

A. KENT.

Safety-Studs, &c.

No. 136,166.

Patented Feb. 25, 1873.

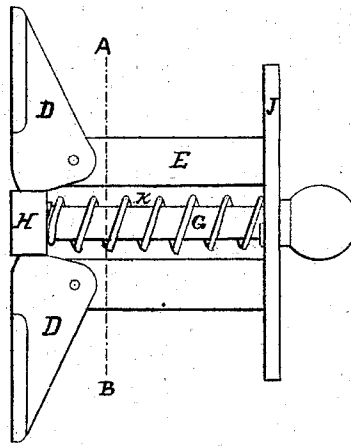


FIG. 1

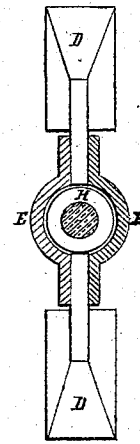


FIG. 2

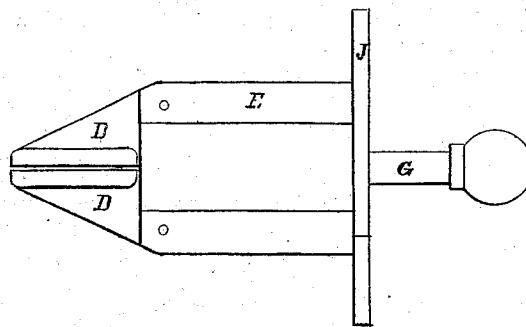


FIG. 3

John Friedrich
Mort M. Leggett.

Alexander Kent

UNITED STATES PATENT OFFICE.

ALEXANDER KENT, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN FRIEDRICH, OF SAME PLACE.

IMPROVEMENT IN SAFETY-STUDS, &c.

Specification forming part of Letters Patent No. 136,166, dated February 25, 1873.

To all whom it may concern:

Be it known that I, ALEXANDER KENT, of Baltimore, Maryland, have invented certain Improvements in the Mechanism for Fastening or Securing Buttons, Studs, and other articles of jewelry, of which the following is a specification:

My invention relates to the combination of a hollow cylindrical stem or shank, a spiral spring, a movable piston, and hinged arms, in such a manner that said piston, when moved and held in place by said spring, is capable of throwing said arms at right angles with said shank, and of locking them firmly in that position, thus forming a perfectly secure fastening. Further, this combination is such that the withdrawal of said piston from between the shoulders of said arms allows these arms to fall back on a line with the said shank, and thus permits the stud or button to be readily inserted or removed without marring bosom or cuffs.

Figure 1 is a side elevation, with one-half the cylinder removed, of a stud or button embodying my invention, and represents it locked, as it would be in the shirt or cuff. Fig. 2 is a section cut off at the line A B, and gives an end view of the shank with arms extended, as in Fig. 1. Fig. 3 is a side elevation, showing the stud or button as it would appear when being inserted or withdrawn.

E is the hollow cylindrical stem or shank, and is ribbed from top to bottom on two opposite sides. These ribs serve several purposes, and form an important feature of my fastening. First, they strengthen the shank, without making it clumsy or in any way undesirable. Second, they keep the stud or button always in the same position in the elongated eyelet-hole. Third, they give room for the substantial hinging of the arms D D, permitting the pivots on which said arms hinge to be sufficiently removed from the inner surface of the cylinder. G and H are the rod and piston, by means of which the arms D D are projected and locked at right angles with the shank E. K is the spiral spring which forces the piston downward in the cylinder against the shoulders of said hinged arms, causing them to turn on their pivots in the ribs of the shank, and locking them at right an-

gles with the same—said shank. J is the disk to which the shank is attached. The drawing shows a disk and ball; but instead of this ball there may be another disk to which the piston-rod shall be attached, and by which it may be withdrawn, this being merely a matter of taste or style.

The manner of operating this fastening is as follows: When inserting it, the disk or ball, as the drawing represents it, is grasped by the thumb and finger of one hand, while the extended arms are taken between the thumb and finger of the other. By using the nails of the thumb and finger as levers, and the inner disk as a fulcrum, the resistance offered by the spring is readily overcome and the piston withdrawn from between the shoulders of the arms. They may now be closed, so as to present in appearance a continuation of the shank, as seen in Fig. 3. The fastening may now be inserted in the eyelet-hole and the piston released. By the pressure of the spring it (the piston) is forced against the shoulders of the closed arms, which meet in the center of the cylinder. The pivots on which the arms hinge being in the ribs of the shank, and at a sufficient distance from the point of pressure, said arms are instantly forced outward at right angles with said shank, and locked in that position by the piston, which now occupies the cylinder at a point below the pivots and between the shoulders of the extended arms. In withdrawing this fastening it is only necessary to grasp the outer disk or ball between the thumb and finger and pull with sufficient force to overcome the resistance of the spring. The piston being withdrawn, the pressure of the eyelet-hole closes the arms and allows the fastenings to be easily removed.

I am aware that combinations, in some respects similar, have already been patented; but I believe there is sufficient difference between my combination and all others on which to ground two distinct and important claims. In those patents combining the spiral or other spring with a single hollow shank and hinged arms, said arms hinge upon a single pivot passing transversely through the center of the shank, resulting only in a spring-fastening. My combination is with arms hinged on separate pivots, and results in a lock-fast-

ening. This radical difference will be found to exist between my improvement and the patent of Jefferson; as also that of Rogers. In the Wilcox patent there is a combination of hinged arms and a locking-slide, in which the arms hinge on separate pivots, but not in a single or continuous hollow shank. Again, in this combination there is no spring to make the fastening self-acting or secure.

I claim, therefore, as my invention in a fastening for buttons or jewelry—

1. The combination of the spiral spring K

and the movable piston H G with the arms D D hinged on separate pivots, substantially as and for the purpose hereinbefore set forth.

2. The arms D D when hinged on separate pivots in the single hollow stem or shank E, substantially as and for the purpose hereinbefore set forth.

ALEXANDER KENT.

Witnesses:

C. GUNTHER,
JOHN FRIEDERICH.