Aug. 26, 1958 W. A. WELDEN 2,849,149

CANISTERS

Filed Oct. 4, 1955

FIG. 1

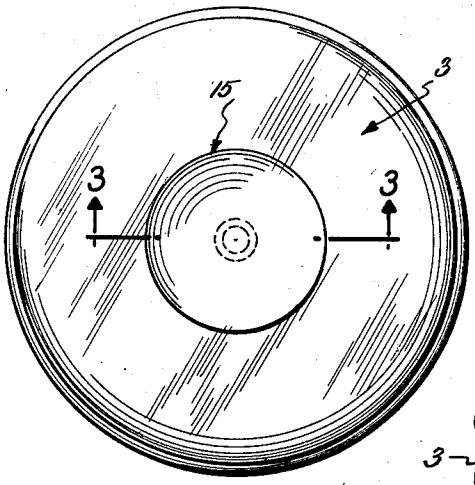



FIG. 3

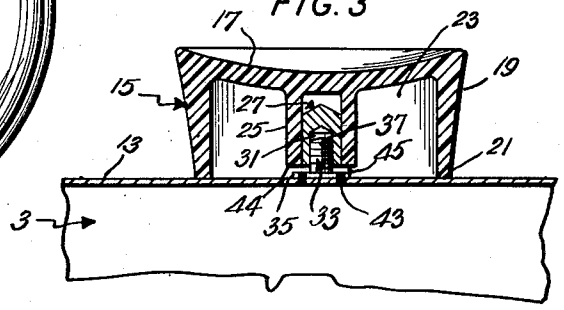



FIG. 2

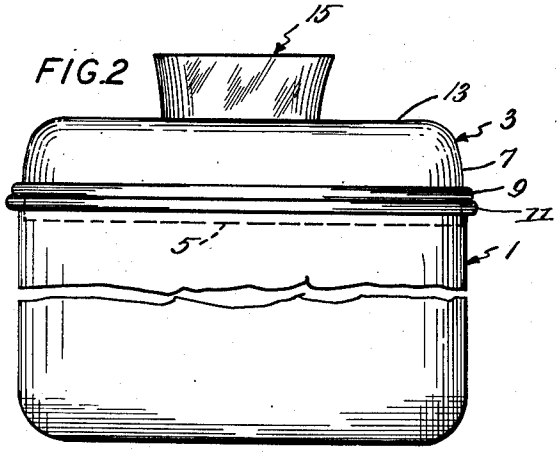



FIG. 4

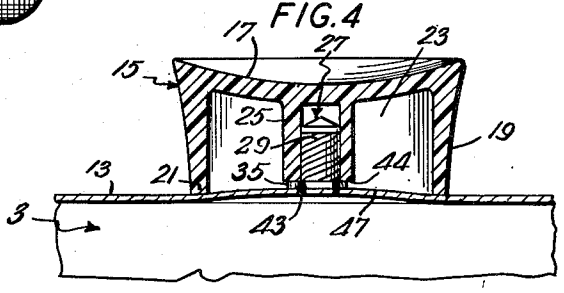
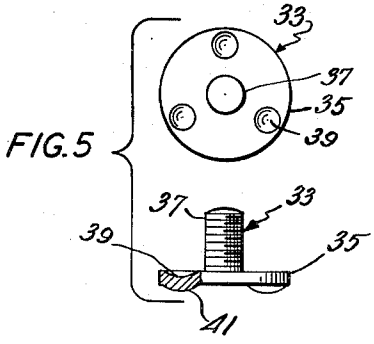



FIG. 5




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# CANISTERS

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Application October 4, 1955, Serial No. 538,368

1 Claim. (Cl. 220—82.5)

My invention, which relates to canisters, has among its objects the provision of a canister the cover of which has a hollow knob adapted to contain and display a sample of the material stored in the canister, the knob for that purpose having a transparent portion.

The invention and its objects however will be best understood from the following description when read in the light of the accompanying drawings of an embodiment of the invention selected for illustrative purposes, while the scope of the invention will be more particularly pointed out in the appended claim.

In the drawing:

Fig. 1 is a plan view of the canister according to the invention;

Fig. 2 is a side elevation of the canister according to Fig. 1, with parts broken away;

Fig. 3 is a section on the line 3—3 of Fig. 1, with parts broken away and on an enlarged scale, showing the knob in one operative position relative to the cover of the canister;

Fig. 4 is a section corresponding to Fig. 3 showing the knob in another operative position relative to the cover of the canister, with parts in elevation; and

Fig. 5 shows a detail on an enlarged scale.

Referring to the drawings, the canister comprises a body portion 1 adapted to contain the material to be stored in the canister, and a removable cover 3 for closing the top opening of such body portion. As indicated in Fig. 2, the cover has a downwardly projecting annular flange 5 at its lower edge which fits the interior of and makes a slip joint with the body portion, the side wall 7 of the cover being formed with an annular bead 9 cooperating with the bead 11 at the top of the side wall of the canister body portion for limiting the extent of projection of the flange 5 into the body portion.

As shown, the cover 3, which is preferably formed of sheet metal, has a flat top portion 13 which centrally thereof carries the knob 15 for the cover. As shown, this knob has an imperforate top wall 17 from the edges of which depends an annular skirt 19, the skirt having a lower edge 21 which defines an opening to the interior cavity 23 of the knob. This cavity is adapted to contain a sample of the material stored in the canister, the said opening to the cavity being closed by the cover when the knob is secured thereto as clearly indicated in Fig. 4. Preferably the knob is made of molded plastic of high transparency so as to display the sample contained in the knob cavity 23, or at least a portion of such knob, for example, its top wall 17 is transparent for that purpose.

As shown, the top wall of the knob is integrally formed with a center post 25 surrounded by the skirt 19. Molded into this center post is shown a part 27 which is exteriorly knurled, as indicated at 29 (Fig. 4), for fixedly securing said part to said center post. Interiorly thereof the part 27 is provided with a screw-threaded bore 31 concentric with the lower annular edge 21 of the knob and opening on the lower end of said part and center post.



As shown, the cover at its upper side carries a screw-like part 33 having a flange or disc-like head 35 integrally carrying an upwardly projecting screw-threaded shank 37. The head 35 at its lower side rests against the cover and is secured thereto by welding, brazing, soldering, or the like. Preferably, however, it is so secured by welding, and to that end is preferably preformed by striking up in its upper side a plurality of angularly spaced depressions 39 (Fig. 5) which form on its under side complementary projections 41. These projections in applying the head to the cover are placed against the upper side of the latter, whereupon by use of cooperating electrodes one engaging the upper side of the head and the other engaging the under side of the adjacent portion of the cover the head may be forced toward the cover and the projections fused into the contacting metal of the cover to bring the under side of the head into contact with the cover and spot weld it to the cover at points corresponding to the positions of the projections, as indicated at 43 in Figs. 3 and 4.

By presenting the screw-threaded shank 37 projecting upwardly from the cover to the screw-threaded bore 31, and relatively rotating the knob and cover in an appropriate direction, the knob may be drawn toward the cover to move the lower edge 21 of the skirt of the knob into contact with the upper side of the cover. The parts are so designed that when such contact is initially made there will exist between the lower end 44 of the center post 25 of the knob and the upper side of the screw head 35 a clearance indicated at 45 (Fig. 3). The metal of the cover is of such gauge and temper that its portion surrounded by the lower annular edge 21 of the skirt of the knob and in contact with said edge when said edge is drawn into contact with the cover is resiliently distortable, with the result that continued relative rotation of the knob and cover after such contact is initially made, that is to say when the parts are in their positions shown by Fig. 3, will resiliently flex such portion, as indicated at 47 (Fig. 4), to draw the portion of the cover contacting said edge firmly against the latter tightly to seal the joint between such edge and the cover and also frictionally to lock the knob against reverse rotation relative to the cover, which reverse rotation if permitted would unseal such joint. In these connections it will be observed that such tight joint is necessary to insure against escape of material of the sample contained in the knob, and particularly when such material is in a finely divided state such as flour, confectioners' sugar, and the like.

When the parts are in their relative positions shown by Fig. 4 the disc-like head 35 of the screw is drawn against the lower end of the center post of the knob to take up the clearance 45 shown in Fig. 3 so as to act as a stop for preventing continued relative rotation of the knob and cover in such direction as would tend further to flex the cover, which further continued rotation if permitted would be liable to rupture the weld or the like securing such head to the upper side of the cover.

It will be understood that within the scope of the appended claim wide deviations may be made from the form of the invention herein described without departing from the spirit of the invention.

I claim:

A canister cover having at its upper side a removable hollow knob of transparent molded plastic material adapted to receive and display a sample of the canister contents, said knob having an upper top wall, a skirt depending from said top wall having a lower annular edge defining an opening to the interior of said knob from its under side for entrance of such sample into it when it is removed from the cover and for contact with the upper side of the cover for closing such opening when

the knob is attached to the cover, said knob having an interior center post depending from said top wall, a part fixedly embedded in said center post having a downwardly opening screw-threaded bore positioned axially of said annular edge, a screw having a flange-like head resting on the upper side of said cover and secured thereto by welding or the like, the shank of said screw projecting upwardly for screw-threaded reception in said bore by relative rotation of the knob and cover for removably attaching the knob to the cover and for moving said edge of said skirt into contact with the upper side of the cover when such relative rotation is in such direction as to cause said shank to be so received, the portion of said cover so contacted by said edge and surrounded by said edge when it is in contact with the cover being resiliently distortable whereby continued relative rotation of said knob and cover after said edge is initially so moved into contact with said cover will forcibly flex such distortable portion resiliently against said edge for tightly sealing the joint between said edge and cover and for frictionally



locking said knob against rotation relative to said cover, the lower end surface of said center post being so positioned as to lie in vertically spaced relation to the upper surface of said flange-like head of said screw when said edge of said skirt is initially moved into contact with said cover and to be moved against said surface of said flange by such continued relative rotation for limiting the extent of such continued rotation for insuring against rupture of the weld securing said flange to the upper side of the cover, said bore and shank and the screw-threads thereof being of such extent axially of said knob as to permit such continued rotation.

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