

(No Model.)

P. F. ALLEN.  
STUD FOR SHIRTS, &c.

No. 288,293.

Patented Nov. 13, 1883.

Fig. 1.

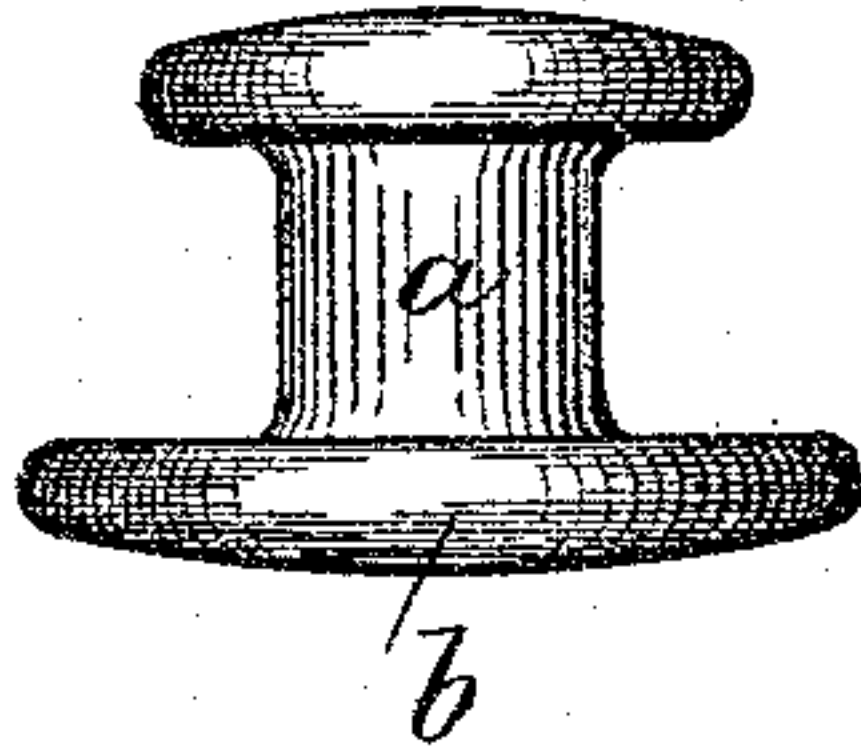


Fig. 2.

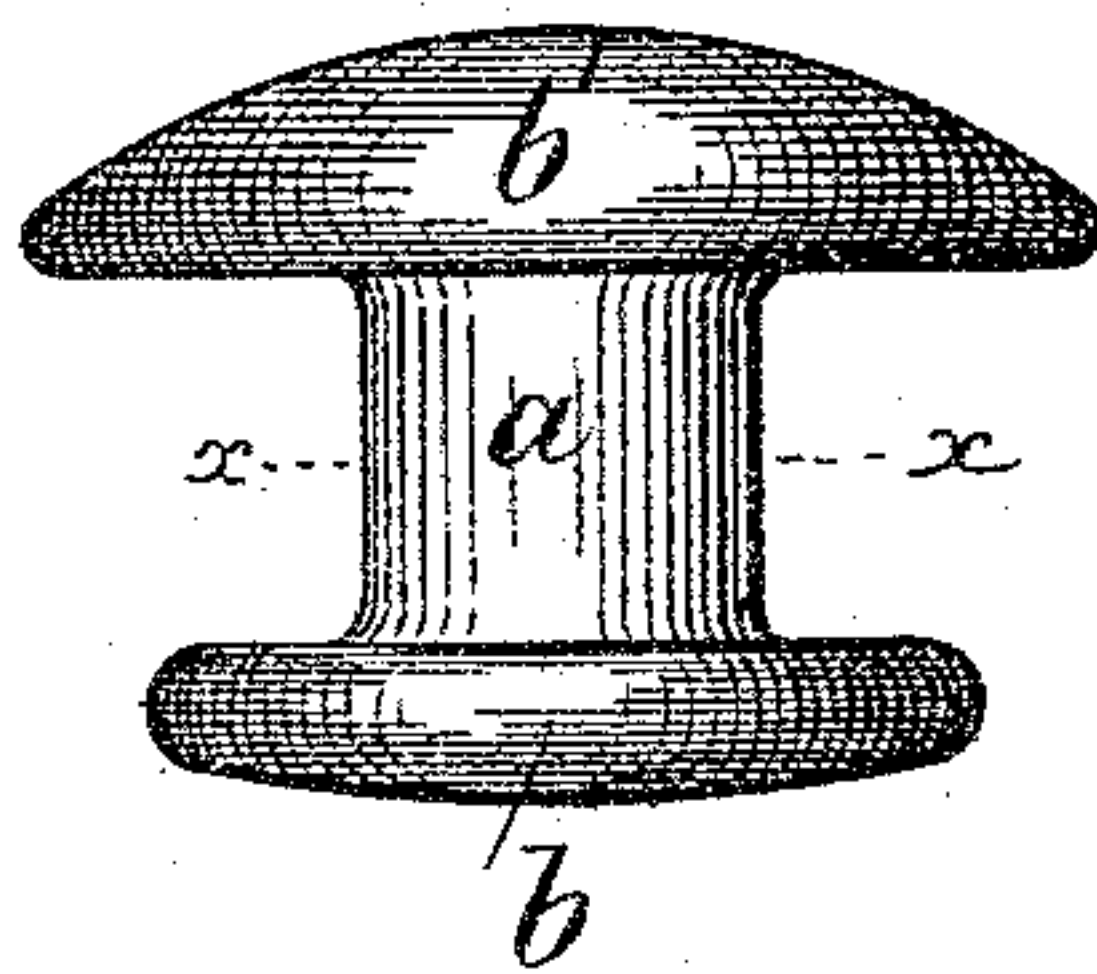


Fig. 3.

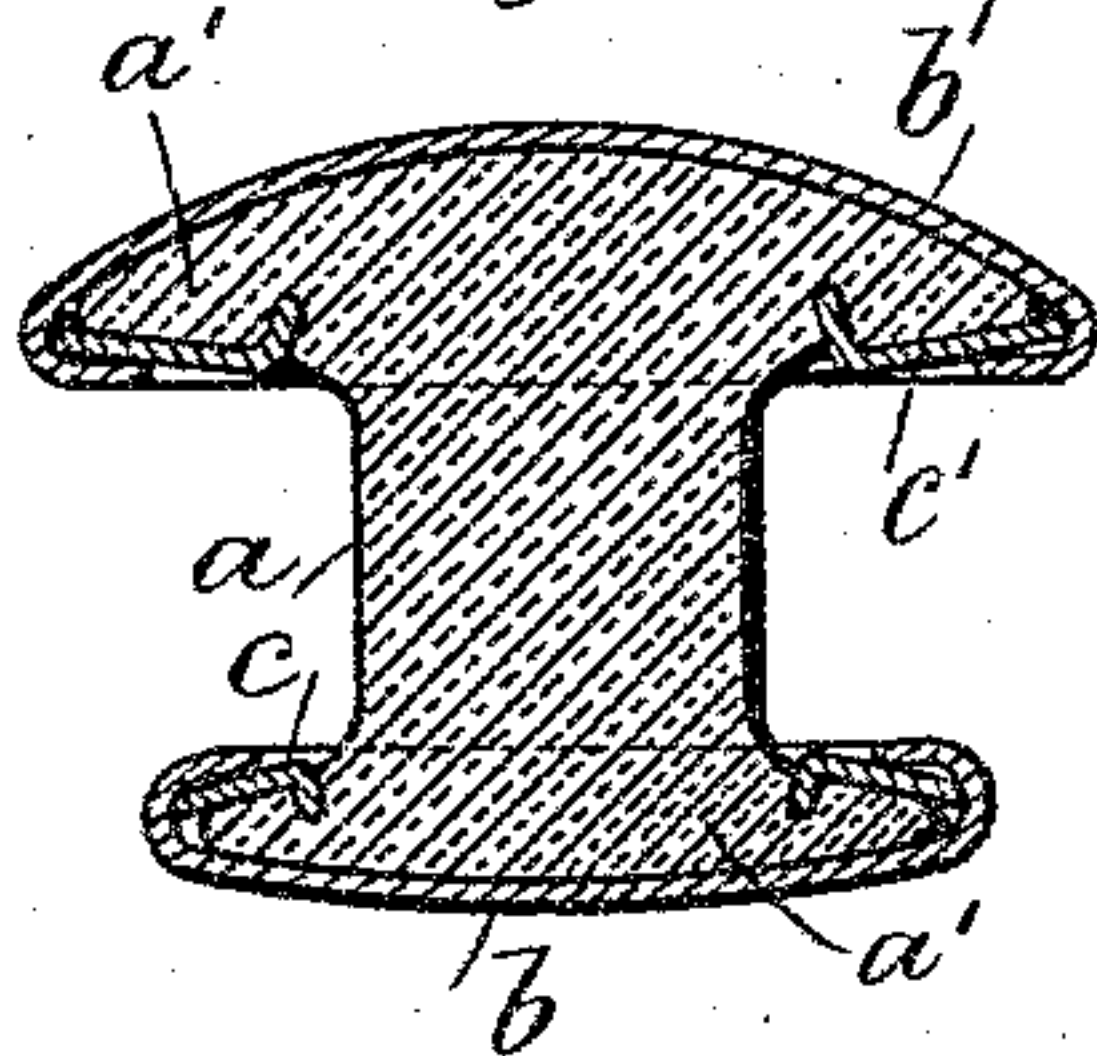
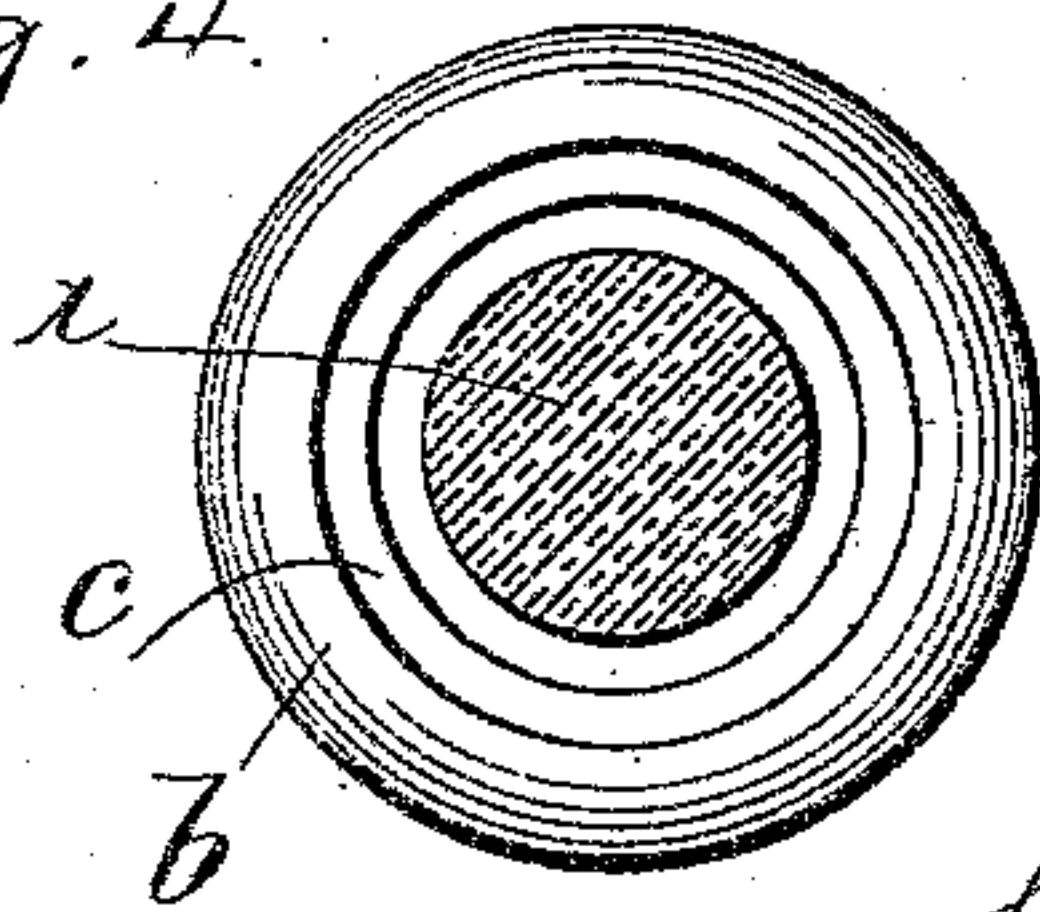


Fig. 4.



Witnesses

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att'y



# UNITED STATES PATENT OFFICE.

PHILIP F. ALLEN, OF LONDON, ENGLAND.

## STUD FOR SHIRTS, &c.

SPECIFICATION forming part of Letters Patent No. 288,293, dated November 13, 1883.

Application filed September 14, 1883. (No model.) Patented in England October 7, 1881, No. 4,361.

*To all whom it may concern:*

Be it known that I, PHILIP F. ALLEN, of London, England, have invented a certain new and useful Improvement in Studs or Fastenings for Shirt Collars and Cuffs; and the following is declared to be a description of the same.

Letters Patent in Great Britain were duly granted to me for this invention October 7, 1881, No. 4,361.

10 Studs or fastenings for shirt collars and cuffs and similar articles of wearing-apparel have heretofore been made of gold, silver, and other metals, and also of bone, ivory, mother of pearl, and vegetable ivory, and these latter  
15 substances are almost exclusively employed in the cheaper grades of such goods. These studs or fastenings are rigid and brittle, frequently breaking with a slight blow, and they often by their rigidity cause unpleasantness to  
20 the body of the wearer when pressed against the flesh.

My invention is designed to furnish a stud that shall be flexible in its shank, yielding freely to a sudden pressure, and binding against  
25 the edges of the button-hole sufficiently to secure the stud in place and hold the parts of the garment together, and yet not abrading the surface of the fabric, as in the old form of stud.

30 In carrying out my invention I employ a flexible shank or stem to the stud, that is made entirely of india-rubber, and I employ in connection with said flexible shank a metal base and cap-plate secured to the same, and finished or ornamented in any desired manner.

35 In the drawings, Figure 1 is an elevation of a shirt-stud. Fig. 2 is an elevation of a sleeve-button. Fig. 3 is a vertical section of the same, and Fig. 4 a cross-section at *x x*. These  
40 figures are drawn upon an enlarged scale.

The shank or stem *a* is made of solid india-rubber, and in one piece with the projecting ends *a'*. The shank *a* may be of any desired

thickness or length, and the projecting ends  
45 *a'* of any desired width, according to the kind of a button to be made.

The base-plate *b* and intermediate ring, *c*, and the cap-plate *b'* and intermediate ring, *c'*, are employed in completing the stud or fastening.

50 In the operation of manufacturing these studs the peripheral edges of the base and cap plates *b b'* are struck up at about right angles to the plate. The intermediate rings, *c c'*, are behind the respective projecting ends *a'* of the  
55 rubber shank, and the rings and ends *a'* are inserted in their respective plates, and suitable dies are employed to turn over the edges of the plates *b b'* down upon the rings *c c'*, clamping them and the rubber ends *a'* securely  
60 in place.

The cap-plate *b'* may be ornamented in any desired manner, and the rings *c c'* may be dispensed with, employing the plates *b b'* only, if found advisable.

65 I am aware that a shirt-stud has been made employing between the base and top plate one or more elastic bands or rings and metallic pins to connect the parts together; but these I distinctly disclaim.

70 My improved stud or fastening may be used for shirt-collars, cuffs, gloves, coats, &c.

I claim as my invention—

1. In combination with the metallic base and top plate of a stud or other fastening, a  
75 solid india-rubber shank or stem, substantially as set forth.

2. The combination of the plates *b b'*, rings *c c'*, and solid india-rubber stem or shank *a*,  
80 substantially as set forth.

Signed by me this 29th day of August, A.  
D. 1883.

PHILIP F. ALLEN.

Witnesses:

THOMAS R. CORKE,  
GEORGE BUIST.