Nov. 14, 1933. R. W. COOK 1,935,312

SUPPORTING DEVICE

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Fig. 1.

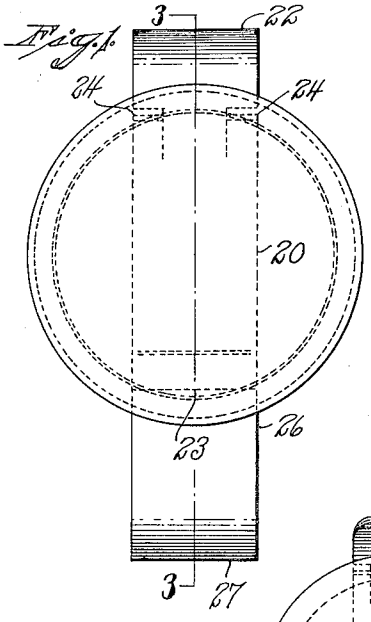


Fig. 2.

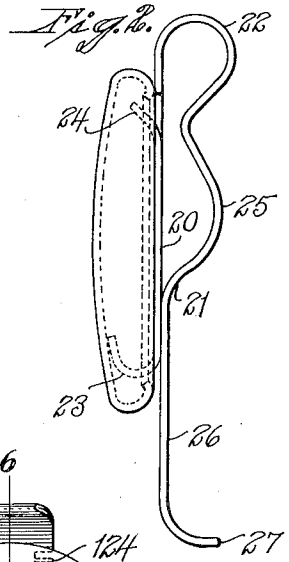


Fig. 3.

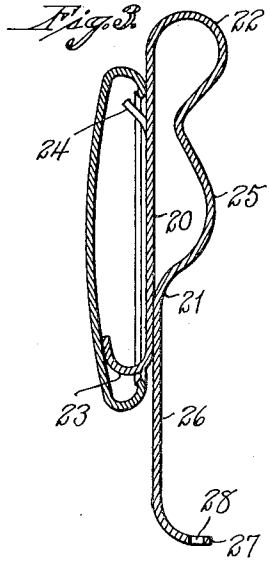


Fig. 5.

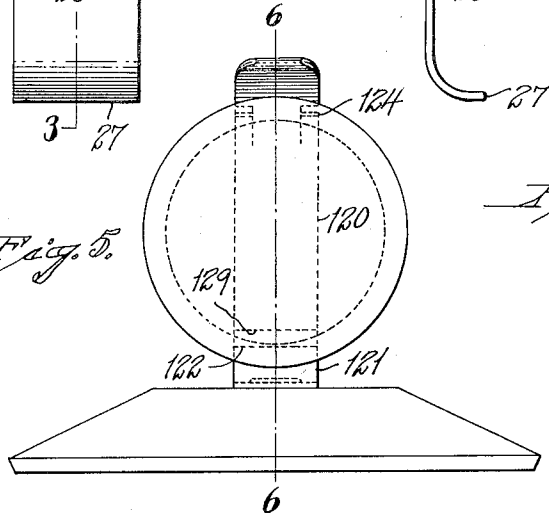


Fig. 4.

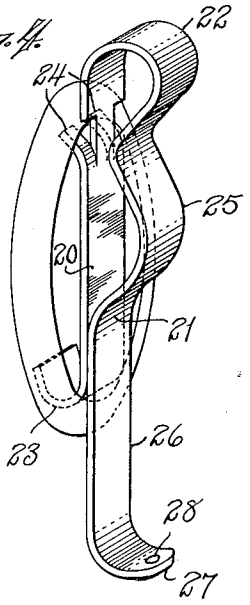
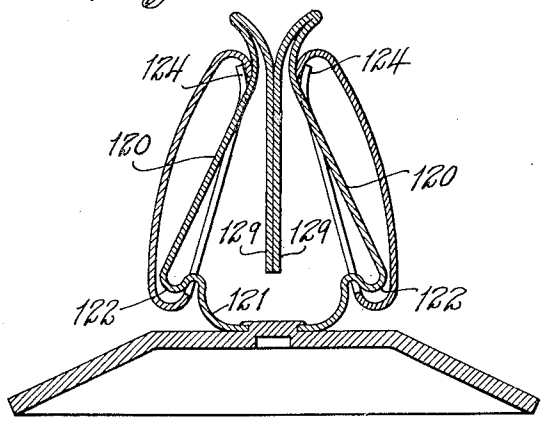


Fig. 6.



Inventor
Raymond W. Cook
by Seymour Earle & Nichols
Atty

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Fig. 7.

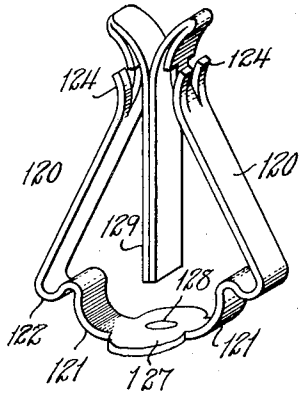


Fig. 9.

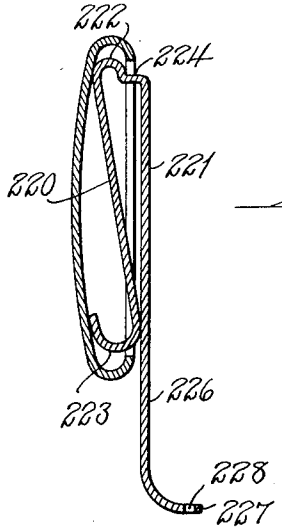


Fig. 10.

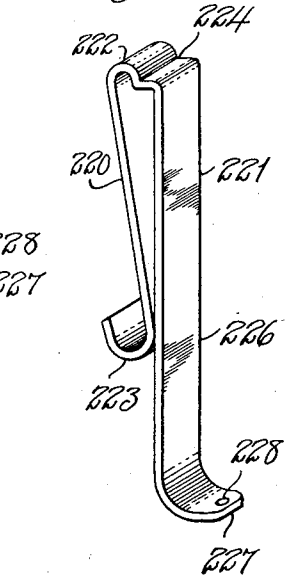
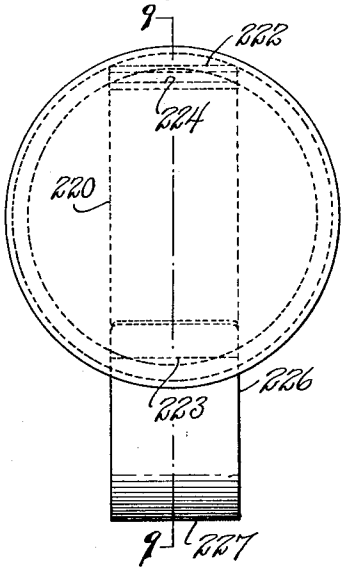


Fig. 8.



Inventor.
Raymond W. Cook
by Seymour Earee & Nichols
Attys

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UNITED STATES PATENT OFFICE

1,935,312

SUPPORTING DEVICE

Raymond W. Cook, Bristol, Conn., assignor to The Wallace Barnes Company, Bristol, Conn., a corporation

Application March 6, 1933. Serial No. 659,633

5 Claims. (Cl. 40—1.5)

This invention relates to a supporting device and more particularly to a device provided with integral spring-pressed clipping or clamping means and with integral object-engaging means for engagement with an object to be supported having a recess therein with overhanging lugs or an overhanging rim.

The main object of this invention is to produce a convenient, effective and simple supporting device of the nature described, constructed with particular reference to reliability in use and ease and low cost of manufacture.

Other objects and characteristics of the invention will appear from the following detailed description taken in connection with the drawings annexed hereto in which

Fig. 1 is a view in front elevation of a supporting device embodying my invention as applied to a hollow button;

Fig. 2 is a view thereof in side elevation;

Fig. 3 is a view thereof in central, vertical section on the line 3—3 of Fig. 1;

Fig. 4 is a view thereof in rear perspective;

Fig. 5 is a view in front elevation of another embodiment of my invention in duplex form as applied to two buttons and having an auxiliary pedestal;

Fig. 6 is a view thereof in central vertical section on the line 6—6 of Fig. 5;

Fig. 7 is a view in perspective of the supporting device shown in Figs. 5 and 6 detached from the buttons and pedestal;

Fig. 8 is a view in front elevation of a third embodiment of my invention as applied to a hollow button;

Fig. 9 is a view thereof in vertical central section on the line 9—9 of Fig. 8; and

Fig. 10 is a view in perspective of the supporting device shown in Figs. 8 and 9 detached from the button.

The embodiment of the invention preferred on account of its simplicity for detailed disclosure and shown in Figs. 1, 2, 3 and 4, comprises an originally flat, straight, parallel-sided strip of material which is or can be rendered resilient or elastic, such as spring steel. This strip is given the form best disclosed in perspective in Fig. 4. As thus formed the strip is doubled back upon itself to form an article-attaching arm 20 and a supporting arm 21 connected together by an arcuate spring bow portion 22 integral with both.

The article-attaching arm is provided at its outer extremity and at a point near the spring bow 22 with means to snap into a recess of appropriate dimensions and having overhanging lips, in any article to which the device is to be applied; as here disclosed, a hollow button. In the embodiment of Figs. 1, 2, 3 and 4, these means consist in the curled end 23 of the arm 20 and the twin prongs 24 struck up from the material of the same arm near the bow 22. In attaching the device to the button the prongs 24 are inserted under the overhanging rim or lip of the hollow rear of the button and the curled end 23 of the arm 20 is then forced into place under a diametrically-opposite portion of the rim of the button. The structures yield elastically under forcing sufficiently to permit the end 23 to pass the rim and then snap into place under it.

The supporting arm 21 may be formed, as shown in Figs. 1, 2, 3 and 4, with an arcuate outward bulge 25 standing away from the attaching arm 20, and further with a flat clipping portion 26 and a rearwardly-turned tip 27, which latter may further be perforated as at 28 to receive a screw or rivet or the like for attaching the whole device to any desired support (not shown).

The device in the form thus far described may be used, in various sizes, in a myriad ways. In a small size it makes a neat, efficient and cheap supporting clip for campaign buttons and the like. In a very much larger size it may be used to support and display such an object as an automobile tire casing. In the latter case the reflexed tip 27 will be formed larger in proportion and riveted or bolted to the floor or other support. Or, the whole thing may be suspended from a hook or chain passing through the bow 22 or the perforation 28. In this last instance the tip 27 may be straight instead of curved.

The embodiment disclosed in Figs. 5, 6 and 7 comprises two complete devices formed integrally from one strip and joined together by an integral foot portion 127 thus furnishing a duplex support. Details of the structure and form are self-evident from the drawings, the essential features being substantially identical with those of Fig. 4. The chief difference being that in the embodiment of Fig. 6 the bow 122 itself plays the role of the curled end 23 of the arm 20 in Fig. 4 while the prongs 124 are on the outer instead of the inner portion of the arm 120 homologous to the arm 20.

Figs. 8, 9 and 10 disclosing a third variety of embodiment are likewise self-explanatory. The principally noteworthy feature here is that the spring bow 222 is connected to the arm 221 by a shoulder portion 224 which plays the role of the prongs 24 and 124 of the preceding embodiments.

Homologous parts of the three embodiments are provided in the drawings with reference numbers having the same two last digits.

A further feature of the invention appears in the embodiments of Figs. 4 and 10 in the fact that the curled ends of the arms 20 and 220 respectively are held by the spring tension of the bows 22 and 222 respectively against the flat clip portions 26 and 226 respectively of the arms 21 and 221 respectively, thus forming the whole into a clip for engagement with any thin flat supporting means such as a coat lapel, a price card, the edge of a display tray, etc., to be supported thereby.

In the embodiment of Fig. 6 an analogous but in a sense inverted feature is provided by the coacting spring clip members 129 formed as integral extensions of the outer ends of the twin arms 120. Here the device may be thought of as in use for merchandise sample display purposes and a price card or advertising sheet or the like may be clipped between the members 129 to be supported thereby.

It will be evident that the embodiments of the invention herein disclosed are merely illustrative and may be extensively varied and modified without departing from the spirit and scope of the invention itself as more particularly pointed out in the claims annexed hereto.

I claim:

1. A supporting device consisting of a single strip of elastic material formed to present an article-attaching arm and a supporting arm connected by a spring bow therebetween, whereby the two arms are yieldingly pressed together, the article-attaching arm being further formed with spaced-apart means integral thereon adapted to attach thereto an article having an overhangingly lipped recess, said means including a curled tip on the arm and a pair of integral struck-up prongs spaced apart from said curled tip.

2. A supporting device consisting of a single strip of elastic material formed to present an article-attaching arm and a supporting arm connected by a spring bow therebetween, whereby the two arms are yieldingly pressed together, the article-attaching arm being further formed with spaced apart coupling means integral thereon adapted to attach thereto an article having an overhangingly lipped recess by having snap-in engagement with opposite overhanging lip-portions thereof, said means comprising a prong struck up from the material of the arm and a curled tip on the arm.

3. A duplex supporting device comprising as a single unit an elastic sheet-metal strip having a pair of integral supporting members, an article-attaching member integral with each supporting member and having a curved portion and there being an article-attaching struck-up prong integral with each article-attaching member to cooperate with the said curved portion thereof to hold an article thereon having an overhanging flange by snap-in engagement with opposite portions of said flange.

4. A duplex supporting device comprising as a single unit an elastic sheet-metal strip having a pair of integral supporting members, an article-attaching member integral with each supporting member and having a curved portion and there being an article-attaching struck-up prong integral with each article-attaching member to cooperate with the said curved portion thereof to hold an article thereon having an overhanging flange by snap-in engagement with opposite portions of said flange, the two article-attaching members being further formed and adapted to coact as a spring clip.

5. A supporting device comprising an integral strip of elastic sheet-metal including an article-attaching arm and a supporting arm, said article-attaching arm having spaced-apart coupling means designed and adapted to have snap-in engagement with opposite portions of an overhanging flange of a face-member, said means comprising a prong struck up from the material of the arm and a curled portion on the arm.

RAYMOND W. COOK.