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(54) **Can cover with integral scraper**

Dosendeckel mit integriertem Abstreifer

Couvercle de boîte pourvu d'un racleur

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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates generally to a can cover to be mounted on a can. More particularly, it relates to the construction of a cylindrical can cover having a top plate and a peripheral wall extending downwardly from the peripheral margin of the top plate and adapted to be mounted on the can shell wherein the can cover includes a scraper formed as an integral part of the can cover such that it extends downwardly from the underside of the top plate of the can cover.

Description of the Prior Art

[0002] Document US 3 412 890 discloses an hinged can cover with an integral scroper according to the preamble of claim 1.

[0003] The term "scraper" as used herein should be understood to mean any tool that may be used to remove any extra part of a content on a spoon or like by rubbing that part off, when the content is taken out of a can by using the spoon.

[0004] There is known a conventional scraper that is used to scrape off or remove any extra part of the content on a spoon or like when the content is taken out of the can using the spoon. Usually, the scraper is made separately from the can shell and can cover during the can manufacturing process, and is offered as an accessory to the finished can product. Thus, the scraper must be attached to the opening of the can shell when it is used to scrape off the content on the spoon.

[0005] One disadvantage of the conventional can and can cover is that the scraper is provided separately from can and can cover. So the usage of the material to be used for manufacturing the scraper is increased, and the additional manufacturing process for manufacturing the scraper separately is requested other than the manufacturing processes of can and can cover. Also, in this case, the scraper, which is packaged separately from the finished can product, is offered as an accessory to the can product. For the end user, this raises time and labor consuming problem when the end user opens the can and scrapes off the content taken out by the spoon or like, because he or she must attach the scraper to the opening of the can.

SUMMARY OF THE INVENTION

[0006] In order to circumvent the above-mentioned disadvantages, an object of the present invention is to provide a cylindrical can cover having a top plate and a peripheral wall extending downwardly from peripheral margin of the top plate and adapted to be mounted on the opening of the can shell wherein it includes a scraper formed as an integral part of the can cover such that it extends downwardly from the underside of the top plate.

[0007] The aim of the present invention is to provide a can cover with an integral scraper as defined in claim 1. The can cover is adapted to be mounted onto the opening of the can shell, and includes a top plate and a peripheral wall extending downwardly from the peripheral margin of the top plate. The can cover is divided into two parts, one of which is stationary on the opening of the can, including a scraper extending across the top plate and extending downwardly from the underside thereof, and the other part serves as a swingable flap, including a folding line extending along the scraper on the before mentioned one part and extending across the top plate. The peripheral wall includes a thinner wall portion extending horizontally near the intermediate height of the peripheral wall, a sealing band provided under the said thinner wall portion and extending horizontally, and two detachable parts extending vertically at each of the positions corresponding to respective one of the opposite ends of the folding line located on the peripheral edge of the top plate.

[0008] The can cover with the integral scraper described above may be used in the following manner. First, the sealing band located on the other part (flap) of the top plate having the folding line may be removed from the peripheral wall at the thinner wall portion. Then, the above peripheral wall may be detached at the detachable parts. This may allow the other part (flap) to be swung up or down along the folding line. When the other part (flap) is swung up or down, the part of the top plate having the scraper remains to be closed on the opening of can. Thus, the content picked up by a spoon or like may be scraped off by means of the scraper provided on that part of the top plate part. This eliminates the need of providing a separate scraper and therefore there is no need of mounting the scraper, which is manufactured separately from the can and can cover, on the opening of the can shell when the can is opened and its content is picked up by the spoon or like.

[0009] It may be understood that as the scraper is provided on the one part of the top plate as its integral part while the other part of the top plate having the folding line is swingable up or down along the folding line to thereby open or reclose the opening of can after sealing band is removed and the peripheral wall portion is detached at the detachable parts, it is not necessary to provide a separate scraper and mount it on the opening. Therefore, cost can be reduced since it is not necessary to manufacture the scraper separately from can and can cover.

[0010] In other words, if such separate scraper is provided as an attachment to a finished can product, it must be packaged separately and attached to the can product when it is shipped. For the manufacturer, this would require extra time and labor, and for the end user, this would require extra time and labor as the user must mount the scraper on the opening when he or she uses

the can product.

[0011] According to the present invention, the before described extra times and labors, which are requested owing that the separate scraper is used, may be eliminated by the can cover with integral scraper.

[0012] In the one part of the can cover, which is stationary on the opening of the can, the top plate of said one part may include projections provided near the peripheral wall and extending downwardly from the underside of the top plate. The projection (s) on the said top plate part cooperate with the peripheral wall to hold the area of the can shell delimiting the opening, securing the can cover to that area tightly and firmly. Such projection (s) may also be provided attaching to the scraper to strengthen it.

BRIEF DESCRIPTION OF DRAWINGS

[0013]

Fig. 1 is a bottom view illustrating a can cover with an integral scraper according to a particularly preferred embodiment of the present invention;
Fig. 2 is an enlarged side view of the can cover with the integral scraper as shown in Fig. 1;
Fig. 3 is an enlarged sectional view of the can cover with the integral scraper, taken along the line A - A of Fig. 1; and
Fig. 4 is a side view of the can cover with the integral scraper, showing how the can cover is used.

DETAILS OF THE PREFERRED EMBODIMENT

[0014] A preferred embodiment of the present invention is described below in further detail.

(Embodiment 1)

[0015] A preferred embodiment of a can cover with integral scraper according to the present invention is now described by referring to Figs. 1 through 4.

[0016] A can cover 6 equipped with an integral scraper according to the present invention is formed to a cylindrical shape from any suitable soft synthetic resin material, and comprises a top plate 18 and a peripheral wall 20 extending downwardly from the peripheral margin of the top plate 18. The can cover 6 is to be mounted on the opening 2 of the can shell (Fig. 3).

[0017] A scraper 19 is provided on the top plate 18 such that it extends downwardly from the underside of the top plate 18 (Fig. 1). In the particular embodiment shown in Fig.. 1, the scraper 19 is located along the straight line off the diameter across the top plate 18, but it may be located closer to or farther from the diameter as long as it provides the function of the scraper. As a variation of the scraper, it may be provided so that both or either of its opposite ends stop away from the peripheral wall 20 of the can cover 6, instead of extending across the entire top plate 18 such that either or both of the opposite ends reach the peripheral wall 20.

[0018] As shown in Fig. 2, the cover 6 has two parts divided by the scraper 19. For the convenience of the following description, the smaller area part occupied by the scraper 19 is referred to as the "cover portion 6a", and the remaining larger area part is referred to as the "cover portion 6b". As shown in Fig. 1, the top plate 18 also has two parts divided by the scraper 19. Similarly, the smaller area part occupied by the scraper 19 is referred to as the "top plate portion 18a", and the remaining larger area part is referred to as the "top plate portion 18b".

[0019] The peripheral wall 20 has an annular projection 26 extending inwardly from its inner wall side which may engage the corresponding part of the outer wall of the can shell located below the curled portion 10 defining the opening 2 (Fig. 3). Below the annular projection 26, there is a sealing band 7 which is attached to the peripheral wall 20 via its thinner wall portion 25 (Fig. 3).

[0020] In the embodiment described here, a projection 21 is provided near the peripheral wall of the top plate portion 18a, and extends downwardly from the underside of the top plate portion 18a (Figs. 1 and 3). The projection 21 cooperates with the annular projection 26 of the peripheral wall 20 for holding the area defining the opening 2 there between, thereby securing the can cover 6 to the can shell 1 more tightly, reliably and firmly. There is also a projection 21 which is provided on the lateral side of the scraper 19 (Fig. 1). This projection 21 serves not only to secure the can cover 6 to the can shell 1 tightly and firmly but also to strengthen the scraper 19. Preferably, such projections 21 may be provided at three different locations as shown in Fig. 1. The projection may have any other shape, such as an elongated projection.

[0021] The top plate portion 18b has a folding line 22 extending along the scraper 19 across the top plate 18 (Fig. 1). The folding line 22 allows the cover portion 6b to be swung along it while the cover portion 6a remains mounted on the can shell. The swinging of the cover portion 6b up or down opens or closes the opening 2 on the can shell. The folding line 22 may have different forms. For example, a groove may be provided on the underside of the top plate portion 18b across the top plate 18.

[0022] The portion of the peripheral wall 20 that corresponds to respective one of the opposite ends of the folding line 22 on the top plate portion 18b includes detachable parts 23, such as for example, an elongated groove, that begins with the upper end of the peripheral wall 20, extending vertically up to the thinner wall portion 25 (Fig. 2). Such detachable parts 23 may. be provided at two locations on the peripheral wall 20, each of which corresponds to respective one of the opposite ends of the folding line 22. At least one of the detachable parts 23 goes past the thinner wall portion 25 and through the sealing band 7, extending up to the lower end of the peripheral wall 20. On the end of the sealing band 7 on the

cover portion 6b where the detachable part 23 extends up to the lower end of the peripheral wall 20, there is a finger catcher 27 that may be used to remove the sealing band 7 from the peripheral wall 20 at the thinner wall portion 25 (Figs. 1 and 2).

[0023] The can cover 6 equipped with the integral scraper 19 that has been described so far may be formed from any known suitable synthetic resin material, including the scraper 19 that may be formed from the same material as an integral part of the can cover 6.

[0024] Now, the use of the can cover 6 with the integral scraper 19 according to the present invention is described below.

[0025] With the can cover 6 with the integral scraper 19 mounted on the opening 2 on the can shell, the finger catcher 27 is first removed from the peripheral wall 20 at the thinner wall portion 25. If the other detachable part 23, which is provided on the side opposite the side on which the finger catcher 27 is provided, extends up to the lower end of the peripheral wall 20, this action only removes the part of the sealing band 7 located on the cover portion 6b, but if the other detachable part 23, which is provided on the side opposite the side on which the finger catcher 27 is provided, extends up to the thinner wall portion 25, the action removes the whole sealing band 7 around the entire can cover 6. When only the part of the sealing band 7 on the cover portion 6b is removed, the cover portion 6a, including both the annular projection 26 and the part of sealing band 7 thereon, remains to be mounted on the opening 2 on the can shell, so that it is quite difficult to remove the cover 6 from the can shell. Whether the can cover 6 is designed to allow the whole sealing band 7 to be removed or only to allow the part of the sealing band 7 on the cover portion 6b to be removed may be determined as appropriate, depending upon the usage of the can.

[0026] When the sealing band 7 is removed, the peripheral wall 20 may be detached at each of the two detachable parts 23, which correspond to respective ones of the opposite ends of the folding line 22 on the top plate portion 18b. Then, the cover portion 6b may be swung up or down along the folding line 22 to open or reclose the opening 2 as indicated by an arrow 17, with the cover portion 6a remaining to be mounted on the opening 2 (Fig. 4).

[0027] Swinging the cover portion 6b up to open the opening 2, with the can cover portion 6a mounted on the opening 2, allows the content to be taken out of the can shell by using a spoon or like. Any extra part of the content on the spoon may be removed by the scraper 19 on the underside of the top plate 18. As the scraper 19 is provided on the top plate 18 as an integral part thereof, there is no need of providing a separate scraper.

[0028] It should be noted that as the can cover portion 6a holds the opening 2 tightly by the cooperating action of the projection 21 and the annular projection 26 on the peripheral wall 20, the cover 6 cannot be removed from the opening 2 while the scraper 19 is being used.

Claims

1. A can cover (6) with an integral scraper (19), said can cover (6) having a substantially cylindrical shape and adapted to be mounted onto the opening (2) of a can, comprising:

a top plate (18); and
a peripheral wall (20) extending downwardly from the peripheral margin of said top plate.
said top plate including:

a first part (18a) having a scraper (19) extending across said first part and extending downwardly from the underside of said first part (18a) of said top plate (18),
a second part (18b) having a folding line (22) extending across said second part and extending along said scraper (19); and
said peripheral wall includes detachable parts (23) extending vertically and located at the positions corresponding to the opposite ends of said folding line (22) reaching the peripheral wall of said second part (18b);
at least one of the detachable parts (23) going past the thinner wall portion (25) and through the sealing band (7), extending up to the lower end of the pheripheral wall (20);

characterised in that

an annular projection (26) extending inwardly from an inner wall side thereof;

a thinner wall portion (25) extending horizontally near the intermediate height of the peripheral wall and a sealing band (7) below said annular projection (26) and attached to said peripheral wall (20) via said thinner wall portion (25); and

said first part of the top plate includes projections (21) formed near the peripheral wall of said first part (18a) and extending downwardly from the underside of said top plate (18);

two of said projections (21) being provided at opposite ends of the scraper (19) and on the lateral side of the scraper (19) and being arranged for cooperation with said annular projection (26) of said peripheral wall (20).

2. A can cover according to claim 1 wherein a third projection (21) is provided near the peripheral wall of said first part (18a) of said top plate (18) and extending downwardly from the underside of said top plate (18), said third projection (21) being provided an intermediate position between said two projections (21).

Patentansprüche

1. Dosendeckel (6) mit einem integralen Abstreifer (19), wobei der Dosendeckel (6) eine im wesentlichen zylindrische Form aufweist und dafür ausgelegt ist, um auf die Öffnung (2) einer Dose hin angebracht zu werden, umfassend:

erste obere Platte (18); und
eine Umfangswand (20), die sich von dem Umfangrand der oberen Platte nach unten erstreckt;

wobei die obere Platte einschließt:

ein erstes Teil (18a), das einen Abstreifer (19) aufweist, der sich über das erste Teil erstreckt und sich von der Unterseite des ersten Teil (18a) der oberen Platte (18) nach unten erstreckt;
ein zweites Teil (18b), das eine Faltlinie (22) aufweist, die sich über das zweite Teil erstreckt und die sich entlang des Abstreifers (19) erstreckt; und

wobei die Umfangswand entfernbare Teile (23) einschließt, die sich vertikal erstrecken und an den Positionen angeordnet sind, die den gegenüberliegendenden Enden der Faltlinie (22) entsprechen, die die Umfangswand des zweiten Teils (18b) erreichen;

gekennzeichnet durch

einen ringförmigen Vorsprung (26), der sich von einer inneren Wandseite davon nach innen erstreckt;

einen dünneren Wandabschnitt (25), der sich horizontal in der Nähe der Zwischenhöhe der Umfangswand und eines Abdichtungsbands (7) unterhalb des ringförmigen Abschnitts (26) erstreckt und an der Umfangswand (20) über den dünneren Wandabschnitt (25) angebracht ist; und

wobei wenigstens ein Teil der entfernbaren Teile (23) über den dünneren Wandabschnitt (25) hinaus und **durch** das Abdichtungsband (7) geht, wobei es sich zu dem unteren Ende der Umfangswand (20) erstreckt; und

wobei das erste Teil der oberen Platte Vorsprünge (21) einschließt, die in der Nähe der Umfangswand des ersten Teils (18a) gebildet sind und sich von der Unterseite der oberen Platte (18) nach unten erstrecken;

wobei zwei der Vorsprünge (21) an gegenüberliegenden Enden des Abstreifers (19) und auf der lateralen Seite des Abstreifers (19) vorgesehen sind und für eine Zusammenwirkung mit dem ringförmigen Vorsprung (26) der Umfangswand (20) angeordnet sind.

2. Dosendeckel nach Anspruch 1, wobei ein dritter Vorsprung (21) in der Nähe der Umfangswand des ersten Teils (18a) der oberen Platte (18) und sich von der Unterseite der oberen Platte (18) nach unten erstreckend, vorgesehen ist, wobei der dritte Vorsprung (21) an einer Zwischenposition zwischen den zwei Vorsprüngen (21) vorgesehen ist.

Revendications

1. Couvercle de boîte (6) comportent un racleur qui en fait partie intégrante (19), ledit couvercle de boîte (6) ayant une forme pratiquement cylindrique et étant destiné à être monté sur l'ouverture (2) d'une boîte, comprenant:

une plaque supérieure (18); et
une paroi périphérique (20) s'étendant vers le bas à partir du bord périphérique de ladite plaque supérieure;
ladite plaque supérieure englobant:

une première partie (18a) comportant un racleur (19) s'étendant à travers ladite première partie et s'étendant vers le bas à partir du côté inférieur de ladite première partie (18a) de ladite plaque supérieure (18),
une deuxième partie (18b) comportant une ligne de pliage (22) s'étendant à travers ladite deuxième partie et s'étendant le long dudit racleur (19); et
ladite paroi périphérique englobant des parties détachables (23) s'étendant dans une direction verticale et étant agencées au niveau de positions correspondant aux extrémités opposées de ladite ligne de pliage (22) atteignant la paroi périphérique de ladite deuxième partie (18b);

caractérisé en ce que

une saillie annulaire (26) s'étend vers l'intérieur à partir d'un côté de paroi interne correspondant;

une partie de paroi moins épaisse (25), s'étend horizontalement près de la hauteur intermédiaire de la paroi périphérique, une bande d'étanchéité (7) étant agencée au-dessous de ladite saillie annulaire (26) et fixée à ladite paroi périphérique (20) par l'intermédiaire de ladite partie de paroi moins épaisse (25); et

au moins une des parties détachables (23) s'étend le long de la partie de paroi moins épaisse (25) et à travers la bande d'étanchéité (7), s'étendant vers le haut vers l'extrémité inférieure de la paroi périphérique (20);

ladite première partie de la plaque supérieure englobant des saillies (21) formées près de la paroi

périphérique de ladite première partie (18a) et s'étendant vers le bas à partir du côté inférieur de ladite plaque supérieure (18);

deux desdites saillies (21) sont agencées au niveau des extrémités opposées du racleur (19) et sur le côté latéral du racleur (19) et agencés de sorte à coopérer avec ladite saillie annulaire (26) de ladite paroi périphérique (20).

2. Couvercle de boîte selon la revendication 1, dans lequel une troisième saillie (21) est agencée près de la paroi périphérique de ladite première partie (18a) de ladite plaque supérieure (18) et s `étend vers le bas à partir du côté inférieur de ladite plaque supérieure (18), ladite troisième saillie (21) étant agencée au niveau d'une position intermédiaire entre lesdites deux saillies (21).

FIG. 1

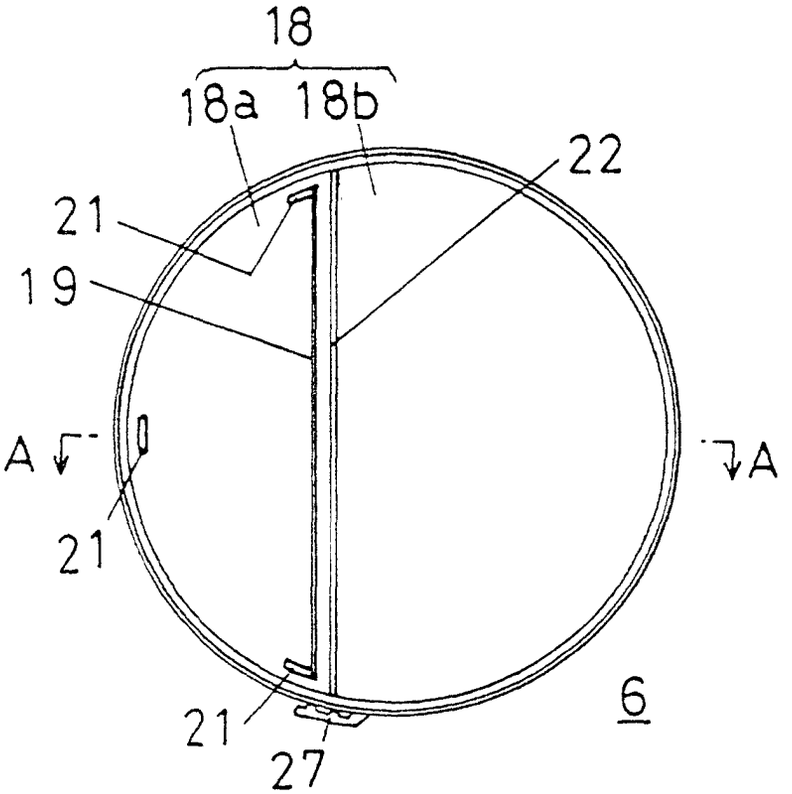

FIG. 2

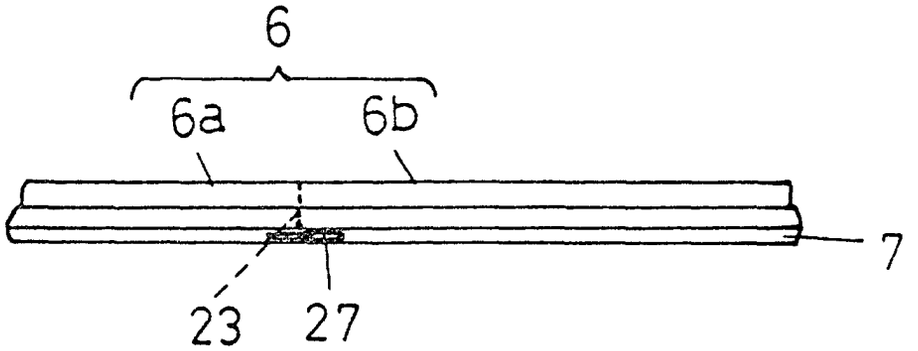

FIG. 3

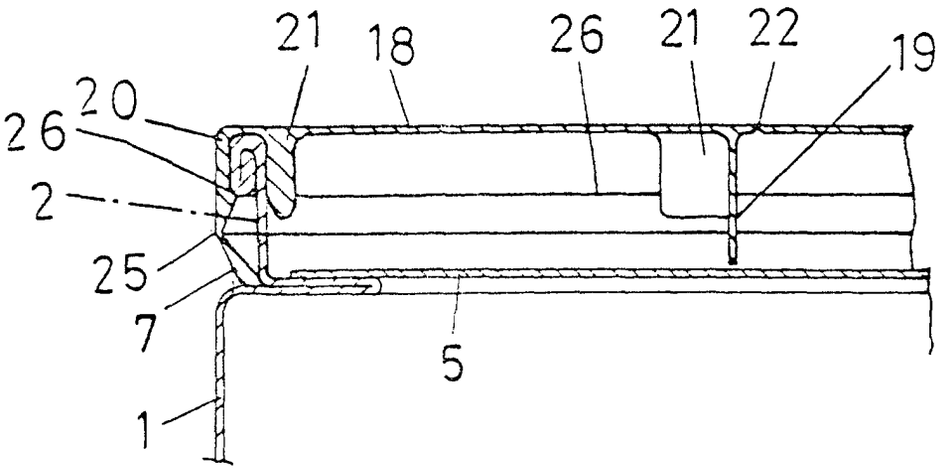

FIG. 4