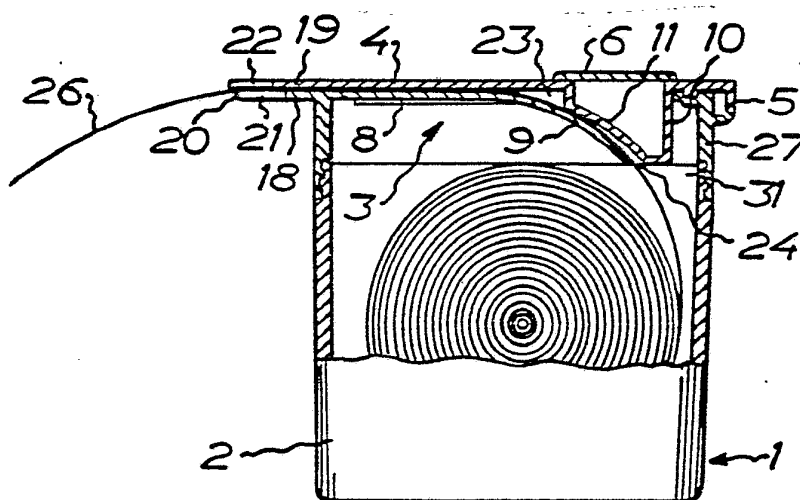




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification³ : B 65 D 83/08 // A 47 K 10/32	A1	(11) International Publication Number: WO 83/ 01054 (43) International Publication Date: 31 March 1983 (31.03.83)
(21) International Application Number: PCT/SE81/00262 (22) International Filing Date: 15 September 1981 (15.09.81) (71)(72) Applicant and Inventor: KLING, Thord [SE/SE]; Svampstigen 8E, S-671 00 Arvika (SE). (74) Agents: WIKLUND, Erik, et al.; Awapatent AB, Box 5117, S-200 71 Malmö (SE). (81) Designated States: AT, AT (European patent), CH, CH (European patent), DE, DE (European patent), DK, FI, FR (European patent), GB, GB (European pa- tent), LU, LU (European patent), NL, NL (European patent), NO, SE, SE (European patent), US.	Published <i>With international search report.</i> <i>In English translation (filed in Swedish).</i>	

(54) Title: DISPENSER FOR CONTAINING AND DISPENSING A PREMOISTENED WEB OF MATERIAL

**(57) Abstract**

A dispenser for containing and dispensing a premoistened web of material (26) comprises a magazine (2) for containing the web of material and a dispensing portion (3) associated with the magazine and having an opening (20) for dispensing the web of material. A passage (23) extends between the magazine (2) and the dispensing opening (20) and is adapted to take up the web of material such that the latter forms a seal in the passage, which prevents drying of the web of material.

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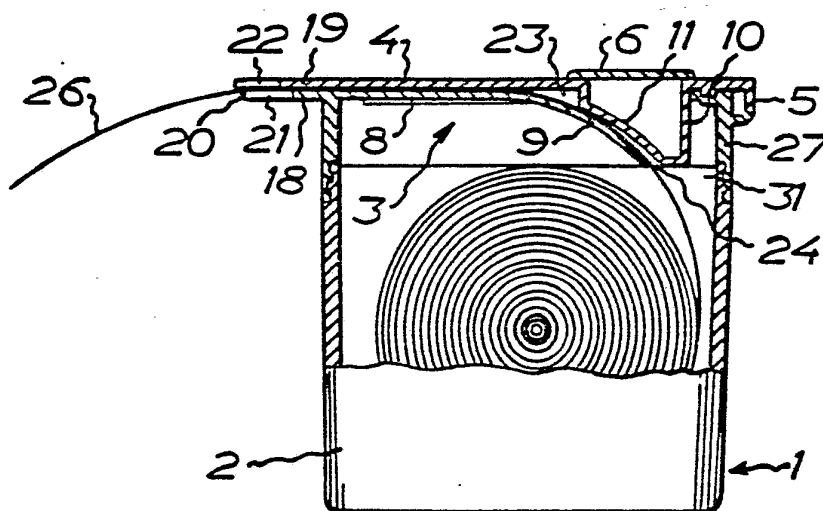
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DISPENSER FOR CONTAINING AND DISPENSING A PREMOISTENED
WEB OF MATERIAL

This invention relates to a dispenser for containing and dispensing a premoistened web of material, comprising a magazine for containing the web of material and a dispensing portion associated with the magazine and having an opening for dispensing the web of material. 5 More particularly, the invention relates to dispensers for injection tissues for medical use.

Dispensers of the above-mentioned type have been known for a long time in a great many different embodiments. Most of the prior art dispensers consist of 10 a two-part can the lower part of which forms a magazine for a premoistened strip while the upper part thereof has a dispensing opening for the strip. The dispensing opening may be in the form of a straight slot, several 15 crossing slots or some other type of opening. To prevent drying of the strip the dispensing opening can be closed by means of a cover. If one forgets to close the cover after a strip piece has been removed, the strip in the can will rapidly dry up. This is a great disadvantage 20 of the prior art dispensers. A further disadvantage is the difficulty which disabled persons experience in opening the cover.

One object of the present invention is to provide a dispenser of the afore-mentioned type, in which one 25 need not close the dispensing opening between removals of strip pieces, in order to retain the moisture in the strip.

Another object of the invention is to provide a dispenser in which the procedure of dispensing the strip 30 is controlled in such a manner that only one strip piece is obtained at each removal.

These objects are realized by means of a dispenser the individual features of which will become apparent



from the characterising clauses of the appended claims.

The invention will be described in more detail with the aid of an embodiment with reference to the accompanying drawing in which:

5 Fig. 1 shows a perspective view of a dispenser according to the present invention;

 Fig. 2 is a section on line II-II in Fig. 1 with a sealing device removed and a strip contained therein partially dispensed; and

10 Fig. 3 shows a top plan view of a dispensing portion with a service and inspection cover in opened position.

 The dispenser 1 according to the present invention, which is illustrated in Fig. 1, comprises a box-shaped magazine 2 and a dispensing portion 3 detachably mounted on the magazine. The dispensing portion consists of a box-shaped member 27 with an open bottom and an upper side 29 (Fig. 3), said bottom being connected to the magazine 2 by means of a spring catch, bayonet clutch or other suitable tight coupling. An inspection and service cover 4 engages the upper side 29 and is connected to the box-shaped member 27 via hinge means 5. The dispensing portion further has a sealing device 7 for closing a dispensing opening 20 (Fig. 2). The cover 4 has a raised section 6 to accommodate directions for use. The magazine 2 is of impact-resistant polystyrene and the dispensing portion 3 of LD-polyethylene.

 The sealing device 7 serves two functions. Firstly, it fixedly retains a protruding part 19 of the service cover 4 to a protruding part 18 of the upper side 29 of the box-shaped member 27 and thus serves as a transport safety device. Secondly, it closes the dispensing opening 20 of the dispenser 1 and contributes to reducing the risk that a strip 26 (Fig. 2) will dry up, especially if the dispenser should not be used for a long period of time.



The strip is about 15 m in length and 45 mm in width. It is perforated so that 300 tissues in the format 45 x 50 mm are obtained. The strip consists of non-woven and tissue and is impregnated with a 70% ethyl-alcohol and contains 0.5% chlorohexidine.

Figs. 2 and 3 show a dispensing passage 23 in the dispensing portion 3, said passage extending between the dispensing opening 20 and the upper part of the magazine. The passage is formed between the cover 4 and the tongue 8 which constitutes a countersunk portion of the upper side 29 of the box-shaped member 27. A sealing groove 12 which cooperates with a mating sealing strip at the cover 4, extends around the major portion of the passage on the upper side of the box-shaped member. Two locking holes 14, 15 which cooperate with mating locking pins 16, 17 on the cover to prevent unintentional opening thereof, are provided in the upper side in front of the sealing groove 12.

The end 9 of the tongue 8 which opens into the upper part of the magazine 2 is curved and terminates at a distance from the box-shaped member 27 to form a magazine outlet 31. The tongue 8 forms a guide path for the strip 26 without any sharp edges, whereby the risk that the strip will unintentionally be torn off between the magazine and the outlet opening 20 is reduced. The cover 4 has a shoulder 10 which protrudes into the magazine outlet 31 opposite the curved end 9 of the tongue. The shoulder has a curved surface 11 which is so designed that it forms, together with the curved end 9, a conical inlet 24 to the passage 23.

The height of the passage inside the conical inlet is slightly less than the thickness of the strip, and the width of the tongue 8 corresponds to that of the strip. As a result, the strip itself forms a seal in the dispensing portion 3, which prevents drying of the strip both in the magazine 2 and in the dispensing portion 3. The sealing groove 12 on the upper side 29



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and the sealing strip 13 at the cover 4 also assist in preventing evaporation of the ethyl alcohol through the interface between the upper side 29 and the cover 4.

5 The front portion of the tongue 8 at the dispensing opening 20 is provided with a halfmoon-shaped thumbhold cutout 21, and the protruding portion 19 of the cover 4 has a corresponding thumbhold cutout 22. Each of the above-mentioned perforations in the strip comprises two straight perforation lines which extend at right angles inwardly towards the middle of the strip from the two longitudinal edges thereof, and a halfmoon-shaped perforation line interconnecting said two lines. The halfmoon-shaped perforation line is convex, 10 while the thumbhold cutouts 21, 22 are concave as viewed from the dispensing opening 20. By reason of the clamping of the strip between the tongue 8 and the cover 4, whereby the perforations are relieved of load, and the fibrous structure of the strip, said strip can be 15 withdrawn from the dispensing opening 20 without any risk that an injection tissue is torn off inside the dispensing portion 3. However, as soon as the straight perforation lines come to lie flush with the terminal edge 30 of the tongue 8, the withdrawn injection tissue 20 will be torn off from the strip. Owing to the perforation line on the strip which is "reversed" in relation to the thumbhold cutouts 21, 22, there will be formed on the strip 26 a gripping portion in the form of a circular disc for withdrawal of the next injection tissue. The strip is preferably drawn obliquely upwards or obliquely downwards, using the cover or the upper side 29 as a tearing edge. 25 30

Fig. 2 shows that the cover 4 protrudes a slightly longer distance than the upper side 29 at the dispensing opening 20, which facilitates, on the one hand, 35 the raising of the cover and, on the other hand, the upward tearing off of the strip.



5

Should the strip happen to tear inside the dispensing portion 3, one can open the cover 4 and pull forth the strip to the dispensing opening 20 and then close the cover again.

5 The dispenser 1 is loaded in that the dispensing portion is removed from the magazine 2 and a strip is placed therein. The cover 4 is opened and the end of the strip is introduced into the magazine outlet 31 and placed against the tongue 8. After that, the dis-
10 pensing portion is mounted on the magazine, the strip is adjusted on the tongue and the cover is closed.



CLAIMS

1. A dispenser for containing and dispensing a premoistened web of material (26), comprising a magazine (2) for containing the web of material and a dispensing portion (3) associated with the magazine and having an opening (20) for dispensing the web of material, c h a r a c t e r i s e d by a passage (23) extending between the magazine (2) and the dispensing opening (20) and adapted to take up the web of material such that the latter constitutes a seal in the passage, which prevents drying of said web (26).

2. A dispenser as claimed in claim 1, c h a r a c t e r i s e d in that the height of the passage (23) is slightly less than the thickness of the web of material (26) whereby the sealing power of said web in said passage is ensured and friction is brought about between said web and the boundary walls (4, 8) of the passage, said friction facilitating tearing off said web at the dispensing opening (20).

3. A dispenser as claimed in claim 1 or 2, c h a r a c t e r i s e d in that the dispensing portion (3) has a tongue (8) extending between the dispensing opening (20) and the magazine (2), and a raisable cover (4) which is adapted to cover the tongue and form said passage (23), together with said tongue.

4. A dispenser as claimed in claim 3, c h a r a c t e r i s e d in that the end (9) of the tongue (8) facing the magazine (2) and the cover (4) form a conical inlet (24) to the passage (23).

5. A dispenser as claimed in claim 4, c h a r a c t e r i s e d in that the end (9) of the tongue (8) facing the magazine (2) is curved and that the cover (4) has a curved surface (11) corresponding to said curved end.

6. A dispenser as claimed in any one of claims



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3-5, c h a r a c t e r i s e d in that the dispensing portion (3) has a sealing groove (12) which extends outside the passage (23), and a corresponding sealing strip (13) at the cover 4.

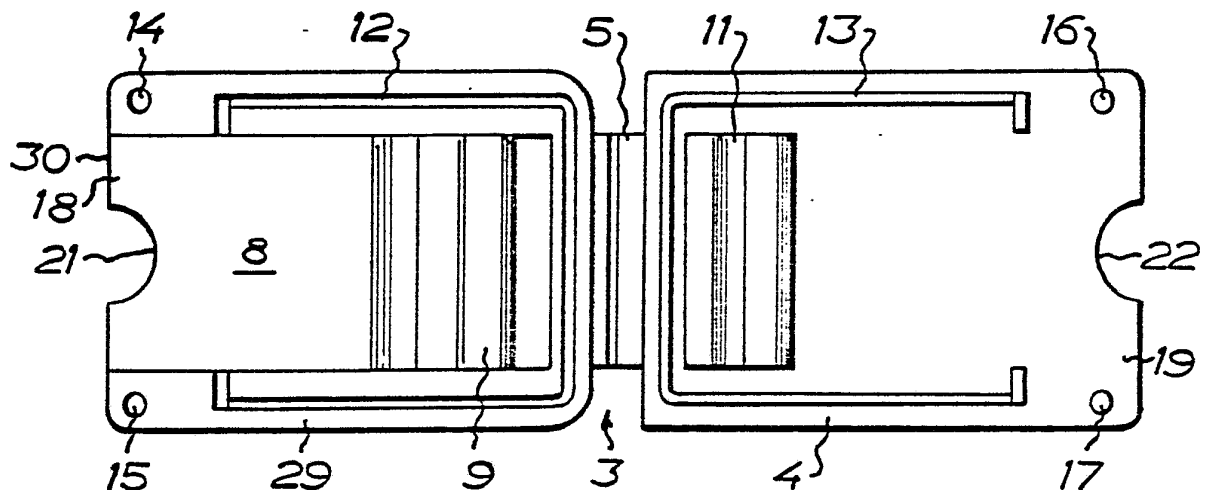
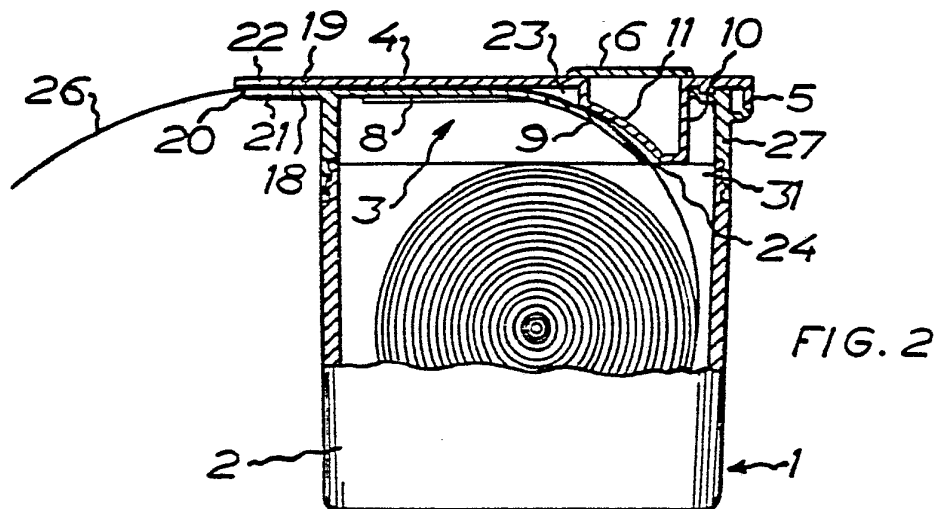
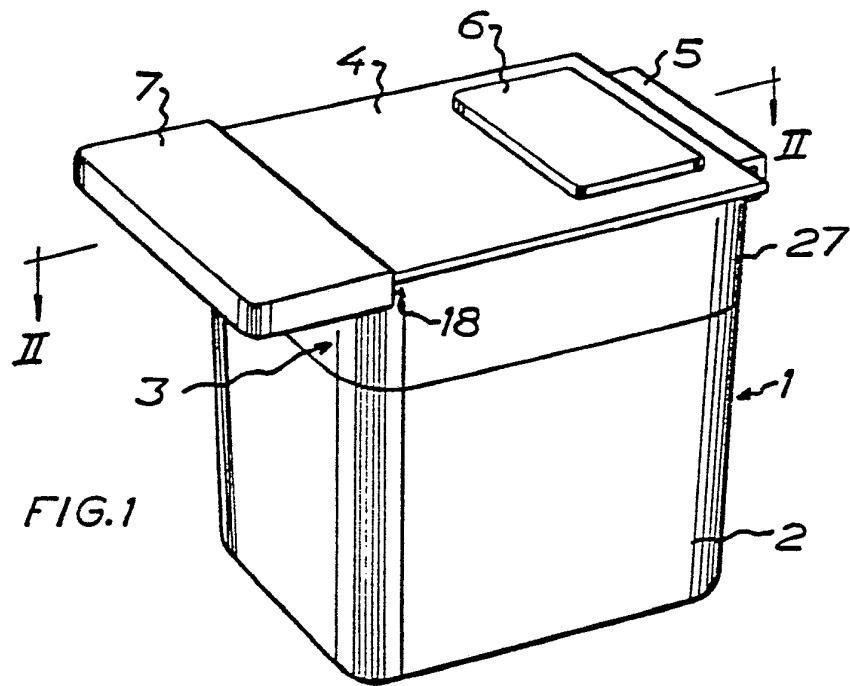
5 7. A dispenser as claimed in any one of claims 3-6, c h a r a c t e r i s e d in that the dispensing portion (3) has at least one locking hole (14, 15) and at least one mating locking pin (16, 17) at the cover (4).

10 8. A dispenser as claimed in any one of claims 3-7, c h a r a c t e r i s e d in that the dispensing portion (3) is detachably mounted on the magazine (2).

15 9. A dispenser as claimed in any one of claims 3-8, c h a r a c t e r i z e d by a sealing device (7) which is adapted to be placed over the dispensing opening (20) to seal it and prevent unintentional raising of the cover 4.



1



INTERNATIONAL SEARCH REPORT

International Application No PCT/SE81/00262

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) ³

According to International Patent Classification (IPC) or to both National Classification and IPC ³

B 65 D 83/08 // A 47 K 10/32

II. FIELDS SEARCHED

Minimum Documentation Searched ⁴

Classification System

Classification Symbols

IPC 3 B 65 D 83/08, 85/67-677, 81/24, 81/22
A 47 K 10/32-10/40

.../...

Documentation Searched other than Minimum Documentation
to the extent that such Documents are Included in the Fields Searched ⁵

SE, NO, DK, FI classes as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT ¹⁴

Category ⁶	Citation of Document, ¹⁶ with indication, where appropriate, of the relevant passages ¹⁷	Relevant to Claim No. ¹⁸
X	US, A, 3 368 522 (N CORDIS) 13 February 1968	1
X	DE, B, 1 277 074 (H J BAMERT) 5 September 1968	1
A	US, A, 4 101 026 (J P BONK) 18 July 1978	
X	DE, A, 2 204 402 (K LEWANDOWSKY) 16 August 1973	1
X	DE, A, 2 031 070 (G DAMMLER) 30 December 1971	1
A	US, A, 4 239 164 (BAMSBEE ET AL) 16 December 1980	
A	US, A, 3 129 813 (R E NORVELLE) 21 April 1964	
A	SE, B, 418 951 (H SPIEGELBERG) 7 June 1981	
	.../...	

* Special categories of cited documents: ¹⁹

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search ²

1982-05-17

Date of Mailing of this International Search Report ²

1982-05-25

International Searching Authority ¹

Swedish Patent Office

Signature of Authorized Officer ²⁰

Helena Åkerlund
Helena Åkerlund

FURTHER INFORMATION CONTINUED FROM THE SECOND SHEET

II

Fields Searched (cont)

National Cl 81c:27

US Cl 206:204,205,225,233,389,407,409,
410,438,524-526;

221:45,47,48,63;

242:55.53,55.55

V. ☐ OBSERVATIONS WHERE CERTAIN CLAIMS WERE FOUND UNSEARCHABLE ¹⁰

This international search report has not been established in respect of certain claims under Article 17(2) (a) for the following reasons:

1. ☐ Claim numbers ... because they relate to subject matter ¹² not required to be searched by this Authority, namely:2. ☐ Claim numbers ... because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out ¹³, specifically:VI. ☐ OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING ¹¹

This International Searching Authority found multiple inventions in this international application as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims of the international application.2. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims of the international application for which fees were paid, specifically claims:3. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim numbers:4. ☐ As all searchable claims could be searched without effort justifying an additional fee, the International Searching Authority did not invite payment of any additional fee.

Remark on Protest

- ☐ The additional search fees were accompanied by applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category *	Citation of Document, ¹⁶ with indication, where appropriate, of the relevant passages ¹⁷	Relevant to Claim No ¹⁸
A	NO, C, 57 354 (P Z DAVIDSEN) 14 December 1936	
A	DE, A1, 3 005 769 (O KIYOSHI) 1 November 1981	
A	US, A, 3 527 343 (A R MANZO) 8 September 1970	
A	US, A, 2 737 353 (J J BANKS Jr) 6 March 1956	