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Bennet

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[54] **RECEPTACLE ATTACHMENT FOR WHEELCHAIR ARM**

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[52] **U.S. Cl.**..... **297/194,** 297/DIG. 4, 108/25, 232/19

[51] **Int. Cl.**..... **A47c 7/62**

[58] **Field of Search**..... 297/194, 188, 191, 297/DIG. 4; 312/248, 245; 108/33, 26, 34, 38, 25; 232/17, 19, 1 R

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[57] **ABSTRACT**

A receptacle attachment comprising a case adapted for fixed mounting to a wheelchair arm and defining a main compartment for receiving sundry articles. A cover pivotally mounted to the case includes a front wall having a lower edge portion engageable upon the case front wall to orient the cover in a horizontal or open position in which its walls define an auxiliary compartment adjacent the main compartment. Resilient snubbers releasably hold the cover in its closed position.

1 Claim, 5 Drawing Figures

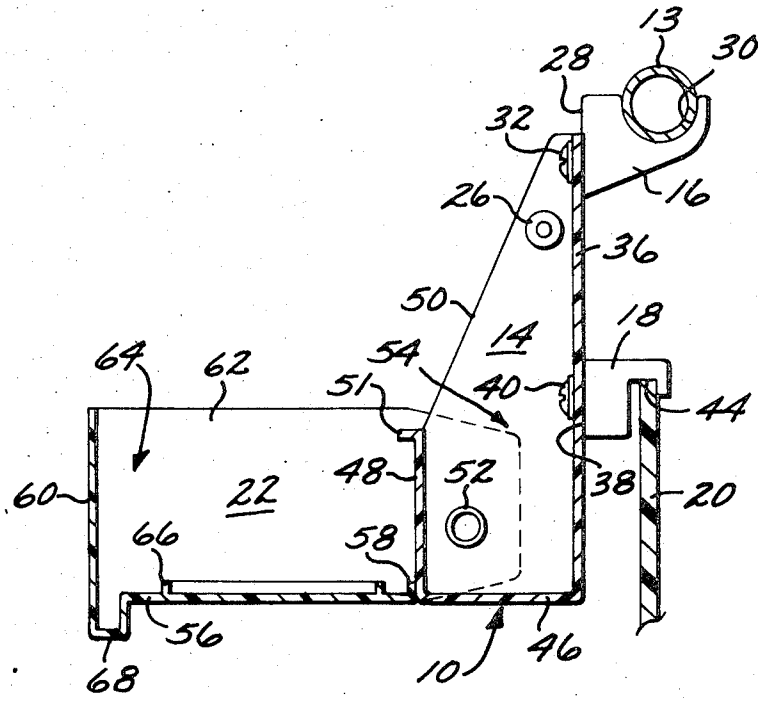


FIG. 1

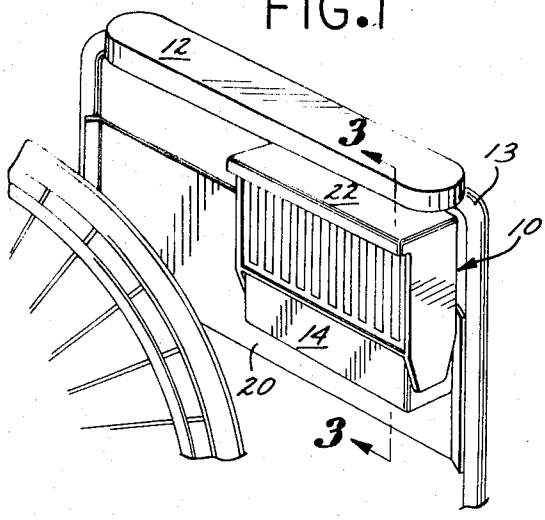


FIG. 2

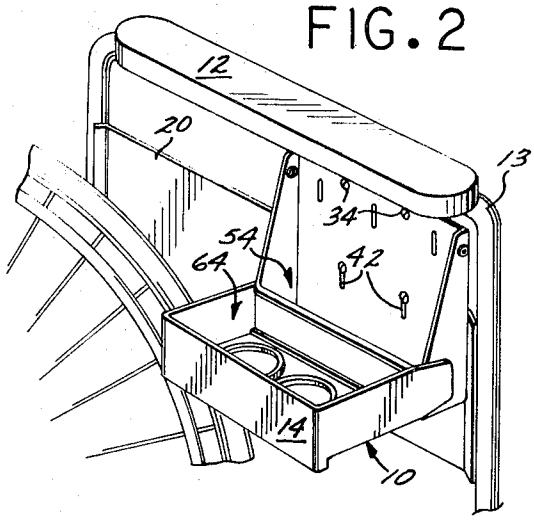


FIG. 3

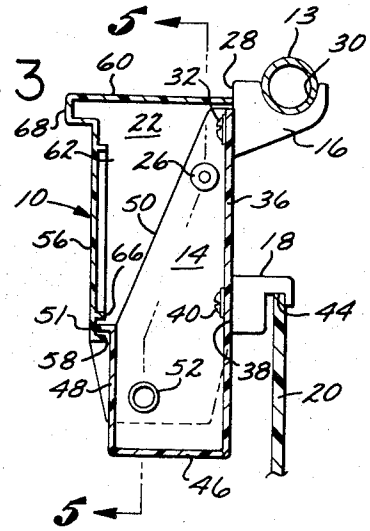


FIG. 4

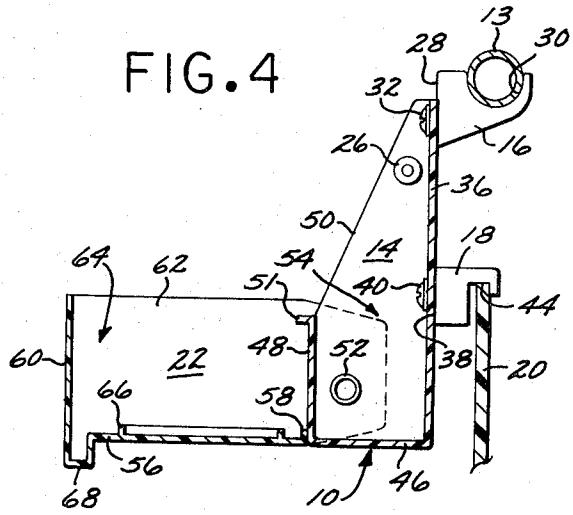
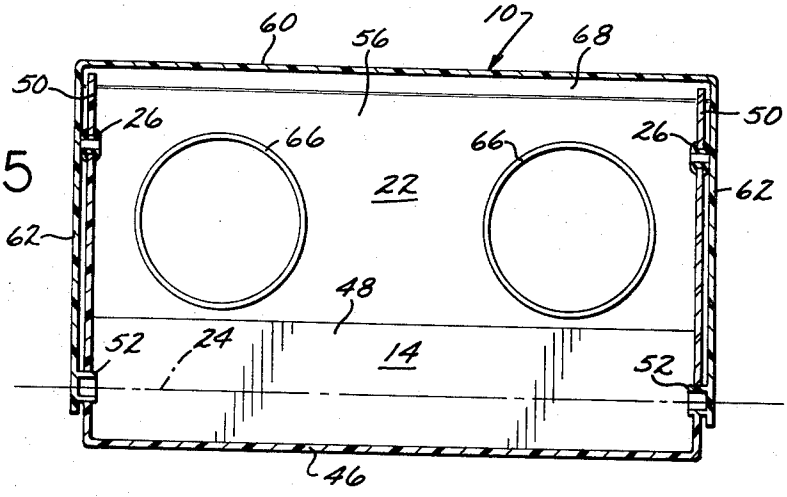


FIG. 5



RECEPTACLE ATTACHMENT FOR WHEELCHAIR ARM

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to receptacle attachments for wheelchair arms.

2. Description of the Prior Art

A handicapped person in a wheelchair often has no convenient place to store articles of a personal nature. Loose containers, purses or the like fall out of reach or are not conveniently accessible. Alternatively, if a bag or similar holder is attached to the wheelchair where it can be reached there is the danger that it might become entangled in the moving parts of the wheelchair.

SUMMARY

According to the present invention, a receptacle attachment is provided which includes a case for mounting in fixed position upon a wheelchair arm, the walls of the case defining a main compartment for receiving sundry articles. The receptacle attachment also includes a cover which in its vertical or closed position closes the main compartment, but which is quickly and easily pivoted to a horizontal or open position to define an auxiliary compartment. In the open position the cover engages upon the front wall of the case for support to bear the weight of beverage cups and like articles temporarily placed in the auxiliary compartment.

The receptacle attachment includes resilient means engaged between the case and cover to frictionally constrain the cover against inadvertent movement to its open position. However, a firm pressure upon the cover overcomes this resilient constraint to pivot the cover to its open position.

The present receptacle attachment is relatively inexpensive to manufacture, easy to maintain, and sufficiently rugged and dependable in service that a reliable and convenient receptacle is always at hand for the wheelchair user.

Other objects and features of the invention will become apparent from consideration of the following description taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the receptacle attachment in closed position, mounted to the wheelchair arm;

FIG. 2 is a perspective view similar to FIG. 1, but illustrating the open position;

FIG. 3 is a view taken along the line 3—3 of FIG. 1;

FIG. 4 is a view similar to FIG. 3, but illustrating the open position; and

FIG. 5 is a view taken along the line 5—5 of FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

According to the present invention there is provided a receptacle attachment **10** for mounting to the outside of a wheelchair arm **12**. The attachment **10** is preferably made of injection molded impact resistant plastic material and comprises, generally, a generally rectangular case **14** which is secured to the wheelchair arm **12** by an upper bracket **16** fitted to the arm support tube **13** and by a lower bracket **18** fitted to the wheelchair skirt panel or guard **20**. The attachment **10** further includes a cover **22** which is mounted to the case **14** for movement about a horizontal pivot axis **24**, the cover normally being constrained against pivotal movement relative to the case **14** by a pair of snubbers **26**.

The brackets **16** and **18** for mounting the attachment **10** to the wheelchair arm structure is merely exemplary, and various types of attachment brackets may be used, depending upon the particular nature of the wheelchair structure to which the receptacle attachment **10** is to be mounted. In the present example, the wheelchair arm **12** comprises the support tube **13**, which constitutes the upper portion of the arm **12**, and the skirt guard **20** which forms part of the lower portion of the arm **12**.

The upper bracket **16** includes a vertical wall **28** which is integral with an upwardly opening, arcuate channel **30** adapted to complementally receive the arcuate undersurface of the arm support tube **13**, as best illustrated in FIG. **1**. The vertical bracket wall **28** includes openings within which a pair of interiorly threaded bushings (not shown) are press fitted. A pair of complemental mounting screws and washers **32** extend through suitable openings **34** in a vertically oriented rear wall **36** of the case **14**, being threaded into the threaded bushings to rigidly secure the portion of the case **14** to the arm support tube **13**.

The lower bracket **18** includes a vertical wall **38** having spaced apart openings within which are press fitted internally threaded bushings which threadably receive a pair of complemental mounting screws and washers **40**. These extend through suitable openings **42** provided in the case rear wall **36**. Adjacent the wall **38** the bracket **18** includes a downwardly opening groove or channel **44** which complementally fits over the upper edge margin of the wheelchair skirt guard **20**, so that tightening of the screws **40** securely clamps the case **14** onto the skirt guard **20** of the arm **12**.

The openings **42** are vertically elongated to provide some tolerance for possible variations in the exact location of the upper edge of the skirt guard **20**. However, it will be apparent that the location and number of the openings in the casing wall **36** can be made such as is required to adapt the receptacle attachment **10** to various types and sizes of wheelchair.

The case **14** further includes a horizontal bottom wall **46**, a front wall **48** extending upwardly approximately one-third the height of the rear wall **36**, and a pair of side walls **50** whose front or outer edges slope upwardly and inwardly as illustrated. The case walls **36, 46, 48** and **50** define a main compartment **54** for receiving and storing sundry articles, such as handkerchiefs, glasses, lipstick, and the like.

The upper portions of these side walls **50** include openings within which the snubbers **26** are located. Each snubber is preferably a rubber grommet with a peripheral groove to seat the edge margin of the opening within which it is disposed. The portions of the snubber projecting outwardly of the opening are thus adapted to resiliently or frictionally engage the cover **22**, as will be seen.

The lower portions of the case side walls **50** include openings which receive a pair of trunnions **52**. These are integral with the cover **22**, as will be seen, and define the pivot axis **24**. The inner terminus of each trunnion **52** includes a circumferential flange larger than the opening in the associated case side wall so that the trunnion **52** cannot come out of the opening. In addi-

tion, the case front wall **48** includes an outwardly projecting flange **51** at its upper edge to strengthen the front wall **48** against bending.

As best seen in FIG. **1**, the cover **22** is pivotally mounted to the case **14** for movement between a vertical or closed position and a horizontal or open position. The cover **22** includes a front wall **56**, a top wall **60** and a pair of side walls **62**. In the closed position the cover walls **56** and **62** are generally parallel to the case walls **48** and **50**, respectively, with the cover top wall **60** overlying the main compartment **54**. In the open position the cover front wall **56** is horizontally oriented and forms the bottom of an auxiliary compartment **64** in which additional articles can be temporarily placed, such as beverage cups or the like. The auxiliary compartment **64** is formed on its sides by the case front wall **48** and the cover top and side walls **60** and **62**.

The front wall **56** includes a lower terminus or edge portion in the form of an inwardly projecting flange **58** which, in the closed position of the cover **22**, is located adjacent to, coextensive with, and beneath the outwardly projecting flange **51** of the case **14**. The flange **58** strengthens the cover wall **56** against bending and also cooperates with the case flange **51** to properly locate the cover **22** in its closed position, preventing inward or closing movement of the cover **22** beyond a predetermined point. Moreover, in the open position of the cover **22** the cover flange **58** engages the lower portion of the cover front wall **48** and constrains the cover against further downward pivotal movement, thereby providing a secure support to bear the weight of filled beverage cups or the like in the auxiliary compartment **64**.

Annular, upwardly projecting ridges or rings **66** are preferably integrally molded in the inner face of the cover front wall **56** to bound and thereby locate the bottom rim of a beverage cup. In this regard, the cover front wall **56** includes an outwardly projecting hollow flange **68** which forms a groove or channel on the inside at the juncture of the front wall **56** and top wall **60** adjacent the auxiliary compartment **64**. This channel is adapted to help contain some of the liquid spillage which may occur in the compartment **64**. The hollow flange **68** also rigidifies the top wall **60** against deflection, so that a user can simply press down and outwardly upon the cover top wall **60** to quickly and easily pivot the cover **22** to its open position, and it also rigidifies the cover front wall **56** against deflection so that the wall **56** can support the weight of filled beverage cups or the like.

The portions of the snubbers **26** projecting outwardly of the case side walls **50** are resiliently engaged by the complemental inner surfaces of the cover side walls **62** in the closed position of the cover **22**. The resilience and degree of projection of the snubbers **26** holds the cover **22** in its closed position and requires a deliberate and firm downward and outward force upon the cover **22** to move it to its open position.

From the foregoing it will be apparent that the present receptacle attachment **10** is relatively quickly and easily attached in a readily accessible position on a wheelchair arm. It defines a normally closed main compartment **54**, and can be easily operated to open the main compartment **54** and simultaneously form an auxiliary compartment **64**.

Various modifications and changes may be made with regard to the foregoing detailed description without departing from the spirit of the invention.

I claim:

1. Receptacle attachment for wheelchair arm, said attachment comprising:

a case including means for mounting said case in fixed position upon a wheelchair arm, said case including a back wall, a bottom wall, a pair of side walls, and a front wall defining a main compartment for receiving sundry articles;

a cover including a front wall having a lower edge portion, a top wall, and a pair of side walls, said cover being pivotally mounted to said case for movement between a vertical, closed position, wherein said side walls and front wall are generally parallel to said side walls and front wall of said case with said top wall overlying said main compartment, and a horizontal, open position, wherein said front wall is horizontally oriented to define an auxiliary compartment defined by said front wall of said case and said front, top and side walls of said cover, said lower edge portion of said front wall of said cover engaging said front wall of said case in said open position to constrain said cover against pivotal movement below said horizontal open position, said front wall of said cover including an outwardly projecting upper portion defining, with said top wall of said cover, a channel adjacent said auxiliary compartment to receive spillage of any liquid in said auxiliary compartment and to rigidify said outwardly projecting upper portion of said front wall of said cover; and

resilient means engaged between said side walls of said case and said side walls of said cover and frictionally constraining the respective said side walls against relative movement in said closed position to releasably hold said cover in said closed position.

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