

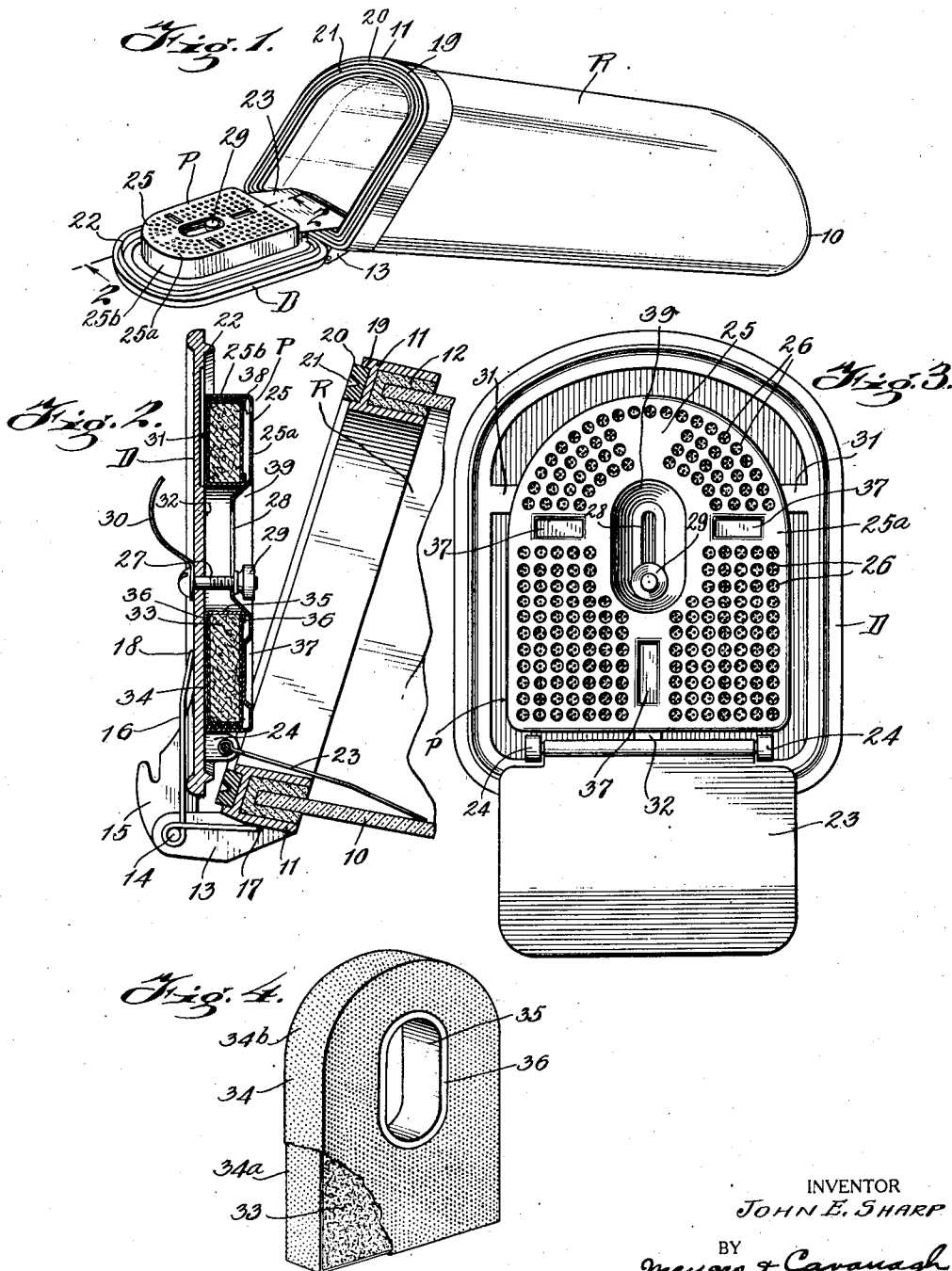
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HYGROSCOPIC PAD AND HOLDER FOR CONFECTION JARS

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HYGROSCOPIC PAD AND HOLDER FOR CONFECTION JARS.

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This invention relates to improvements in moisture absorbing means for receptacles containing food products or the like, and relates more particularly to an improved
5 hygroscopic pad and pad holder for confection jars; and has special reference to the provision of a novel hygroscopic pad and pad holder of the type which is removably receivable by the receptacle and which when
10 saturated with moisture may be dehydrated for re-use.

To protect the contents of food and other receptacles against atmospheric moisture, it has long been well known to place a hygroscopic substance in the food receptacle or
15 container for absorbing the moisture and regulating the moisture content therein. This hygroscopic or moisture absorbing substance is usually placed in the receptacle out of contact with the contents thereof and
20 in a position where it is open to the circulation of air in the receptacle, and for convenience is attached to so as to be movable with the cover of the receptacle. The moisture absorbing substances used may be of
25 any of a variety of forms, one of the well known forms being a pad or cake composed of a mixture of a fibrous substance such as paper, asbestos or the like, and a hygroscopic material such as calcium chloride or
30 the like, this hygroscopic pad after becoming absorbed or impregnated with moisture being readily dehydrated by heat for re-use.

In the use of a dehydratable hygroscopic
35 pad of this nature carried by the movable cover or door of a food receptacle, I have found that due to the constant opening and closing of the door, the hygroscopic pad is subject to constant jar and shock, with the
40 result that small particles of the absorbing pad become loosened from the pad body, and fall or gravitate into the jar and mix or mingle with the contents thereof. These
45 pads are usually contained in a holder which is provided with air circulating perforations, and the detached pad particles fall and gravitate through the openings of the holder into the jar for undesirable mingling with the jar contents. To obviate this
50 disadvantage and to provide a pad and pad holder construction wherein the broken particles will be prevented from moving into and commingling with the contents of the jar

is a prime desideratum of my present invention.

In handling the saturated hygroscopic pad as when the same is removed from the receptacle and subjected to heat for dehydration, I have further found that the pad, being relatively frangible, is subject to the
60 liability of becoming chipped or broken so that the pad is often rendered useless, and if in broken or mutilated condition is reinserted in the food receptacle, it becomes increasingly liable to further disintegration when the cover or door is jarred
65 during opening and closing of the same, with the consequent aggravation of the tendency for the pad particles to gravitate into for commingling with the jar contents. To obviate this objection, it is a further
70 desideratum of my present invention to provide a pad and pad holder or container which may be handled as a unit and which may be removed from the receptacle when
75 saturated and baked for dehydration without fear or liability of disturbing the integrity or identity of the hygroscopic pad itself.

Still further objects of my invention include the provision of a pad and pad holder
80 which may be readily attached to and detached from the cover of the food receptacle, and which is so attached to the cover as to be open to an efficient circulation of air to permit a maximum absorbing activity of
85 the pad; the still further provision of a pad and pad holder constructed to interchangeably fit different sizes of food receptacles; and the provision of a hygroscopic
90 pad and pad holder which is neat and attractive in appearance and economical to manufacture and use.

To the accomplishment of the foregoing and such other objects as may hereinafter
95 appear, my invention consists in the elements and their relation one to the other, as hereinafter particularly described and sought to be defined in the claims; reference being
100 had to the accompanying drawings which show a preferred embodiment of my invention, and in which:

Fig. 1 is a perspective view of a confection jar showing my improved pad and pad holder associated therewith,

Fig. 2 is a fragmentary enlarged view of

the same taken in cross-section on the line 2-2, Fig. 1;

Fig. 3 is a plan view of the pad and pad holder showing the same attached to the cover or door of the jar, and

Fig. 4 is a perspective view with a part broken away of one section or part of the pad and pad holder.

Referring now more in detail to the drawings and having particular reference to Fig. 1 thereof, the pad and pad holder of my invention generally designated as P is shown attached to and carried by the cover or door D which is hingedly connected to the

receptacle jar or receptacle R. The receptacle R and door D may be of any desired construction or design, the same being here shown merely by way of illustrating the application of the invention, and in the present exemplification the receptacle may comprise a glass jar 10 provided with the top frame 11 of preferably U-shaped cross-section which is firmly attached to the top portion of the jar by means of a cementitious substance 12, the said frame being provided with the spaced apertured ears 13 in which is journaled a hinge pintle 14 on which the apertured lugs 15 which may preferably be formed integrally with the door structure D are pivotally or hingedly mounted, a spring 16 provided with a portion coiled about the hinge pintle 14 and anchored at one end against the frame 11 as at 17 and anchored at the opposite end against the door D as at 18, being provided for normally urging the door and holding the same in closed position. Preferably also the frame 11 is provided with an annular channel 19 in which is seated a gasket 20 made of rubber or the like, the said gasket being preferably provided with a V-shaped channel 21 which is intended for mating with an annular V-shaped rib 22 preferably formed integrally with the door D, this to provide an effective moisture-proof seal between the jar and door.

The jar or receptacle structure may also be provided with a flap 23 pivotally attached to spaced lugs 24 and extending a substantial distance into the jar 10, the flap acting as a guard against the falling of the receptacle contents between the door and frame of the jar when the door is in open position as shown in Fig. 1 of the drawings.

As heretofore referred to, a prime object of the invention centers about the provision of a hygroscopic pad and pad holder P which while attached to the door D in a manner to permit an effective access of the air to the pad, is so constructed that the liability of detached particles of the pad falling into and commingling with the jar contents is effectively minimized and inhibited. To this end the construction comprises a holder 25 having a front wall 25^a

and a side wall 25^b, the front wall 25^a being perforated with substantially large apertures 26 over preferably the full face thereof, the said holder being detachably attachable to the door D as by means of the securing bolt 27 extending through a slot 28 provided in the front wall of the holder and a nut 29 receivable by the inner end of the bolt, the said bolt being also preferably employed for securing the door handle 30 in position. The perforate holder being thus constructed of a relatively coarse mesh is freely open at its front face to the circulation of air within the jar, and to the end of permitting a ready access of the air to the rear of the holder, the said holder is attached to the door D so as to be spaced from the wall thereof, and to this end the interior wall of the door D is provided with the transverse and longitudinal spacing ribs 31 and 32 respectively, the marginal edge of the holder wall 25^b engaging these ribs, as is clearly shown in Figs. 2 and 3 of the drawings, to provide an air circulation clearance between the said holder and the door as is particularly shown in Fig. 2 of the drawings.

For the purpose of providing a pad which may be kept integral or intact during handling, as when being baked for dehydration, and to the further end of producing a pad in which any loosened particles will be prevented from becoming detached and from falling into the jar, the construction further comprises the provision of a pad proper which is contained in or enveloped by a separate casing removably receivable by the perforate holder 25, the said casing comprising a perforate or foraminous enclosure for the pad of a relatively fine mesh, such as to permit effective moisture absorbing activity of the pad while preventing a sifting of the hygroscopic pad material through the casing.

Referring now particularly to Figs. 2 to 4 of the drawings, I show the pad 33 the ingredients of which may be, as heretofore indicated, a mixture of a fibrous and hygroscopic substance such as asbestos and calcium chloride, the said pad being completely enveloped by a foraminous casing 34 which for convenience may be made in the form of two telescoping metallic sections 34^a and 34^b preferably made of aluminum, the said sections being secured together by means of a tubular-shaped member or ferrule 35 flanged or rolled at its opposite ends as at 36 so as to form a composite pad and casing which is open to air circulation throughout, which may be removably received by the holder 25, and which may be handled as a unit when dehydrated to maintain the pad integral and intact.

I have found that the minute perforations in this container or casing will prevent the sifting of the small particles of

the pad and the consequent falling of the same into the jar, the fine mesh of the casing 34 and the relatively coarse mesh of the holder 25 permitting, however, a thorough access of the air to the absorbing pad for an efficient moisture-absorbing activity of the same.

I have found it also desirable to so construct the casing 34 and the holder 25 as to permit of a ready passage of air between the holder and the casing, and to this end the casing is spacedly mounted from the front wall of the holder to provide an air space or chamber therebetween. A convenient and inexpensive manner of constructing the holder and casing to provide this relationship consists in providing a plurality of depressions 37 which may be three in number as shown in Fig. 3 of the drawings, the said depressions forming spacing lugs for holding the casing 34 spaced from the front wall 25 of the holder, providing the air space 38 therebetween as is clearly shown in Fig. 2 of the drawings.

In the preferred construction the front wall 25^a of the holder 25 is constructed to provide means for confining the securing elements for the holder, and to this end the front wall is provided with a centrally depressed portion 39 which houses or confines the nut 29 so that the latter is flush with the front face of the holder, the depressed portion 39 also functioning in cooperation with the ferrule 35 for centering and securely holding the pad and casing in position so as to prevent shaking or vibration thereof, all as clearly shown in Fig. 2 of the drawings. In the preferred construction also the pad and pad holder is designed to be interchangeable for different size confection jars, and to this end the central depression 39 and the slot 28 are made relatively elongated, thus providing for adjustment of the holder relatively to the cover or door of the receptacle to effect the desired end.

The manner of making and using my improved pad and pad holder construction and the advantages thereof will in the main be fully apparent from the above detailed description thereof. It will be further apparent that while I have shown my device in the preferred form, many changes and modifications may be made in the structure disclosed without departing from the spirit of the invention, defined in the following claims.

I claim:

1. In combination, a receptacle for confections or the like, a movable cover therefor and moisture absorbing means carried by the cover, the said moisture absorbing means comprising a perforate metallic holder having a relatively coarse mesh attached to the interior of the cover, and a foraminous me-

tallic casing having a relatively fine mesh and enveloping a hygroscopic substance, the said casing being contained by the said holder.

2. In combination, a receptacle for confections or the like, a movable cover therefor and moisture absorbing means carried by the cover, the said moisture absorbing means comprising a metallic holder attached to the interior of the cover provided with a perforate wall and a perforate metallic casing holding a hygroscopic substance held by said holder and spaced from the perforate wall thereof to provide an air circulating space therebetween.

3. A hygroscopic pad and pad holder for food receptacles or the like comprising a metallic holder for the interior of the receptacle provided with a perforate wall, a foraminous metallic casing holding a hygroscopic material removably receivable by the holder, the said casing being made of a fine mesh sufficient to permit moisture absorbing activity of the hygroscopic substance while preventing sifting of said hygroscopic substance through the casing, and means for spacing the said casing from the wall of the holder to provide an air circulating space therebetween.

4. A hygroscopic pad for food receptacles or the like comprising a foraminous metallic casing of a relatively fine mesh, and a hygroscopic pad enveloped thereby, the said casing and pad forming a composite unit which may be removably received by the food receptacle for absorbing moisture and which when saturated with moisture may be handled as a unit for dehydration, the mesh of the casing being such as to permit moisture absorbing activity of the pad while preventing a sifting of the hygroscopic pad through the casing.

5. In combination, a receptacle for confections or the like, a movable cover therefor and moisture absorbing means carried by the cover, the said moisture absorbing means comprising a metallic holder having a front perforate wall, the said wall being provided with an elongated depression and a correspondingly elongated slot, a pad including a perforate casing and a hygroscopic substance therein contained in said holder and means for removably attaching the holder to the cover, the said means comprising a securing element extending through said slot and confined within said depression in said wall.

6. In combination, a receptacle for confections or the like, a movable cover therefor and moisture absorbing means carried by the cover, the said moisture absorbing means comprising a metallic holder having a front perforate wall and an integral side wall, a perforate metallic casing contained in said holder, the said casing enveloping a hygro-

scopic substance, the said front wall of the holder being provided with a centrally depressed portion having a slot and with other depressed portions for spacedly holding the casing from the front wall of the holder to provide an air circulation space therebetween, and means for detachably attaching the holder to the cover, the said means including a securing element received by the slot and confined within the depressed portion so as to be flush with the front face of said wall. 10

Signed at Milwaukee, in the county of Milwaukee, and State of Wisconsin, this 12th day of October A. D. 1923.

JOHN E. SHARP.