Sept. 13, 1932. H. C. HICKS 1,876,932

PAPER BODIED CAN

Filed Dec. 15, 1930

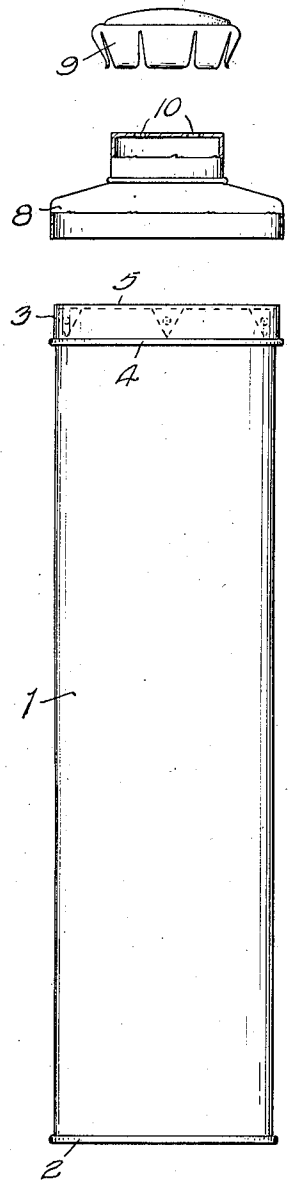


Fig. 1.

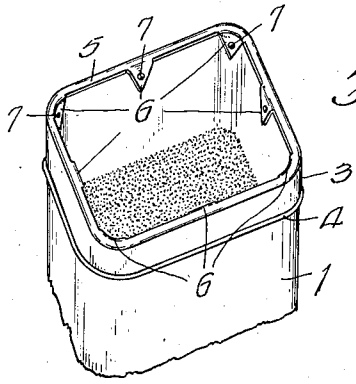


Fig. 3.

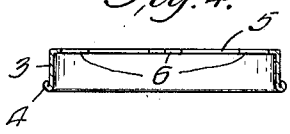


Fig. 4.

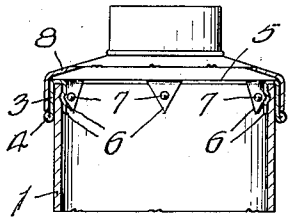


Fig. 5.

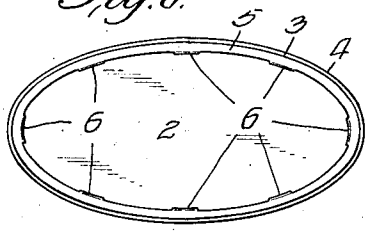


Fig. 6.

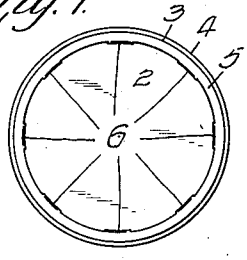


Fig. 7.

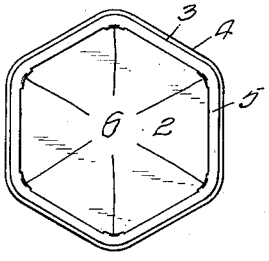


Fig. 8.

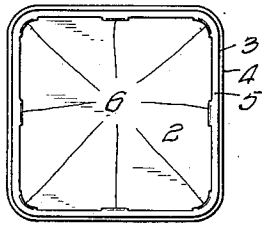


Fig. 9.

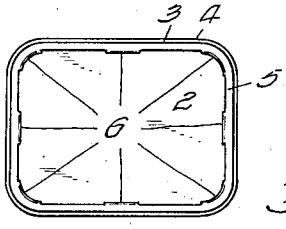


Fig. 2.

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UNITED STATES PATENT OFFICE

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PAPER BODIED CAN

Application filed December 15, 1930. Serial No. 502,348.

My invention relates to cans made from paper, or other fibrous material, and, it pertains more particularly to a slip cover engaging ring adapted to be applied to the upper edge portion of a paper can body.

Heretofore, the bodies of cans for holding talcum powder and the like, have been made completely of metal, which is costly as compared with cans having a paper body, hence, it is an object of my invention to provide a comparatively inexpensive paper can capable of receiving a metallic slip cover without the possibility of powder leakage between the slip cover and that portion of the can body to which it is applied.

Due to the variation in paper stock from which paper cans are formed, both before and after the stock is formed into can bodies, and, due to bulgings at the open end of formed can bodies, it is impossible to form a paper can body adapted to properly receive a slip cover, especially where the slip cover is to have a powder tight, or leak-proof fit with the paper can body when applied thereto, hence an essential feature of my present invention resides in providing the upper edge of a paper bodied can with a quickly applied inexpansive slip cover engaging ring of metallic stock which will enable a perfectly powder tight and leak-proof fit of the slip cover upon the ring, and which will also set up a powder tight connection between the ring and the can body.

A further object of the invention resides in a ring structure having a slip cover engaging wall stiffened at its lower edge, having its upper edge bent inwardly to form a flange to lie upon and protect the upper edge of the paper can body, and, in providing the free edge of the flange with a plurality of suitably spaced clamping prongs, certain of which prongs, when the ring is applied to paper can bodies of rectangular, square or other shapes having corners, will be so positioned as to be clamped into the corners of the paper body of the can to insure powder or leak-proof contact of the ring at the corners of the paper can body, as well as at a point, or points intermediate the corners thereof.

A still further object of the invention is the provision of a slip cover engaging ring adapted to be applied to a paper can body which possesses advantages in points of simplicity and efficiency, and, at the same time proves itself comparatively inexpensive in cost of manufacture.

With the above and other objects in view, the invention consists in the novel features of construction, arrangement and combination of parts hereinafter more fully described and finally pointed out in the claims hereto appended.

The invention will be more fully described hereinafter in connection with the accompanying drawing, in which:

Fig. 1 is a side view elevation of a paper bodied talcum, or similar powder can, the slip cover which is shown as of the "sifter type" and the closure cap therefor, being shown in disconnected relation.

Fig. 2 is a top plan view of the paper can body with the slip cover engaging ring applied thereto.

Fig. 3 is a perspective view of the slip cover receiving end of a paper can embodying the features of my invention.

Fig. 4 is a vertical sectional view of the slip cover engaging ring before the prongs have been bent downwardly.

Fig. 5 is a vertical sectional view of my improved paper can with a slip cover of one well known type applied thereto.

Fig. 6 is a top plan view of an elliptical shaped paper can body provided with my slip cover engaging ring.

Fig. 7 is a top plan view of a cylindrical shaped paper can body provided with my slip cover engaging ring.

Fig. 8 is a top plan view of a paper can body hexagonal in plan view, provided with my slip cover engaging ring.

Fig. 9 is a top lan view of a paper can body, square in plan view, provided with my slip cover engaging ring.

It is desirable to make paper bodied cans which shall be convenient and attractive in shape, which can be manufactured considerably cheaper than an all metal can for the same purpose, where a slip cover is desirable

for application thereto, one illustration of which is talcum powder cans, which also lends itself to greater lightness than metal cans, which shall be powder-proof at its upper end, that is, so constructed that shaking of powder contents against the slip cover will not result in powder leakage.

In carrying out the aim of my present invention, I employ a paper or other fibrous material can body designated 1, provided with a metallic bottom closure 2 and an open top. The paper body may be made of any usual construction common to the paper can manufacture where the paper body wall is straight up and down, but it may be of any desired shape in plan view, such for instance as rectangular, as clearly shown in Figs. 2 and 3; oblong, as shown in Fig. 6; circular as shown in Fig. 7; hexagonal, as shown in Fig. 8; square, as shown in Fig. 9, or any other shape, in plan view, into which the body can be formed from paper stock in the usual well known manner employed by paper can manufacturers.

The use of a metallic slip cover for the open top end of a paper bodied can has been very unsatisfactory, due to the variations in paper thickness and warping of the paper can body at the open end thereof and these conditions prevent the use of slip covers for paper bodied cans as they will not provide a powder proof connection between the slip cover and the paper can body, thus to remedy this defects, I, in accordance with my invention, provide the open top edge of the paper can body 1 with a slip cover embracing ring which I will now describe.

The slip cover embracing ring embodies a metallic ring like member 3, the lower edge of which is preferably rolled, as at 4, to provide stiffening means for the lower edge of the ring like member 3. This ring like member 3 has its upper edge bent and directed inwardly to provide a continuous flange 5 and directed from the free edge of the flange 5 is a plurality of distinctly separated, preferably, although not necessarily, V-shaped clamping lips 6, which lips are bendable into final position and penetrable so as to receive indentations 7 for embedment into the wall of the paper can body 1, as will be more clearly apparent hereinafter.

The metallic slip cover engaging ring, which is preferably made of tin, is applied to the open top end of the paper can body in any well known manner known to the art, so that the ring like member 3, which serves as slip cover engaging wall, embraces the outside face of the paper can body 1 to brace and bound the upper end portion of the paper can body 1, as is manifest and apparent from the several views of the drawing. The flange 5 thereof lies upon and engages the upper face and edges of the paper can body 1 and serves as a protection therefor.

The lips 6 are adapted to be bent downwardly and expanded under suitable force into frictional clamping engagement with the inside face, or faces of the paper can body 1, and each lip is preferably locked in its clamped position by means, such as protrusions, or indentations 7 directed outwardly for penetration or embedment into the paper can body 1 from the inside face thereof, as will be clearly apparent from Figs. 3 and 5 of the drawing for locking the clamping lips to the paper can body 1. This arrangement insures a sufficiently tight fit of the slip cover engaging ring member with the outside of the paper can body, and the flange with the upper face thereof to prevent powder leakage between the ring and the paper can body.

The slip cover designated 8 may be of any desired type, of which there are several, as is manifest. For the purpose of illustration only, I have shown in Figs. 1 and 5, a slip cover of the "sifter type" such as usually employed on talcum powder cans, and which are provided with a removable closure cap 9. The slip cover used may be plain, without sifter openings 10, such as shown in Figs. 1 and 5, or it may be provided with sifter and pouring type of attachment, such as is commonly used on spice can tops, illustration of which is believed unnecessary to a clear understanding thereof.

In further connection with the slip cover engaging ring, it will be apparent from Figs. 2, 3 and 9, that the clamping lips 6 are so spaced with relation to each other, that certain lips assume positions at the inside corners of the paper can body, while the remaining lips assume positions intermediate the inside corners of the paper can body, which arrangement in rectangular, square and hexagonal cans positively sets up a powder leak proof connection, or locking seal at the inside corners of the paper can body between the slip cover engaging ring and the paper can body and that the clamping lips intermediate the corner lips prevent inward bulging of the paper can body adjacent the slip cover engaging ring. The clamping lips of the rings applied to circular, elliptical, oval or similarly shaped paper can bodies are preferably equally and suitably spaced apart a distance to provide a distinct gap therebetween, which arrangement prevents any possible chance of the ring material buckling when the clamping lips are forced into locked engagement with the inside face of the paper can body.

It will be clearly realized that the foregoing invention has many advantages over cans manufactured of the present types, that it permits a paper bodied can to be used with a slip cover and presents itself as an article to compete with all metal cans used for talcum powder and similar purposes at a great-

ly reduced cost, as compared with the cost of metal cans for the same purpose and for which purpose metal cans have been used exclusively heretofore for the lack of some cheap arrangement permitting the use of a slip cover for the can.

The many advantages of the herein described invention will readily suggest themselves to those skilled in the art to which it appertains.

From the foregoing description, it is evident that a simple device for this purpose has been disclosed, but it is to be understood that I do not desire to restrict, or limit myself to the very details of the construction shown and described, which is merely illustrative, it being obvious that changes, not involving the exercise of invention, may be made without conflicting or departing from the spirit of the invention within the scope of the appended claims.

What I claim is:

1. A construction of the kind described comprising a receptacle having a straight wall of paper or fibrous materal closed at one end and open at the other end, a metallic mouth band for the open end of the receptacle, an endless inturned flange therefor engaging the open end face of the receptacle and a plurality of prong shaped members integral with and directed from the free edge of the flange which members are adapted to be forced into the receptacle for engagement with the inner face thereof opposite the band and indentations on the prong shaped members embedded in the wall of the paper material to permanently hold the mouth band and flange in position on the paper material.

2. A construction of the kind described comprising a receptacle having a straight wall of paper or fibrous material closed at one end and open at the other end, a metallic mouth band for the open end of the receptacle, an endless inturned flange therefor engaging the open end face of the receptacle, a plurality of prong shaped members integral with and directed from the free edge of the flange which members are adapted to be forced into the receptacle for engagement with the inner face thereof opposite the band, indentations on the prong shaped members embedded in the wall of the paper material to permanently hold the mouth band and flange in position on the paper material and certain of said prong shaped members engaging the corners of the receptacle.

3. The combination of a paper bodied container having a metallic slip type sprinkler top and a removable metallic cap therefor, of a reinforced metal mouth band engaging the outer face of the paper body and extending over to engage the top edge of the paper body, the lower edge of said band being shaped to form a stop for the metallic sprinkler top when applied to the mouth band a plurality of spaced prong shaped members integral with and directed from the edge of the band extending over the top edge of the paper body, said prong shaped members adapted to be forced into contact with the inner face of the paper body and non-broken indentations on said prong shaped members embedded into the paper body to securely hold the mouth band against displacement upon the paper body.

In testimony whereof, I have hereunto affixed my signature.

HELEN C. HICKS.