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**HINGE LID PACK, ESPECIALLY FOR CIGARETTES**
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- (56) Prior Art Documents  
**US 4526317**  
**DE 1161513**
- (57) Claim

1. A hinge lid pack for cigarettes comprising a pack part having a lid hinged on a rear wall thereof; and a collar having a front wall and side walls and being arranged in the pack part with a portion thereof projecting therefrom, an upper collar portion being surrounded by the lid in its closed position; wherein the collar front wall has at least one upright web and an inner lid flap has at least one recess arranged between a holding tab of the inner lid flap and a lid front wall whereby in the closed position the upright web is arranged to engage the recess.

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COMPLETE SPECIFICATION

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Complete Specification for the invention entitled:

HINGE LID PACK, ESPECIALLY FOR CIGARETTES

The following statement is a full description of this invention, including the best method of performing it known to us:-

20654-I:GLC:RK

9520A:rk

D e s c r i p t i o n :

The invention relates to a hinge lid pack, especially for cigarettes, having a pack part and a lid hinged on a rear wall thereof, with a collar including a collar front wall and collar side walls being arranged in the pack part and projecting therefrom, the portion of said collar projecting from the pack part (upper collar portion) being surrounded by the lid in closed position.

Such hinge lid packs are used worldwide as cigarette packs. The structure of these type of packs is essentially the same.

Recently, packs of this type have appeared on the market which have rounded or polygonal or bevelled upright longitudinal edges. With these type of packs, especially with those having "round edges", there occur  
5 difficulties when the pack is in closed position. The problem is to ensure on the one hand an easy opening and closing of the pack by means of pivoting the lid, and on the other hand an accurate closing position of the lid. With a lid front wall and (narrow) lid side walls, the  
10 lid surrounds respective parts of the collar portion which is projecting from the pack part, namely a collar front wall and collar side walls. It is desirable that the lid essentially positively abuts a pack front wall or pack side walls. Especially with the above described  
15 embodiments of hinge lid packs, this accurate closing position of the lid is quite often not guaranteed.

Setting out from this problem, a preferred embodiment of the invention is based on the object to further develop and improve a hinge lid pack of the  
20 afore-described type, such that the lid always resumes a correct closing position without forming larger steps or gaps.

In order to attain this object, the hinge lid pack is characterized in that in closed position, the upper  
25 collar portion is positively and/or non-positively held in releasable engagement with a flap arranged on the inside of the lid.

Consequently, the basic idea of the preferred embodiment of the invention is to provide a "lock", which  
30 takes effect when the lid is moved into closed position, so that said lid is fixed in the closing position by an additional holding force. This holding force, however, is so small that it is not noticed when the pack is opened.



1 Preferably, a portion of the collar front wall, especially  
at least a web limiting a recess in the front collar wall,  
positively and/or non-positively engages a flap (inner lid  
flap) arranged on the inside of the lid front wall when the  
5 lid is moved into closed position. The temporary connection  
between this part of the collar front wall and the inner  
lid flap is preferably non-positive, such that the lid or  
lid front wall is connected with its inner lid flap to the  
collar front wall under increased friction.

10 For the purpose of the improvement, the inner lid flap is  
enlarged, so that it substantially extends across the full  
height of the collar front wall. Lateral notches or open-  
ings are arranged on preferably both flap edges (side  
15 edges) which extend vertically in the closing position. The  
upright webs of the collar front wall enter into these  
openings in the closing position, such that the portions of  
the inner lid flap located on both sides of the indents or  
notches abut different sides of the collar front wall and  
20 therewith effect the non-positive engagement with increased  
friction.

25 As a result of the design of the collar front wall and the  
inner lid flap, the portions automatically engage one  
another in a locking manner when the lid is moved into  
closed position. When the lid is opened, the connection is  
released without any extra expenditure of force.

30 The described engagement of portions of the lid with  
portions of the collar ensures an accurate closing position  
of the pack, even with those pack types having insufficient  
closing qualities of the lid, i.e. especially with round  
edge packs.



According to the present invention there is provided a hinge lid pack for cigarettes comprising a pack part having a lid hinged on a rear wall thereof; and a collar having a front wall and side walls and being arranged in  
5 the pack part with a portion thereof projecting therefrom, an upper collar portion being surrounded by the lid in its closed position; wherein the collar front wall has at least one upright web and an inner lid flap has at least one recess arranged between a holding tab of  
10 the inner lid flap and a lid front wall whereby in the closed position the upright web is arranged to engage the recess.

A preferred embodiment of the present invention will now be described by way of example only with reference to  
15 the accompanying drawings in which:



1

Fig. 1 is a front view of a hinge lid pack, namely a "round edge" pack, in closed position,

5

Fig. 2 shows a horizontal section taken along the line II - II of Fig. 1,

10

Fig. 3 shows a corner section of the representation of Fig. 2 on an enlarged scale,

Fig. 4 shows a spread-out blank for a pack as shown in Fig. 1,

15

Fig. 5 shows a spread-out blank for a collar on an enlarged scale,

Fig. 6 shows a detail section of the blank as shown in in Fig. 4 in the region of an inner lid flap, on a very enlarged scale,

20

Fig. 7 shows a representation of the hinge lid pack in analogy to Fig. 1 at the stage of closing the lid,

25

Fig. 8 shows a vertical section taken along the line VIII - VIII of Fig. 7 on an enlarged scale,

30

Fig. 9 shows a horizontal section approximately taken along the line II - II of Fig. 1, but without showing details of the lid, on a very enlarged scale.

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The embodiment shown in the drawings relates to a hinge lid pack for accommodating a cigarette group (50) which is usually enwrapped in an inner blank made of tin foil or the like.

1 The hinge lid pack consists of a pack part 10 and a lid 11.  
The latter is pivotally connected to the pack part 10. For  
this purpose, a lid rear wall 12 is connected to a pack  
rear wall 14 via a hinge 13.

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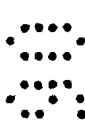
The pack part 10 further consists of a bottom wall 15, pack  
side walls 16, 17 and a pack front wall 18.

10

In analogy, the lid 11 consists of an end wall 19, lid side  
walls 20, 21 and a lid front wall 22.



A collar 23 is inserted into the pack part 10. This collar  
23 consists of a collar front wall 24 and transversely di-  
rected collar side walls 25, 26. With a lower collar  
portion 27, the collar sits within the pack part 10. The  
collar front wall 24 is connected to the inside of the pack  
front wall 18, especially by means of adhesive bonding. In  
the present embodiment, two rectangular glue spots 51 are  
provided for this purpose. The collar side walls 25, 26  
abut the insides of the pack side walls 16, 17.



An upper collar portion 28 of the collar 23 projects from  
the pack part 10. This upper collar portion 28 is surround-  
ed by the lid 11 when the pack is in closed position. In  
this position, the respective portion of the collar front  
wall 24 abuts the inside of the lid front wall 22. The  
collar side walls 25, 26 abut the lid side walls 20, 21.



30

In the region of the collar front wall 24, the collar 23 is  
designed in a special way, namely with a recess 29. This re-  
cess 29 is laterally limited by inclined side edges 30 di-  
verging towards the upper edge. At the open side of the re-  
cess 29, these side edges 30, in a curve 31, merge into a  
transversely directed upper edge of the collar.

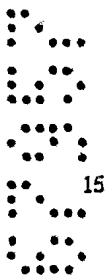
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In the present embodiment, the hinge lid pack as described  
is formed as a "round edge" pack. Upright longitudinal  
edges 33, 34 of the hinge lid pack are curved, thus forming

1 "rounded" edges, the radius of these curvatures approximately corresponding to the radius of a cigarette.

5 The rounded longitudinal edges 33, 34 extend in the region of the pack part 10 as well as in the region of the lid 11. Correspondingly, collar edges 35, 36 are rounded off as well.

10 In closed position of the pack, a transversely directed closing edge 37 of the lid 11 abuts a counter edge 38 of the pack part 10. This closing position shall be secured without rendering the opening of the pack more difficult. For this purpose, the collar 23 is in closing position releasably anchored within the lid 11. For this reason, the collar 23 is in closing position interlocked with a flap inside of the lid, such that there is an increased frictional resistance which prevents the lid 11 from shifting out of its accurate position when the pack is closed.



In the present embodiment, an inner lid flap 39 is designed in a special way, such that it is part of the blank for the pack (Fig. 4) and adjoins the lid front wall 22. In the completed pack, the inner lid flap 39 is folded against the inside of the lid front wall 22 and is adhesively connected therewith. In the shown embodiment, two rectangular glueing sections 52 are provided for fixing the inner lid flap 39. These glueing sections 52 are arranged such that lateral portions of the inner lid flap 39 are kept adhesivefree.

30 In the present case, the dimension of the inner lid flap 39 in the longitudinal direction of the blank (Fig. 4) nearly corresponds to the height of the lid front wall 22. Side edges 40 and 41 of the inner lid flap 39 are designed such that in closed position, parts of the collar 23 are fixed in this place, namely lateral upright webs 42 for limiting the recess 29.

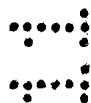
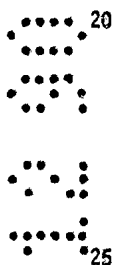
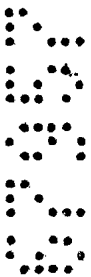
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1 For this purpose, the side edges 40, 41 of the inner lid  
flap 39 are provided with recesses or notches. In the pre-  
sent embodiment, an opening 43 being open towards the edge  
is provided. This opening 43 is limited by a curved guiding  
5 edge 44 which is merging into a slit-like acute-angled ex-  
tension 45 of the opening 43. The extension 45 is limited  
by a transverse edge 46.

10 The web 42 of the collar front wall 24 enters into this  
opening 43 when the lid 11 is moved into closed position.  
As a result of the dimensions of the lid 11 in relation to  
the collar 23, the latter slides with the upper edge 32 and  
the curve 31 of the webs 42 along the inside of the lid  
front wall 22. In this process, the upper rounded ends of  
15 the webs 42 abut the lid front wall 22 or inner lid tab 39  
with a certain pressure. As the pack is closed further, the  
webs 42, with the curve 31, move into the region of the  
opening 43. Since the inner lid flaps 39 are not connected  
to the lid front wall 22 in this area, the ends of the webs  
42 enter underneath the transverse edge 46 and therewith  
20 under a holding tab 47 limited by this edge 46. When the  
pack is completely closed, the inclined side edge 30 of the  
webs 42 is located within the slit-like extension 45 of the  
opening 43 (Fig. 1). A portion of the webs 42 now extends  
underneath the holding tab 47, i.e. between said tab 47 and  
25 the lid front wall 22. The collar 23, that is to say its  
webs 42 are thus moved into a wedged position, namely bet-  
ween the holding tab 47 and the lid front wall 22. Beyond  
the region of the holding tab 47, the collar front wall 24  
30 abuts the inside of the inner lid flap 39.

In closed position, the wedging effect, that is to say the  
increased friction applied to the collar 23, fixes the  
closing position of the lid 11. When the pack is opened,  
35 the inner lid flap 39 is pulled out of the wedged position.  
The opening process is not different to that of ordinary  
hinge lid packs.

1 The above-described wedged or frictional connections between collar 23 and inner lid flap 39 are arranged such that cigarettes are not affected therewith, not even when the upper part of the cigarettes is exposed after the pack has  
5 been put into use. For this purpose, a lateral limiting edge 48 of the holding tab 47 is set back relative to a limiting edge 49 in a region of the inner lid flap 39 facing towards the lid front wall 22. This means that in the region of the holding tab 47, the inner lid flap 39 is  
10 formed with a reduced width. The holding tab 47 is arranged such that it does not centrally abut a cigarette but is located offset thereto. Thus, the web 42, which is also located in a position offset to a cigarette, can be pushed underneath the holding tab 47 without affecting the peripheral surfaces of the cigarettes. This relative position  
15 is shown in Fig. 9. The frictional or wedged connection between collar 23 and inner lid flap 39 is in this embodiment located between a corner cigarette 53 and an adjacent cigarette 54. In this area, there is a sufficient gap between the periphery of the cigarettes 53, 54 and the path of motion of the holding tab 47 so that the holding tab 47 can be freely pushed into wedged position without touching the cigarettes 53, 54.



30

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A hinge lid pack for cigarettes comprising a pack part having a lid hinged on a rear wall thereof; and a collar having a front wall and side walls and being  
5 arranged in the pack part with a portion thereof projecting therefrom, an upper collar portion being surrounded by the lid in its closed position; wherein the collar front wall has at least one upright web and an inner lid flap has at least one recess arranged between a  
10 holding tab of the inner lid flap and a lid front wall whereby in the closed position the upright web is arranged to engage the recess.

2. The hinge lid pack as claimed in claim 1, wherein there are two webs and the webs delimit a recess  
15 in the collar front wall.

3. The hinge lid pack as claimed in claim 2, wherein the webs are designed, at their upper free end, with a curve, and wherein an inclined side edge of each web adjoins the curve.

20 4. The hinge lid pack as claimed in claim 1, wherein the recess of the inner flap is adjoined by the holding tab which, in the closed position, covers a portion of the web of the collar front wall, and wherein the holding tab is delimited in the region of the recess  
25 by a transverse edge which contacts the web.

5. The hinge lid pack as claimed in claim 1, wherein the holding tab and web are disposed in a region between two adjacent cigarettes, and wherein the inner lid flap has a smaller width in the region of the holding  
30 tab than in the region which adjoins the lid front wall.

Dated this 31st day of May 1993

FOCKE & CO (GmbH & CO)

By their Patent Attorney

GRIFFITH HACK & CO



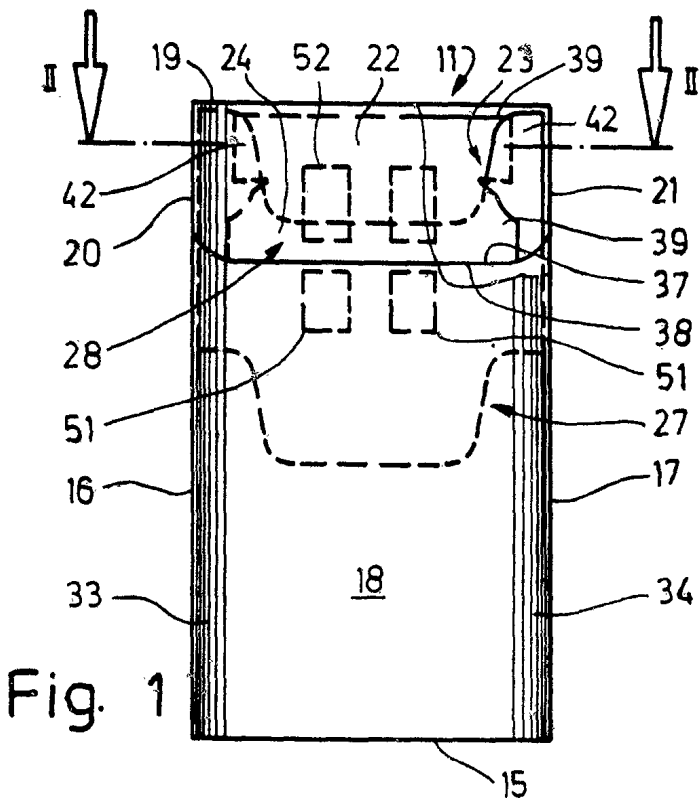


Fig. 1

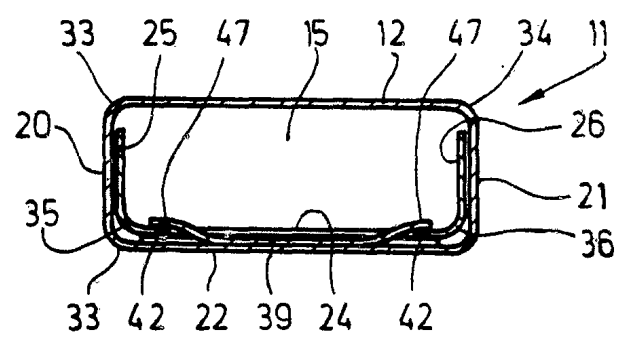
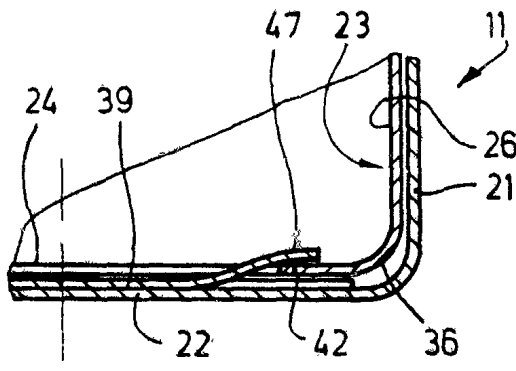


Fig. 2

Fig. 3



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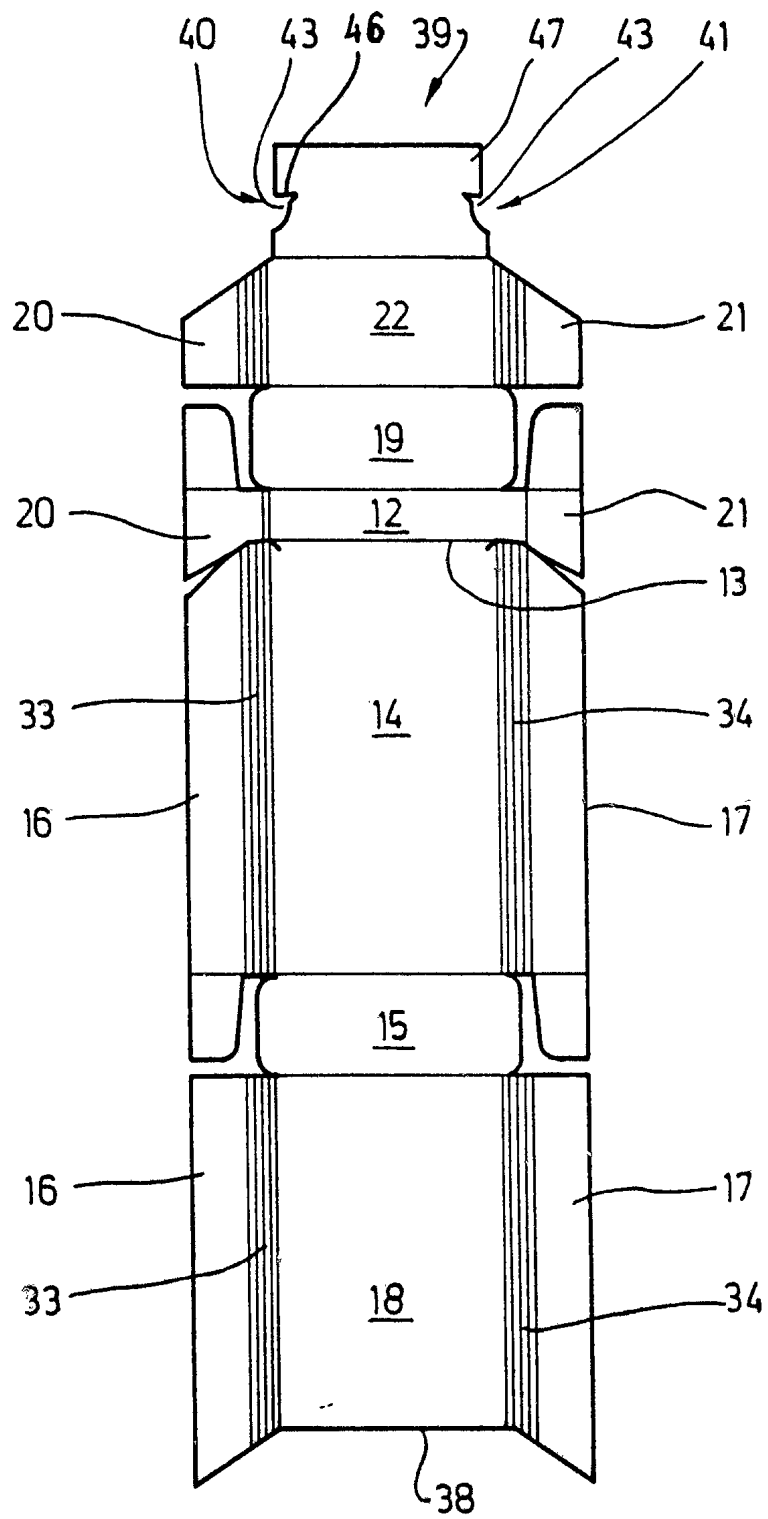


Fig. 4

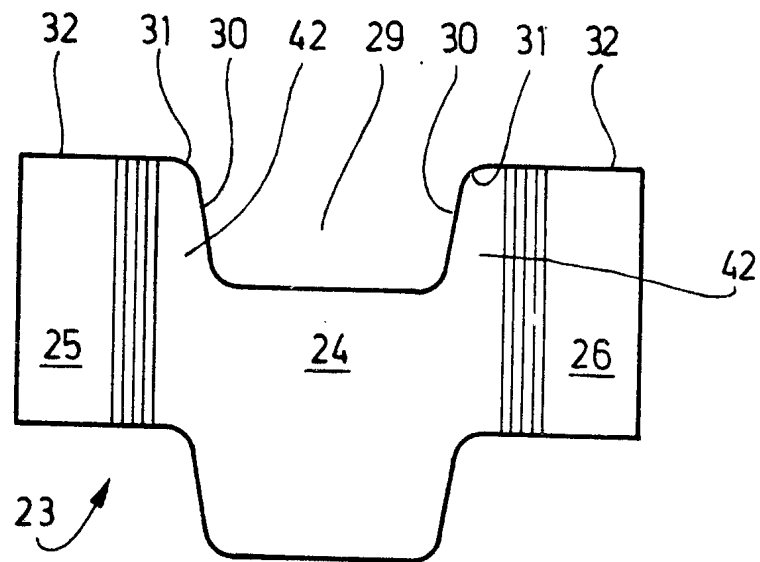


Fig. 5

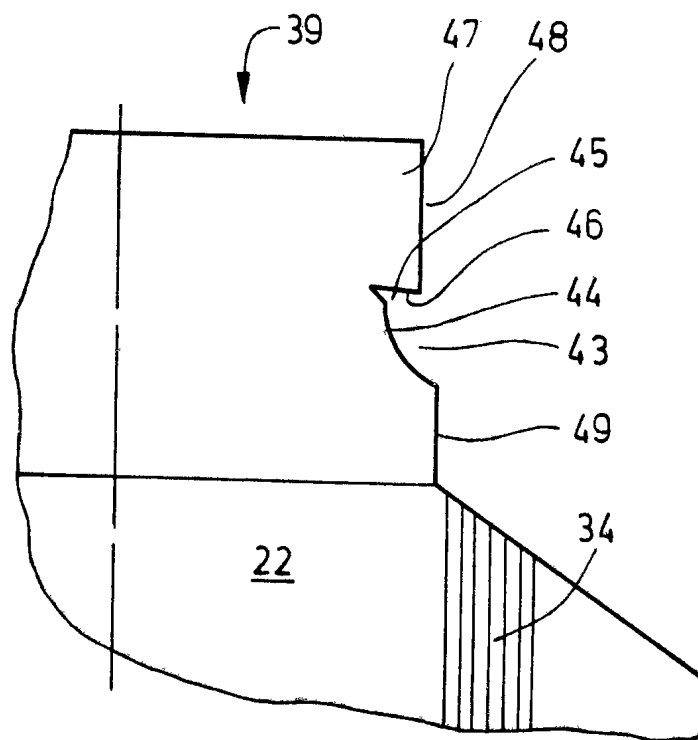


Fig. 6

