Nov. 9, 1954 M. J. FERRO 2,693,864

CONTAINER FOR DESICCANT MATERIAL AND SUPPORT THEREFOR

Filed June 20, 1952

Fig. 1.

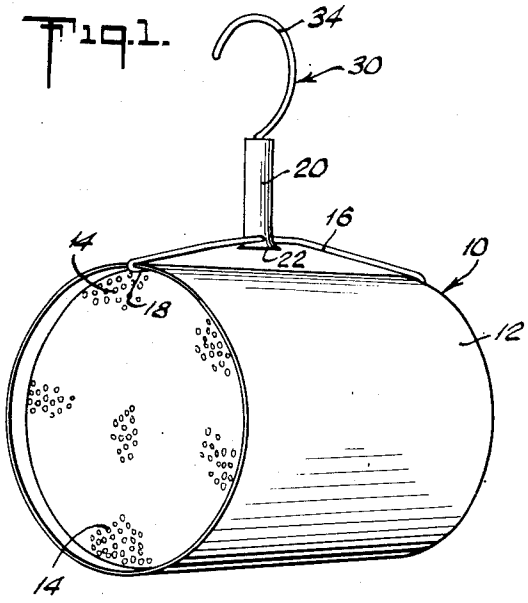


Fig. 2.

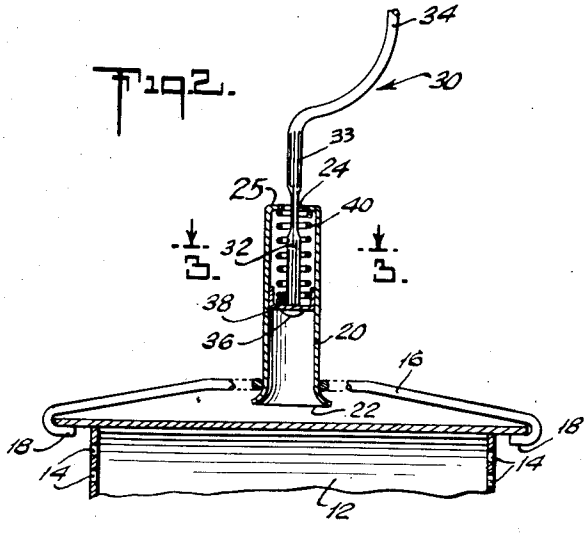
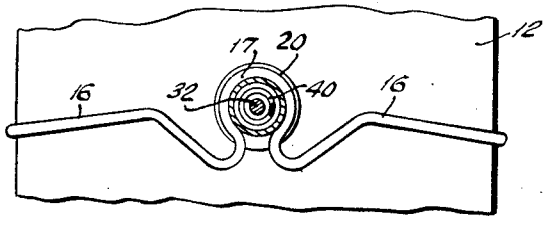


Fig. 3.



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United States Patent Office 2,693,864 Patented Nov. 9, 1954

2,693,864

CONTAINER FOR DESICCANT MATERIAL AND SUPPORT THEREFOR

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Application June 20, 1952, Serial No. 294,673

2 Claims. (Cl. 183—4.8)

The present invention relates to a device for suspending from a suitable support a container for desiccant material; that is, material which absorbs moisture. The present invention relates also to devices for suspending a container filled with such desiccative material which increases in weight as it absorbs moisture, and for indicating the extent to which the desiccative material has absorbed moisture in order that said material may be dried and restored to optimum condition for absorbing additional moisture. Silica gels are suitable materials of this general type.

Generally speaking, the device of the present invention comprises a clamp for gripping the container of desiccative material, the clamp being secured to a shell within which shell an expansion coil spring is trapped. A suspension member is provided, having a straight component disposed within the shell and a curved hook component extending upwardly therefrom. The straight component of the suspension member bears a tell-tale indicia normally disposed inside the shell, out of sight. As the desiccant material within the container absorbs the moisture and its weight increases, it will draw the shell downwardly against the normal biasing of the spring, exposing to view the marked part of the suspension member, thereby indicating the moisture-laden condition of the material and warning the user to remove the moisture and restore the material to original condition.

In the drawings annexed hereto and forming a part hereof,

Figure 1 is a perspective view of one form of device constructed according to and embodying the present invention;

Figure 2 is a vertical section of a portion of the device; and

Figure 3 is a horizontal section on the line 3—3 of Figure 2.

Referring now to the drawings, the device is indicated generally by reference numeral **10**, comprising a container **12** within which the desiccative material is disposed. The material may be in powder or granular form having the property of absorbing moisture from the atmosphere. As moisture is absorbed thereby, the weight of the material increases progressively until the saturation point is reached, when it will absorb no more moisture. The material may be treated, as by heat or otherwise, to expel the contained moisture therefrom and to restore it to its original light weight and moisture-absorbing condition. Container **12** is provided with a plurality of apertures **14**, **14** of suitable size in relation to the character of the material whereby the interior of container **12** is in free communication with the atmosphere.

A spring clamp **16** is provided having inturned ends **18**, **18** to engage the ends of container **12**. It will be understood that while inturned ends as **18**, **18** will properly engage container **12**, other means may be provided for engaging clamp **16** to container **12**. An elongated shell **20** of circular section is also provided, open and flared at the bottom **22** thereof, and having a reduced aperture **24** through the top **25** thereof for reasons to be detailed below. Clamp **16** is spring crimped about shell **20**, as indicated at **17**, or otherwise secured thereto. A suspension member **30** is provided and associated with shell **20** in the following manner. The lower portion of member **30** comprises a thin, straight leg component **32**. The

upper portion is curved to form a hook component **34**, whereby the device may be suspended from any suitable support. The end **36** of leg **32** is fastened to a circular plate or disc **38** of such diameter as to slidably fit within shell **20**. The fastening may be by upsetting the end of leg **32** beyond the underside of disc **38**, or by any other suitable means.

A normally expansible coil spring **40** is disposed within shell **20**, surrounding leg **32**, and is trapped therewithin between plate or disc **38** and the underside of shell top **25**. The height of shell **20** is substantially equivalent to the length of leg **32** and when container **12** is suspended from shell **20**, loaded with the desiccative material in dry, original moisture-free condition, spring **40** will retain leg **32** almost wholly within shell **20**, out of sight. It will be understood that the strength of the spring **40** provided must be such, in relation to the original condition and weight of container **12** and contents, or that the original weight of the container and contents is so relatively small, that the spring will be relatively uncontracted to retain leg **32** inside the shell and out of sight.

Leg **32** may be treated to provide a tell-tale readily visible signal, as by covering same with a brightly colored enamel, paint or the like, as indicated at **33**. Thus, when container **12**, its contents, shell **20** and clamp **18** weigh, for example, twenty-four ounces, the weight in that amount will compress and contract spring **40** sufficiently between plate or disc **38** and shell top **25** as to draw the shell downwardly and expose a major portion of leg **32**, the visibility of the tell-tale thereby warning the user that the desiccant requires dehydrating for more efficient operation.

Variations may be resorted to from the specific form of the invention disclosed and described hereinabove for illustrative purposes without departing from the teachings thereof.

What is claimed and desired to be secured by Letters Patent is:

1. A container for moisture absorbing material the weight of which material increases on moisture absorption until the saturation point is reached and yieldable suspension means therefor, the suspension means comprising an elongated cylindrical housing having an open bottom and a centrally apertured closure at the top thereof, the housing being outwardly flared at the bottom thereof, a support engaging hook above the housing integral with a vertically depending shank extending into the housing through the apertured top thereof, a transversely extending circular plate disposed within the housing and vertically slidable with respect thereto, the plate being fixed to the bottom of the shank, a normally expandible coil spring disposed within the housing concentric with the shank and trapped between the top of the housing and the said plate therewithin, a container-engaging bail resting on the housing skirt and depending therefrom, a tell-tale on the shank normally hidden by the housing, absorption of moisture by the container material and the consequent increase in weight thereof gradually compressing the spring whereby on saturation of the container contents the housing rides down the shank to expose the tell-tale thereon to view above the housing.

2. The combination of claim 1, wherein the tell-tale comprises a visual signal.

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