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H. TUECKMANTEL

LOCKING CATCH FOR PORTFOLIOS AND THE LIKE

Filed June 15, 1923

Fig. 1.

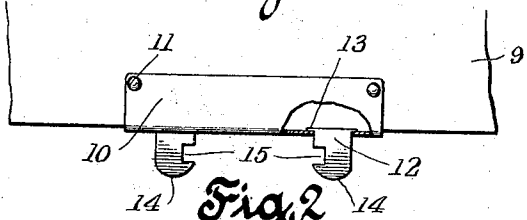


Fig. 2.

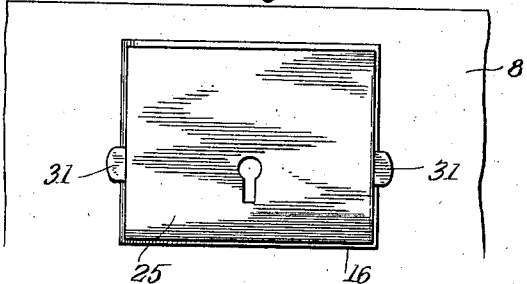


Fig. 3.

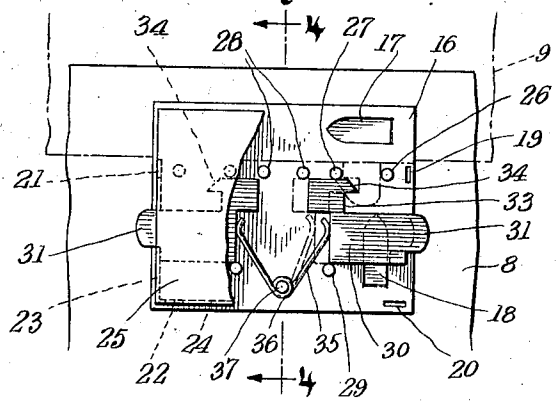


Fig. 4.

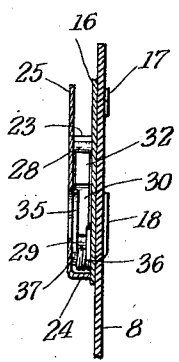
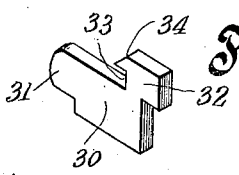


Fig. 5.



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UNITED STATES PATENT OFFICE.

HUGO TUECKMANTEL, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE T & L CO. INC.,
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LOCKING CATCH FOR PORTFOLIOS AND THE LIKE.

Application filed June 15, 1923. Serial No. 645,489.

To all whom it may concern:

Be it known that I, HUGO TUECKMANTEL, a citizen of the United States, a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Locking Catches for Portfolios and the like, of which the following is a specification.

This invention relates to improvements in locking catches for securing the flaps or cover portions to the bodies or main portions of portfolios and the like, whereby the same may be held in closed relation. The main object is to provide a simple, strong and effective fastening device for containers of the mentioned character, in which the entering members are guided directly into locked engagement with the receptive members merely by the operation of closing the parts together.

Another purpose is to provide hand operated means, integral with the catch bolts, whereby the entering or keeper members are released and the flap freed from the body.

A further aim is in the provision of a neat appearing catch device that occupies only a moderate space, and which is composed of few and simple parts, all of which are susceptible of being cheaply manufactured.

These several objects are attained by the novel construction and combination of parts hereafter described and shown in the annexed drawing, forming part of this disclosure, and in which:—

Figure 1 is a partial front view of the flap of a conventional type of portfolio, showing the application of the double keeper used with the fastener, the same being broken away to show its construction.

Figure 2 is a similar view of the body of the portfolio showing the fastener casing in position thereon.

Figure 3 is a view of the fastener, the casing cover being partially omitted, and one of the bolts shown in normal position, by full lines and in retracted position by broken lines, as is also the position of the keeper when engaged.

Figure 4 is a transverse sectional view taken on line 4—4 of Fig. 3.

Figure 5 is a perspective view of one of the bolts or keeper engaging elements in detail.

In the drawing the main portion or body of the portfolio is designated by the numeral 8 and the flap or cover portion 9, to the latter

of which is secured a U shaped element 10, formed by folding an elongated rectangular metallic plate along its center, the flap material being entered in the loop and secured by any suitable means, as the rivets 11.

Passing through the bight of the loop are a pair of outwardly extending keepers 12, their inner elements 13 being fixed by brazing or the like to the inside of the loop and their extending portions 14 are curved or bevelled for purposes further on apparent, each keeper having in its proximate side edge, a recess 15.

The catch casing is composed of a rectangular plate 16, slit near its upper edge to produce a pair of opposed prongs 17 and a similar pair of prongs 18 are formed near the side edges of the plate, these prongs being passed through the material 8 and clinched thereover, firmly securing the plate to the body in register with the keeper element 10.

Adjacent the side and bottom edges of the plate 16 are narrow elongated slots 19 and 20, respectively adapted to receive lugs 21 and 22 extending from the edges of flanges 23 and 24 formed with the top or cover plate 25, these lugs being upset or riveted in the slots to secure the plates in firm relation, constituting a casing open along its upper edge as shown, and into which the keeper elements may enter.

Fixed in the bottom plate 16, substantially in register with the slots 19, are a row of rigid pins arranged in series of three each, the outer and next adjacent pins 26 and 27, acting as guides for the entering keepers and the inner pins 28 performing another function.

Another pair of pins 29 are fixed in the plate 16 in its lower portion and between the pins 27 and 29 are positioned the sliding bolts 30, the same being further guided by their extensions 31 reaching outwardly through openings in the side flanges 23.

Formed on the bolts, opposite the extensions 31, are offset projections 32, reaching inwardly and leaving undercut recesses 33, their overhanging detent elements 34 being bevelled to engage the corresponding surfaces 14 of the keepers and by them be pressed inwardly, towards each other until the ends of the keepers become engaged in the recesses 33 and the bevelled portions 34 of the bolts engage in the corresponding recesses 15 of the keepers.

The bolts are normally pressed apart, that is into an engaging position, by the arms 35 of a spring 36, coiled around a pin 37 fixed in the plate 16.

5 In operation, the portfolio being in an open position and it is desired to close the same, the cover or flap is moved down so that the keepers enter the space in the top of the catch casing, between the pins 26 and 10 27 and by the exertion of moderate force, their rounded ends press against the bevelled surfaces of the detents 34, spreading them apart by overcoming the spring until they eventually snap into positive engage- 15 ment.

To open the cover, the extending bolt elements 31 are pressed inwardly as far as they will go, thus releasing the keepers from the detents in an obvious manner.

20 It will be seen that the bolts are effectively guided by the pins 27 and 28 along one edge and the pins 29 at the other edge, in addition to the openings in the flanges 23, assuring a straight line action.

25 While the construction described and shown discloses the use of pins as guiding mediums for the keepers and bolts, it will be apparent that other devices, as upturned portions of the bottom plate, ledges, etc., 30 may be substituted with equal effect, the height of the guide elements used being slightly in excess of the thickness of the bolts, so that the latter may slide freely between the plates.

35 Although the foregoing is descriptive of the preferred embodiment of the invention, it will be apparent that minor changes may be made in its construction, without the exercise of invention or conflicting with the 40 scope of the claims hereto appended.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

45 1. A locking catch comprising a casing, a pair of bolts, slidable freely therein, yielding means for moving said bolts outwardly, a pair of keepers enterable in said casing, interengaging means formed with said bolts and keepers respectively, said means becoming 50 engaged by pressing the keepers into the casing and disengaged by pressing the bolts inwardly, and means common to both keepers and bolts for the registration and guidance thereof.

55 2. A locking catch comprising a casing open at its upper edge, a pair of opposed bolts slidable in said casing, an expansion spring

common to both bolts whereby they are held extended in operative position, bevelled 60 faced undercut detents formed on the outer edges of said bolts, a pair of keepers having recesses engageable with said detents through the open edge of said casing, the 65 ends of said keepers retracting said bolts when pressed thereagainst, and means including a series of pins fixed in said casing for guiding said bolts, certain of said pins also acting as guides for the keepers.

3. A locking catch comprising a casing 70 open throughout at its upper edge, a pair of bolts slidable therein, said bolts normally extending outward beyond the ends of said casing, a single spring operative between 75 said bolts, reversed hook detents on said bolts, a pair of keepers engageable with said detents, said keepers being shaped to retract said bolts when making engagement, and 80 combined means for guiding said keepers and bolts.

4. A locking catch comprising a casing 80 composed of an upper and lower plate integrally united along their side and bottom edges, a pair of opposed hook bolts movable 85 in said casing, yielding means normally projecting said bolts into operative position, hook keepers engageable with said hook bolts, guides fixed in said lower plate con- 90 tacting with said bolts, certain of said guides being also operative with respect to said keepers, and means co-operatively formed on the hooks of said bolts and keep- 95 ers for causing engagement upon the application of moderate force to overcome the effects of said yielding means.

5. A locking catch comprising in com- 95 bination with a pair of keepers recessed on their proximate edges and having curved ends, of a casing, a pair of oppositely dis- 100 posed bolts movable therein, portions of said bolts normally extending through the cas- ing for manual operation, guides for said bolts, certain of said guides also being op- 105 erative with respect to said keepers, detents on said bolts engageable with said keepers, said detents having bevelled faces adapted to be acted upon by the keepers, and re- siliant means for maintaining said keepers in operative position.

This specification signed and witnessed this 14th day of June, 1923.

HUGO TUECKMANTEL.

Witnesses:

FRED'K C. FISCHER,
FERDINAND NOLL.