W. L. BUNDY.
Sleeve-Buttons.

No. 214,486. Patented April 22, 1879.

Fig. 1.

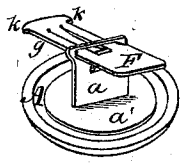


Fig. 2.

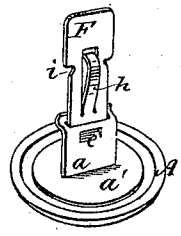


Fig. 3.

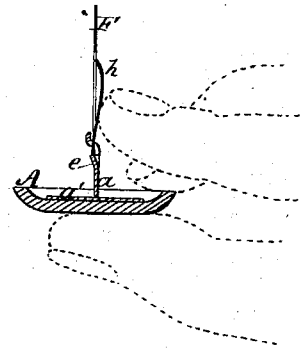


Fig. 4.

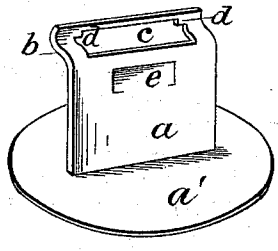


Fig. 5.

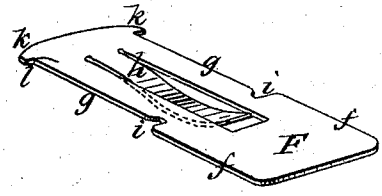


Fig. 8.



Fig. 7.

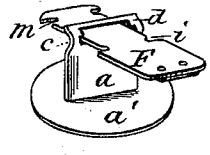
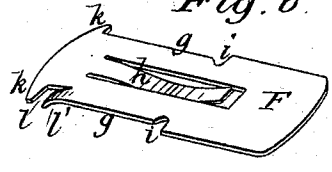


Fig. 6.



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UNITED STATES PATENT OFFICE

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IMPROVEMENT IN SLEEVE-BUTTONS.

Specification forming part of Letters Patent No. **214,486**, dated April 22, 1879; application filed March 8, 1879.

To all whom it may concern:

Be it known that I, WILLARD L. BUNDY, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Sleeve-Buttons; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of the button with its safety attachment in position as when secured to a garment. Fig. 2 represents a perspective view of the same button with its safety attachment in line with its shank. Fig. 3 represents a central section of the button and its attachment in the same position as in Fig. 2. Fig. 4 represents a perspective view of the shank of the button. Fig. 5 represents a perspective view of the safety attachment. Fig. 6 represents the same safety attachment recessed at one end to allow it to enter in the slot of the shank. Figs. 7 and 8 represent views of substantially the same safety attachment, but introduced into the slot of the shank from the side opposite to that shown in Figs. 1, 2, and 3.

My invention relates to buttons especially adapted for use with slitted button-holes, in contradistinction to circular eyelet-holes, and susceptible of use as cuff, collar, or bosom studs, being formed with a thin flat shank, and also a flat safety attachment, to secure it against loss or displacement.

Heretofore buttons formed with a flat shank have been made of plates permanently secured upon the ends of said shank; but this construction has been found very injurious to button-holes. Others have been made with a flat ring or double plate inclosing a spring, and secured to the shank by pins passing through holes previously bored in said shank; but this style of shank and safety attachment is complex, being made of at least four pieces drilled, formed, and secured together, requiring much labor and time in their construction.

The object of my invention is to produce a very simple button having a flat shank, so that it will not turn after being introduced into the button-hole, and to secure said flat-shank button by a safety attachment or fastener made complete by stamping it at one operation out of a flat piece of metal, the whole shank being also in the same manner stamped of sheet metal, thus dispensing with all drilling or riveting of parts in the whole construction of the button.

My invention consists in a stud or button shank formed of thin sheet metal, bent to one side, near its free end, and provided with a slot to receive its safety attachment and with shoulders within said slot, to engage with depressions in said safety attachment, and retain both securely together, and with a projection to sustain the fastener in line with the shank and facilitate its introduction within a button-hole.

It consists, also, in a flat sheet-metal safety attachment for buttons, formed with long recessed ways in two of its edges to enter the main slot of the shank, and with indentations upon said ways to receive shoulders formed within the slot of the shank.

It consists, also, in forming the safety attachment in one piece with a spring stamped out of said attachment, and with a slit at one end, so that it may be introduced within the slot of the shank.

In the drawings, *a* represents the shank, attached, in the present instance, to a base-plate, *a'*, and the latter to a button-disk, A. This shank is made of a single piece of thin sheet metal, and is bent to one side at *b*, and bent again to bring its free end nearly parallel with the lower portion of the shank. The bent portion is slotted at *c*, to receive a safety attachment or sliding fastener, F, to secure the button in place. This fastener F is formed of a rectangular piece of thin sheet metal of about the same width at *f f* as the shank of the button. This width is reduced on both edges of the plate at *g* sufficiently to enter and slide freely through the slot *c*. This fastener is also slitted longitudinally and transversely through its center, to form therein a flat strip of metal, *h*, homogeneous with it, to be bent in the form of a spring, as shown at *h*, to force the fastener in the slot *c* toward the free end of the shank, where this slot is reduced in its length by the shoulders *d* within said slot. These shoulders are formed so as to engage within notches *i* in the edges and about the

middle of the length of the fastener, so that it may be retained there across the shank by the expansive force of the spring *h*. The fastener has projections *k* at one end of the ways *g*, to retain the fastener permanently connected to the shank.

Various methods may be used in forming or bending the fastener so that it can be introduced in the slot *c;* for example, by making the space between the ends of the projections *k* a little smaller than the length of the slot *c*, and elongating them by compression, as if submitted to the blows of a light hammer upon an anvil, or by making the space between the ends *k* from the first slightly longer than the slot *c*, and introducing them by curving the plate between said ends; or, preferably, as shown in Fig. 6, by cutting an angular or curved slit at *l*, and first bending the portion *l'*, then introducing the fastener into the slot *c*, and returning said portion *l'* to its original location, as shown in Fig. 5.

To introduce the safety attachment or fastener and shank of the button within and through a button-hole, the operation is as follows: Supposing the fastener to be locked to the shank, as shown in Fig. 1, by pressing and at the same time drawing a finger on the fastener, the spring *h* will be depressed, the shoulders *d* released from the notches *i*, and the fastener moved along until arrested by the projections *k*. The whole fastener F is then turned over and made to assume the position shown in Figs. 2 and 3, its extremity resting on a projection, *e*, on the side of the shank. This projection may be soldered on; but to simplify the construction of this part, I force it out of the metal of the shank with a tool that cuts or separates it only at its upper edge. In that position the shank and fastener form an early continuous plate, easily introduced into a button-hole, after which it is returned to the position shown in Fig. 1. To remove the button from a button-hole, the first part of this operation is repeated and the fastener brought in line with the shank.

In Figs. 7 and 8 the shank *a* is also bent, and provided with a slot, *c*, and shoulders *d;* but the fastener F is passed through said slot *c* from the opposite side of the shank, and retained nearly in continuation with it by the shoulders *d* engaging with notches *m* in the edges of the fastener; but it still presents objectionable features, and I prefer the first mode of introducing and retaining the fastener within the slot of the shank.

Having now fully described my invention, I claim—

1. A stud or button shank formed of thin sheet metal, bent to one side near its free end, and provided with a slot, *c*, with shoulders *d* within said slot, to reduce its length, and adapted to engage with notches or depressions *i* in the edges of its safety attachment, substantially as and for the purpose described.

2. The combination of a flat sheet-metal attachment for buttons, formed with recessed ways *g* in its edges, notches *i* about the middle of its length, and a spring, with a sheet-metal button-shank having a slot provided with shoulders *d*, substantially as and for the purpose set forth.

3. In combination with a sheet-metal attachment formed with recessed ways *g*, and projections *k* at one of its extremities, a sheet-metal shank, *a*, bent as shown at *b*, provided with a slot, *c*, near its extremity, and a projection, *e*, upon one of its sides, substantially as and for the purpose described.

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