April 7, 1931. A. G. ANDERSON 1,800,173

CLOSURE ELEMENT

Filed Jan. 27, 1928

Fig. 1.

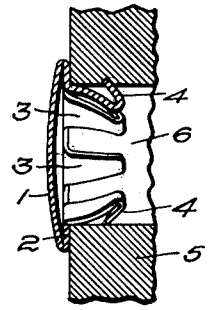


Fig. 5.

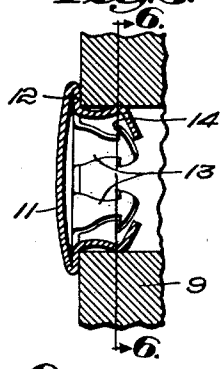


Fig. 2.

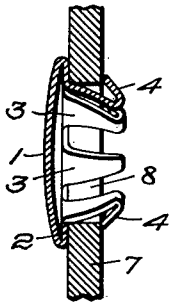


Fig. 6.

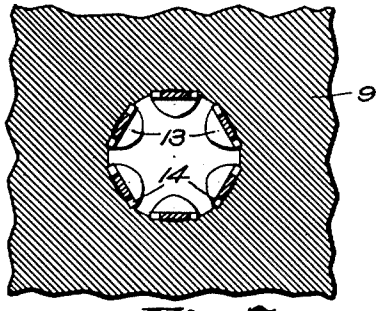


Fig. 7.

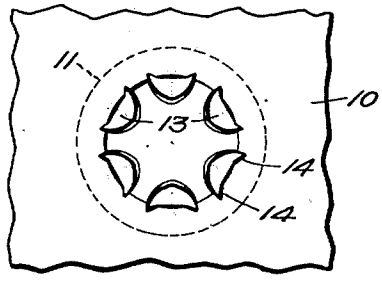


Fig. 3.

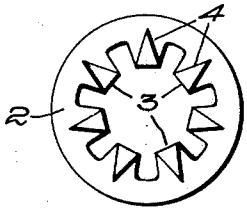


Fig. 4.

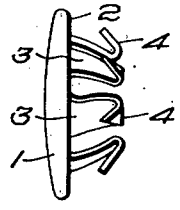
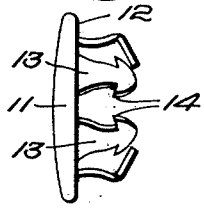


Fig. 8.



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Attys

Patented Apr. 7, 1931

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UNITED STATES PATENT OFFICE

ANDREW G. ANDERSON, OF WOLLASTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNITED-CARR FASTENER CORPORATION, OF CAMBRIDGE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

CLOSURE ELEMENT

Application filed January 27, 1928. Serial No. 250,063.

My invention aims to provide improvements in closure elements particularly adapted for closing holes in wood, metal, or the like.

In the drawings, which illustrate preferred embodiments of my invention:—

Figure 1 is a section taken through a portion of a support of wood, or the like, and showing one form of closure element secured thereto;

Fig. 2 is a section through a relatively thin support, such as metal, or the like, showing the same type of closure element secured thereto;

Fig. 3 is a rear elevation of the closure element shown in Figs. 1 and 2;

Fig. 4 is a side elevation of the closure element shown in Figs. 1 and 2;

Fig. 5 is a section similar to that shown in Fig. 1, except that a closure plug of slightly different construction is illustrated;

Fig. 6 is a section on the line 6—6 of Fig. 5;

Fig. 7 is a view looking at the inner face of a relatively thin support and showing the manner in which the closure element shown in Figs. 5 and 6 is attached to the relatively thin support; and

Fig. 8 is a side elevation of the closure element shown in Figs. 5, 6 and 7.

Referring to the drawings and more particularly to Figs. 1 through 4, I have disclosed a closure element in the form of a button having means for securing it in position to cover a hole. In Fig. 1, I have shown the closure element attached to a part which is of considerable thickness and the part may be wood or the like into which the barbs or pointed attaching means may become embedded.

In Fig. 2, I have shown the closure element attached to a thin support of metal or in fact any material which has a hole to be covered.

The closure element, shown in Figs. 1 through 4, is provided with a body or button portion 1 having turned inwardly, at its under side, a flange 2. A plurality of resilient fingers 3 extending from the inner edge of the flange 2 (Fig. 3) and the end portions of the fingers are bent outwardly and backwardly toward the button portion 1. These latter mentioned portions are pointed to provide sharp pointed attaching means or barbs 4, as shown in Figs. 3 and 4.

When securing the closure element to the support 5 (Fig. 1) the fingers 3 are pressed into the hole 6 until the flange 2 rests against the face of the support to conceal the hole 6. The fingers 3 contract when passing into the hole and thereafter expand to force the points 4 into the wall surrounding the aperture, thereby securely to attach the closure element in position. Any movement of the closure plug away from the support 5 will force the points 4 to bite into the wall and hold the closure element fast.

If the closure element is secured to a relatively thin support 7, as shown in Fig. 2, the barbs 4 pass entirely through the hole 8 in the support. Then the fingers spring outwardly, so that the ends of the barbs 4 extend over the inner face of the support to secure the closure element in place.

In Figs. 5 through 8, I have illustrated a second form of closure element which may be secured to either a thick support 9 of wood, or the like, (Figs. 5 and 6) or a thin support 10 of metal or the like (Fig. 7).

The closure element, shown in Figs. 5 through 8, has the body or button portion 11 and the inturned flange 12 which are substantially the same as presented by the element shown and described in connection with Figs. 1 through 4. The fingers 13, however, are different and instead of providing the barbs by turning back and pointing the ends, as heretofore described, I have provided each finger 13 with two barbs 14—14. These barbs are in the form of projections near the ends of the fingers and sink into the wall surrounding the aperture through the support 9 (Figs. 5 and 6) or engage the inner face of the support 10 (Fig. 7) to hold the closure element in place.

While I have illustrated and described two preferred embodiments of my invention, I am aware that changes may be made without departing from the scope of my invention and, therefore, reference is made to the fol-

lowing claim to indicate the scope of my invention.

I claim:

A closure element having a button-like body portion provided at its under side with a series of resilient fingers adapted to pass into a hole in a support to be concealed by the body-like portion, and each of said fingers having a sharp pointed barb extending in a direction toward said button-like body portion for positive engagement with the support to resist removal of the closure element and thereby hold it securely in position.

In testimony whereof, I have signed my name to this specification.

ANDREW G. ANDERSON.