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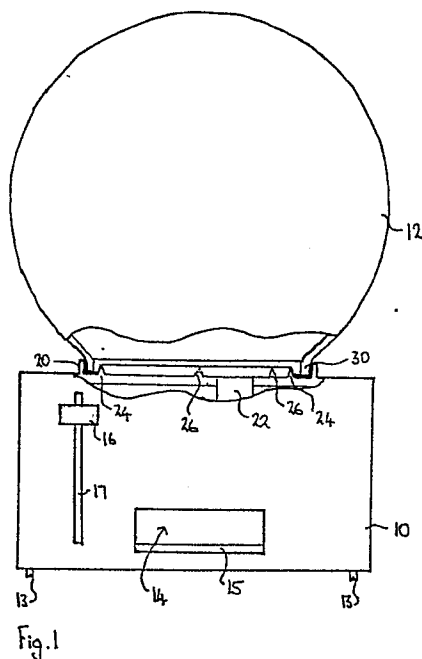
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## 54 **Dispenser.**

57 The dispenser has a base 10, to which a disposable plastics container 12 charged with peanuts is fitted by engagement of screw threads on a wall 20 the base and a skirt 30 of the container. The base houses a coin-freed mechanism allowing a quantity of peanuts to be dispensed through an outlet 14 by operation of a lever 16. Prior to fitting of the container to the base, the lower end of the container is protected by a cap which is removed to expose a foil closure which is broken by knife-edges 24, 26 on the base when the container is fitted thereto. Peanuts can thus flow from the container to the base, to be dispensed through the outlet 14.



## Description

## DISPENSER

This invention relates to dispensers for flowable particulate solid materials, for example peanuts.

UK Patent Specification 414517 (Reid and Bannister) discloses a coin-operated peanut dispenser which has a base containing a coin-freed dispensing and measuring mechanism and, on top of the base, a container for peanuts. The container has a lower opening, for the passage to the base of peanuts to be dispensed, and an upper opening closed by a lid which is secured to the base by a tension spring passing through a support tube which extends inside the container from the base to the cap.

For use in dispensing peanuts, the container of this dispenser is charged with peanuts through its upper opening which is afterwards closed by the cap which is secured to the container by attachment of a hook at the upper end of the spring cap.

The dispenser described above has the disadvantage that its container requires periodic cleaning and, when empty, must be re-charged with peanuts through its upper opening. These and other disadvantages make the dispenser not well-suited to present-day marketing and vending practices and with a view to overcoming these disadvantages, the present invention provides a dispenser for solid flowable particulate material, for example peanuts, the dispenser comprising a container for the material and a base containing a mechanism, preferably a coin- or token-freed mechanism, for dispensing through an outlet in the base a measured amount of the material supplied from the container to an inlet of the base, the base and the container having co-operating means whereby the base and container can be releasably secured together with an opening in the lower end of the container in communication with the inlet of the base, the base having means adjacent its inlet for breakage of a breakable closure element closing the opening of the container prior to the container being fitted to the base.

The invention also provides a container for use in the dispenser of the preceding paragraph, the container being charged with solid flowable particulate material, for example peanuts, and having its opening closed by a breakable closure element which can be broken by the breakage means of the base of said dispenser.

With this arrangement, the container sealed by the closure element can be supplied already charged with material. The containers are conveniently charged to a predetermined weight on automated packaging machinery.

The container can then be quickly and easily secured to the base and, when empty, replaced by a fresh, charged and sealed container.

The container is conveniently of plastics material and is advantageously intended to be thrown away after discharge of its contents.

The securement means may take any convenient form, for example screw threads or bayonet formations on an upstanding cylindrical wall on the base

and a dependent cylindrical skirt on the container.

The closure element may be of, for example, plastics, paper or metal foil and, advantageously, is protected prior to fitting of the container to the base by a covering cap of, for example, tough plastics material, which is in snap-fit engagement with the container in the region of its opening.

Preferably, the breakage means of the base comprise an upstanding cutting edge on the base member, the edge advantageously being positioned to be just inwardly of the periphery of the container opening. Instead, or in addition, a further upstanding cutting edge can be located adjacent the inlet of the base.

The co-operation of the base and container when the latter is fitted to the former is such that the broken closure element is removed from the region of the base inlet, in order to allow material to flow from the container to the base.

An embodiment of the invention will now be described by way of example with reference to the drawings, in which:

Figure 1 is a front elevational view of a peanut dispenser, a central region being shown in section, and

Figure 2 is a top plan view of the base of the dispenser of Figure 1.

The dispenser shown in the drawings has a base 10 and a peanut container 12 which is formed from transparent lightweight plastics material and is generally spherical in shape.

The base 10 has feet 13 and, further, an outlet 14 and discharge chute 15 for peanuts. The base 10 contains a coin-freed dispensing and measuring mechanism which is not described here in detail. A suitable mechanism is disclosed in UK Specification 414517 referred to above. The mechanism includes a manually-operable actuating lever 16, slidable in a slot 17, and a coin slot 18 (see Figure 2).

On its top surface, the base 10 has an upstanding cylindrical wall 20 which is screw-threaded on its inner surface. Within the wall 20, there is an outlet 22 opening of the base 10, through which peanuts are fed to the dispensing and measuring mechanism in the base. Also within the wall 20 but spaced just radially inwardly therefrom is an annular knife edge 24, the purpose of which will be described below. Similarly, a further annular knife edge 26 is upstanding around the inlet opening 22.

The container 12 of the dispenser has a circular discharge opening 28, around which a circular dependent skirt 30 extends. The skirt 30 has on its outer surface a screw thread which is complementary to the screw thread on the inner surface of the wall 20 of the base 10. The discharge opening 28 is closed by a circular sheet of metal foil prior to the container being secured to the base, the foil sheet being secured around its periphery to the circular end face of the skirt 30. If desired, the foil sheet can be protected by a removable plastics cap which engages with the skirt 30 with a snap-fit.

Prior to use of the dispenser, the sealed container 12 charged with peanuts is fitted onto the base by removal of any protective cap and then by screwing the threads together. During this coupling process, the knife edge 24 fractures the foil sheet just inwardly of the periphery of the discharge opening, whilst the further knife edge 26 produces a further hole in the foil sheet which is thus displaced from the region of the inlet opening 22 of the base. The container is now ready for the peanuts in the container 12 to be dispensed through the base 10 by operation of the mechanism therein. When the contents of the container are exhausted, the container is removed from the base and replaced by a new charged container. The old container can then be discarded.

In modified embodiments, in the container is not generally-spherical but is of a cylindrical, frustoconical, or any other shape.

In further modified embodiments, the knife edges 24, 26 are replaced by other means for breaking and clearing-away the closure element of the container.

is such that the broken closure element is removed from the region of the base inlet.

8. A container for use in dispenser according to any preceding claim, the container being charged with solid flowable particulate material, and having its opening closed by a breakable closure element which can be broken by the breakage means of the base of a said dispenser.

9. A container according to claim 8 and of plastics material.

10. A container according to claim 8 or 9, having a removable cap protecting the closure element.

11. A container according to any of claims 8 to 11 and charged with peanuts.

## Claims

1. A dispenser for solid flowable particulate material, comprising a container for the material and a base containing a mechanism for dispensing through an outlet in the base a measured amount of the material supplied from the container to an inlet of the base, the base and the container having co-operating means whereby the base and container can be releasably secured together with an opening in the lower end of the container in communication with the inlet of the base, the base having means adjacent its inlet for breakage of the breakable closure element closing the opening of the container prior to the container being fitted to the base.

2. A dispenser according to claim 1, in which the mechanism is a coin- or token-freed mechanism.

3. A dispenser according to claim 1 or 2, in which the securement means comprise co-operating formations on an upstanding cylindrical wall on the base and a dependent cylindrical skirt on the container.

4. A dispenser according to any preceding claim, in which the breakage means of the base comprise an upstanding cutting edge on the base member.

5. A dispenser according to claim 4, in which the breakage means comprise a said cutting edge positioned just inwardly of the periphery of the container opening.

6. A dispenser according to claim 4 or 5, in which the breakage means comprise a said cutting edge located adjacent the inlet of the base.

7. A dispenser according to any preceding claim, in which the co-operation of the base and container when the latter is fitted to the former

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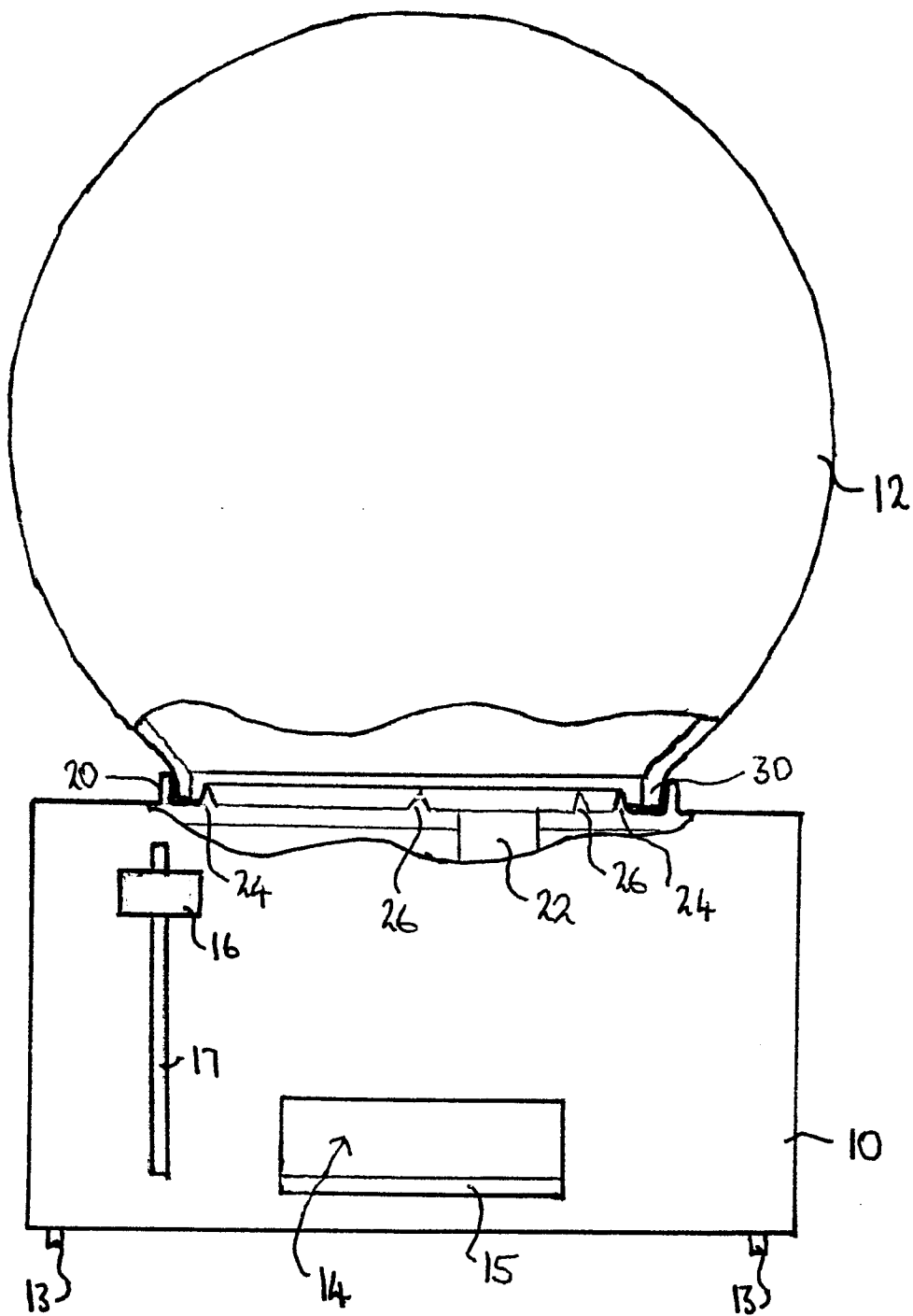


Fig. 1

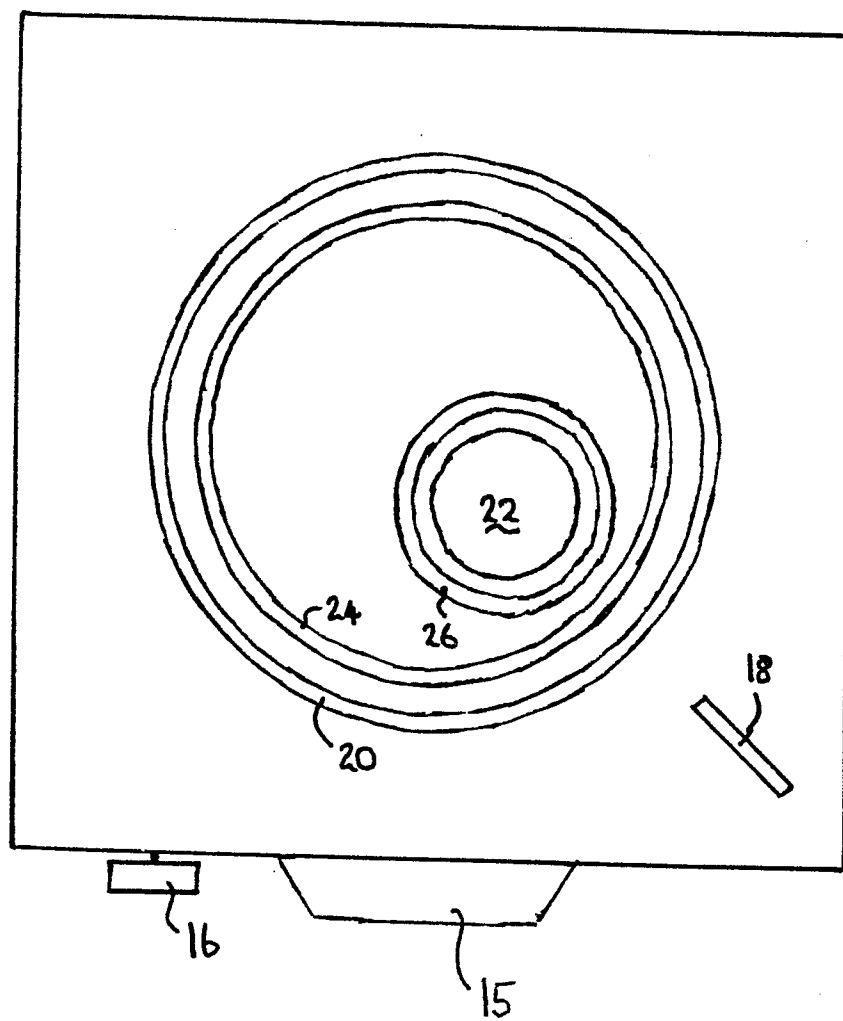


Fig. 2