April 13, 1965 O. J. BRUUN 3,178,018

PACKAGING

Filed May 21, 1963

FIG.1

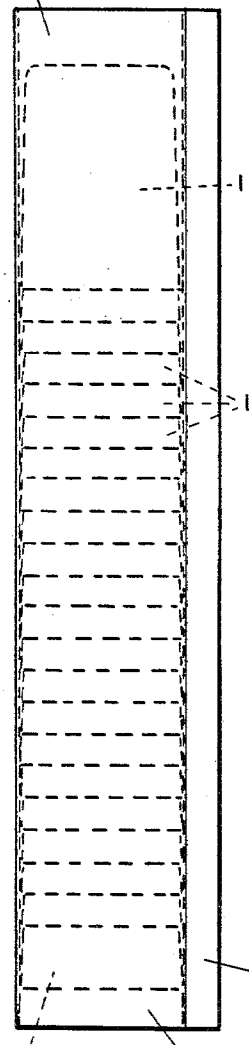
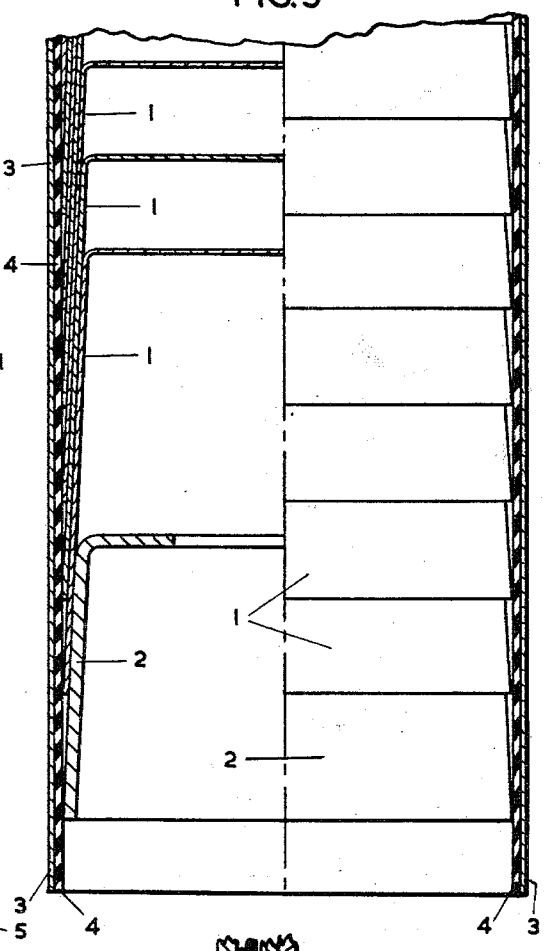


FIG.3



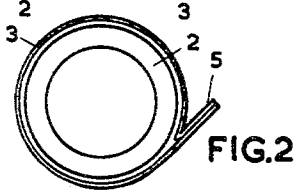


FIG.2

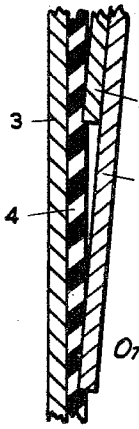


FIG.4

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PACKAGING

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2 Claims. (Cl. 206—65)

Hollow conical articles, such as overseal bottle capsules, or hoods, made of thin sheet material such as paper, metal foil or the like, are commonly packed and shipped in nested stacks. If these stacks are subjected to axial pressure or shocks, as may happen in transit, the nested hoods are compressed into one another, so that it becomes difficult if not impossible to separate them. If the length of the stack is shortened by axial compression, empty space will be left in the package containing it; this increases the risk that the stack will be tossed about in transit, causing the stack to become still more compressed and the hoods to jam. If the hoods are lacquered on the surface, the danger of jamming is increased by the risk that the lacquer may stick the hoods together if they are pressed tightly against one another.

For these reasons it is extremely important that nested conical hoods of thin sheet material should be kept only loosely nested, that is only just in contact with one another, or spaced slightly apart. It is known to keep the nested hoods apart by inserting sheets of waxed paper between the hoods, but this is expensive and absorbs much labour. It is also known to shape the hoods with protruding bulges or grooves, which prevent the hoods when nested from coming into contact over large areas of their surface, but this is not satisfactory either.

In accordance with the present invention separate means are provided which in conjunction with a stack of nested hoods will prevent relative axial movement of the hoods in the stack and retain the hoods loosely nested in spite of the shocks which the stack may receive in transit.

The invention consists broadly in a package comprising a plurality of hollow, conical hoods made of thin sheet material, loosely nested one within another to form a stack, and a sheet of flexible material such as paper wrapped tightly around the stack, so that its inner surface engages the exposed edge of each of the stacked hoods, wherein the inner surface of the wrapping sheet is provided with a sufficiently heavy coating of soft, yielding material having high-friction, non-slip properties, so that the exposed edges of the larger open ends of the hoods are embedded in the coating and the stacked hoods are restrained against relative axial movement.

The coating material on the wrapping sheet should be such that it will not stick to the hoods, so that it will allow easy removal of the wrapping sheet without damaging the hoods. In the preferred form of the invention it is further provided that the coating material has the property of sticking firmly to itself. This allows the wrapping sheet to be held tightly around the stack of nested hoods without the need for using string, elastic bands or other securing means. Opposite longitudinal margins of the sheet wrapped around the stack are brought and pressed together coated face to coated face, so as to provide a tight wrap around the stack held together by the adhesion of the overlapping margins. The adhered margins form a projecting flap which provides a convenient hand grip for grasping the package without risk of damage to the hoods. Suitably, the coating on the wrapping sheet consists of a compound containing rubber latex, which possesses all the above mentioned properties.

The preferred form of the invention is shown in the accompanying drawing, in which:

FIGURE 1 is a side view of the completed package;

FIGURE 2 is an end view thereof;

FIGURE 3 is a sectional view on a larger scale of one end portion of the package; and

FIGURE 4 is a fragmentary sectional view on a still larger scale.

The package illustrated comprises a plurality of similar hoods 1 of thin sheet material, such as are used as overseal capsules for bottles, each hood being of frustoconical form, closed at its smaller end and open at its larger end. The hoods are nested loosely to form a stack, and within the endmost hood there may be inserted an inner support 2, which may be of cardboard, cork or other suitable material.

The stack of nested hoods is so tightly wrapped in a sheet of paper 3, coated on the inside with a layer 4 of a rubber latex compound, that the exposed edges of the hoods are embedded in said layer, as indicated in FIGURE 4. The longitudinal end margins of the wrapping sheet are brought together, inner face to inner face, and pressed together so that the latex coatings adhere to one another, thus forming a sleeve with a projecting flap 5. The wrapping sheet is thus held tightly around the stack of nested hoods, over the whole length of the stack, or at least the portion which contains all the exposed edges of the hood, with the edges of the hoods embedded in the resilient layer of latex compound, thereby resisting relative axial movement of the hoods and keeping them in their original loosely nested condition, either lightly engaged with one another, or spaced very slightly apart from one another.

I claim:

1. A package comprising, in combination, a plurality of hollow conical hoods made of thin sheet material loosely nested one within another to form a stack, and a sheet of pliable material coated on one side with a soft tacky material tightly wrapped about said stack, completely encircling the same with the coated side facing inwardly, the peripheral rim of each hood biting into said soft coating, thereby preventing axial displacement of the hoods in reference one to another and the wrapped sheet material.

2. A package comprising, in combination, a plurality of hollow conical hoods made of thin sheet material loosely nested one within another to form a stack, and a substantially rectangular sheet of pliable material coated on one side with a soft tacky material tightly wrapped about said stack, completely encircling the same, with the coated side of the sheet facing inwardly, the lengthwise adjacent end portions of said sheet extending outwardly in adhering engagement with each other to secure the sheet in position and to form a grip, the peripheral rim of each hood biting into said soft coating, thereby preventing axial displacement of the hoods in reference one to another and the wrapped sheet material.

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