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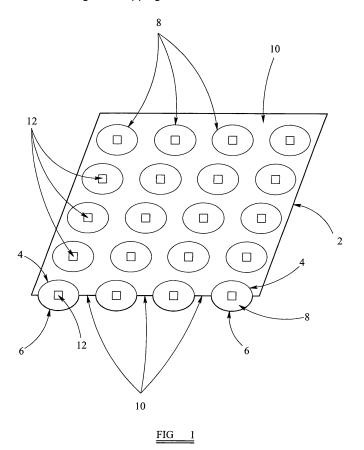
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(71) Applicant: Grant, Susan Emley, Huddersfield HD8 9SF (GB) (72) Inventor: Grant, Susan Emley, Huddersfield HD8 9SF (GB)

(74) Representative: Hutter, Anton et al Marks & Clerk43 Park PlaceGB-Leeds LS1 2RY (GB)

(54) Wrapping material

(57) The invention provides a wrapping material comprising at least two flexible layers attached to each other such that at least one pocket is formed therebetween, wherein the at least one pocket contains at least one article. The wrapping material may be used as a gift wrap to wrap any article, and especially presents. The invention provides apparatus and methods for manufacturing the wrapping material.



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Description

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[0001] The present invention relates to wrapping materials and particularly, although not exclusively, to gift wraps. The invention extends to the use of the wrapping materials to wrap an object, and to methods of manufacturing the same.

[0002] It has been a long-standing tradition for people to wrap gifts so as to conceal a gift until it is time to unwrap it. Currently, gifts tend to be conventionally wrapped in decoratively patterned, or opaque wrapping paper, so as to effectively hide the gift.

[0003] It is an aim of embodiments of the present invention to provide an improved wrapping material that, in addition to merely concealing and decorating an object, the material also provides protection to the wrapped object.

[0004] According to a first aspect of the present invention, there is provided a wrapping material comprising at least two flexible layers attached to each other such that at least one pocket is formed therebetween, wherein the at least one pocket contains at least one article.

[0005] Preferably, the wrapping material is adapted to be used for wrapping any object. Hence, preferably, the wrapping material is referred to as a gift-wrap, and may be used to wrap gifts or presents, for example, birthday presents, Christmas gifts, or wedding gifts etc. The wrapping material may be provided as individual sheets, or on a roll.

[0006] The dimensions of the wrapping material may vary in width depending on the object to be wrapped. However, it is preferred that the wrapping material is between about 5 cm to 200 cm, preferably, between about 10 cm to 150 cm, more preferably, between about 15 cm to 100 cm, and most preferably, between about 20 cm to 75 cm in width. Advantageously, and preferably, the wrapping material is sufficiently thin to allow it's use when wrapping objects. Therefore, preferably, the width of the wrapping material is between about 1mm to 50mm, more preferably, between about 5mm to 40mm, and most preferably, between about 10mm to 30mm.

[0007] Preferably, at least one of the flexible layers is substantially transparent, and is preferably adapted to allow light to pass therethrough. Preferably, the flexible layer comprises a substantially clear and/or colourless material. Preferably, at least one of the flexible layers is substantially opaque, and is preferably adapted to prevent light from passing therethrough. Preferably, the layer is substantially coloured, patterned and/or printed.

[0008] In use, when the wrapping material is wrapped around the object, one of the flexible layers forms an inner layer, and the other of the flexible layers forms an outer layer. Hence, preferably, the outer layer is substantially transparent. Advantageously, this allows a user to view the at least one article contained within the at least one pocket, thereby adding to the entertainment value of the gift receiving experience. Preferably, the inner layer is substantially opaque. Advantageously, this ensures that the user is unable to see the object when it is wrapped with the wrapping material. In addition, this has the advantage of protecting light-sensitive objects.

[0009] Preferably, the at least one pocket (or pouch) is defined by a region where the flexible layers are unattached to each other. Preferably, the region is surrounded by a margin or seam where the layers are attached to each other. Preferably, in use, the at least one pocket is adapted to provide protection to the object that is wrapped with the wrapping material.

[0010] Preferably, the two layers are attached to each other such that a plurality of pockets are formed therebetween. Hence, preferably, each pocket is surrounded by a margin. Advantageously, and preferably, the margin between each pocket is sufficiently wide to enable the wrapping material to be cut into smaller sheets, to enable the neat wrapping of gifts without opening or disrupting the individual pockets. In addition, preferably, the margin is sufficiently wide to give the wrapping material flexibility when in use. Preferably, the margin between each pocket is between about 0.1mm to 150mm wide, more preferably between about 0.5mm to 100mm wide, even more preferably, between about 2mm to 8mm wide.

[0011] The flexible layers may be attached to each other by adhesive. However, preferably, the flexible layers are heat-sealable, wherein the two layers are attached together upon the application of heat, preferably along the margins. The layers may therefore comprise thermoformable film. Alternatively, the flexible layers may be non-heat sealable. For example, the flexible layers may be sealed together by pressure, i.e. the two layers are compressed together with sufficient force such that they adhere to each other, preferably along the margins. Preferably, upon sealing the two layers together a laminate structure is formed. At least one of the layers may be permeable or porous, and preferably gas permeable.

[0012] Suitable materials for each layer will be known to the skilled technician. Preferably, the flexible layers comprise plastic material, for example, polypropylene, Orientated Polypropylene Pearlised film, polyethylene, PVC, PVDC, or acrylic.

[0013] It will be appreciated that the shape and size of the at least one pocket or pouch may vary. Hence, the at least one pocket may have a cross-section which is substantially circular, semi-circular, square, rectangular, or triangular. However, it will be appreciated that the pocket may have almost any shape, depending on the article contained therein. **[0014]** Preferably, the or each pocket is between about 0.1cm - 30cm in diameter at it's widest section, more preferably, between about 1cm to 20cm wide, and most preferably, between about 3cm to 10cm across at it's widest section. The or each pocket is preferably between about 0.1 cm - 5cm deep, more preferably, about 0.5cm - 3cm deep, and even

more preferably, about 0.8 - 2cm deep. By the term "deep", we mean the dimension of the pocket or pouch in an axis perpendicular to the plane of the wrapping material.

[0015] It will be appreciated that the at least one pocket contains any article. Hence, it is preferred that the at least one article is smaller than the pocket so that it fits therein. Preferably, the article is sufficiently small such that it enables the wrapping paper to be wrapped around the object. If the article is too large, wrapping may not be possible. Preferably, the article is substantially smaller than the width o.f the pocket. It is especially preferred that the article is not longer than about 80% of the width of the pocket, more preferably about 60% of the width of the pocket, and even more preferably, about 40%.

[0016] For example, the article may be a novelty item, for example, confectionary, jelly beans, sweets, nuts, bolts, erasers, tiny toys, small individual toiletries or small quantities of toiletry granules/powders, folded notes, coins, buttons, earrings, jewellery, small gifts, confetti, wedding gifts etc.

[0017] The inventors carried out further research into the wrapping material of the first aspect. They realised that it was possible to encase or encapsulate the article in individual wrapping means. Hence, in one embodiment, the or each article may be independently wrapped in wrapping means. The wrapping means provides an additional seal around the or each article, which is particularly advantageous when the article is food, such as confectionary, as it will extend the life-span of the wrapping material. The wrapping means may comprise a covering, such as a plastic wrapping.

[0018] In one embodiment, either one or both of the flexible layers of the wrapping material may comprise at least one pictographic image or pictogram. The image may be printed on either or both flexible layer, or it may already be present thereon prior to manufacture of the wrapping material. The wrapping material may comprise a plurality of spaced apart, distinct images. Examples of suitable pictographic images include a train, a carriage, a vehicle, or a person, an animal etc. The or each article is preferably positioned in the wrapping material so that it is aligned with the or each pictographic image. Hence, for example, the article may comprise a sweet which is positioned inside a picture of a train, person, or animal. The combination of the articles with the pictograms increases the enjoyment factor of using the wrapping material, especially for children.

[0019] According to a second aspect of the present invention, there is provided apparatus for manufacturing wrapping material according to the first aspect, the apparatus comprising scaling means adapted in use to seal the flexible layers together.

[0020] Preferably, the apparatus may comprise at least two sealing means, each having an array of raised and lowered portions. Preferably, the raised portions comprise ridges, and preferably, the lowered portions comprise indentations. Hence, preferably, the sealing means comprise an array or gridwork of ridges and indentations extending along the surface profile of the sealing means. Preferably, the apparatus comprises means to heat the raised portions in the sealing means. Alternatively, the sealing means may be adapted to seal the flexible layers by pressure.

[0021] Preferably, the sealing means are coupled together by a hinge. Preferably, at least one of the sealing means comprises a handle, by which the sealing means may be urged together about the hinge. The apparatus may comprise means to retain the sealing means substantially adjacent each other.

[0022] Preferably, in use, a first flexible layer is placed on a first sealing means. Preferably, an article is placed on the first flexible layer in the indentation. Preferably, a second flexible sheet is then placed on top of the first flexible sheet. Preferably, in use, a second sealing means is urged so that it is adjacent, and preferably contacts the first scaling means. Preferably, the raised portions in the sealing means are heated, and upon heating the raised portions, the first and second layers are sealed together thereby forming a margin therebetween. Alternatively, the sealing means are compressed together with sufficient pressure until they seal together. Preferably, in use, the indentations in the sealing means form the at least one pocket between the two flexible sheets in the wrapping material.

[0023] According to a third aspect, there is provided a method of manufacturing wrapping material according to the first aspect (preferably, using the apparatus according to the second aspect), the method comprising the steps of :-

- (i) placing a first flexible sheet on a first sealing means;
- (ii) placing an article on the first flexible sheet in a lowered portion of the sealing means;
- (iii) placing a second flexible sheet over the first flexible sheet;
- (iv) bringing the first and second sealing means substantially adjacent each other; and
- (v) sealing the first and second sheets together.

[0024] Preferably, the sealing is achieved by heating the raised portions of the sealing means. The temperature for heat sealing the flexible sheets together is between about 20°C to 100°C, and more preferably, between about 30°C to 50°C. Alternatively, the sealing may be achieved by compression therebetween. During the manufacture of the wrapping material, the articles may be inserted either automatically or manually.

[0025] According to a fourth aspect of the present invention, there is provided use of the wrapping material according to the first aspect, as a gift wrap.

[0026] According to a fifth aspect of the invention, there is provided a method of manufacturing wrapping material, the

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method comprising the steps of :-

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- (i) forming a wrapping material precursor comprising at least one article disposed between a first flexible, gaspermeable layer, and a second flexible layer; and
- (ii) extracting gas present in the wrapping material precursor, such that the first and second layers bind together thereby entrapping the article therebetween to form wrapping material.

[0027] According to a sixth aspect of the present invention, there is provided apparatus for manufacturing wrapping material, the apparatus comprising:-

- (i) means for preparing a wrapping material precursor, which precursor comprises at least one article disposed between a first flexible, gas-permeable layer, and a second flexible layer; and
- (ii) means for extracting gas present in the wrapping material precursor, such that the first and second layer bind together thereby entrapping the article therebetween to form wrapping material.

[0028] Preferably, the method of the fifth aspect or the apparatus of the sixth aspect may be used to prepare the wrapping material according to the first aspect. By the term "gas permeable", we mean the first layer allows gas, for example, air to pass therethrough. The gas-permeable layer or sheet may therefore be sufficiently porous to allow gas to pass therethrough.

[0029] Preferably, step (i) of the method of the fifth aspect comprises placing the first layer on a support surface, after which the at least one article is positioned thereon. Hence, the means for preparing a wrapping material precursor in the apparatus of the sixth aspect comprises the support means. Step (i) of the method preferably comprises placing the second layer or sheet adjacent the article and the first layer to form the precursor.

[0030] The skilled technician will appreciate how to evacuate any gas in between the two layers and the at least one article in the precursor to form the wrapping material. However, by way of example, preferably, step (ii) of the method of the fifth aspect comprises evacuating the gas in the wrapping material precursor, preferably by sucking the gas through the gas-permeable layer. The gas extracting may be carried out in the method of the fifth aspect and by the apparatus of the sixth aspect by vacuum generation means, which is adapted to create at least a partial vacuum adjacent the precursor, to suck out gas therefrom. The vacuum generation means may be placed substantially adjacent the gas permeable sheet, and preferably pores therein.

[0031] Preferably, the method of the fifth aspect comprises an additional step between steps (i) and (ii), which step comprises softening the second layer before the gas is extracted from the precursor. Therefore, preferably, the second layer is adapted to be softened upon the application of heat, i.e. it is thermo-transformable. Suitable materials for the second layer will be known to the skilled technician, but may comprise a plastic material, for example, polypropylene, Orientated Polypropylene Pearlised film, polyethylene, PVC, PVDC, or acrylic.

[0032] Accordingly, the method preferably comprises heating the second layer such that it becomes sufficiently soft and pliable so that, upon gas extraction, the second layer forms a seal around the article and with the first layer. Hence, the apparatus of the sixth aspect comprises heating means adapted to soften the second layer.

[0033] The heating step may comprise exposing the precursor, and preferably the second layer thereof, to radiation. Preferably, the precursor is exposed to Infrared radiation. Hence, the heating means may comprise means for emitting radiation, and preferably IR radiation substantially in a direction towards the precursor. Preferably, the heating means comprises a heating tunnel, which preferably comprises at least one IR emitter, which exposes the precursor to IR radiation. Preferably, the apparatus comprises a plurality of emitters.

[0034] It is therefore preferred that the gas permeable layer comprises paper, cardboard, perforated plastic sheeting, or open weave cloth, and remains structurally stable at the temperatures, which will soften the top second layer in the heating means, i.e. the heating tunnel. The gas-permeable layer is preferably sufficiently permeable so as to not require excessive pressure reduction to suck the gas from between the two layers of the precursor. It is preferred that the second layer is adapted to be sucked down onto the first layer with the article trapped and sealed therebetween. This may be defined as a heat shrink process.

[0035] Accordingly, it is preferred that the method of the fifth aspect comprises a first step of preparing the precursor comprising the first and second sheets and the article therebetween, a second step of softening the second sheet, and a third step of evacuating the gas from between the first and second sheets, to thereby cause the second sheet to tightly seal around the article. The apparatus of the sixth aspect preferably comprises means for preparing the precursor comprising the first and second sheets and the article therebetween, means for softening the second sheet, and means for evacuating the gas from between the first and second sheets, to thereby cause the second sheet to tightly seal around the article,

[0036] All of the features described herein (including any accompanying claims, abstract and drawings), and/or all of the steps of any method or process so disclosed, may be combined with any of the above aspects in any combination,

except combinations where at least some of such features and/or steps are mutually exclusive.

[0037] For a better understanding of the invention, and to show how embodiments of the same may be carried into effect, reference will now be made, by way of example, to the accompanying diagrammatic drawings, in which: -

Figure 1 shows a schematic cross-sectional perspective view of a first embodiment of wrapping material in accordance with the invention;

Figure 2 shows a plan view of the wrapping material shown in Figure 1;

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Figure 3 shows a cross-sectional view of an object wrapped with the wrapping material;

Figure 4 shows a schematic perspective view of a first embodiment of an apparatus for the manufacture of the wrapping material;

Figure 5 shows a schematic side view of a second embodiment of an apparatus for the manufacture of the wrapping material

Figure 6 shows a schematic side view (upper) and plan view (lower) of a second embodiment of the wrapping material.

15 **[0038]** Referring to Figure 1, there is shown a first embodiment of a wrapping material. 2, which may be used to wrap any object, for example, birthday gifts and wedding presents, as illustrated in Figure 3. However, it should be appreciated that the material 2 can be used to wrap almost anything providing the dimensions of the wrapping material 2 meet those of the object to be wrapped.

[0039] Referring to Figures 1 and 2, the wrapping material 2 consists of two sheets or films 4,6, which are attached together. The wrapping material 2 is about 20cm-66cm square. In Figure 1, the material is shown having an upper sheet 4 and a lower sheet 6 attached together at corresponding positions 10 so as to form a series of spaced apart pockets or pouches 8 between the two sheets 4,6. Each pocket 8 is separated from it's neighbour by a 4mm wide margin 10, which extends therearound. The pockets 8 are shown as being circular in cross-section (i.e, spherical) in Figure 1, and square in cross-section (i.e. cuboid) in Figure 2. However, the pockets could be virtually any shape, such as semispherical.

[0040] Each pocket 8 is suitably sized to receive at least one object 12. Hence, the pockets 8 illustrated arc normally about 3cm-10cm in diameter, and about 3cm-10cm deep, i.e. wide. Any small object(s) 12 of interest can be placed inside the pockets 8. It is possible that all of the pockets 8 contain the same object 12. Alternatively, a variety of objects 12 can be used. Examples of possible objects or items 12 that can be contained within the pockets 8 include sweets, nuts, bolts, erasers, tiny toys, small individual toiletries or small quantities of toiletry granules/powders, folded notes, coins, buttons, carrings, jewellery, small gifts, confetti etc.

[0041] Referring to Figure 2, there is shown a plan view of the wrapping material 2. As shown, the margins 10 separate the pockets 8, some of which contain one or more objects 12. The Figure also shows that some of the pockets 8 can be left empty, if required. In Figure 2, the objects 12 are small sweets.

[0042] Referring to Figure 3, there is shown a box-shaped article 14, which is wrapped with the wrapping material 2. Articles 14 that will typically be wrapped with the wrapping material 2 include gifts and presents, such as birthday gifts and wedding presents. In Figure 3, the material 2 is shown as a single layer extending around the entire outer surface of the article 14. The pockets 8 are therefore positioned around the exterior of the article 14, and because they contain air, the pockets 8 provide the article 14 with protection against damage.

[0043] When the wrapping material 2 is wrapped around the article 14, the two sheets 4,6 now form inner and outer sheets 4,6. Both sheets 4,6 are made of a plastic material, for example, polypropylene, GND, PVDC, acrylic or Orientated Polypropylene Pearlised film. However, the inner sheet 4 shown in Figure 3, is made of a material that is substantially opaque so that it is not possible to see therethrough, thereby concealing the wrapped article 14. The inner sheet 4 can be any colour or patterned providing light cannot pass therethrough. In contrast, the outer sheet 6 shown in Figure 3 is made of a material that is substantially transparent so that it is possible to view the novelty items 12 inside each pocket 8. Accordingly, the novelty items 12 provide decoration and additional cover concealing the wrapped article 14. When one wishes to open the gift 14, they can not only unwrap the wrapping material 2 thereby revealing the present 14, they can also burst each pocket 9 and release the items 12 therein, thereby adding to the entertainment value of the entire gift. [0044] Referring to Figure 4, there is shown an apparatus 16 for the manufacture of the wrapping material 2. The apparatus 16 includes an upper hotplate 18 and a lower hotplate 20, which are coupled to each other by a hinge 22. The lower hotplate 18 includes a supporting leg 28 on the underside of each of its four corners. The upper hotplate 18 includes a handle 24 by which the apparatus 16 can be opened and closed. Both hotplates 18,20 feature raised grid structures 21, which are complementary to each other so that the grid structure 21 of the upper hotplate 18 will contact the complementarily shaped grid structure 21 on the lower hotplate 20 when the two hotplates 18, 20 are brought in to contact with each other. Each hotplate 18,20 features a series of concave indents 26 in between their respective grid structure 21. It will be appreciated that the shape and dimensions of the grid structures 21, and therefore indents 26, will define the shape and dimensions of the pockets 8 of the final wrapping material 2.

[0045] In use, a lower flexible sheet 6 is first carefully positioned on to the lower hotplate 20 of the apparatus 16. The

sheet 6 is made of a plastic material, for example, polypropylene, GND, PVDC, acrylic or OPP pearlised film. Articles 12 to be included in the final pockets 8 of the wrapping material 2 are then carefully placed on the first lower sheet 6 over each concave indentation 26. The concave indentations 26 will form the pockets 8 between the two sheets 4,6 of the material 2.

[0046] An upper sheet 4 is then placed over the objects 12, and carefully positioned down therearound. When the upper sheet 4 is in position, a user pulls down on the handle 24 of the upper hotplate 18 to move the upper hotplate 18 towards the lower hotplate 20 through rotation about the hinge 22. When the upper hotplate 18 has been positioned over the lower hotplate 20, pressure is then applied thereto. The grid structures 21 in each hotplate 18,20 are then heated up to a suitable temperature, and for a sufficient period of time to allow the two sheets 4,6 to melt and fuse together along the edges of the grid structures 21. The temperature for heat sealing the flexible sheets 4,6 together is between about 30°C to about 50°C depending on the specific materials used.

[0047] As the two sheets 4,6 fuse or seal together along the respective grid structures 21 on both hot plates 18,20, the concave indents 26 have the effect of forming the pockets 8 of unattached sheet containing the articles 12. The pressure applied by the upper hotplate 18 can be as a result of it's own weight, or by additional downward force applied thereto. In addition, the upper and lower hotplates 18,20 can be clamped together to thereby provide additional pressure to the sheets 4 and 6 as they are being heat sealed together.

[0048] An alternative method for producing the wrapping material 2 consists of passing the two sheets 4,6 through a heat-sealing machine where a heat sealing bar seals the front seal. The items 12 are placed in to the individual pockets 8. Finally, the machine seals the side and back of each pocket 8 before forming the next pocket 8.

[0049] Referring to Figures 5a-c, there is shown another alternative apparatus and method for producing an the wrapping material 2. The three step method consists of a first stage comprising (i) preparing a wrapping material precursor 32 (shown in Figure 5a); (ii) heating the precursor 32 (Figure 5b); and (iii) sucking our air from the precursor 32 to form the wrapping material 2 (Figure 5c).

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[0050] In more detail, in this embodiment of the wrapping material 2, the lower sheet 6 consists of a flexible, gas permeable material, such as paper, cardboard, perforated plastic sheeting, or open weave cloth, having pores 30, which allow gas 42 (e.g. air) to pass therethrough. The upper sheet 4 consists of a heat-sealable thermoplastic material, such as a plastic material, for example, polypropylene, Orientated Polypropylene Pearlised film, polyethylene, PVC, PVDC, or acrylic. A user first places the lower sheet 6 on a flat surface, and then a series of novelty items 12 is positioned thereon in appropriate positions. For clarity, only one item 12, such as a sweet, is shown in Figure 5a. However, it will be appreciated that a number of items 12 would normally be placed on the lower sheet 6. The arrangement of lower sheet 6, item(s) 12, and upper sheet 4 is referred to as a precursor 32. The thermoplastic material can be heated whereupon it will shrink wrap around the items 12 thereby forming a laminate, as will be described hereinbelow.

[0051] Referring to Figure 5b, once the wrapping material 2 precursor 32 has been formed, it is then inserted into and/or passed through an Infra red tunnel 34. The IR tunnel has a base section 35, and a roof section 36, which supports a series of downwardly facing IR emitters 38. Infra red warming tunnels are commercially available, and the process is called skin packaging. Once the precursor is positioned in the tunnel 34, IR is emitted out of the emitters 38 as indicated by arrows IR in a direction towards the precursor 32, and in particular the upper sheet 4. The effect of the IR is to warm the upper thermoplastic sheet 4, which makes it more flexible, and prepares it for the next stage of the method, i.e. encasing the iterns 12 and firmly securing them to the lower sheet 6.

[0052] Referring to Figure 5c, the pre-warmed wrapping material 2 precursor 32 is then evacuated as follows. A vacuum generator 40 is placed underneath the underside of the lower sheet 6 substantially adjacent the pores 30. The vacuum generator 40 is actuated such that a (partial) vacuum is formed. The resultant vacuum sucks out air 42 present between the upper and lower sheet 4,6 and away along conduit 44. Insodoing, the upper sheet 4 is sucked down tightly around the item 1.2 and down onto the lower sheet 6 with which is forms a tight seal or laminate. The sealed region around the items 12 forms the margins 10, as shown in Figure 1.

[0053] Referring to Figure 6, there is shown an alternative embodiment of the wrapping material 50. The material 50 has upper and lower sheets 4,6, and a series of spaced apart articles 12 arranged therebetween. A difference of this embodiment is that each item 12 is individually contained within its own wrapping material 52. For example, if the items are sweets 12, they are contained within a thin film of plastic 52. This improves the hygiene and quality of the confectionary.

[0054] As shown in the lower part of Figure 6, the arrangement of items 12 are shown placed in conjunction with a series of pictographic images 54 or pictograms that are printed on the upper and or lower sheet 4,6. Hence, the resultant material 50 includes the images 54, for example, a train, a carriage, a vehicle, or a person, and positioned in or on these images there is placed an item 12, such as a sweet. This combination of the novelty items 12 with the pictograms 54 increases the enjoyed factor of using the wrapping material 50, especially for children.

[0055] Following manufacture, the wrapping material 2,50 is then cut to size, folded and enclosed in a clear bag having a slot therein for display purposes. Alternatively, the wrapping material 2,50 can also be supplied loose in sheets, rolls or in other formats.

[0056] An advantage of the wrapping material 2,50 is its dual function of concealing the article 14 being wrapped, and

in addition providing additional enjoyment due to the extra items 12 contained within each pocket 8. The inner sheet 4 is substantially opaque to prevent anyone from seeing what the wrapped present is, but the outer sheet 6 is transparent so that the items 12 can be seen and enjoyed. Furthermore, the pockets 8 formed within the wrapping material 2 function as protective cushions shielding the wrapped object 14. An advantage of the apparatus 16 is that it is easy to use for small scale production of the wrapping paper.

[0057] The embodiment of the material 50 illustrated in Figure 6 is advantageous as it makes an inventive combination of the placement of the items 12 with a series of pictograms on the sheets 4,6. This adds enjoyment value to the product when used to wrap any article 14.

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Claims

1. A wrapping material comprising at least two flexible layers attached to each other such that at least one pocket is formed therebetween, wherein the at least one pocket contains at least one article.

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2. A wrapping material according to claim 1, wherein the wrapping material is a gift-wrap, and is used to wrap gifts or presents, for example, birthday presents, Christmas gifts, or wedding gifts etc.

3. A wrapping material according to either claim 1 or claim 2, wherein at least one of the flexible layers is substantially transparent.

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4. A wrapping material according to any preceding claim, wherein at least one of the flexible layers is substantially opaque.

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5. A wrapping material according to any preceding claim, wherein the at least one pocket is defined by a region where the flexible layers are unattached to each other.

6. A wrapping material according to any preceding claim, wherein the two layers are attached to each other such that a plurality of pockets are formed therebetween.

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7. A wrapping material according to any preceding claim, wherein at least one of the layers is permeable or porous.

8. A wrapping material according to any preceding claim, wherein the flexible layers comprise plastic material, for example, polypropylene, Orientated Polypropylene Pearlised film, polyethylene, PVC, PVDC, or acrylic.

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9. A wrapping material according to any preceding claim, wherein the article is a novelty item, for example, confectionary, jelly beans, sweets, nuts, bolts, erasers, tiny toys, small individual toiletries or small quantities of toiletry granules/ powders, folded notes, coins, buttons, earrings, jewellery, small gifts, confetti, wedding gifts etc.

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10. A wrapping material according to any preceding claim, wherein the or each article is independently wrapped in wrapping means.

11. A wrapping material according to claim 10, wherein the wrapping means comprises a covering, such as a plastic wrapping.

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12. A wrapping material according to any preceding claim, wherein either one or both of the flexible layers of the wrapping material comprise at least one pictographic image or pictogram.

13. A wrapping material according to claim 12, wherein the or each article is positioned in the wrapping material so that it is aligned with the or each pictographic image.

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14. Use of the wrapping material according to any one of the preceding claims, as a gift wrap.

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- **15.** Apparatus for manufacturing wrapping material, the apparatus comprising :-
 - (i) means for preparing a wrapping material precursor, which precursor comprises at least one article disposed between a first flexible, gas-permeable layer, and a second flexible layer; and
 - (ii) means for extracting gas present in the wrapping material precursor, such that the first and second layer

bind together thereby entrapping the article therebetween to form wrapping material.

- **16.** Apparatus according to claim 15, wherein the means for preparing a wrapping material precursor comprises support means.
- 17. Apparatus according to either claim 15 or claim 16, wherein the means for extracting the gas comprises vacuum generation means, which is adapted to create at least a partial vacuum adjacent the precursor, to suck out gas therefrom.
- **18.** Apparatus according to any one of claims 15 to 17, wherein the apparatus comprises heating means adapted to soften the second layer.
 - **19.** Apparatus according to claim 18, wherein the heating means comprises means for emitting radiation substantially in a direction towards the precursor.
 - **20.** Apparatus according to claim 19, wherein the heating means comprises at least one IR emitter, which exposes the precursor to IR radiation.
 - 21. A method of manufacturing wrapping material, the method comprising the steps of :-

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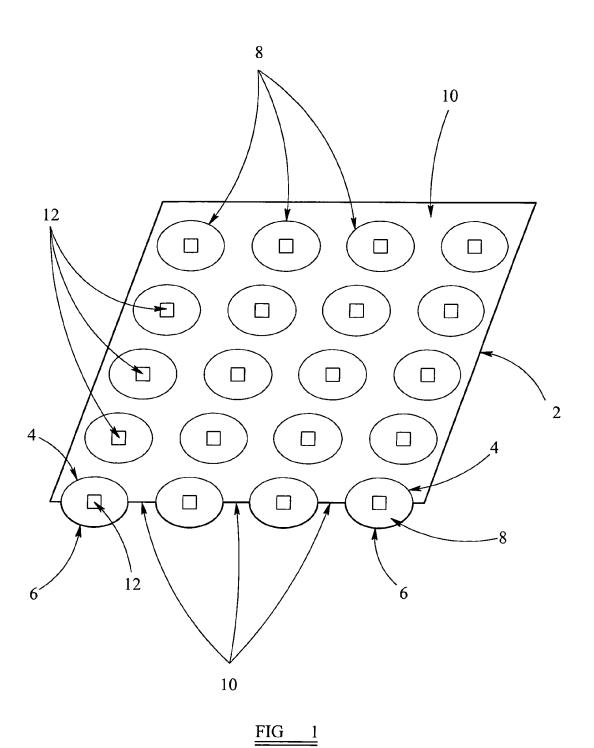
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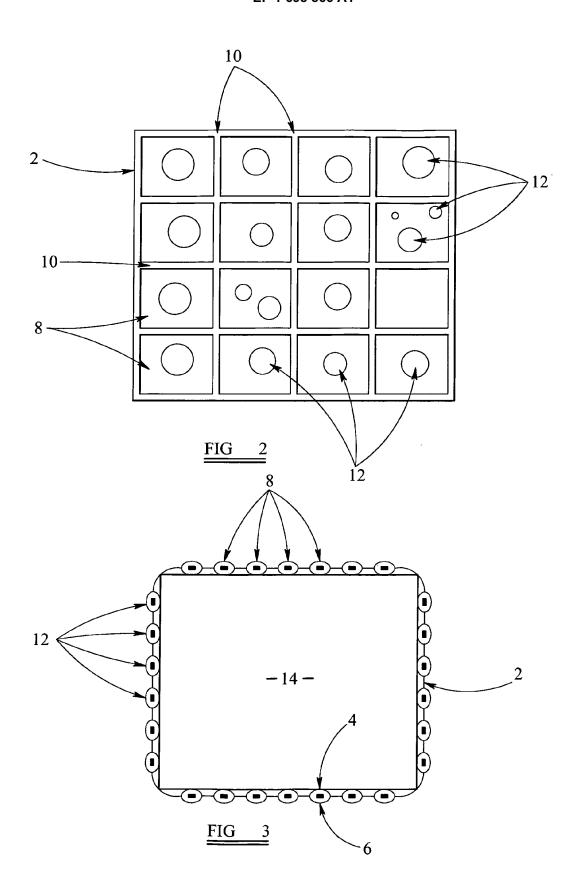
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- (i) forming a wrapping material precursor comprising at least one article disposed between a first flexible, gaspermeable layer, and a second flexible layer; and
- (i.i) extracting gas present in the wrapping material precursor, such that the first and second layers bind together thereby entrapping the article therebetween to form wrapping material.
- 22. A method according to claim 21, wherein the method comprises a first step of preparing the precursor comprising the first and second sheets and the article therebetween, a second step of softening the second sheet, and a third step of evacuating the gas from between the first and second sheets, to thereby cause the second sheet to tightly seal around the article.





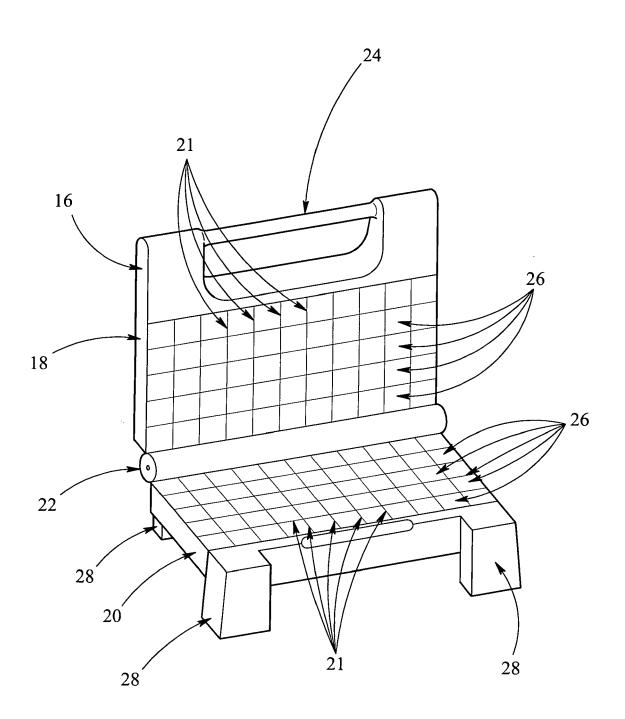
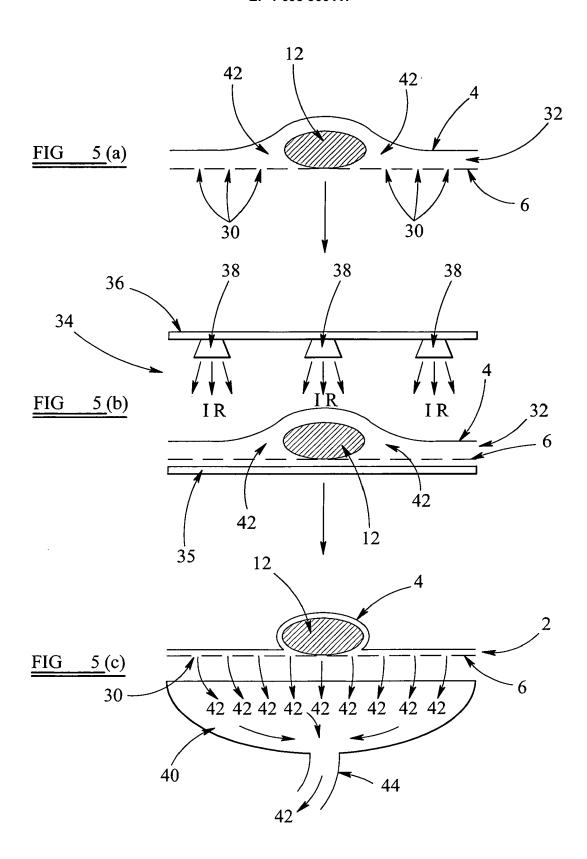


FIG 4



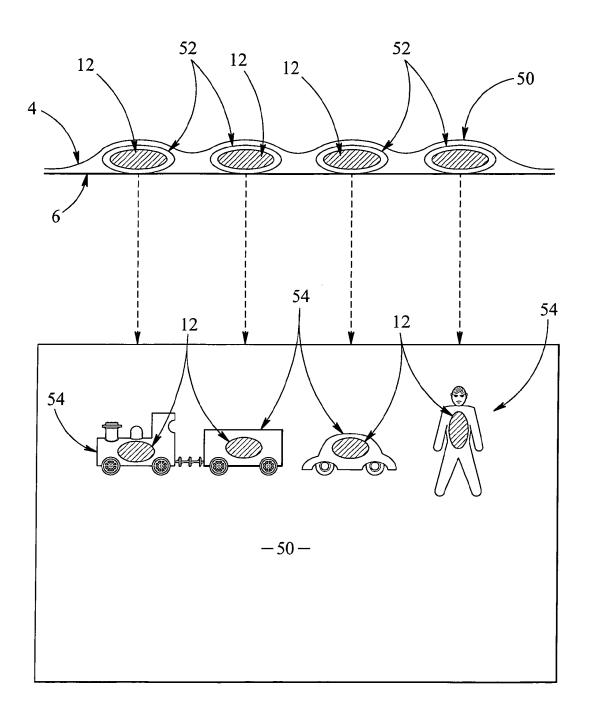


FIG 6



EUROPEAN SEARCH REPORT

Application Number EP 06 25 1127

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				TECHNICAL FIELDS SEARCHED (IPC)	
	The present search report has	been drawn up for all claims			
	Place of search	Date of completion of the search	<u> </u>	Examiner	
	Munich	21 June 2006	A	ugustin, W	
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		E : earlier patent after the filing ber D : document oit L : document oit & : member of th	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document oited in the application L: document cited for other reasons &: member of the same patent family, corresponding document		

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21-06-2006

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