Aug. 25, 1942. J. O. THORSHEIM 2,294,006

CAN HOLDER

Filed Sept. 12, 1940

Fig. 1

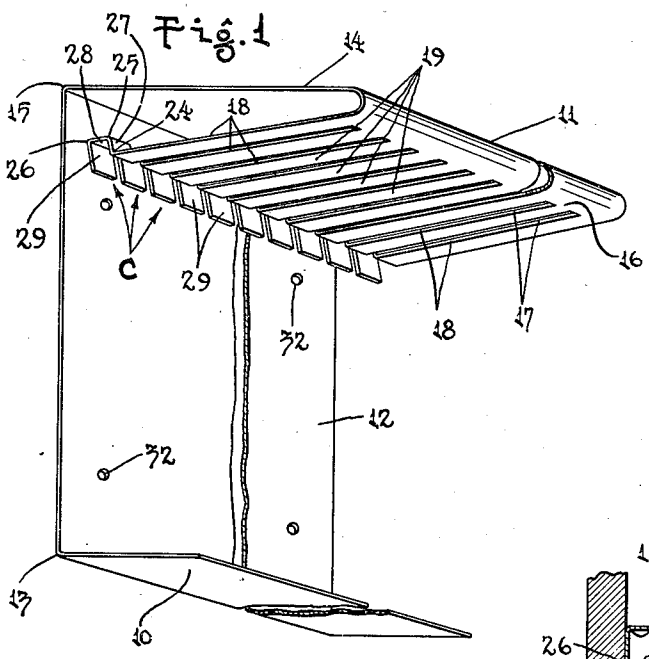


Fig. 2

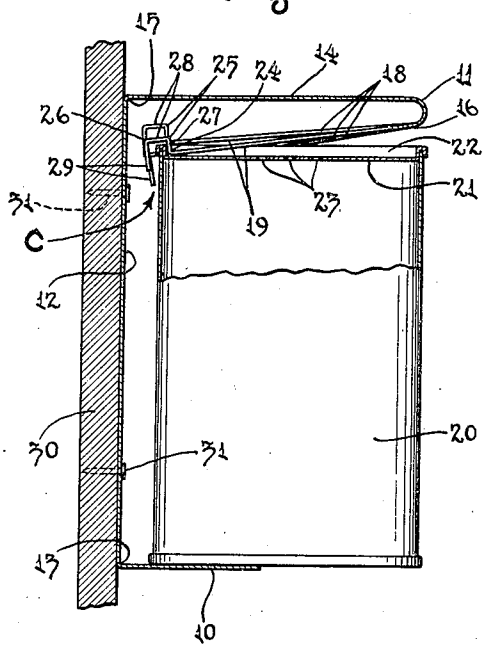
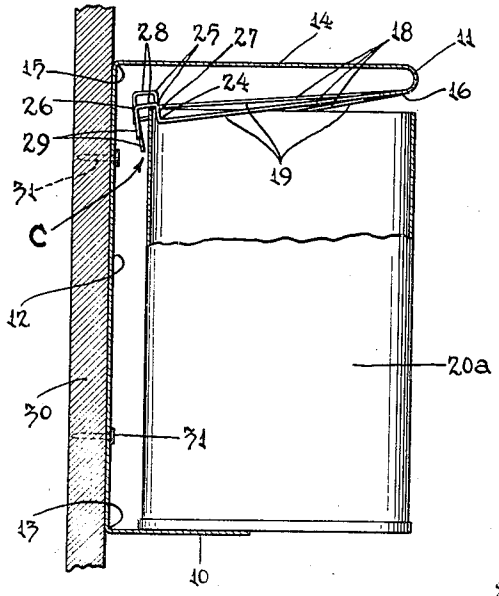


Fig. 3



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Patented Aug. 25, 1942 2,294,006

UNITED STATES PATENT OFFICE

2,294,006

CAN HOLDER

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Application September 12, 1940, Serial No. 356,434

9 Claims. (Cl. 248—311)

My invention relates to improvements in holders for cans particularly, though not exclusively, of the shaker type in which spices, condiments and the like are commonly packed for household use.

An object of the invention is to provide a durable and sightly can holder of exceedingly simple and inexpensive construction which will readily receive and securely retain a number of cans and readily admit of the individual removal of such cans, as occasion may require, without affecting the security of the remaining cans in their various dispositions within said holder.

Another object of the invention is to provide a can holder of the instant nature of unitary construction adapted to be mounted conveniently on a wall, door or other suitable support.

More specifically, it is an object of my invention to provide a holder of the present character in which two members are provided for the reception of a can inserted therebetween, one of said members including cam-actuated means for releasably latching the can in place in said holder.

A further object of the invention is to provide a holder in which two relatively spaced can-engaging members are provided for the reception of a number of cans inserted therebetween and in which said cans may be readily placed and removed, individually, a feature of the invention residing in the construction of one of said members to include a series of fingers, numbers of contiguous fingers making up different groups, one group for any given can, the fingers of the different groups of the one member being biased for movement toward and adapted to hold a can releasably latched in place relative to the other member.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawing, Fig. 1 is a perspective view of a can holder embodying my invention, an intermediate portion thereof being broken away; Fig. 2 is a transverse sectional view of the holder illustrated in Fig. 1, a can partly broken away and having a recessed top or end closure being shown in place within said holder, and Fig. 3 is a view similar to Fig. 2, but showing a can without an upper end closure.

Reference being had to the drawing, it will be seen that the illustrated embodiment of my invention includes a lower bracket member or shelf 10, an upper bracket member 11 and a back or body panel 12 from which said bracket members 10, 11 project. The holder is preferably of unitary construction struck out in one piece from relatively resilient sheet metal stock. As shown, the bracket members 10, 11 are turned out from the back or body panel 12, the member 10 constituting a narrow shelf or ledge which is somewhat flexible from the front thereof to and including the right angle bend 13 where it joins the back or body panel 12. The upper bracket member 11 includes a cap portion 14 which is also somewhat flexible from its free forward edge to and including the right angle bend 15 where it joins said back or body panel 12. Also included in said upper bracket member 11 is a portion 16 turned back beneath said cap portion 14, said portion 16 being formed with transverse slots 17 providing a plurality of fingers 18 along the entire length of the holder which, preferably, is long enough to accommodate a plurality of ordinary spice or condiment cans arranged side by side with finger-receiving spaces therebetween. Said fingers 18 project rearwardly and downwardly from the free edge of said cap portion 14. The inclined lower faces of these fingers 18 form cams 19 which coact with the upper edges of cans inserted between the two bracket members 10, 11, and cause the fingers 18 to be flexed upwardly and ride upon such advancing edges. The fingers 18 function as catches or pawls and automatically latch themselves at their free ends in front of the rear upright portions of cans upon their placement between said bracket members 10, 11.

The ordinary spice or condiment can, such as the can 20 shown in Fig. 2, is formed at the top with a recessed end closure consisting of an inset wall, as at 21, having an edge flange, as at 22, crimped over an edge of the body of the can, such closure wall 21 having perforations therein, as at 23, from which the contents of the can may be shaken. The transverse dimension of the can 20, as shown in said Fig. 2, is the broader of such dimensions.

For holding an ordinary spice or condiment can having a recessed top closure, the fingers 18 may terminate without bends of any kind and simply present their blunt ends as abutments to the inner face of the top closure flange at the rear wall of the can, said fingers, in such case, bearing yieldingly downward upon the inset end wall of said top closure which acts to limit the resiliently effected depression of said fingers.

To adapt my improved holder to cans without top closures, such as that shown at 20a in Fig. 2, as well as to cans with top closures, such as that shown at 20 in Fig. 2, the invention involves certain bends at the terminal portions of the resilient fingers 18. All of said fingers are similarly bent, each thereof being turned on three spaced transverse lines forming bends 24, 25 and 26 which result in a downwardly opening hook-like catch c comprising a reach 27 extending upwardly from the finger proper, a second reach 28 extending rearwardly from said first reach and a third reach 29 extending downwardly from said second reach 28. Said first reach 27 provides an upwardly extending latching abutment which is engaged by the inner marginal surface of the rear wall at the top of a can. The second reach 28 provides a down-stop which engages the upper edge of the rear wall of the can and, in the absence of a top closure in the can, limits the downward swing of the finger. The third reach 29 provides a back-stop which is engaged by the outer marginal surface of the rear wall at the top of the can. This back-stop limits the movement of insertion of the can into the holder, thus keeping the upper edge of the can at the back thereof within the reach of and engaged by said down-stop 28. In the absence of the reach 29 which forms the back-stop of the hook-like catch c, the can might be pushed back so far in the holder that the reach 28, forming the down-stop, would become disengaged from the upper edge of the can and the resilient finger 18, thus freed to bias, would lose its yielding grip upon the can and swing down into the interior thereof with the result that the hold upon the can would be insecure and the removal of the can from the holder would be impeded by the then abnormally depressed finger 18.

My holder is conveniently mounted upon any suitable upright support, as at 30, by means of nails or screws 31 driven into such support after being first inserted through openings 32 formed in the back panel 12 for the reception of such fastening meant.

The catch fingers 18 are relatively narrow, the over-all width of a group thereof being less than the narrow dimension of the top of an ordinary spice can, whereby such group of catch fingers will engage such a can, placed edgewise in the holder, and hold the can so disposed against dislodgement from the holder. The width of the lower bracket or shelf 10 of my holder is preferably less than one-half of the long dimension of the bottom of an ordinary spice can to facilitate the application of such cans to and the removal thereof from my holder according to the following indicated procedure found to be most advantageous in practice.

My holder may be constructed in any desired length to accommodate one or any number of cans desired. Regardless of number, the can or cans preferably will be inserted into and removed edgewise from the holder. Obviously, a can may be placed in the holder at any desired locality therein and any desired space may be left between adjacent cans. Such spacing may permit the insertion of the user's finger tips between any given can and the cans next adjacent thereto. Upon applying a can to my holder, the can may be grasped at its sides and passed edgewise into latched position within the holder. This procedure first involves the canting of the can to bring the bottom thereof against the free edge of the lower bracket 10 and then involves the straightening of the can into an erect position and the subsequent pushing of the same into the holder as far as it will go. With the bottom of the can tilting on the free edge of the lower bracket 10, and thereafter sliding along the upper face of said bracket, the leading upper edge of the can engages the cam surface 19 of a group of the catch fingers 18 and causes said fingers to be sprung upward as said edge of the can rides beneath them. In the illustrated form of my invention, the extent to which a can may be inserted into the holder is determined by the back-stops 29 of the particular catch fingers 18 engaging the top of the can, said back-stops 29 operating to engage the leading face of back-wall of the can and thus arrest the movement of the can into the holder. When a can with a top closure (Fig. 2) is thus arrested upon its insertion into the device, the latching-abutments 27 of a group of the engaged catch fingers 18 will have become lodged in front of the closure flange 22 at the back of the can, such catch-fingers, in such case, bearing upon the closure wall 21. In some instances, a catch-finger 18 may engage the flange 22 of the top closure at one side of the can and, too, another catch-finger may engage said edge flange at the other side of the can. In such event, such finger or fingers will merely press down upon the can and contribute to the clamping thereof against the shelf-bracket 10 without presenting the latching abutment 27 of either of said fingers in latching position relative to the closure flange 22 at the back of the can. Fingers 18 adjacent to the can, but not engaged thereby and thus not upwardly sprung, will lie along the sides of the can and provide lateral stops therefor.

When a can without a top closure (Fig. 3) is arrested by the back-stops 29 of a group of the catch fingers 18, upon the insertion of such can into my holder, the latching abutments 27 of said fingers will take position in front of the upper margin of the back wall of the can and the down-stops 28 of said fingers 18 will bear upon the upper edge of said back wall. And again the catch finger or fingers 18 at the one or both extremities of the group engaging said can may simply ride the upper edge or edges of one or both of the side walls of the can without latchingly engaging the can.

In removing a can from my holder, the can is grasped at its sides and canted to slide the lower rear corner of the can forwardly along the upper face of the lower bracket 10, such canting of the can being progressed until the bottom thereof is free from said bracket 10. After tilting the can into position clear of the bottom bracket 10, the can is lowered slightly and thus disengaged from the catch fingers 18.

In addition to the resiliency of the fingers 18, the resiliency of the brackets 10, 11 and of the holder structure at the bends 13, 15 come into play upon the application to and the removal of a can from the holder, such distribution of resiliency being advantageous not only from the standpoint of facility in use, but also from the standpoint of reliability during long usage.

The required manipulation of a can upon its application to and removal from the instant holder is exceedingly simple and susceptible of being accomplished with substantially the same readiness and ease required in merely placing a can on an ordinary shelf and removing the same therefrom. Cans placed within my improved device are securely held in whatever dispositions

they may occupy and are thus secure against dislodgement upon the removal of any particular can or upon movement of the entire holder, as would be the case were the holder to be mounted on a door to occupy position between shelves of a cabinet upon the closing of the door.

Changes in the specific form of my invention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of my invention.

Having described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A can holder comprising a body member, a lower bracket member extending outwardly from the body member and forming a rest for a can, and an upper catch member also extending outwardly from said body member for engagement with the upper end of a can resting on said bracket member, said catch member including a cap portion and a plurality of inwardly projecting fingers underlying said cap portion, said fingers being biased for movement toward the bracket member and each thereof having a downwardly opening hook-like catch at its free end adapted to engage and releasably latch a can in place on said bracket member, each of said fingers having a cam for engagement with a can to flex the finger away from the bracket member upon the placement of the can on said bracket member.

2. A can holder comprising a body member, a lower bracket member extending outwardly from the body member and forming a rest for a can, and an upper catch member also extending outwardly from said body member for engagement with the upper end of a can resting on said bracket member, said catch member including a cap portion and a plurality of inwardly projecting fingers underlying said cap portion, said fingers being biased for movement downwardly from said cap portion toward the bracket member and adapted to engage the can at the inner portion thereof and releasably latch the same in place on said bracket member, each of said fingers having a cam for engagement with a can to flex the finger away from the bracket member and toward said cap portion of said catch member upon the placement of the can on said bracket member.

3. A can holder including a body member, a rest for a can projecting outwardly from said body member, a finger above the rest extending inwardly and biased for movement toward said rest, mounting means for said finger supported by said body member, said finger having a downwardly opening hook-like catch at the free end thereof adapted to engage a can placed on the rest and to hold such can positioned on said rest.

4. A can holder comprising a body member, a bracket member extending outwardly from the body member for engagement with one end of a can and a catch member also extending outwardly from said body member for engagement with the other end of the can, one of said members including an inwardly projecting catch finger, said finger being biased for movement away from its associated member and toward the other member and adapted releasably to latch the can in place between said members, said finger having a cam for engagement with the can to force the finger toward its associated member and away from the other member upon the insertion of the can between said members.

5. In combination with a support, a can holder comprising a bracket member for engagement with one end of a can and a catch member for engagement with the other end of the can, both members being carried by said support, one of said members including a number of can-engaging fingers, said fingers being spring-biased for movement away from the associated member and toward the other member, non-adjacent fingers forming lateral stops at opposite sides of the can and intervening fingers engaging the can and latching it in place between said members, each of said fingers having a cam, the cams of the fingers within the lateral confines of a can in the act of being inserted between said members being adapted to be engaged by the can and to cause said fingers to be forced individually toward its associated member.

6. In a can holder, two relatively spaced can-engaging members, one thereof being biased for movement toward the other to effect the cooperation of said members with a can inserted therebetween, said movable member including a plurality of catch fingers, non-adjacent fingers forming lateral stops at opposite sides of the can and an intervening finger engaging the can and latching it in place between said members.

7. In combination with an upright support, a holder carried by said support and including a rest for a can extending outwardly from the support, a number of fingers above said rest extending inwardly toward the support and biased for movement toward said rest, mounting means for the fingers, said fingers, substantially overreaching the top of a can in place on said rest and being adapted to engage the inner portion of the can and releasably hold it thus placed.

8. In a can holder, two outwardly extending can-engaging members, spaced apart to receive a can inserted inwardly therebetween, one of said members including an inwardly extending catch substantially overreaching the can and cooperating with the inner portion thereof releasably to latch the can in its place in said holder, said catch having cam means and adapted to be actuated through said means by the can upon its insertion between said members.

9. In a holder for a can having an edge flange about one end thereof, a pair of brackets to receive the can in endwise disposition therebetween, the bracket adapted to face the end of the can with said flange including a plurality of fingers biased for movement toward the other bracket, said fingers being adapted to be swung back by the can upon its placement between said brackets, at least one of said fingers being adapted at the end portion thereof to engage said flange from within and releasably hold the can in place between said brackets.

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