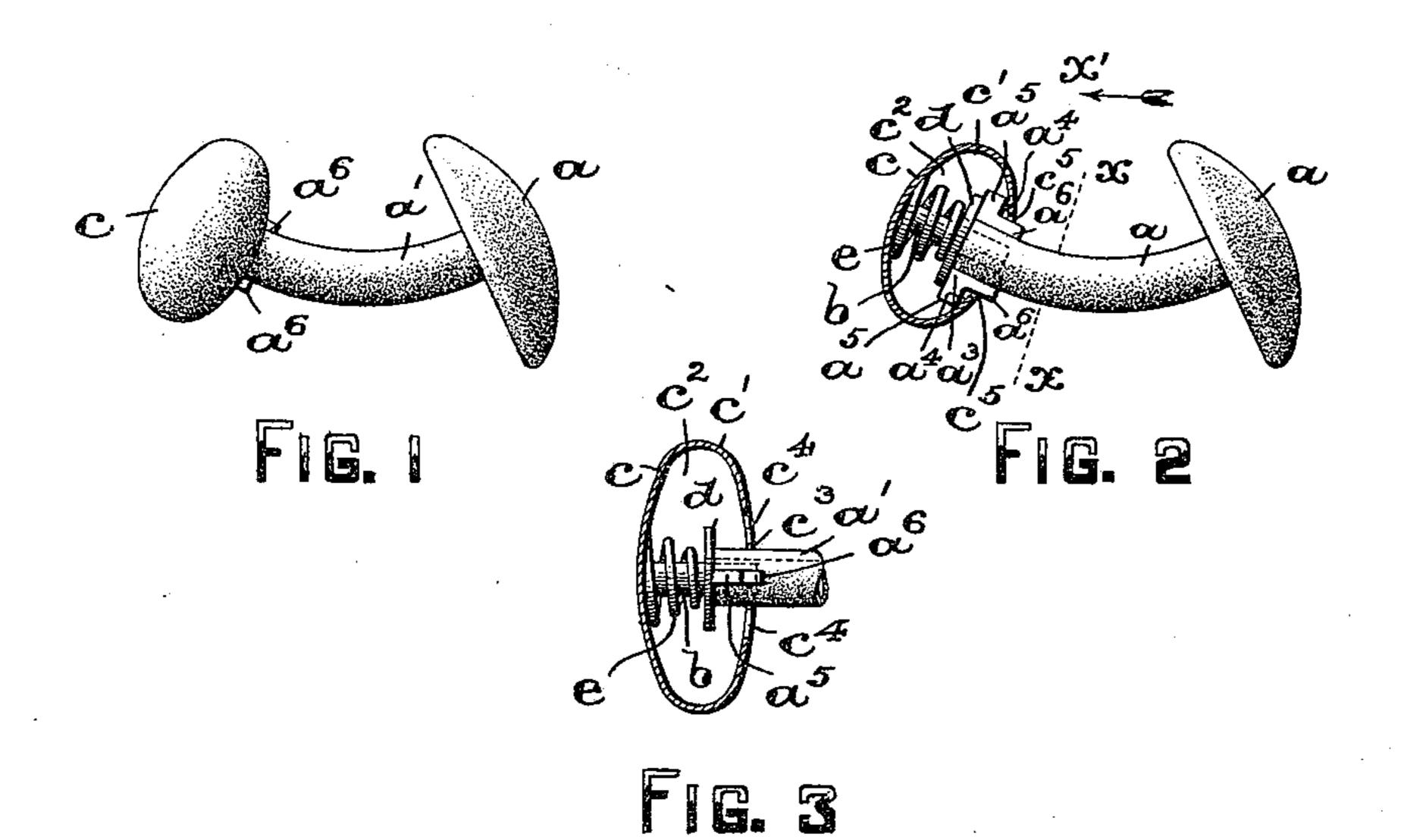
No. 641,909.

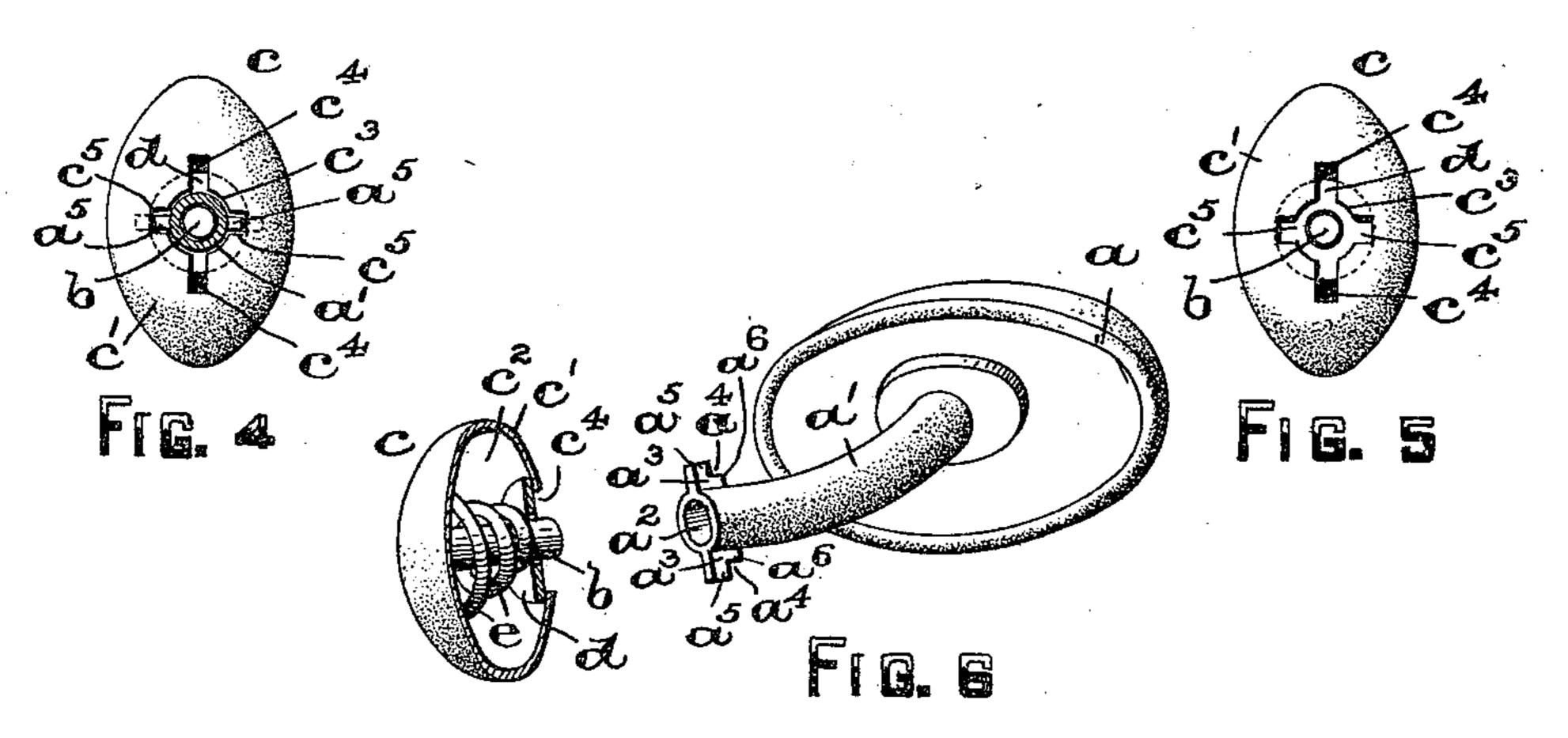
Patented Jan. 23, 1900.

W. J. WAGNER.

BUTTON.
(Application filed May 4, 1899.)

(No Model.)





WITNESSES:

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## United States Patent Office.

WILLIAM J. WAGNER, OF VAILSBURG, NEW JERSEY.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 641,909, dated January 23, 1900.

Application filed May 4, 1899. Serial No. 715,543. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. WAGNER, a citizen of the United States, residing at Vailsburg, in the county of Essex and State of New 5 Jersey, have invented certain new and useful Improvements in Buttons, Studs, or the Like; 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.

15 My invention herein set forth has reference to a novel construction of cuff or collar button, which may also be used as a shirt-stud, in which the head of the button or stud is rotatively connected with the post or stem of another head or the shoe of the device and in which the said parts are separably connected when rotated or turned in one position and are locked or held in place when turned in the opposite direction, whereby the parts of the button or stud are readily disconnected to permit of their being operatively placed together in the buttonhole of cuffs or in the stud-hole of a garment.

This invention has for its primary objects to provide an improved construction for operatively connecting the several parts of the button or stud and to greatly simplify and cheapen the cost of the construction, the separable parts of the device being operatively arranged directly within the head of the button or stud.

My invention has for a further object to provide a novel construction of separable head and post for a cuff-button or shirt-stud which permits of the cuff or collar button or stud being readily secured in place in the buttonholes of the garment and also to permit of the button or stud being just as easily removed from said buttonholes in the garment.

My invention therefore consists in the novel construction of cuff or collar button or stud hereinafter set forth and also in the novel arrangements and combinations of parts, all of which will be more fully described in the accompanying specification and finally embodied in the clauses of the claim.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side view of one form of cuffbutton embodying the principles of my pres- 55 ent invention, and Fig. 2 is a similar view of the shoe of the cuff-button and its post, with the head thereof represented in cross-section to clearly illustrate the arrangement of the several parts for separably connecting the 60 free end of said post with the head of the button. Fig. 3 is a vertical section of the head of the button, said section being taken in a plane at right angles from that of the section in Fig. 2, and a portion of the post of the but- 65 ton and operating mechanism for connecting said parts. Fig. 4 is a vertical cross-section taken on line x in Fig. 2, looking in the direction of arrow x' in said Fig. 2; and Fig. 5 is a face view of the under side of the head of 70 the button with the post and shoe removed. Fig. 6 is a perspective view of the shoe and post and a sectional view of the head and operative parts arranged therein, illustrating the several parts disconnected to permit the 75 insertion of the button in the buttonhole of a garment.

Similar letters of reference are employed in all of the said above-described views to indicate corresponding parts.

In said drawings, a indicates a suitable shoe or head of one form of cuff-button, ordinarily known as a "link-button," and a indicates a tubular post, which in the form of link cuff-button herein illustrated is curved, 85 but which may be made straight, as will be clearly understood. The said tubular post a is provided at or near its open end a with a pair of oppositely-extending arms or plates a, each of which is cut away, as at a, so as 90 to provide a pair of holding portions a and a, as clearly illustrated in Figs. 2, 3, 4, and 6, and for the purpose to be hereinafter more fully set forth.

The head of the cuff-button or stud is indicated by the reference-letter c, and it consists, essentially, of a suitably-formed shell c', which is hollow, so as to form a chamber  $c^2$ , as clearly indicated in Figs. 2, 3, and 6. The said shell c' is provided in the back with roo a centrally-arranged hole  $c^3$ , and  $c^4$  and  $c^5$  are radially-arranged cut-away portions forming

slots which extend from the circular edge of said hole  $c^3$ , substantially as illustrated in Figs. 4 and 5, the said cut-away portions or slots  $c^4$  being made longer than the said cut-5 away portions or slots  $c^5$ , as clearly illustrated, and for the purposes hereinafter set forth. Within said shell c' I have secured a short post or stem b, which has its free end extending through the centrally-arranged hole  $c^3$  of 10 said shell c', and slidably arranged on said post or stem b is a disk d. Encircling said post or stem b and arranged between the inner surface of the face of said shell c' and the said disk d is a spring e, the coils of the same 15 being made of varying sizes in order that when the said spring is compressed the several coils can be closed down within one another to enable the placing of these several parts within a head c of minimum width. To 20 connect the post a' of the shoe or head with the said shell c' forming the head c, the open end  $a^2$  of said post a' is placed directly over the free end of the stem b and the holding or locking portions  $a^5$  on the post a' inserted in 25 the longer cut-away portions or slots  $c^4$  in the back of the shell c'. The said post a' is then pushed farther into the chamber in said shell c' by causing the free end of the stem b to enter still farther into the tubular post a' and 30 forcing the disk d back upon said stem b, at the same time compressing the coils of the spring e, as will be clearly understood from an inspection of the several figures of the drawings. The said holding portions  $a^5$  have 35 now been forced entirely through the slots or cut-away portions  $c^4$  in the shell c', and by a quarter-turn of the said post a' and its shoe a the holding portions at the free end of said post a' are brought from the position indi-40 cated in Fig. 6 to the position represented in Fig. 3 of the drawings. By releasing the pressure upon the shoe a and its post a' the holding portions  $a^6$  are forced into the smaller cutaway portions or slots  $c^5$  in the back of the 45 shell c', as indicated in Fig. 2, with the cutaway parts  $a^4$  between said holding portions  $a^5$  and  $a^6$  of the post a' arranged against the inner surface contiguous to said cut-away parts or slots  $c^5$  to prevent the withdrawal of 50 the post, with the coils of the spring e exerting their full pressure against the disk d, and thus holding these several parts of the post a'and the shell c' in their holding or locked engagement, as will be clearly understood. Said 55 holding or locking portions normally extend partly over said shorter slots to prevent turning of the post in the head.

By the arrangement of the chambered head having a central hole in the back thereof, 60 which is provided with radial slots extending from the circumferential edge of said hole, said slots being arranged at right angles to each other and some of said slots being longer than others, the post of the shoe, which is pro-65 vided with the holding or locking portions

above mentioned, can be made to extend into

said hole in the head and have said holding or locking portions brought in holding engagement with said short slots by being first passed entirely through said longer slots and 70 then turned into the short slots, as will be clearly understood, but being capable of disengagement therefrom and insertion in said longer slots for removal of said post from said chambered head when the post is turned in a 75 reverse direction from that above described to permit the removal of the cuff-button or stud from the buttonhole of the garment.

From the above description of my present invention it will be seen that by the arrange- 80 ment of the several parts as herein set forth I have produced a positive, strong, and effective construction of cuff or collar button

or shirt-stud.

Having thus described my invention, what 85 I claim is—

1. A button, stud, or the like, comprising a shoe, a tubular post connected with said shoe, said post having an open end, and a chambered head having a central hole in the back 90 thereof, and provided with radially-arranged slots extending from the circumferential edge of said hole, said slots being arranged at right angles to each other, and some of said slots being longer than others, a post or stem in said 95 head having its free end extending into and partly through said hole in said head, onto which the open end of said post connected with the shoe can be forced, locking or holding portions connected with said post, in hold- 100 ing engagement with said short slots, but capable of disengagement therefrom and insertion through said longer slots for removal of said post from said chambered head, said holding portions normally extending partly from said 105 shorter slots to prevent turning, and means within said chambered head arranged to cause the holding or locked engagement of said post with said head, substantially as and for the purposes set forth.

2. A button, stud, or the like, comprising a shoe, a tubular post connected with said shoe, said post having an open end, and a chambered head having a central hole in the back thereof, and provided with radially-arranged 115 slots extending from the circumferential edge of said hole, said slots being arranged at right angles to each other, and some of said slots being longer than others, a post or stem in said head having its free end extending into 120 and partly through said hole in said head, onto which the open end of said post connected with the shoe can be forced, locking or holding portions connected with said post, in holding engagement with said short slots, but ca- 125 pable of disengagement therefrom and insertion through said longer slots for removal of said post from said chambered head, said holding portions normally extending partly from said shorter slots to prevent turning, and a 130 spring-actuated disk slidably arranged on said post or stem in said head arranged to

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cause the holding or locked engagement of said post of the shoe with the head, substantially as and for the purposes set forth.

3. A button, stud, or the like, comprising a 5 shoe, a post connected with said shoe, oppositely-extending holding portions  $a^5$  and  $a^6$  on said post, and a chambered head having a central hole in the back thereof, and also provided with radially-arranged cut-away porto tions or slots  $c^4$  and  $c^5$ , said slots  $c^4$  being longer than said slots  $c^5$ , said holding portions on said post being capable of insertion through said slots  $c^4$  and brought in holding engagement with said slots  $c^5$ , and extending partly 15 from said slots to prevent turning, and means within said chambered head for retaining said holding portions on said post in their holding engagement with said chambered head, substantially as and for the purposes set forth.

4. A button, stud, or the like, comprising a shoe, a post connected with said shoe, oppositely-extending holding portions  $a^5$  and  $a^6$  on said post, and a chambered head having a central hole in the back thereof, and also pro-25 vided with radially-arranged cut-away portions or slots  $c^4$  and  $c^5$ , said slots  $c^4$  being longer than said slots  $c^5$ , said holding portions on said post being capable of insertion through said slots  $c^4$  and brought in holding engage-30 ment with said slots  $c^5$ , and extending partly from said slots to prevent turning, and a spring e and disk d in said chambered head arranged to retain said holding portions on said post in their holding engagement with said chambered head, substantially as and for the pur- 35 poses set forth.

5. A button, stud, or the like, comprising a shoe, a tubular post connected with said shoe, oppositely-extending holding portions  $a^5$  and a on said post, and a chambered head having 40 a central hole in the back thereof, and also provided with radially-arranged cut-away portions or slots  $c^4$  and  $c^5$ , said slots  $c^4$  being longer than said slots  $c^5$ , said holding portions on said post being capable of insertion through 45 said slots  $c^4$  and brought in holding engagement with said slots  $c^5$ , and extending partly from said slots to prevent turning, a post or stem b in said chambered head having its free end extending into and partly through said 50 hole in said head, onto which the open end of said post connected with the shoe can be forced, and a spring-actuated disk slidably arranged on said post or stem b to retain said holding portions on said post connected with 55 said shoe in their holding engagement with the chambered head, 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 60 3d day of May, 1899.

WILLIAM J. WAGNER.

Witnesses:

FREDK. C. FRAENTZEL, WALTER H. TALMAGE.