

[54] CONTAINER UNIT FOR AN AUTOMOBILE

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42.45 R; 248/DIG. 5, 34

[56] **References Cited****UNITED STATES PATENTS**

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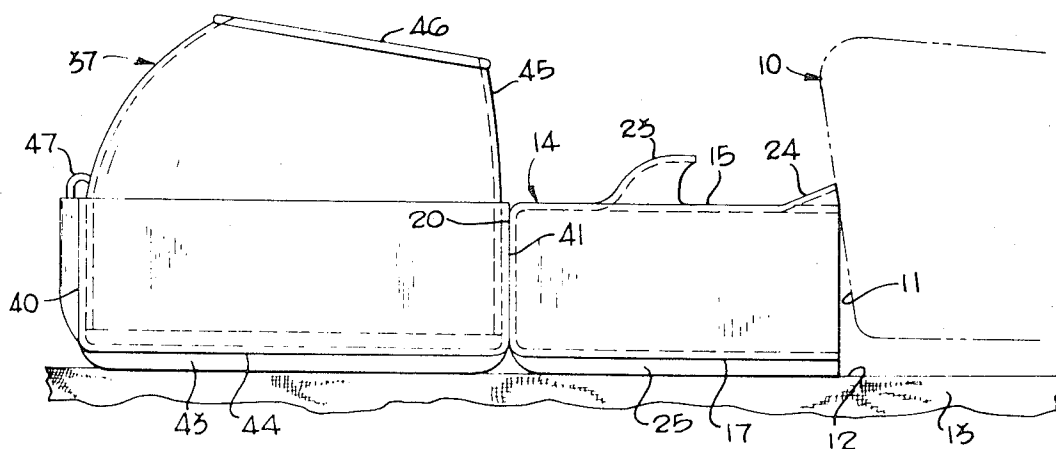
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[57] **ABSTRACT**

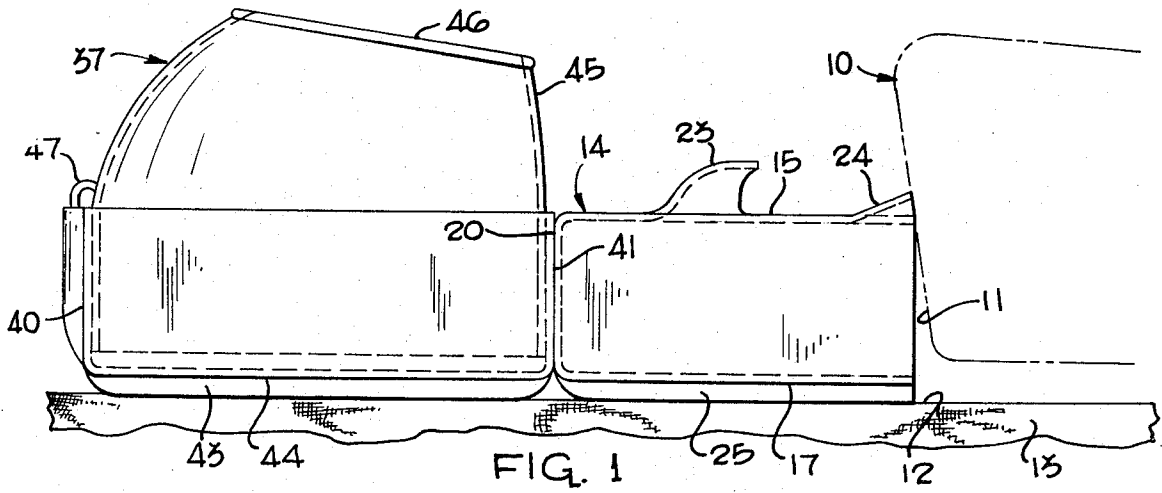
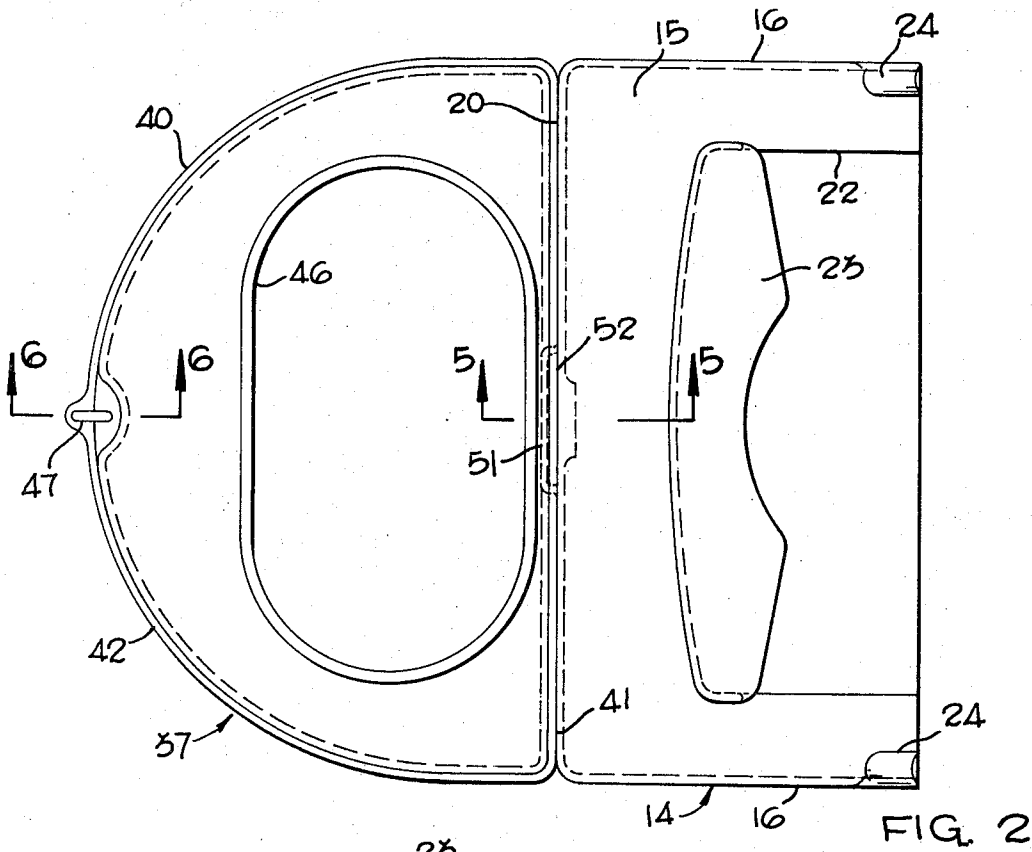
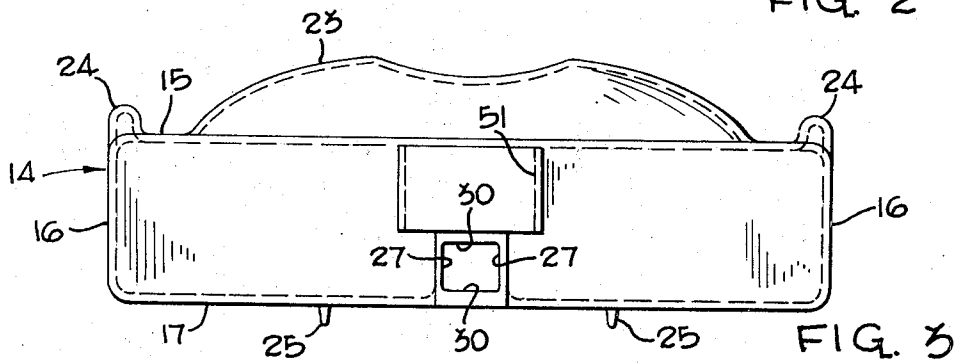
A container unit in which a spring is detachable connected to the container and located between the con-

tainer and a support surface in the automobile, and an anchorage connects the spring to the support surface in front of an angularly related abutment surface, whereby the spring exerts a pull on the container for holding the container against the abutment surface. The container can be a tissue dispenser, a litter repository, or a combination thereof or any like item. Specifically, the spring is a coiled band spring having a coil portion received in a container pocket to provide the detachable connection with the container, and an outer spring end on which the anchorage is carried for attachment to the support surface underneath the container. When used as a tissue dispenser, the container has a rear side that is open for introducing a tissue box into the container when the container is detached, the open rear side overlapping the abutment surface when the container is attached to preclude unintentional removal of the tissue box from the container. The container is provided with projecting lips about the container pocket for locating and scooping the coil portion to the pocket and thereby facilitating attachment of the container. The same spring can be utilized to retain a plurality of containers in tandem by providing a suitable detachable connection between such containers.

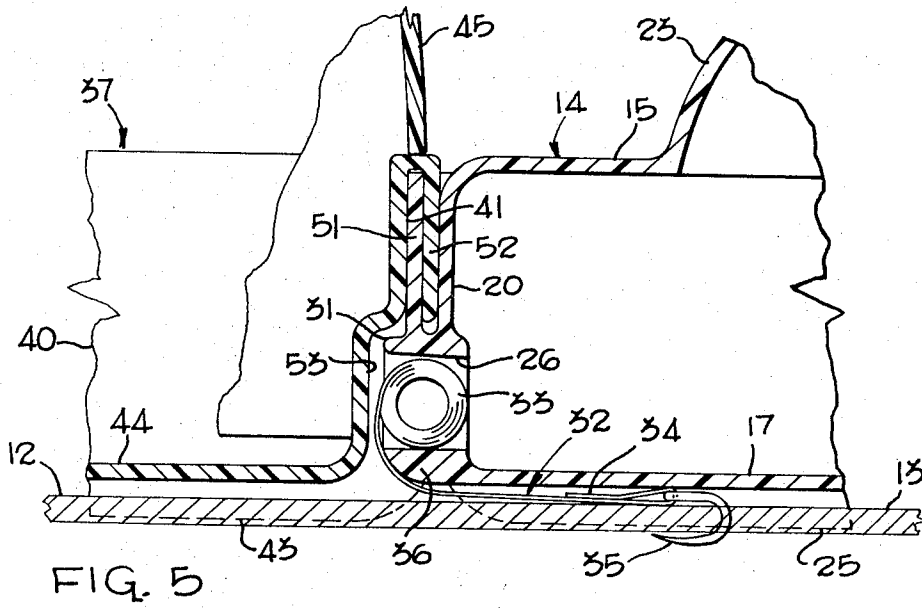
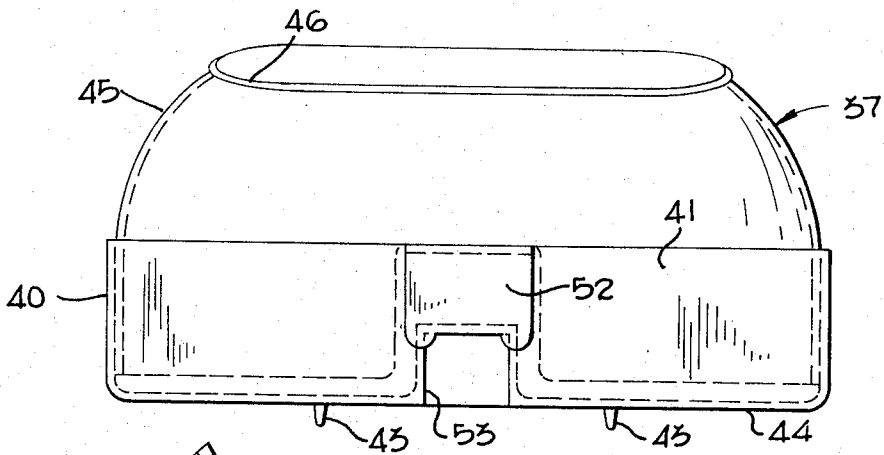
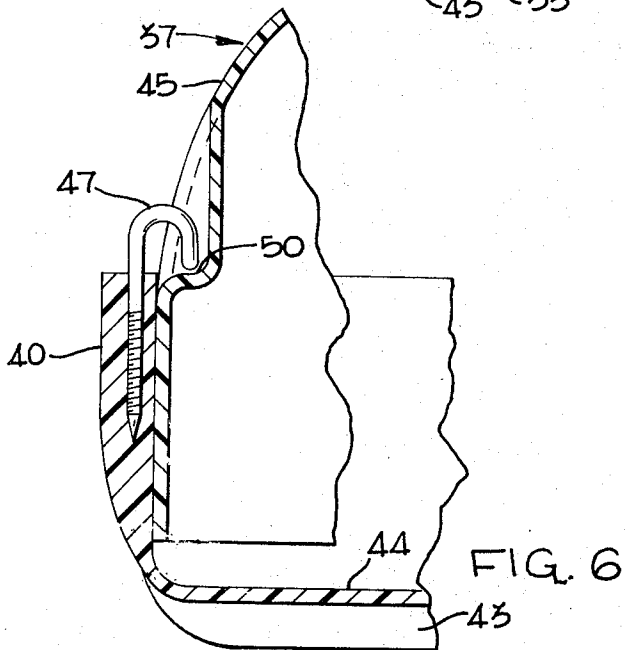
9 Claims, 6 Drawing Figures



SHEET 1 OF 2



SHEET 2 OF 2



CONTAINER UNIT FOR AN AUTOMOBILE

BACKGROUND OF THE INVENTION

This invention relates generally to improvements in a container unit for an automobile, and more particularly to an improved means for mounting a container such as a tissue dispenser, litter repository, a combination thereof, and the like to a convenient surface within the automobile. The container can hold tissues, litter, driving accessories or any convenience items.

Applicant's prior U.S. Pat. No. 3,547,326 issued Dec. 15, 1970, discloses a particular mounting for a litter container against the front side of an automobile seat. However, such mounting was difficult to obtain because the attachment was underneath the automobile seat, and the component parts were not maintained automatically in a desired alignment or location in front of the seat for ready attachment. There were a multiplicity of parts, and the mounting assembly was relatively long and occupied considerable space. Moreover, the mounting means could move unintentionally under the seat when the container was detached and require that the user subsequently find the unit under the seat, manipulate it back into position, and then deliberately arrange it relative to the container incident to connection with the container.

The heretofore conventional convenience containers have either incorporated a gravity fit such as the common placement of the container across the transmission hump of the front seat floor, or have employed attaching means for the container to the dashboard, kickpad, door of the automobile, etc. Both the gravity and fixed positions mentioned serve to interfere at times with the movement of the driver and passenger.

Those devices that could be hung from internal projections were usually constructed inexpensively of paper so that they could be thrown away when filled, and consequently were not readily available when a supply was depleted. Moreover, such containers were not convenient because they obstructed the use of the mounting projection, and were usually located in an area where they interfered with the driver's or passenger's movements and actions.

Those containers that rested on the seat took up seating room and diminished the occupant's comfort. Those containers that rested on the floor hindered the movement of the occupant's legs and were not always in the optimum position for usage, especially when utilized in conjunction with a movably mounted automobile front seat.

SUMMARY OF THE INVENTION

The present container unit provides a yielding installation for a container on the transmission hump or car floor, and provides a pressure fit against a suitable abutment surface such as a movable front seat, stationary rear seat or against the rear or front of a center console.

The mounting means does not require attachment under the automobile seat, cannot be unintentionally moved or lost under such seat, and does not require any deliberate positioning prior to or during subsequent reattachment of a container. The mounting means consists essentially of a single part of relatively small dimension. It is automatically maintained in exact alignment and position for subsequent attachment to a suitable container.

The present convenience container unit includes a resilient means that is detachable connected to a container adapted to seat on a support surface such as the floor, or the transmission hump of an automobile adjacent an abutment surface such as the front side of a movable front seat or a stationary rear seat. An anchorage means connects the resilient means to the support surface in front of the abutment means, whereby the resilient means exerts a pull on the container for holding the container against the abutment surface.

The resilient means is a spring having one end located in a compatible container pocket to provide the detachable connection with the container.

More particularly, the resilient means is a coiled band spring, such as that commonly known as a Negator spring, having a coil portion and an outer end, the spring coil portion being received in the container pocket to provide the detachable connection with the container. The anchorage means is provided on the spring outer end. Preferable, the coil portion of the band spring is disposed in a substantially upright position from the support surface, and the outer end of the band spring lies substantially flat on the support surface.

In attaching the spring to the support surface, the anchorage means is located and fixed so that it will lie underneath the container when the container is attached to and urged by the spring against the automobile abutment surface.

When the container constitutes a tissue dispenser, the container is constructed with an open rear side through which an object such as a tissue box may be introduced into the container. When such container is attached by the spring, the open rear side overlaps the abutment surface so as to preclude unintentional removal or displacement of the object through the open rear side.

To facilitate the location and movement of the spring coil portion into the container pocket, the container is provided with projecting lips about the pocket, the lips enabling the coil portion to be easily scooped into the pocket.

The same spring can be utilized to attach a plurality of containers in tandem by providing a suitable connection between such containers. Such connection includes a top-open socket in one container and a compatible interfitting tongue on another container.

BRIEF DESCRIPTION OF THE DRAWINGS:

FIG. 1 is a side-elevational view, showing the container unit mounted in an automobile;

FIG. 2 is a top plan view of a pair of interconnected containers;

FIG. 3 is a front elevational view of the container utilized as a tissue dispenser;

FIG. 4 is a rear elevational view of the container utilized as a litter repository;

FIG. 5 is an enlarged, fragmentary cross-sectional view taken on line 5—5 of FIG. 2, showing the resilient mounting to the automobile support surface and the detachable connection between the containers; and

FIG. 6 is an enlarged, fragmentary cross-sectional view taken on line 6—6 of FIG. 2, showing the latch between the component parts of the container utilized for litter repository.

DESCRIPTION OF THE PREFERRED EMBODIMENT:

Referring now by character of reference to the drawings, and first to FIG. 1, it will be understood that the container unit is adapted for assembly in an automobile. As usual, the automobile includes an automobile seat 10 having an abutment surface 11 at its front side. For the purpose of this disclosure, the abutment surface 11 can also constitute the front side of the stationary rear seat or the rear and front sides of a center console. The automobile further includes a support surface 12 represented by the transmission hump. Further, for the purpose of disclosure, the support surface can also be considered to be any area of floor. As is usual, the support surface 12 is covered by a carpet 13. The abutment surface 11 is angularly related to the support surface 12.

The container unit includes a container 14 which in the embodiment shown constitutes a tissue dispenser. Of course, it will be understood that the container 14 may be a litter repository or any other convenience container.

As is more clearly shown in FIGS. 2, 3 and 5, the container 14 includes a top wall 15, opposed side walls 16, a bottom wall 17 and a front wall 20. The rear side 21 of the container 14 is open to receive a conventional tissue box (not shown). The top wall 15 is provided with an aperture 22 through which the tissues are dispensed. A cover guard 23 is formed integrally with the top wall 15 and extends partially over the aperture 22 to position the tissues for easy removal and to protect such tissues from excessive exposure.

At each side of the container 14, the top wall 15 is provided with upstanding ears 24, the ears 24 extending substantially to the rear side 21. These ears 24 provide an additional height for the rear side 21 of the container 14 to assure engagement with the abutment surface 11 of the automobile front seat 10 when the height of such seat 10 is adjusted upwardly and downwardly.

The bottom wall 17 of the container 14 is provided with a pair of laterally spaced, longitudinally disposed rails 25 that extend downwardly and seat on the supporting surface 12. When used on a transmission hump, these rails 25 serve to steady the container 14 and provide sufficient elevation of the bottom wall 17 above the carpet 13 to accommodate the curved configuration of the hump.

As is best seen in FIG. 5, the container 14 is provided with a pocket 26 at the bottom of the front wall 20. The pocket 26 is open at the front and rear, and is peripherally enclosed by opposed side walls 27 and opposed top and bottom walls 30. The front wall 20 is provided with projecting lips 31 extending peripherally about the pocket 26, the purpose and function of the lips 31 being described later.

A resilient means referred to by 32 is used to attach the container 14 to the support surface 12 and to urge the container 14 against the abutment surface 11. This resilient means 32 consists of a metal, coiled band spring 32 having a coil portion 33 and an outer end 34. This type of coiled band spring 32 is represented by the well-known Negator spring.

An anchorage means consisting of a curved, substantially U-shaped pin 35 is attached to the spring outer end 34, the pin 35 being adapted to fasten the spring 32 to the support surface 12 and particularly, to the

carpet 13. In locating and attaching the spring 32, the spring 32 is placed on the support surface 12 in front of the abutment surface 11 and arranged longitudinally with the spring outer end extending in a direction toward the abutment surface 11. The anchor pin 35 is fastened into the carpet 13 to hold the spring 32 in place.

The container 14 is located in a position over the spring 32 and the pocket lips 31 are disposed about the coil portion 33 of the spring 32, the lips 31 scooping the spring coil portion 33 into the pocket 26. The container 14 is then urged in a direction to extend the coiled band spring 32 so that the container rails 25 seat on the support surface 12 and the rear side of the container 14 is located in front of and adjacent the abutment surface 11. The coil portion 33 of spring 32 engages the container portion 36 adjacent the container pocket 26 so that the spring loading tends to urge the container 14 and particularly the rear side 21, against the abutment surface 11. It will be understood that when the container 14 is attached, the spring outer end 34 and the anchorage pin 35 are located underneath the container between the container bottom wall 17 and the support surface 12.

When the coiled band spring 32 is fixed to the carpet 13, the coil portion 33 is disposed in a substantially upright position from the support surface 12, and the spring outer end 34 lies substantially flat on the carpet 13. In this position, the spring 32 is conditioned and maintained at all times ready for insertion into the container pocket 26 incident to the attachment of the container 14.

It will be understood, that when the container 14 is a tissue dispenser, a conventional tissue box is first located in the container 14 before attachment of the container 14 to the spring 32, by insertion into the container 14 through the open rear side 21. When the container 14 is attached as previously described, the open rear side 21 overlaps the abutment surface 11 to preclude unintentional withdrawal or movement of the tissue box through the rear container opening.

With this container assembly, it will be understood that the single spring 32 attaches the container 14 to the support surface 12 and also securely holds the container 14 against the abutment surface 11. In those circumstances in which the abutment surface 11 is the front side of a movable automobile seat, it will be also understood that the spring 32 permits movement of the seat back and forth while maintaining the pressure engagement of the container 14 against the front seat side. Of course, the same assembly will be maintained under the spring loading of the spring 32 upon adjustment of the seat up and down.

In some assemblies, it is advantageous to utilize a plurality of containers in tandem, such as a tissue dispenser and a litter repository. When these container combinations are used, the resilient means utilized to connect one container 14 also serves to attach the other container.

For example, a container 37, constituting a litter repository, includes a lower portion 40 having a rear wall 41 with interconnecting, curved side and front wall 42. Similar to the container 14, the container 37 is also provided with a pair of laterally spaced, longitudinally arranged rails 43 on the bottom wall 44 adapted to seat on the support surface 12. A slidably interfitting top container portion 45 is provided with a top opening 46 through which litter may be introduced into the con-

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tainer 37. The top container portion 45 is secured to the lower container portion 40 by a rotatable latch pin 47 secured to the lower container portion 40 and selectively engageable with a shoulder 50 formed on the top container portion 45.

The detachable connection between the containers 14 and 37 is provided by a top-open socket 51 formed on the front wall 20 of container 14, and a compatible, interfitting tongue 52 formed on the rear wall 41 of the container bottom portion 40. When the tongue 52 is located in the socket 51, the containers 14 and 37 are attached in tandem. To disconnect the container 37, the container 37 is simply lifted to remove the tongue 52 from the container socket 51. The container 37 can be emptied and then subsequently reattached by simply inserting the tongue 52 into the container socket 51.

The front wall 41 of the container lower portion 40 is provided with a recess 53 to receive the projecting lips 31 about the container pocket 26 in order to achieve a substantially flush engagement between the front wall 20 of container 14 and the rear wall 41 of the container 37.

I claim as my invention

1. A convenience container unit for attachment in an automobile having a support surface and an abutment surface disposed angularly to the support surface, the unit comprising:

- a. a container adapted to seat on the support surface adjacent the abutment surface,
- b. resilient means detachably connected to the container and located between the container and the support surface,
- c. an anchorage means connects the resilient means to the support surface in front of the abutment surface, the resilient means exerting a pull on the container for holding the container against the abutment surface, and
- d. a second container seating on the support surface adjacent the first said container, one of the containers being provided with a top-open socket, and the other container being provided with a tongue interfitting the socket to detachably connect the two containers in tandem.

2. A convenience container unit for attachment in an automobile having a support surface and an abutment surface disposed angularly to the support surface, the unit comprising:

- a. container adapted to seat on the support surface adjacent the abutment surface,
- b. resilient means detachably connected to the container and located between the container and the support surface, and
- c. an anchorage means connects the resilient means to the support surface in front of the abutment surface between the abutment surface and the connection of the resilient means to the container, the resilient means exerting a pull on the container for holding the container against the abutment surface.

3. A convenience container unit as defined in claim 1, in which:

- d. the container includes a pocket,

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- e. the resilient means is a coiled band spring having a coil portion and an outer end, the spring coil portion being received in the pocket to provide the detachable connection with the container, the coil portion of the band spring being uncoiled while retained in the pocket to exert the pull on the container, and
- f. the anchorage means is on the outer spring end.

4. A convenience container unit as defined in claim 3, in which:

- g. the coil portion of the band spring is disposed in a substantially upright position from the support surface for alignment with and reception in the pocket, and the outer end of the band spring lies substantially flat on the support surface.

5. A convenience container unit as defined in claim 3, in which:

- g. the container pocket is defined by peripheral walls between which the spring coil portion is located and held, and
- h. the container includes a portion adjacent the pocket against which the spring coil portion bears under spring loading, and which uncoils the coil portion.

6. A convenience container unit as defined in claim 3, in which:

- g. the anchorage means for the coiled band spring is attached to the support surface underneath the container.

7. A convenience container unit as defined in claim 3, in which: g. the container includes a rear side that is urged against the abutment surface, the rear side being open for introducing an object into the container when detached, and the open rear side overlapping and being held against the abutment surface when the container is attached to the preclude removal of the object from the container through the open rear side.

8. A convenience container unit as defined in claim 3, in which:

- g. the container includes a rear side that is urged against the abutment surface, and an opposed front side,

- h. the container pocket is located in and opens from the container front side, the pocket being defined by peripheral walls between which the spring coil portion is located and held,

- i. the container includes a portion adjacent the pocket against which the spring coil portion bears under spring loading and which uncoils the coil portion, and

- j. the container front side includes projecting lips about the pocket opening for locating and scooping the spring coil portion into the pocket.

9. A convenience container unit as defined in claim 8, in which:

- k. the coil portion of the band spring is disposed in a substantially upright position from the support surface for alignment with and reception in the pocket, and the outer end of the band spring lies substantially flat on the support surface.

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