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F. S. TOBEY ET AL

2,818,168

ADHESIVELY ATTACHED MARKING INDICIA

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Fig. 1.

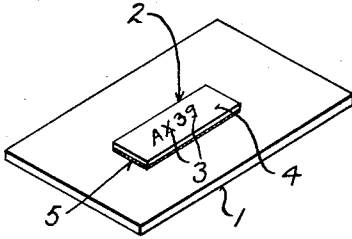


Fig. 2.

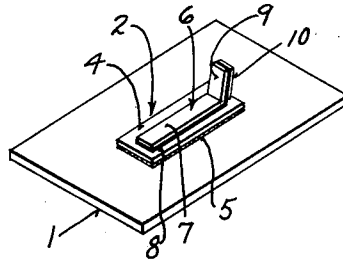


Fig. 3.

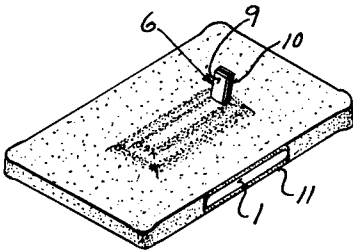


Fig. 4.

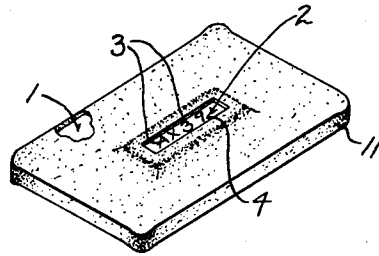


Fig. 5.

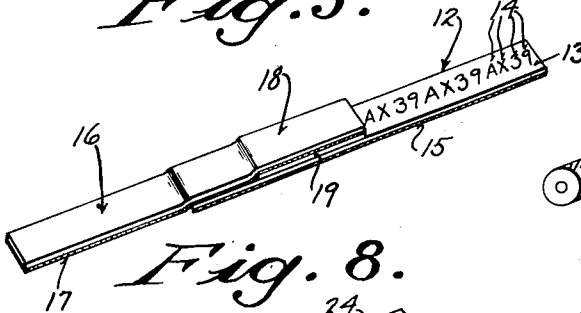


Fig. 6.

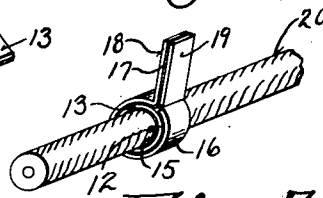


Fig. 8.

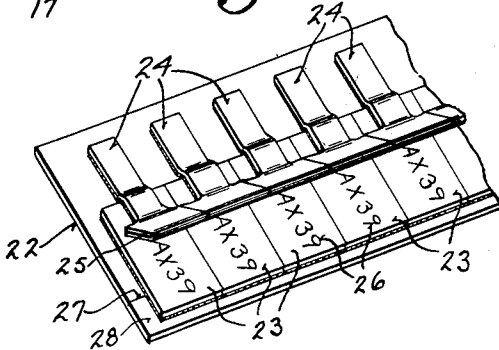
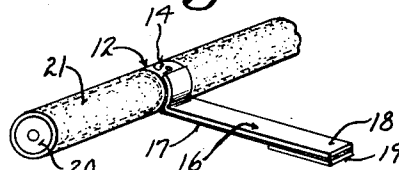


Fig. 7.



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ADHESIVELY ATTACHED MARKING INDICIA

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2 Claims. (Cl. 206--56)

This invention relates to adhesively attached labels and it more specifically resides in a label and a method for attachment of the same wherein the label comprises a strip of sheet material having a front face bearing marking indicia and an attachment face to be adhered to an item, there being employed in conjunction with the label a mask that is disposed over the marking indicia as a protective cover while a fluid cementitious material is applied to adjoining surfaces of the label and the item to which it is being attached, which mask is specially adapted to be stripped from the label upon a hardening of the cementitious material to expose the marking indicia for ready identification.

In the manufacture of transformers, reactors and numerous other electrical items, it is common practice to label coils, lead wires and the like with tape bearing suitable marking indicia. In one form, the practice of this invention concerns the use of adhesive backed tape, carrying such marking indicia that is readily applied for such purposes. To augment the adhesion of the adhesive, and thereby enhance the permanency of the attachment of the label, a bonding agent of cementitious material is coated over adjoining surfaces of the label and the item to which it is being attached. A japanning cement may advantageously be employed as the bonding agent, and upon drying it ensures a more effective retention of the edges of the tape upon the item to which it is adhered, even under extreme abusive handling.

So that the marking indicia are not obscured during the application and drying of the cementitious material a masking strip is temporarily disposed over the area of the label bearing the indicia. This masking strip is also adhesively backed, for an intimate adherent contact with the label that effectively seals off the indicia bearing label area to preclude depositing of the cement upon the indicia. Upon hardening of the cement the masking strip has performed its function, and is then readily stripped from the label to again bare the marking indicia.

It is an object of this invention to provide an adhesively attached label and a method of attachment therefor in which marking indicia appearing on the label are clearly legible after attachment has been made.

It is another object of this invention to provide an adhesively attached label and a method of attachment therefor in which the label may be bonded in position by the use of a cementitious material without impairment of the legibility of marking indicia on the label.

It is another object of this invention to provide a method of attachment for an adhesively attached label in which the label may be dipped in a fluid cement without coating the cement over label areas carrying marking indicia.

It is another object of this invention to provide an adhesively attached label including a masking strip to be placed over marking indicia upon the label during the process of application, which masking strip is readily stripped therefrom after application to expose the indicia.

The foregoing and other objects and advantages of this invention appear in the description to follow. In the

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description reference is made to the accompanying drawing, which forms a part hereof, and in which there is shown by way of illustration and not of limitation specific forms that may be employed in the practice of the invention and the method of employment of the invention.

In the drawing:

Fig. 1 is a view in perspective of a label bearing marking indicia adhered upon an item to which it is to be attached,

Fig. 2 is a view in perspective of the label and item shown in Fig. 1 with a mask placed over the marking indicia of the label,

Fig. 3 is a view in perspective of the label, mask and item shown in Fig. 2 coated with a cementitious material,

Fig. 4 is a view in perspective of the coated label and item with the mask removed, upon a hardening of the cementitious material having occurred,

Fig. 5 is a view in perspective of another form of label and associated mask in which the invention is embodied,

Fig. 6 is a view in perspective of the label and mask of Fig. 5 wound about an electrical conductor,

Fig. 7 is a view in perspective of the label and mask of Fig. 6 with the mask partially removed, the conductor having been coated with a cementitious material, and

Fig. 8 is a fragmentary view in perspective of a mounting card upon which a plurality of labels with associated masks are mounted side by side.

Referring now to the drawing, a flat plate 1 is shown, as a representative illustration of an item to which it is desired to attach an identification label 2. The label 2 carries suitable marking indicia 3 for the purpose of identifying the plate 1, and it is contemplated to attach the label 2 in a manner to withstand abusive handling and treatment, with a minimum of susceptibility to peeling from the plate 1, to thereby provide a degree of permanency of the attachment of the label 2 that enhances the useful life of the item.

The identification label 2 comprises a thin strip of pliant sheet material 4 such as cloth, fabric, paper, film or other suitable composition, with an upper face that carries the marking indicia 3 and a lower attachment face coated with a layer of tacky pressure sensitive adhesive 5. As a preliminary step in the attachment of the identification label 2 it is placed upon the item 1, in the position shown in Fig. 1, and a slight downward pressure is brought to bear upon the label 2 to cause an adherence, through the action of the adhesive 5, which is to be supplemented by the subsequent steps of the method of attachment to be described. In some applications, a thermal setting adhesive may be advantageous, for effecting a permanency of this adhesive through application of heat.

In Fig. 2 there is shown a mask 6 that has been placed over the marking indicia 3. The mask 6, similarly as the label 2, is formed from a thin strip 7 of pliant sheet material coated on one side with a layer of pressure sensitive adhesive 8. In this instance, however, it is not desirable to have an adhesive layer readily vulcanized by heat treatment and it is preferable that the adhesive 8 be permanently tacky as contrasted with a thermal setting adhesive that might be selected for the label 2. By the term permanently tacky is meant that the adhesive will not readily harden during a heat treatment, as contemplated herein, and that substantial tackiness is preserved until the final step in the attachment of the label 2, at which step it is desired to readily remove the mask 6 by stripping from the label 2.

Extending from one end of the mask 6 is a release tab 9 formed from an end of the strip 7 and a stiff rectangular piece 10 held against the end by the adhesive 8. There is no exposed adhesive on the tab 9 and it pro-

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vides a convenient means for grasping the mask 6. The application of the mask 6 to the label 2 provides a covering in tight intimate contact with the surface areas of the pliant strip 4 that carry the marking indicia 3. The adhesive 8 seals the indicia 3 to act as an impervious protective masking during subsequent steps in the application of the label 2 to the plate 1. By tightly pressing the mask 6 against the label 2, and with a proper proportioning of the tab 9, the tab 9 will tend to stand upright away from the label 2, to facilitate its function as a finger grip.

After the placement of the mask 6 in position upon the label 2, as shown in Fig. 2, a coating of a fluid cementitious material 11 is applied over the exposed surfaces of the label 2 and the adjacent surfaces of the plate 1. As shown in Fig. 3, the entire plate 1 has been dipped in the material 11 to accomplish the step of coating. The material 11 may comprise an insulating varnish or other suitable bonding agent that hardens by drying. Preferably, the material 11 is a japaning material such as a glyptol resin varnish characterized by a thermal setting property whereby accelerated oxidizing may be had. The release tab 9 extends obliquely away from the label 2 so as not to interfere with the application of the material 11 and it remains free, as a means to be grasped for a subsequent removal of the mask 6.

After applying the coating 11 it is heat dried to form a hardened bond firmly uniting with the label 2, and jacketing the edges of the label 2 under a shell-like covering. The application of heat may also vulcanize, or set, the adhesive 5 of the label 2, if a vulcanizable adhesive were selected, to bond the same with a high degree of permanence to the plate 1. The permanently tacky adhesive 8 of the mask 6 will remain more cohesive than adhesive during the heating or drying period, and to complete the method of attachment of the identification label 2 the release tab 9 is now grasped and pulled backward over the mask 6 to peel the mask 6 from the surface of the strip 4. The marking indicia 3 are now exposed, as shown in Fig. 4, and are clearly legible for ready identification of the plate 1. The mask 6 functioned as an impervious protective covering during the application and drying of the material 11.

Referring now to Fig. 5, there is shown another form in which the invention may be embodied. A label 12 is comprised of a narrow lengthwise strip 13 having printed marking indicia 14 on the upper face and a coating of thermal setting pressure sensitive adhesive 15 on the lower attachment face, which construction is similar to that of the identification label 2 of Figs. 1-4. Adhered to one end margin of the label 12 is a mask 16 of a suitable pliant material that is coated on one side with a layer of permanently tacky pressure sensitive adhesive 17. A major portion of the mask 16 forms a continuation of the label 12, while a medial portion of the mask 16 overlaps and is attached by means of the adhesive 17 to the end margin of the label 12. The overlapping end of the mask 16 is part of a release tab 18. The tab 18 is completed by a small stiff rectangular piece 19 held in place by the adhesive 17. The tab 18 is similar to the tab 9 and performs a like function.

The form of the invention shown in Fig. 5 is particularly adapted for marking electrical conductors and other cylindrical objects of small cross section. The end of the label 12, opposite the mask 16, is placed upon the item to be marked, such as the conductor 20 in Fig. 6, and the label 12 is then wrapped about the conductor 20, with the successive turns being secured in place by the adhesive 15. After encircling the entire label 12 about the item, the winding process is continued by wrapping the extended end of the mask 16 about the exposed face of the label 12, and as is shown in Fig. 6 the portion of the mask 16 that is adhesively attached to the face of the label 12 completes no more than one turn about the conductor 20.

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Preferably, the end of the mask 16 falls adjacent the bottom of the release tab 18 that is integrally attached to the mask 16. The portion of the electrical conductor 20 carrying the label 12 may now be dipped in a suitable cementitious material 21, such as that employed in conjunction with the identification label 2. Through the application of heat the material 21 is now hardened and the thermal setting adhesive 15 is vulcanized to permanently bond the label 12 to the conductor 20. The permanently tacky adhesive 17 of the mask 16 is unaffected by the drying process, and the release tab 18 is grasped for unwinding the mask 16 from the label 12. As shown in Fig. 7, the mask 16 is partially unwound to leave the marking indicia 14 exposed for ready identification of the conductor 20.

The release tab 18 is placed on the label 12 in such manner that upon stripping the mask 16 from the label 12 the end of the label 12 will not be lifted or unwound from the conductor 20. The force exerted upon the label 12, upon stripping off the mask 16, is directed in the direction of winding on the label 12, rather than in the direction of unwinding. By joining the mask 16 to the label 12, as shown, before application, improper placement of the mask 16 is avoided.

The identification labels of this invention, together with the masks used in conjunction therewith may be furnished for ready use by being mounted upon card dispensers, from which they may readily be peeled upon use. For example, in Fig. 8, there is shown a mounting card 22 formed of a material with a smooth face, and which has a low susceptibility to peeling at its surface. The characteristic of low susceptibility to peeling permits the temporary attachment of a plurality of adhesive labels 23 to the card 22, to provide a convenient packaging that protects the adhesive and retains the shape of the labels. The labels 23 are similar to the labels 12, being particularly adapted for use with small circular items such as electrical conductors, and associated with each label 23 is a mask 24 that includes a release tab 25. The masks 24 are similar to the masks 16, shown in Figs. 5-7, with the exception that the width of the masks 24 is less than the width of the associated labels 23. However, the masks 24 are of a sufficient width to mask the surface areas of the labels 23 that carry the marking indicia 26 appearing thereon. Upon desiring to apply one of the labels 23 it is peeled from the card 22, together with the associated mask 24 and then applied in the fashion herein described.

To facilitate the peeling of the labels 23 from the card 22 an indented score mark 27 is cut in the face of the card 22. The score mark 27 divides the card 22 into a major portion and a narrow strip 28 running along one side margin. The strip 28 may be readily separated from the major portion of the card 22 by first bending and then tearing along the mark 27. Upon removal of the strip 28 ends of the labels 23 are exposed so that they may be readily grasped and stripped from the card 22, and as a label 23 is stripped clear of the card 22 the associated mask 24 will be removed therewith.

The identification labels 2 may likewise be attached to a mounting card that serves both as a protective packaging and a convenient dispenser. For convenience in the use of the labels 2 the masks 6 may be premounted upon the labels 2, so that they will be in position upon the preliminary adherence of the labels 2 to the items which they are to identify.

In the practice of the invention, marking indicia are readily affixed to an object. The permanency of the attachment is enhanced by employing both the usual adhesive on the label attachment face and a cementitious coating over the adjoining surfaces of both the label and the object it identifies. The area of the label carrying the identifying indicia is protected by an impervious covering during the application of the label, thereby preserving the legibility of the indicia, while permitting the use of a

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supplementary cement that ensures a high degree of permanency for the attachment of the label.

We claim:

1. In a dispensably mounted label assembly the combination comprising a backing card presenting a mounting face having a limited susceptibility to peeling; a plurality of individual label strips each of pliant sheet material with a coating of thermal setting adhesive on an attachment face in adherent contact with the mounting face of said backing card and bearing marking indicia on the opposite face; and a masking strip of pliant sheet material for each label strip each having a permanently tacky adhesive coating on an attachment face a portion of which face is in adherent contact with the mounting face of said backing card and a portion of which laps over an end margin of the associated label strip and is in adherent contact therewith, each masking strip including a release tab extending from the portion of the masking strip overlapping its associated label strip.

2. In a dispensably mounted label assembly the combination comprising a backing card presenting a mounting face having a limited susceptibility to peeling; a plurality of individual label strips each of sheet material with a coating of adhesive on an attachment face in temporary adherent contact with the mounting face of said backing

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card and bearing marking indicia on the opposite face; and a masking strip of sheet material for each label strip each having an adhesive coating on an attachment face one end of which masking strip overlaps a marginal end of the associated label strip and is in adhesive contact therewith and which extends from the label strip across said backing card as an endwise extension of the associated label strip that is likewise in temporary adherent contact with said card, each masking strip including a release tab extending from the end of the masking strip overlapping a portion of the associated label strip that presents opposite faces dry and free of adhesive adapted to be grasped by the fingers.

References Cited in the file of this patent

UNITED STATES PATENTS

2,096,750	Lawrence	Oct. 26, 1937
2,248,317	Van Cleef	July 8, 1941
2,363,422	Hutchings	Nov. 21, 1944
2,372,994	Welch	Apr. 3, 1945
2,646,379	Poschel	July 21, 1953
2,681,732	Brady	June 22, 1954
2,721,822	Pritikin	Oct. 25, 1955