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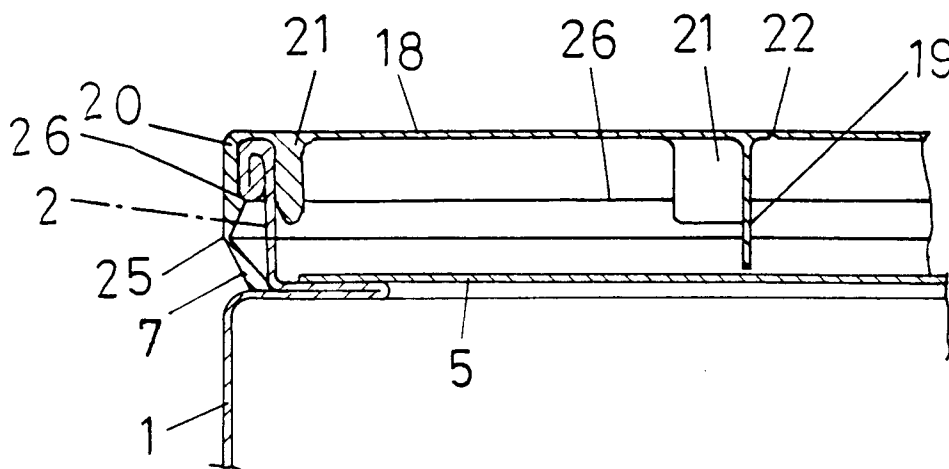
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(54) Can cover with integral scraper

(57) A cylindrical can cover (6) to be mounted onto an opening (2) of a can is disclosed, which includes a top plate (18) and a peripheral wall (20) extending downwardly from the peripheral margin of the top plate, wherein the top plate is divided into two parts, one part (18a) being stationary on the opening of said can and including a scraper (19) extending across the top plate and extending downwardly from the underside of the top

plate and the other part (18b) being swingable up and down and including a folding line (22) extending along the scraper across the top plate, and the peripheral wall includes a sealing band (7) formed through a thinner wall portion (25) having its bottom end extending laterally and a detachable part (23) extending vertically at each of the positions corresponding to the opposite ends of the folding line reaching the peripheral edge of the top plate.

FIG. 3

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] 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.

[0003] 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.

[0004] 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

[0005] 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.

[0006] One aspect of the present invention is to pro-

vide a can cover with an integral scraper. 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.

[0007] 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.

[0008] 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.

[0009] 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.

[0010] 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.

[0011] 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 one or more 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

[0012]

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

[0013] A preferred embodiment of the present invention is described below in further detail.

(Embodiment 1)

[0014] 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.

[0015] 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).

[0016] 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.

[0017] 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".

[0018] 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).

[0019] 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. Any number of projections 21 may be provided if such projections may serve the above purpose. 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.

[0020] It should be noted that the projection 21 may be omitted since the annular projection 26 on the peripheral wall 20 can by itself secure the can cover 6 tightly and firmly to the can shell by engaging the outer wall below the curled portion 10 delimiting the opening 2 of the can, as described above.

[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, 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 may go 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, 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.

[0029] In the embodiment shown and described, several projections 21, 21 are provided on the underside of the top plate 18a on the cover portion 6a, but a single elongated projection formed like an arc may be provided although it is not shown.

Claims

1. A can cover (6) including a scraper (19), characterised in that said can cover (6) and said scraper (19) are an integral unit.
2. A can cover (6) with an integral scraper (19) according to Claim 1, 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; and a second part (18b) having a folding line (22) extending across said second part and extending along said scraper (19); and said peripheral wall including:

a thinner wall portion (25) extending horizontally near the intermediate height of the peripheral wall, and a sealing band (7) provided under said thinner wall portion; and 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).

3. The can cover with the integral scraper according to Claim 1 or Claim 2, wherein said first part (18a) of said top plate (18) includes one or more projections (21) formed near the peripheral wall of said first part (18a) and extending downwardly from the underside of said top plate (18).

FIG. 1

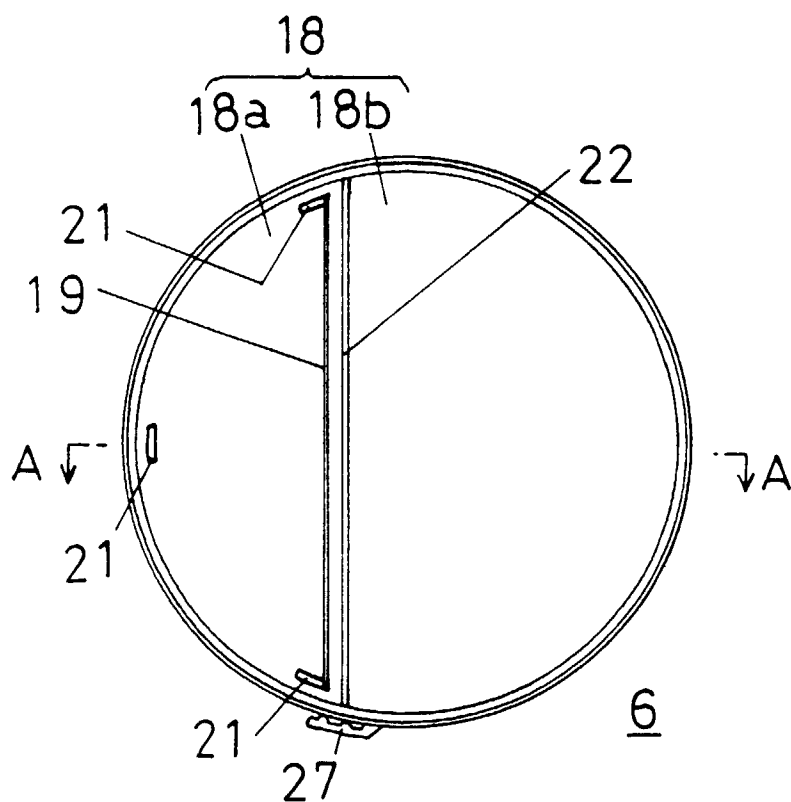


FIG. 2

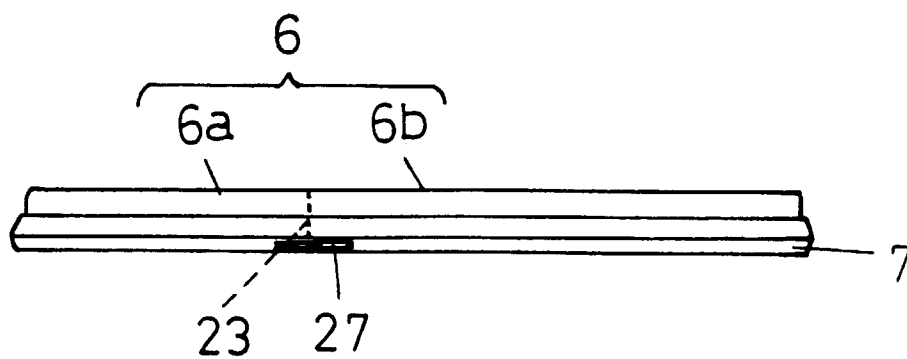


FIG. 3

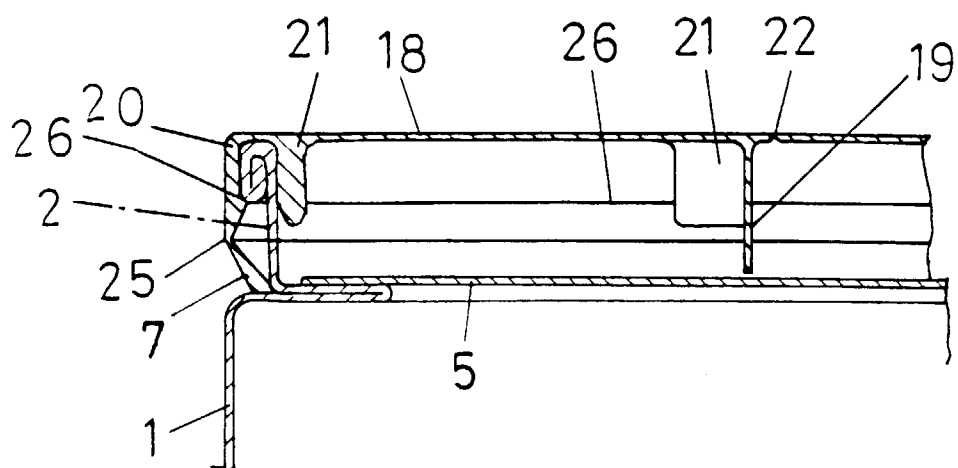
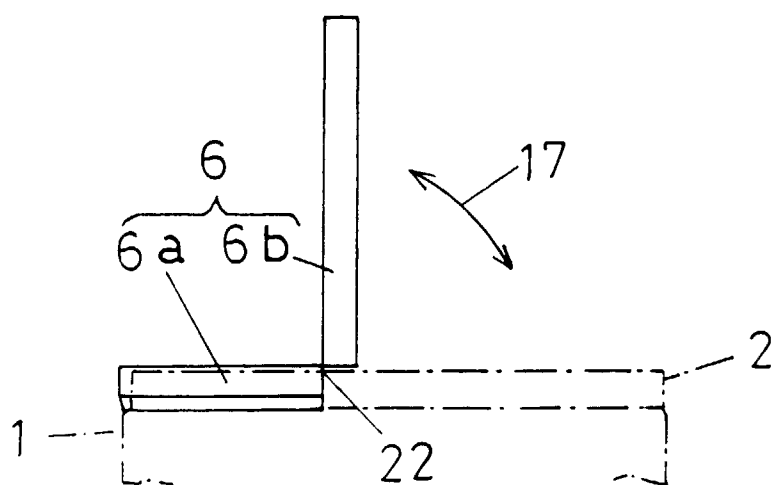


FIG. 4





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EUROPEAN SEARCH REPORT

Application Number
EP 98 30 5028

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A	US 3 417 897 A (JOHNSON) 24 December 1968 * figures 1-7 *	2	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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Place of search THE HAGUE		Date of completion of the search 3 March 1999	Examiner Berrington, N
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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