

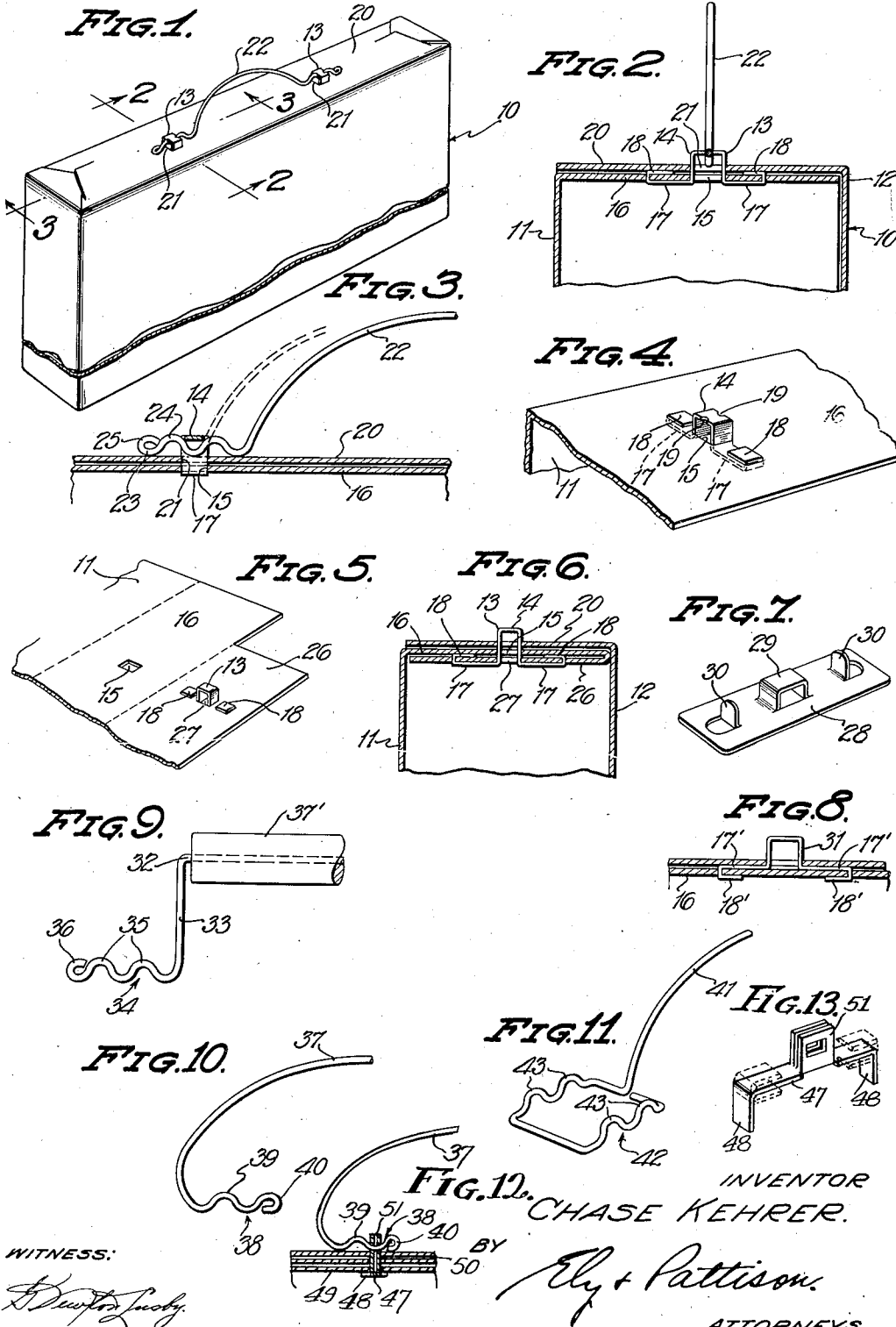
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CARRIER AND FASTENER MEANS

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CARRIER AND FASTENER MEANS

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5 Claims. (Cl. 229—52)

This invention relates to improvements in closure fastener means for paper boxes and other analogous containers.

The primary object of the invention resides in a means for securing the two separable sections of a paper box in a closed position to eliminate the use of cord.

Another object of the invention is to provide a combined closure means and handle construction by which a suit box may be held closed and conveniently carried in the manner of a suitcase or satchel.

A further object of the invention is the provision of a paper box in which eye members are carried by one of the box sections and project outwardly through openings in the other box section, the projecting eyes receiving the extremities of a carrier handle by which the box sections are secured in a closed locked position, and which facilitates the carrying of the box in a satchel-like manner.

A still further object is to provide a simple, inexpensive, and practical construction for accomplishing the above results.

With these and other objects in view, the invention resides in the certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawing, in which:

Figure 1 is a fragmentary perspective view of a paper suit box with the invention embodied therein.

Figure 2 is an enlarged vertical transverse sectional view on the line 2—2 of Figure 1.

Figure 3 is an enlarged fragmentary sectional view on the line 3—3 of Figure 1.

Figure 4 is a detail perspective view of one of the locking eye members carried by one of the box sections.

Figure 5 is a fragmentary perspective view of a modified form of box section in unfolded position, and illustrating a locking eye member in position thereon.

Figure 6 is a vertical transverse sectional view of the construction shown in Figure 5, but showing the box in closed position.

Figure 7 is a perspective view of a modified form of locking eye member.

Figure 8 is a detail vertical transverse sectional view illustrating an eye member similar to that shown in Figures 1 to 4, but attached to a box section in a slightly different manner.

Figure 9 is a fragmentary side elevational view of a modified form of handle.

Figure 10 is a side elevational view of a further modified form of handle member.

Figure 11 is a fragmentary perspective view of a modified form of handle.

Figure 12 is a fragmentary vertical sectional view showing the type of handle shown in Figure 10 in locking engagement with a modified form of eye member.

Figure 13 is a perspective view of the construction of eye member shown in Figure 12.

Referring to the drawing by reference characters and more particularly to that form of my invention shown in Figures 1 to 4 inclusive, the numeral 10 designates a rectangular cardboard box or container commonly known as a suit box which includes a pair of telescoping sections 11 and 12. These sections are usually hinged along one of their longitudinal sides and the inner section may be termed the body section 11 and the outer section the cover section 12.

Secured to the free longitudinal wall of the body section 11 at equal spaced distances from the center are eye members 13—13. Each eye member 13 is formed from a single length of strap metal which has its intermediate portion bent into inverted U-shape as at 14 which extends through an opening 15 in the top longitudinal wall 16, whereas the remaining portions are bent into outwardly extending arms 17 which underlie the wall 16. The extending portions of the U-shaped portion 14 are wider than they are high for facilitating the insertion of the handle member presently to be described. The extreme free ends of the material from which the eye member 13 is constructed are passed upwardly through the top wall and bent inwardly to form terminal hooks 18 which lie flat upon the outer face of the top wall 16. The inverted U-shape portion 14 is of a height to extend above the top wall 16 to provide an eye for the purpose to be hereinafter described. The opposite side edges of the bridge of the inverted U-shape portion 14 is provided with semi-circular shaped notches or recesses 19.

The top wall 20 of the cover section 12 is provided with spaced slots 21 of a size to freely permit of the passage of the extending portions of the inverted U-shape portions 14 of the respective eye member 13. It is of course necessary to flex the wall 20 when closing the cover section in order to cause the eye members to enter the respective slots. The eye members project beyond the plane of the wall 20 when the cover is closed.

For locking the cover section 12 in closed position and for providing a hand grip for carrying the box in the manner of a satchel, I provide a

handle member 22. The handle member 22 is constructed of a length of stiff resilient wire bowed the major portion of its length, while the free ends terminate in opposed outwardly extending feet 23. Each of the feet 23 may be bent into one or more humps 24. In Figures 1 and 3 of the drawing, two humps 24 are shown in full lines and the foot is inserted through an eye member 13 with the inner sides of a valley between the humps seated in the notches 19—19 of the eye member. The notches 19 act to prevent lateral shifting movement of the handle extremities within the eye members 13. The extreme end of each foot terminates in an upwardly and inwardly curled portion 25 to eliminate sharp ends and facilitate the easy insertion of the foot into locking position within the eye. Due to the resiliency of the feet, the humps will flex during their movement into operative position as will presently be described and interlock with the bridge of the inverted U-shaped portion 14. The handle member is attached without flexing by inserting one of the feet first through one of the eye members and then shifted lengthwise to cause the other foot to enter its eye, this operation taking place while the handle is in a horizontal swung down position. The eye members are of a width to freely receive the feet, after which the handle is swung to a vertical upstanding position to cause adjacent humps to snap into and seat in the notches 19—19 and interlock with the bridge of the inverted U-shaped portion 14.

The downwardly extending end humps bear against the top of the box beyond the slots 21 and are pressed thereagainst as the humps of the feet are spread by the weight of the load when the box is carried by the handle. The downwardly extending humps also tend to brace and re-enforce the box at the points of handle connection.

If desired, each foot may be formed with a single hump as shown in dotted lines in Figure 3, in which case the base of the bowed portion of the handle will seat in the inner of the notches 19. It is understood that when inserting the handle into locking position, one foot is inserted through one of the eye members, after which the bowed portion of the handle member is flexed outwardly to enable the insertion of the other foot through the other eye member. This construction provides a positive lock for the two separable sections of the box, and assures a comfortable and safe hand grip by which the box may be carried in the fashion of a suit-case.

In Figures 5 and 6 like reference characters refer to parts hereinbefore described and which is similar to the preceding form, but instead of securing the eye members 13 to the top wall 16 of the body section 11, the top wall 16 is provided with an extension flap 26 which is folded therebeneath. This top wall includes the openings 15 for the passage of the eye members, while a similar opening 27 is provided in the extension flap for the eye members are attached to the flap 16 in the same manner that they are secured to the top wall 16 in the preceding form. The construction serves to re-inforce the top wall and conceals the inwardly bent hook ends 18 for they are interposed between the top wall 16 and folded extension flap 26.

In Figure 7 a modified form of eye member is shown and comprises a flat metal plate 28 having a central eye 29 struck outwardly from its center. Adjacent opposite ends of the plate 28 are upwardly extending tongues 30 and which are struck from the plate. This type of eye member

may be used in the same manner as that hereinbefore described, with the exception that the tongues 30 are passed through the wall to which the member is to be attached and bent inwardly thereover to secure the same in position. The same style of handle 22 previously described may be used in conjunction with this modified form of eye member.

Figure 8 discloses a modified form of eye member 31 identical with that shown in Figures 1 to 6 with the exception that the outwardly extending legs 17'—17' overlie the top wall of the box and the hooked ends 18' extend downwardly through the top wall and are bent inwardly therebeneath. This construction eliminates the necessity of providing openings such as shown at 15 in the top wall.

Figure 9 illustrates a modified form of handle which includes a resilient wire bent into substantially inverted U-shape to provide a bail 32, having a downwardly extending leg 33 at each end. Each leg is joined by an outwardly extending foot 34 having double humps 35 and a rounded terminal end 36. A wooden hand grip 37' is mounted upon the bail 32 to protect the hand of a carrier against any tendency of the wire to cut when carrying a relatively heavy load.

Figure 10 illustrates a still further modified form of handle which is constructed of a single length of stiff resilient wire bent into a bowed hand grip 37, and each end terminates in an inwardly extending foot 38, formed with double humps 39 and a rounded terminal end 40. This type of handle may be used in lieu of that shown in the several preceding forms without any change in the construction of the eye members.

Figure 11 shows a handle construction similar to that shown in Figure 10 in that it is constructed of a single length of resilient wire bent into a bowed hand grip 41, while each end is formed with a framelike foot 42, the opposite sides of which are provided with opposed sets of humps 43. With this type of foot, the engaging eye members must necessarily be wider than that hereinbefore shown and described.

In Figures 12 and 13 a modified form of eye member is shown and which is constructed of flat bendable metal and includes a normally substantially inverted U-shape body 47, the legs 48 of which are passed through slots in the top walls 49 and 50 of the inner and outer box sections. The legs 48 may either be bent upwardly and downwardly, or downwardly and inwardly as shown in dot and dash lines in Figure 13, depending on whether the bridge portion of the U-shape body fits beneath or above the innermost wall 49. Spaced upstanding eyes 51 are struck from the body 47 pass through slots in the top walls 49 and 50 beyond the top wall to receive the engaging end of the handle member, which in this instance is identical to that shown in Figure 10, and like reference characters refer to similar parts to avoid repetition of description. The top walls of the openings in the eyes 51 engage adjacent humps 39 on the foot 38 of the handle member 37.

From the foregoing description, it will be seen that I have provided a number of various modifications, but in all instances, the broad principle is involved, namely, the locking of the two sections of a container together by means of an element carried by one of the sections and passing through an opening in the other section, and interengaging means for securing the sections closed.

Whereas the most practical embodiments of my invention have been shown and described, it will be understood that such other modifications as come within the scope of the appended claims may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. In a paper box having two separable telescoping box sections, the outer of said box sections having a pair of spaced openings therein, a pair of eye members fixedly secured to the inner of said box sections and extending outwardly through the respective openings, a bail-shaped handle member provided with angular ends, said angular ends each being formed with a pair of resilient humps, the angular ends extending through the projecting portions of said eyes with the adjacent humps of each angular end disposed on opposite sides of the respective eyes.

2. In a paper box having two separable telescoping box sections, the outer of said box sections having a pair of spaced openings therein, a pair of eye members fixedly secured to the inner of said box sections and extending outwardly through the respective openings, a bail-shaped handle member provided with angular ends, said angular ends each being formed with a pair of resilient humps, the angular ends extending through the projecting portions of said eyes with the adjacent humps of each angular end disposed on opposite sides of the respective eyes, and notches provided in opposite sides of said eyes in which the humps are seated.

3. A carrying means for containers comprising a pair of eye members adapted to be fixedly secured in predeterminedly spaced relation upon a container, a bail-shaped handle member provided with angular ends, said angular ends each being formed with a pair of spaced resilient humps, the angular ends adapted to be inserted through the respective eyes with the spaced humps of each pair of angular ends disposed on opposite sides of the respective eyes.

4. A carrying means for containers comprising a pair of eye members adapted to be fixedly secured in predeterminedly spaced relation upon a container, a bail-shaped handle member provided with angular ends, said angular ends each being formed with a pair of spaced resilient humps, the angular ends adapted to be inserted through said eyes with the spaced humps of each pair of angular ends disposed on opposite sides of the respective eyes, and notches provided in opposite sides of said eyes in which adjacent sides of said humps are seated.

5. A carrying means for containers comprising a pair of plate members having eyes and adapted to be secured in predeterminedly spaced relation upon a container, a bail-shaped handle member provided with angular ends, said angular ends being each provided with spaced coacting abutments, the angular ends adapted to be inserted through said eyes with the inner sides of the spaced abutments of each pair of angular ends disposed on and engaging opposite sides of the respective eyes.

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