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(54) Sealed price tag holder

(57) A sealed transparent cover box-like holding frame of a printed price tag or label in display counters of edible goods, has a double-molded composite body of a substantially rigid plastic material that is premolded and which receives afterwards, in a separate molding process, a filling of an elastomer that besides forming a

perimetral gasket lip also forms a padding onto which the printed price tag or label is more securely held upon closing a transparent front cover hinged to the composite frame body.

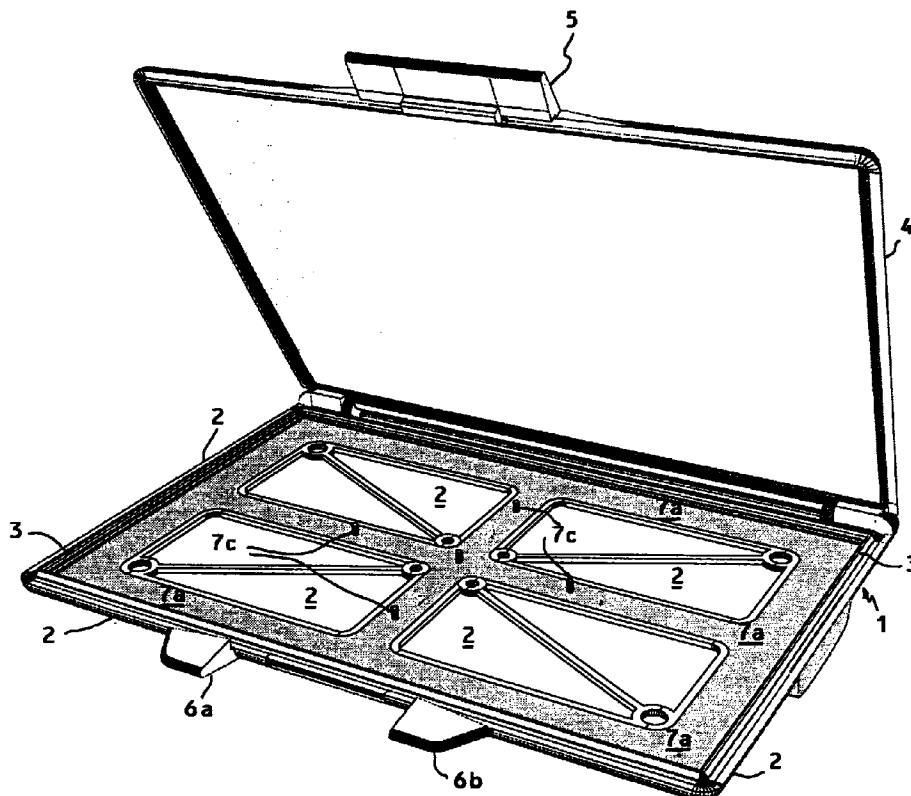


FIG. 1

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Description

[0001] The present invention relates in general to price tags and/or label holders, used for example for in stocking and display shelving, in retail shops.

[0002] Retail shops usually show the price of goods and products displayed in refrigerated counters (cooking, butchery and the like) in fruit and vegetables counters by the use of special price tag organizers of alphanumeric symbols and numbers printed on PVC strips.

[0003] Nowadays, price tags are more and more frequently printed by computers. Therefore, the problem of protecting these price tags or labels automatically printed by computer on paper from liquid spills, oily substances, humidity, sauces in fresh products counters has been solved by inserting these price tags and/or labels in sealed transparent envelopes.

[0004] Labels and promotional messages of relatively large size are commonly displayed by inserting them inside special frame holders having a transparent pocket into which the price tag or printed promotional messages are inserted. The pocket is generally supported by a rigid frame having on its rear one or more clips for an easy and quick fixing onto special moldings of the front edge of shelves. These fixing clips of label holding frames may also have a pivoting mount to allow temporary rotation of the frame to make way to the picking-up of the goods. The clips are also used to fix the label holding frame on different supports, for example on needle like posts pinned in meat cuts, on forms of cheese, and the like.

[0005] Transparent pocket tag holders tend to wear out, to retain dirt, degrading the aesthetic aspect and interfering with the reading of prices or in general of the information printed on the paper tag or label.

[0006] Sealed tag holders are known and used. They generally having a rectangular housing frame provided with a transparent cover, hinged along one side of the frame and securably closable after placing the printed label into the frame.

[0007] In order to prevent infiltration of dust, liquids or juices, an elastomer gasket is often present around the perimeter of the frame, onto which the transparent cover abuts.

[0008] Commonly, these objects are made of plastic materials and fabricated by injection molding, because of intrinsically low manufacturing costs, lightness and absence of corrodible metal parts.

[0009] However, the typically used O-ring gaskets though relatively easy to install, wear out and are frequently lost during the repeated opening/closing operations of the tag holder for replacing the printed label inside, as well as during the periodic cleaning that these objects must undergo for hygienic reasons and to maintain an tidy appearance.

[0010] If the dimensions and shape of the printed labels are not standard, the placing and positioning of

the printed label in a straight orientation within the rectangular frame may be problematic because the printed paper label may slip on the internal plastic surface of the frame and assume a slanted position.

5 [0011] It has now been found, and constitutes the object of the present patent application, a particularly effective structure of a sealed tag holding frame that eliminates or overcome the above noted drawbacks of the known holding frames.

10 [0012] The price tag holding frame of the present invention can be entirely fabricated by plastic molding, but the flat frame that houses the printed paper tag includes an elastomer filling, that is produced also by injection molding in a special mold, during a subsequent and distinct step from the molding of the rigid plastic part of the frame.

15 [0013] The elastomer filling besides forming a perimetral gasket onto which the perimetral portion of the transparent cover hinged on one side of the frame abuts, forms also a partial coat of the internal surface of the plastic frame onto which the printed paper label or tag will be disposed, as well as filling a plurality of retaining undercuts, distributed over the surface of the pre-formed frame.

20 [0014] Therefore the paper label is placed over a surface which is advantageously constituted, at least partially, of elastomer that effectively prevents undue slippings of the label.

25 [0015] The sealing gasket is an integral part of the frame, thus averting any possibility of losing it accidentally as well as any assembling step.

30 [0016] Moreover, the perimetral gasket portion is formed in a manner to ensure the sealing along the whole perimeter by virtue of the possibility to provide for a thin lip portion ensuring an adequate compliance in order to compensate for deviations from perfect planarity of the two parts of the frame, either original or intervened with use.

35 [0017] The different aspects and advantages of the price tag holding frame of the invention will become even more evident through the detailed description of a particularly preferred embodiment and by referring to the annexed drawings, wherein:

45 Figure 1 is a perspective view of a sealed price tag holding frame of invention;

Figure 2 is a partial section view of the frame of figure 1;

50 Figures 3 and 4 show magnified details of the cross section of figure 2.

[0018] By referring to the drawings in which the same numbers identify the same parts in all figures, the sealed tag or label holding frame 1 is composed of a housing frame 2 provided with a perimetral elastomer gasket 3 and a transparent cover 4, hinged along one side of the frame 2, abutting against the perimetral gasket 3 in a manner to seal inside the box-like frame a

printed paper tag or label disposed therein.

[0019] Along the side of the transparent cover 4 opposite to the hinging side, a tongue 5 is present for engaging with two cooperating protrusions 6a and 6b located along the corresponding side of the frame 2 to implement a common snap-action locking device of the type normally used to look closed box-like containers.

[0020] The perimetral gasket 2, as is more clearly shown in the cross sections of figures 2 and 3, is effectively represented by a perimetral raised lip 3a of an elastomer filling 7 that constitutes an integral part of the flat frame 2 of the printed price tag holder.

[0021] The elastomer part 7 is in fact molded in a special mold into which is placed a first rigid plastic part, for example of ABS, that is previously molded. This first rigid plastic part of the frame 2 is moldered with slots and depressions same slots extending through the whole thickness of the molded body of rigid plastic 2, as well as with a central hole 8 through which the elastomer 7 is injected later.

[0022] The fluid is injected in the mold passing through the central hole 8 fills all the interconnected cavities defined by mold the surfaces and by the surfaces of the pre-molded rigid plastic body 2. The elastomer fills a plurality of undercuts 7b that perfectly and permanently anchor the injected elastomer 7 to the pre-existing rigid plastic part 2, while forming also the perimetral lip 3a, which will act as the perimetral gasket of the sealed printed label holding frame.

[0023] The elastomer may be anyone suitable for being injection molded at a temperature compatible with the rigid plastic material of the pre-molded body 2. The elastomer of ethylene vinyl acetate and acrylonitrile commercially known as E.V.A produced by the Belgian firm EXXON CHEMICAL, which is injectable at a temperature of about 130°C, perfectly compatible with the softening temperature of ABS with which the frame 2 is pre-formed, has been successfully used. Of course, equivalent materials may also be used.

[0024] The transparent cover 4 may be conventionally made of polycarbonate, also by injection molding in a suitable configured mold.

[0025] As may be noticed in the figures and in particular from the perspective view of figure 1, the internal surface of the housing frame 2 onto which will be placed the printed paper label has at least on portions of the surface an elastomer coating 7a, formed over purposely depressed areas of the pre-molded rigid body 2.

[0026] Optionally, over these areas the elastomer may be molded to produce a plurality of flexible protrusions 7c which accentuate the capacity of retaining the label (preventing it from slipping inside the box-like holding frame).

[0027] The label resting over the surface of the elastomer 7a and/or 7c, as shown, may be more easily kept in the desired position because of the relatively sticky of the elastomer. The protrusions 7c may also be configured as thin pliable fingers that are easily compressed

by the cover 4 thus compressing the label against the inner surface of the transparent cover.

[0028] The perimetral molded gasket 3a as shown in the cross sections of figures 2 and 3, is shaped like a slender upright lip whose section is relatively thin to ensure a high compliance along the whole perimeter of the transparent cover 4, thus making up for deviations from perfect planarity and parallelism of the sealing surfaces of the parts, either as fabricated or after protracted use and repeated cleaning operations.

[0029] The backside of the rigid plastic frame 2, as shown in figures 2 and 4, may have elastic clips 9 for mounting the sealed frame on special supports, according to a common practice relative to these objects.

Claims

1. A sealed frame (1) for a printed price tag or label comprising a rigid plastic housing frame (2) with a perimetral elastomer gasket (3), a transparent rigid cover (4) hinged along one side of the frame (2) abutting over said gasket (3), snap-action locking means (5, 6a, 6b) on the sides of said frame (2) and of said cover (4) opposed to the respective hinged sides, thereof characterized in that said elastomer gasket (3) is constituted by a continuous perimetral upright lip portion (3a) of a elastomer filling (7) of said rigid frame (2) forming a partial coating (7a) on the internal surface of said frame (2), upon which said printed label rests, said elastomer filling (7) being an integral part of said frame (2) being injection molded through openings (8) of said frame (2) and filling a plurality of undercuts (7b) distributed over the area of the frame (2).
2. The sealed frame according to claim 1, characterized in that said rigid frame (2) is of ABS, said elastomer (7) is of E.V.A and said transparent cover (4) is of polycarbonate.
3. The sealed frame according to claim 1, characterized in that on the surface of said partial coating (7a) of elastomer there are elastomer protrusions (7c) compressible by said cover (4) keeping said printed label firm.
4. The sealed frame according to claim 3, characterized in that said elastomer protrusions (7c) are elastically flexible and stick out from the surface of said partial coating for a height sufficient to elastically press said printed label against the inner surface of said transparent cover (4) upon closing it.

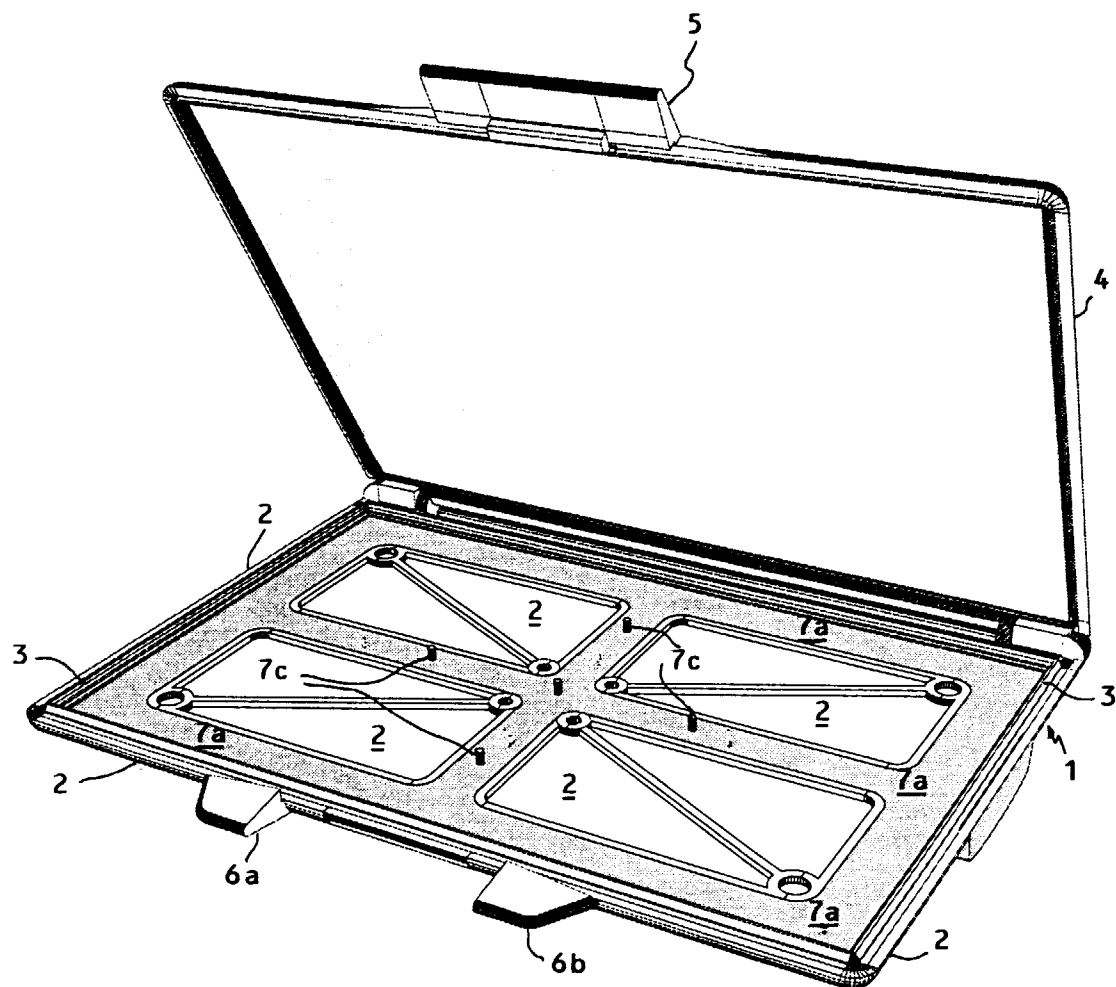


FIG. 1

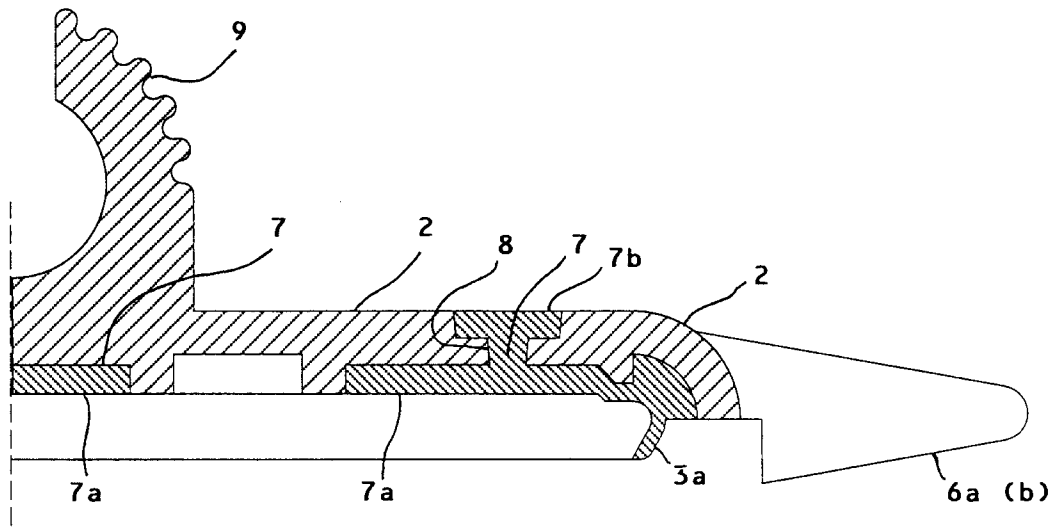


FIG. 3

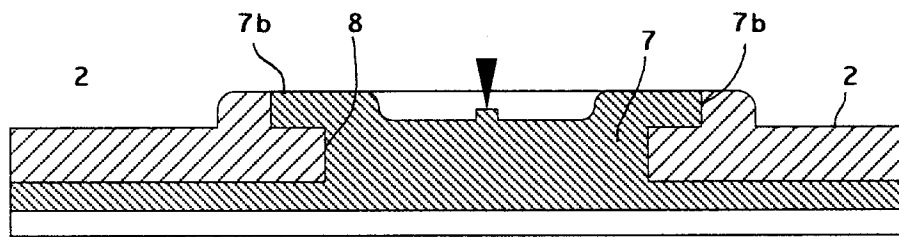


FIG. 4

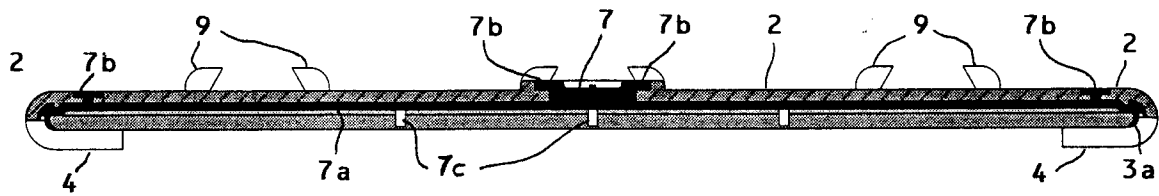


FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 97 83 0532

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	AU 26521 67 A (GORDON DRUMMOND STORY) * page 3 - page 4; figures 1-3 * ---	1	G09F3/20
A	FR 2 570 212 A (UVEX WINTER OPTIK GMBH.) * page 3 - page 4; figures 1-4 * ---	1	
A	US 5 522 163 A (E.J.NEUGEBAUER) * column 1 - column 2; figures 1-3 * ---	1	
A	GB 2 124 007 A (PRECISION UNDERSURFACE LTD.) * page 1; figure 1 * ---	1	
A	DE 43 26 173 A (ESSELTE METO INT.GMBH.) * column 3 - column 5; figures 1-7 * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) G09F
Place of search THE HAGUE		Date of completion of the search 24 March 1998	Examiner Boeykens, J
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 83 0532

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