(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 287 177**
A1

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **88200701.6**

(51) Int. Cl.4: **B65D 85/16 , B65D 75/56**

(22) Date of filing: **12.04.88**

(30) Priority: **16.04.87 NL 8700925**

(43) Date of publication of application:
19.10.88 Bulletin 88/42

(84) Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL

(71) Applicant: **Rockwool Lapinus B.V.**
Industrieweg 15
NL-6074 NH Melick-Herkenbosch(NL)

(72) Inventor: **Van Beukering,Simon Frederick Marie**
Henri Jonaslaan 1
NL-6075 CG Herkenbosch(NL)

(74) Representative: **Prins, Hendrik Willem et al**
Octrooibureau Arnold & Siedsma
Sweelinckplein, 1
NL-2517 GK The Hague(NL)

(54) **Packaging.**

(57) The invention relates to a packaging, comprising a rolled up product (2) and a wrapping (10) applied around said rolled up product, having a carrying strap (12) passed axially over the wrapping round said rolled up product. Preferably tied transversely round the rolled up product underneath the wrapping is a locking strap (8) securing against undwinding of said rolled up product. Said wrapping consists of shrink-wrapping.

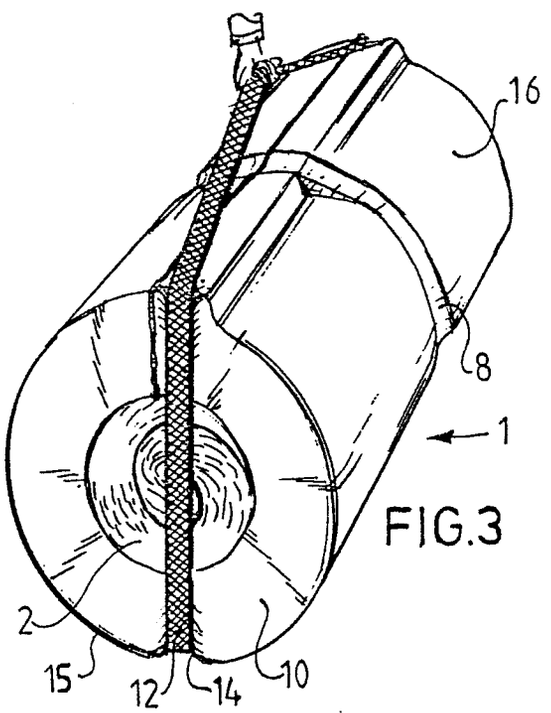

FIG.3

EP 0 287 177 A1

Packaging

The current invention relates to a packaging, comprising a rolled up product and a wrapping arranged around the rolled up product.

Such a product is known.

In the case the product consists of mineral wool, a wrapping is employed in order to prevent the escape of dust from the packaging and the absorption of moisture, for example rainwater, into the packaging. Since in the course of storage and transport the packaging has to be gripped by this wrapping, this latter has to consist of durable material that is not particularly vulnerable. In other words, the wrapping forms a considerable part of the total costs of the packaging.

In other known packagings a bag is used instead of a wrapping, and the packaging can be handled by gripping on the closure wad. This wad is located on an end face and such a packaging therefore has the disadvantage that the packagings cannot be stacked on one another on their end faces.

The invention has for its object to improve the known packaging in the sense that the costs of the packaging are decreased considerably because a cheap wrapping can be used. This is achieved as according to the invention by a carrying strap passed axially over the wrapping around the rolled up product.

When gripped the axially tied carrying strap will form slight impression in the end peripheral edges, so that release of the rolled up product from the carrying strap will be practically impossible during carrying of the packaging. In comparison to a transversely tied carrying strap the advantage is achieved that the packaging cannot tilt relative to the carrying strap because the centre of gravity of the packaging lies in or very close to the plane passing through the axial carrying strap.

In the case of a transversely tied carrying strap, the fitting thereof relative to the centre of gravity of the product has to take place very carefully, since after fitting displacement of the transverse carrying strap along the wrapping is virtually impossible.

Preferably tied underneath the wrapping and transversely round the rolled up product is a locking strap securing against unrolling of the rolled up product. Because the locking strap neutralises an unwinding tension, use can be made of an even cheaper wrapping. The fitting of the locking strap underneath the wrapping has two further advantages. Firstly, damage to a pre-applied wrapping by the fitting of the locking strap is avoided and secondly an unwinding tension is neutralised right from the start of the packing process, with the result that the entire packing process can be performed more easily and more simply.

In a preferred embodiment the product consists of a length of mineral wool.

The packaging according to the invention is particularly suitable in the case the length of mineral wool is also provided with a covering layer of metal gauze which may have a considerable unwinding tension.

In the most advantageous embodiment of the packaging according to the invention, the wrapping consists of shrink-wrapping which is very easy to apply and has a low cost price while nevertheless effectively preventing moisture absorption and escape of dust.

The packaging according to the invention will be elucidated hereinafter on the basis of an embodiment, whereby reference is made to the annexed drawing.

In the drawing:

Fig. 1 shows in perspective the various packing steps for a packaging according to the invention; and

Fig. 2 and 3 show the two possible ways of carrying the packaging according to the invention shown in fig. 1.

Fig. 1 shows the various steps according to the invention in the process of packaging a product 1.

In fig. 1A a length 2 of mineral wool is rolled up, this length being provided on one longitudinal surface 3 with metal gauze 5 stitched to it with a stitching thread 4.

The used covering layer of metal gauze 5 which serves to form the mineral wool round objects to be thermally insulated, exerts a considerable unwinding tension in the rolled up product 6. This unwinding tension is neutralized by passing a locking strap 8 transversely round the rolled up product 6, that is, transversely of the roll-up axis. While only one locking strap 8 is shown, it will be apparent that more than one locking strap may be used, althcugh in many applications one strap is sufficient to neutralise the unwinding tension.

There are very many different ways of fitting locking strap 8 round product 6, but the free ends of the locking strap are preferably welded to each other, for example by using heat (fig. 1B).

In the third process step (fig. 1C) a wrapping 10 is applied round the pre-product 9 shown in fig. 1B, in this case a shrink-wrapping, overlapping longitudinal edges of which are welded at the point of a weld seam 11.

Since the wrapping is vulnerable and is substantially intended only to counter moisture absorption and escape of dust, a following packaging step

is proposed according to the invention, whereby as in fig. 1D a carrying strap 12 is passed axially round the product shown in fig. 1C. The term axial in this case means that carrying strap 12 is located in or parallel to an axial plane passing through the roll-up axis 7.

Fig. 2 and 3 show both the methods, made possible for the first time by the invention, of gripping the packaging without the wrapping being damaged.

As according to fig. 2 carrying strap 12 is gripped on an end face 13. The interval between this end face 13 and the carrying strap 12 that is passed loosely round wrapping 10 will become greater because carrying strap 12 causes impressions 14 at the location of the peripheral edges 15 of the end wall. The impressions 14 formed secure the rolled up product against release from carrying strap 12.

Fig. 3 shows the other method of carrying packaging 1 whereby in this case the carrying strap is gripped on the cylindrical face 16. The same effects hereby occur as in fig. 2.

Claims

1. Packaging, comprising a rolled up product and a wrapping applied around said rolled up product, **characterized by** a carrying strap passed axially over the wrapping round said rolled up product.

2. Packaging as claimed in claim 1, **characterized in that** tied transversely round the rolled up product underneath the wrapping is a locking strap securing against unwinding of said rolled up product.

3. Packaging as claimed in claim 1 or 2, **characterized in that** the product consists of a length of mineral wool.

4. Packaging as claimed in claim 3, **characterized in that** the product is provided on at least one longitudinal surface with a covering layer.

5. Packaging as claimed in claim 4, **characterized in that** the covering layer consists of metal gauze.

6. Packaging as claimed in claims 1-5, **characterized in that** the wrapping consists of shrink-wrapping.

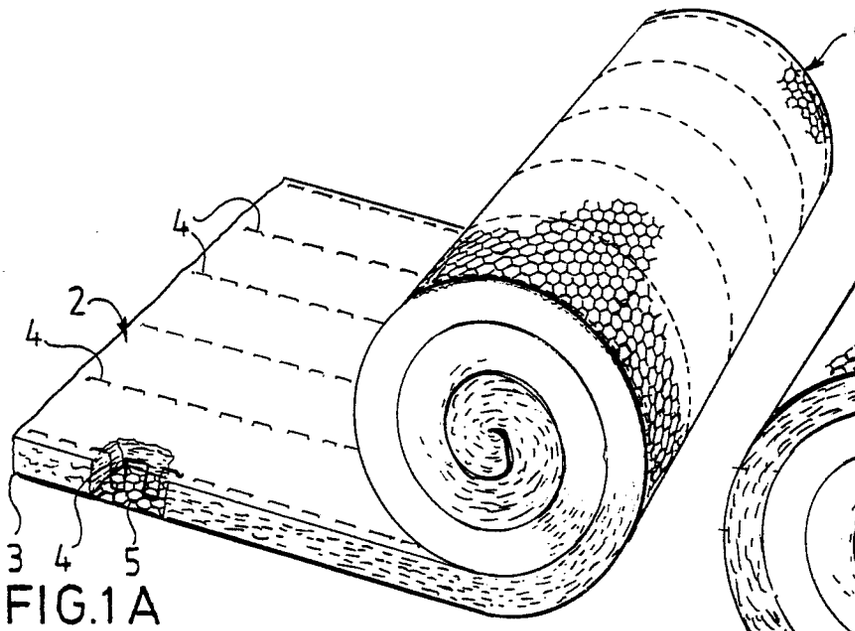

FIG.1A

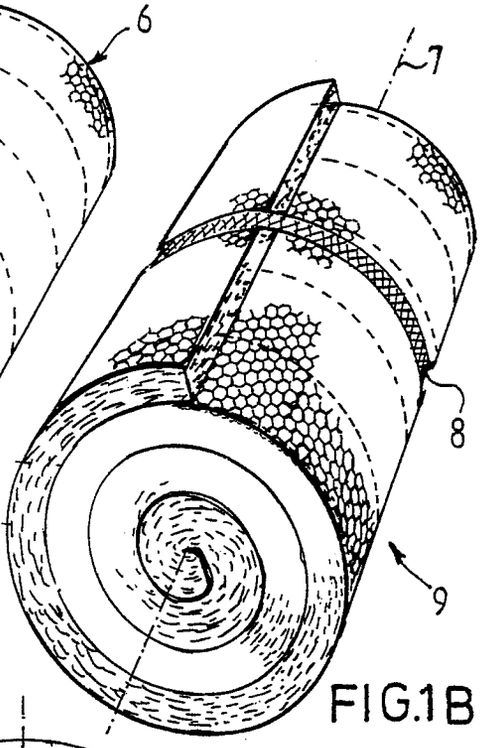

FIG.1B

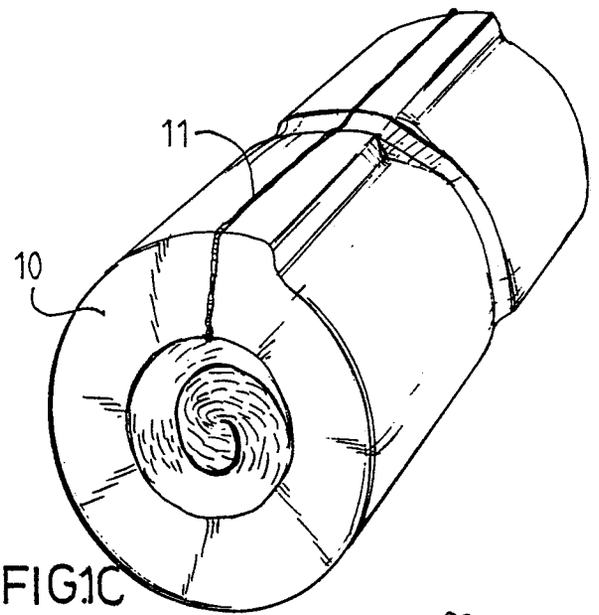

FIG1C

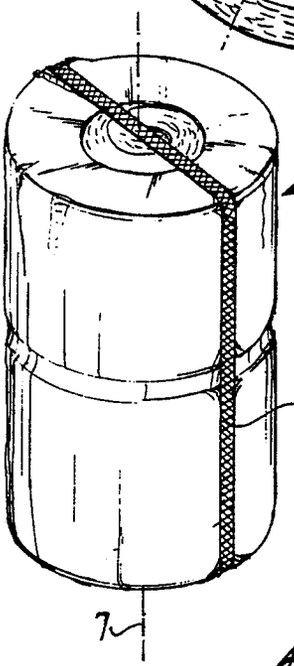

FIG.1D

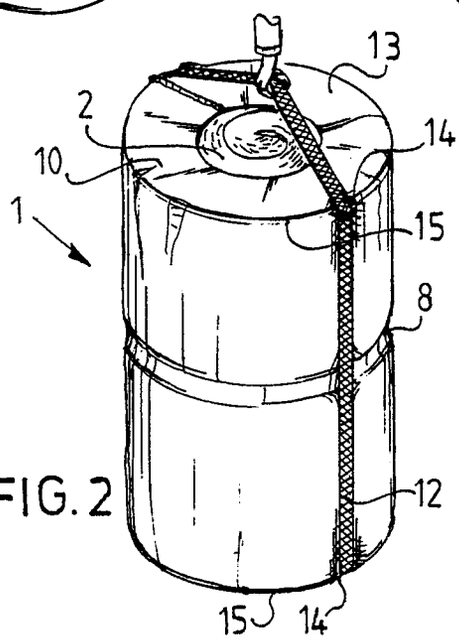

FIG. 2

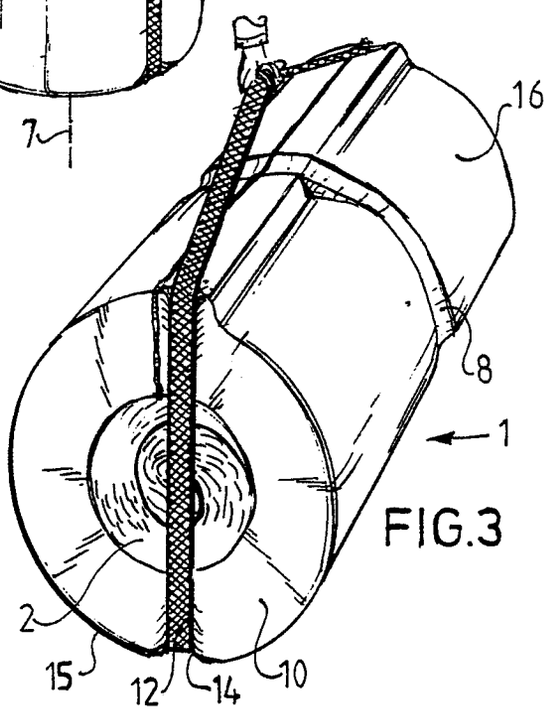

FIG.3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 88 20 0701

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	NL-A-7 611 661 (REEVES BROTHERS INC.) * Page 8, lines 12-18; page 18, line 31 - page 19, line 14; figures 3,5,6 *	1,2,4,6	B 65 D 85/16 B 65 D 75/56
Y	EP-A-0 190 541 (GUALCHIERANI) * Conclusion 1; figures 2,3 *	1,4	
Y	CA-A-1 116 134 (A. CUTRARA) * Page 2, line 36 - page 3, line 14; page 3, line 29 - page 4, line 2; figures *	2,6	
A	US-A-3 437 197 (E.W. WIRFEL)		
A	FR-A- 692 761 (M. MORARD)		

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

B 65 D
B 65 B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	05-07-1988	VANTOMME M.A.

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 03.82 (P0401)