May 25, 1965 J. L. HENNING 3,185,338

COMBINATION HANDLE AND LATCH FOR PORTABLE CASES

Filed July 22, 1963

Fig 1

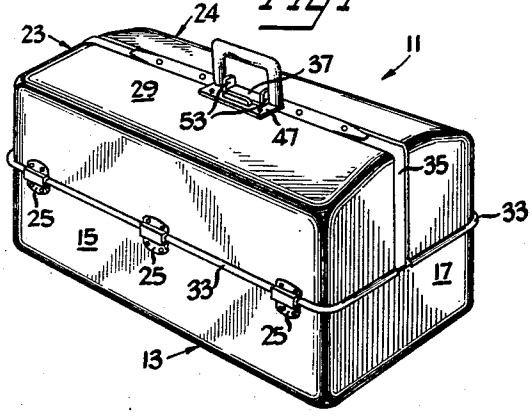


Fig 2

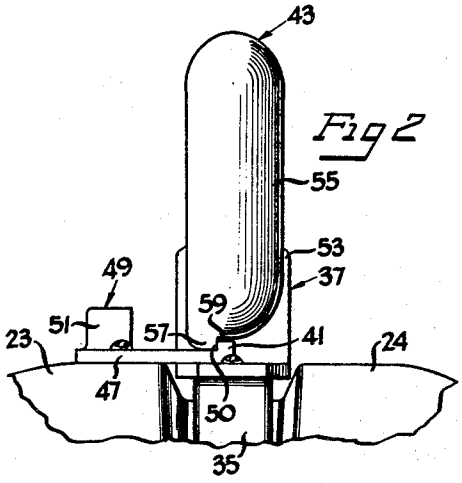


Fig 3

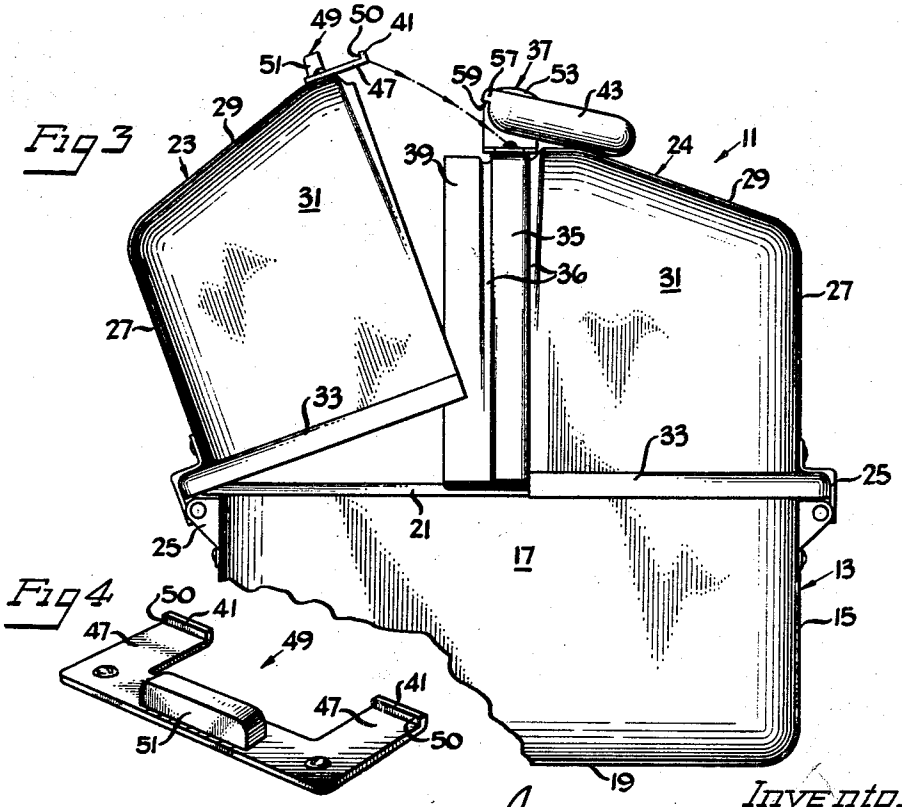


Fig 4

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COMBINATION HANDLE AND LATCH FOR PORTABLE CASES

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This invention relates to latches for carrying cases and, more particularly, to such latches as are engaged and disengaged by movement of the handle of the carrying case.

Certain forms of carrying cases, particularly those intended for use with tools, fishing tackle and the like, include a hinged cover section, a handle, and a latch for interconnecting the cover section with the remainder of the case. In the handling of such cases, the user frequently neglects to fasten the latch and, when the case is lifted by means of the handle, the cover is displaced and the case upset, thus causing the contents thereof to be spilled.

Attempts have been made to obviate this difficulty by incorporating the handle of the case into the latch so that when the handle is raised to lift the case, the latch becomes automatically engaged. In a particular form of such a case, the handle is pivotally mounted on the cover or lid and a hook extends from the handle inwardly of the case. When the handle is rotated to its raised position, the hook moves into a hole provided in a wall member disposed internally of the case and affixed to the lower portion or base thereof, thus latching the cover to the base. Such an arrangement, of course, requires that a wall member be provided within the case, thus partitioning the interior of the case. Furthermore, it requires an opening in the cover or lid to permit entry of the hook.

Other cases depend upon the use of a flexible strap-type handle which is frequently less desirable than the pivotally mounted handle, and still others utilize a pair of handle members interconnected by a sleeve of some form, thus causing the gripping area of the handle to be large and unwieldy.

The principal object of the present invention is to provide an improved latch for carrying cases having a hinged cover and a hinged handle.

An additional object of the invention is to provide an improved latch which is engaged and disengaged by movement of the handle.

A further object of the invention is to provide an improved latch which is automatically engaged when the handle of the case is raised to carrying or operative position.

A still further object of the invention is to provide an improved latch which is engaged and disengaged by movement of the handle of the case, and which is disposed on the outer surface of the case so as not to affect the internal capacity thereof.

Other objects and advantages of the invention will become apparent with reference to the following description and accompanying drawings.

In the drawings:

FIGURE 1 is a perspective view of a carrying case showing various features of the invention;

FIGURE 2 is an enlarged fragmentary elevational view of the latch of the case shown in FIGURE 1;

FIGURE 3 is an enlarged end view, showing the case of FIGURE 1 in a partially open position; and

FIGURE 4 is a perspective view of the stationary keeper plate of the latch.

The present invention is directed to a latch intended for use with carrying cases having a hinged lid or cover, such carrying cases being produced in a variety of forms,

e.g., cases including a pair of hingedly interconnected shells, cases including a single cover or lid hingedly connected to a base portion, and cases including a pair of cover sections, each of which is hingedly connected to a common base. The carrying case **11** shown in the drawings and illustrating one embodiment of the invention is of the latter-mentioned construction and is of a type conventionally used for fishing tackle, tools and the like. However, it should be understood that the latch hereinafter described is not confined to use with any specific form of carrying case construction.

More specifically, the carrying case **11** comprises generally a base portion **13** in the form of an open-topped box having interconnected side and end walls **15** and **17** respectively extending upwardly from a generally rectangular bottom wall **19**. The upper edge of the box defining the open top thereof is provided with a curved flange defining a rim **21** which is engaged by the lower edges of each of a pair of hinged lid sections **23** and **24**.

The lid sections **23** and **24** are pivotally mounted on the base **13** adjacent opposite upper edges of the side walls **15** thereof by means of hinges **25**. Each of the lid sections is in the form of a hollow shell open along its inner side and the bottom, and each includes a side wall **27**, a top wall **29** which slopes upwardly to provide the case with a gabled upper surface, and a pair of end walls **31**. The lower edegs of the shell are offset outwardly and then downwardly to provide a skirt **33** which rests upon and overlies the curved rim **21** of the base when the case is closed, and the top wall **29** is flattened adjacent the open side edge thereof to receive a portion of the latch, as hereinafter described.

The portions of the cover sections **23** and **24** adjacent the open side edges thereof are suitably formed to provide an intimate mating of the sections at the center of the case so as to render the case relatively impervious to moisture and dust. In this regard, the section **24** is provided with a generally flat raised rib **35** flanked by a pair of grooves **36**. The rib **35** is spaced inwardly from the open side edge of the section **24** and is located so as to be positioned generally centrally of the case when the lid sections are in a closed position. The rib **35** serves as a mounting surface for a handle bracket **37**, and the open side edge of the opposite section **23** abuts the rib when the case is closed. The portion of the cover section **24** intermediate the rib **35** and the open side edge of the section is offset inwardly relative to the outer surface of the rib to provide a shelf **39** which underlies a portion of the cover section **23** when both sections are in closed position.

The opposite cover section **23** is tapered inwardly slightly adjacent its open side edge to allow the edge to clear the handle bracket **37** as the section **23** moves to closed position and is received by the groove **36** intermediate the shelf **39** and the rib **35**.

The latch to which the present invention is directed interconnects the two cover sections **23** and **24** and prevents relative movement therebetween when the latch is engaged. The latch includes a keeper **41** and a pivotally mounted handle **43**, one of which is provided on one of the cover sections and the other of which is provided on the other of the sections. The keeper **41** and handle **43** coact when the handle is raised to lock the sections together.

More specifically, the keeper **41** is in the form of a pair of ears which project upwardly from the forward edges of each of the legs **47** of a generally U-shaped plate **49** secured to the outer surface of the cover section **23** adjacent the open edge thereof and positioned so as to overhang the edge and thus overlie a portion of the cover section **24** when the case is closed. With the

plate so disposed, the ears or keepers 41 define a generally upright abutting surface 50 facing generally in a direction away from the open edge of the section 23. The legs 47 of the U-shaped plate 49 are spaced so as to receive the bracket 37 of the handle 43 therebetween when the case is closed, and a bar 51 extends upwardly from the web of the plate to form a finger grip for opening the lid sections when the handle 43 is lowered.

The handle bracket 37 is mounted on the raised rib 35 of the cover section 24 and is formed of a flat rigid strip turned upwardly at its ends to provide a pair of upstanding horizontally spaced lugs 53, each of which receives a pin (not shown) by means of which the handle 43 is pivotally mounted on the bracket. As previously mentioned, the keeper plate 49 and handle bracket 37 are positioned on the cover sections 23 and 24, respectively, so that the bracket 37 is disposed between the legs 47 of the plate 49 when the case is closed (FIG. 1). When so positioned, the keepers or ears 41 of the plate lie approximately directly beneath the axis about which the handle pivots.

The handle 43 is generally U-shaped so as to include a pair of spaced arms 55, and is preferably of the molded or pressed construction. The pins of the handle bracket 37 project through the arms 55 in spaced relation to the lower ends thereof so that a portion of each arm extends downwardly past the axis about which the handle pivots. These extending portions are positioned immediately above the keepers of the U-shaped plate 49 and are provided with fingers 57 defining shoulders 59 which engage the abutting surface 50 of the keepers 41 when the handle is raised, i.e., rotated to an upright position, and apply a force to the keepers which maintains the keeper plate 49 in a position overlying the cover section 24 (FIG. 2). With the keepers so engaged, the lid sections cannot be separated and the lid sections are effectively locked together. Accordingly, when the case is picked up by the handle, there is no danger that it will be accidentally opened.

It should be noted that the operation of the latch does not require that the cover sections be tightly closed before the latch is operable, and that if the sections are slightly ajar, the engagement of the fingers 57 of the handle 43 with the keepers 41 of the plate 49 will draw the covers into the fully closed position. Hence, the latch is superior to those latches which, while supposedly designed to compensate for the inadvertent lifting of an unlatched case, require attentiveness on the part of the user before the latch is engaged as, for example, the necessity of maintaining the case in a fully closed position before the latch will engage.

A latch embodying this invention is simple in construction and yet effective in operation. The latch is engaged whenever the handle is raised and thus compensates for an inadvertent failure of the user to check the latch. Furthermore, the latch lends itself to use with existing cases not originally manufactured with same, and can be conveniently and inexpensively built into newly manufactured cases. Also, the lacth does not require the presence of a partition within the case which is engaged by a portion of the handle and can be disposed entirely outside of the case.

While various features of the invention have been shown and described with respect to one embodiment thereof it should become apparent that various modifications may be made therein without departing from the scope of the invention.

What is claimed is:

A carrying case comprising a pair of mating sections hingedly interconnected along one edge and adapted to engage one another along non-hinged edges thereof, said sections being movable between an open and a closed position, and a latch comprising a keeper on the outer surface of one of said sections adjacent a non-hinged edge thereof, said keeper having a pair of upstanding ears spaced apart a given distance, each ear defining a surface facing in a direction away from the other section, and a single unitary handle of generally U-shaped configuration including a pair of generally parallel arms spaced from one another a distance approximating said given distance, said handle being mounted on said other section of said case adjacent a non-hinged edge thereof and opposite said keeper for pivotal movement about an axis passing through said arms in spaced relation to the outer ends thereof and positioned above the surface defined by said ears when said case is closed, said handle being swingable in its entirety between a raised position whereby said case may be carried and a folded position, each arm of said handle defining a shoulder located adjacent its end so as to be intermediate said axis of said handle and the outer surface of said case when said handle is in said raised position, said shoulder being positioned so as to face away from said one section and so as to be swung into engagement with said upwardly extending surface of said keeper when said handle is moved to its raised position so as to urge said sections toward a closed position and lock said cover section against accidental opening when said handle is in said raised position.

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