Nov. 26, 1935. A. A. CAVICCHI 2,022,458

BUTTON

Filed May 22, 1933

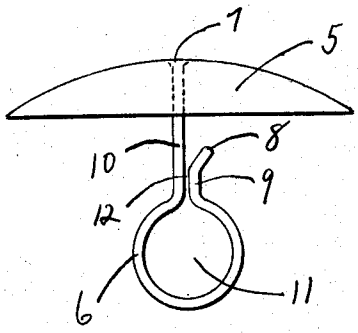

Fig. 1.

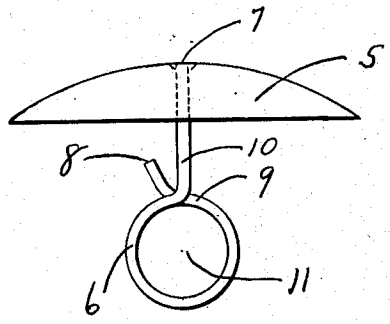

Fig. 2

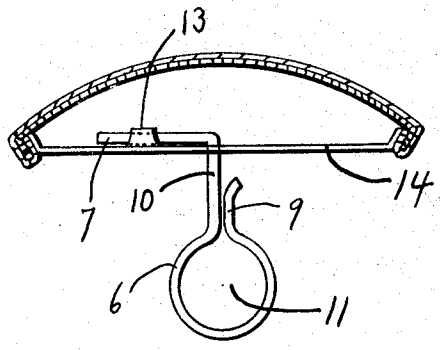

Fig. 3

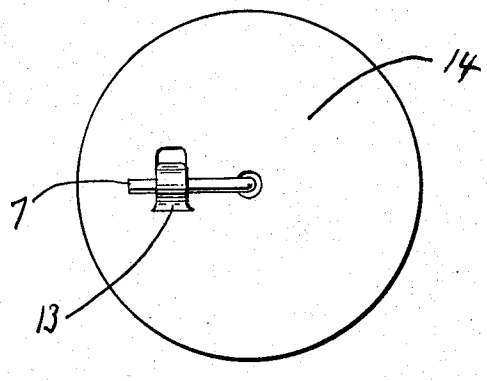

Fig. 4

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BUTTON

Albert A. Cavicchi, Arlington, Mass.

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9 Claims. (Cl. 24—101)

My invention relates to buttons which have eyes, usually made from wire, on their backs for fastening. The object of my invention is to provide a wire eye which is open, so that the button can be readily attached and detached. The usual upholstery button has an eye formed from a piece of wire. Both ends of the wire are secured in the body portion of the button, and the center portion of the wire forms a loop or eye for fastening the button. A button with such an eye cannot be readily attached or detached, and the process of passing thread or cord through eye is a slow one. In upholstering, to attach such buttons at the present time, it is necessary to use an undesirably thin needle, which will pass through an undesirably large button eye. Where large eyes are not employed, it is necessary to take the twine from the needle, and pass the end of the twine through the eye; a slow and laborious operation.

On washable coats and uniforms, where an artistic button is in demand, but which is not adapted for laundering, a simply detachable button is necessary. An object of my invention is to provide a button that can be easily attached to and detached from coats.

Another object of the invention is to provide a button which can be readily attached to cord-loops, such as are used on mattresses and cushions. In order to accomplish these purposes, my improved button has a wire shank, which is hook-like, which shank forms an eye for securing the button and a frictional passage for passing threads, cords, or loops, into the eye.

In the accompanying drawing, illustrating preferred forms of the invention:

Figure 1 is a side view of the button showing the wire-hook shank, in accordance with this invention.

Figure 2 is a side view of an optional construction.

Figure 3 shows the wire-hook shank of Figure 1 attached to a different button-head.

Figure 4 is a plan view of the inside of the back of the button shown in Figure 3, showing how the end of the wire can be fastened.

Figure 1 shows the preferred form of the invention, a button manufactured from a furniture nail, which consists of a convex, sheet-metal disk, into which has been swaged one end of a short wire. The reference numeral **5** designates the body portion of the button. The wire shank **6** is attached to the button by its swaged end **7**; the other end of the wire, **8**, is the free end. The part **9** of the wire, is bent upon the part **10**, in a hook shape, to form the eye, **11**, and the frictional passageway **12**. Cord to attach the button is passed over the end **8**, through the passageway **12**, and rests in the eye **11**. The passageway **12**, is a frictional one, that is, the parts **9** and **10** of the wire, bear more or less tightly against each other. Through the passage **12**, cords or thread must be pulled with some effort, to overcome the friction, and the same friction prevents the cord from casually or easily escaping.

The wire, of course, may be resilient, though this is not necessary, as fibrous cords and threads are compressible, and expand when free of the passageway, and this expansion prevents the cords or threads from escaping. The free end of the wire, **8**, is curved away from the part **10**, to form a guide for the cords to the passage **12**.

Figure 2 shows an optional construction of the button-eye, wherein the wire shank **6**, is curved slightly spiraling so that the part **9** crosses the part **10**, forming the frictional passageway at the crossing-point. Cord can be placed into the eye **11**, by passing it over the end **8**, and then by pulling it past the meeting points of the wire.

Figure 3 is a cross-sectional view of a button made from complementary parts, such as cloth covered buttons. Such buttons usually have a cap and a back, and are covered with cloth or enamel. A furniture nail, concaved, instead of convexed, could be used for such a complementary button back. But where the swaging of an end of the wire is not desired or necessary in order to attach the shank to the button, the method here shown for securing the end **7** of the shank can be employed. As also shown in Figure 4, the end of the wire shank **7**, is inserted through the center of the button-back **14**, and then bent at right-angles to the part **10** of the wire, and against the inside of the button-back **14**. The projection, or lug, **13**, having been previously struck up or cut from the button-back, is bent over the end **7** of the wire shank, holding it securely in place, preventing its escape or rotation. In a button of more than one part, the end **7** of the wire can be shaped in many ways to prevent it from escaping or rotating. The button eyes that have been heretofore described can be applied to buttons manufactured from plastic materials.

The button of my invention is very desirable in upholstery or mattress tufting, as the loop passed through the cushion may have its end very easily engaged over the projecting guiding end of the

eye and drawn through the friction passage into the eye. The end portions 9 and 10 of the eye should touch, or at least be so close that the passage 12 will be closed to the thread after the thread has passed into the eye, and the free extremity 8 should project past the shank 10 so as to be easily engaged by a loop or thread and direct the same into the eye.

The invention is not intended to be limited to the specific forms herein disclosed for the purposes of illustration, but should be regarded as covering modifications and variations thereof, within the scope of the appended claims.

What I claim is:

1. A button provided on its back with an eye formed from a single strand of wire defining a shank secured to the button, and an eye at the outer end of the shank, the free end portion of the strand being disposed close to the shank to form therewith a substantially closed passage leading into the eye and frictionally engaging a securing thread drawn therethrough.

2. A button provided on its back with an eye formed from a single strand of wire defining a straight shank secured to the button, and an eye at the end of the shank, the free end of the strand projecting from the eye past the shank in juxtaposition to the shank whereby to substantially close the eye and guide a securing thread into the eye and frictionally engage the thread as it passes to the eye, the shank and projecting end of the eye resisting withdrawal of the thread.

3. A button having its back provided with a central opening, and an overhanging projection eccentric to said opening, and an attaching eye having a shank passing through the central opening in the back of the button and engaged under said projection.

4. A button provided on its back with a shank and an eye, the eye having one end free and in diverging relation to the shank to guide a securing thread into the eye, and the free end portion being disposed in close proximity to the shank to substantially close the eye.

5. A button comprising a body, and a shank consisting of a strand of resilient wire rigidly secured to the body and extending rearwardly therefrom, said strand being bent to form an eye carried by the shank and the free end portion of the strand being bent to form a bill disposed in diverging relation to the shank for guiding a thread into the eye and being normally in close enough proximity to the shank to frictionally prevent a thread from slipping out of the eye.

6. A button comprising a body, a shank rigidly carried by and extending rearwardly from said body, and an eye carried by said shank and having a free end portion for guiding a thread into the eye, the free end portion of the eye being normally sufficiently close to the shank to frictionally retain a thread in the eye.

7. A button comprising a body, a single strand shank extending from the back of said body and having one end rigidly secured to the body and held against rotation, and an eye carried by the shank and having a free end portion disposed in diverging relation to the shank to guide a thread into the eye and in close proximity to the shank to substantially close the eye.

8. A button comprising a body, and a strand of wire having one end firmly secured to the body and held against rotation, said strand extending from the back of the body to form a shank and being bent to form an eye terminating in a free end portion disposed diagonally of the shank in close proximity thereto to substantially close the eye.

9. A button comprising a single ply body provided on its back with a shank and an eye, the shank being riveted to the body and held against turning and the eye having one end free and disposed to guide a securing thread into the eye and confine the thread in the eye.

ALBERT A. CAVICCHI.