(No Model.)

F. E. WILLIAMS.

BUTTON.

No. 473,861. Patented Apr. 26, 1892.

Fig. 1

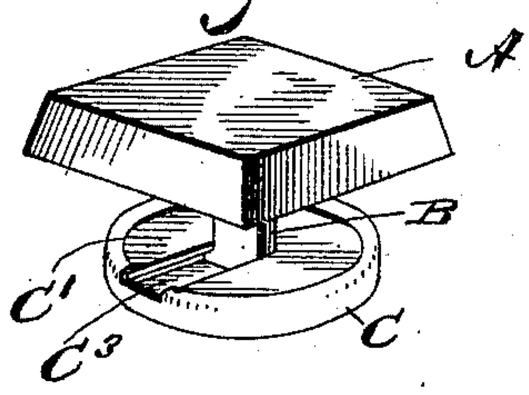


Fig. 2.

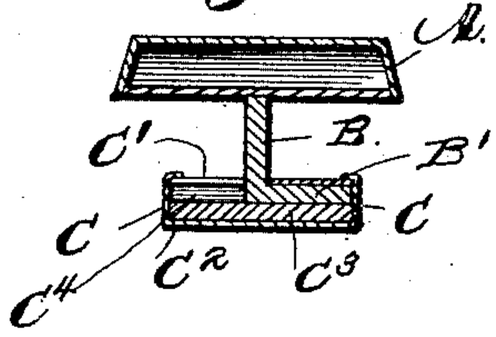


Fig. 3.

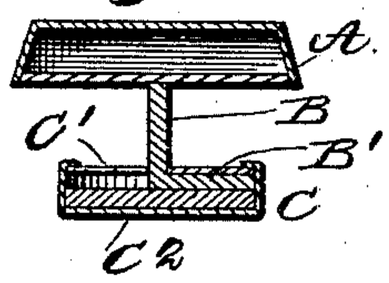


Fig. 4.

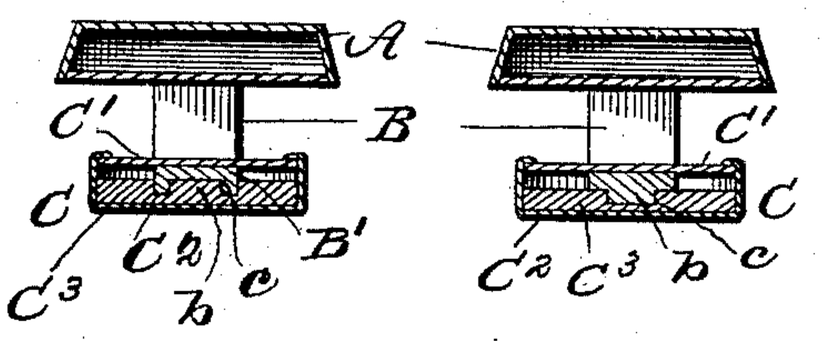


Fig. 5.

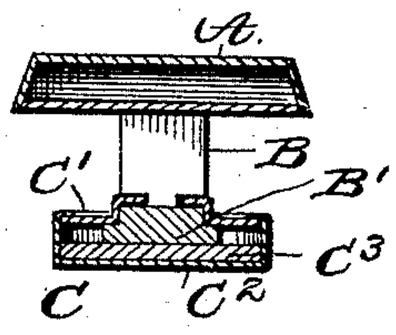
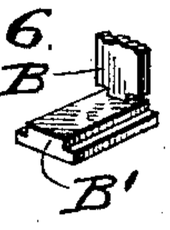


Fig. 6.



Witnesses
Samuel Ker.
D. H. Naylor

Inventor
Frank E. Williams
by Charles S. Hoyer
Attorney

UNITED STATES PATENT OFFICE.

FRANK E. WILLIAMS, OF NEW YORK, ASSIGNOR OF ONE-HALF TO JAMES E. HILLS, OF BROOKLYN, NEW YORK.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 473,861, dated April 26, 1892.

Application filed April 2, 1891. Serial No. 387,355. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. WILLIAMS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Buttons or Studs; 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.

My invention relates to improvements in buttons or studs; and it consists of the construction and arrangement of the parts, as will be more fully hereinafter described, and pointed out in the claims.

In the drawings, wherein like letters of reference are used to designate similar parts in the several views, Figure 1 represents a perspective view of a button or stud embodying my invention. Fig. 2 represents a transverse vertical section of the device shown in Fig. 1. Figs. 3, 4, and 5 represent detail views of modifications of the device. Fig. 6 represents a detail perspective view of the foot shown by Fig. 5.

Referring to the drawings, A designates the head of a button or stud, which may be of any desired form and ornamentation, and is provided with a shank or post B, having a straight foot B′, bent or otherwise constructed at an angle thereto.

C designates a shoe adapted to slide on said foot B′, and may be connected thereto in several different ways, as shown. The said shoe is provided with a slotted cap-plate C′ and a back plate C^2, connected to said cap-plate. As shown in Figs. 1 and 2, said cap and back plates inclose and support a plate C^3 therein, which is constructed with a straight groove or channel C^4, having a flat bottom, and in said groove or channel is mounted the said foot B′, whereby when said shoe is moved it is retained in a true position on the foot B′.

In Fig. 3 the plate C^3 is without the channel or groove C^4, the foot B′ in this instance moving on the plain surface of said plate C^3 and guided by the radial slot in the cap-plate C′.

In Fig. 4 the shoe is shown in two different ways with the plate C^3, and in the first figure illustrates the foot B′ as having a groove or channel *c* in its under side engaging a ridge or struck-up portion *b* on the said plate C^3 and confined thereagainst by the cap-plate C′, the ridge in this instance guiding the foot. The next representation in Fig. 4 shows the foot constructed with a ridge or projection *b* on its under side to engage a groove *c*, formed within the plate C^3.

In Fig. 5 the cap-plate is shown formed with a ridge and the upper surface of the foot with a groove, though it is obviously apparent that this arrangement of parts may be reversed—that is, the ridge formed with the upper surface of the foot and the groove in the cap-plate.

In all of the forms illustrated the shoe is slid to one side on the foot for insertion in a buttonhole and after insertion is moved back centrally with the lower end of the post.

By making the foot B′ straight instead of curved the construction is simplified, as a curved bending operation or formation of an under concavity becomes necessary where the foot presents a curved bearing-surface. Further, in the use of a curved foot a shorter post is employed, which, owing to its decrease in length, might interfere with the proper closing manipulation of the shoe where cuffs of different thicknesses of plies are engaged by the device. Further, where a curved foot is employed and the shoe moves at an angle thereon the strain would be brought to bear directly on the point of jointure of the foot with the shank and be more liable to break the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A button or stud head having a shank or post with a horizontal foot at the lower end thereof with a flat bearing-surface and extending from one side of the shank only at a right angle, a sliding shoe in which said foot is mounted having an inclosing cap-plate with a straight radial slot therein of less width than the foot and extending from the center completely to the periphery of the shoe, said head being immovable and the shoe adjustable on said shank and foot by pushing it in a hori-

zontal plane, and a plate in connection with said shoe on which said foot has bearing, substantially as described.

2. A button or stud head having a shank with a horizontal foot at an angle thereto and provided with a flat bearing-surface, said foot being at the lower end of the shank and extending from one side only thereof, a sliding shoe movable in a straight horizontal plane and provided with a cap-plate having a straight radial slot extending from the center completely to the periphery thereof, and a bottom plate in connection with said shoe on which the shoe has bearing and movement, one of said parts having a channel or groove into which the other projects, substantially as described.

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

FRANK E. WILLIAMS.

Witnesses:
CHARLES S. HYER,
SAMUEL KER.