Oct. 18, 1938. C. F. ENGERT 2,133,915

SUPPORTING UNIT

Filed Feb. 25, 1938

Fig. 1.

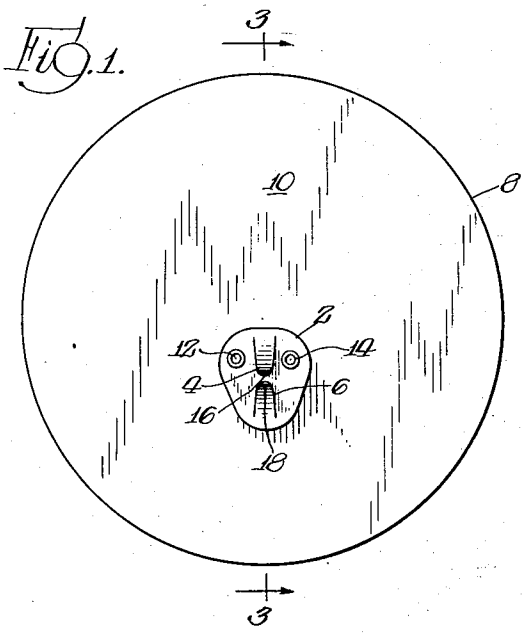



Fig. 2.

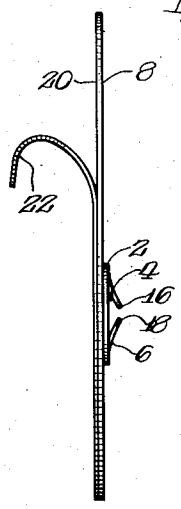



Fig. 3.

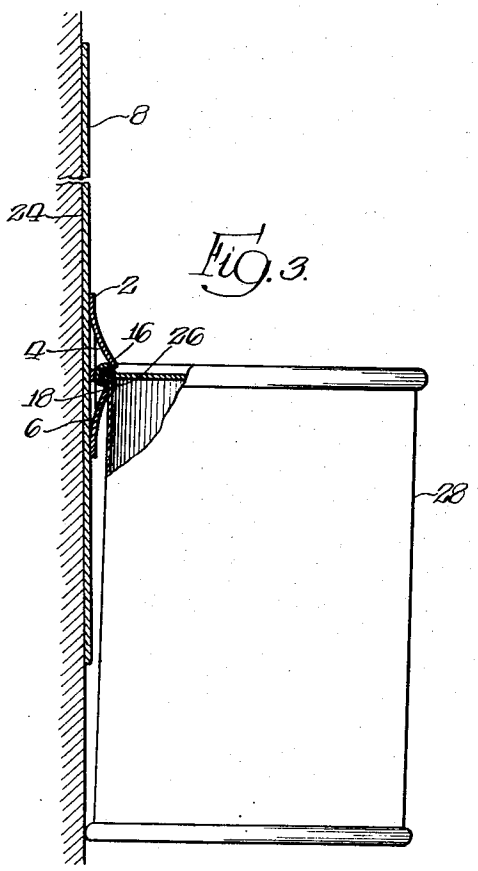



Fig. 4.

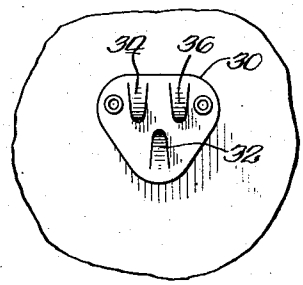
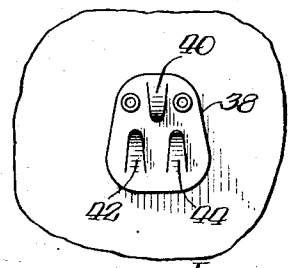



Fig. 5.

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atty

Patented Oct. 18, 1938

2,133,915

# UNITED STATES PATENT OFFICE

2,133,915

## SUPPORTING UNIT

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Application February 25, 1938, Serial No. 192,495

4 Claims. (Cl. 248—311)

This invention relates to a supporting unit or holder for flanged articles and more particularly to a supporting unit or holder for cans. It further relates to a holder or supporting unit of the character described which may be used in the advertising or display of flanged articles such as cans.

One of the objects of the invention is to provide a new and improved supporting unit for cans and the like which is compact, simple and inexpensive to produce.

Another object of the invention is to provide a new and improved means of advertising or displaying cans and similar articles provided with a flanged rim.

Still a further object is to provide a supporting unit of the character described which may be attached to glass showcases, glass windows or other plane surfaces and which when so attached will support or hold a can or the like by its flanged portion in a manner such that the can or similar article will be held in relatively free swinging relationship to the supporting unit in order that one accidentally striking against the can would tend to move the can and thereby avoid imparting the full force of the blow to the supporting unit.

A still further object of this invention is to provide a supporting unit of the character described which is not only readily attachable to glass or other plane surfaces, but also is readily removable from such surfaces without staining or otherwise marking them.

Other objects will appear as the description proceeds.

In accordance with this invention, I provide a supporting unit for flanged articles such as cans which comprises resilient means adapted to engage beneath the flange of a flanged article, for example, at the juncture of flanged and unflanged portions of the article. This is preferably accomplished by providing a metal supporting unit having opposing cooperating spring metal portions, one of which is adapted to engage beneath the flange of a flanged member or article. In order to make a combined unit suitable for displaying cans and the like from glass or other plane surfaces, I attach said metal supporting unit to a sheet material on the back of which I apply an adhesive material.

The attachment between the metal supporting unit and the sheet material is preferably accomplished by means of rigid fasteners such as eyelets, although it may be accomplished by struck out metal portions, as more fully hereinafter described. The sheet material which I preferably employ is a rubber and fiber composition having a relatively soft printable surface, preferably containing a lacquer or other water resistant coating. The invention is not limited to this particular material, however, since paper, cardboard and other sheet materials may be employed as long as they have sufficient strength to support the metal supporting unit and the article which is to be held thereby. For the purpose of the invention the sheet material employed should preferably have some flexibility.

In its preferred aspects, the invention contemplates a combined advertising and display unit including means associated with a flexible sheet material adapted to support the flange of a can or other flanged article and a pressure sensitive adhesive on the rear face of said flexible sheet material adapted for the repeated engagement with and removal from glass or other plane surfaces.

Other objects and features of the invention will become apparent from a reading of the following specification in the light of the accompanying drawing in which:

Figure 1 illustrates an elevational view of a can holder which is a preferred embodiment of the invention;

Figure 2 is a side view of the can holder shown in Figure 1;

Figure 3 is a side view partly in section and with parts cut away showing a can in combination with the can holder shown in Figure 1; and

Figures 4 and 5 represent modifications of the invention.

Referring to Figure 1 the can holder shown comprises a metal supporting unit 2 having pressed out metal portions 4 and 6. Metal supporting unit 2 is mounted on and fastened to sheet material 8 which may be of any convenient design or area. This sheet material preferably has printed thereon, as, for instance, in area 10, a suitable advertisement. Supporting unit 2 is preferably rigidly fastened to sheet material 8 by eyelets 12 and 14. As an alternative, this fastening may be accomplished by striking out metal portions of supporting unit 2 reversely to struck out metal portions 4 and 6 and fastening said reversely struck out metal portions to sheet material 8 in a well known manner.

In the practice of the invention, however, supporting unit 2 is normally made from a spring metal preferably spring steel. Such metal is difficult to rigidly fasten to sheet material 8 because of its inherent spring. To accomplish

proper fastening by means of such struck out portions supporting unit 2 may be annealed in those portions which are to be struck out and employed to fasten said unit to sheet material 8.

In the form of the invention shown in Figure 1 the flange or rim of a can which is to be held by supporting unit 2 is placed between points 16 and 18 of struck out portions 4 and 6, respectively. The space between these points may naturally be varied to suit the size of the flange. In constructing the unit described it is preferable that eyelets 12 and 14 which fasten supporting unit 2 to sheet material 8 be positioned in the upper part of supporting unit 2 above point 18 of pressed out portion 6. The resultant component of force exerted by the can upon the supporting structure will then lie on an average in a plane through points 12, 14 and 18 and in a generally downward direction.

As illustrated in Figure 2 sheet material 8 has its rear face 20 coated with an adhesive which is preferably pressure sensitive. Over said adhesive may be applied holland cloth 22, gauze or other similar material adapted to prevent the adhesive from coming in contact with anything until the supporting unit is ready to be used. When the supporting unit is ready to be used the holland cloth is stripped from the pressure sensitive adhesive coated on backing 20 and the adhesively coated side of the unit is applied to a plane surface.

The position of supporting unit 2 on sheet material 8 may be varied but it is preferable for the purpose of the present invention that the center of said supporting unit 2 be below the center of sheet material 8 and spaced such a distance from the edges thereof that even though the can or other flanged article supported by said unit tends to slightly remove the pressure sensitive adhesive back from glass or other plane surface to which it is attached, nevertheless, the area so removed will not reach the marginal portions of sheet material 8. This can better be understood by imagining that an outward pull on supporting unit 2 may in some cases be sufficiently strong to pull away slightly the pressure sensitive adhesive backing from the plane surface to which it is attached. As this occurs a generally circular area is formed back of supporting unit 2. The greater the outward force, the greater might be this area, but as the area becomes greater, the resistance to pull also becomes greater and eventually a point is reached where the adhesive resistance is sufficient to counteract the outward pull of any article attached to the supporting unit. If, however, the edge of said area or pocket formed beneath supporting unit 2 reaches the marginal edge of sheet material 8, it is no longer possible to increase the adhesive resistance and the adhesive coated unit may pull away from the supporting surface.

It will be understood that with some types of pressure sensitive adhesives it is possible to obtain an adhesion so strong that there will be no likelihood of the adhesive unit pulling away from the article to which it is attached, but in order to avoid any possibility of such an occurrence it is preferable to position supporting unit 2 within the confines of sheet material 8, as previously described.

The method of using the supporting unit is illustrated in Figure 3. As shown sheet material 8 is adhesively secured to a glass, wall or other plane surface 24. The flanged portion 26 of a can 28 is then forced between pressed out portions 4 and 6 of supporting unit 2. Once the can is in place between the pressed out portions 4 and 6, as shown, it is held there by point 18 of pressed out portion 6. Substantially the entire weight of the can is borne by pressed out portion 6, point 18 of which fits under the flange of the can. Pressed out portion 4 is provided, however, to prevent accidental dislodgment and is preferably of sufficient strength to project slightly below the top of flange 26. Supporting unit 2, and more particularly struck out portion 6, is preferably of such thinness as to engage beneath the flange of an ordinary rolled brim can. If desired, points 16 and 18 may be rounded, sharpened or reshaped. The type of supporting unit shown may be used for many types, sizes and shapes of cans including round, square, long, short, wide or flat cans.

The type of unit shown is especially advantageous in that it can be produced from well known and readily available types of materials at a relatively small cost. One of the advantages of the unit illustrated in Figures 1, 2 and 3 lies in the fact that the two struck out portions 4 and 6 permit some motion of the can. In other words, the method of supporting a can as illustrated in Figures 1 to 3 permits a relatively free swinging relationship between the supporting unit and the can. If a rigid relationship is maintained the full force of any blow against the can would be imparted to the supporting unit. This is undesirable where a unit is fastened to a surface by means of a pressure sensitive adhesive, as explained in connection with Figures 1 to 3, because it might tend to pull said adhesive away from the surface to which it is attached.

If a more rigid relationship between the supporting unit and can or other flanged article to be held thereby is desired, it can be attained by providing a plurality of struck out metal portions in opposed relationship to each other. Thus, as shown in Figure 4, supporting unit 30 may have a single struck out portion 32 adapted to engage beneath the flange of a can or similar article and a plurality of struck out portions 34 and 36 in the upper part of the supporting unit adapted to engage or overlie the top of the flange. Alternatively, as illustrated in Figure 5, the supporting unit 38 may consist of a struck out upper portion 40 and a plurality of struck out lower portions 42 and 44.

Pressure sensitive adhesives such as are employed to make an adhesive backing for my combined supporting unit are old and well known in the art. Usually such adhesives are made from rubber or latex compounded with other ingredients. Such other ingredients usually include resins which have some tendency to cause deposits on surfaces to which the adhesive is applied. In general I prefer to employ non-resinous pressure sensitive adhesives which do not have a tendency to cause such deposits.

It will be understood that variations may be made in the supporting units described without departing from the invention. For instance, the number of eyelets may be varied. In place of two eyelets, three or four eyelets may be used, the additional eyelets being placed in a lower portion of the metal supporting unit. In carrying out the invention, however, I have found that two eyelets placed in an upper portion of the metal supporting unit, as illustrated in the drawing, are sufficient to hold the metal supporting unit in place while maintaining it in relatively close relationship throughout with the sheet material to which it is affixed.

It will be recognized that the metal supporting units are new and useful apart from any attachment thereof to a sheet material. Thus, if desired, these metal supporting units may be affixed to walls or any other type of supporting surface by nails, screws or other means and when so affixed are suitable for holding cans. Insofar as I am aware, this is the first time a supporting or suspending unit has ever been provided which is adapted to engage relatively small flanges in a manner such that cans and similar articles may be suspended in an upright position in which the lettering thereon is visible and readable.

The provision of a combined unit in which the metal supporting unit is associated with a sheet material, preferably coated on its rear face with a pressure sensitive adhesive, is particularly advantageous for advertising purposes because, as previously explained, it is possible to print advertising or other matter on the front face of the sheet material. Insofar as I am aware this is the first time a can holder has ever been provided which is attachable to and removable from glass or other plane surfaces.

Supporting units of the character described may be employed for supporting cans containing oil, as, for instance, quart cans of oil such as are normally used in filling stations. Contrary to expectation it is found that such cans may be easily supported by means of a combined supporting unit having on its rear face a pressure sensitive adhesive as illustrated and described in connection with Figures 1, 2 and 3. These supporting units may also be used to support cans containing foodstuffs and similar materials. It might be thought that pressure sensitive adhesive backing would tend to weaken upon prolonged standing when used in a supporting unit of the character described due to the constant pull of the can or other flanged article being supported. My experience has shown, however, that this is not the case and that the adhesive relationship between the pressure sensitive adhesive and the plane surface to which it is attached actually becomes stronger. At the same time, with properly prepared pressure sensitive adhesives no difficulty is encountered in readily removing the entire unit from its supporting surface. As will readily be apparent, moreover, it is possible to change the canned goods on display at will.

Supporting or suspending units of the character described herein are not limited to use in direct attachment to flanged articles. They may be used to engage flanged members which in turn are affixed to or support flanged or unflanged articles.

Furthermore, insofar as I am aware, no one has heretofore provided supporting units consisting of a flexible base material, a pressure sensitive adhesive forming a coating on the rear face of said base, said adhesive being suitable for application and re-application to smooth surfaces, a supporting element affixed to the front face of said base and fastenings extending between said supporting element and said base for securing the two in assembled relationship. It will be apparent that the supporting element or elements, instead of being a holder for flanged articles, may be a hook or other type of supporting element rigidly fastened to the base material and preferably disposed interiorly and in a lower portion thereof as previously described with reference to the can supporting unit.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A vertically disposable holder for beaded articles comprising, in combination, a flat metal base, an upper finger pressed out of the base and at least one lower finger pressed out of said base and adapted to extend in the direction of the upper finger, said fingers being spaced apart by a distance approximately equivalent to the thickness of the bead.

2. A vertically disposable holder for beaded articles comprising, in combination, a flat metal base, an upper finger secured to the base and extending outwardly therefrom and at least one lower finger secured to the base and arranged to extend outwardly therefrom in the direction of the upper finger, the adjacent extremities of said fingers being spaced apart by a distance approximately equivalent to the thickness of the bead.

3. A vertically disposable holder for beaded articles comprising, in combination, a small, sheet-like base having a plurality of tongues or fingers pressed outwardly therefrom and arranged to extend in the direction of one another vertically with the ends of said fingers or tongues separated by a distance approximately equivalent to the thickness of the bead.

4. A vertically disposable holder for beaded articles comprising, in combination, a sheet-like base portion, an upper finger secured to the base and arranged to extend outwardly and downwardly therefrom to engage within the rear of the bead, and a plurality of lower fingers secured to the base and arranged to extend outwardly and upwardly therefrom in the direction of the upper finger to engage the lower portion of the bead, the adjacent extremities of said upper finger and said plurality of lower fingers being spaced apart by a distance approximately equivalent to the thickness of the bead.

CASPAR F. ENGERT.