(No Model.)

P. A. RAYMOND.

BUTTON.

No. 405,179. Patented June 11, 1889.

Fig 1

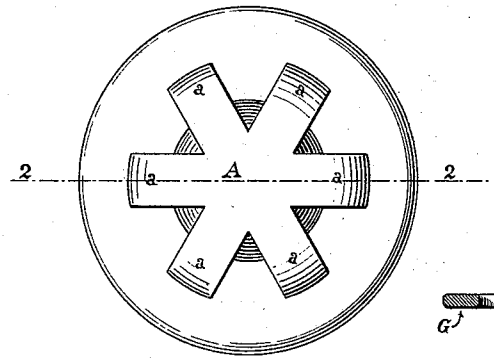


Fig 4

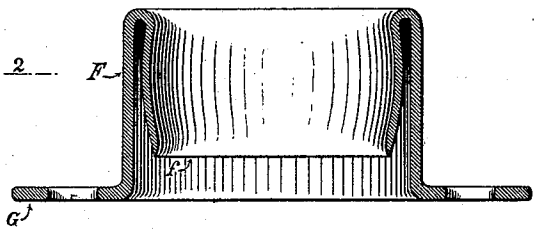


Fig 2

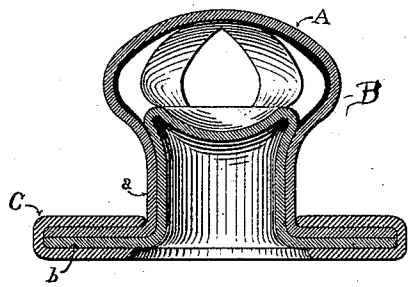


Fig 5

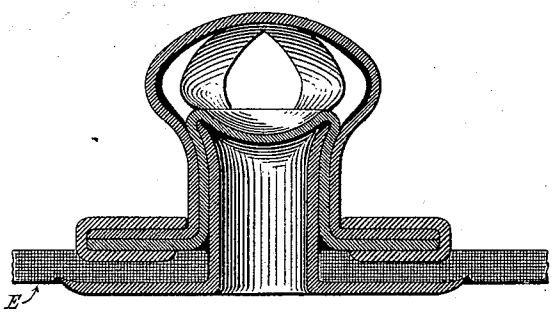


Fig 3

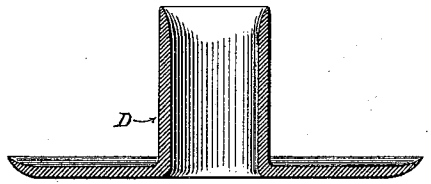
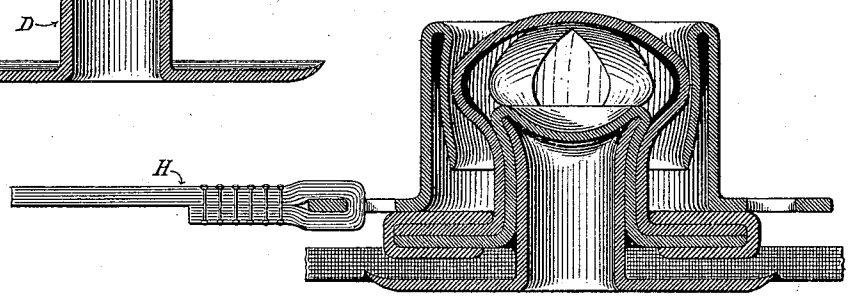


Fig 6



WITNESSES

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UNITED STATES PATENT OFFICE.

PIERRE ALBERT RAYMOND, OF GRENOBLE, FRANCE, ASSIGNOR TO PERRIN FRÈRES, OF SAME PLACE.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 405,179, dated June 11, 1889.

Application filed April 7, 1888. Serial No. 269,905. (No model.)

To all whom it may concern:

Be it known that I, PIERRE ALBERT RAYMOND, a citizen of the Republic of France, residing at Grenoble, France, have invented certain new and useful Improvements in Buttons, of which the following is a specification.

In my patents, No. 349,453 of September 21, 1886, and No. 369,882 of September 13, 1887, I have described and claimed a fastening device for gloves or other fabrics in which there is attached to one part of the fabric a button having a posterior conical opening and to the other part of the fabric a spring-stud adapted to enter the said opening and be retained therein by the resiliency of the spring, so that the two parts are thus united. In the said patents the spring-stud was formed by a semi-cylindrical spring-cap, which was made from a blank, having a series of radial spring-fingers bent down and united to a common base. Within this spring-cap was a dome-shaped piece having a horizontal flange at its lower edge, which formed the base to which the spring-fingers were united by a clamping-ring. The clamping-ring also inclosed the upper flange of an eylet, which was adapted to be put down through the fabric and riveted over from the under side, so as to hold the spring-stud in place on the fabric.

I have found that the eyelet above mentioned necessitated a hole in the fabric of considerable size, and that an unnecessarily large number of pieces were essential to the construction of the spring-stud set forth in the said patents. To avoid these objections I have devised the construction set forth in the following specification, in which construction the dome forms a fundamental supporting part so rigid as to admit of an eyelet being riveted over against it and affording a seat for the external spring by which the stud is made to engage with the embracing button or socket. Instead of employing the eyelet with its upper flange held in the clamping-ring, I make use of an eyelet having a smaller shank and a larger flange, which is inserted from beneath the fabric, and, extending up into the dome-piece above described, is met by a depending lug in the top of the said dome-piece, against which it is forced, and its upper edge thereby riveted over, so that it cannot be withdrawn, the spring-cap being thus held firmly in position upon the fabric. I have also devised a button or socket for receiving the spring-cap, which may be readily attached to umbrella-bands or other fabrics.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan of a spring-stud; Fig. 2, a section of the same on the line 2 2. Fig. 3 is a transverse section of the fastening-eyelet. Fig. 4 is a transverse section of the receiving-socket. Fig. 5 is a transverse section of the spring-stud held in position upon the fabric by the fastening-eyelet, and Fig. 6 is a transverse section of a spring-stud within the receiving-socket.

In the figures, A represents the spring-cap, having the radial fingers *a a*, which are bent over and united to the common base formed by the horizontal flange *b* of the interior dome B.

C is a clamping-ring holding the spring-fingers *a* against flange *b*. This clamping-ring and the base of the dome form a flange extending beyond the spring, by which the stud may be held while the eyelet is being forced into position. The upper end of dome B, instead of being rounded up, as in my previous patents mentioned above, is depressed so as to form a re-entrant cavity on its upper side and a depending convexity on its lower side. This makes a sort of annular riveting-depression in the upper part of the dome or support.

D is an eyelet having a broad flange at its base and adapted to pass through the fabric E, and entering the dome B and meeting the depression at its upper end it is thereby riveted over at its upper end so that it cannot be withdrawn, thus holding the spring-stud firmly in its place on the fabric.

F represents a new receiving-socket for the spring-stud which I have devised. It is formed by a cylindrical sheet of metal bent inward upon itself, the inner part *f* being slightly curved to give it a firmer hold upon the spring-stud. The upper edge of the cylinder being turned over gives a rounded edge, rendering the socket less liable to catch or tear objects with which it may come in contact, and it is also less liable to be battered down by accidental blows or pressure. While heretofore all such receiving-sockets for the spring-

stud have been attached from beneath by an eyelet or similar device, I have provided it in this case with lateral loops or eyes G, to which a band H may be attached. While these lateral loops or eyes G may be extended completely around the base of the socket to form an annular flange, I prefer to limit the loops to diametrically-opposite points of the socket, with only sufficient material around them to insure their proper strength. This form of socket is substantially rigid, the spring of the stud being relied upon for resilient engagement between the two parts. The upper part of the socket being turned over avoids sharp edges, and may, as shown, form a convenient seat for the spring-stud.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with an embracing-button attached to one part of a fabric, of a spring-stud attached to the opposite part and adapted to engage the said button, the stud being composed of a depressed dome or support forming an annular riveting-surface and an exterior engaging spring, and being fastened to the fabric by an eyelet adapted to enter the back of the dome or support and be riveted over by contact with said depression.

2. A spring-stud adapted to engage with a receiving-button, consisting of a depressed dome or support forming an annular riveting-surface and a spring having a series of radial arms with their extremities attached to the base of the said dome, the stud being attached to the fabric by an eyelet adapted to enter and be riveted over by contact with said depression.

3. A spring-stud for engagement with a receiving button or socket, consisting of a depressed dome or support forming an annular riveting-surface and an exterior engaging spring, combined with a fastening-eyelet, the eyelet being adapted to enter from behind and be riveted over by contact with the said depression, and the dome having a flange extending beyond the spring, by which it is held while the eyelet is forced into position.

4. The combination, with a spring-stud having a rigid dome or support for attachment to the fabric and an external engaging spring, of a receiving-socket therefor, consisting of a sheet-metal cylinder having its upper part turned over to avoid sharp edges and provided with a lateral attaching loop, the whole forming a substantially rigid socket with which the stud has a spring engagement.

PIERRE ALBERT RAYMOND.

Witnesses:
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A. LEMÉRE.