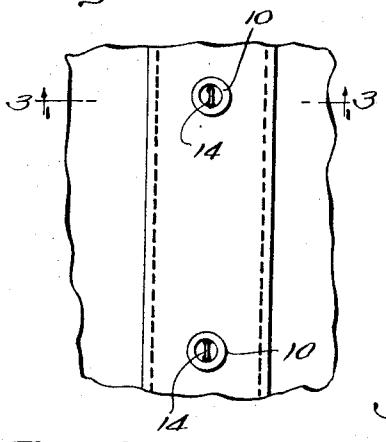
Oct. 21, 1930. F. A. GILL ET AL 1,779,125

BUTTON APPLIANCE

Filed Sept. 27, 1929

Fig 1



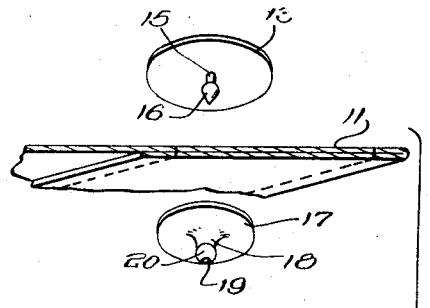


Fig. 2

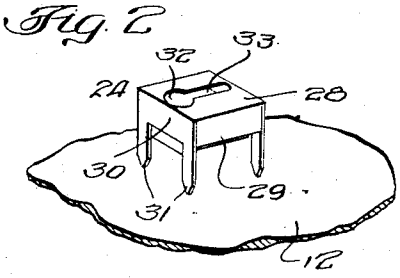
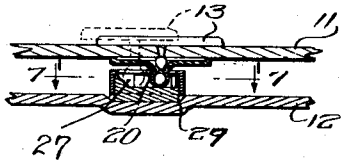


Fig. 3



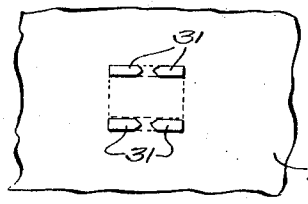


Fig. 4.

Fig. 7.

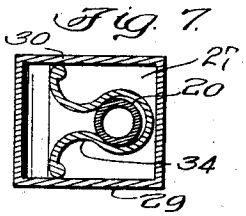


Fig 5.

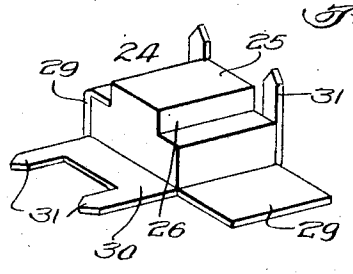
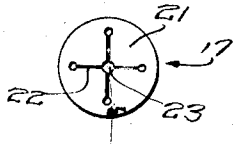


Fig 6.



Witness
William P. Kilroy

Inventors
Ferdinand A. Gill and
Adolph Theobald
By Hill, Hill
Attys.

Patented Oct. 21, 1930 1,779,125

UNITED STATES PATENT OFFICE

FERDINAND A. GILL AND ADOLPH THEOBALT, OF CHICAGO, ILLINOIS

BUTTON APPLIANCE

Application filed September 27, 1929. Serial No. 395,616.

Our invention relates to button appliances and more particularly it relates to means so constructed as to simulate buttons, such means being adapted to fasten overlapping fabric layers together and being also suitable for garment ornaments.

One of the objects of the invention is the provision of a fastening device of the kind described which simulates a button in appearance and which may be mounted upon a garment or other article and utilized as a fastening device without sewing or the formation of button holes.

A further object of the invention is the provision of a device of the kind described which is operable for fastening upon a garment or the like by manual manipulation without the use of needles or other sewing appliances.

Among other objects of the invention is the production of a fastening device which is simple, compact, durable, reliable, efficient and satisfactory for use wherever found applicable.

In accomplishing the above objects we provide a device that is made up of three main sections or elements so constructed that when assembled upon a garment and fastened together, the various parts occupy a minimum space. The outer one of the sections is constructed to resemble a button. An intermediate section is positioned on the opposite side of the cloth or fabric to which the outer section is fastened and an inner section or element is mounted upon the outer face of an underlying layer of the garment or object and serves as a holding device by providing a receptacle for a projection mounted upon the intermediate portion. The fastening of the character just indicated is of simple construction and in use has highly desirable features, as will hereinafter appear more fully after having first described the invention, as illustrated in the accompanying drawings, wherein like reference characters indicate like parts throughout the several views.

Referring to the drawings,

Fig. 1 is a view of a fragmentary portion of a garment on which a number of the devices of our invention are mounted;

Fig. 2 is a view of the various elements comprising our device, shown in disassembled relation adjacent to the folds or portions of the garment which the device is intended to connect;

Fig. 3 is a section along the line 3—3 of Fig. 1;

Fig. 4 is a bottom plan view of the disclosure of Fig. 3;

Fig. 5 is a perspective view of a portion of the device, the component parts of which are shown in their proper assembled relation with certain steps of construction incomplete;

Fig. 6 is a plan view of the intermediate portion of the device; and

Fig. 7 is a section along the line 7—7 of Fig. 3, drawn to a larger scale.

Referring now more particularly to the drawings, the numeral 10 generally designates a fastening means comprising an outer disk or disk shaped element 13, an intermediate inner hollow disk shaped member 17 and a holding device or instrumentality 24.

The device is shown in disassembled relation in Fig. 2 preliminary to mounting the various portions upon the overlapping portions 11 and 12 of a garment or the like. The disk 13 has an inwardly projecting pin 15, on the end of which is mounted a pointed head 16. The disk 13 is mounted on the outer portion 11 of the garment by forcing the pin through the fabric, thereby bringing the head 16 into holding engagement with the hollow disk-shaped member 17.

The hollow disk-shaped member 17 has a cover portion 21 fastened to the upper side of the member by soldering or by any other desired means. The cover portion 21 is provided with a pair of slots 22 intersecting in a central aperture 23. A hollow stem 18 is mounted on the under side of the disk 17, the stem terminating in a knob 19. The central aperture 23 is made slightly smaller than the pointed head 16. When the head 16 contacts with the cover 21 the quadrant shaped portions of the cover are forced to yield inwardly permitting the head to enter the member

17 through the aperture 23. The pointed end of the head 16 is thereby positioned within the hollow stem 18 and the quadrant shaped portions of the cover 21 spring back to their normal position wherein the cover 21 is in close proximity to the head 16, thereby locking the disk 13 to the disk shaped member 17. The positioning of the head 16 in the hollow stem 18 enables the disk 13 and the member 17 to be spaced in close proximity, one on either side of the fabricated portion 11.

The outer face of the disk 13 comprises an annular shaped, ridge portion within which a plurality of depressions 14 are formed. The depressions 14 simulate the usual holes contained in buttons and the thread extending therethrough by means of which a button is ordinarily fastened to a garment. If desired, ornamental designs may be provided on the outer face of the disk 13 as a substitute for such simulated depressions and threaded portions. The disk 13 and the member 17 are thus adapted for remaining permanently fastened together under ordinary usage. The connection of the disk 13 and member 17 is such, however, as to permit their separation upon the application of a substantial pull on the disk and member, thereby forcing the quadrant shaped portions of the cover 21 to yield outwardly and permitting the head 16 to emerge from the member 17 through the aperture 23.

The disk 13 and disk shaped member 17, fastened as described above on the outer portion of the garment or other fabricated member, serve the purpose of a relatively thin button. A fastening means or member 24 is mounted on the outer face of the underlying portion 12 of the garment or fabricated member as a substitute for a button hole. A partially completed member 24 is shown in perspective in Fig. 5 as comprising a block 25 upon which a plate 28 is mounted. One face of the block 25 has its longitudinal edges cut away to form channels 26. A recess 27 is formed in the opposite face of the block 25, as best shown in longitudinal section in Fig. 3. One end wall of the recess 27 is tapered for a purpose hereinafter more particularly described.

The plate 28 covers the recessed face of the block 25 and partially encloses the edge faces of the block. The plate 28 is preferably symmetrical about longitudinal and transverse axial lines and is provided with transversely extending wing portions 29 which are folded up along the longitudinal edges of the block 25. The outer end of the wing portions 29 are folded over and terminate in the channels 26, thereby fastening the plate 28 to the block 25. The ends of the plate 28 are provided with longitudinally extending wing portions 30, similar to the lateral wing portions 29. The wing portions 30 have sharp pointed projections forming detents 31 on the outer edges. In the completed member 24, the wing portions 30 are folded along the ends of the block 25, the block then taking the form shown in Fig. 2, wherein the detents 31 project beyond the channeled face of the block 25 a substantial amount. The member 24 is thereby adapted for manually thrusting through a section of a garment or other fabric, the points on the ends of the detents 31 enabling the latter to pierce the fabric.

The member 24 is thus mounted upon the garment or fabric at the point where otherwise a buttonhole would be formed and is fastened to the garment by bending the detents 31 inwardly, as best shown in Fig. 4. The depth of the channels 26 is greater than the combined thickness of the folded ends of the wing portions 29, the fabric 12 and of the overlying detent portions 31. As a result the folded detents are positioned in the channels 26 slightly below the face of the block 25. The detent members 31 are thereby freed from any possibility of contact with underlying fabrics or with the body of the wearer.

The member 24 is clamped to the underlying garment portion or fabric 12 in such a way as to remain permanently in position. If, for any purpose, it is desired to remove the member 24, this is easily accomplished by simply straightening the detent members 31. The member 24 is preferably made thin as compared with its longitudinal and transverse dimensions so that the thickness of the device will be minimized.

The portion of the plate 28 covering the outer face of the member 24 contains a circular aperture 32 with which one end of a longitudinally extending slot 33 connects. The aperture 32 is made sufficiently large to permit the insertion of the knob 19. The width of the slot 33 is such that the stem 20 can be slidably mounted therein. It is obvious that the garment portion 11 can be easily fastened to the garment or fabric 12 by merely inserting the knob 19 in the aperture 32 and then sliding the disk member 17 so that the slot 33 receives the stem 20. The aperture 32 and the slot 33 overlie the recess 27 with the aperture overlapping the tapered end wall of the recess. In inserting the knob 19 into the aperture 32 the curved wall of the knob contacts with the tapered end wall of the recess 27, thereby forcing the stem 20 into the slot 33. A spring plate 34 is positioned in the recess 27 to form a yoke which holds the knob 19 positioned in the recess. The tapered bounding wall of the recess 27 also prevents accidental release of the knob 19 from engagement with the member 24.

The completely assembled device is shown in section in Fig. 3 as mounted on overlapping fabric portions. While each of the three sections constituting the device have substantial axial dimensions, it is obvious that the construction of the various sections

is such that the assembled device occupies a space having only a slightly greater thickness than that of the individual sections. The device is adapted for use with both washable and non-washable materials and it is especially desirable that such a fastening device when mounted upon washable fabrics should project only slightly from the cloth or material upon which they are mounted as the garment can more easily be run through a washing or an ironing machine.

Thus it will be seen that we have provided a device of the kind described, which may be easily attached or detached by hand, and which eliminates the necessity for button holes and which is so constructed that it occupies a small amount of space when assembled.

Having thus described our invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of our invention; hence, we do not wish to be understood as limiting ourselves to the exact form, construction, arrangement and combination of parts herein described and shown, or uses mentioned.

What we claim as new and desire to secure by Letters Patent is:

1. A button appliance of the kind described comprising a disk shaped element having one face simulating the exposed face of a button, a pin projecting from the other face of said element and terminating in a pointed head, a hollow disk shaped member having a cover portion secured to one face thereof, said cover portion being apertured to yield under pressure to permit said pin member to pass therethrough, a stem on the other face of the disk shaped member hollowed out to receive said pin member in telescoping relation, a knob on said stem, a hollow member having a side wall containing an opening adapted to receive said knob and having a slot connected with the opening, the inner face of the hollow member adjacent the opening tapering inwardly, and a yoke shaped spring plate underlying said slot with its open end adjacent said tapered wall to receive and yieldingly hold said stem and knob.

2. A button appliance of the kind described comprising a disk shaped element having one face simulating the exposed face of a button, a pin projecting from the other face of said element and terminating in a pointed head, a hollow disk shaped member having a cover portion secured to one face thereof, said cover portion being apertured to yield under pressure to permit said pin member to pass therethrough, a stem on said disk shaped member hollowed out to receive said pin member in telescoping relation, a knob on said stem, a fastening means cooperating with said stem and knob comprising a rectangular block and a plate member, said block having channels on the edges of one face and a recess in the opposite face, said plate member being mounted on said recessed face and having an aperture and a connecting slot opening into the recess, said plate having transverse wing portions folded along the channeled edges of said block and longitudinally extending wing members folded along the ends of the block, and a plurality of detent members projecting from said longitudinally extending wing members, said detent members operable to pierce a fabric sheet upon which the plate member is intended to be mounted.

In witness whereof, we hereunto subscribe our names this 25th day of September, A. D. 1929.

FERDINAND A. GILL.
ADOLPH THEOBALT.