(No Model.)

J. HINNER.

BUTTON.

No. 456,272. Patented July 21, 1891.

FIG. 1.

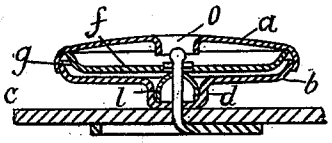


FIG. 3.

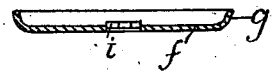


FIG. 2.

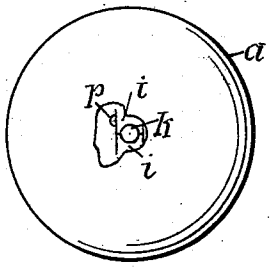


FIG. 4.

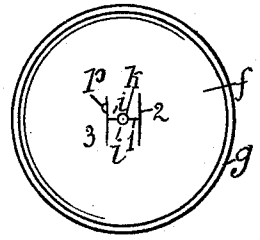


FIG. 5.

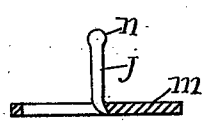
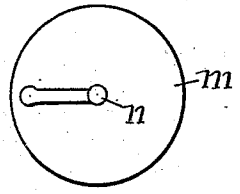


FIG. 6.



Witnesses
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Heinrich Zwanziger
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEF HINNER, OF VIENNA, AUSTRIA-HUNGARY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 456,272, dated July 21, 1891.

Application filed November 22, 1890. Serial No. 372,391. (No model.) Patented in Germany October 21, 1890, No. 57,823; in England October 23, 1890, No. 16,947; in Belgium October 25, 1890, No. 92,466; in France October 27, 1890, No. 209,133, and in Austria-Hungary December 19, 1890, No. 3,815 and No. 3,756.

To all whom it may concern:

Be it known that I, JOSEF HINNER, a subject of the Emperor of Austria-Hungary, residing at Vienna, in the Province of Lower Austria, have invented certain new and useful Improvements in Buttons, (for which I have obtained Letters Patent in Germany, dated October 21, 1890, No. 57,823; in France October 27, 1890, No. 209,133; in Belgium October 25, 1890, No. 92,466; in Austria-Hungary December 19, 1890, No. 3,815 and No. 3,756, and in England October 23, 1890, No. 16,947,) of which the following is a specification.

This invention relates to that class of buttons which are generally known as "self-fastening buttons;" and it has for its object to provide a button of simple and cheap construction, which can be readily and securely attached to any fabric without the aid of stitching, and also detached therefrom at will without injury to the said fabric. According to the invention the said self-fastening button is composed of a hollow head and of a back carrying the shank. The said hollow head contains a disk or diaphragm which is so slitted as to form two springy lips, between which the shank stuck through the fabric passes and is retained by its thickened free end. In order to afford possibility for the removal of the button, the face plate of the hollow head has a central hole, and in or by the side of either lateral edge of either springy lip is formed a notch, so that a hook may be inserted through the said central hole into the said notch, and by this hook the springy lip sufficiently lifted to admit of the head being pulled off the shank.

In order to make the invention perfectly understood, the same is hereinafter fully described with reference to the annexed sheet of drawings, in which—

Figure 1 is a sectional elevation of a self-fastening button embodying the invention, and Fig. 2 a plan view of the said button. Figs. 3 and 4 are a sectional elevation and plan view, respectively, of the slit disk or diaphragm inclosed in the hollow head of the button. Figs. 5 and 6 are analogous views of the back and shank of the button.

The hollow head of the button is by preference made of sheet metal, and then is composed of the dish-shaped face plate *a* and a likewise dish-shaped back plate *b*, both plates having their rims overlapping one another. In order to keep the head of the button a certain distance apart from the fabric *c*, to which the button is fastened, the said back plate *b* has a cylindric projection or neck *d* formed in its center. Within the hollow space formed by the face plate *a* and back plate *b* is arranged the disk or diaphragm *f*, kept in an unvariable position near the back-plate *b* by its rim or flange *g* bearing against the front plate *a* and by the cap *l*, inclosed in the neck *d*. In the central portion of the disk *f* a short slit 1, of diametrical direction, is provided, and at both ends of this slit 1 there are other slits 2 and 3 perpendicular to it, whereby an H-shaped slit is formed. The elastic lips *i i* on both sides of the slit 1 have their meeting edges slightly turned up and have recesses *k* formed in the said edges, by which recesses or notches an aperture is formed for receiving the shank *j*, made integral with the circular back *m* and having a thickened free end or head *n*.

As may be inferred from Fig. 1, the shank *j* is passed through the fabric *c* and afterward the head of the button, which has central perforations in the botton of the neck *d*, and in the cap *l* is pressed upon the shank *j* until the head *n* of the shank has passed through the aperture formed by the notches *k* of the lips *i i*. While the said head *n* is passing between the lips *i i* the same yield upwardly, and as soon as the head *n* is passed they move downward again under the action of their elasticity, and by closing together beneath the said head *n* they prevent the head of the button from being pulled off the shank *j*.

Possibility for removing the button at will from the fabric without injury to this latter is afforded by the central perforation *o* of the face plate *a* and the notch *p*, formed in or by the side of either lateral edge of either elastic lip *i*. As will be readily understood, this arrangement enables a hook to be introduced through the central aperture *o* into the notch *p*, and the lip *i* in or by the side of whose lateral edge the said notch *p* is formed to be

sufficiently lifted by the said hook as to admit of the head of the button being pulled off the shank *j*.

What I claim, and desire to secure by Letters Patent of the United States, is—

In a self-fastening button, the combination, with a hollow head having central perforations in its front and back plates, of a diaphragm inserted into the hollow space of the said head and having a central perforation and an H-shaped slit, the middle portion of which passes through the center of the diaphragm, and a back carrying a shank the free end of which is thickened, a notch being formed by the side of the lateral edge of one of the lips formed by the H-shaped slit, substantially as and for the purpose described.

In testimony whereof I have hereunto affixed my signature, in presence of two witnesses, this 4th day of November, 1890.

JOSEF HINNER.

Witnesses:
W. B. MURPHY,
NETTIE S. HARRIS.