

(19) **DANMARK**

(10) **DK/EP 3133033 T3**



Patent- og
Varemærkestyrelsen

(12) **Oversættelse af
europæisk patentskrift**

-
- (51) Int.Cl.: **B 65 F 1/00 (2006.01)** **B 65 D 88/16 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2020-08-17**
- (80) Dato for Den Europæiske Patentmyndigheds bekendtgørelse om meddelelse af patentet: **2020-05-20**
- (86) Europæisk ansøgning nr.: **16185021.9**
- (86) Europæisk indleveringsdag: **2016-08-19**
- (87) Den europæiske ansøgnings publiceringsdag: **2017-02-22**
- (30) Prioritet: **2015-08-19 FR 1557804**
- (84) Designerede stater: **AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
- (73) Patenthaver: **Linerbenne, 12, rue Docteur Pouzin Malegue, 44100 Nantes, Frankrig**
- (72) Opfinder: **TENAUD, Jean-Jacques, 12 rue Docteur Pouzin Malègue, 44100 Nantes, Frankrig**
MILHEM, Franck, 16 rue de la Concorde, 93160 Noisy-le-Grand, Frankrig
TOULLER, Sylvain, 17 rue du Labch, 34830 Jacou, Frankrig
DUCROCQ, Charles, 52 rue de L'Ysieux, 95270 Chaumontel, Frankrig
FORGEOT, François, Résidence Tivoli, 5 rue du Pérou, 76000 Rouen, Frankrig
- (74) Fuldmægtig i Danmark: **RWS Group, Europa House, Chiltern Park, Chiltern Hill, Chalfont St Peter, Bucks SL9 9FG, Storbritannien**
- (54) Benævnelse: **FLEKSIBEL EMBALLAGE TIL AFFALD, ISÆR ASBEST, MED DOBBELT HYLSTER**
- (56) Fremdragne publikationer:
WO-A1-2011/005315
WO-A1-2015/031951
US-A1- 2003 216 607

Description**Field of the invention**

5 The present invention relates to a flexible packaging for solid waste according to the preamble of Claim 1.

The term "waste" is used in the present patent in the sense of European Directive 2006/12/CE of 5 April 2006, and designates
10 any substance or any object covered by the categories listed in Appendix I of this directive, which the owner is getting rid of or has the intention or the obligation of getting rid of.

It relates more specifically to waste resulting from asbestos-
15 removal work in constructions or public works.

In the context of packaging asbestos waste, large-quantity waste (for example asbestos-contaminated soil) is deposited in skips instead of 1 m³ intermediate bulk containers (referred to by the
20 acronym IBC), which are ill-suited to this type of use.

Currently, the use of depositing in a skip is extremely widespread, including for packaging asbestos waste for which it is not however particularly well suited, which gives rise to
25 health and environmental problems within the waste storage installations.

Prior art

30 American patent US8894281 is well known in the prior art and describes a flexible packaging for solid waste with a capacity of greater than 5 m³, consisting of:

- an internal fabric which extends from its upper peripheral
35 edge and can be closed immediately over the waste by means of a strap,

- an inner envelope which is dust-proof and is provided with

a lid that can be closed over the fabric with straps,

- a mechanically resistant outer envelope which is provided with a lid that can be closed over that of the inner envelope.

5

This packaging, by virtue of its three successive closure elements respectively consisting of the internal fabric with straps, and the two lids of the inner and outer envelopes, serves to reduce the risks of the waste contaminating the storage
10 installation and its environment.

However, this risk is not entirely eliminated, with regard especially to small, volatile waste such as asbestos waste.

15 US 2003/0216607 describes a flexible packaging for solid waste according to the preamble of Claim 1 and a method for collecting, processing, transporting and disposing of the dangerous waste which combines the standards of macro-encapsulation and micro-encapsulation and engages the use of the flexible packaging in
20 order to contain the waste and processing agents in order to reduce the leachability of a constituent of the dangerous waste.

The flexible packaging is supported in a removable skip or other skip that can be transported onto a waste collection site.

25

Summary of the invention

The invention proposes a packaging which can provide a solution to this recurring problem, and which provides a level of safety
30 never before achieved for loading waste, in particular asbestos, on construction sites, storing, transporting and unloading waste, in particular asbestos, on construction sites, while remaining simple and practical to use.

35 To that end, the invention relates to a flexible packaging for solid waste according to Claim 1.

The presence of the flap that comes to seal the closure means

of the lid of the inner envelope increases the seal of this inner envelope and helps to stiffen it, the outer envelope then ensuring the mechanical resistance of the assembly. The packaging according to the invention is therefore particularly well suited to the storage, transportation, loading and unloading of waste, including that containing asbestos.

The invention may also have one and/or another of the following features:

10

- the closure means of a lid on the corresponding pocket is of the closure means with slider type;

15

- the envelope has an elongate general shape, and the closure means has a U-shaped profile whose parallel branches run along the long side of the corresponding envelope;

20

- the closure means with slider of the lid of the inner envelope and the closure means with slider of the lid of the outer envelope have opposite closure profiles;

25

- in particular, the closure means of a lid on the corresponding pocket is of the closure means with slider type, the closure means of the lid of the inner envelope and the closure means with slider of the outer envelope having U-shaped profiles of opposite orientation;

30

- the closure means of the lid of the inner envelope is covered by a part of the pocket of the outer envelope delimited by the closure means of the lid of the outer envelope in order to protect it from the waste, in particular when tipped into the packaging;

35

- the means for attaching the flaps to the inner lid comprise adhesives, in particular extending along the free edge of each flap;

- the adhesives are in the form of continuous or

discontinuous strips extending along the free edge of each flap with the exception of its articulation edge;

- 5 - the strips extend on the inner face of each flap;
- the adhesive is of the dust-proof type;
- 10 - the lid of the inner envelope is articulated about a portion of the upper peripheral edge of the pocket of the inner envelope and the lid of the inner envelope closes along a rim of the pocket of the inner envelope running along its upper peripheral edge;
- 15 - the flaps are articulated about the upper peripheral edge of the pocket of the inner envelope on the side opposite the opening of the inner pocket with respect to the rim of the pocket of the inner envelope and the articulation edge of the lid of the inner envelope;
- 20 - the flap or flaps are made of a material having elastic properties and are stretched prior to being sealed on the closure means of the lid of the inner envelope;
- 25 - the lid of the inner envelope is formed in one piece with the pocket of the inner envelope;
- the flap or flaps are elements added to the inner envelope;
- the inner envelope and the outer envelope are attached to
30 one another;
- 35 - the inner envelope is attached to the outer envelope at least between their bottom walls and on the upper perimeters of their lateral walls;
- the outer envelope further comprises a sealing lip that can be folded down onto the closure means of its lid;

- the pocket of the inner envelope comprises, on the inner face of its side wall, straps for hooking onto a skip, one end of which is attached to the inner face of the pocket, the opposite end remaining free and being suitable for hooking onto a complementary attachment means provided on the outer face of the side wall of the skip.

The invention also relates to a method for packaging solid waste in a flexible packaging having a capacity greater than 5 m³, as defined hereinabove, comprising:

10

- a step of arranging the packaging in the internal volume of a skip, in an open configuration of the packaging, in which the lid of the inner envelope, the flaps and the lid of the outer envelope are located outside the opening defined by the pocket of the inner envelope,

15

- a step of filling at least part of the internal volume of the pocket of the inner envelope with waste,

20

- a step of closing the lid of the inner envelope over the waste,

- a step of sealing the flaps over the closure means of the lid of the inner envelope, and

25

- a step of closing the lid of the outer envelope over the flaps.

According to one advantageous feature, the method according to the invention comprises a step of keeping the packaging in the open configuration by attaching the free ends of the straps projecting from the inner wall of the inner envelope to complementary hooking means arranged on the outer wall of the skip.

35

Preferably, the method comprises a step of injecting a binder onto the surface of the waste loaded into the inner envelope prior to closing the inner envelope.

Ideally, the method comprises a step of pouring a binder onto the surface of the flaps prior to closing the outer envelope.

- 5 According to one interesting variant of the invention, the method comprises a step of placing a self-adhesive sealing film onto the surface of the flaps of the inner envelope prior to closing the outer envelope.

10 **Description of the figures**

The invention will now be described with reference to the appended figures, which illustrate a non-limiting embodiment thereof, and in which:

15

- Figure 1 shows a skip of known type;

- Figure 2 shows a perspective view from above, the outer envelope of the packaging according to the invention, lid closed and, on the right-hand part of the figure, lid shown open and partially;

20

- Figure 3 shows, by way of a perspective view from above, the inner envelope of the packaging according to the invention, lid closed and flaps open, the lid being shown open and partially on the left-hand part of the figure;

25

- Figure 4 shows the inner envelope:

30

- o seen from above 4(a),
- o seen from the front 4(b),
- o seen from the side 4(c).

35

Detailed description

In the present description, "waste" is to be understood as any

product that is intended to be disposed of.

Moreover, "substance x-proof" in the sense of the present patent is to be understood as a material through the thickness of which
5 a substance x cannot pass, or through the thickness of which only a tiny fraction of substance x can pass (less than 5% of the incident flow).

In accordance with the appended figures, the packaging according
10 to the invention is intended to line the interior of a conventional skip shown in Figure 1.

To that end, the flexible packaging 1 is generally
15 parallelepipedal in shape, and dimensioned such that it can be placed inside the skip.

In accordance with Figures 2 to 4, the flexible packaging 1 consists of:

20 - a mechanically resistant outer envelope 2 which is shown in Figure 2 and defines a main parallelepipedal pocket 3 that is closed by a lid 4,

- a dust-proof inner envelope 6 which defines, in the same
25 way as the outer envelope, a main parallelepipedal pocket 7 that is closed by a lid 8, and which is moreover provided with added flaps 9 that come to seal the closure of the lid by covering it, these flaps being attached to this lid in the folded-down position. The inner envelope 6 is attached to the inside of the
30 outer envelope 2 by its bottom wall 11 and by its lateral walls 12, at least along their upper edges.

More specifically, with reference to Figure 2, the outer envelope consists of a mechanically resistant material such as
35 polypropylene PP, ideally woven, preferably having a grammage of at least 100 g.m^{-2} , preferably 200 g.m^{-2} , and a thickness of at least 100 microns, being less than 300 microns.

The pocket 3 of this outer envelope 2 defines a bottom wall 13, long lateral walls 14 and short lateral walls 15 respectively defining the front and the rear of the packaging. These walls are made from webs of material that have been secured to one another by any appropriate means, such as heat welding or tight-stitch sewing.

The upper wall 16 of the outer envelope 2 consists of:

10 - a peripheral horizontal rim 17 that terminates the "pocket" part 3 and extends along a generally U-shaped profile along the upper edges of the two long walls 14 and of the short front wall 15, over a width of several centimetres, for example 5 to 10 cm, and

15 - an essentially rectangular lid 4 articulated about the upper edge 18 of the short rear wall 15 and dimensioned so as to be able to close the opening defined by the free edge of the rim 17 of the pocket 3 in its closing position, given that in
20 its opening position this flexible lid 4 extends out of the opening, on the outer side of the short rear wall 15 as shown. It is closed along the rim 17 by means of a slider closure 10, ideally made of metal or plastic (nylon). A sealing lip (not shown), for example made of nylon, ideally covers the closure
25 over its entire length.

The shape of the inner envelope 6 shown in Figures 3 and 4 is identical or homothetic to the outer envelope, such that it can be placed inside the outer envelope 2.

30 It thus defines long lateral walls 19, short lateral walls 20, a rectangular lid 8 that can be closed over a U-shaped rim 22 of the pocket 7 by means of a slider closure 23.

35 It is made of a material that is dust-proof for dust of less than 1 micron, such as polyethylene PE, ideally transparent and preferably low-density LDPE, having a thickness of between 120 and 250 microns, preferably between 170 and 210 microns, ideally

having an average thickness of approximately 190 microns. The slider closure 23 is for example made of metal or plastic (nylon). A sealing lip (not shown), for example made of nylon, ideally covers the closure over its entire length.

5

It should be noted that the rim 17 of the outer envelope 2 can be made wider than that 22 of the inner envelope 6 so as to protect the slider closure of the inner envelope 6 from the waste when they are tipped into the pocket 7 of the inner envelope, with the rim 17 covering this closure.

10

Moreover, the direction of opening of the lids of the inner and outer envelopes can be opposite, that is to say that the lid of the outer envelope 2 opens towards the rear of the skip (Figure 2, open position to the right) whereas the lid of the inner envelope 6 opens towards the front of the skip (Figure 3, open position to the left).

15

The inner envelope 6 further comprises two long flaps 26 and two short flaps 27, which are rectangular, added and respectively secured to the upper parts of the long walls 26 and the short walls 27 so as to fold down over the slider closure 23 of the lid 8 in its closure position. This securing of the flaps to the outer face of the inner envelope is done for example by heat welding.

20

25

These flaps also consist of a transparent dust-proof material of the PE, LDPE type, and are thinner than the material of the inner envelope, for example 25% thinner, and thus have a thickness for example of between 100 and 230 microns, and typically approximately 150 microns.

30

In their folded-down position, the long flaps cover the long portion of the slider closure and extend beyond this closure over a width greater than that of the rim 22. In the example shown, the long flaps extend over a width that represents four times that of the rim 22 delimited by the slider closure.

35

The short flaps also cover the short portion of the slider closure and extend beyond this closure over a width greater than that of the rim 22. In the example shown, the short flaps extend over a width representing ten times that of the rim 22 delimited by the slider closure.

Of course, a multitude of configurations for covering the lid of the inner envelope by means of the flaps may be provided, including that in which the lid is entirely covered by the flaps.

10

The flaps, in their folded-down position, provide additional dust-proofing to the inner envelope and increase its rigidity and its strength during transport since they multiply the number of successive layers making up this envelope (in the example shown, the lateral edges of the upper wall of the inner envelope consist of a double thickness of material (the lid or the rim and the flap), and the corners consist of a triple thickness (the lid or the rim and both flaps).

The flaps are fastened in their covering positions by means of adhesive strips 28, 29 arranged on the inner face of the flaps 26, 27, along the free edge of the flaps. In the example shown, the long flaps 26 are folded down first over the lid and are provided with a single adhesive strip along their long free edge, whereas the short flaps 27 come to cover both the lid and part of the long flaps 26, and are provided with a U-shaped adhesive strip extending along their long free edge and their two short free edges in order to completely seal the lid despite there being no adhesive strips along the short free edges of the long flaps 26.

30

The adhesive strip may moreover consist of an adhesive that is dust-proof.

These adhesive strips are coated with a protective film that is to be removed prior to use.

35

Owing to being thinner, and/or to the material of which they are

made, these flaps have a certain elasticity and can be stretched by at least 10%. Thus, before being sealed over the lid of the inner envelope, they are slightly stretched so as to place them under tension, this tension increasing the rigidity of the closed inner envelope.

By virtue of this construction of an inner envelope having outer flaps, and an outer envelope, the packaging according to the invention is provided with flaps that come to cover and seal the slider closure of the inner envelope and that are interposed between the lid of the inner envelope and that of the outer envelope when the packaging is closed.

In order to facilitate the loading of waste into the packaging according to the invention, which is placed inside a skip, the pocket of the inner envelope comprises, on the inner face of its lateral wall, hooking straps 31, shown in Figure 3, one end of which is attached to the inner face of the pocket 7, the opposite end remaining free and able to hook onto a complementary attachment means 32 provided on the outer face of the lateral wall of the skip, these being shown schematically in Figure 1.

The method for loading waste according to the invention comprises:

- a step of arranging the packaging in the inner volume of a skip, in an open configuration of the packaging, in which the lid 8 of the inner envelope, the flaps 26, 27 and the lid 4 of the outer envelope are located outside the opening defined by the pocket 7 of the inner envelope,

- a step of keeping the packaging in the open configuration by attaching the free ends of the straps 31 coming from the inner wall of the inner envelope 6 onto complementary hooking means 32 arranged on the outer wall of the skip,

- a step of filling at least part of the internal volume of the pocket 7 of the inner envelope 6 with waste,

- a step of closing the lid 8 of the inner envelope over the waste,

5 - a step of sealing the flaps 26, 27 over the closure means 23 of the lid of the inner envelope, and

- a step of closing the lid 4 of the outer envelope 2 over the flaps.

10

Ideally, the method according to the invention may comprise a step of injecting a binder onto the surface of the waste loaded into the inner envelope prior to closing the inner envelope, and/or of pouring a binder onto the surface of the flaps prior to closing the outer envelope, and/or of placing a self-adhesive sealing film onto the surface of the flaps of the inner envelope prior to closing the outer envelope.

EXPERIMENTAL RESULTS UNDER REAL USAGE CONDITIONS

20

In this context, material characterization tests were carried out under laboratory conditions and "real" tests were also carried out on building sites in order to simulate the use of these packagings:

25

These tests were carried out on a packaging according to the invention comprising:

- an outer envelope consisting of a PP web with an average grammage of the order of 200 g.m⁻²; and

30

- an inner envelope consisting of a LDPE web having the following characteristics:

35 ISO 4573 THICKNESS OF THE LDPE WEB

Conditions:	23°C +/- 2°C and 50% +/- 5% relative humidity
Average thickness (µm):	185
Minimum thickness (µm):	168
Maximum thickness (µm):	209
Standard deviation (µm):	9

EXPERIMENTAL RESULTS OBTAINED FOR THE LDPE WEB USED:

IMPACT RESISTANCE (ASTM D 1709 METHOD B) of the LDPE web

5

Conditions:	23°C +/- 2°C and 50% +/- 5% relative humidity
Method for determining the failure mass:	Staircase method
Value:	597 g

IMPACT RESISTANCE (ASTM D 1709 METHOD B) of the LDPE web

Conditions:	23°C +/- 2°C and 50% +/- 5% relative humidity
Method for determining the failure mass:	Staircase method
Value:	597 g

10 TENSILE BEHAVIOUR (ASTM D 882) of the LDPE web

Conditions:	23°C +/- 2°C and 50% +/- 5% relative humidity
Method for determining the failure mass:	Staircase method

	Direction	Yield stress (MPa)	Ultimate tensile stress (MPa)	Elongation at break (%)
Mean	Longitudinal	15	27	565 (32%)
Standard deviation		0.7	2.6	32
Mean	Transverse	14	28.5	771 (40%)
Standard deviation		0.2	2.8	40

PROPERTIES OF THE PACKAGING ACCORDING TO A FIRST EMBODIMENT:

- 5 Flexible container for 12 m³ bulk skip.

Dimensions:	550 x 220 x 125 cm
Inner skirt:	PP, zip closure
Outer skirt:	LDPE, zip closure
Gross weight:	23 kg

EXPERIMENTAL RESULTS OBTAINED FOR THE PACKAGING ACCORDING TO THE INVENTION

TEST	CONDITIONS	Observations
TEST 1 SKIP LINER WITH FLAP	The load used is broken-up concrete (40/80). The packaging weighs 9820 kg.	On the outer web, there is no leakage, no fraying, the contents are completely contained by the packaging. On the inner web, there are visible holes and stretch points without fracture. The holes do not grow, they are connected to the impinging load, the plastic film has good elasticity.
TEST 2 SKIP LINER WITHOUT FLAP	The load used is broken-up concrete (40/80). The packaging weighs 12160 kg. Note: the skip liner has been positioned in the other direction compared to test 1.	The same phenomenon is observed as in test 1. The direction of installation of the sample has no influence on the mechanical performance of the packaging.
TEST 3 SKIP LINER WITH FLAP	The load used is asphalt millings. The packaging was not weighed.	The load moves more than the first load. The outer envelope shows no leakage or fraying. No leakage on the inner liner, the welds hold well, the closure remains in place.

The packaging as described above and tested has various

advantages, including:

- good elasticity of the inner envelope and of the flaps,
- 5 - good mechanical strength of the outer envelope,
- good impact resistance of the closures of the inner and outer envelopes,
- 10 - ease of installation in a skip.

Patentkrav

1. Flexibel emballage (1) til fast affald med en kapacitet på mere end 5 m³, bestående af et mekanisk modstandsdygtigt ydre hylster (2) og et indre hylster (6), idet det indre hylster (6) og det ydre hylster (2) hvert afgrænser en pose (7, 3) og hvert omfatter et låg (8, 4), som kan lukkes på den tilsvarende pose (7, 3) ved hjælp af lukkeelementer, kendetegnet ved, at det indre hylster (6) er støvtæt, samt ved, at emballagen (1) i øvrigt omfatter mindst en klap (9, 26, 27), der strækker sig fra den øvre perifere kant af posen (7) i det indre hylster (6), idet klappen (9, 26, 27) placeres mellem låget (8) til det indre hylster (6) og låget (4) til det ydre hylster (2), når emballagen (1) er lukket, og idet klappen (9, 26, 27) er dimensioneret således, at den dækker lukkeelementerne (23) for det indre låg (8) og er forsynet med elementer til fastgørelse (28) på det indre låg (8), når den er positioneret til at dække lukkeelementerne (23), således at det indre lågs (8) lukning forsegles på den indre pose (7).

20

2. Emballage (1) ifølge det foregående krav, hvori elementet til lukning af et låg på den tilsvarende pose er et lukkeelement med lynlås, idet lukkeelementet (23) for låget (8) til det indre hylster (6) og lukkeelementet med lynlås (10) for låget (4) til det ydre hylster (2) har U-formede profiler med modsat retning.

25

3. Emballage (1) ifølge et af de foregående krav, hvori lukkeelementet (23) for låget (8) til det indre hylster (6) dækkes af en del (17) af posen i det ydre hylster (2), der afgrænses af lukkeelementet (10) for låget (4) til det ydre hylster (2), for at beskytte det mod affaldet, når affaldet tømmes ind i emballagen.

30

4. Emballage (1) ifølge et hvilket som helst af de foregående krav, hvori elementerne til fastgørelse af klapperne (9, 26, 27) på det indre låg (8) omfatter klæbemidler (28), der strækker sig langs den frie kant af hver klap (9, 26, 27).

35

5. Emballage (1) ifølge krav 4, hvori klæbemidlet (28) er af en støvtæt type.
6. Emballage (1) ifølge et hvilket som helst af de foregående krav, hvori klappen eller klapperne (9, 26, 27) udgøres af et materiale med elastiske egenskaber og strækkes, inden de forsegles på lukkeelementerne (23) for låget (8) til det indre hylster (6).
- 10 7. Emballage (1) ifølge et hvilket som helst af de foregående krav, hvori det ydre hylster (2) i øvrigt omfatter en læbetætning, som kan foldes ned på lukkeelementerne (10) for sit låg (4).
- 15 8. Emballage (1) ifølge et hvilket som helst af de foregående krav, hvori posen i det indre hylster (6) på den indvendige side af sin sidevæg omfatter stropper til fastgørelse (31) til en container, af hvilke den ene ende er fastgjort på posens indvendige side, idet den modsatte ende forbliver fri og kan
20 fastgøres til et yderligere fastgørelseselement, der tilvejebringes på den udvendige side af containerens sidevæg.
9. Fremgangsmåde til emballering af fast affald i en fleksibel emballage (1) med en kapacitet på mere end 5 m³ ifølge et hvilket
25 som helst af de foregående krav, kendetegnet ved, at den omfatter:
- et trin med placering af emballagen (1) i det indre volumen af en container i en åben konfiguration af emballagen, hvorved låget (8) til det indre hylster (6), klapperne (9, 26, 27) og
30 låget (4) til det ydre hylster (2) befinder sig uden for den åbning, der afgrænses af posen i det indre hylster (6)
 - et trin med fyldning med affald af mindst en del af det indre volumen af posen i det indre hylster (6)
 - et trin med lukning af låget (8) til det indre hylster (6)
35 over affaldet
 - et trin med forsegling af klapperne (9, 26, 27) over lukkeelementerne (23) for låget (8) til det indre hylster (6),
og

- et trin med lukning af låget (4) til det ydre hylster (2) over klapperne (9, 26, 27).

5 10. Fremgangsmåde ifølge det foregående krav, kendetegnet ved, at den omfatter et trin med opretholdelse af emballagen i den åbne konfiguration ved fastgørelse af de frie ender af de stropper (31), der kommer fra den indvendige væg af det indre hylster (6), på yderligere fastgørelseselementer, der er placeret på den udvendige væg af containeren.

10

11. Fremgangsmåde ifølge et af de to foregående krav, kendetegnet ved, at den omfatter et trin med indsprøjtning af et bindemiddel på overfladen af det affald, der er lagt i det indre hylster (6), inden lukningen af det indre hylster (6) og/eller hældning af et bindemiddel på overfladen af klapperne (9, 26, 27) inden lukningen af det ydre hylster (2) og/eller påføring af en selvklæbende, vandtæt film på overfladen af klapperne (9, 26, 27) i det indre hylster (6) inden lukningen af det ydre hylster (2).

15

FIG 1

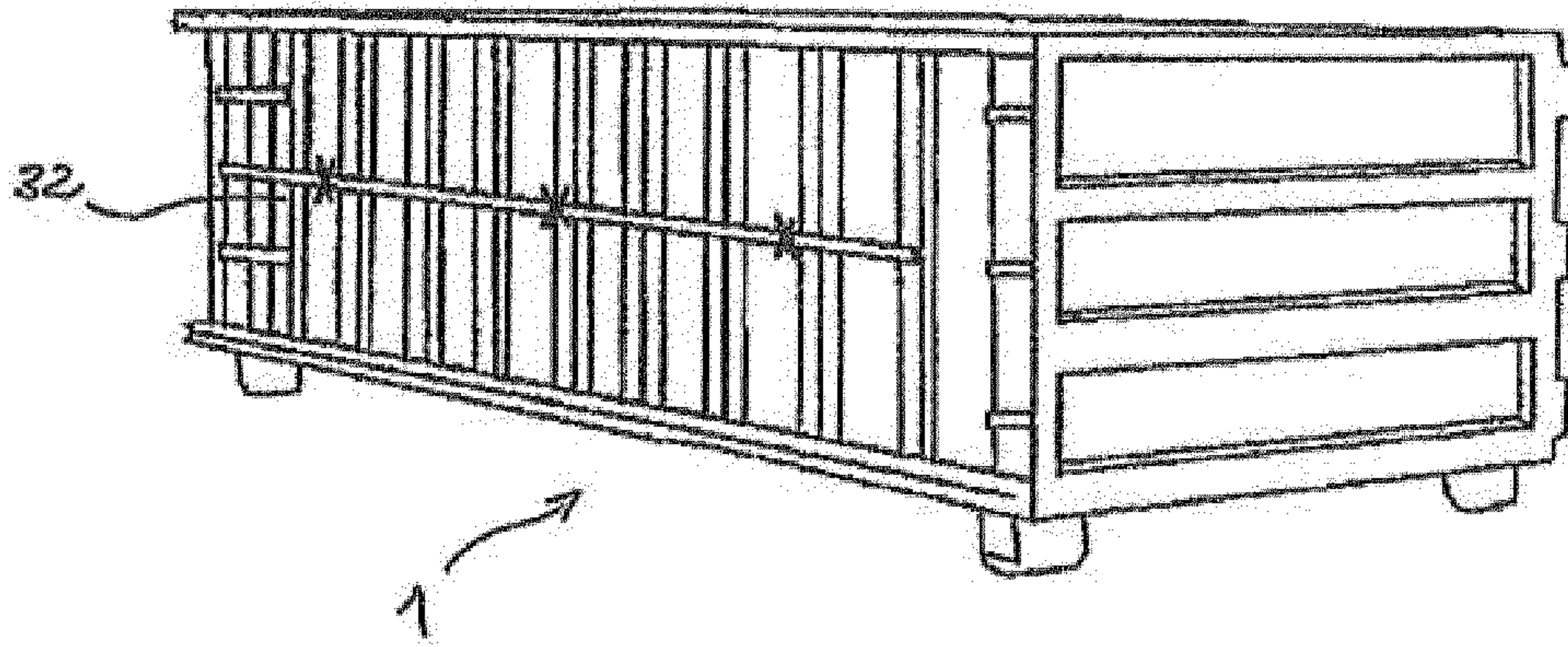


FIG.2

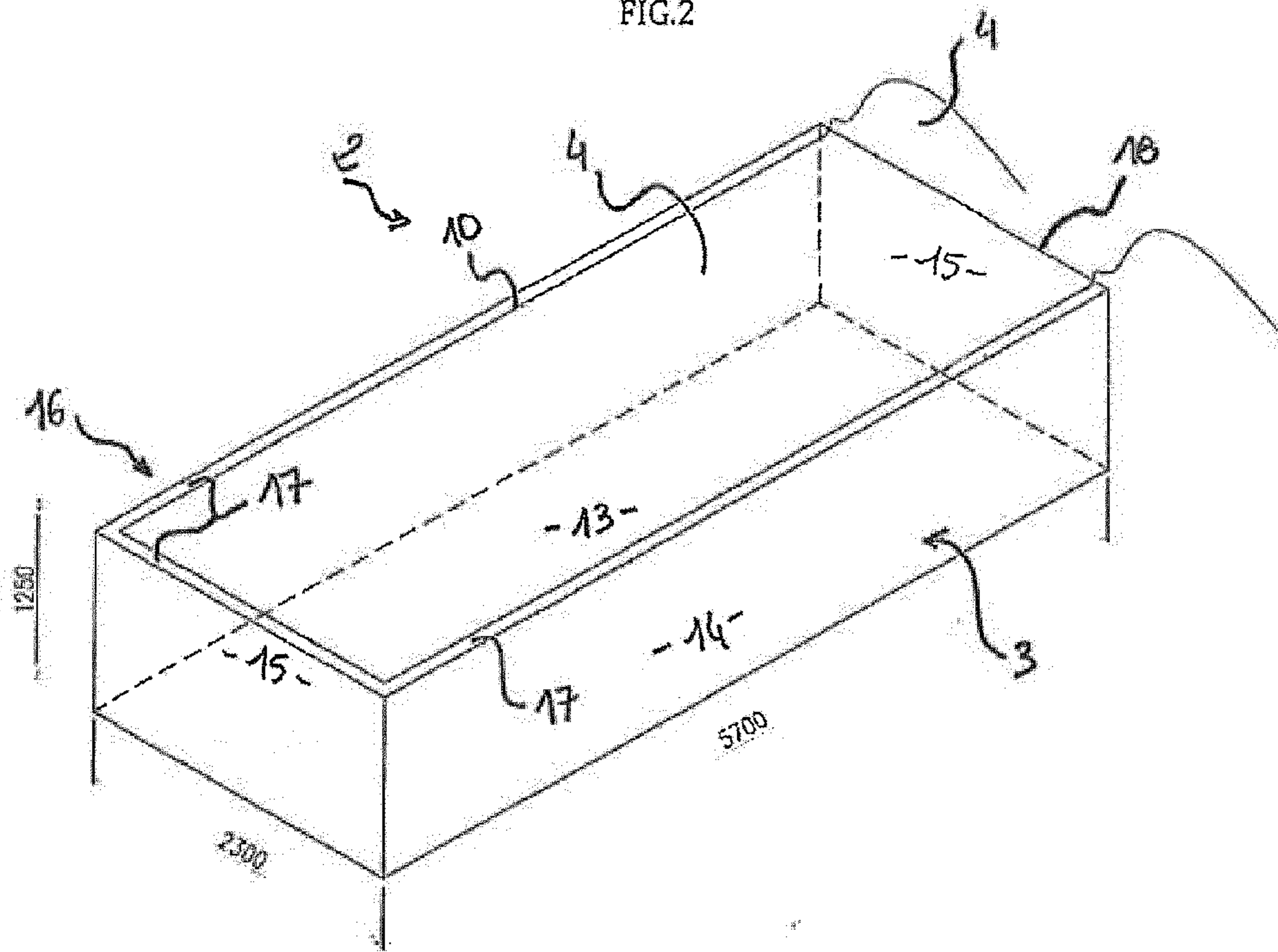


FIG.3

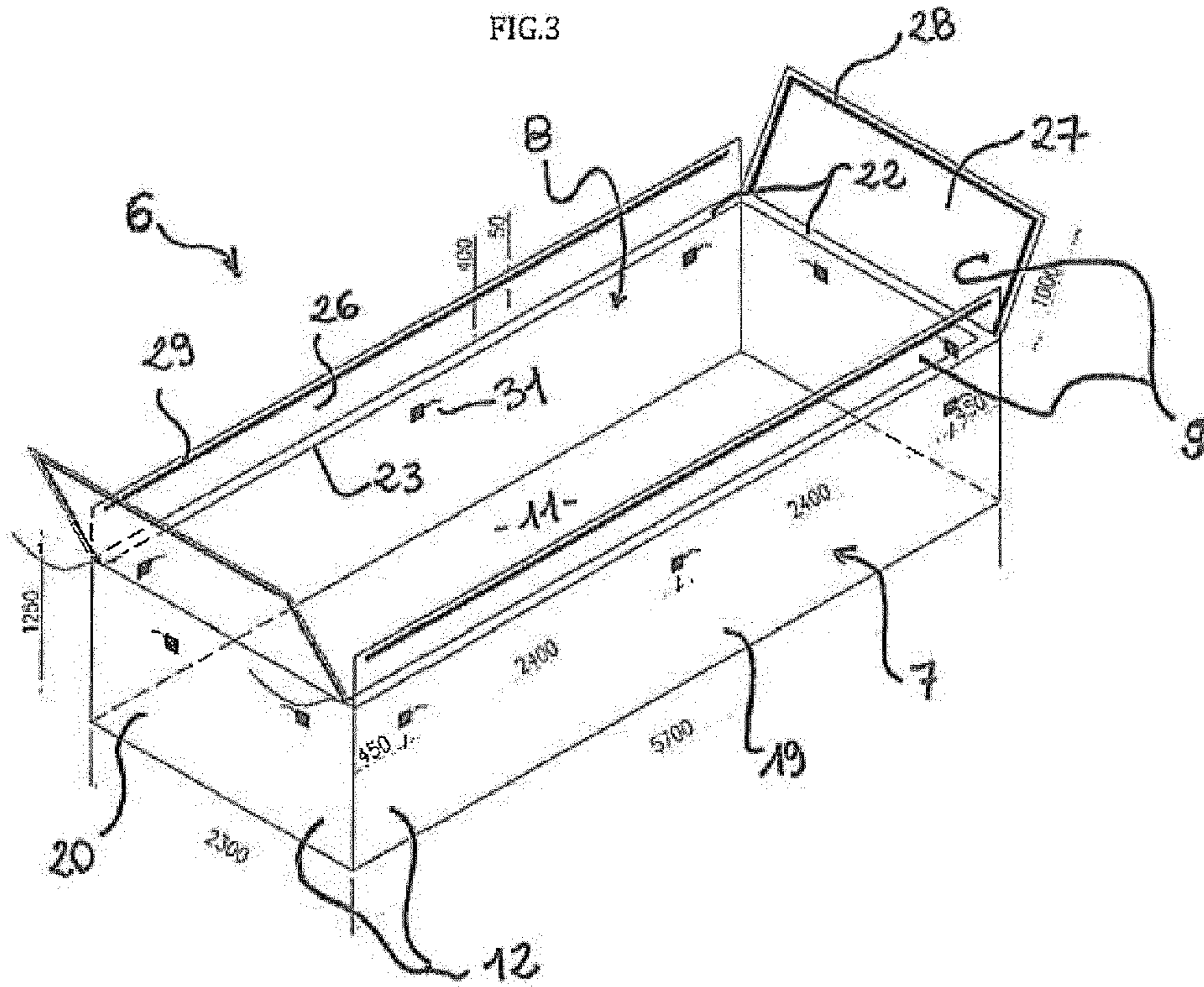


FIG.4

