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1,549,705

P. ANTONIO

LID SUPPORTER

Filed Aug. 1, 1924

Fig. 1.

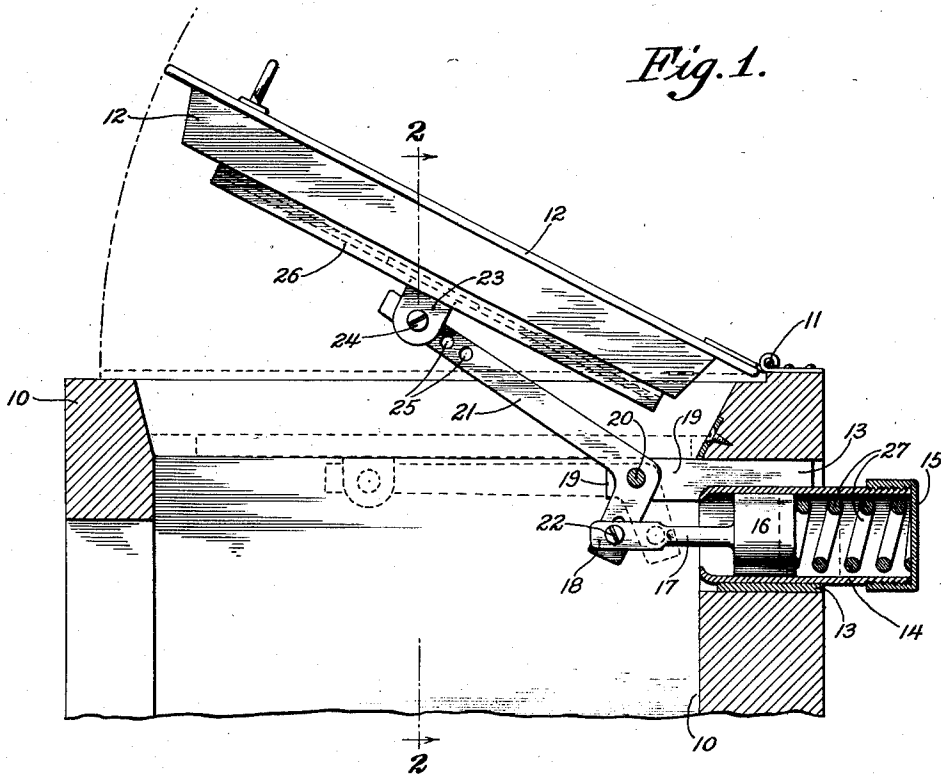
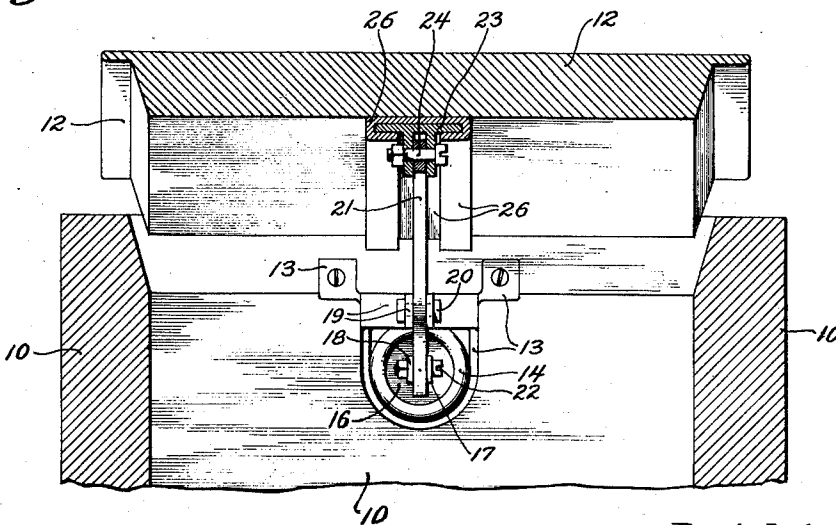


Fig. 2.



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UNITED STATES PATENT OFFICE.

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LID SUPPORTER.

Application filed August 1, 1924. Serial No. 729,572.

To all whom it may concern:

Be it known that I, PAUL ANTONIO, a citizen of Greece, residing at New York city, in the county of Bronx and State of New York, have invented new and useful Improvements in Lid Supporters, of which the following is a specification.

This invention relates to improvements in lid supporters.

The principal object of the invention is the provision of a means for supporting a hinged lid or cover in various positions of adjustment whereby to prevent the accidental dropping of the lid which sometimes occurs and proves dangerous should a person be in the act of removing the contents of the receptacle to which the lid is hinged.

Another object of the invention resides in the provision of a support which will eliminate the use of props or weights usually employed for holding a lid in a raised position.

A further object of the invention is to construct a lid support which is simple in construction, cheap of manufacture and easy to apply to or remove from a receptacle.

With these and other objects in view, the invention resides in certain novel construction and combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawing, in which:—

Figure 1 is a vertical sectional view of my invention applied to a receptacle and showing the parts in full lines when the lid is in a raised position, and showing in dotted lines the position of the parts when the lid is closed.

Figure 2 is a transverse sectional view on the line 2—2 of Figure 1.

It is the purpose of my invention to prevent the lid or cover of an ice-box or the like from accidentally dropping from a raised position to a closed position which sometimes occurs when the lid is left in a vertical position without the use of some means of protection. In many instances, props and weights and cables have been used for holding the lid in a raised position but this has proven unsatisfactory, as the props often slip from their position and the cables eventually break from wear. My

invention is adapted to overcome these objections and will now be described.

Referring more particularly to the drawing, the reference numeral 10 designates a receptacle such as an ice-box and to which is hinged as at 11 a lid or closure member 12. Mounted within the rear wall of the box is a bracket or hanger 13 which supports a cylinder 14, which cylinder is opened at its inner end, and closed at its outer end by a removable cap 15 which may be threadedly connected to the cylinder. Slidable in the cylinder is a plunger or piston 16 having a rod 17 which is bifurcated at its free end as at 18 and which extends beyond the open end of the cylinder for a purpose now to be described.

Arms 19 project inwardly from the bracket or hanger 13 between which is pivoted as at 20 a bell crank lever 21. One end of the bell crank lever is pivoted as at 22 within the bifurcation 18, and the other end of the lever is adjustably connected to a member 23 by a bolt 24. Openings 25 are provided in the end of the lever through which the bolt may be passed for adjusting the device to various size lids and for regulating the tension of the device. The member 23 is slidable within a track 26 secured to the underside of the lid 12 and which track is position at right angle to the axis of the hinge 11.

A spring 27 is positioned within the cylinder 14 between the piston 16 and the cap 15, the tension of which may also be adjusted by the movement of the cap upon the outer end of the cylinder. In operation, it will be seen that the spring 27 is always under tension to cause the plunger to move toward the inner end of the cylinder. This tension is not sufficient to move the lid from the horizontal closed position to an open position, but assists in raising the lid when the same is lifted by the hand of a person. When the lid has been lifted to any desired position from horizontal to vertical, the pressure of this spring is of a sufficient strength to act upon the bell crank 21 to cause the same to support the lid in the respective positions. The track 26 permits easy sliding movement of the member 23 which movement occurs during the arcuate movement of the lid about its pivotal connection. When it is desired to lower the lid, a downward pressure is applied to the

same sufficient to overcome the pressure of the spring 27.

From the foregoing description, it will be seen that I have provided a lid supporting means which is automatically operable upon the raising of the lid to any angle and which will eliminate the fear of having the lid drop while engaged in the removal of the contents from the receptacle.

While I have described what I deem to be the most desirable embodiment of my invention, it is obvious that many of the details may be varied without in any way departing from the spirit of my invention, and I therefore do not limit myself to the exact details of construction herein set forth nor to anything less than the whole of my invention limited only by the appended claims.

What is claimed as new is:—

1. In a lid support, the combination with a receptacle having a lid hingedly connected thereto, a member slidable in the underside of said lid, and tension means mounted in said receptacle for co-action with said member for supporting the lid in adjusted position.

2. In a lid support, the combination with a receptacle having a lid hingedly connected thereto, a member slidable in the underside of said lid, and tension means mounted in said receptacle for co-action with said member for supporting the lid in adjusted position, and means for adjusting the pressure of said tension means.

3. In a lid support, the combination with a receptacle having a lid hingedly connected thereto, a member slidable in the underside

of said lid, and tension means mounted in said receptacle for co-action with said member for supporting the lid in adjusted position, said means including a spring operated plunger, and a bell crank lever connecting said plunger with said member.

4. In a lid support, the combination with a receptacle having a lid hingedly connected thereto, a track secured to the underside of said lid, a member slidable in said track, a spring pressed plunger mounted in said receptacle, and a pivoted lever connecting said plunger with said member, substantially as and for the purpose specified.

5. In a lid support, the combination with a receptacle having a lid hingedly connected thereto, a track secured to the underside of said lid, a member slidable in said track, a cylinder supported in a wall of said receptacle, a plunger slidable in said cylinder, a spring acting against said plunger, and a pivoted lever connecting said plunger with said member substantially as and for the purpose specified.

6. A lid support for attachment to a receptacle having a pivoted closure member including a cylinder, a spring actuated plunger slidable in said cylinder, a bell-crank lever operable by said piston, and a member carried by the free end of said bell crank lever adapted for sliding movement against the underside of the closure member.

In testimony whereof I have affixed my signature.

PAUL ANTONIO.