This invention relates to containers, and more particularly to a detachable base for upright containers.

The invention is particularly applicable to metal cans of rectangular configuration, sometimes called "flat" cans. Such cans are popular because they store in minimum space, but they have the disadvantage of being relatively unstable against accidental tipping. This is of concern when working with cleaning fluid, polishes, liquid wax, and like.

The primary object of the present invention is to provide a detachable base which will greatly increase the stability of such cans. Indeed the stability may be so increased that the can may be placed on an irregular surface, such as that of upholstered furniture, or an automobile body. Still another object is to provide a base having a relatively smooth bottom surface such that the can may be rested on a highly polished surface, for example furniture or a car body, without danger of scratching the same. Still another object is to guard against drip of contents from the can. Still another object is to provide a single base which may be used with cans of different size.

To accomplish the foregoing general objects, and other more specific objects which will hereinafter appear, my invention resides in the detachable base, and its relation to upright containers, as are hereinafter more particularly described in the following specification. The specification is accompanied by a drawing, in which:

Fig. 1 is a plan view of a base embodying features of my invention;
Fig. 2 is a fragmentary section drawn to enlarged scale and taken in the plane of the line 2—2 of Fig. 1;
Fig. 3 is a fragmentary section drawn to enlarged scale and taken approximately in the plane of the line 3—3 of Fig. 1;
Fig. 4 is a fragmentary section drawn to enlarged scale and taken approximately in the plane of the line 4—4 of Fig. 1;
Fig. 5 is a section through the base, taken approximately in the plane of the line 5—5 of Fig. 1; and
Fig. 6 is a perspective view showing the base in use with a can of large size.

Referring to the drawing, and more particularly to Fig. 6, I provide a detachable base 13 for an upright container C, the said base being substantially larger in area than the base of the container, in order to increase the stability of the container against accidental tipping. The base includes means 12 to grip the bottom of the container. The base preferably includes a drip rail 14 entirely around its periphery.

The means 12 for gripping the container preferably take the form of spaced undercut abutments, and in the preferred and simplest form of the invention the base and the abutments 12 and the drip rail 14 are all made of a single integrally molded piece of material, typically rubber in a nearly hard but slightly yieldable condition. Some of the modern plastics materials of slightly yieldable character also may be employed. The base is preferably square in configuration, thereby giving the flat can approximately the same stability in a direction across the bottom as well as in a direction along the bottom.

Referring now to Fig. 1, it will be seen that there is another pair of abutments 16 disposed on a line transverse to the pair of abutments 12. The spacing between the abutments 16 differs from that between the abutments 12. More specifically, the abutments 16 will receive and grip a can of small size, say one pint capacity, while the abutments 12 will receive and grip a can of large size, say one quart capacity. Thus the base has a plurality of undercut abutments so spaced and so located as to receive and grip the bottom of cans of a plurality of different sizes.

Referring now to Figs. 4 and 5, each abutment 16 is undercut at 18, or differently expressed, is provided with an overhanging lip 20. Similar remark applies to the abutments 12, and the proportioning of the parts is such as to receive the conventional bead 22 (Figs. 5 and 6) at the bottom of the can. The spacing between the abutments is preferably made slightly less, say ½", less than the dimension of the can, so that the can will be held not only by the undercut, but also with a frictional grip.

Referring now to Figs. 1 and 2, the base is preferably provided with a fifth abutment 24, and this is suitably located to act as a stop or locating means for cans of both sizes. A pint can, shown in broken line outline at 26, may be placed on the base between the lower abutment 12 and the abutments 16 shown in Fig. 1 and then slid sideward between the abutments 16, until its motion is arrested by the stop 24. A large can, indicated by the broken line 28, may be placed on the base to the right of the abutments 12 as viewed in Fig. 1, and then slid sideward toward the left until its motion is arrested by the abutment 24. Thus the abutment 24 serves to center either size of can in relation to the respective abutments.

The rail 14 may be given any desired configuration, and that shown in Fig. 3 is merely an example. The rail is preferably substantial in height, say ⅜", in order to effectively prevent drip.

The size of the base is not critical, but should be substantially larger than the bottom of the can. In one typical example the base is 7" on each side, and this increases the stability of the can so much that it may be tipped about the edge of the base some 45° without danger of turning over. A base of still larger area would increase the stability still more.

In respect to the material of the base, it should be understood that when rubber is used it is vulcanized to nearly harden the same. It may be somewhat yieldable in order to frictionally grip the can, but it is not soft enough for the base to simply bend at the edge of the can bottom when the can tips, and instead must be rigid enough to remain flat when the can tips, so that the motion of the can is about the edge of the base as a fulcrum. A typical plastics material which may be used is polyethylene in nearly rigid state. The necessary rigidity is related to the thickness of the base, being less with a thicker base.

The abutments 12 and 16 may be molded separately and cemented to the base. In such case the undercut 18 and lip 20 may be square instead of sloping in configuration. When the abutment is made as here shown, the lip is preferably sloped as shown, to facilitate withdrawal from the mold despite the undercut, which is possible because the material is still hot.

It is believed that the construction and method of use of my improved base, as well as the advantages thereof, will be apparent from the foregoing detailed description.

Whether made of rubber or a plastic such as polyethylene, the base is smooth enough and soft enough to avoid scratching a polished furniture surface. The increased
stability makes work easier in that the user need not worry continuously over the possibility of tipping the can. Moreover, the large area base makes it possible to rest the can on somewhat angular portions of an automobile body when polishing the same, or on upholstered furniture, or other relatively irregular surface. The can is readily removed from the base when storing the can, at which time the base may be stood edgewise alongside the can in order to occupy minimum space.

It will be apparent that while I have shown and described my invention in a preferred form, changes may be made in the structure shown without departing from the scope of the invention, as sought to be defined in the following claim.

I claim:

A frictional non-marring detachable base for upright rectangular or so-called “flat” metal cans, said base being generally flat and approximately square in configuration and substantially larger in area than the base of the can in order to greatly increase its stability against accidental tipping, a drip rail around the periphery of the base, said flat base having a first pair of fixed opposed undercut abutments spaced from the drip rail and so spaced apart as to receive and grip the ends of the beaded bottom edge portion of a can of small size in diametrical relation to the can, said base having a second pair of fixed opposed undercut abutments disposed on a line perpendicular to the first pair of abutments and so spaced as to receive and grip the ends of the beaded bottom edge portion of a can of large size in diametrical relation to the can, and a fifth abutment so located as to act as a stop or locating abutment for both sizes of cans, said abutments, base and drip rail all being made of a single integrally molded piece of material having the physical characteristics of rubber.

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