(No Model.)

D. P. FITZGERALD.

BUTTON.

No. 397,350. Patented Feb. 5, 1889.

Fig. 1.

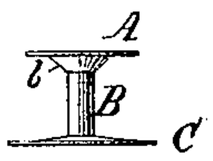


Fig. 2.

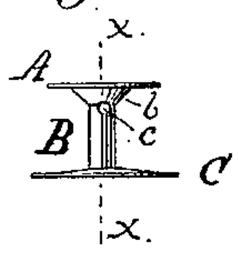


Fig. 3.

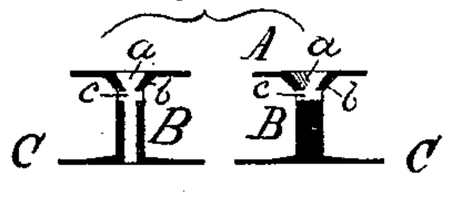
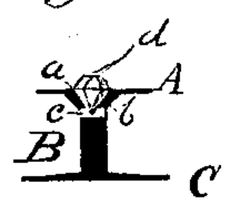


Fig. 4.



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UNITED STATES PATENT OFFICE.

DANIEL P. FITZGERALD, OF NEWARK, NEW JERSEY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 397,350, dated February 5, 1889.

Application filed July 12, 1886. Serial No. 207,759. (No model.)

To all whom it may concern:

Be it known that I, DANIEL P. FITZGERALD, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Collar or Sleeve Buttons, of which the following is a specification.

My invention relates to collar or sleeve buttons of the class shown in my previous patent, No. 318,974, dated June 2, 1885, in which the head and shoe are integral with the post, made of one single piece of metal wire by upsetting its two ends simultaneously.

The object of my present improvement is to adapt the said button to receive in the center of the head a diamond or other precious stone and to admit light through the button underneath the said stone, so as to show out its brilliancy to the greatest advantages.

In the accompanying drawings, Figure 1 represents a side elevation of my improved button. Fig. 2 is a similar view of the same, taken at right angles to Fig. 1. Fig. 3 is a vertical section on the line *x x* of Fig. 2, showing the transversely-perforated socket to receive the precious stone; and Fig. 4 is a similar section of the same with the stone inserted.

In making the button the wire blank is clamped between the two halves of a split die, which has at its upper end a flaring or conical cavity, and while the wire blank is thus held its two ends are upset simultaneously by an upper and lower die, which form the head A and the shoe C, and also fill the aforesaid conical cavity in the split die, thereby forming at the upper end of the post B, where it adjoins the head, a conical enlargement, *b*. This is afterward bored out to form a socket, *a*, in which the diamond or other precious stone is inserted, and at the lower end of and transversely to the said socket I make one or more perforations, *c*, thus admitting light underneath the diamond after the latter has been inserted, as in Fig. 4, and thereby showing its brilliancy to the best advantage.

Instead of boring out the enlargement *b* to form the socket *a*, the said socket may be formed by giving suitable shape to the face of the upper die itself, by which the head is formed. The stone is secured in the socket *a*, preferably, by what is known as "close setting," which consists in working the metal at the edge (of the socket) over the adjacent edge of the stone in two or more places by the use of the burnisher.

I am aware that it is old to so construct the setting as to admit light under the gem; but this has heretofore been done by splitting the end of a tubular post and bending out fork-like the two parts formed by the splitting, thus producing a receptacle for the gem and an opening to admit light. The head of the button is then secured to the thus-forked end by soldering.

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

A collar or sleeve button consisting of a single piece of metal wire having the head and an enlargement at the junction of the head and post both made integral with the post and upset from the same wire blank, a socket or cavity in the said head and enlargement to receive a precious stone, and a perforation transversely to the said socket or cavity to admit light underneath the said stone.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 9th day of July, 1886.

DANIEL P. FITZGERALD.

Witnesses:
A. W. ALMQVIST,
T. M. CROSSMAN.