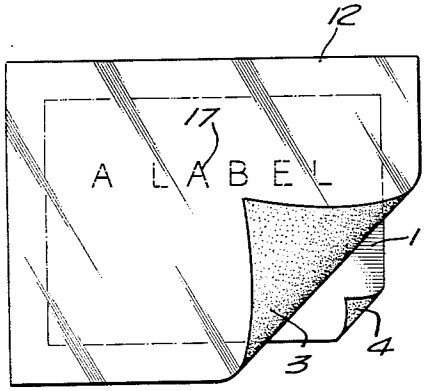
Oct. 27, 1964 J. L. JONES 3,153,868

PROTECTED LABEL

Filed Nov. 8, 1961

FIG. 1.



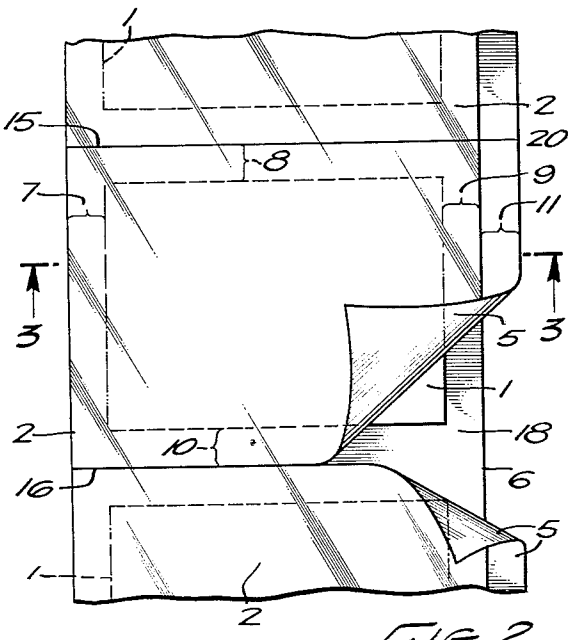


FIG. 2.

FIG. 3.

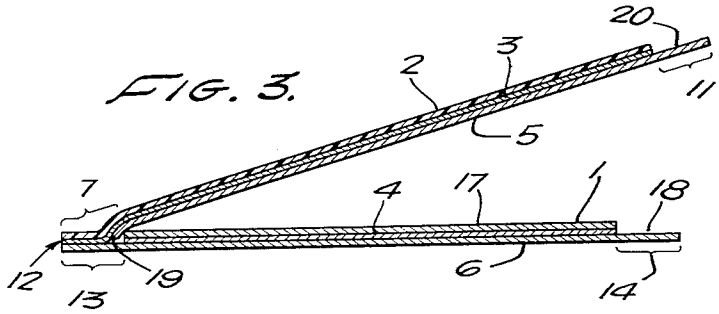
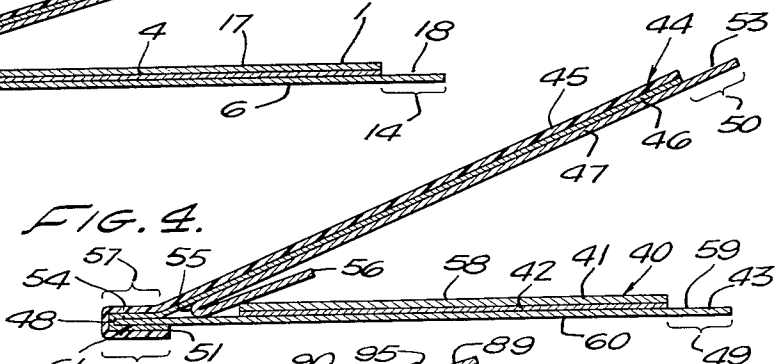


FIG. 4.



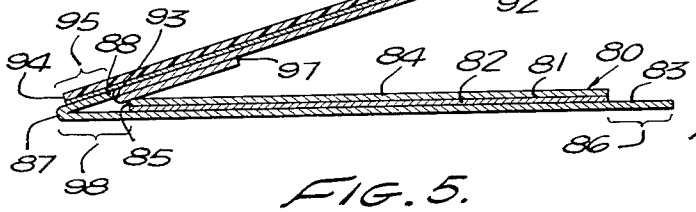


FIG. 5.

INVENTOR.

John Leslie Jones

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PROTECTED LABEL

John Leslie Jones, 1070 Glen Oaks Blvd., Pasadena, Calif.

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6 Claims. (Cl. 40—2)

This invention relates to labels, wherein the information displayed thereon is secured free from alteration. The invention is a continuation-in-part of my application Serial Number 56,323, filed September 15, 1960 on a label device, now U.S. Patent No. 3,077,683.

Included in the objects of my invention are:

First, to provide a protected label device whose parts cooperatively provide a writing information surface difficult to alter.

Second, to provide a protected label device simply cooperatively converted into a label device providing indicia which is not easily altered.

Third, to provide a protected label combination device useful for providing written information relatively impervious to destruction by water, other liquids, or chemicals.

Fourth, to provide a protected label combination device which cooperatively converts to an unalterable indicia surface for a pressure sensitive label.

Fifth, to provide a simple means of dispensing a device which cooperatively converts to a relatively unalterable protected label device.

Further objects and advantages of this invention will become apparent in the following description.

Reference is directed to the accompanying drawings in which:

FIGURE 1 is a plan view of one of a protected label.

FIGURE 2 is plan view of my protected label assembly.

FIGURE 3 is an enlarged plan view of my protected label assembly of FIGURE 2 in a cross sectional view through 3—3 of FIGURE 2.

FIGURE 4 is another cross sectional view of a further modification of my protected label assembly in a view similar to 3—3 of FIGURE 2.

FIGURE 5 is another cross sectional view of a further modification of my protected label device in another view similar to 3—3 of FIGURE 2.

Referring to FIGURE 1 in detail there is shown a protected label assembly in which a paper, or the like base, label sheet **1** is covered by a transparent film protective sheet **2**. The label sheet **1** has a first pressure sensitive adhesive coating **4** completely covering one side of the label sheet **1** and securing said sheet **1** to a surface. The transparent film protective sheet **2** has a transparent second pressure sensitive adhesive coating **3** completely covering one side of said sheet **2**, said film sheet **2** in combination with the adhesive coating **3** forming a transparent laminate sheet. The laminate sheet combination more than completely covers the area of the label sheet **1**, providing a clear protective margin around sheet **1**, said sheet **1** having indicia **17** on the side opposite the adhesive coating **4**.

Referring to FIGURES 2 and 3 in detail, there is shown my protected label assembly invention in a roll or strip form, suitable for imprinting instructions or information, such as for a prescription label. The paper, or the like, label sheet **1** has a side prepared for indicia **17** and a second side completely coated with a first pressure sensitive adhesive coating **4**. The label sheet **1** in combination with the coating **4** is secured by the adhesive coating **4** to a release coated face **18** of a first flexible backing sheet **6**, said sheet **6** being larger in area than the label sheet **1**, and said release coated face **18** of said backing sheet **6** having opposed margin area portions **13** and **14**, between the respective opposite edges of the release coated sheet

6 and the label sheet **1**. The transparent laminate sheet of transparent film sheet **2** and transparent adhesive coating **3** is shown to be larger in area than the label sheet **1**, providing transparent margin area portions **7**, **8**, **9** and **10** respectively. As shown in FIGURES 2 and 3, all of the laminate sheet is adhesively secured to a second release coated face **20** of the flexible backing sheet **5**, except for the laminate margin area portion **7**. The margin area portion **7** is adhesively secured by the adhesive coating **3** to the margin area portion **13** of the first release coated face **18** of the backing sheet **6**, to form a single, continuous, straight line fixed position hinge **12**.

The margin area portions **7** and **13** are substantially equal in width as shown. The edge **19** of the backing sheet **5** terminates just at the detachable, single, continuous, straight line fixed position hinge **12**. A margin area portion handle **11** of the backing sheet **5** provides a handle for the ready removal of the sheet **5** from the adhesive coating **3**. The slits **15** and **16**, limit the opposed margins areas of the transparent combination laminate of **2** and **3** and the backing sheet **5**, providing for ready removal of the protected label combination of FIGURE 1.

In application, the protected label assembly of FIGURE 2 can be partially completed, as by printing a blank prescription label form as indicia **17** of the label sheet **1**. On completing the label indicia in the drug store, one then removes the backing sheet **5** by the margin area portion handle **11**, rotates the transparent laminate combination **2** and **3** down on the label sheet **1**, to properly register the laminate sheet margins **8**, **9** and **10** with respect to the label sheet **1**. One then picks up the newly laminated combination of the transparent laminate and the properly registered label sheet **1**, with its adhesive coating **4**, by the margin area portion handle **9**, and permanently adhesively secures together both the transparent laminate **2** and **3** and the label sheet **1** and its adhesive coating **4**, to form a protected label assembly on a bottle, box or the like container.

Referring to FIGURE 4 in detail, I show another modification of my protected label assembly embodying another modification of my single detachable, continuous, straight line, fixed position hinge **57**. The cross sectional view of FIGURE 4 clearly shows the structure of the modified hinge **57**. The FIGURE 4 assembly in a plan view assembly construction is similar to FIGURE 2.

In FIGURE 4, the label sheet combination **40** consists of the paper, or the like, sheet **41** having an indicia side **58** and an opposed side covered with a first pressure sensitive adhesive coating **42**.

The first coating **42** is adhesively secured to a release coated face **59** of a flexible backing sheet **43**, said backing sheet **43** having a second face **60** preferentially free from a release coating. A pair of opposed margin area portions **49** and **52** provide handles on the backing sheet **43**. The transparent laminate combination sheet **44** consists of the transparent film sheet **45** completely covered on one side by a transparent second pressure sensitive adhesive coating **46**. The laminate combination sheet **44** is adhesively secured by the coating **46** to a release coated face **53** of a flexible backing sheet **47**, said sheet **47** covering all of the adhesive coating **46** except a margin area portion. Another margin area portion handle **53**, together with a handle **56**, formed by a crease **55** in sheet **47**, serve to provide for simple removal of the backing sheet **47** from the transparent laminate **44**. The modified hinge **57** is formed by adhesively securing an adhesive margin area portion of the laminate sheet **44** to the margin **61** of the coated face **59**, the edge **48**, and the reverse face **60** of the backing sheet **43** to the edge **51**. A perforated line of small openings **54** in the margin hinge **57** provides for simple removal of a major portion of the laminate sheet **44**. The laminate sheet **44** is preferentially strongly

adhesively secured to the face 60 of the backing sheet 43, in view of the absence of a release coat on the face 60. The release coated face 59 of the sheet 43 provides a weak adhesion of the laminate 44 to the face 59. By using the handles 50 and 56, one removes the backing sheet 47, and the indicia on the laminate label sheet 40 are rotatingly registered and covered by the laminate 44. The combination of properly registered laminates 44 and 40 are then removed from the backing sheet 43 at the perforated opening line 54, and the combination mounted on a desired surface.

Referring to FIGURE 5 in detail, I show still another modification of my detachable, single, continuous, straight line, fixed position hinge 95. The cross sectional view of FIGURE 5 clearly shows the modified hinge 95, which is utilized in a plan view assembly construction similar to that of FIGURE 2. In FIGURE 5, the label sheet combination 80 consists of the paper, or the like, sheet 81 having an indicia side 84 and an opposed side covered with a first pressure sensitive adhesive coating 82. The coating 82 is adhesively secured to a flexible backing sheet 83 having release coatings on both faces of said sheet. The pair of opposed margin area portions 86 and 98 locate the combination 80 on the backing sheet 83 with reference to relative margin positions, as in FIGURE 2. The backing sheet 83 has an additional rotatable margin area portion formed by a longitudinal crease 87 also being a hinge, said margin area portion extending from the crease 87 to the terminus 88 of the backing sheet 83. The transparent combination laminate sheet 90 consists of the transparent film area sheet 91 covered on one side by the transparent second pressure sensitive adhesive coating 92. The coating 92 is adhesively secured to the flexible backing sheet 89, said backing sheet 89 having a release coated face adjacent said adhesive coating 92, to provide for ready removal of said sheet 89. Sheet 89 has the margin area portion handle 96 and a second handle 97 formed by a crease 93 in the backing sheet. The detachable, single, continuous, straight line, fixed position hinge 95 is formed by adhesively securing an adhesive coating 92 margin area portion of the laminate sheet 90, free from the second backing sheet 89, continuously to the additional margin area portion of the first backing sheet 83, formed by the crease 87 and extending to the terminus 88 of the sheet 83. The label assembly modification of FIGURE 5 is utilized much as the previously described modifications. After imprinting indicia 84 on the label combination 80, the handles 97 and 96 of the backing sheet 89 are used to remove the backing sheet 89 and the transparent laminate sheet 90 is rotated above the label sheet 81 by the hinge 95 to register the laminate sheet 90 on the indicia 84, the pair of registered laminates 80 and 90 are then removed from the backing sheet 83 and adhesively secured on the desired surface. The flexible coated backing sheet temporarily attached to the transparent film-adhesive combination is dimentioned to provide a backing area covering the adhesive and an additional area for a handle for ready removal of the backing sheet.

In my invention I prefer to use a simple paper base label sheet area, coated on one side with a first pressure sensitive adhesive layer and with a second indicia side, suitable for handwriting, typing, hand-stamping or printing on the second side of the label. On uniformly contacting the indicia located on the surface of the label with the laminate of transparent flexible film and transparent pressure sensitive adhesive, by uniformly pressing the film-adhesive laminate onto the indicia surface, the film-adhesive laminate can not then be removed from the information surface without visibly altering the information.

The first pressure sensitive adhesive film or layer, secured to the paper label is not necessarily transparent. It may be either transparent, opaque or pigmented, as is desirable.

The transparent film means may be selected from such thin film (0.00025–0.002 inch thick typically) stock as cellophane, polyester, polyethylene, polypropylene, cellulose acetate-butyrate, oriented styrene, polyvinylidene chloride-vinyl chloride copolymer (Saran), polyvinyl chloride or the like.

The transparent pressure sensitive adhesive coating contiguously completely covering one side of the transparent film is properly formulated and coated on the transparent film to provide a permanent bond to the film.

The flexible backing sheets used to temporarily coat the two pressure sensitive adhesive areas of the label device, prior to final application, are sheets of paper, cloth, impregnated paper or non-woven fibrous film combinations. The above listed types of sheets are coated or impregnated with properly formulated products designed to permit the flexible backing pieces to adhere to the tacky pressure sensitive adhesive surfaces, until removed by pulling off the backing sheets from the adhesive surfaces just before final application of the label device.

I also propose to formulate the first pressure sensitive adhesive layer covering one surface of the paper label, in order to secure greater adhesion of the paper label to the final application surface. If the application surface is a plastic container as in many modern forms of packaging of retail store items, it is desirable to formulate the pressure sensitive layer to form a more permanent bond with the plastic film of the container. Thus, the addition of a plasticizer to the pressure sensitive adhesive, which is also soluble in the plastic container material will increase the bond strength of the pressure sensitive adhesive-plastic combination. Plastic containers made of cellulose acetate butyrate and vinylchloride-vinyl acetate copolymer may be plasticized by dibutyl phthelate or tri cresyl phosphate.

I may use my label device for securing free from alteration drug prescription label information and price information on retail items. Instructions on the use of items may also be protected by printing the instruction on the paper label and applying the label device to the items. The label device will be very useful in the technical laboratory to protect data on a label from moisture and other solvents.

Obviously many modifications and variations of my improvements in label combinations are possible in light of the above teachings. It is therefore understood that within the scope of the appended claims, the invention may be practised otherwise than as specifically described; or specifically covered by my claims.

I claim:

1. A label assembly comprising: a label sheet having an indicia side and a second side, said second side covered by a first pressure sensitive adhesive coating; a transparent laminate sheet larger in area than said label sheet and consisting of a transparent film sheet and a transparent second pressure sensitive adhesive coating completely covering one side of said film sheet; at least one first flexible backing sheet having at least one release coated face, said one release coated face coplanar mounted on and completely covering said first adhesive coating, said at least one first backing sheet having at least one first area margin handle free from said label sheet; a margin area portion of said transparent laminate sheet forming a second area margin handle; at least one second backing sheet having at least one release coat, one said at least one release coat coplanar mounted on and completely covering all of said transparent second adhesive coating, excluding said second area margin handle; and one said first area margin handle joined to said second area margin handle to provide a single line hinge means, said hinge means rotatably locating said transparent second adhesive coating in register adjacent said label indicia side.

2. A label assembly comprising: a label sheet having an indicia side and a second side, said second side covered by a first pressure sensitive adhesive coating; a transparent laminate sheet larger in area than said label

sheet and consisting of a transparent film sheet and a transparent second pressure sensitive adhesive coating completely covering one side of said film sheet; a first flexible backing sheet having at least one release coated face, one said release coated face coplanar mounted on and completely covering said first adhesive coating, said first backing sheet having at least one first area margin handle free from said label sheet; a margin area portion of said transparent laminate sheet forming a second area margin handle; a second release coated backing sheet coplanar mounted on the remaining portion of said transparent second adhesive coating, excluding that second coating forming a portion of said second area margin handle, the release coated face of said second backing sheet adjacent said second adhesive coating; and one said first area margin handle joined to said second area margin handle to form a single line hinge means, said hinge means locating said transparent second adhesive coating in register adjacent said label indicia side.

3. A label assembly comprising: a label sheet having an indicia side and a second side, said second side covered by a first pressure sensitive adhesive coating; a transparent laminate sheet larger in area than said label sheet and consisting of a transparent film sheet and a transparent second pressure sensitive adhesive coating completely covering one side of said film sheet; at least one first flexible backing sheet, having a release coat on one side of said first backing sheet, said release coated side mounted on and completely covering said first adhesive coating, said at least one first backing sheet having at least one first area release coated side margin handle free from said label sheet; a margin area portion of said transparent laminate sheet forming a second area margin handle, a second flexible backing sheet having at least one release coated side, one said release coated side coplanar mounted on and completely covering all of the transparent second adhesive coating, excluding that coating forming a portion of said second area margin handle; and one said first area handle adhesively joined to said second area handle to provide a continuous, straight line, fixed position hinge, locating said transparent second adhesive coating in register adjacent said label indicia face.

4. A label assembly as claimed in claim 3, wherein the straight line, fixed position hinge comprises an adhesive bond between the side of the first area margin handle opposite the release coat side and the second area margin handle, in combination with a rupturable line in said adhesive bond, said rupturable line formed by a multiple series of closely spaced openings in said transparent laminate.

5. A label assembly comprising: a label sheet having an indicia side and a second side, said second side covered by a first pressure sensitive adhesive coating; a transparent laminate sheet larger in area than said label sheet and consisting of a transparent film sheet and a transparent second pressure sensitive adhesive coating completely covering one side of said film sheet; at least one first flexible backing sheet, having release coatings on both sides thereof, one release coated side mounted on and completely covering said first adhesive coating, one said first backing sheet having a first area margin handle, consisting of a creased hinge overlay of the overfolded first backing sheet free from said label sheet; a margin area portion of said transparent laminate sheet forming a second area margin handle, and the remaining said transparent laminate sheet completely covered on the adhesive side by at least one coplanar mounted release coated side of a second flexible backing sheet; and said first area margin handle adhesively joined to said second area margin handle to provide a straight line, fixed position hinge, locating said transparent adhesive coating in register adjacent said label indicia face.

6. A label assembly comprising: a label sheet having an indicia side and a second side, said second side completely covered by a first pressure sensitive adhesive coating; a first backing sheet larger in area than said label sheet and having a release coated face on one side thereof, said backing sheet release coated side secured to said first adhesive coating and also providing a first area margin handle excluding said label sheet; a transparent laminate sheet consisting of a transparent flexible film sheet larger in area than said label sheet and a transparent second pressure sensitive adhesive coating completely covering one side of said transparent film; a margin area portion of said transparent laminate sheet forming a second area margin handle, a second backing sheet having a release coated side thereon, said release coated side of second backing sheet completely covering all of said second adhesive coating, excluding that second adhesive coating portion forming a portion of a second area margin portion; and a detachable, fixed position hinge means formed by adhesively joining said first area margin handle and said second area margin handle, rotatably locating said second adhesive coating in register adjacent said label indicia side.

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