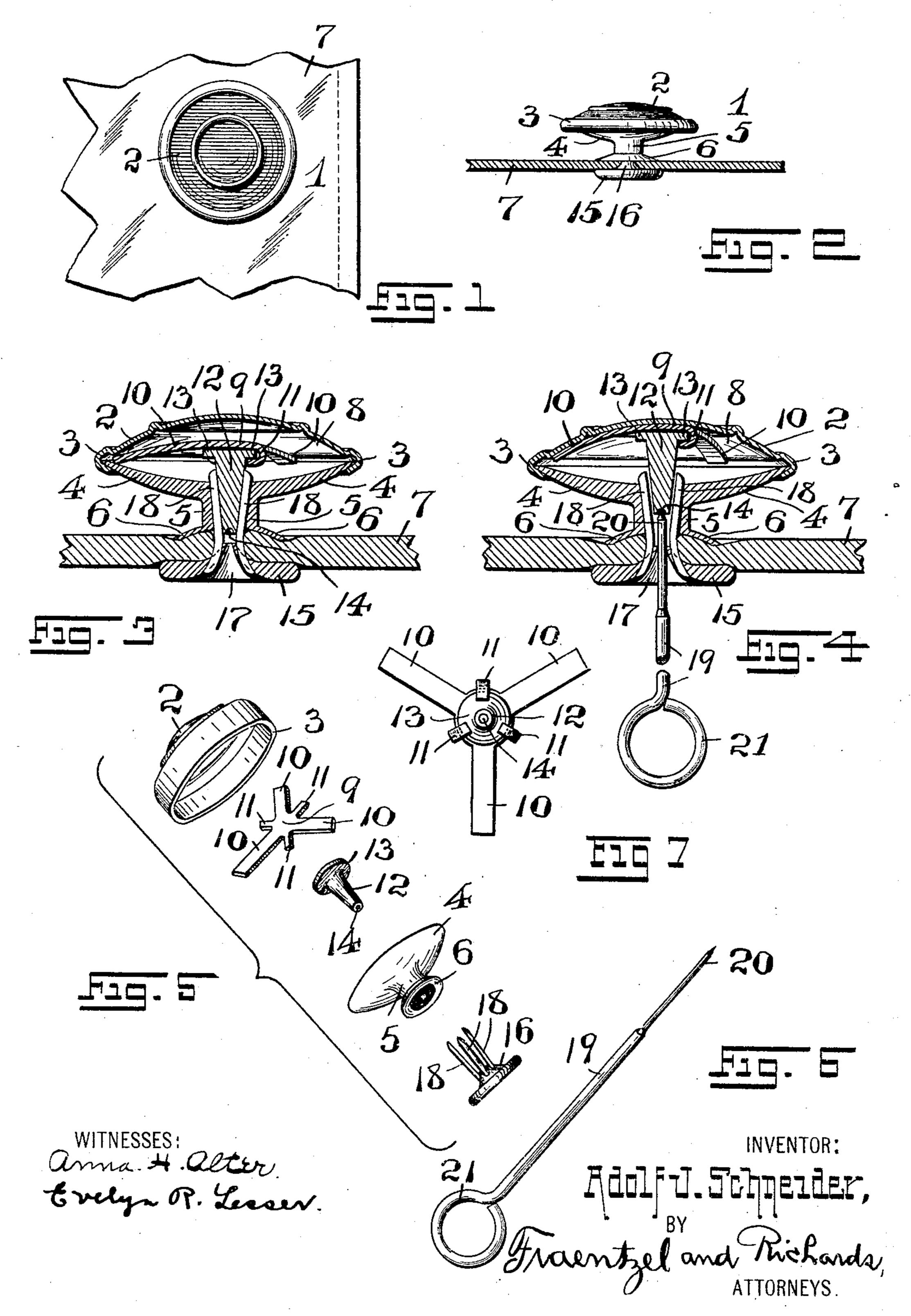
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BUTTON.

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UNITED STATES PATENT OFFICE.

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BUTTON.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Adolf J. Schneider, a subject of the Emperor of Austria-Hungary, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Buttons; 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.

This invention has reference, generally, to buttons; and the invention relates, more particularly, to that class of buttons known in the art as military or bachelor buttons, pertaining to a novel construction of buttons and means for securing the button upon a piece of fabric, without the use of thread, and against any possible detachment or pulling off of the button while in use upon the garment to which it has been secured, but which can be removed from the garment, if so desired, without any detriment to the fabric and without leaving any hole or holes where the removed parts of the button had been previously secured or held in place.

The present invention has for its principal objects to provide a button and button-fastener of this character, and one which shall be of a very simple construction and the separable parts of which can be easily and quickly secured in their operative and positively held positions upon a piece of fabric, and when secured in position the parts of the button being inseparably held in place, no matter how great a pull or strain may be brought to bear upon the button; but, the parts of the button being nevertheless separably connected to be capable of being removed from the garment, when nec-

Other objects of this invention not at this time more particularly mentioned will be clearly understood from the following detailed description of the same.

The invention consists, primarily, in the novel-button and button-fastener hereinafter set forth; and, furthermore, the present invention consists in the various
novel arrangements and combinations of devices and
parts, as well as in the details of the construction of the
same, all of which will be hereinafter more fully set
forth, and then finally embodied in the clauses of the
claims which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawing, in which

Figures 1 and 2 are a face and side view, respectively, of a button and button-fastener embodying the principles of the present invention, showing the various parts of the button secured in their relative positions upon the opposite faces of a garment, the garment in Fig. 2

being represented in section. Fig. 3 is a transverse 55 sectional representation of the various parts of the button and button-fastener, said view being made on an enlarged scale. Fig. 4 is a similar sectional representation of the same parts, illustrating the manner of bringing the various parts of the button into their separated or disconnected relation by means of a needle-shaped tool shown in elevation in said Fig. 4. Fig. 5 is a collective perspective view of the various parts or elements of the button and button-fastener, all of said parts being shown in their detached relation about to 65 be assembled; and Fig. 6 is a face view of the needle-shaped member indicated in said Fig. 4. Fig. 7 is a plan view of the spring-support and cone-shaped post secured thereto.

Similar characters of references are employed in all of 70 the above described views, to indicate corresponding parts.

Referring to the several figures of the drawings, the reference-character 1 indicates the complete military or bachelor button, the same comprising a button-head 75 consisting, essentially, of an outer face or shell 2, of any suitable shape and ornamentation, which is secured by means of a marginal bead or overturned edge 3 to the marginal edge of a lower and preferably cup-shaped disk or shell 4. This shell is made with a downwardly 80 extending shank 5, said shank being preferably provided with an annular bearing member or portion 6, adapted to rest or bear upon the upper or outer surface of the garment or fabric 7 on which the button-head is to be secured. In this manner, the button-head is 85 provided with a chambered portion 8, and the shank is made tubular, said tubular portion being tapered in the manner clearly shown in Figs. 3 and 4 of the drawings. Loosely centered within said chamber 8 of the button-head is a spring-support or spider 9, this spider 90 being made with a series of radially extending arms 10, said arms having their end-portions resting upon the cup-shaped surface of the disk or shell 4, substantially in the manner indicated in Fig. 3 of the drawings. This support or spider 9 is also provided with a series of 95 tongues or lugs 11 which are bent downwardly and inwardly, substantially as shown in Fig. 7 of the drawings, and are bent over the marginal edge-portion 13 of a cone-shaped post 12, said post being provided with a suitable depression 14 in its free end, and being 100 loosely held by said lugs or tongues 11 upon the central portion of the spring-support or spider, as clearly shown.

The reference-character 15 indicates a suitable backplate which is made with a cone-shaped member 16 having a central hole or perforation 17, and is provided 105 with a series of pointed pins or binding members 18 which are suitably secured upon the cone-shaped portion 16 and extend in an upward direction from said

portion. These pins or binding members 18 have a certain spring-action and taper outwardly at their upper ends, preferably in the manner illustrated in the several figures of the drawings. One manner of secur-5 ing the pins 18 to the back-plate 15 is to insert the lower and slightly curved end-portions 22 of said pins through holes 23 in the back-plate and then fastening said endportions by means of solder 24, substantially as indicated in Figs. 3 and 4 of the drawings.

Having thus described the general constructions of the various parts, I will now briefly set forth the manner of securing the button-head and back-plate by means of the fastener upon the opposite faces of a gar-

ment. The pointed prongs which extend from the back of the back-plate 15 are forced directly through the piece of fabric, so as to extend from the outer face of the fabric. The perforated shank 5 of the button-head, with the cone-shaped post 12 loosely extending into 20 the tapering tubular portion of said shank 5, are then arranged over the projecting end-portions of the said pins or binding members 18, with said binding members arranged in the annular space formed between the exterior surface of said cone-shaped post 12 and the 25 tubular part of the shank 5. By means of pressure exerted upon the upper face of shell 2 of the button-head and upon the outer face of the back-plate 15, these pins or binding-members 18 are forced upwardly into the tubular portion of the shank 5 and the cone-shaped 30 post 12 is forced downwardly between the said pins and toward their bases where they are rigidly secured to said back-plate 15. The result is that this action immediately wedges the several pins into their fixed holding position, as clearly shown in Fig. 3 of the drawings, 35 and the parts of the button are positively secured in their inseparable relations upon the opposite sides of the faces of the fabric, no matter how great a pull or strain may be brought upon either the button-head or

back-plate. 40 From the construction shown, it will be clearly evident, that almost immediately upon the entrance of the pins or binding-members 18 into the tubular portion of the shank 5, a binding or holding engagement between the parts takes place, so as to prevent the sepa-45 ration of the button-head and back-plate; but, while it is impossible to produce a separating movement of the parts, it is still possible to further drive the pins or holding members 18 into the tubular shank of the button-head, from which it will be clearly understood that 50 the parts can be rigidly secured in their operative positions upon the opposite faces of pieces of fabric of

varying thicknesses.

In Fig. 4 of the drawings, I have illustrated a manner of easily disconnecting a button-head from the back-55 plate 15, when it is desired to remove the button from the garment. This is accomplished by inserting the pointed end-portion 20 on a device 19 made in the form of a rod or needle and provided with a finger-piece 21. By placing the two fingers about the shank 5 of the button-head, the fingers resting upon the annular bearingmember or portion 6, and then inserting the pointed end-portion 20 of the rod 19 through the central hole or perforation 17 of the back-plate 15, the said end-portion of the rod is brought in engagement with the de-65 pression 14 in the free end of the cone-shaped post 12,

as clearly indicated in Fig. 4 of the drawings. Upon an application of pressure upon the finger-piece 21 of the rod or needle 19 the spring-support or spider 9 is caused to assume the curved position within the inner concave surface of the shell 2, the cone-shaped post 12 70 being forced from its frictional holding engagement with the various pointed pins or binding members 18 of the back-plate 15. In this manner the various parts are disconnected as shown in said Fig. 4 of the drawings, and the binding members or pins 18 can be readily 75 withdrawn from the tubular portion of the shank 5, and from the fabric 7, as will be clearly understood, and the button-head separated from said back-plate.

From the foregoing description of my present invention, it will be clearly evident that I have produced a 80 simply constructed and compact construction of military or bachelor button, in which the various parts or elements are arranged in such a manner that the button-head and back-plate can be easily secured to pieces of fabric of varying thicknesses, and still provide a rig- 85 idly fastened button; furthermore, a button has been produced in which the parts, when once assembled, cannot become accidentally separated or pulled apart, no matter how great the force which may be applied to the button-head or the back-plate; but, the holding or 90 binding elements being easily separated, when desired, by means of the application of a rod or tool of the character 19 in the manner previously described.

I claim:

1. A button and button fastener, comprising a cham- 95 bered button-head, a tubular shank extending from said head, a back-plate, a plurality of binding members on said back-plate, adapted to be inserted and arranged in the tubular part of said shank, a post in said chambered button-head, said post having a portion extending into the 100 tubular part of the shank and between the binding members, all arranged to spread said members and bring them in holding engagement with said tubular shank, a springsupport within said button-head, radially extending supporting arms connected with said support, and retaining 105 lugs also connected with said support, said retaining lugs being in holding engagement with said post, substantially as and for the purposes set forth.

2. A button and button-fastener, comprising a chambered button-head, a tubular shank extending from said 110 head, a back-plate, a plurality of binding members on said back-plate, adapted to be inserted and arranged in the tubular part of said shank, a post in said chambered button-head, a marginal edge-portion 13 at one end of said post, said post having its opposite end-portion extending 115 into the tubular part of the shank and between the binding members, all arranged to spread said members and bring them in holding engagement with said tubular shank, a spring-support within said button-head upon which said post rests, and retaining lugs upon said spring-support 120 between which the marginal edge-portion of said post is loosely centered, substantially as and for the purposes set forth.

3. A button and button fastener, comprising a chambered button-head, a shank extending from said head, said 125 shank having a tapered tubular portion, the small tubular end of the shank being at the free end of the shank, a backplate, a plurality of resilient holding members on said backplate, adapted to be inserted and arranged in the tubular part of said shank, a cone-shaped post in said chambered 130 button-head, a marginal edge-portion 13 at the large end of said post, said post having its small end-portion extending into the tubular part of the shank and between said binding members, all arranged to spread said members and bring them in holding engagement with said tubular shank, 135 a spring-support within said button-head upon which said post rests, and retaining lugs upon said spring-support between which the marginal edge-portion of said post is

freely centered, substantially as and for the purposes set forth.

4. The herein described button and button-fastener, comprising a chambered button-head consisting of a pair of disk-shaped shells 2 and 4, said shells being secured together by means of an annular bead, a shank extending from said shell 4, said shank having a tapered tubular portion, the small tubular end of the shank being at the free end of the shank, a back-plate, a plurality of resilient binding members on said back-plate, adapted to be inserted and arranged in the tubular part of said shank, a cone-shaped post in the chambered part of the button-head, said post having its small end-portion extending into the tubular part of the shank and between the binding members, all arranged to spread said members and bring

them in holding engagement with said tubular shank, a spring-support within said button-head comprising a central body-portion upon which the large end of said post rests, and spider-arms extending radially from said body-portion, said arms having their free ends resting in supporting engagement upon the inner surface of the shell 4, 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 2nd day of February, 1907.

ADOLF J. SCHNEIDER.

Witnesses:

FREDK. C. FRAENTZEL, ANNA H. ALTER.