United States Patent

Glaser

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[54] **TAG FOR NETS**

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[52] **U.S. Cl.** **40/2**

[51] **Int. Cl.** **A44c 3/00**

[58] **Field of Search** 40/2, 20, 23, 22

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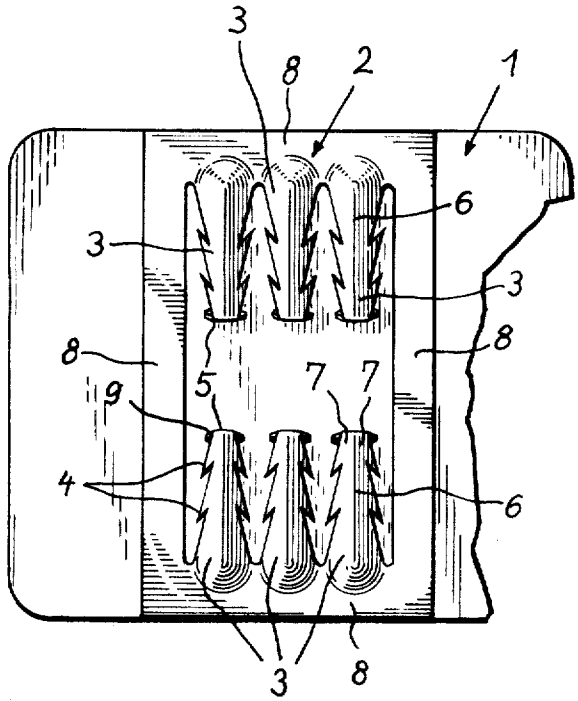
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[57] **ABSTRACT**

A tag destined to be attached to a net which will be used for packing articles, such as for example fruit and vegetables for display in a store, is formed by a small plate which is provided with a plurality of elongate strips having their longitudinal edges formed with barbs. The strips have one end fixed to the plate and extend in a direction slightly inclined to the plane of the plate, so that the free ends of the strips project outwardly beyond the back face of the plate. The projecting free ends of the strips are bent inwardly and resiliently abut against the back face of the plate. The tag is attached to the net by sliding some meshes of the net past said hook-shaped free ends of the strips into the space formed between the inclined strips and the back face of the plate, where the meshes are engaged by the barbs formed on the longitudinal edges of the strips.

20 Claims, 2 Drawing Figures



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Fig.2

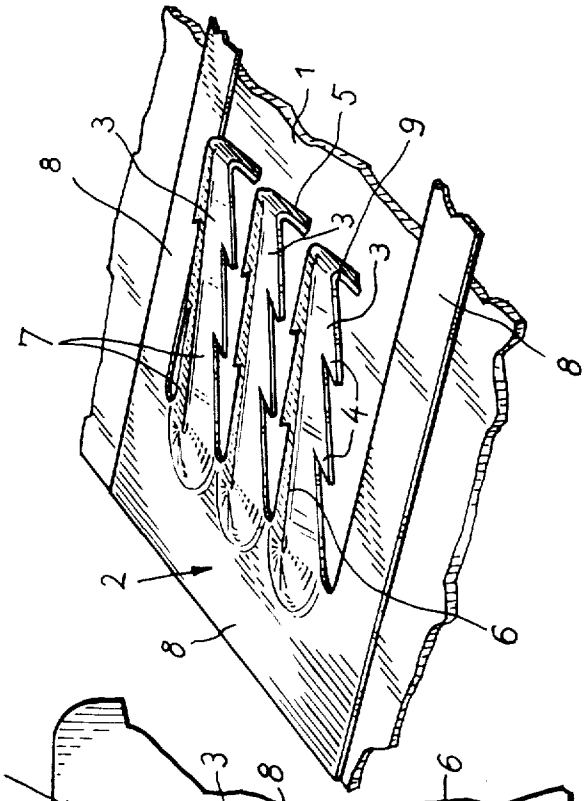
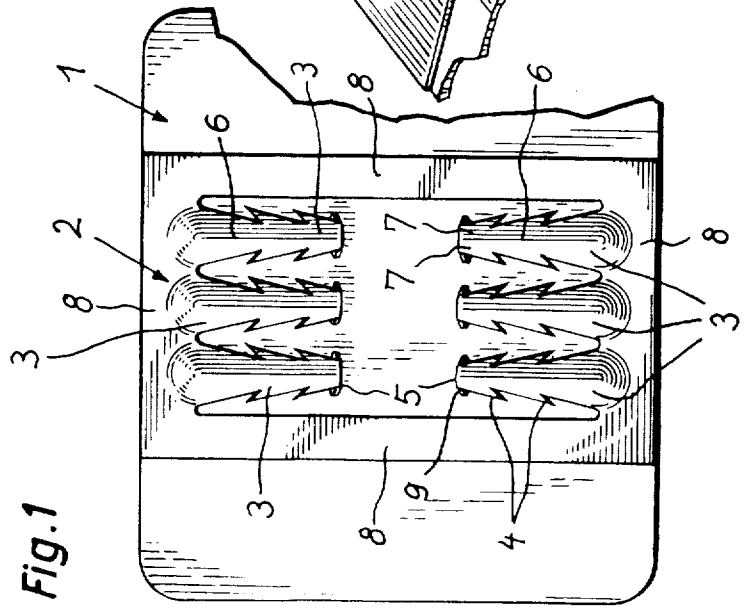


Fig.1



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TAG FOR NETS

This invention concerns a tag of the type adapted to be attached to nets used for packing fruit, vegetables and the like for display in stores.

Tags for this use are already known in various designs. However, such known tags have the following drawbacks: The probability that the tag remains fixed to the net until the net with the packed product arrives at the cash-office when the customer is paying for the bought product, is approximately proportional to the amount of work spent for fixing the tag originally to the net and also has a certain relation with the expenditure with which the tag has been manufactured. A reliable fixing of the tag and its durability with a view not to damage the latter when manipulating the nets or even to destroy it, is greatly desirable for obvious reasons.

It is an object of the invention to provide a tag for nets, it which the mentioned drawbacks of the known tags are avoided. The tag according to the invention comprises a plate having front and back sides an elongate fixing strip formed on the back side of said plate and provided with a free end, said strip extending at an acute angle out of the plane of the plate and being provided with barbs adapted to engage the meshes of the net.

A tag according to the invention is represented by way of example in the accompanying drawings.

FIG. 1 is a view in elevation of the back side of the tag.

FIG. 2 shows a portion of the tag in perspective view, seen from the back.

The represented tag consists of a small plate 1 and a fixing member 2 by means of which the tag can be attached to a net, not shown. The plate 1, for example, may consist of card board and the part 2 of a sheet of plastic. The front side of the small plate 1, which is not visible, can be provided with a price label and further information concerning a product for sale may be marked thereon. The tag fixing means 2, in the example shown, is formed as a separately produced structural part which is then glued to the back-side of the plate 1.

The fixing means 2 comprises six distinct fixing members 3, each member 3 representing a strip in pine-tree shape which is tapering towards its free end 5. This strip is punched out from the plastic sheet 2. The two opposite free edges of the strip 3 are of saw-tooth shape, the saw-teeth 4 being directed away from the end 5 of the strip. The free strip end 5 is bent off in hook shape with respect to the remaining strip portion and directed towards the plane of the plate 1. Each strip 3 has a ridge 6 extending along the strip and two roof surfaces 7 sloping down therefrom towards the back side of the small plate.

All six strips 3 arranged in two groups of three and serving as fixing members are integral at their base with the sheet 2 which forms a frame 8 surrounding this strip. The frame, together with the six pine-tree-shaped strips 3 form together the fixing means or frame member 2. The three strips 3 of the top group in FIX. 1 are spaced laterally one from the other. The upper group of strips 3 shown in FIG. 1 is spaced from the lower group of strips 3, the strips situated above and below having their free ends 5 directed towards each other.

When manufacturing the fixing means or frame member 2 the pine-tree-shaped strips 3 are punched out from a plastic sheet and each strip 3 is provided with a longitudinal crease forming a ridge 6. Further, the free end 5 of each strip 3 is bent to hook-shape. Owing to the ridge 6 each strip 3 represents a flat channel which opposes a considerable resistance against bending up out of the plane of the frame 8. Owing to the hook-shaped end 5 and the inherent restoring force of the strips 3, these latter abut resiliently against the back side of the plate 1 by their hook-shaped free end. The portion 4 of each strip 3 provided with the saw-teeth 4 accordingly is inclined under an acute angle out of the plane of the plate 1. The packing net forming a reticular or mesh structure can be slipped over these six pine-tree shaped strips 3. The saw-teeth 4 and also the strip end or hook 5 provided with a contraction 8 form barbs for engaging the meshes of the net.

The represented label can be manufactured in very simple manner. The plate 1 as also the fixing means or frame member 2 consist of thin material and can be punched out very easily. Together with the punching operation for cutting the strips 3, the creases in each strip 3 for forming the ridges 6 can be produced in simple manner. Also in the same operation the free ends of the strips 3 can be bent to hook-shape. The stamped part 2 thus formed further can be glued in simple manner to the flat stamped plate 1.

Fixing of the tag to a net also is a simple operation. Owing to the hook-shaped ends 5 of the strips 3, the latter are slightly inclined with respect to the plane of the plate 1 and abut only by the tip of the hook 5 with slight resiliency against the back side of the plate 1. In this manner it is very simple to bring the mesh structure of a net between the back side of the plate and the strips 3, since already when the net structure acts with a small force against the hook-shaped free end of the strips 3, these latter resiliently yield and portions of the net slip underneath the hooks 5 and arrive into the space between the plate 1 and strip 3. This can be obtained in that the tag is gripped by the hand and moved over a net placed on a support. Since always three strips 3 are situated opposite three other strips, it is only necessary, for moving the tag with respect to the net, to seize one of the longitudinal sides of the tag. It does not matter which longitudinal side hereby is seized. During such relative movement of the tag and the net, after a short path already, a portion of the net structure is engaged by the barbs 4 and 5 of at least one strip 3. The net structure thus engaged is prevented by the barbs 4 to slide back off the strips and even if the four barbs 4 of one strip 3 should be released by a loosening net structure, the portions of the net are still retained by the hook 5 resiliently abutting against the back side of the plate 1. This great safety, as explained, is already present with a single strip 3. Tests, however, have shown that even after a short movement path of the back side of the tag relative to a net, the net structure is engaged by several strips 3, so that the tag, accordingly, can be reliably fixed to the net in simple manner. This rapid and safe attaching of the tag to the net also enables to effect such attachment mechanically in quite simple manner. Thus, e.g., in the movement path of a conveyor band a tagging threshold can be provided to which a tag is mechanically conveyed

and there retained. A product packed in a net then can be conveyed on the conveyor band and over this tagging threshold, so that the net is moved over the stationary tag. Thus the tag is hooked fast into the net and cannot get lost. The fixing of the tag is so safe that also when manipulating the product packed in the net there is no danger that the tag will be released from the net.

Since the tag is formed as a small plate, it snugly fits against the net so that substantially no space is present between the net and the tag; this fact assists, when manipulating the product packed in the net, in making The tag appear to be a part of the net, the tag does not disturb and accordingly cannot be damaged by any resistance, or even destroyed.

It has been ascertained that a tag thus formed as a small plate formed with a single strip 3 provided with at least one barb, may be fixed surprisingly well and safe to the net.

Owing to the feeble inclination of the strips 3 with respect to the plane of the plate 1, a substantially flat tag is formed, so that a great number of tags can be easily stacked in a magazine or box. When the strips 3 are formed symmetrically with respect to the longitudinal central axis and to the transverse central axis situated in the plane of the plate, as this is also the case in the represented example, the mentioned stacking is still facilitated by the fact that always an exactly vertical pile is obtained. The tags then may also be removed from the supply magazine in a particularly simple manner.

I claim:

1. A tag for nets comprising a plate having front and back sides, an elongated fixing strip having one end fixed on the back side of said plate and provided with an opposite free end pointing inward toward a plane of the plate, said strip being provided with integrally formed barbs laterally extending from the strip and adapted to engage the meshes of a net, the plate forming an open aperture, encircling the fixing strip and being spaced from the free end and the laterally extending barbs thereof for entrapping a net between the aperture and barbs.

2. A tag according to claim 1, in which said strip tapers towards its free end, the two longitudinal tapering edges of the strip being provided with saw teeth forming said barbs.

3. A tag according to claim 1, in which said free end of the strip is bent to hook-shape and directed towards the plane of the plate.

4. A tag according to claim 3, in which said hook-shape free end of the strips is formed as a barb with a plate-abutting point.

5. A tag according to claim 2, in which said saw teeth are pointing away from the free end and toward the fixed end of the strip.

6. A tag according to claim 1, in which said plate is formed with a plurality of fixing strips punched out from said plate and extending side by side in parallel spaced relation to each other.

7. A tag according to claim 1 in which said elongate fixing strip extends at an acute angle out of the plane of the plate.

8. A tag for nets comprising a plate having front and back sides, and a plurality of parallel fixing strips punched out of a frame member to which they remain attached at one end, said frame member surrounding the punched out strips and being bonded to the back side of said plate.

9. A tag for nets comprising a plate having front and back sides, in which said plate is formed with a group of fixing strips having one end formed integral with a frame member surrounding the strips, said frame member carrying the strips being bonded to said plate.

10. A tag for nets comprising a frame member having an aperture, a fixing strip having a first end formed on the frame member at an edge of the aperture and a remainder of the fixing strip substantially spaced from edges of the aperture, the fixing strip having a free end opposite the first end, and the strip being provided with integrally formed barbs laterally extending from the strip toward side edges of the aperture and being spaced from the side edges thereby adapting the strip to engage meshes of a net.

11. A tag according to claim 10, in which said strip tapers towards its free end, the two longitudinal tapering edges of the strip being provided with saw teeth forming said barbs.

12. A tag according to claim 10, in which said saw teeth are pointing away from the free end and toward the fixed end of the strip.

13. A tag according to claim 10, in which said frame is formed with a plurality of fixing strips punched out from said plate and extending side by side in parallel spaced relation to each other.

14. A tag according to claim 10 and comprising a plurality of parallel fixing strips punched out of a frame member to which they remain attached at one end, said frame member surrounding the punched out strips.

15. A tag according to claim 10, in which said frame member is formed with a group of fixing strips each having one end formed integral with the frame member, and the frame member surrounding the strips.

16. A tag according to claim 10, in which the free end of the strip is formed as a barb.

17. A plate support comprising a fixing means for receiving on one face thereof of a plate, and attachment means for securing the fixing means with a plate secured thereto to a net, the attachment means consisting of a plurality of parallel fixing strips integrally formed from the attachment means provided with barbs adapted to engage meshes of a net, the strips being punched out of said fixing means to which they remain attached at one end, said fixing means surrounding the punched out strips and forming an aperture having inner edges spaced from said strips and said barbs thereof for entrapping a net between the aperture edges and the barbs.

18. A tag for nets comprising a plate having front and back sides, an elongated fixing strip having one end fixed on the back side of said plate and provided with an opposite free end pointing inward toward a plane of the plate, said strip being provided with integrally formed barbs laterally extending from the strip and adapted to engage the meshes of a net, and the fixing strip being formed with a longitudinally extending ridge and with two roof surfaces sloping down from the ridge towards the back side of the plate.

19. A tag for nets comprising a plate having front and back sides, two spaced groups of parallel elongated fixing strips punched out of said plate, each fixing strip

having one end fixed on the back side of said plate and provided with an opposite free end pointing inward toward a plane of the plate, said strip being provided with integrally formed barbs laterally extending from the strip and adapted to engage the meshes of a net, the strips of one group having their free ends directed towards the free ends of the strips of the other group.

20. A tag according to claim **19**, in which a hook-shaped free end of the strip resiliently abuts against the back side of said plate.

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