

A close-up photograph of a bowl filled with golden-brown, ridged potato chips. The bowl is white with a green and red geometric pattern on its base. The image has a torn paper edge effect.

PortaLid

EG2301 Project 1
Group 11

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Problem Statement

People are unable to eat potato chips that are stored in packets **WHEREVER** and **WHENEVER** they want.

Potato chip packet makes too much noise when opened [1]



Packet too big to finish in one seating [2]



Dirty hands from touching the inside of potato chip packet [3]



Target groups and their needs

Target Group(s) (Who?)	Needs of target group (What?)	The reason for their need (Why?)
Students (student eating as well as other students studying there)	A portable and more convenient way of eating potato chips	Allows students to better concentrate on their studies
Cleaners	Less workload	Improvement in working conditions
School	Uphold the current cleanliness standard	To maintain the school's reputation and prestige
Future users	Clean and mess-free table	No time wasted choosing or cleaning the tables

Point of view (POV)

Students need a new way of opening potato chip packets that is more convenient and portable, allowing them to concentrate more on their studies.

How Might We (HMW)

1. HMW make the process of opening a packet of chips a quiet and discrete process
2. HMW allow a packet of potato chips to be stored conveniently if one cannot finish the entire packet in a single seating
3. HMW allow a packet of potato chips to be easily opened without much difficulty



PRODUCT VIDEO

Drawing of prototype in Autodesk fusion

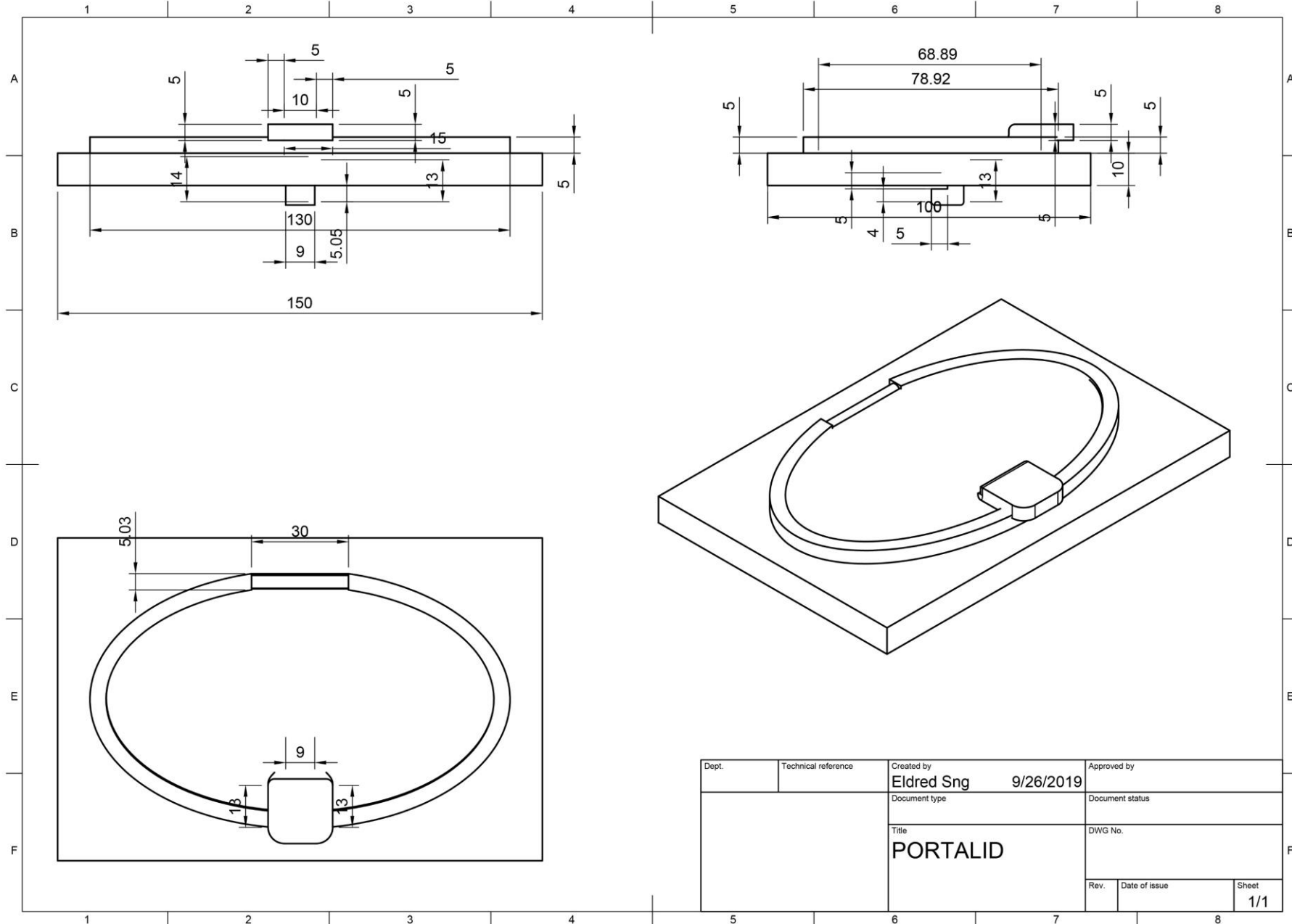
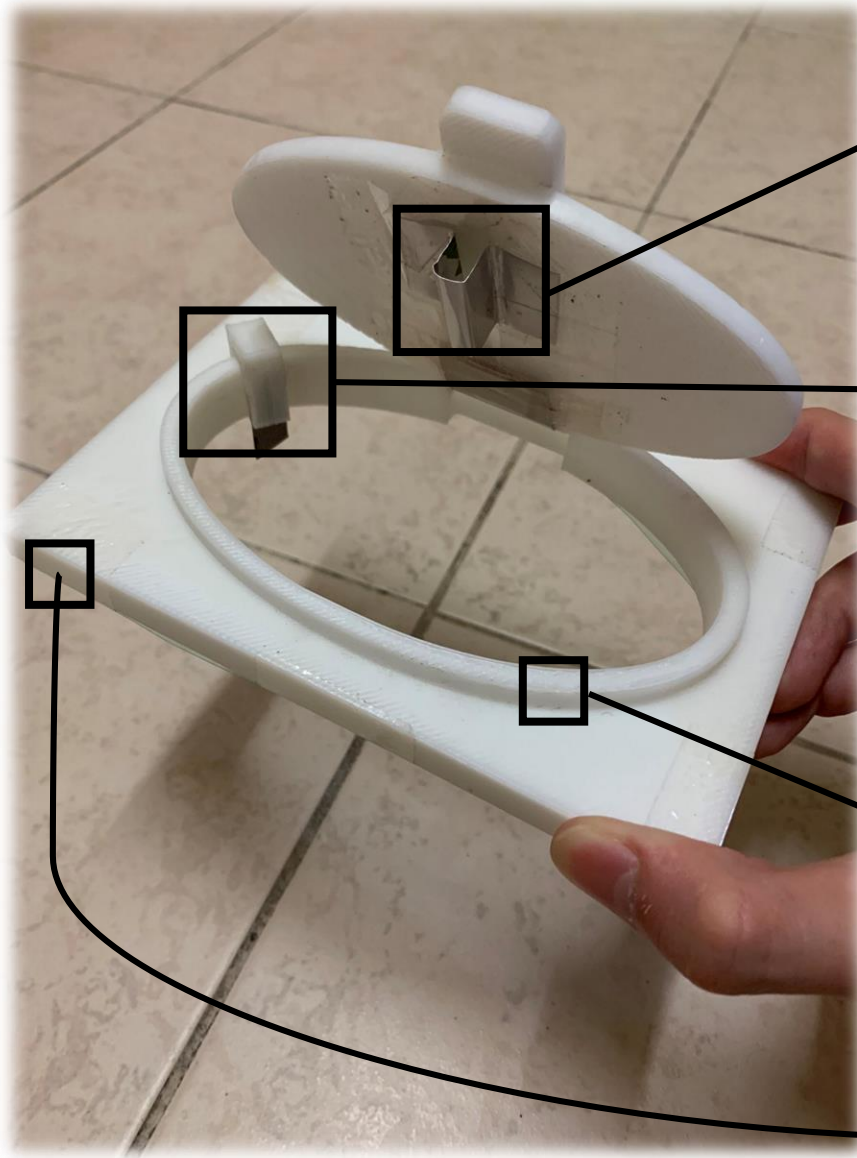


Photo of prototype



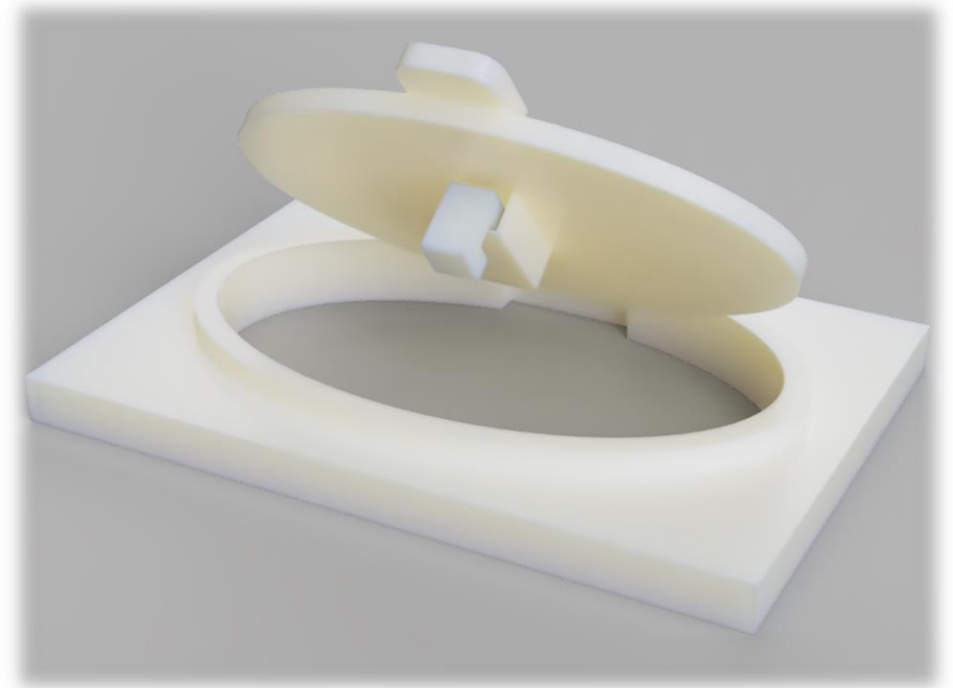
Blade Housing

Blade

Track to guide blade
cutting path

Adhesive underside

Autodesk rendered image



A hand holding a flaming torch over a piece of meat on a plate. The scene is set on a wooden surface. The text is overlaid in the center.

Merenda è servita
Any questions?

APPENDIX



Feedbacks and Improvements

Things that users like...

- Quieter, faster and cleaner way of opening and consuming potato chip packets
- Easy storage for future consumption
- No need to waste time cleaning up after consumption

Things that users were not clear about...

- The reusability of the adhesive tape under Portalid
- The reusability and safety of the knife
- Storage limit regarding airtightness and time

Things that users didn't like...

- The dangers the knife might pose
- Have to carry Portalid around
- Fixed size

New ideas and opportunities...

- Adapt Portalid into a size adjustable accessory like a keychain, which can be carried around easily
- A secure knife compartment and a retractable knife to ensure the safety of the users and to their surrounding when Portalid is carried around
- Rubber seal to enhance airtight capabilities

Patent Search

(12) UK Patent Application (19) GB (11) 2 315 263 (13) A
(43) Date of A Publication 28.01.1998

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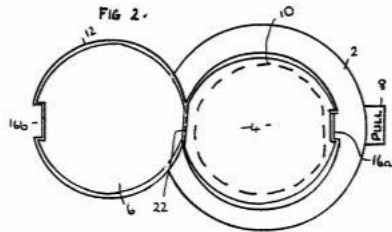
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(51) INT. CL.⁶
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(52) UK CL. (Edition P)
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(56) Documents Cited
GB 2254822 A GB 1422267 A EP 0165629 A2
US 3782901 A US 3556390 A
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UK CL. (Edition O) B8C CWS6, B8D DCA1 DCF13, B8K
K8A, B8P PK4 PL1 PLS, B8T T8B TWC TWR
INT. CL.⁶ B65D 33/00 33/02 33/16 47/06 47/12 47/14
51/00 53/00
Online: WPI

(54) Sealing closure mountable on packaging

(57) A packaging closure comprises a closable lid or seal which is adapted to be applied to a package. Preferably the closure comprises a base 2 with at least one aperture 4, a cover 6 for opening/closing the aperture and means for fastening the closure to a package. The fastening means may comprise a double-sided adhesive tape, one side of the tape being fixed to the underside of the base and the other side covered by a peelable protective layer which is removable using pull tab 8. The cover may be integral with the base, snap-engageable, using corresponding indentations on the base 16a and cover 16b or slide-engageable (Fig's 10 and 11). Preferably, once the closure is fixed to the packaging, the packaging can be opened by cutting or tearing along perforations 10. Various shapes of closure are embraced (eg Fig's 1, 5 and 7). The cover may be cup-shaped (Fig 6) and provided with volumetric gradations 130, Fig 6).



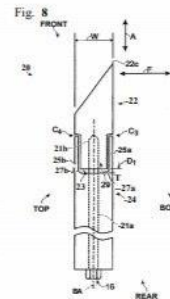
GB 2 315 263 A

Patent for the concept of a packaging closure [4]

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13/752,108 28 January 2013 (28.01.2013) US
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(54) Title: KNIFE AND DISPOSABLE INSERTS



(57) Abstract: A knife with disposable inserts. Either (1) a front side of the knife body has a cutting edge, the front side of the insert is removably mounted to a rear side of the knife body, and either (A) a rear side of the insert has a cutting edge, or (B) the rear side of the insert has a blunt face that forms a rear side of the knife, the rear side of the insert is removably mounted to the front side of the knife body, and the front side of the insert has a cutting edge.

WO 2014/018516 A1

Patent for the knife blade [5]



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Nakahara et al. (43) Pub. Date: Mar. 23, 2017

(54) DOUBLE-SIDED ADHESIVE SHEET,
JOINING METHOD USING DOUBLE-SIDED
ADHESIVE SHEET, AND METHOD FOR
PRODUCING DOUBLE-SIDED ADHESIVE
SHEET

(71) Applicants: NISSHO CORPORATION, Osaka
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(22) Filed: Dec. 6, 2016

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071039, filed on Jul. 23, 2015.

(30) Foreign Application Priority Data

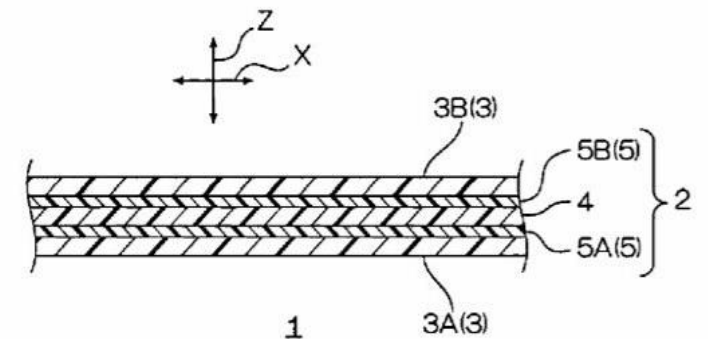
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B32B 38/10 (2006.01)
B32B 37/12 (2006.01)
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CPC C09J 7/0264 (2013.01); B32B 38/10
(2013.01); B32B 37/12 (2013.01); B32B 37/18
(2013.01); C09J 5/00 (2013.01); C09J 133/08
(2013.01)

(57) ABSTRACT

A double-sided adhesive tape has an adhesive member which is formed in the shape of a film and whose both surfaces in a thickness direction have an adhesive force and a pair of separation films which are arranged so as to sandwich the adhesive member in the thickness direction. The double-sided adhesive tape is formed so as to have a non-planar shape and to reduce the occurrence of wrinkles in the adhesive member when the adhesive member is adhered to a non-planar adherend.



Patent for the concept of a packaging closure [6]

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[1]"There's a reason crisp packets are so irritatingly loud to open | Metro News", *Metro.co.uk*, 2019. [Online]. Available: <https://metro.co.uk/2017/08/14/theres-a-reason-crisp-packets-are-so-irritatingly-loud-to-open-6850290/>. [Accessed: 28-Sep- 2019].

[2]"Potato Chip Warnings | Livestrong.com", *LIVESTRONG.COM*, 2019. [Online]. Available: <https://www.livestrong.com/article/411976-potato-chip-warnings/>. [Accessed: 28- Sep- 2019].

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[5]T. HINCLIFF, "KNIFE AND DISPOSABLE INSERTS", WO2014018516A1, 2019.

[6]H. NAKAHARA and S. YOSHIKAZU, "Double-Sided Adhesive Sheet, Joining Method Using Double-Sided Adhesive Sheet, And Method For Producing Double-Sided Adhesive Sheet", US20170081559A1, 2017.