(No Model.)

O. T. SMITH.

BUTTON.

No. 345,866.

Patented July 20, 1886.

Fig.1



Fig.2.

Witnesses

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## UNITED STATES PATENT OFFICE.

ORVILLE T. SMITH, OF BROOKLYN, NEW YORK.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 345,866, dated July 20, 1886.

Application filed May 17, 1886. Serial No. 202,426. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE T. SMITH, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Buttons, of which the following is a specification.

My invention is applicable particularly to sleeve-buttons, but it may also be advantageously embodied in collar-buttons, studs, &c.

An important object of my invention is to provide a button having a diamond or other ornament so combined with it that the diamond or ornament is not only afforded an appropriate seat for holding it centrally in place 15 in the button, but is shielded and protected by the parts of the button which surround it, and in the case of a diamond has the rays of light reflected inward toward it from the outer surface of the head of the button.

The invention will be hereinafter described,

and pointed out in the claims.

In the accompanying drawings, Figures 1, 2, and 3 are axial sections of buttons, all of which embody my invention, but which differ 25 slightly from each other in their construction.

Similar letters of reference designate corresponding parts in the several figures.

For the purpose of illustrating my invention, I have chosen a button like that which 30 forms the subject of my application, Serial No. 186,336, filed December 21, 1885, and which consists of a tubular stem, a, having at opposite ends outwardly-turned flanges b c, which form, respectively, the head and shoe of 35 the button. My invention is not, however, limited to a button in which the shoe is formed integral with the stem or post, it being only essential that the stem and head shall beformed of a single piece of metal without 40 seam or joint.

In the buttons shown in Figs. 1 and 2 the two flanges b c, which form the head and shoe, have their outer edges turned respectively downward, upward, and inward relatively to 45 the stem in order to produce a finished edge.

Referring first to Fig. 1, it will be seen that the metal of the stem a is continued of substantially uniform thickness throughout the flange b, forming the head, and the metal is 50 flared outward and upward from the stem, so as to form at the center a seat or depression

that the metal of the head which surrounds the central seat or depression will extend upward and outward beyond and above the cen- 53 tral seat or depression, so as to shield and proteet the diamond d to a greater or less extent. Not only is the flaring form of the head upward and outward from the central seat or depression, advantageous because it shields (o and protects the diamond, but it has the additional advantage that rays of light striking it will be deflected inward toward the center or focus of the diamond, and will thus display the diamond to better advantage. The dia-65 mond d is, as here represented, confined in a setting, d', which is made separate from the button, and which has a central stem or shank, d2, extending into or through the tubular stem a, and removably secured therein by a nut, 70  $d^3$ , or otherwise. The buttons may thus be supplied by the manufacturer to the retail dealer, and he may secure removably therein any diamonds or ornaments to suit the taste of the purchasers.

In the button shown in Fig. 2 the head b is rabbeted or recessed at b' in its face, so as to form a central seat or depression in which an ornament, d, is secured by prongs or spurs d, inserted through the head and clinched or 80 riveted at the back of the head, or in any other suitable way. The metal of the head around the central rabbet, b', projects outward and upward beyond the stem, so as to more or less shield the ornament d.

The button shown in Fig. 3 does not differ materially from that shown in Fig. 1, except that the flange b, which forms the head, after being flared outward and upward from the central seat or depression, is turned or curved 90 slightly downward without being turned inward at the edge, and to the outer face of the head b is applied a cap,  $b^2$ , which may have its edge turned inward under the edge of the head, as shown at  $b^3$ , and which has a central 95 opening,  $b^4$ , through which the diamond or ornament d is visible.

The advantage of employing the cap  $b^2$ , covering the outer face of the head b, is that the cap only will be exposed to view when the 100 button is worn, and may be made of a finer quality of gold than the button and susceptible of a higher degree of finish. For example, for a diamond or other ornament, d, and so | the button proper, comprising the stem a and

the two flanges bc, forming the head and shoe, which compose the major proportion of metal, may be made of about ten carat gold, and the cap  $b^2$ , which is very light, may be made of

5 fourteen-carat gold.

I do not claim herein a button consisting of a tubular stem provided at opposite ends with outwardly turned flanges, one forming the head and the other the shoe of the button, and 10 having an opening entirely through the button, the head having at the center a seat or depression for a diamond or other ornament, and having a surrounding portion extending outward from the seat and projecting above 15 and beyond the same, so as to shield and protect the diamond or other ornament, or the said head being flared upward and outward from the seat or depression, so as to give it at the circumference a projection above and be-20 youd the seat, as such a button forms the subject of my pending application, Serial No. 186,336, filed December 21, 1885. Neither do I claim herein a button consisting of a tubular stem provided at opposite ends with outwardly turned flanges, one forming the head and the other the shoe of the button, and having an opening entirely through the button, the head having a central seat or depression and a surrounding portion extending 30 outward from and above the seat or depression, and having a diamond or other ornament secured in the seat or depression and shielded and protected by the surrounding portion of the head, as such a button is specifically 35 claimed in my aforesaid pending application. Neither do I claim herein a button consisting of a tubular stem provided at opposite ends with outwardly-turned flanges, one forming the head and the other the shoe of the button, 40 and having an opening entirely through the button, the head having a central seat or depression and a surrounding portion extending outward from and above the seat or depression, and also having a setting for a diamond 45 or other ornament made separate from the button and removably secured in the central seat or depression, whereby the ornament will be shielded and protected by the surrounding portion of the head, as such a button is claimed specifically in my aforesaid pending application.

What I claim as my invention, and desire to

secure by Letters Patent, is-

1. A button having its stem and head formed of one piece of metal without seam or 55 joint, the head having in its face a central seat or depression, and there provided with means, substantially as described, for securing a diamond or other ornament, and having the metal around the seat or depression raised 60 above the same, so as to shield and protect a diamond or other ornament secured in the seat or depression, substantially as herein described.

2. A button having its stem and head 65 formed of one piece of metal without seam or joint, the head having in its face a central seat or depression, and there provided with means, substantially as described, for securing a diamond or other ornament, and having the 7c metal around the seat or depression raised above the same, so as to shield and protect the diamond or ornament, and a cap covering the portion of the head around the said ornament, and having a central opening through 75 which the ornament is visible, substantially as herein set forth.

3. A button having its stem and head formed of one piece of metal without seam or joint, the head having a central seat or de- 80 pression in its face and being flared upward and outward from said seat or depression, so as to give it a projection above the same at the circumference, and provided at said seat or depression with a setting for a diamond or 85 other ornament made separate from and secured in the button, substantially as herein described.

4. A button having a tubular stem and head formed of one piece of metal without seam or 90 joint, the head having a central seat or depression, and having the metal flared upward and outward from the seat or depression, to give a projection above the seat or depression at the circumference, and the button being 95 provided at the seat or depression with a setting for a diamond or other ornament which has a stem or shank entering the tubular stem of the button and is thereby secured in the button, substantially as herein described.

ORVILLE T. SMITH.

Witnesses: C. Hall, Henry J. McBride.