

No. 624,679.

Patented May 9, 1899.

J. W. PLANT.
SHIRT STUD LOCK.

(Application filed Mar. 6, 1899.)

(No Model.)

FIG. 1.

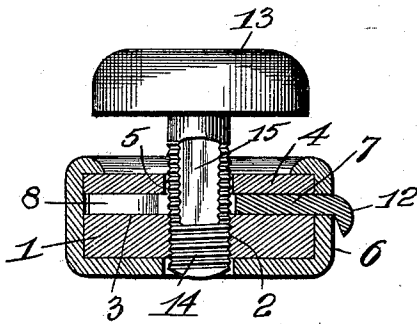


FIG. 2.

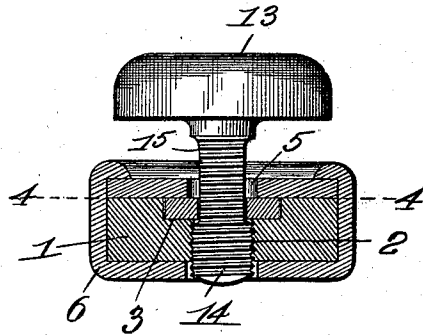


FIG. 3.

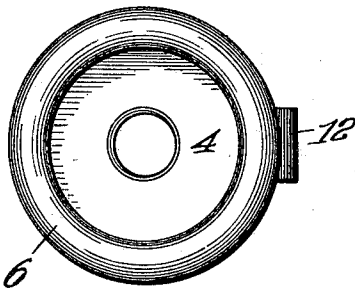


FIG. 4.

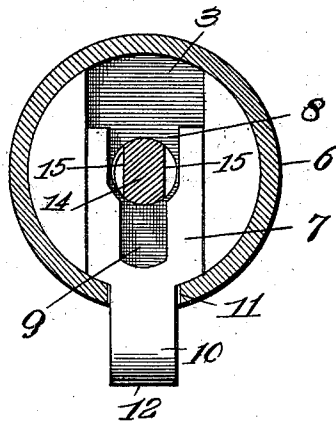


FIG. 5.

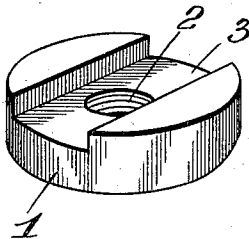
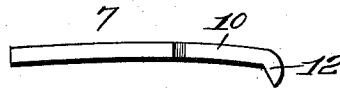


FIG. 6.



attest
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SHIRT-STUD LOCK.

SPECIFICATION forming part of Letters Patent No. 624,679, dated May 9, 1899.

Application filed March 6, 1899. Serial No. 708,059. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. PLANT, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Shirt-Stud Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to shirt-stud locks; and it consists of the novel construction, combination, and arrangement of parts hereinafter described and claimed.

Figure 1 is a vertical sectional view of a shirt-stud lock of my improved construction. Fig. 2 is a vertical sectional view taken through the center of the stud and at right angles to the section shown in Fig. 1. Fig. 3 is a plan view of the base or socket of my improved device. Fig. 4 is a horizontal sectional view taken approximately on the line 4-4 of Fig. 2. Fig. 5 is a view in perspective of a plate made use of in the base of the socket of my improved device. Fig. 6 is a side elevation of the locking-plate made use of in carrying out my invention.

In the construction of the device as shown 1 indicates the washer or plate, through the center of which is formed a screw-threaded aperture 2, and in the top of said washer or plate is a transversely-arranged groove 3. Located on top of the plate or washer 1 is a second plate 4, the same being provided with a centrally-arranged aperture 5, which coincides with the screw-threaded aperture 2. These two plates are held together by a sheet-metal casing 6, in the bottom of which is formed an aperture which coincides with the apertures 2 and 5.

Arranged to slide in the groove 3 in the plate or washer 1 is a locking-plate 7, the outer end of the body of which is provided with a slot 8, which is slightly wider than is the aperture 2 in the plate or washer 1. This slot 8 communicates with a slot 9, slightly narrower than the aperture 2, and formed integral with the body of the plate 7 is a neck 10, which extends outwardly through an aperture 11, formed in the casing 6, and a hook 12 is formed integral with the outer end of said neck. This locking-plate 7 is curved lon-

gitudinally, as clearly shown in Fig. 6, in order that when said plate is in an operative position its top surface will frictionally engage against the under side of the plate or washer 4, while portions of its under side will frictionally engage the face of the groove 3 in the plate 1.

The head of the button or stud 13 is provided with a screw-threaded shank 14, which enters the screw-threaded aperture 2, and intermediate of the ends of said shank 14 and on opposite sides thereof are formed the flat faces 15. The thickness through the shank 14 between said flat faces 15 is slightly less than is the width of the slot 9 in the plate 7.

To lock the two parts of the stud together, the operator engages the hook 12 of the neck 10 and moves the plate 7 laterally, as shown in Fig. 4, or until the wide slot 8 in the outer end of the body or plate 7 coincides with the screw-threaded aperture 2 in the plate or washer 1. The screw-threaded shank 14 of the stud or button 13 is now passed through the aperture 5 in the top washer or plate, through the wide groove 8, and is screw-seated in the aperture 2 in the plate or washer 1. When this operation is completed, the head or stud 13 is so turned as that the flat faces on the shank 14 are parallel with the sides of the slot 9 in the body of the plate 7, and said plate 7 is now moved laterally in the groove 3 by pushing upon the hooked end of the neck 10, and by so doing the flattened portion of the shank 14 is held in the slot 9 and the two parts of the device are firmly locked together, it being necessary to withdraw the plate 7, so as to bring the slot 8 into coincidence with the screw-threaded aperture 2 before the shank can be unscrewed from the base.

My invention is primarily intended to be used for shirt-studs, buttons, ear-rings, and similar articles of jewelry, though it will be readily seen how a very complete and efficient nut-lock can be produced by following the construction shown and described.

My improved device is very simple and inexpensive, may be easily put together or detached, the two portions of the shirt or other garment on which it is located are firmly held

together, and the stud after being in position once and locked cannot be lost or surreptitiously removed.

I claim—

5 1. In a device of the class described, a base, in which is formed a transverse groove and through which base is formed an aperture, a portion of which is screw-threaded, a plate held to move in the groove in said base, in
10 which plate is formed a slot wider than the aperture through the base and a slot narrower than the aperture through the base, a screw-threaded shank having oppositely-arranged flat faces, against which faces the sides of the
15 narrower portion of the slot engage when the parts are in a locked position, and a stud integral with the upper end of said shank, substantially as specified.

2. In a device of the class described, a head,
20 a shank integral with said head, on the opposite sides of which shank are formed flat faces, a base provided with a screw-threaded aperture to receive the shank, in which base is formed a transversely-arranged groove, a
25 plate held on top of said base, in the center of which plate is formed an aperture, a locking-plate held to slide in said groove, in which locking-plate is formed a slot, the sides of which engage against the flat faces of the

shank when the parts are in a locked position, 30 and which locking-plate is slightly curved longitudinally in order to frictionally engage against the under side of the top plate and against the face of the groove in the base, substantially as specified.

3. In a device of the class described, the 35 head 13, the shank 14 integral with said head, on the opposite sides of which shank are formed flat faces 15, a pair of plates 1 and 4, in which plate 1 is formed the transversely- 40 arranged groove 3; the casing 6 surrounding said plates, there being a screw-threaded aperture formed through the plate 1, the curved locking-plate 7 arranged to move in the groove, and to frictionally engage against the 45 under side of the plate 4 and against the face of the groove 3, which plate is provided with a pair of adjoining slots, one of which is narrower than the other and equal in width to the thickness of the shank between the flat 50 faces thereon, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. PLANT.

Witnesses:

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ALBERT J. McCAULEY.