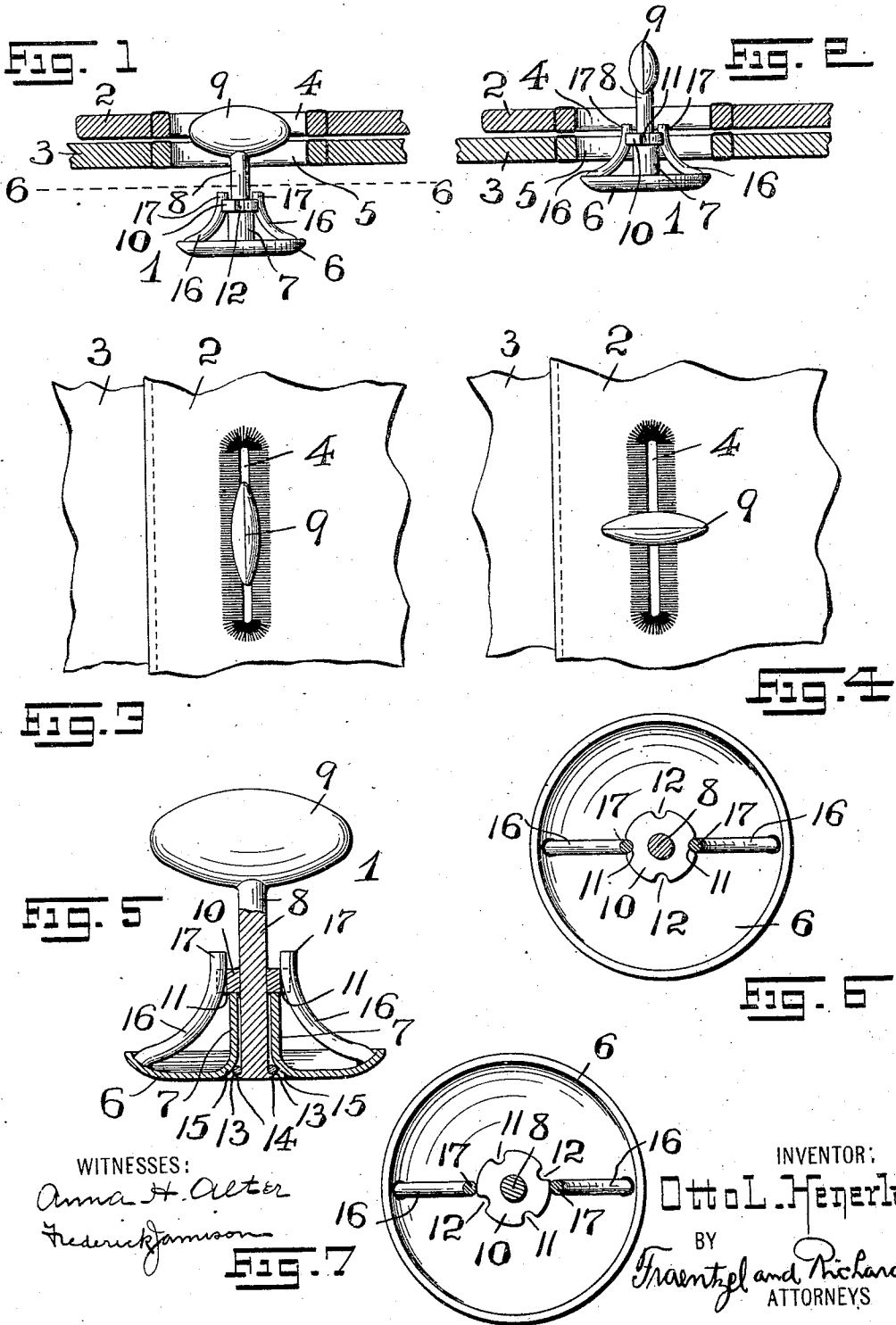


No. 855,575.

PATENTED JUNE 4, 1907.

O. L. HENERLAU.
BUTTON.

APPLICATION FILED NOV. 14, 1906.



UNITED STATES PATENT OFFICE.

OTTO L. HENERLAU, OF NEWARK, NEW JERSEY.

BUTTON.

No. 855,575.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed November 14, 1906. Serial No. 343,326.

To all whom it may concern:

Be it known that I, OTTO L. HENERLAU, 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 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.

The present invention relates, generally, to improvements in buttons; and the invention has reference more particularly to a novel form and construction of collar-button, which may also be used as a stud for a shirt-front, but the principle of which is preferably embodied in that class of buttons known in the art, as collar buttons and cuff buttons.

The invention therefore has for its principal object to provide a simply constructed article or device which may be used as a shirt-stud, collar-button, or a cuff button; and, which can be readily secured in its wearing position in the button-holes of a garment, and when arranged in position is positively secured against any accidental displacement therefrom.

A further object of this invention is to provide a novel shirt-stud or collar button which may be inserted in the button holes of the garment with ease and without wrinkling or smudging the surface of the garment, as so frequently occurs when adjusting or inserting the ordinary or common forms of shirt-studs or buttons therein.

Furthermore, the invention provides a quick and an easily manipulated means for retaining or locking the collar-button or shirt-stud in its operative relation with the garment after it is inserted in the button-hole thereof.

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

With these various objects of the present invention in view, the said invention consists, primarily, in the novel stud or collar button hereinafter set forth; and, furthermore, this invention consists in the arrangements and combinations of parts, as well as in the de-

tails of the construction of the same, all of which will be fully described in the accompanying specification, 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 drawings, in which the principles of the invention are embodied in the form of a collar-button or shirt-stud, the same being represented upon an enlarged scale.

In the said drawings, Figure 1 is a side view of the said collar-button or stud, and a vertical section of two overlapping portions of a collar or other suitable garment, the said section being taken longitudinally through the elongated button-holes, with the stud shown in a position about to be inserted therein. Fig. 2 is a similar view illustrating the collar-button or stud in its locked or retained position in the button hole of the garment after it has been inserted therein. Fig. 3 is a top or plan view of the collar-button or stud in position within the button-hole of the garment, but before the button is locked in its holding engagement therewith; and Fig. 4 is a similar view illustrating the button or stud in its locked or retained engagement with the garment. Fig. 5 is a vertical section of a shirt-stud or collar-button embodying the principles of the present invention, the ornamental head of the same, and a pair of spring-fingers or posts being shown on elevation. Fig. 6 is a horizontal section of the same taken on line 6—6 in said Fig. 1, representing the parts in one of their locked or retained positions; and Fig. 7 is a similar view, illustrating the locking means in the course of operation, and both of said views showing the parts made on an enlarged scale.

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

Referring now to the said drawings, the reference character 1 indicates the complete collar-button or shirt-stud, and 2 and 3 are the overlapping portions of a garment, such as a collar or shirt-front, the portion 2 being provided with an elongated button-hole 4, and the portion 3 being also provided with a similar button-hole 5.

The collar button or stud 1 consists, essentially, of a base-plate 6 preferably of a slightly concave conformation, the said base-plate being provided with a centrally disposed and

upwardly extending tubular-member or element 7, preferably forming an integral part of the said base-plate. The said tubular-member or element 7 is adapted to form a bearing or support for a shank or stem 8 of a button-head or stud 9, the said shank 8 being adapted to turn or revolve in said tubular member 7 of the base-plate 6.

The button-head or stud 9 is preferably made of an elongated conformation, providing greater length in proportion to its thickness or width; but, it may also be made of any other varying contour and surface design. This form of button-head or stud 9 adapts it to be easily and quickly pushed through the button-holes 4 and 5, and when the said head or stud is turned in its locking or holding engagement with the collar or shirt-front prevents absolutely any accidental displacement of the button or stud.

Suitably secured upon the shank or stem 8 of the button-head or stud, at a suitable point above the upper end of the said tubular-member 7 of the base-plate 6, is a retaining or lock-disk, plate or cam 10. This disk or cam is provided upon its outside periphery with two pairs of oppositely disposed grooves or notches 11 and 12 respectively. One pair of the oppositely disposed grooves or notches 11 being in a line corresponding with the longitudinal axis of the button-head or stud 9, and the other pair of oppositely disposed grooves or notches 12 being in a line at right angles to the longitudinal axis of said button-head or stud 9.

To prevent the upward displacement of the shank or stem 8 of the button-head or stud 9, from its operative relation with the tubular-member or element 7 of the base-plate 6, there is provided a ring or washer 13 which is secured upon the lower end of the said shank or stem 8, this ring or washer 13 being prevented from becoming disengaged from the said shank or stem by providing the lower end of the shank or stem with an upset or turned-over end-portion 14, whereby the parts are operatively connected, as will be clearly understood from an inspection of Fig. 5 of the drawings, the said ring or washer 13 engaging with a portion 15 of the under side of said base-plate 6, and preventing the shank or stem 8 from being withdrawn from the tubular-member 7 which forms its bearing.

Secured upon the base-plate 6 and near the outer edge thereof by means of solder or other suitable means, is a pair of oppositely disposed spring-members or fingers 16, the free end-portions 17 of which are adapted to engage with either pair of the previously mentioned grooves or notches 11 or 12, which are presented in alinement therewith.

Having thus described the general arrangements and constructions of the various parts comprising the button or stud, it remains now to set forth the manner of its insertion

in the button-holes, and its fixed wearing relation within the same.

For the purpose of inserting the button or stud, the grooves or notches 11 are brought in engagement with the free end-portions 17 of the spring members 16. The button-head or stud 9 is then presented beneath the lower button hole and owing to its elongated conformation is easily and quickly forced through the button holes. After the button-head or stud 8 has passed through the button holes, portions of the spring-members or fingers 16 also enter the button-holes and prevent the base-plate from turning, thereby securing its proper relation of the latter with the collar or shirt-bosom. The button-head or stud is then turned to present the pair of grooves or notches 12 for engagement with the spring-members or fingers 16; and, upon their engagement with said members, it will be seen that the button-head or stud 9 is locked or retained in such a position which brings the longitudinal axis of the said button-head or stud at right angles to the elongated button-holes, and thereby prevents any accidental displacement of the stud or button from the garment. By reversing the operations the button or stud may be as readily removed from the garment, when desired.

I claim:—

1. A button or stud, comprising a base-plate, provided with an upwardly extending tubular member, a shank provided with an elongated button-head or stud, said shank being adapted to revolve in said tubular member, a lock-disk provided with oppositely disposed grooves or notches, secured upon said shank, means adapted to engage with said lock-disk to lock the shank and its button-head or stud against turning, and means for preventing the displacement of the shank from the tubular member of the base-plate, substantially as and for the purposes set forth.

2. A button or stud, comprising a base-plate, provided with an upwardly extending tubular member, a shank provided with an elongated button-head or stud, said shank being adapted to revolve in said tubular member, a lock-disk provided with oppositely disposed grooves or notches, secured upon said shank, means adapted to engage with said lock-disk to lock the shank and its button-head or stud against turning, consisting of a pair of spring-members connected with said base-plate, the free end-portions of said spring-members being adapted to engage with the oppositely disposed grooves or notches of the lock-disk, substantially as and for the purposes set forth.

3. A button or stud, comprising a base-plate, provided with an upwardly extending tubular member, a shank provided with an elongated button-head or stud, said shank being adapted to revolve in said tubular

member, a lock-disk provided with oppositely disposed grooves or notches, secured upon said shank, means adapted to engage with said lock-disk to lock the shank and its button-head or stud against turning, consisting of a pair of spring-members connected with said base-plate, the free end-portions of said spring-members being adapted to engage with the oppositely disposed grooves or notches of the lock disk, comprising a ring or washer secured upon the said shank, said ring

or washer being adapted to engage with a portion of the base-plate, and turned-over portions upon the said shank to prevent the displacement of the said ring or washer.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 12th day of November, 1906.

OTTO L. HENERLAU.

Witnesses:

FREDK. C. FRAENTZEL,
FREDERICK JAMISON.