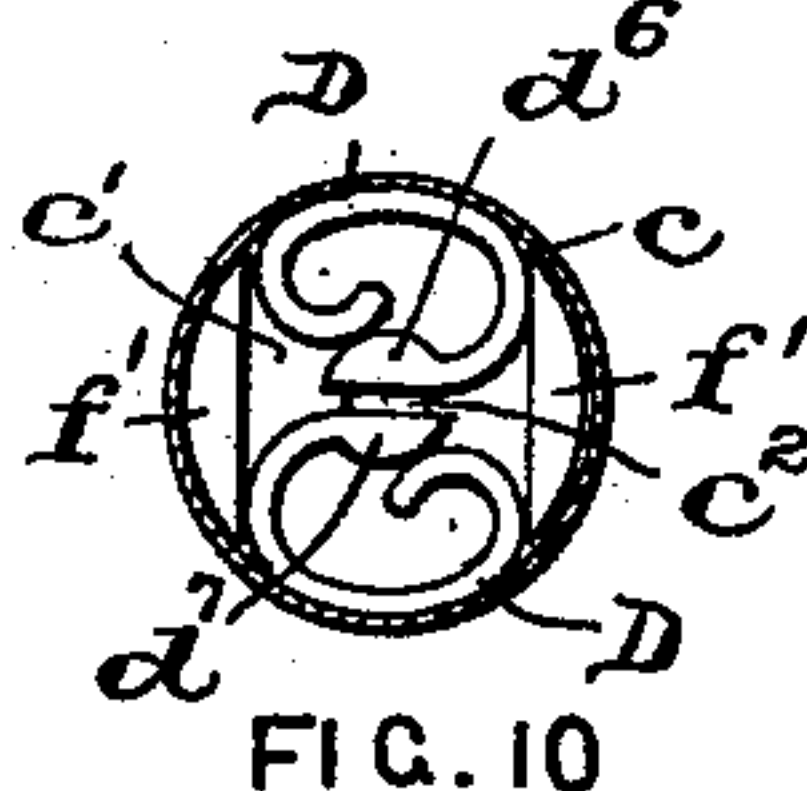
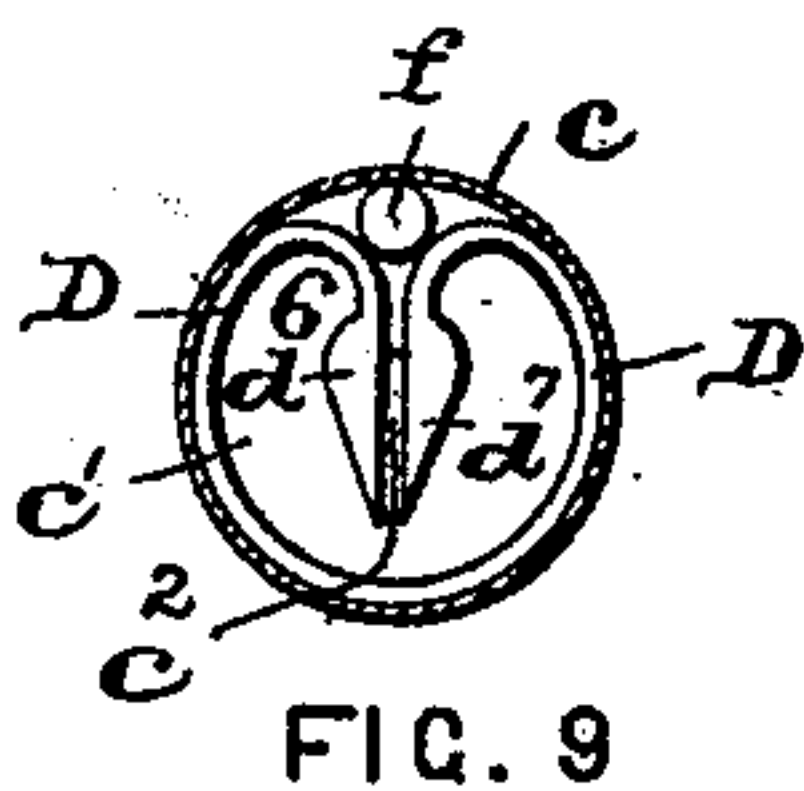
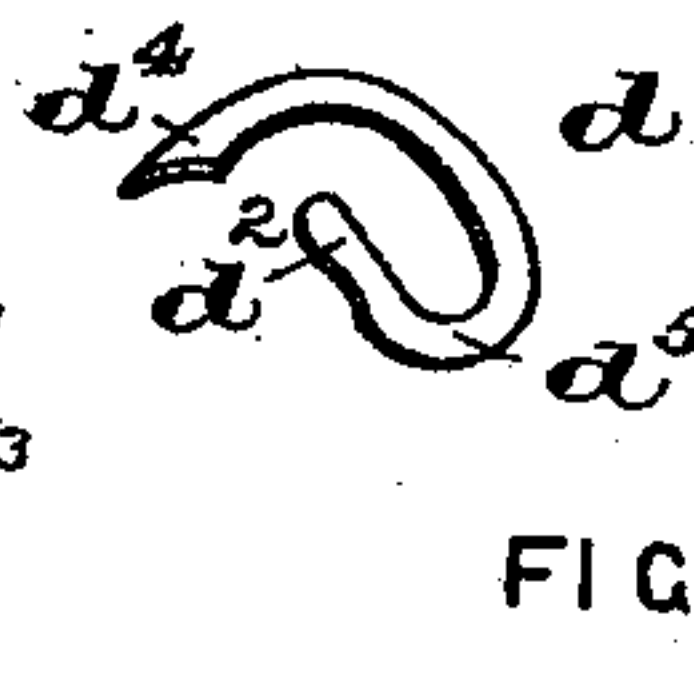
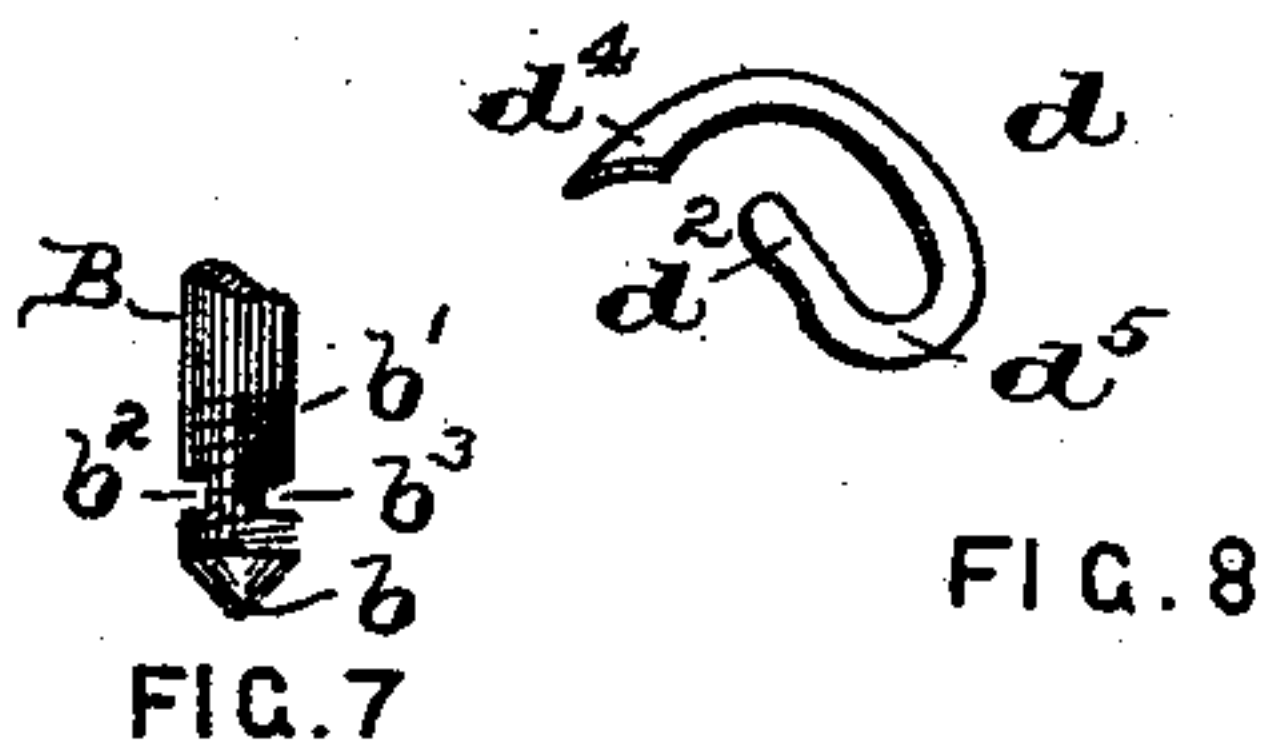
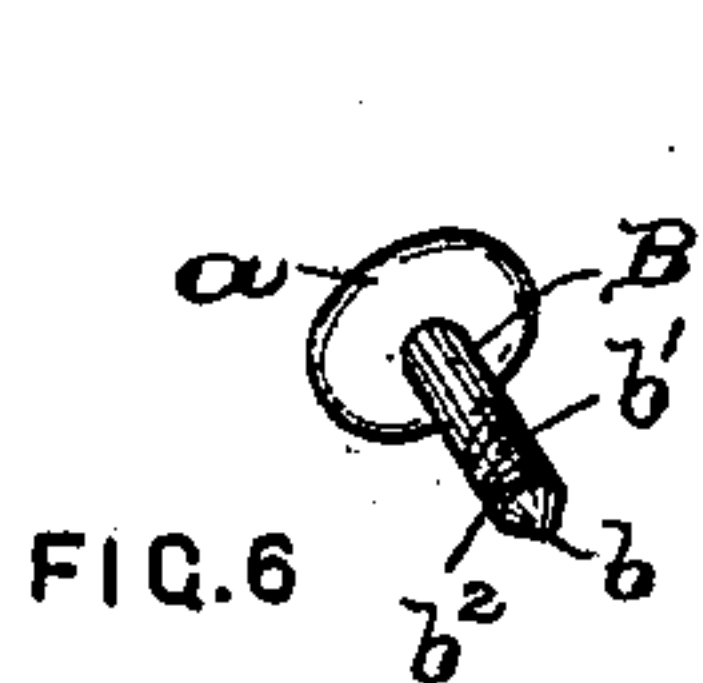
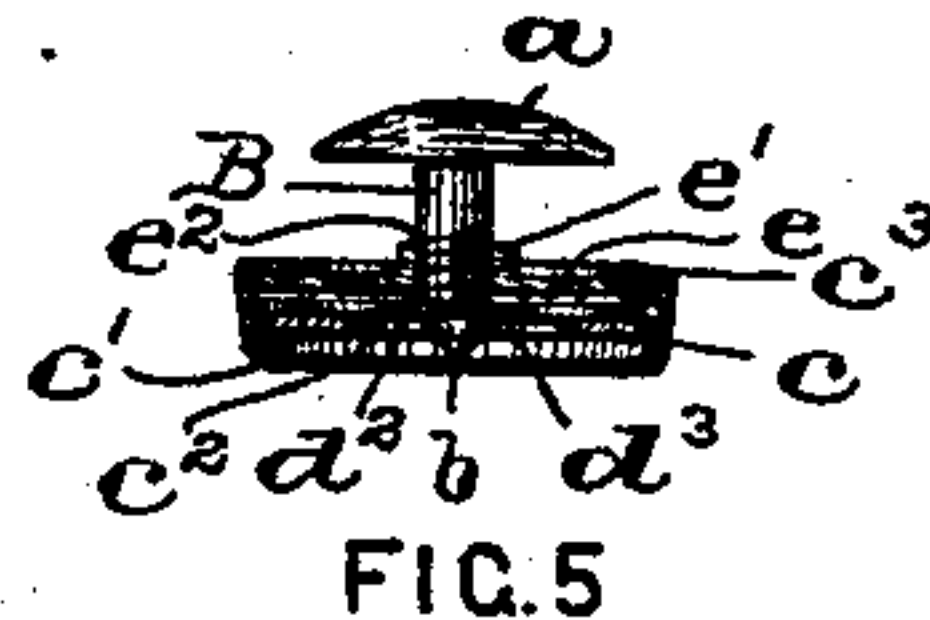
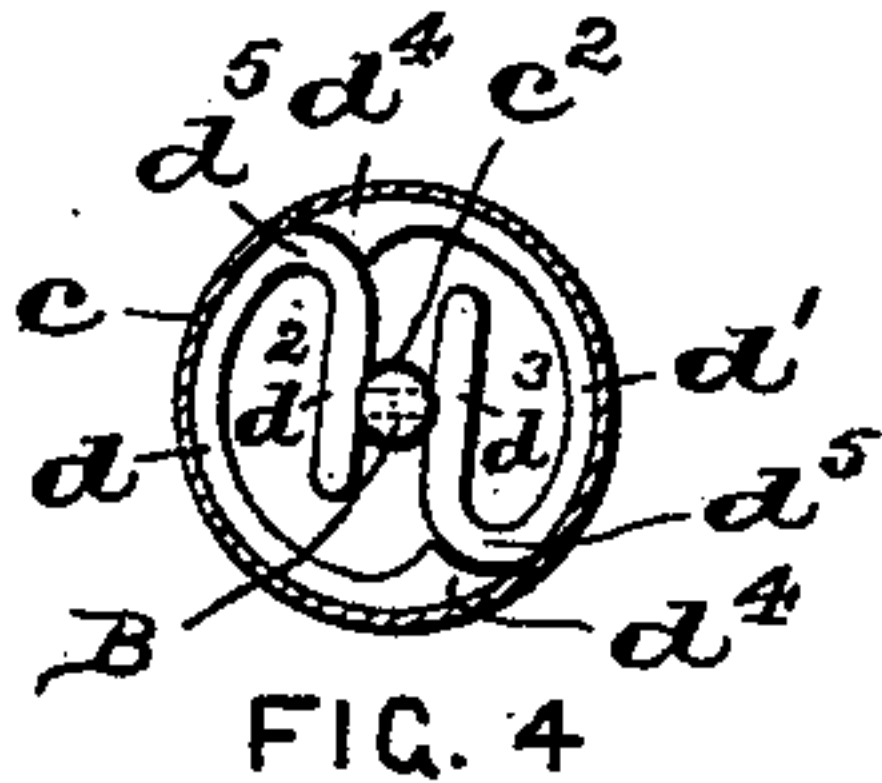
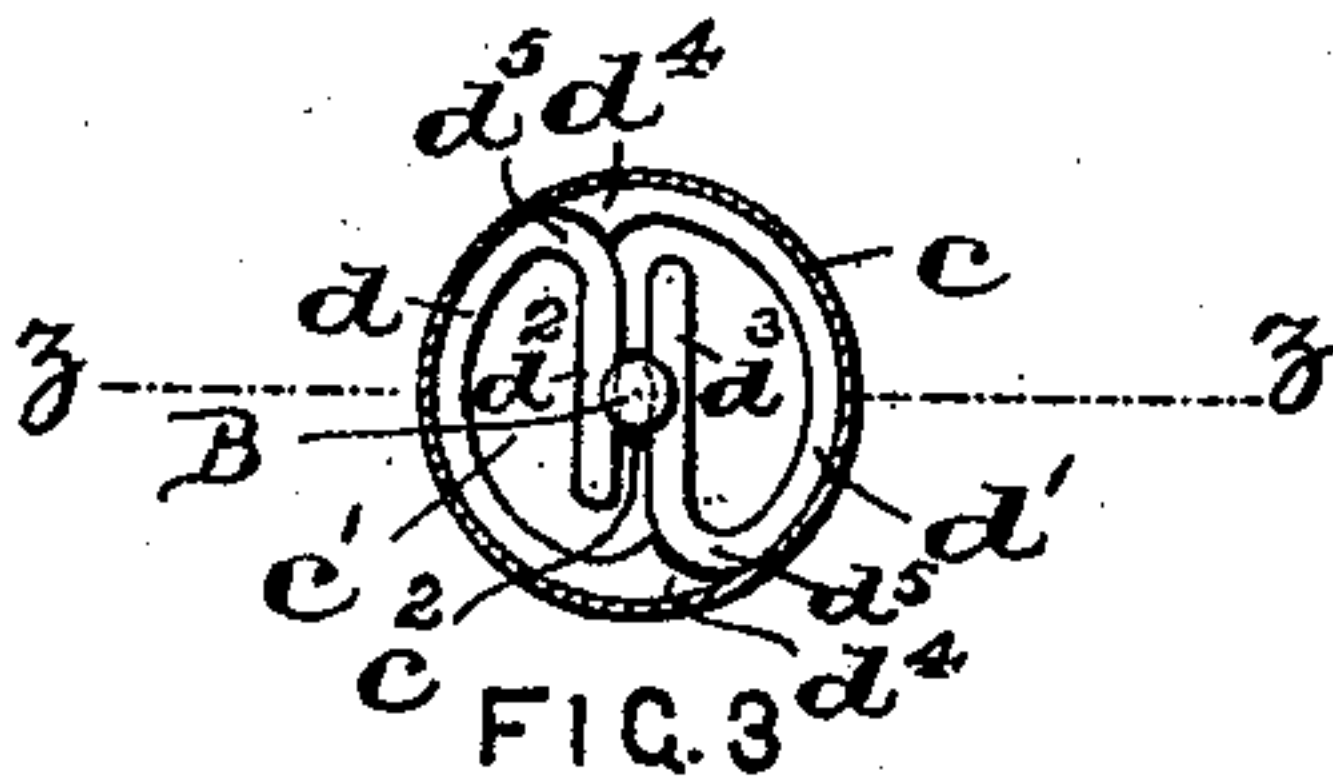
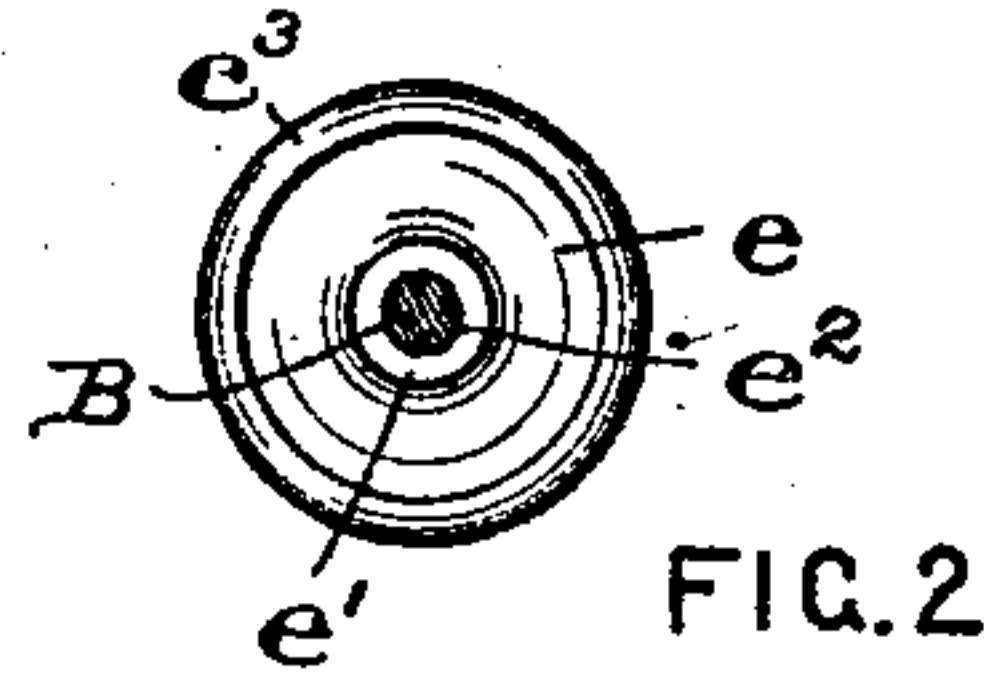
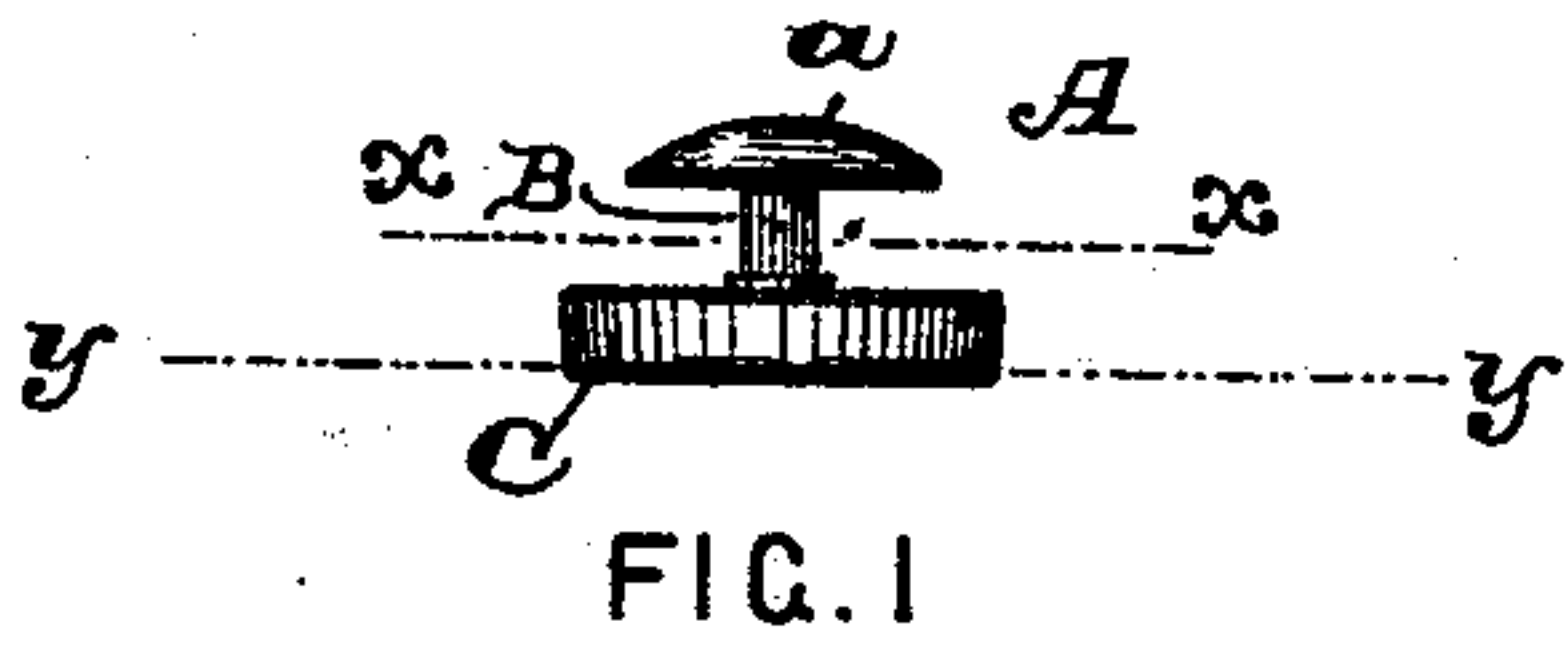


(No Model.)

C. C. CHAMPENOIS.
CUFF BUTTON OR STUD.

No. 528,715.

Patented Nov. 6, 1894.



WITNESSES:

Wm. H. Campfield, Jr.
H. W. March

INVENTOR:

CHARLES C. CHAMPENOIS.

BY Fred C. Fraentzel, ATT'Y.

UNITED STATES PATENT OFFICE.

CHARLES C. CHAMPENOIS, OF NEWARK, NEW JERSEY.

CUFF-BUTTON OR STUD.

SPECIFICATION forming part of Letters Patent No. 528,715, dated November 6, 1894.

Application filed June 5, 1894. Serial No. 513,597. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. CHAMPENOIS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Cuff-Buttons or Studs; and I do hereby 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 letters of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in reversible studs or buttons, composed of a base-plate and a separate combined post and stud or button for detachably connecting said post with said base-plate.

The invention consists essentially in the combination and arrangement of a suitable spring or springs placed in the casing or shell of the base-plate of the stud or button and a screw-post, provided at or near its pointed end with a slot on each side, whereby when the post is screwed into a screw-threaded hole in the base-plate, the holding portions or arms of the spring or springs are separated or forced apart, until said slots in the post are brought opposite said spring arms, to permit the latter to spring into said slots and hold the several parts of the button in their locked engagement. By the arrangement and combination of the parts to be hereinafter more fully described, a very safe and positive fastening for the separable parts of the buttons or studs of this class is the result, and there is no danger of the parts becoming separated as might be the case in the construction heretofore made and provided with a finger-piece extending from the side of the casing.

My invention is clearly illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a side view of my novel form of reversible stud or button. Fig. 2 is a horizontal section, taken on line x in Fig. 1; and Fig. 3 is a horizontal section taken on line y in said Fig. 1, clearly illustrating the arrangement of two springs in locked engagement with the oppositely arranged slots near the pointed end of the post. Fig. 4 is a similar section of said parts, said post being indicated

turned, so as to disengage the holding arms of the springs from the slots in the post, said view clearly illustrating the positions of said spring-arms, when said post has thus been turned. Fig. 5 is a vertical section of the button or stud. Fig. 6 is a perspective view of said screw-threaded and slotted post, and Fig. 7 is an enlarged detail view of the pointed end of said post, illustrating more clearly the oppositely arranged slots at or near the pointed and screw-threaded end of said post. Fig. 8 is a perspective view of one of the springs employed in the construction illustrated in said Figs. 3, 4 and 5. Figs. 9, 10, 11 and 12, are horizontal sections of a button or stud embodying the principles of my invention, said views illustrating holding springs of modified forms of construction, with which said pointed and slotted screw-post can be made to engage.

Similar letters of reference are employed in each of the above described views, to indicate like parts.

In said drawings, A indicates the complete button or stud. B is the post or stem, and C is the base-plate, containing the means with which the screw-post B can be detachably connected.

The base-plate, as will be seen from Figs. 1 and 5, consists essentially of a cup-shaped shell c within which I place a disk c' with a centrally arranged hole c^2 therein. Upon this disk are loosely arranged two springs d and d' , provided with the spring arms d^2 and d^3 respectively, which are arranged parallel with each other. Each spring d and d' is provided with suitably shaped spurs d^4 , the spur on each spring being fitted against the curved portion d^5 of the other spring. In this manner said springs are properly fitted in the shell, as will be seen from Figs. 3 and 4, bringing the spring arms d^2 and d^3 directly across the central opening in said disk c' and a screw-threaded hole e^2 in a boss e' on the plate e . Said plate is secured in the surrounding rim of the shell c by a bead c^3 closed down upon said plate in the usual manner.

The post B, as will be seen more especially from Fig. 7, is provided with a point b and a screw-thread b' . In the opposite sides of said screw-threaded end of the post I have formed the two slots b^2 and b^3 . On the opposite end

of said post is the base-plate *a*. Now, when said pointed end of the post is passed through the button hole or other opening in the garment, said end is inserted into the screw-threaded hole in the boss *e'* of the plate *e* and screwed up therein. This will force the pointed end of the post between the two spring arms *d*² and *d*³, thereby forcing them apart, as illustrated in Fig. 4, until the slots *b*² and *b*³ in said post are brought directly opposite said arms *d*² and *d*³. By the spring action of said arms they will spring into said slots in the post, as indicated in Figs. 3 and 5, and thereby securely hold the parts in their locked engagement. To separate the post *B* from its holding engagement with said spring-arms, all that is necessary is to turn the post and the base-plate *a* in opposite directions. The edges *b*⁴ of the slots will then ride against the said springs *d*² and *d*³, thereby causing them to spread, as indicated in said Fig. 4, and the post can be unscrewed from said screw-threaded boss *e'*, as will be evident.

By the screw-threaded post provided with oppositely placed slots, adapted to engage with the spring or springs in the shell *c*, I have devised a particularly safe construction adapted for valuable buttons or studs. This form of construction may also be used as a reversible stud or button, both base-plate and the button or stud portion being suitably ornamented or engraved.

In lieu of the spring *d* and *d'*, illustrated in connection with Figs. 3 and 4, I may use the forms of springs *D* illustrated in Figs. 9, 10, 11 and 12.

To cause the springs illustrated in Figs. 9, 10 and 11, to retain their proper and operative holding positions in the shell *c*, I use in connection with said springs certain peculiarly shaped disks *f*, as in Fig. 9, or *f'* as in Figs. 10 and 11. The action of said pointed and screw-threaded post *B* against the arm-ports *d*⁶ and *d*⁷ of said springs, in Figs. 9, 10, 11 and 12, is similar to that described in connection with the parts illustrated in Figs. 3 and 4.

Having thus described my invention, what I claim is—

The herein described button or stud, comprising therein, a casing *c* and a disk *e* secured therein provided with a hub having a screw-threaded hole, a perforated disk in said casing, a pair of springs *d* and *d'* having spring-arms *d*² and *d*³ respectively, spurs *d*⁴ on each spring resting against curved portions *d*⁵ of said springs, a screw-post adapted to be screwed into said hub to separate said spring-arms *d*² and *d*³ and slots on the opposite sides of said post at or near the screw-threaded end thereof, adapted to engage with said spring-arms and cause the parts of the button to be locked, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 28th day of May, 1894.

CHARLES C. CHAMPENOIS.

Witnesses:

FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, Jr.