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(12) # EUROPEAN PATENT APPLICATION

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(54) **Improvements in or relating to labels.**

(57) A label comprises a paper band comprising a plurality of panels 14, 10, 18, 20 and 22 connected end to end along respective fold lines 12, 16, 19, 21, extending widthwise of the band.

The panel 14, at one end of the band, is connected via fold line 12 with one end of panel 10, which is coated on one face with adhesive, or has stuck to one face thereof an adhesive strip. The remainder of the strip, connected with the other end of panel 10, and comprising panels 18, 20 and 22, is folded in zig-zag fashion about lines 19 and 21 and is folded onto panel 10 to overlie the non-adhesive face thereof. The panel 14 is, in turn folded about line 12 to overlie the panels 18 to 22 and is stuck to panel 18 via a detachable and re-sealable adhesive strip 23.

The label provides a convenient means of providing on a container, such as a bottle, instructions or the like relating to the contents of the bottle, which can readily be applied automatically.

Fig.2.

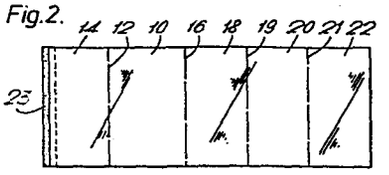
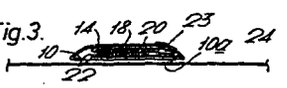


Fig.3.



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Title:- "Improvements in or relating to labels"

THIS INVENTION relates to labels, for example labels for containers for horticultural or photographic chemicals in respect of which there is a need, not only for an identification of the contents of the containers, but also for somewhat detailed instructions for use or the like.

In the past, various kinds of folded labels, tear-off information sheets and the like have been proposed to meet this need, as well as the simple expedient of attaching a separately formed sheet of instructions to a container, for example by an encircling rubber band or the like. However, these prior proposals have had the disadvantage of requiring excessive manual labour, or of making it difficult, once the leaflet or the like containing the instructions has been consulted, to keep the instructions thereafter conveniently with the container for future reference.

It is an object of the present invention to provide an improved label by which the above-noted disadvantages may be avoided.

According to the invention there is provided a label comprising a band of sheet material, the band comprising a plurality of panels connected end to end along respective fold lines extending widthwise of the band, said panels including a first panel coated on one face with an adhesive whereby said first panel may be stuck to an object, a second panel connected via a first fold line with one end of the first panel and folded over on the first panel, said second panel being connected along its edge remote from said second fold line with a part of the label other than said second panel.

Preferably said band includes a third panel connected via a second fold line with the end of the first panel opposite said first fold line, the panels being so disposed that the third panel overlies the first panel on the face thereof remote from said adhesive and said second panel overlies said

third panel on the face of said third panel remote from said first panel, said second panel being connected along its edge remote from said second fold line with a part of the label other than said second panel.

An embodiment of the invention is described below with reference to the accompanying drawings in which:-

FIGURE 1 is a plan view of a label embodying the invention in a folded condition,

FIGURE 2 is a plan view of the label in an unfolded condition,

FIGURE 3 is a schematic end elevation view of the label of Figures 1 and 2 attached to a release sheet, and

FIGURE 4 illustrates a strip of release paper with a plurality of labels such as shown in Figures 1 to 3 attached thereto, for supply to an automatic labelling machine.

Referring to the drawings, a label comprises an elongate rectangular band of paper divided, by transversely extending fold lines, into a plurality of panels. Thus, the band comprises a first panel 10 connected via a first fold line 12 with a second panel 14 affording one end of the strip, the panel 10 being connected, via a second fold line 16, with a section of the band which affords the other end of the band and which, in the example shown, comprises a third panel 18, connected with the panel 10 via the fold line 16, a panel 20 connected with the panel 18 via a fold line 19 and a panel 22 connected with the panel 20 via a fold line 21.

In the folded condition of the label, the panel 20 is folded about fold line 19 onto the panel 18, the panel 22 is folded about fold line 21 onto the panel 20, and the panel 18, with the panels 20 and 22 folded against it, is folded over onto the panel 10, so that the panels 20 and 22 lie between the panel 18 and the panel 10. The panel 14 is then folded about the fold line 12 onto the panel 18, as shown in Figure 3, so that the panels 18, 20 and 22 are disposed between the panels 10 and the panel 14. The panel 14 is then secured adjacent its free edge, to the portion of the panel 18 which adjoins

the fold line 16, for example by means of an adhesive strip 23 superimposed on the panels 14 and 18 to overlap the free edge of the panel 14, the strip 23 having, on its side engaging the panels 14 and 18, a coating of permanently tacky, pressure-sensitive adhesive.

The panels 14, 18, 20 and 22, and the portion of panel 10 which faces towards the panels 18, 20 and 22 in the folded condition of the label conveniently comprise respective parts of a single strip of paper, while the face of the panel 10 which faces away from the panels 18, 20 and 22 in the folded condition of the label is afforded by a separately formed support piece of paper, 10a, (see Figure 3), which is permanently stuck to the strip of paper providing the panels 14, 18, 20 and 22. The piece of paper 10a carries, on its face facing away from said strip of paper, a coating of a pressure sensitive, permanently tacky adhesive by means of which, in use, the label is applied to a container or the like. Each piece of paper 10a may thus have the form which is already known for self-adhesive labels per se.

Whilst it would be possible to dispense with the separate piece of paper 10a and apply the adhesive directly to the portion of the strip of paper forming the panel 10, it is, in fact, much easier to provide, in known manner, a series of pieces of paper 10a, coated with said adhesive and temporarily supported, on their adhesive coated sides, by a strip of release paper, and to paste the already folded and retained (by strips 24) paper strips to the pieces 10a, for example by passing said strip of release paper, with the pieces 10a thereon, longitudinally through a machine which applies paste to the pieces 10a in succession, whilst they are supported on the release strip, and then applies the folded strips affording panels 14, 18 etc. to the pasted pieces 10a in succession. Alternatively, of course, such a machine may apply paste to the folded strips prior to affixing the folded strips to their respective pieces 10a in succession as the release strip passes through the machine. In the same way, it would be possible to apply a band of pressure sensitive adhesive directly to the panel 14 in the region of its free edge and to dispense with the strip 23, but the forming and folding of the paper strip is much facilitated if a separate securing strip 23 is used.

Figure 4 shows a series of similar labels such as shown in Figure 1 to 3 secured to a strip of release paper 24. In use, the strip 24, for example

wound into a roll, is supported in a labelling machine and is fed longitudinally into the machine which operates to apply the labels one after the other to successive containers or the like to be labelled.

In manufacture of the labels, the paper strips which afford the panels 14, 18, 20 and 22 and the upper portion of the panel 10 are appropriately printed, then folded and secured by their strips 23, then adhesively secured to the pieces 10a already supported on their release strip 24. The face of the panel 14 which is presented outwardly in the folded condition of the label as viewed in Figure 1 is printed, for example, with material identifying the contents of a container to which the label is to be applied, whereas the outer face of the panel 10 and either or both faces of the panels 18, 20 and 22 are printed with, for example, instructions for use of the product in the container or the like.

The purchaser of the container or the like having the label applied thereto, when he wishes to consult the instructions embodied in the label, simply peels off the strip 23 and unfolds the panels 18, 20 and 22 to consult the instructions. He may thereafter re-fold the strip to its original condition and re-apply the strip 23 so that the instructions are still retained in the label, with the container, as a neat package.

If desired, the strip 23 may be omitted and the free edge of the panel 10 permanently stuck to the opposing surface of the panel 18, with a tear line being provided on the panel 14, parallel with the fold lines, at a position intermediate the permanent adhesive connection with the panel 18 and the fold line 12. The tear line may simply be a line printed to indicate where the panel 40 should be torn to gain access to the instructions, or may be a line of perforation or other line of weakening to assist in such tearing. In this arrangement after the panel 14 has been torn along tear line 14 to allow the strip to be viewed, the re-folded strip may be retained in a folded condition by tucking under the remainder of panel 14 still attached to panel. If desired, a tear line, for example a line of perforations, may be provided at the junction of the panel 18 with the panel 10 to allow the instructions or the like printed on panels 18 to 22 to be torn off, or such a tear line may be provided between any of the panels 19 to 22 and the adjoining panel to allow the respective portion of the label to be torn off.

It will be appreciated that sundry variants of the label disclosed with reference to the drawings are possible. For example, the panels 20 and 22 may be omitted, if the surface of panels 10 and 18 and the reverse surface of panel 14 are sufficient for the instructions or the like. Indeed, the panel 18 may be omitted, and the panel 14, when folded over, simply affixed by the strip 23 to the outwardly presented face of the panel 10.

CLAIMS

1. A label comprising a band of sheet material, the band comprising a plurality of panels connected end to end along respective fold lines extending widthwise of the band, said panels including a first panel coated on one face with an adhesive whereby said first panel may be stuck to an object, a second panel connected via a first fold line with one end of the first panel and folded over on the first panel, said second panel being connected along its edge remote from said second fold line with a part of the label other than said second panel.

2. A label according to claim 1, wherein said band includes a third panel connected via a second fold line with the end of the first panel opposite said first fold line, the panels being so disposed that the third panel overlies the first panel on the face thereof remote from said adhesive and said second panel overlies said third panel on the face of said third panel remote from said first panel, said second panel being connected along its edge remote from said second fold line with a part of the label other than said second panel.

3. A label according to claim 2 wherein said third panel is one of a plurality of panels, connected end to end along respective fold lines extending widthwise of the band and forming an end section of the band connected with said first panel along said second fold line, the panels of said end section being folded together about their respective fold lines so as to form a flat bundle accommodated between said first and second fold lines.

4. A label according to claim 1, 2 or 3 wherein said second panel is connected with said first panel by way of a permanently tacky contact adhesive whereby the second panel can be temporarily detached from, and subsequently reaffixed to, the third panel.

5. A label according to claim 1, 2 or 3 wherein said second panel is connected with said first panel by means of a removable self-adhesive strip, bearing a permanently tacky contact adhesive, whereby said self-adhesive strip, after removal from the remainder of the label to allow said second panel to be separated from said third panel, can subsequently be re-applied to re-secure said second panel to said third panel.

6. A label according to claim 1, 2 or 3 wherein said second panel is permanently secured to said third panel and is provided, at a region intermediate its permanent connection with said third panel and said first fold line with a tear-line extending widthwise of the band along which the second panel may be torn to allow the label to be unfolded.

7. A label according to any preceding claim wherein said first panel comprises a first portion which is integral with said second and third panels and a further portion, permanently adhered to one face of said first portion and bearing on its face remote from said first portion said coating of adhesive.

8. A method of manufacturing labels according to any of claims 1 to 7, comprising providing a plurality of pieces of sheet material, constituting support pieces, coated on their one sides with pressure sensitive, permanently tacky adhesive, arranged in series along a release strip and temporarily stuck thereto by said one faces thereof, conveying said release strip with said support pieces thereon, longitudinally and sticking to said other faces of the support pieces in succession, respective said folded bands of sheet material.

9. A method according to claim 7 wherein the exposed said other faces of the support pieces are coated with gum or paste as they pass, on the release strip, a pasting station, and said folded bands are applied thereto as they pass, on the release strip, through the pasting station.

10. A method according to claim 7 wherein said folded bands are first coated with paste or adhesive on the portions of the respective bands to be stuck to said support pieces and are subsequently applied to said support pieces whilst the latter are still stuck to said release strip.

Fig.1.

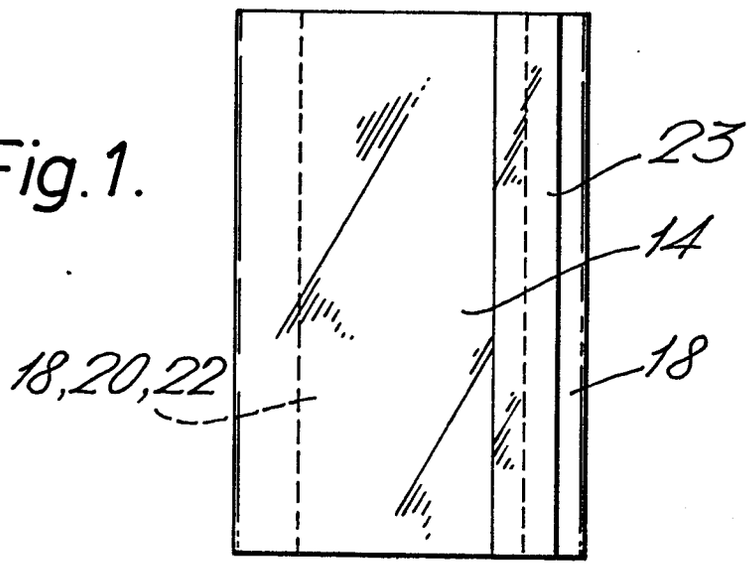


Fig.2.

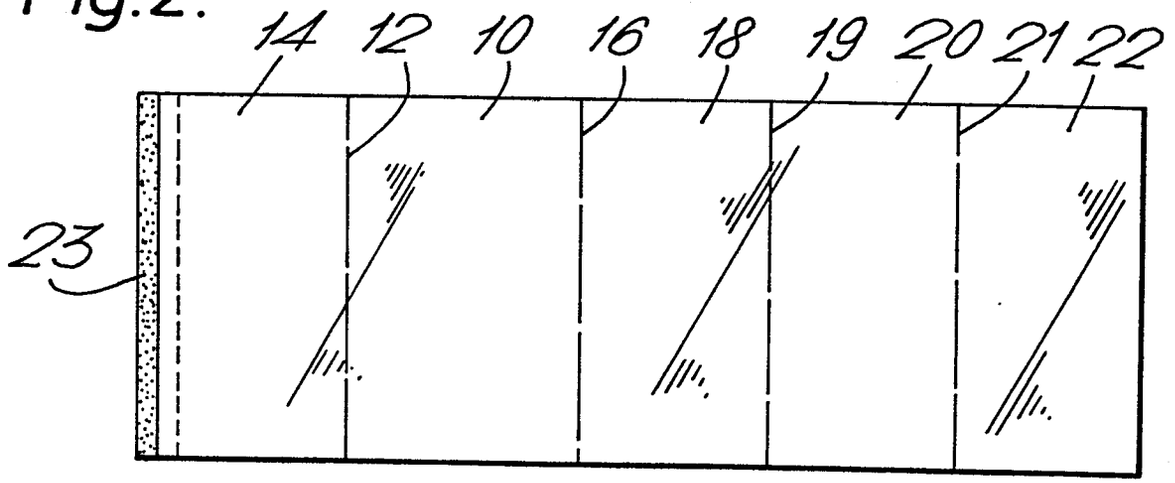


Fig.3.

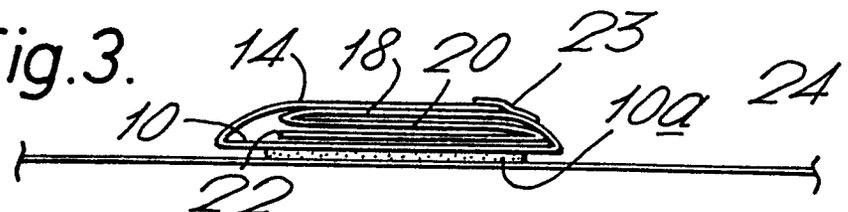
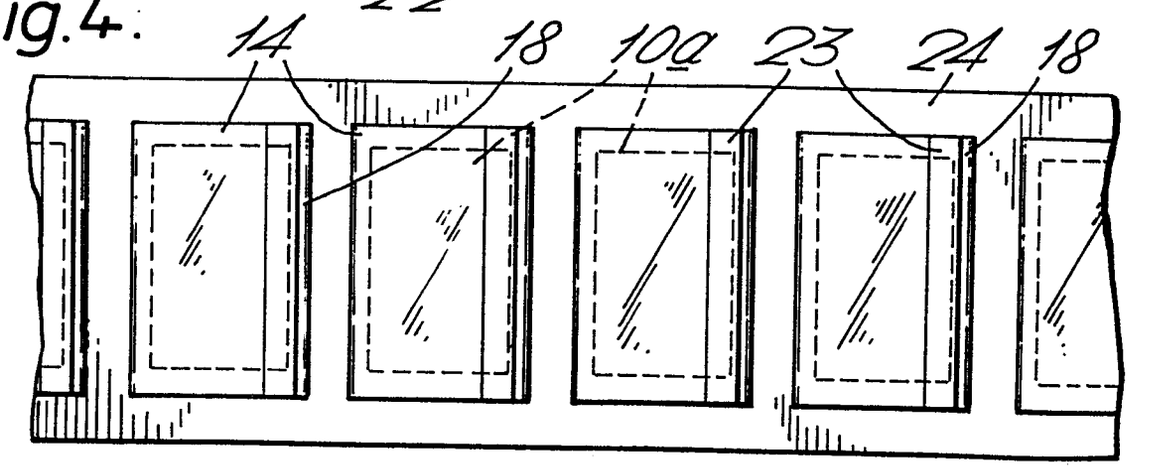


Fig.4.



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EUROPEAN SEARCH REPORT

0090882
Application number

EP 82 10 7946

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. ³)
X	EP-A-0 043 179 (DENNY BROS.) * Whole document *	1-3,6	G 09 F 3/02 G 09 F 3/10
A	US-A-4 128 954 (R.T. WHITE) * Claim 1 *	1,2,4-6,8	
A	GB-A-1 398 912 (AGFA-GEVAERT AG) * Page 1, lines 25-43 *	1-3	

TECHNICAL FIELDS SEARCHED (Int. Cl. ³)

G 09 F 3/00

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	31-05-1983	BOTTERILL K.J.

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
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E : earlier patent document, but published on, or after the filing date
D : document cited in the application
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