Sept. 15, 1925. 1,553,441

A. C. GRUNWALD

CAN HOLDER

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Fig. 1

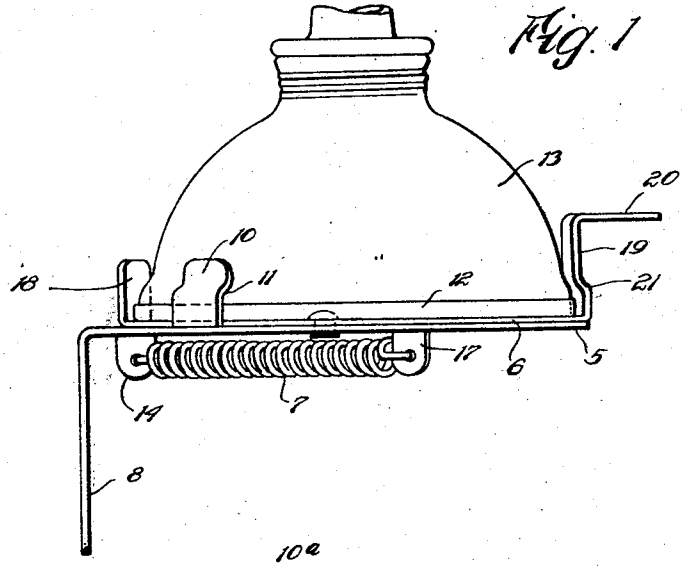
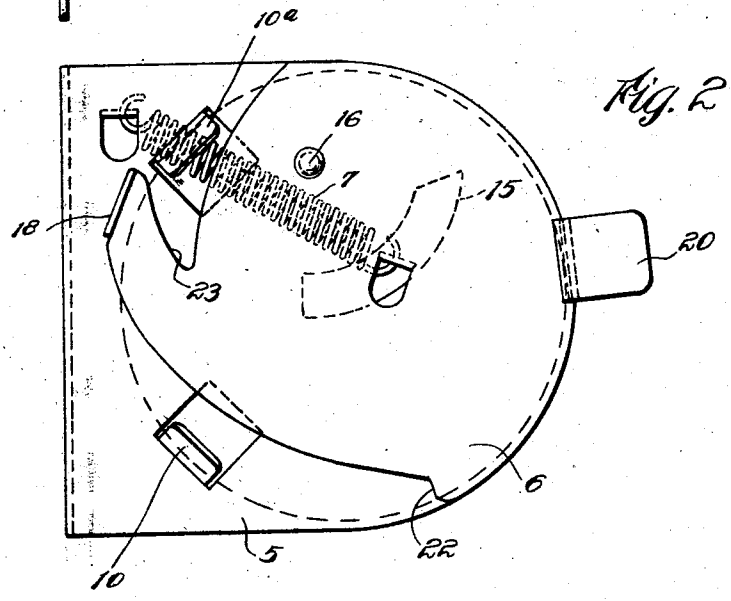


Fig. 2



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Fig. 3

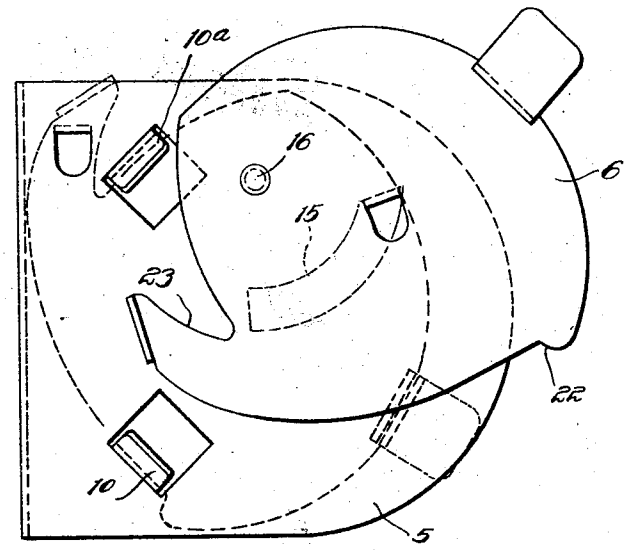
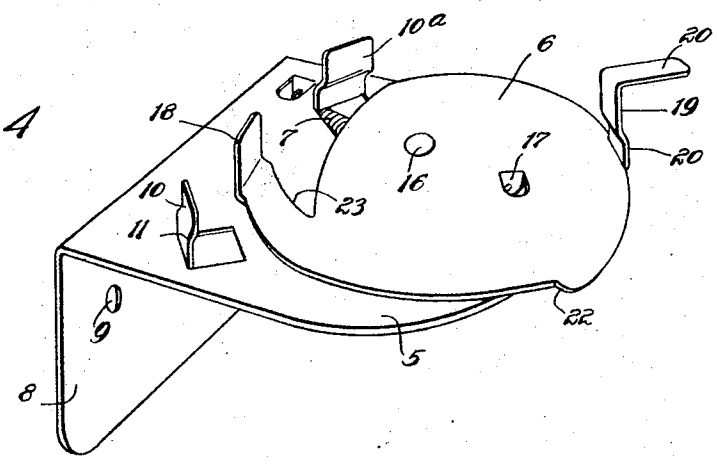


Fig. 4



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UNITED STATES PATENT OFFICE.

ALBERT C. GRUNWALD, OF RIVER FOREST, ILLINOIS, ASSIGNOR TO PRECISION METAL WORKERS, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CAN HOLDER.

Application filed August 2, 1924. Serial No. 729,671.

To all whom it may concern:

Be it known that I, ALBERT C. GRUNWALD, a citizen of the United States, and resident of River Forest, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Can Holders, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of the specification.

My invention relates to a can holder, more especially an oil can holder, adapted for use on automotive vehicles, although not limited to such use.

I contemplate the provision of a can holder which comprises a minimum number of parts (the preferred embodiment herein illustrated comprising but three parts), which may be economically manufactured, which is adapted tightly to grasp and hold cans of various sizes supported thereby, but which, nevertheless, easily may be manipulated to place a can therein or to remove it therefrom.

In the accompanying drawings illustrating my invention:

Figure 1 is an elevational view illustrating the holder of my invention supporting an oil can of conventional size and shape;

Figure 2 is a top plan view illustrating the relatively moving parts of the holder in the positions occupied thereby when the holder is supporting an oil can of the kind illustrated in Figure 1;

Figure 3 is a top plan view illustrating the oil can holder open and ready to receive an oil can, and

Figure 4 is a perspective view of the holder with its relatively moving parts in the positions illustrated in full lines in Figure 3.

Similar characters of reference refer to similar parts throughout the several views.

The preferred embodiment of my invention illustrated in the accompanying drawings comprises three principal parts, namely, the platform 5, the cam plate 6, and the helical tension spring 7.

The platform 5 is preferably in the form of a sheet metal stamping and is provided with a down-turned flange 8 provided with apertures 9 for the reception of screws whereby the holder is secured to a vehicle cowl or other suitable support. Struck upwardly from the platform 5 is a pair of lugs 10 and 10^a which, as presently will be explained, are adapted to engage against the margin of the bottom of the supported oil cans, these lugs preferably being provided with more or less rounded shoulders 11—11 adapted to engage over the bottom bead 12 with which cans of the kind illustrated at 13 are ordinarily provided. The platform is also provided with a down-struck apertured lug 14 which is engaged by one end of the spring 7. It is furthermore provided with an arcuate slot 15 disposed concentric with the pivot-rivet 16.

The cam plate is also preferably in the form of a sheet metal stamping and is pivoted by rivet 16 for movement parallel and in contact with the horizontal portion of the platform 5. This cam plate is provided with a down-struck apertured lug 17 which is adapted to travel in the arcuate slot 15, the movement of the cam plate 6 to its open position being limited by the engagement of lug 17 with one end of the aforesaid arcuate slot 15. It will be noted that the spring 7 acts between the lug 17 and the previously mentioned platform lug 14. When the cam plate 6 is moved to the limit of its movement in opposition to the tension of spring 7, the said spring holds the cam plate in the position, i. e. the open position, illustrated in Figures 3 and 4 due to the then existing relation between the pivot 16 and the spring terminals. However, as soon as the cam plate is moved toward the position of Figure 2 sufficiently to carry the line between the spring terminals away from the pivot 16, the cam plate quickly is moved to and firmly is held in one of its closed or can-holding positions such as is illustrated in full lines in Figure 2.

It will be noted that the cam plate 6 is provided with a pair of up-turned marginal lugs 18 and 19, the lug 19 being offset to provide a handle portion 20 and being provided with a rounded shoulder 21 corresponding to the shoulders 11 of the platform lugs 10 and 10^a. The lug 19 is a can-holding lug and the lug 18 is adapted to be engaged by a can to initiate movement of the cam plate, under influence of the spring 7, from its open position to one of its closed or can-holding positions. It will be noted that the cam plate is provided with a shoulder 22 adapted to engage the platform lug 10 to determine the limit to which the cam

plate may be moved under the influence of spring 7, and that the cam plate is cut away at 23 to accommodate the lug 10ª when the shoulder 22 lies against or in proximity to the lug 10.

Assuming that the holder is in the position illustrated in Figures 3 and 4 and that an oil can is to be placed therein, the said can is placed on the cam plate 6 and pressed against the lug 18 to initiate movement of the cam plate in a direction to cause shoulder 22 to approach lug 10. As soon as the terminals of spring 7 have passed out of line with pivot 16 the said spring quickly moves the cam plate to shift the lug 18 out of contact with the periphery of the can bottom and to cause the can firmly to be clamped in the embrace of the lugs 10, 10ª and 19. It will be understood that the lugs 10, 10ª and 19 are adapted to lie in a plurality of different circles eccentric to the pivot 16 and that the holder is for this reason capable of receiving and holding oil cans of various sizes. In order to remove the can, the handle 20 is preferably grasped to move the cam plate to the open position of Figures 3 and 4, the cam plate then being held in its said open position due to the then existing relation between the spring 7 and the pivot 16.

It will be seen that the act of withdrawing an oil can from my improved holder leaves the cam plate 6 in the open position of Fig. 4, i. e. ready to have its lug 18 engaged by the oil can when the latter is placed in the holder and solely by engagement with the oil can to be started toward closed position. The user of the oil can, in restoring it to the holder, need not necessarily touch any part of the holder.

I appreciate that the preferred embodiment of my invention herein illustrated may be varied in considerable detail and for that reason I do not limit myself to the specific arrangement of parts herein shown and described but wish to cover all similar and equivalent constructions coming within the scope of the appended claims.

What I desire to claim by United States Letters Patent, is:

1. A can holder comprising a support-engaging stationary platform, can abutment means extending above the surface of the platform adapted to engage two points on the periphery of a can bottom, a cam plate pivotally mounted on said platform for movement parallel therewith, a can abutment extending above the cam plate arranged to engage the periphery of the bottom of a can disposed eccentric to the cam plate pivot and in two-point engagement with the abutment means of the platform, stops determining the limits of movement between the platform and cam plate, and a spring acting between the platform and cam plate and so related to the cam plate pivot as to hold the cam plate against one of said stops when moved to open position and adapted to move the cam plate to hold a can between the abutment means of the platform and cam plate pursuant to an initial movement of the cam plate away from said last mentioned stop.

2. A holder for an oil can or the like comprising a platform provided with upstanding abutments adapted to engage two points on the periphery of a can bottom, a movable member adapted to engage a third point on the said periphery and movable around an axis eccentric to and at right angles to the can bottom, stops for said movable member, a spring adapted to hold said movable member in open position when moved against one of said stops but adapted to permit the movable member to move away from said stop and into engagement with the periphery of a can bottom, said movable member comprising a portion adapted to be engaged by the can to effect initial movement of the movable member to hold the can in the holder.

3. In an oil can holder, the combination with a stationary platform, a cam plate mounted thereon for movement parallel therewith, said platform and cam plate comprising lugs for engaging three points on the periphery of a can bottom, a spring adapted to hold said cam plate in each of two positions to which it may be moved, i. e. an open position and a can-holding position, and means carried by the cam plate adapted to be engaged by a can to initiate movement of the cam plate from open position to a can-holding position.

4. In an oil can holder, the combination with a platform, a cam plate movable thereon, abutments of which one is carried by the cam plate for engaging three points on the periphery of a can bottom, said cam plate adapted to lie in an open position until started to move away from said open position, spring means associated with the cam plate adapted to move the cam plate to a can-holding position when started to move away from said open position, and means on the cam plate for engagement by a can to initiate movement of the cam plate away from said open position.

In witness whereof, I hereunto subscribe my name this 30th day of July, 1924.

ALBERT C. GRUNWALD