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(54) **CONTAINER HOLDER**

(57) **ABSTRACT**

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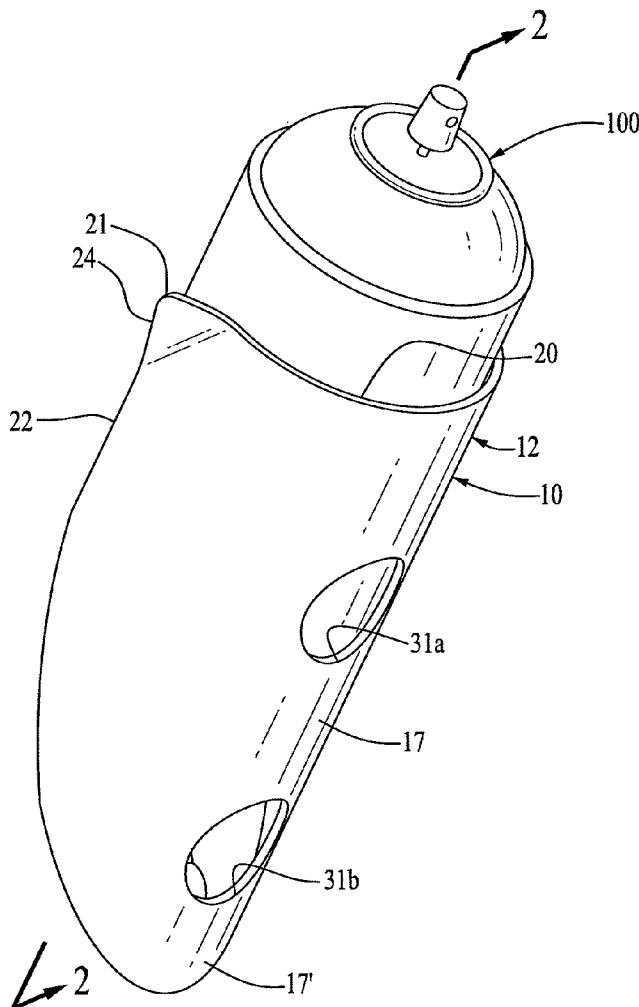
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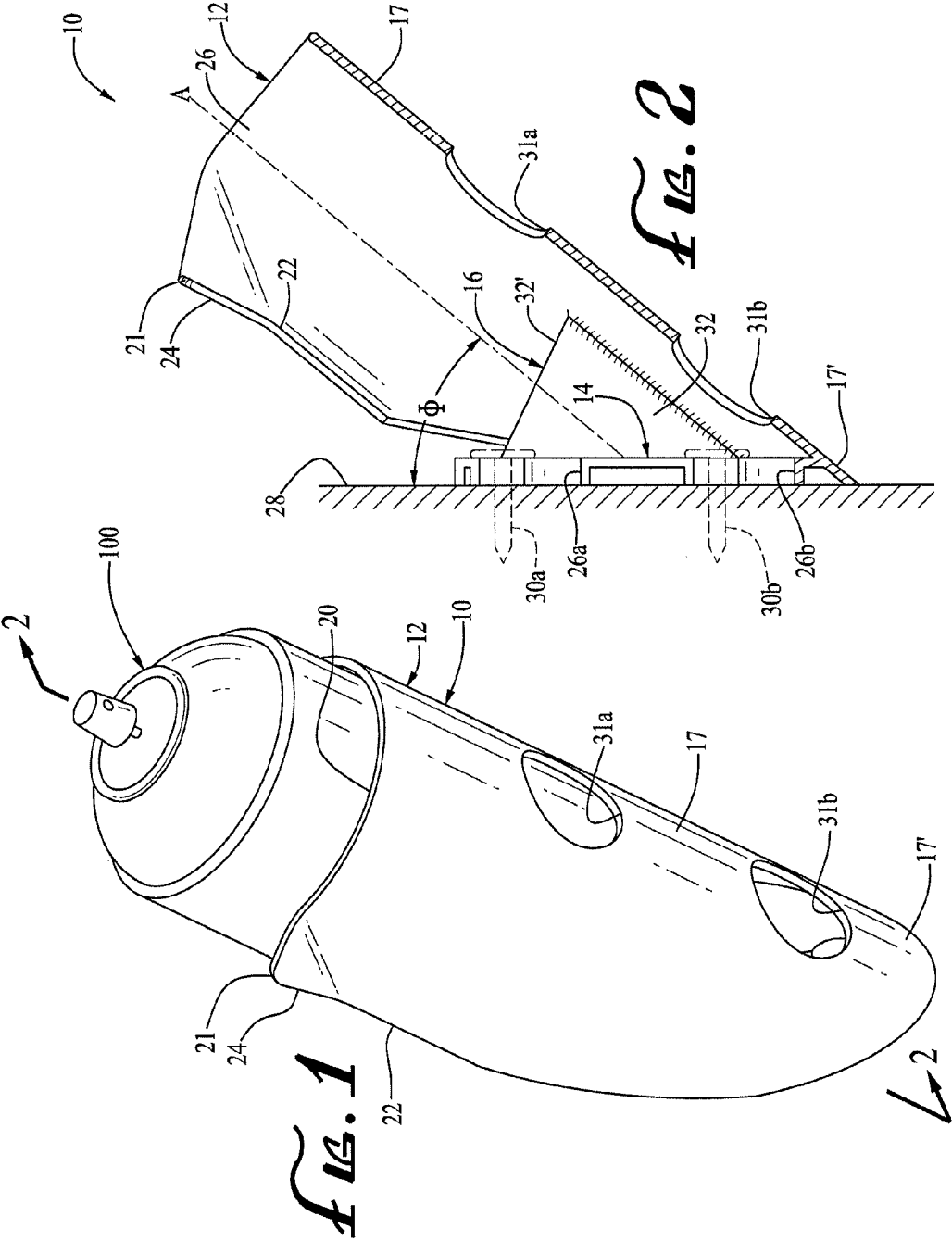
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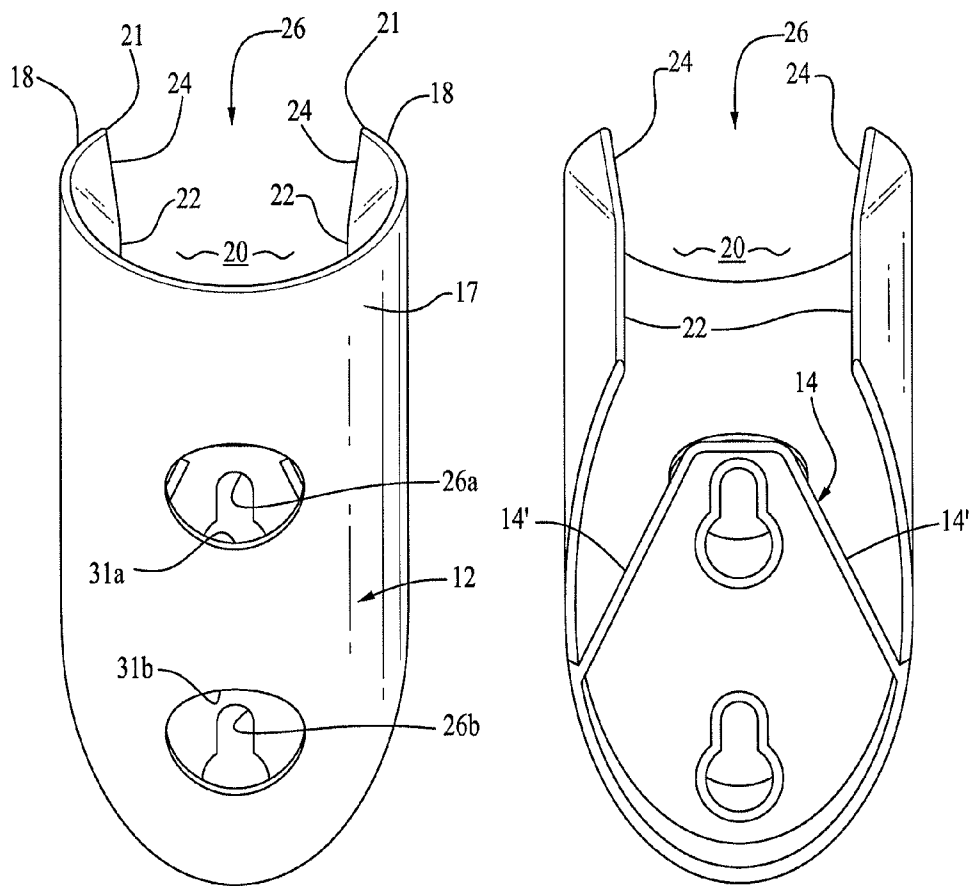
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A wall-mounted holder for cylindrical cans including a base and a generally cylindrical body portion integrally formed with and extending forwardly of the base at an upward inclination. The base defines a wall mounting surface thereon. The body portion has an extended open upper end for the insertion and removal of the container and defines a minimum interior transverse dimension and an opening extending longitudinally along a side portion thereof. Portions of said body portion extending along the opposed sides of the opening define container abutment surfaces such that upon inserting a cylindrical object having a diameter greater than the aforesaid transverse dimension into said body portion through the open upper end thereof, the abutment surfaces on the body portion of the holder are caused to flex outwardly and bear against portions of the container, securing the container within the body portion.

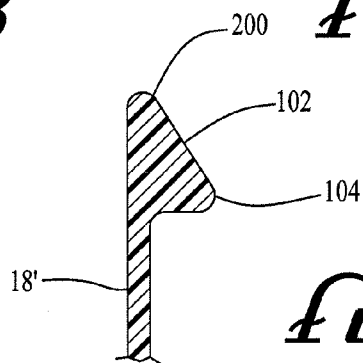




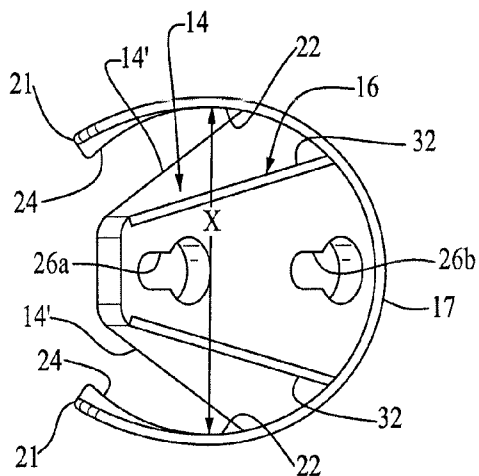


*FIG. 3*

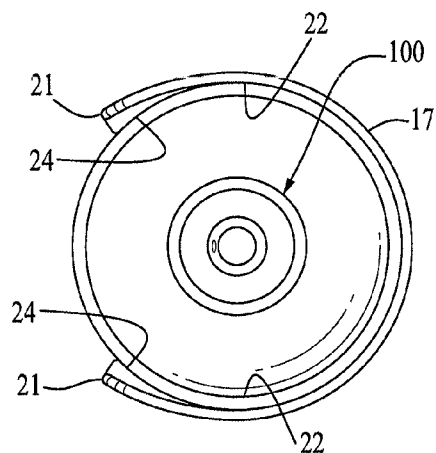
*FIG. 4*



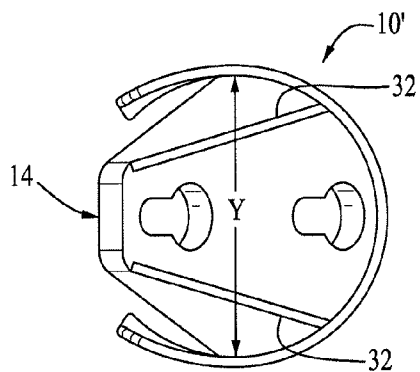
*FIG. 9*



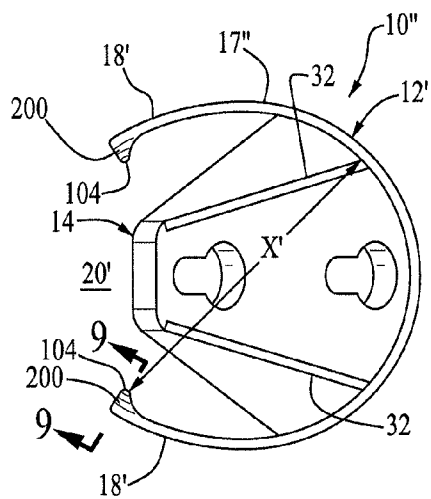
*FIG. 5*



*FIG. 6*



*FIG. 7*



*FIG. 8*

## CONTAINER HOLDER

### BACKGROUND OF THE INVENTION

[0001] The present invention relates to a container holder that is adapted to be mounted on a substantially vertical surface such as a wall or post and is particularly configured for releasably, but securely, holding an aerosol can. Aerosols are used for a wide variety of products including paints, deodorants, insect sprays, sun screens and oven cleaners among others. The aerosol container is cylindrical, formed of metal and depending on the particular product, relatively standard in diameter. Aerosols are typically stored in cupboards where they are out of sight and not readily available. In many instances, both at home and on the job, it would be advantageous to have a wall-mounted holder for the aerosol can so that the particular aerosol would be visible and readily accessible. Such a holder should be of simple construction and economical to manufacture, attractive and configured such that the cans can be readily inserted into the holder and readily pulled therefrom. The holder itself should be readily attachable to and removable from a wall, post or other substantially vertical surface. It should be constructed such that it does not have any flanges or other protrusions that could easily scratch an individual or snag one's clothing if he or she were to inadvertently brush against the device. Such a holder also should be capable of securely supporting the aerosol can therein and be capable of providing such a securement for cans varying somewhat in their radial dimension and more so in length. Such a securement would be particularly beneficial in applications in which one or more such holders was employed in an RV or other moving vehicle. Such a holder is provided by the present invention.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0002] FIG. 1 is a perspective view of a container holder of the present invention secured to a vertical wall surface and containing an aerosol can therein.

[0003] FIG. 2 is a sectional view taken along the line 2-2 in FIG. 1 with the aerosol can removed.

[0004] FIG. 3 is a frontal plan view of the container holder of the present invention.

[0005] FIG. 4 is a rear view of the container holder of the present invention.

[0006] FIG. 5 is a top plan view of the container holder of the present invention taken along the center line thereof.

[0007] FIG. 6 is a top plan view of the container holder of the present invention taken along the center line of the body portion thereof with an aerosol can contained therein.

[0008] FIG. 7 is a top plan view of an alternate embodiment of the body portion of the container holder of the present invention.

[0009] FIG. 8 is a top plan view of another alternate embodiment of the body portion of the container holder of the present invention.

[0010] FIG. 9 is a partial sectional view of the container holder of FIG. 8.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0011] Referring now in detail to the drawings, the container holder 10 of the present invention is preferably injection molded of a plastic material such as polyethylene or ABS plastic so as to be of single-piece construction and defines a

resilient body portion 12, a base 14 and a base support 16. The container body portion 12 is defined by an elongated curvilinear wall 17 that extends at an upward inclination from base 14 in a generally cylindrical configuration. Wall 17 defines a pair of end portions 18 extending longitudinally along opposed sides of an open area 20 in the upper side of body portion 12 as seen in FIG. 1. The laterally spaced end portions 18 of wall 17 are preferably rounded at 21 and define a pair of container abutment surfaces 22 extending along the opposed sides of the elongated opening 20. The extended upper end portions 24 of wall 17 disposed adjacent to opening 20 and to open upper end 26 of the body portion of the holder 10 are preferably outwardly flared, both to assist in the insertion of an aerosol can 100 into the holder through the extended open upper end 26 thereof and to cause the container abutment surfaces 22 to flex outwardly as the can 100 is inserted into the holder through open end 26 and bear against the side of the can as will be described. It is to be understood that while the holder 10 is particularly configured to hold and secure a cylindrical aerosol can therein, the present invention is well suited for holding other cylindrical containers and indeed other objects, preferably cylindrical, therein as well.

[0012] The container base 14, which preferably is of a generally trapezoidal configuration (see FIG. 5) and integrally formed with the container body 12 during the molding process, extends vertically upwardly from the lower forward end 17' of wall portion 17, as seen in FIG. 2. Base 14 preferably defines a pair of vertically aligned conventional slotted mounting apertures 26a and 26b therein for mounting the container holder 10 to a wall 28, post or other substantially vertical surface by means of a pair of screws 30a and 30b or other suitable fasteners. A pair of axially aligned apertures 31a and 31b can be formed in the forward facing side of the body portion 12 of the holder 10 to provide access to the slotted apertures 26a and 26b and screws 30a and 30b with an appropriate tool such as a screwdriver (not shown) to facilitate the mounting of holder 10 on a wall or other surface. The term "wall-mounted" is used herein to refer to a container holder that can be mounted on a wall, post or any other surface that is at least substantially vertical in its orientation. Alternative means for securing the base 14 to a wall or other surface could be employed. For example, in lieu of or in addition to mounting apertures or slots that cooperate with separate fasteners, two-sided adhesive-backed tape could be utilized.

[0013] In a preferred embodiment of the present invention, a central axis A extending through the container body portion 12 defines an angle  $\theta$  of about 40° with respect to base 14. Thus, when the base is mounted on a wall, post or other substantially vertical surface, the body portion 12 of the container holder will project outwardly and upwardly from the mounting surface at an angle of about 40°. While orienting the body portion 12 at an angle of about 40° with respect to vertical is preferred to provide a very convenient orientation of the holder for inserting and removing an aerosol can or other container into and from the holder, it is understood that different angles could be employed.

[0014] To provide structural support for the holder 10 and a flooring for the container to be held therein, a support 16 in the form of a pair of support walls 32 extends from the interior lateral edges 14' of base 14 to the interior curvilinear surface of wall 17, as illustrated in FIGS. 2 and 5. The upstanding edges 32' of support walls 32 thus define abutment surfaces or a flooring to be abutted by the base of the aerosol can 100 or

other container inserted into the holder **10** through the flared upper open end **26** thereof. It is to be understood that varying angular orientations could be defined by the leading edges **32'** of the support walls **32** to define a variety of differently shaped abutment surfaces for the container. Also, alternative base support configurations could be employed in lieu of support walls **32**, including the use of the interior surface of the base itself, provided the structural connection between the body portion **12** and base of the holder is adequate. The use of support walls **32** is preferred as they provide an economical means of supporting the base of the holder while providing a flooring for the container and allowing the holder to be molded of single-piece construction.

**[0015]** The above described configuration of the wall-mounted container holder **10** provides a convenient means of attaching the holder **10** to a wall **28** or other substantially vertical surface and positions the body portion **12** of the holder **10** at a convenient angle for the user so that the user can easily slide can **100** or other container into the body portion **12** of the holder **10** through the open upper end **26** thereof. By outwardly tapering the upper end portions **24** of wall **17** adjacent to opening **20** as previously described, the container is effectively guided into the holder such that the longitudinally extending gripping surfaces **22** are flexed outwardly by the container. When the container is inserted into the body portion **12** of the holder **10**, the portions of the abutment surfaces disposed below the tapered upper end portions **24** will bear against the side of the container due to the resiliency of the flexed material, securing the container within the holder. The holder **10** is sized for a standard size aerosol can diameter so that when the can is inserted through the flared upper open end of the holder and pushed down into the body portion **12** of the holder, the can **100** or other container is secured as described. It should be noted that other wall configurations could be defined by the laterally spaced end portions of wall **17** in lieu of the curvilinear end portions **18** illustrated in the drawings, to abut and hold the can **100** or other container in place within the holder.

**[0016]** In holder **10**, the resiliency of the material of which holder is formed cooperates with the configuration of the body portion **12** of the holder to cause the body portion to define and function like a resilient generally C-shaped clamp or spring and bear against and secure the can **100** or other object therein while allowing for some variation in the diameter of the container or other object. The extent of the variation depends on the resiliency of the body portion **12** of the holder which is a function of the material of which the holder is formed and the configuration and thickness of the body portion wall **17**. For example, a container holder **10** formed of polyethylene and having a body portion wall thickness of about 0.070 inches designed for a conventionally-sized aerosol paint can, which has a diameter of about 2.70 inches, can grip and hold cylindrical containers varying in diameter from about 2.56 to 2.80 inches sufficiently firmly so as to prevent any rattling of the can within the holder when used in RV or other motor vehicle applications while continuing to allow the can to be readily inserted and removed from the holder.

**[0017]** For significantly different sized containers, the size of the holder would be adjusted accordingly. Specifically, the shortest or minimum transverse dimension (X) across the interior of body portion **12** of holder body **12** below the outwardly flared upper portions **24** in a relaxed state (see FIG. **5**) would need to be varied for particular applications. If the diameter of a container is less than the transverse dimension

(X), the container would be supported within the body portion of the holder, but not secured therein as the container would be too small (in diameter) to flex the body portion wall during insertion and thus too small to be gripped by the clamping action of the container holder. Transverse dimension (X) of a holder **10** of the present invention designed to carry a typical aerosol deodorant having a diameter of 2.7 inches would be about 2.45-2.50 inches in a relaxed state. Other container holders could be specifically sized for differently sized goods. Also, the holders of the present invention can be formed in different colors to identify different product applications according to size requirements (e.g. paint, deodorant, etc.) or to identify the color of the product (e.g., red paint).

**[0018]** Other cross-sectional configurations could be defined by the body portion of the holder and continue to utilize the clamp or spring like securement of the present invention described above. For example, FIGS. **8** and **9** illustrate a body portion **12'** of a container holder **10'** in which the minimum transverse dimension (X') of the body portion extends through one of two inwardly projecting, opposed protuberances **200** defined by the interior surface of the body portion wall **17''** and preferably positioned on opposed sides of opening **20'** substantially adjacent to the end portions **18'** thereof. The upper surfaces **102** of the protuberance are preferably tapered such that upon the insertion of a container through the open end of the holder **10''**, the container bears against the upper surfaces **102** of the protuberances and flexes the body portion wall outwardly as the container is urged into the holder, causing the inner surface **104** of the protuberances **200** to bear against the side of the container and firmly secure the container within the holder.

**[0019]** Because the body portion **12** of the container holder **10** is configured to function like a resilient clamp or spring and bear against the side wall of a cylindrical container, the positioning of the longitudinally extending opening therein is not critical. By positioning open area **20** such that it extends along the upper side of the body portion, as shown in the drawings, the holder **10** will hold a container within the body portion that is smaller in diameter than the transverse dimension across opening **20**, albeit not securely. The container would simply rest against the lower interior surface of the body portion **12**. If the body portion **12** were essentially inverted such that it extended at an upward inclination from base **14** with the open area **20** extending along the underside thereof (as opposed to the underside of the body portion), the inverted body portion (not shown) would still be capable of functioning like a resilient clamp or spring securing the container therein while allowing for slight variations in container diameter. However, if the diameter of the container were less than the transverse dimension of the open area extending along the underside of the body portion, the container would simply fall therethrough. Thus, the positioning of the open area **20** in the body portion **12** of the holders illustrated in the drawings, while not necessary, is preferred.

**[0020]** Various other changes and modifications may be made in carrying out the present invention without departing from the spirit and scope thereof. Insofar as such changes and modifications are within the purview of the appended claims, they are to be considered as part of the present invention.

What is claimed is:

1. A wall-mounted container holder comprising a base and a generally cylindrical resilient body portion integrally formed with and extending forwardly at an upward inclination from said base, said base defining a wall mounting sur-

face thereon and said body portion defining a minimum interior transverse dimension, an extended open upper end for the insertion and removal of a container therethrough, an opening extending longitudinally along a side portion thereof and a pair of laterally spaced end portions extending longitudinally along opposed sides of said opening, said end portions defining container abutment surfaces whereby said body portion defines a resilient clamp about the interior thereof, such that upon inserting a container having a diameter greater than said minimum interior transverse dimension into said body portion through said extended open upper end thereof, said abutment surfaces on said body portion are caused to flex outwardly and bear against portions of said container, securing said container within said body portion.

2. The container holder of claim 1 including a base support integrally formed with said base and said body portion and extending therebetween, said base support defining an abutment surface for a container upon a container being inserted into said body portion through said extended open upper end thereof.

3. The container holder of claim 2 wherein said base support comprises a pair of spaced walls, said walls extending between portions of said base and said body portion, and defining end surfaces projecting into said body portions, said end surfaces collective comprising said abutment surface.

4. The container holder of claim 1 wherein said body portion flares outwardly on opposed sides of said opening adjacent to said extended upper open end thereof to facilitate the sliding insertion of a container into said holder through said open upper end and flex said abutment surfaces outwardly during the sliding insertion of the container.

5. The container holder of claim 2 wherein said opposed laterally spaced end portions of said body portion define laterally spaced inwardly projecting fingers, said fingers abutting and bearing against a container upon a container being inserted through said extended open upper end of said body portion and securing the container within said body portion.

6. The container holder of claim 1 including at least one mounting aperture in said base for use in securing said holder to a wall, post or other substantially vertically disposed surface and at least one opening in a side portion of said body portion for providing access to said at least one mounting aperture in said base to facilitate the securement of said base to said surface.

7. The container holder of claim 6 including a base support integrally formed with said base and said body portion and extending therebetween, said base support defining an abutment surface for a container upon a container being inserted into said body portion through said extended open upper end thereof.

8. The container holder of claim 6 wherein said body portion flares outwardly on opposed sides of said opening adjacent to said extended upper open end thereof to facilitate the sliding insertion of a container into said holder through said open upper end and flex said abutment surfaces outwardly during the sliding insertion of the container.

9. The container holder of claim 1 including a pair of vertically aligned mounting apertures therein for use in securing said holder to a wall, post or other substantially vertically disposed surface and a pair of vertically aligned openings in a

side portion of said body portion for providing access to said mounting apertures in said base to facilitate securement of said base to said surface.

10. The container holder of claim 9 wherein said body portion flares outwardly on opposed sides of said opening adjacent to said extended upper open end thereof to facilitate the sliding insertion of a container into said holder through said open upper end and flex said abutment surfaces outwardly during the sliding insertion of the container.

11. A wall-mounted holder of unitary construction for aerosol cans and other cylindrical objects, said holder comprising a base and a generally cylindrical resilient body portion extending forwardly at an upward inclination from said base, said base defining a wall mounting surface thereon and said body portion defining a minimum interior transverse dimension, an extended open upper end for the insertion and removal of a cylindrical object therethrough, an opening extending longitudinally along a side portion thereof and a pair of opposed laterally spaced end portions extending longitudinally along opposed sides of said opening said end portions defining abutment surfaces, and wherein said body portion flares outwardly on opposed sides of said opening adjacent to said extended upper open end thereof to facilitate the sliding insertion of a container into said holder through said open upper end and flex said abutment surfaces outwardly during the sliding insertion of the container whereby said body portion defines a resilient clamp about the interior thereof such that upon inserting a cylindrical object having a diameter greater than said minimum internal transverse dimension into said body portion through said extended open upper end thereof, said abutment surfaces bear against portions of the object, securing the object within said body portion.

12. The holder of claim 11 including a base support integrally formed with said base and said body portion and extending therebetween, said base support defining an abutment surface for the cylindrical object upon a cylindrical object being inserted into said body portion through the outwardly flared extended open upper end thereof.

13. The holder of claim 12 wherein said base support comprises a pair of spaced walls, said walls extending between portions of said base and said body portion, and defining end surfaces projecting into said body portions, said end surfaces collective comprising said abutment surface.

14. The holder of claim 11 including a pair of vertically aligned mounting apertures therein for use in securing said holder to a wall, post or other substantially vertically disposed surface and a pair of vertically aligned openings in a side portion of said body portion for providing access to said mounting apertures in said base to facilitate securement of said base to said surface.

15. The holder of claim 12 including a pair of vertically aligned mounting apertures therein for use in securing said holder to a wall, post or other substantially vertically disposed surface and a pair of vertically aligned openings in a side portion of said body portion for providing access to said mounting apertures in said base to facilitate securement of said base to said surface.

16. The holder of claim 11 wherein said opening extends longitudinally along an upper side portion of said body portion.

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