Aug. 16, 1966 C. J. CAMPBELL 3,266,765

CAN HOLDER

Filed March 17, 1964

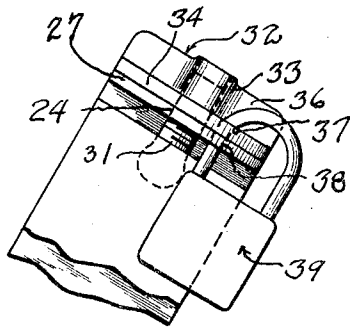


FIG. 2

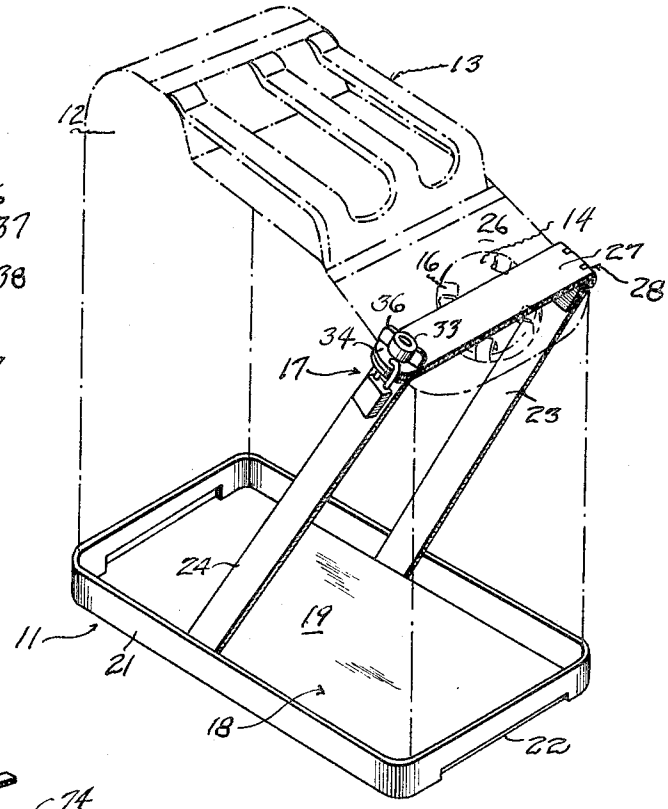


FIG. 1

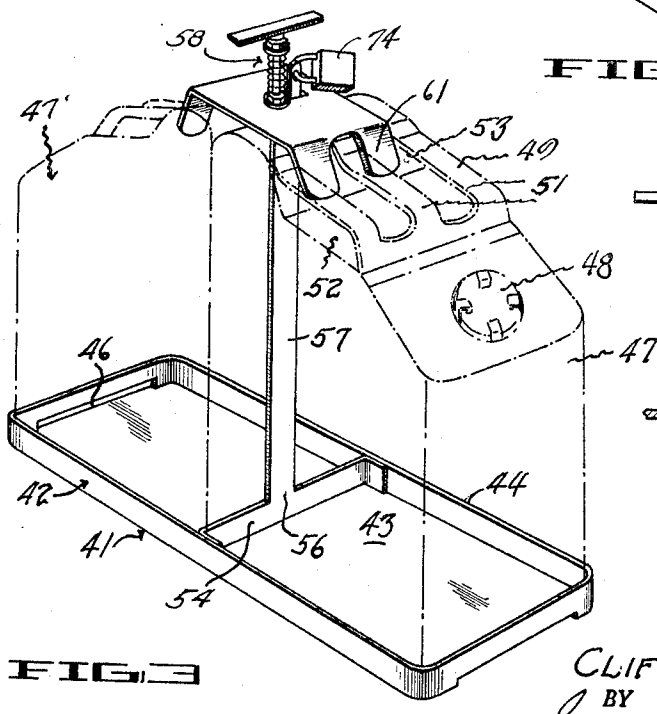


FIG. 3

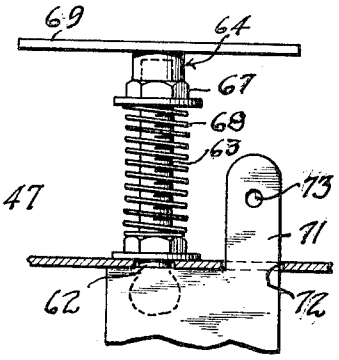


FIG. 4

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CAN HOLDER

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The present invention relates to devices for holding a can in place on a motor vehicle, and is more particularly directed to a can holder which is arranged to rigidly secure a typical five gallon can upon a motor vehicle in a selectively lockable relation.

Various devices have been employed to facilitate the mounting of a five gallon can containing gasoline, water, or the like, upon a jeep or equivalent motor vehicle. For example, a webbed belt extended through the can handle is frequently employed to lash the can to a support bracket or similar element integrally associated with the vehicle. However, such a mounting arrangement does not provide a tamper-proof locking function, which is desirable inasmuch as the can is externally accessible and thus susceptible to pilfering. Moreover, a web belt mounting arrangement, as well as various other can holder arrangements which have been advanced heretofore, are lacking in their ability to provide a rigid securance of the can.

Accordingly, it is an object of the present invention to provide a can holder which is arranged to secure a can to a jeep or other motor vehicle with substantial rigidity and which may be locked to prevent unauthorized removal of the can cap as well as the entire can.

Another object of the invention is the provision of a can holder of the class described which provides rigid securance of a can even when the holder is unlocked.

It is still another object of the invention to provide a can holder of the class described which may be designed to secure a plurality of cans in back to back relationship upon a motor vehicle.

A further object of the invention is the provision of a multiple can holding device which is operable to hold a can in rigidly secured relationship even in the absence of a second can which the device is capable of simultaneously holding.

It is still further an object of the invention to provide a can holder of the class described which will clamp a can against rattle or movement irrespective of slight variations in the dimensions of cans which may be employed therewith.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

FIGURE 1 is a perspective view of a can holder in accordance with the invention and illustrating its relation to a can depicted in phantom to lock the can in position.

FIGURE 2 is a fragmentary enlarged side elevation view of the locking arrangement of the holder.

FIGURE 3 is a perspective view of a modified form of can holder for holding a pair of cans in back to back relationship, a pair of cans being depicted in phantom in locked position.

FIGURE 4 is a fragmentary enlarged side elevation view of the locking arrangement of the holder of FIGURE 3.

Referring now to FIGURE 1, there will be seen to be provided a can holder **11** in accordance with the invention which is adapted to rigidly secure or hold a conventional five gallon can **12** upon a motor vehicle such as a jeep, pick-up truck, or the like. The can is of the type which includes a handle **13** and a removable cap **14** having circumferentially spaced protuberances **16**. The holder is designed to rigidly secure the can against movement in any direction and in the instant embodiment to likewise prevent rotation of the cap and thereby maintain same secured to the can. As a further and important feature of the holder, lock means are provided, as generally indicated at **17**, to facilitate tamper proof locking of the can and the cap in secured position, although the holder is capable of rigidly securing the can even when the holder is unlocked.

Considering now the holder **11** in greater detail as to its preferred structure, the holder will be seen to include a generally rectangular base retainer **18** which is adapted to receive the lower end of the can **12**. More particularly, the retainer **18** is formed with a flat base **19** from which an upstanding marginal rim **21** extends. Slots **22** are provided in opposite ends of the rim to facilitate drainage of water or other liquid which may accumulate in the retainer during use. The rim **21** snugly circumscribes the lower end of the can **12** when it is inserted in the retainer.

The holder further includes a pair of substantially rigid straps **23, 24** rigidly secured to opposite sides of the rim **21** and extending upwardly therefrom in parallel spaced apart relationship. Preferably the straps are inclined from the rim at an angle so as to be in substantially right angular relationship at their upper ends with an inclined shelf portion **26** of the can which contains the cap **14**. In other words, the angle of inclination of the straps is equal to ninety degrees minus the angle of shelf portion **26** to the horizontal. The length of straps **23, 24**, moreover, is such that the straps terminate substantially adjacent the shelf portion **26** of the can. A cross strap **27** is then hingedly connected to the end of one strap **23**, as indicated at **28**. With the can **12** positioned upon the base retainer and between the straps **23, 24**, the cross strap **27** may be thus pivoted downward across the shelf portion **26** into parallel substantially flush relation thereto. The cross strap diametrically tranverses the cap **14** between adjacent pairs of the protuberances **16** and the end of the cross strap overlies the end of strap **24**. An aperture **29** formed in the end of the cross strap receives a threaded stub **31** which is rigidly secured to the end of strap **24** and projects upwardly therefrom. Securance of the cross strap **27** to the strap **24** to effect resilient clamping of the can by the cross strap is facilitated by a nut **32** threadably secured to the stub **31** and tightened into intimate engagement with the upper side of the cross strap. The amount of resilient clamping force exerted on the can may be varied by rotating the nut, and it will be thus appreciated that some dimensional variation between cans can be tolerated by the holder. The clamping force of the cross strap against the can of course secures same against vertical movement. The cross strap in extending across the cap **13** and engaging the protuberances **16** in conjunction with the lower end of the can abutting the rim **21** secures the can against longitudinal movement and simultaneously prevents cap rotation such that the cap is retained in place. The straps **23, 24** abutting the sides of the can and the rim **21** abutting the lower end of the can rigidly secure the can against lateral movement. It will be thus appreciated that rigid securance of the can is provided by the holder **11** of the present invention.

As noted previously, it is desirable that lock means **17** be provided to lock the holder so that unauthorized individuals cannot remove the can or the cap. To this end, the lock means **17** is preferably provided as shown in FIGURE 2 wherein the nut **32** will be seen to include an internally threaded hub **33** having an annular flange **34** at its base end. Radially extending wings **36** are best provided between the hub periphery and upper face of the

flange to facilitate the ready turning of the nut. The flange 34 is provided with at least one aperture 37 adapted to register with an aperture 38 through the cross strap 27. When the nut 32 is in tightened position to thereby secure the cross strap to the side strap 24 and tightly clamp the cross strap against the can, the apertures 37 and 38 are aligned to receive the shackle of a padlock 39. Thus, with the shackle inserted through the apertures and the padlock in locked condition, the nut cannot be rotated and thus unscrewed from the stub 31. Consequently, the cross strap 27 is locked in secured relation to the side strap 24 and neither the can nor cap can be removed.

The can holder of the present invention may be modified as depicted in FIGURES 3 and 4 to accommodate a pair of cans in back to back relationship. Such a multiple can holder is designated by the numeral 41 and will be seen to include a base retainer 42 of generally similar design as the base retainer 18 of the single can holder embodiment of FIGURES 1 and 2. More particularly, base retainer 42 includes a generally rectangular base plate 43 having an upstanding marginal rim 44 provided with drainage slots 46 at its opposite ends. The overall length of the base retainer 42 of the present embodiment, however, is twice that of the single can holder embodiment such that two cans 47, 47' may be inserted therein in back to back relationship. The cans 47, 47' are each a conventional five gallon can having a screw on cap 48 and a handle 49 at its upper end. The handle 49 is formed in the conventional manner by three parallel spaced apart handle elements 51 which extend horizontally from the elevated end of the can in overlying spaced relation to a relatively recessed portion 52 of the can. The distal ends of the elements 51 relative to the elevated end of the can are downwardly turned and secured to portion 52. Consequently, slots 53 are defined between adjacent pairs of the handle elements 51.

To facilitate rigid securance of the cans 47, 47' in the multiple can holder, a substantially rigid central partition member 54 is rigidly secured to the base retainer 42 to project upwardly therefrom. More specifically, the member 54 includes a lower cross strip 56 rigidly secured transversely between the longitudinal sides of the rim 44 midway between its opposite ends. The cross strip 56 hence divides the base retainer into two compartments in end to end alignment for respectively receiving the cans 47, 47'. The member 54 further includes a vertical strip 57 which integrally extends upward from the transverse midpoint of the cross strip 56. Accordingly, when the cans 47, 47' are inserted in the compartments of the base retainer 42, in back to back relationship, the vertical strip 57 extends upwardly between the ends of the respective cans. The length of strip 57 is substantially equal to the height of the cans. Thus the upper end of this strip is substantially flush with the tops of the elevated ends of the cans adjacent the handles 49 thereof. The strip 57 serves to support adjustably resilient clamping means 58, equivalent to the screw down cross strip 27 of the embodiment of FIGURES 1 and 2, which may be clamped against the tops of the cans with a variable resilient clamping force to thereby rigidly secured the cans against movement.

Considering now the clamping means 58 in greater detail, same will be seen to preferably include a generally rectangular bearing plate 59 having pairs of transversely spaced downwardly turned fingers 61 at its opposite ends. The plate is provided with a central aperture 62 for receiving a threaded stud 63 which projects rigidly upward from the end of the vertical strip 57. When the plate is positioned atop the strip 57 with the stud traversing the aperture, the plate bridges the elevated ends of the cans 47, 47' disposed in the base retainer, and the pairs of fingers 61 engage the slots 53 between the adjacent pairs of handle elements 51 of the cans. The clamping means further includes a variably resilient fastener element 64 which is adapted for threaded securance to the stud 63. The fastener element comprises a lower annular flange 66 and an upper cap nut 67 interconnected by a helical compression spring 68. The flange 66 and spring 68 are freely insertable over the stud 63 and the nut 67 is threadably engageable with the latter. Thus, the nut may be screwed upon the stud and the flange in turn resiliently urged against the bearing plate 59 by the spring with a variable resilient force determined by the extent to which the nut is screwed upon the stud. To facilitate turning of the nut to the foregoing end, the nut is best provided with a handle 69 extending diametrically thereacross. It will be appreciated that with the fastener element 64 in place the bearing plate 59 is thereby resiliently urged into tight clamping engagement with the elevated ends of the cans 47, 47' adjacent the handles 49 thereof. The bearing plate 59 hence rigidly secures the cans against vertical movement. In addition, the fingers 61 engaged in the slots 53 between the handle elements 51, in conjunction with the rim 44 of the base retainer 42 rigidly secures the cans against longitudinal and lateral movement.

As in the case of the single can holder embodiment of FIGURES 1 and 2, it is desirable that provision be made to lock the multiple can holder to prevent unauthorized removal of the cans therefrom. In this regard, the vertical strap 57 is preferably provided with an upwardly projecting lug 71 which is received by a slot 72 in the bearing plate 59 when the latter is positioned atop the strap 57 in clamping position. An aperture 73 is provided in the lug 71 for receiving the shackle of a padlock 74. With the padlock secured and locked upon the lug, removal of the bearing plate 59 from the stud 63 is prevented, even when the fastener element 64 is removed. Consequently, the cans 47, 47' cannot be removed from the holder without the prior removal of the padlock 74.

As a further advantageous feature of the multiple can holder 41, it is to be noted that the holder is effective to rigidly secure and lock a single can in place, as well as two cans. With one can removed the bearing plate 59 as resiliently biased by the fastener element 64 is still effective to rigidly clamp the remaining can in the holder, and the padlock 74 as locked in place upon the lug 71 is still effective to prevent unauthorized removal of the bearing plate and therefore of the single can from the holder.

What is claimed is:

1. A can holder comprising a base retainer for receiving the lower end of at least one can, substantially rigid strap means rigidly secured to said base retainer and projecting upwardly therefrom, said strap means being abuttable with opposite sides of a can thereby received, and adjustable clamping means removably secured to said strap means for engaging upper portions of a can received by said retainer, said clamping means being adjustable in the vertical direction whereby cans of different dimensions can be accommodated by and securely held by said can holder.

2. A can holder according to claim 1, further defined by lock means associated with said clamping means for selectively preventing removal thereof from said strap means.

3. A can holder comprising a base retainer having an upstanding marginal rim for engaging the lower end of a can of the type having a top portion containing a screw cap with circumferentially spaced protuberances, substantially rigid vertical strap means rigidly secured to the rim of said retainer and projecting upwardly therefrom, cross strap means pivotally secured to the upper end of said vertical strap means and movable into engagement with the top portion of a can engaged by said base retainer diametrically across the cap thereof between adjacent ones of the cap protuberances, and fastener means for adjustably securing the free end of said cross strap means to said vertical strap means, said fastener means being adjustable in the vertical direction whereby cans of different dimensions can be securely held by said can holder.

4. A can holder comprising a base retainer having an upstanding marginal rim for engaging the lower end of a can of the type having an inclined top portion containing a screw cap with circumferentially spaced apart protuberances, a pair of parallel transversely spaced rigid vertical straps rigidly secured to the rim of said retainer on opposite sides thereof and extending upwardly therefrom, a cross strap hingedly secured to the upper end of one of said vertical straps and movable into engagement with the top portion of a can engaged by said base retainer diametrically across the cap thereof between adjacent ones of the cap protuberances, said cross strap having a bore at its free end, a threaded stud projecting upwardly from the upper end of the second one of said vertical straps and extendible through said bore in said cross strap when the latter is in engagement with the top portion of a can, and a nut threadably engageable with said stud for bearing against said cross strap.

5. A can holder according to claim 4, further defined by said nut having an outwardly flared annular flange at its lower end for bearing against said cross strap, said cross strap having an aperture therethrough and said flange having at least one aperture therethrough registerable with the cross strap aperture when the nut is secured to said stud, said flange and cross strap apertures when registered adapted to receive the shackle of a padlock.

6. A can holder according to claim 4, wherein said vertical straps are inclined from the rim of said retainer at an angle equal to ninety degrees minus the angle of the inclined top portion of a can to the horizontal and said vertical straps are of a length to terminate substantially flush with the inclined top portion of a can engaged by said retainer.

7. A can holder according to claim 6, further defined by said nut having an outwardly flared annular flange at its lower end for bearing against said cross strap having an aperture therethrough and said flange having at least one aperture therethrough registerable with the cross strap aperture when the nut is secured to said stud, said flange and cross strap apertures when registered adapted to receive the shackle of a padlock.

8. A can holder comprising a base retainer having an upstanding marginal rim, said base retainer having a length equal to substantially twice the length of a can and being adapted to receive two cans in back to back relationship, a substantially rigid vertical strap extending upwardly from said retainer centrally thereof, and adjustably resilient clamping means removably secured to the upper end of said strap in longitudinal bridging relation thereto for engaging top portions of two cans received by said retainer and exerting an adjustably resilient clamping force thereon.

9. A can holder according to claim 8, further defined by said clamping means including a bearing plate having a central aperture for receiving a threaded stud projecting upwardly from said strap, and variably resilient fastener means threadably secured to said stud and bearing against said plate with an adjustable clamping force.

10. A can holder comprising a base retainer having an upstanding marginal rim, said base retainer having a length equal to substantially twice the length of a can and being adapted to receive a pair of cans in back to back relationship, said cans being of a type having a handle in an upper portion thereof defined by a plurality of transversely spaced apart handle elements having slots therebetween, a substantially rigid vertical strap extending upwardly from said retainer centrally thereof, said strap having a threaded stud projecting from its upper end, a bearing plate having a central aperture receiving said stud and longitudinally bridging said strap to engage the upper portions of a pair of cans received by said retainer, said plate having downwardly turned fingers at its opposite ends for engaging the slots between the handle elements of the cans, an annular flange member loosely engaging said stud and positioned upon said bearing plate, a nut threadably engaging said stud, and a helical spring concentrically disposed upon said stud and secured between said flange member and said nut.

11. A can holder according to claim 10, further defined by said bearing plate having a slot and said strap having an upwardly projecting lug extending through said slot, said lug having an aperture adapted to receive the shackle of a padlock.

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