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(54) Titre : EMBALLAGE
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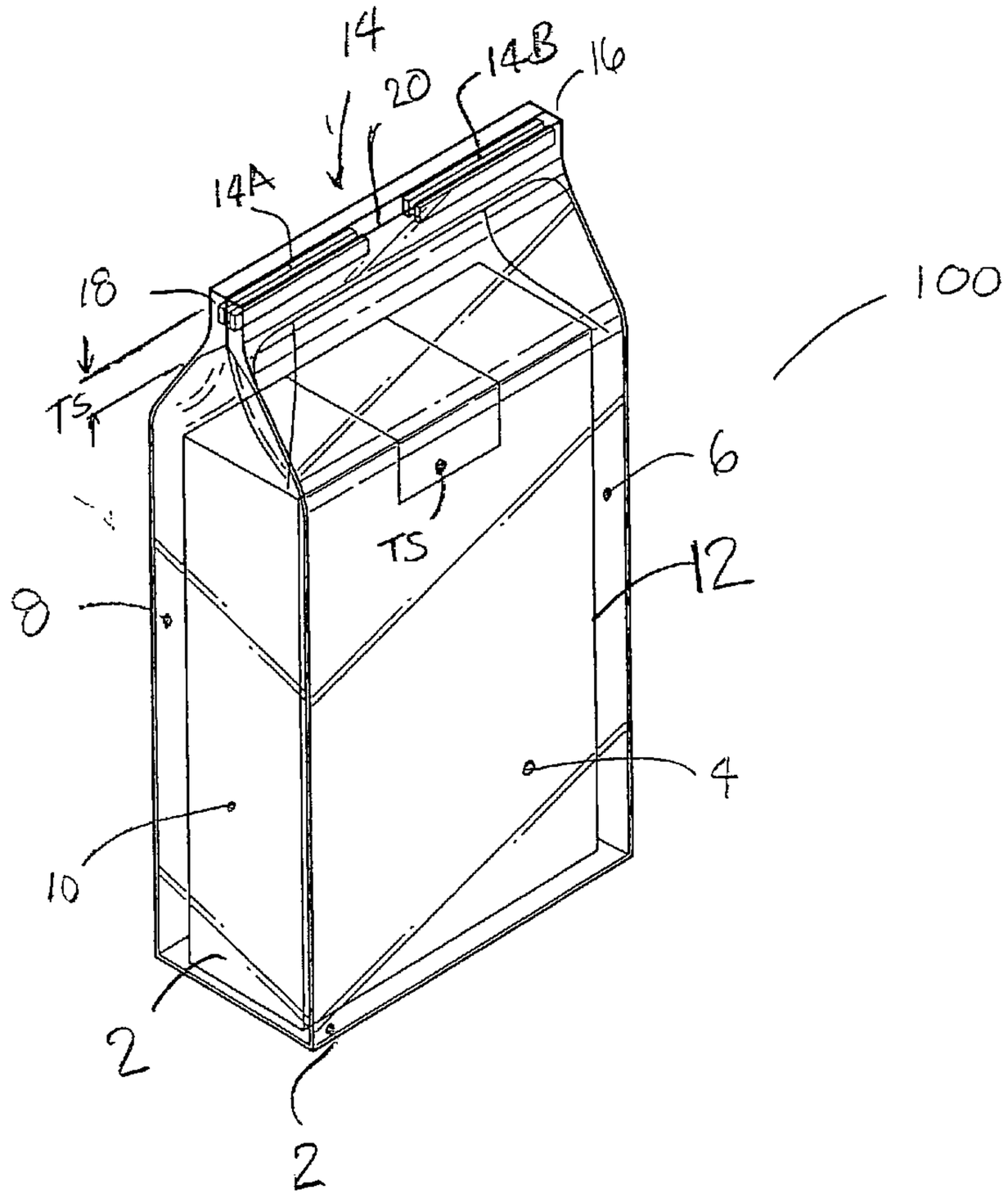

(57) Abrégé/Abstract:
A pliable impermeable container (100) is provided for enclosing and housing tobacco products. The container houses a packet of tobacco related products. The container (100) is re-sealable by sealing means (14A, 14B).

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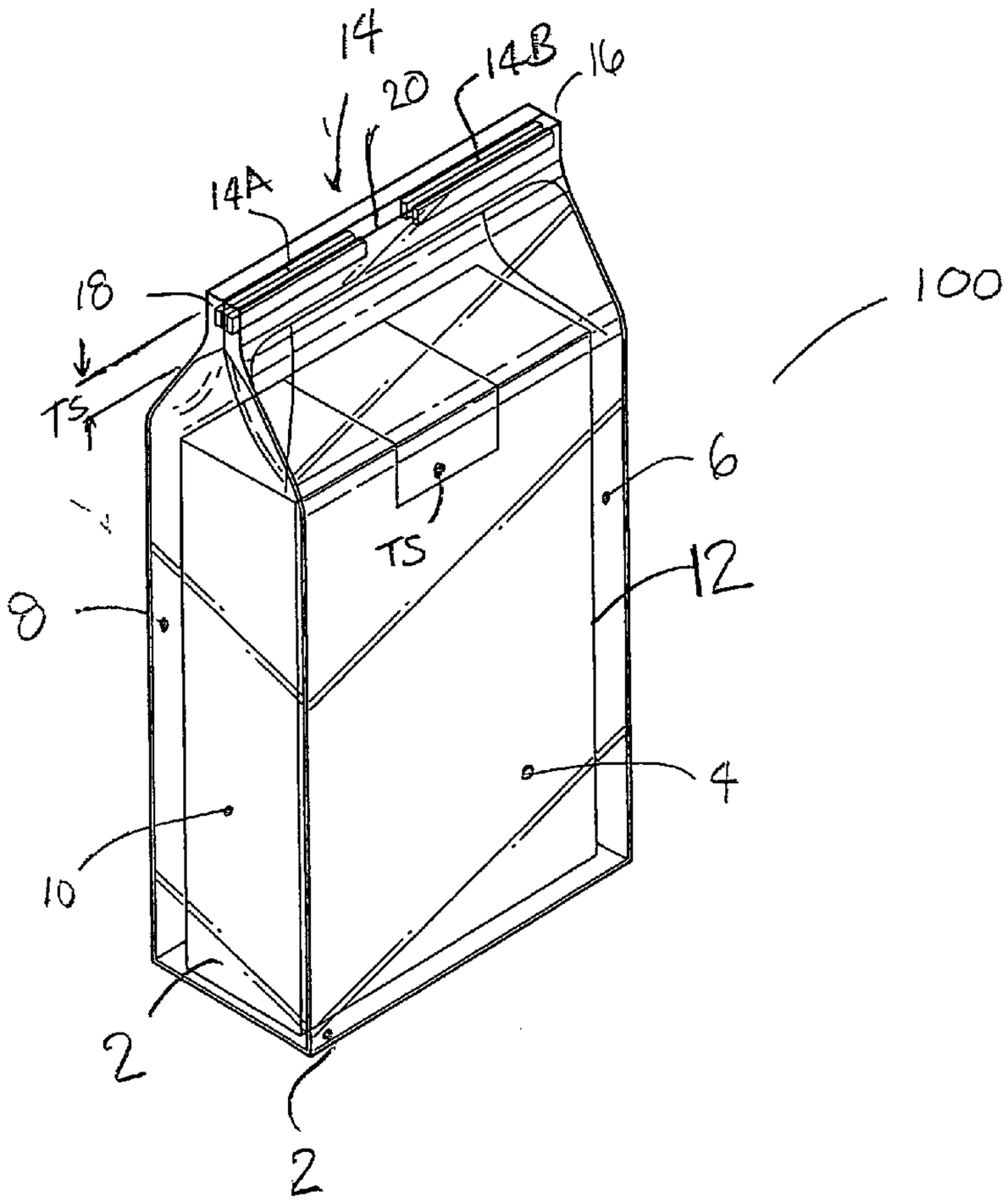
(54) **Title:** CONTAINER WITH MAGNETIC SEALING MEANS



(57) Abstract: A pliable impermeable container (100) is provided for enclosing and housing tobacco products. The container houses a packet of tobacco related products. The container (100) is re-sealable by sealing means (14A, 14B).

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PACK

Field of the Invention

The present invention relates to a container for tobacco related products. Tobacco related products may include, for example, cigarettes, cigars, cigarillos, tobacco or smokeless tobacco.

Background of the Invention

Generally packaging for tobacco related products, such as cigarettes, cigars and cigarillos, is in the form of a cardboard box for containing the smoking articles therein. Such a box may have a hinged lid to close the pack. Alternatively, a slide and shell pack may be used where the cigarettes are held on a tray-like member and are accessed by sliding the tray from the shell surrounding the tray. The slide and shell pack is closed when the tray is enclosed and surrounded by the shell.

Both of the packs described above are generally made from cardboard or stiff paper in the form of a cut blank. The blank is folded to form a packet, and generally the surface that forms the exterior of the formed packet is coated to provide a wipe clean surface, which also assists in reducing the ingress of damp to the cigarettes through the packet, thereby keeping the contents fresh. However, by folding the blank into the structure described above, the structure has overlapping sections which may provide voids through which dampness may enter the packet and cause deterioration of the cigarettes contained therein due to damp.

Summary of the Invention

Accordingly, one embodiment of the present invention provides a pliable, impermeable, container having re-sealable sealing means for closing the container, wherein the container encloses and houses a packet of smoking articles. The pliable impermeable container is sealable such that a (substantially) airtight seal is formed.

The container may be made, for example, of rubber, latex or silicon rubber, and may be translucent or transparent. The container may include printing on at least part of its outer surface (irrespective of whether or not this surface is transparent).

In one embodiment, the container has a rectangular base. Each edge of the base has a panel attached thereto and upstanding therefrom. These panels define a container having a substantially rectangular cross-section. The sealing means may be provided at one end of the container, for example, the end opposite the base.

In one embodiment, closure of the container by the sealing means is effected by the bringing into face-to-face contact end sections of two facing panels, which are used to carry the sealing means. Accordingly, the sealing means on both faces act together to effect closure and to form a (substantially) airtight seal. On closing, the other panels (i.e. without sealing means attached thereto) deform by folding into the container to effect (substantially) airtight sealing.

In one embodiment, closure of the container by the sealing means is magnetic closure, and the sealing means comprises one or more magnets located on each of the two opposite panels, proximate the end of the container. The two facing panels carrying the magnet(s) are typically those panels upstanding from the longer edges of the rectangular base. The placement of the sealing means (magnets) near the ends of those panels reduces the possibility that closure of the pack may damage the smoking articles contained inside. In addition, the amount of material used in producing the container may be reduced.

The magnet(s) may be attached to the interior surface of the two opposing panels such that the magnetic surface is exposed and closure is effected by magnet-to-magnet contact. For an (almost) airtight seal using magnet-to-magnet contact, in one embodiment the one or more magnets may extend along substantially the whole width of the panel. In another embodiment, the magnet(s) may be embedded in the material forming the container, such that closure is effected by face-to-face contact of the interior surfaces of the two panels. For a substantially airtight seal using face-to-face

contact, the magnet(s) may extend over part or the whole width of the panel. In one particular embodiment, the sealing means for face-to-face sealing comprises two bar magnets arranged with a space between them on each of the two opposite facing panels. The space between the magnets provides a magnet free zone/void.

Providing a magnet free zone/void may assist in opening the closed container. For example, opening may be effected by inserting an implement such as a fingernail between the two panels at the location of the magnet free zone/void to break the magnetic seal. Alternatively, a transverse load can be applied to the ends of the sealed section such that the seal breaks at the magnet free zone/void (this will then simultaneously break the magnetic contact).

The package of tobacco products may be formed from any suitable packing material, such as paper, card or film. The package may be a conventional pack for smoking articles, such as a hinged-lid pack for cigarettes. The package may be made of foil or foiled paper, and may be further wrapped in cellophane.

A further aspect of the present invention provides a pliable, impermeable, container having re-sealable sealing means for closing the container. The container may be used for enclosing and housing tobacco products.

Further particular and preferred aspects of the present invention are set out in the claims. Features of the dependent claims may be combined with features of the independent claims as appropriate and in combinations other than those explicitly set out in the claims.

Brief Description of the Drawings

Embodiments of the present invention will be described by way of example only with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a transparent container containing a packet of cigarettes in accordance with one embodiment of the invention;

Figure 2 is a front view of the container of Figure 1;

Figure 3 is a side view of the container of Figure 1;

Figure 4 is a plan view of the top of the container of Figure 1;

Figure 5 is a plan view showing the base of the container of Figure 1; and

Figures 6A to 6C illustrate the form of the container when open (Figure 6A), the form of the container when partially closed (Figure 6B) and the form of the container when closed (Figure 6C).

Detailed Description

Referring to Figures 1 to 5, the container 100 is intended to hold a bundle of smoking articles, such as cigarettes, where the bundle is wrapped in foiled paper to form a package 12. In the example shown the package 12 is wrapped in a cellophane outer wrapper. In another embodiment, the bundle of smoking articles may be arranged in a conventional cigarette packet and inserted in the container 100.

The container 100 is made of a transparent impermeable material such as rubber, silicon or latex, which is pliable to the touch. The container 100 has a substantially rectangular cross-section as shown by the form of the base 2 illustrated in Figure 5. Upstanding from the edges of the base 2 there are four substantially rectangular panels 4, 6, 8, and 10. The opposing front and rear panels 4, 8 of the container 100 are substantially the same in height (length) and width, and both are slightly higher than the two opposing side panels 6 and 10. The difference in height of the front and rear panels 4, 8 relative to the side panels 6, 10 corresponds to the top section TS, which is the section that provides the sealing closure for the container 100.

The container 100 is higher than the package 12 inside. The difference in height of the container 100 relative to the package 12 contained inside is such that the container 100 can be closed by bringing the top section TS of the interior faces of the front and rear panels 4 and 8 into contact with each other, while also avoiding the application of pressure to the package 12 and the smoking articles contained inside.

In the example shown in Figure 1, the package 12 of cigarettes has a height of 86mm, a width of 53mm and a breadth of 18mm. The container 100, which is suitable for holding the package 12, has front and rear panels 4 and 8, which are 113mm high, and side panels 6 and 10, which are 105mm high. The width of the container 100 is 60mm and the breadth is 30mm. It will be appreciated that the dimensions of the container 100 are suited to the size of the package to be contained inside and as such the dimensions given above are not intended to be limiting. The container may be dimensioned appropriately to contain more than one package arranged side-by-side and/or stacked.

The difference in height of the container 100 relative to the package 12 generally at least matches the breadth of the container 100, which in the example illustrated is 30mm. In another embodiment, the difference in height of the container 100 relative to the package 12 is expressed by a formula in terms of the breadth dimension of the package 12 contained inside. The difference may be expressed as at least the square root of the sum of half the breadth of the package squared and the breadth of the package squared.

The attainment of an (almost) airtight seal and neat closure is assisted by the arrangement of the moulding of the container material at the top section TS where the side panels 6, 10 and the front and rear panels 4, 8 join. Referring to figures 6A to 6C, the profile, in cross-section of the moulding at the top section TS is in the form of a triangle TR on both the front and rear panels 4, 8, adjacent to the region where they join the side panels 6, 10. Where the side panels 6, 10 join the front and rear panels 4, 8, each top edge of the side panels 6, 10 is formed with radius R at its ends. Movement of the front and rear panels 4, 8 towards each other to effect closure causes the side panels 6, 10 to fold into the container 100 (see Figure 6B), thereby helping to provide a neat and (almost) airtight closure.

A closure member 14 is provided at the top section TS of each of the front and rear panels 4 and 8. In one embodiment, magnets arranged in the top section TS of the front and rear panels 4 and 8 provide the closure member 14. One or more magnets

14A and 14B on each face may be used to achieve closure. Each magnet may be provided on substantially the whole width of the face to which it is applied or across part of the width. Magnet(s) may be attached to the surface of each face. In one particular embodiment, magnets 14A and 14B are embedded in the material forming the container 100.

In the example illustrated, each of the panels 4 and 8 has two bar magnets 14A, 14B embedded in the material forming the top section TS of container 100. The magnets 14A and 14B of each panel are spaced apart from one another to define gap 20. Having the magnets embedded into the material of the container 100 helps to achieve an (almost) airtight seal when closing the container through face-to-face contact near to the two edges of the two panels 4 and 8.

In another example (not illustrated) the closure member 14 is not embedded, but instead is fixed at the top section TS to the interior surfaces of the front and rear panels 4 and 8 such that on closure magnet-to-magnet contact is achieved. In this example the magnet(s) may extend across the whole width of the top section TS of the front and rear panels 4 and 8 to provide an almost airtight seal.

As the top sections TS of the front and rear panels 4 and 8 are brought together, the magnetic attraction/pull of the magnets 14A and 14B assists in closing the container to provide an (almost) airtight seal. On closing, the top section of each side panel 6, 10 deforms inwardly to assist in providing the (almost) airtight seal, whilst also forming a neat closure.

The upper end of the container 100 deforms on closing the container and when viewed from the direction of the side panels 6 and 10 it takes the form of a triangle (see Figures 1, 3 and 6C). Due to the form and the arrangement of the moulding and the shaped edges at the top of the front, rear and side panels 4, 6, 8, 10, together with magnets 14Aand 14B, closure of the container 100 is effected almost automatically by applying even a very slight touch to one or both of the front and rear panels 4, 8 near the top of the package.

Prising the top section TS apart by, for example inserting the tip of a fingernail or the like into the junction of the magnets or into the gap 20, breaks the magnetic seal and thus opens the container 100. Alternatively, opening the closed container 100 may be effected by simultaneously pushing on, and towards each other, the ends 16 and 18 of the closed end, which correspond with the sides of the container 100. The application of load P along the closed end by pressing on ends 16 and 18 causes the panels 4 and 8 to separate at the gap 20 in the direction P' (see Figure 5). Separation at the gap 20 causes simultaneous separation at the magnets 14A and 14B on each panel, thus opening the container 100.

The container 100 may be printed/decorated with indicia, badges and/or other matter, including relevant brand information. Alternatively, or in addition, the package 12 of smoking articles may be decorated with indicia, badges, advertisements etc., which would be viewable through the transparent or translucent outer cover provided by the container 100.

In the examples shown (see Figures 1 to 5), the package 12 is a bundle comprising twenty (20) cigarettes, which are wrapped in aluminium foiled paper. The package 12 has a folded top, which has a tape seal T applied for removal by the consumer such that the package 12 is opened to allow access to the cigarettes therein. The package may also be wrapped in an outer wrapper made of cellophane. In one embodiment, the cigarettes are removed from the foiled package 12, without the need to remove the whole package 12 from the container 100.

The package 12 may be any package containing tobacco-related products, including hinge-lid packets, slide and shell packets, and pouches containing, for example, tobacco or smokeless tobacco. The container 100 is formed from pliable material such as rubber, latex or silicon rubber. The container 100 may be made by moulding. Alternatively, the container may be made by folding sheet material. Individual sheets may be used to provide each panel, where the sheets are joined together at respective edges to form the container.

The example of the container 100 as illustrated in Figures 1 to 6 has rectangular edges, but the invention may be employed with edges of other shapes. For example, the edges adjoining the front, rear, side and bottom panels of the container may be rounded, bevelled or elliptical, or they may take another form including those known in the art.

CLAIMS

1. A pliable, impermeable, container having re-sealable sealing means for closing the container, said container enclosing and housing a packet of smoking articles.

2. The container of claim 1, wherein the sealing means is provided at one end of the container.

3. The container of claim 1 or 2, wherein the container has a substantially rectangular base, each edge of the base having a panel attached thereto and upstanding therefrom to provide a substantially rectangular cross-section for the container, and wherein the sealing means is provided at the end of two facing panels remote from the base.

4. The container of claim 3, wherein the container is closed by bringing into face-to-face contact end sections of said facing panels that have the sealing means.

5. The container according to claim 3 or 4, wherein said facing panels that have the sealing means are those panels upstanding from the longer edges of the rectangular base.

6. The container according to any one of the preceding claims, wherein the sealing means comprises one or more magnets.

7. The container according to claim 6, wherein the one or more magnets are located in corresponding positions on each of the facing panels.

8. The container according to claim 7, wherein the one or more magnets are fixed to the interior surfaces of the container at said corresponding positions.

9. The container according to claim 7, wherein the one or more magnets are embedded in the material of the container at said corresponding positions.

10. A container according to any one of claims 7 to 9, wherein the one or more magnets extend across the width of the panel to which they are attached.

11. A container according to any one of claims 7 to 9, wherein the one or more magnets extend partially across the width of the panel to which they are attached.

12. A container according to any one of the preceding claims, wherein closure is effected by touching the container in a region coincident with or above a top edge of the packet contained inside.

13. A container according to any one of the preceding claims, wherein the container comprises rubber, latex or silicon rubber.

14. A container according to any one of the preceding claims, wherein the container is transparent or translucent.

15. A container according to claim 14, wherein the packet is made from material comprising foil.

16. A pliable impermeable container for enclosing and housing tobacco products, said container having re-sealable sealing means for closing the container.

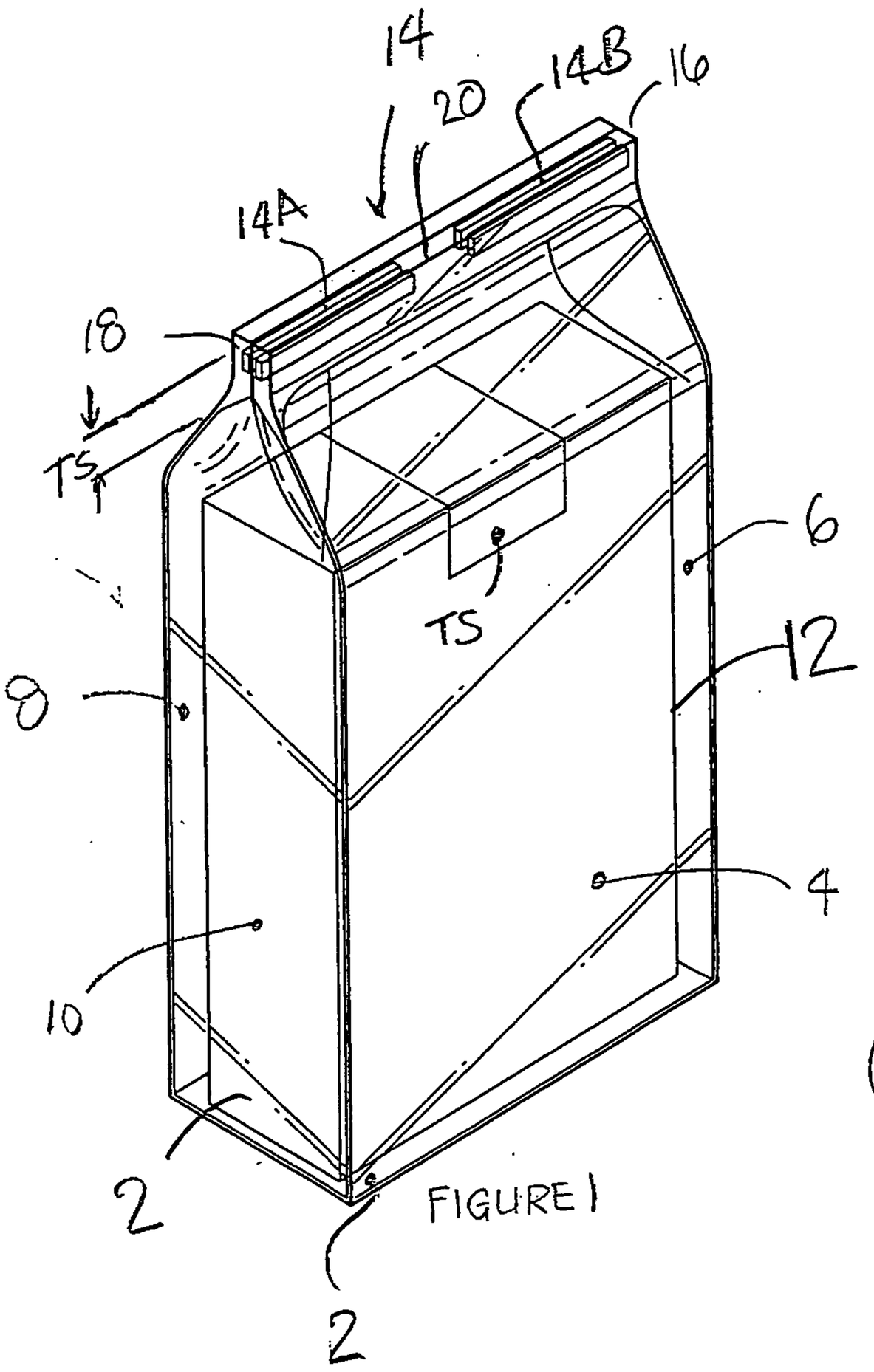


FIGURE 1

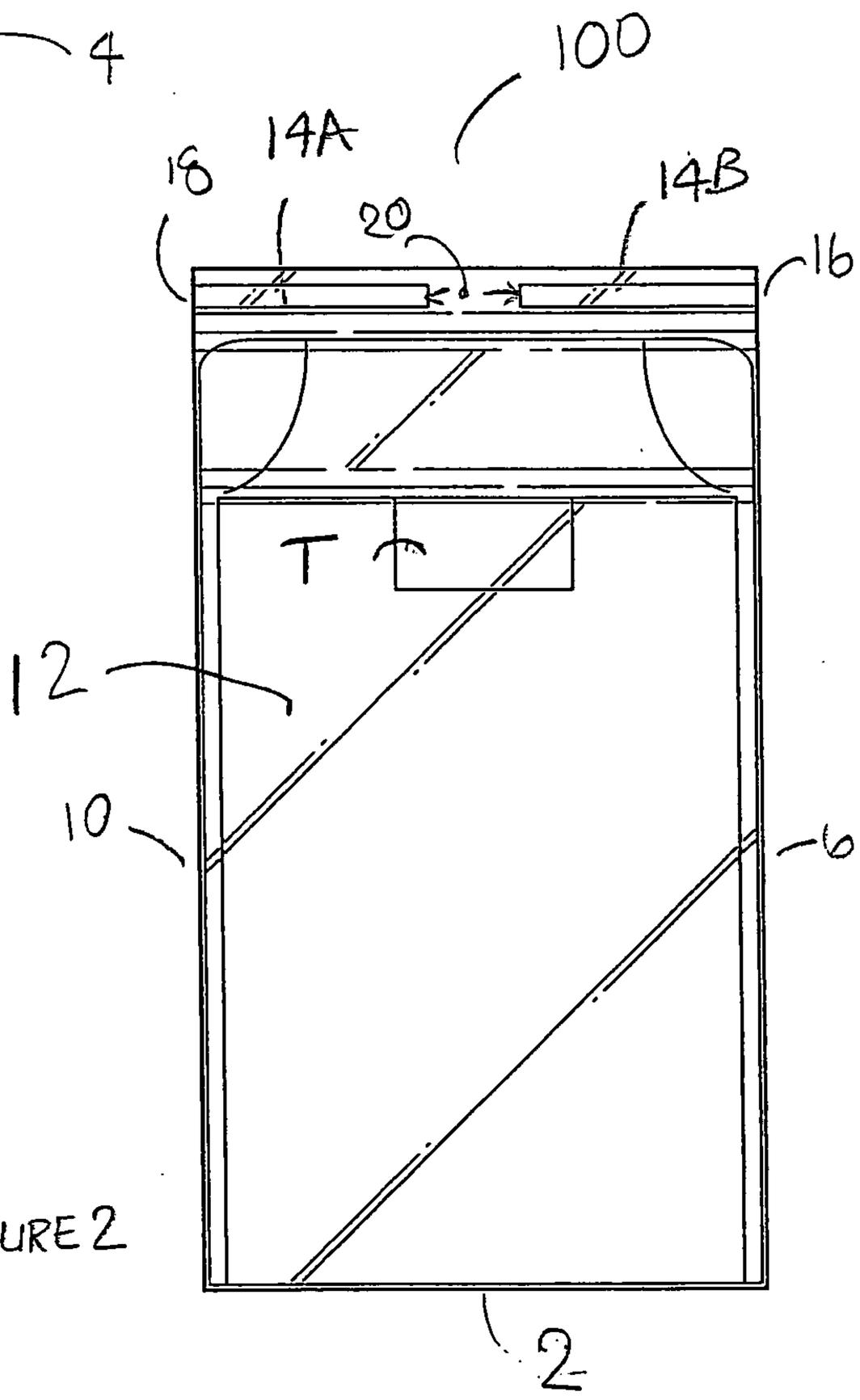
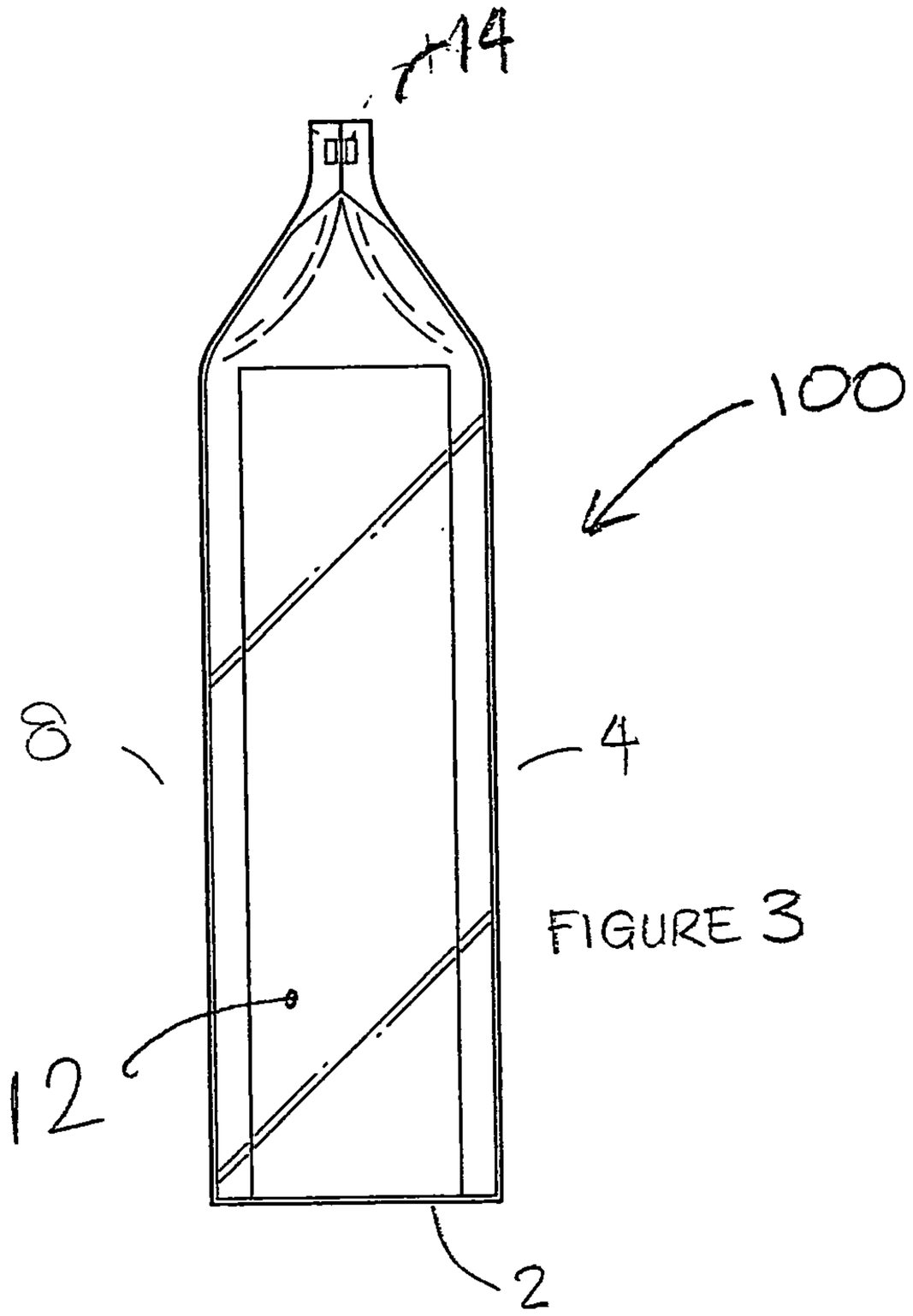


FIGURE 2



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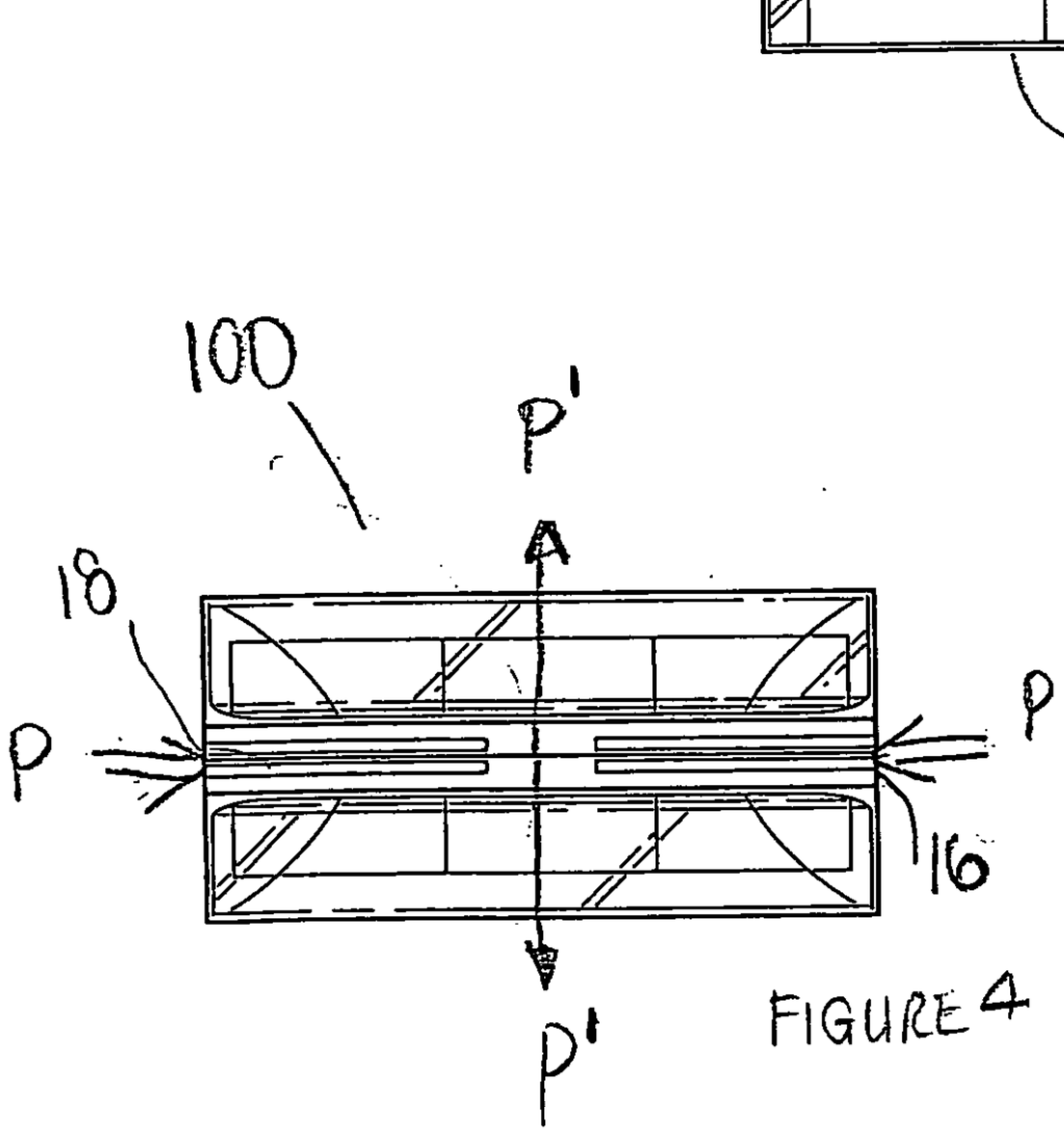


FIGURE 4

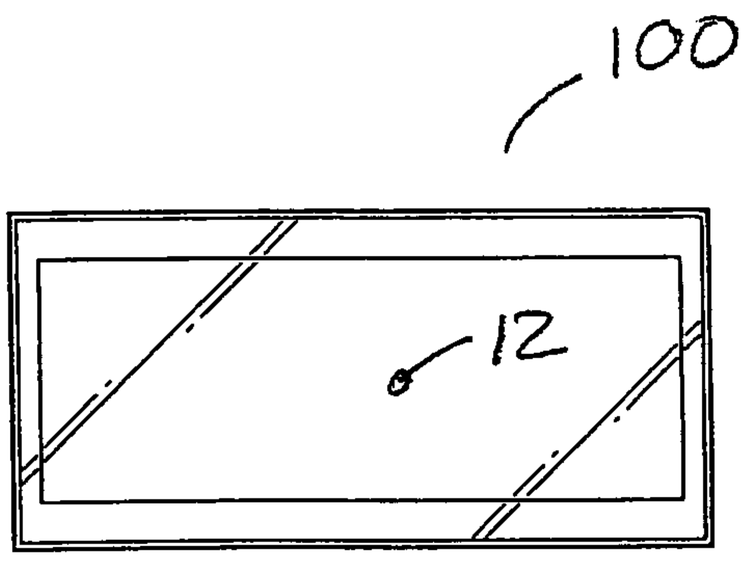


FIGURE 5

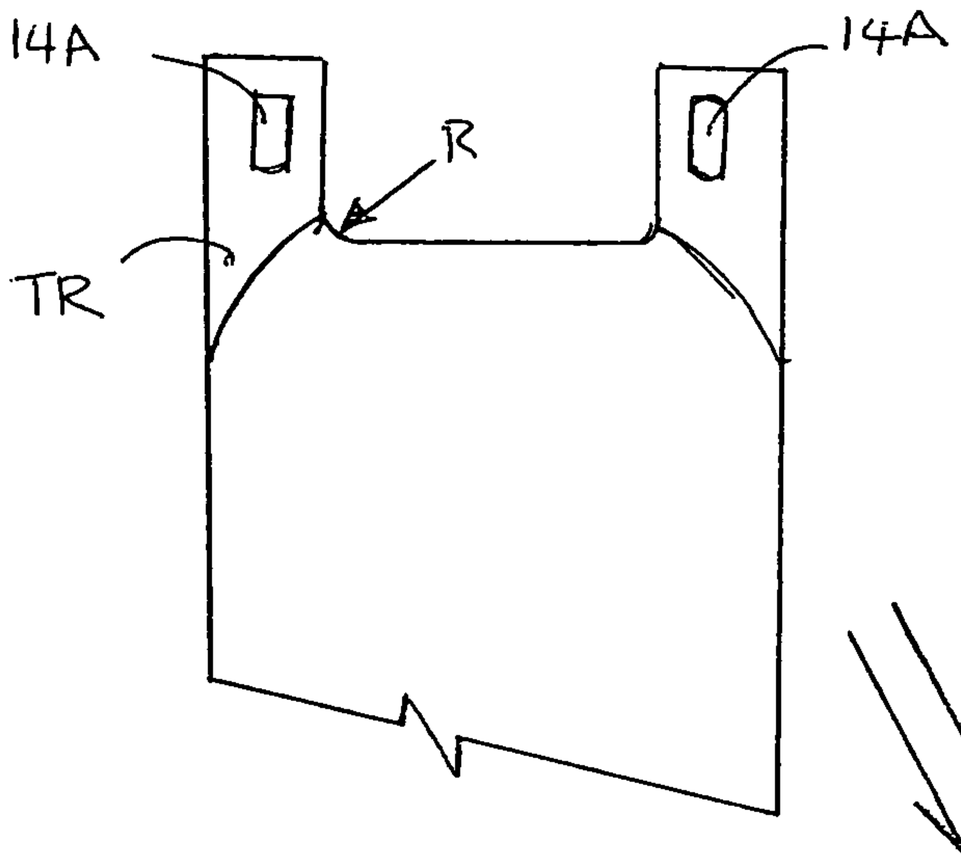


FIGURE 6A

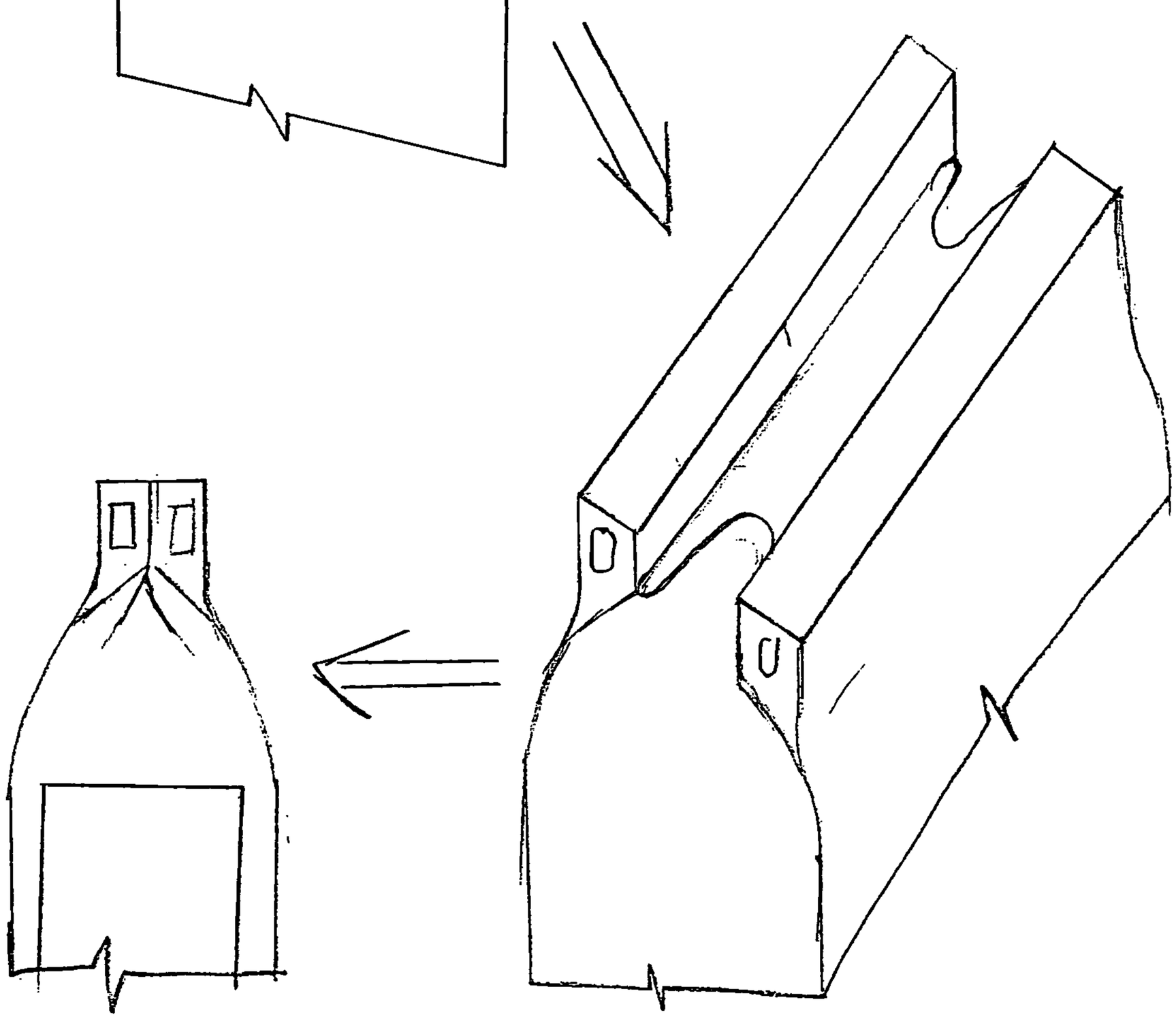
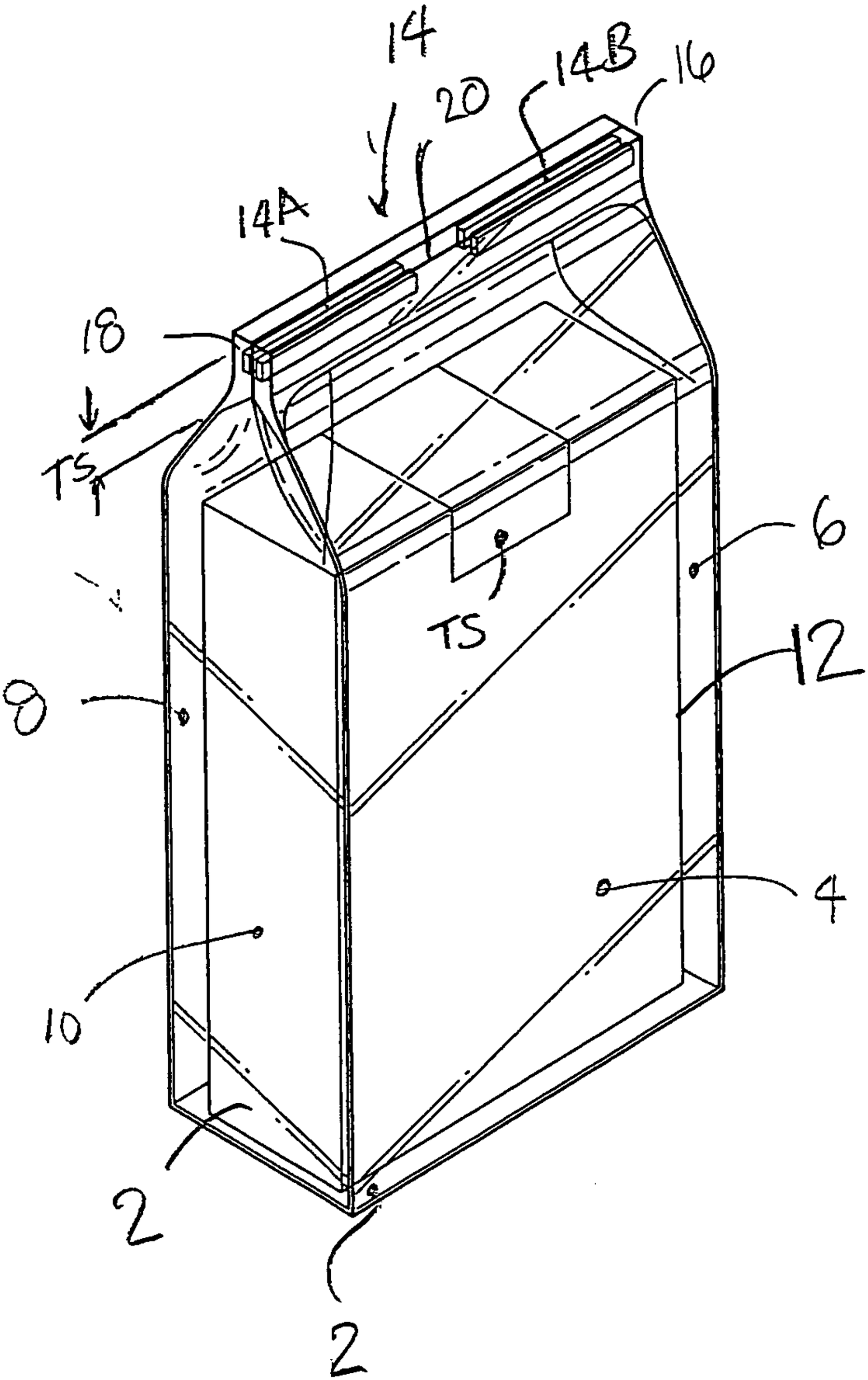


FIGURE 6C

FIGURE 6B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14A
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