W. C. RATH.

BAG FRAME FASTENER.

APPLICATION FILED MAY 20, 1914.

1,104,707. Patented July 21, 1914.

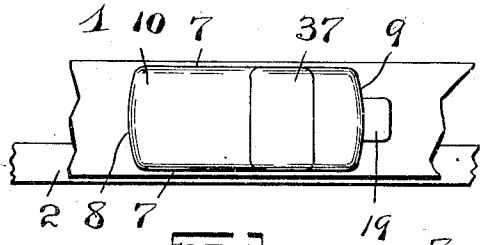


Fig. 1

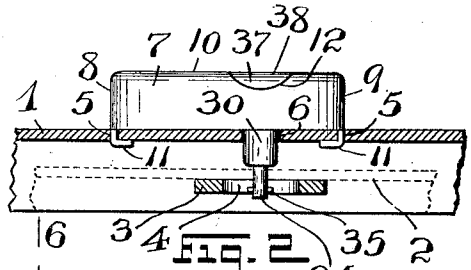


Fig. 2

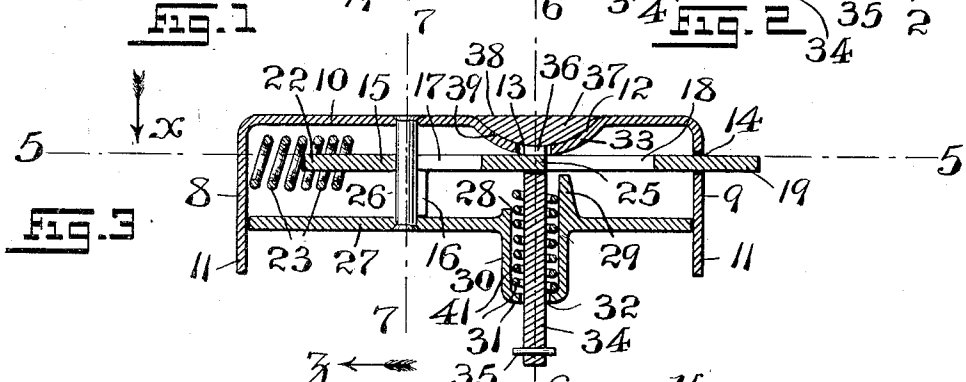


Fig. 3

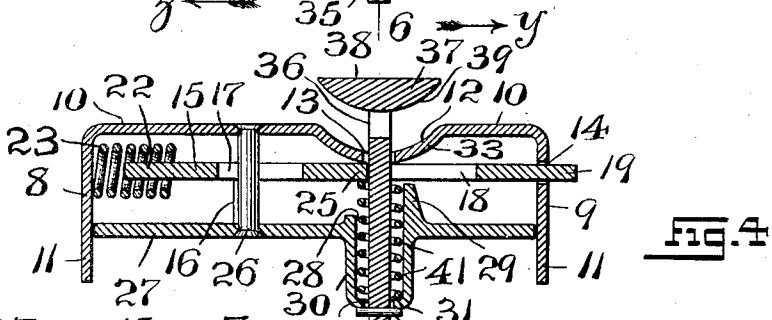


Fig. 4

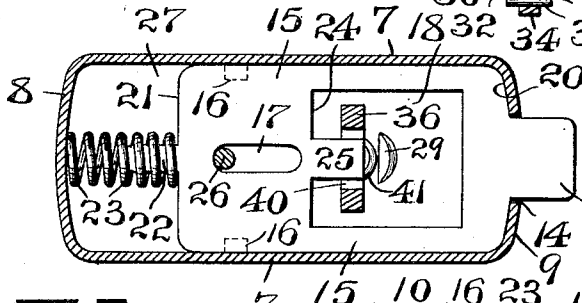


Fig. 5

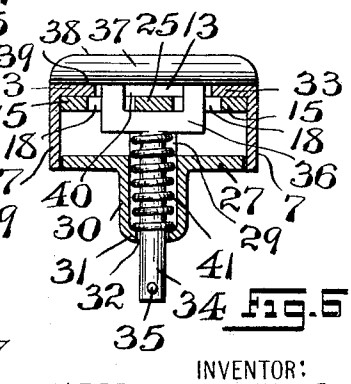


Fig. 6

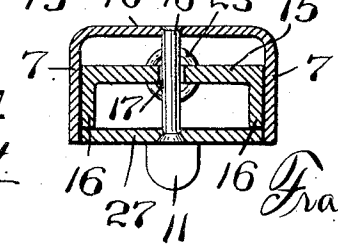


Fig. 7

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BAG-FRAME FASTENER.

1,104,707. Specification of Letters Patent. **Patented July 21, 1914.**

Application filed May 20, 1914. Serial No. 839,684.

To all whom it may concern:

Be it known that I, WILLIAM C. RATH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bag-Frame Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention has reference, generally, to improvements in that class of bag-fasteners or lock-catches which are ordinarily employed with the hinged frame-sections of bags, suit-cases, and the like, for normally retaining the two frame-sections of a bag frame in closed relation; and, the present invention has reference, more particularly, to a novel construction of safety-catch or fastener for bag-frame sections, with a view of providing a simple and positively acting construction comprising a horizontally movable spring-controlled releasing plate and a normally depressed and spring-actuated vertically movable locking bolt or post, adapted to be released by the action of said releasing plate so as to move automatically in an upward direction for the purpose of bringing the locked bag-frame sections into their released and separable relation.

The invention has for its further object to provide a novel bag-frame fastener of the general character herein specified, in which the released and vertically raised spring-actuated locking bolt or post can be readily depressed and brought into its retaining engagement with a hasp connected with one of the bag-frame sections, permitting at the same time and automatically the return-movement of the releasing plate into its normally locked or retaining engagement with the depressed locking bolt or post, to retain the closed bag-frame sections in their closed relation.

Other objects of the present invention not at this time more particularly enumerated will be clearly understood from the following detailed description of the present invention.

With the various objects of the invention in view, the invention consists, primarily, in the novel bag-frame fastener hereinafter set forth; and, the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claims which are appended to and which form an essential part of the said specification.

The invention is fully illustrated in the accompanying drawings, in which:—

Figure 1 is a top or plan view of the fragmentary top-portions of the usual bag-frame sections, the same being represented in their closed relation, and showing in connection therewith, also in top or plan view, a bag-frame fastener or catch made according to and embodying the principles of the present invention. Fig. 2 is a longitudinal vertical sectional representation of one of the frame-sections, and a dotted representation of the other frame-section, in its closed relation therewith, and a hasp also shown in vertical section, with which the second-mentioned frame-section is provided, said view illustrating also in connection with the first-mentioned frame-section and in side elevation, the bag-frame fastener or catch mounted upon and secured to said first-mentioned frame-section. Fig. 3 is a longitudinal vertical section of the bag-frame fastener, showing the movable parts in their normally locked relation, and the said view being made on an enlarged scale; and Fig. 4 is a similar section of the bag-frame fastener, the movable parts being represented in their released relation. Fig. 5 is a horizontal section of the fastener, said section being taken on line 5—5 in said Fig. 3, looking in the direction of the arrow *x;* Fig. 6 is a transverse vertical section of the fastener, said section being taken on line 6—6 in said Fig. 3, looking in the direction of the arrow *y;* and Fig. 7 is a similar section, taken on line 7—7 in said Fig. 3, looking in the direction of the arrow *z*.

Similar characters of reference are employed in the said above described views, to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-characters 1 and 2 indicate fragmentary portions of the usual pivotally connected or hinged bag-frame sec-

tions, the frame-section 2 being adapted to be moved within the frame-section 1, and the said frame-section 2 being also provided with a laterally extending hasp-plate 3, formed with the usual opening 4. The said frame-section 1 is also provided with suitably disposed lug-receiving openings or slots 5, and with a hole or opening 6, the purpose of which will be hereinafter more particularly set forth.

The bag-frame fastener or catch which is to be mounted upon the outer face of the frame-section 1, consists, essentially, of a suitably-shaped box or casing comprising the longitudinally extending sides 7, the ends 8 and 9, and a top 10. Extending from the lower marginal edges of said ends 8 and 9 are suitably formed fastening lugs 11 which are inserted in the lug-receiving openings or slots 5, hereinabove mentioned, and are suitably bent against the inner face of the frame-section 1, for permanently securing said casing or box in its operative position upon the upper face of said frame-section. The top 10 of the said casing or box is made with a laterally extending concave or other suitably shaped depression, as 12, which is formed with a suitably shaped post or bolt-receiving and guiding opening or slot, as 13, and the end 9 of the said casing or box is made with a suitably shaped finger or push-piece receiving opening, as 14. Slidably disposed within the chambered portion of the said casing or box is a suitably-formed finger or push-piece, in the form of a plate, as 15, the said plate being provided with downwardly extending lugs 16, an elongated opening or hole 17, and a larger opening, as 18. Connected with the marginal edge-portion 20 of said plate 15 is a finger-piece or push-element, as 19, which extends into and through the opening 14 in the end 9 of the box or casing, said plate 15 having also extending from its marginal edge-portion 21, a stud 22 upon which is mounted the one end of a spiral spring 23, said spring having its other end bearing upon the inner face of the end 8 of the box or casing, so as to normally push said plate 15 forwardly in a direction toward the opening 14, and that its marginal edge-portions 20 will rest directly against the inner face of the end 9, as clearly illustrated in Fig. 5 of the drawings. Connected with the marginal edge-portion 24 of said plate 15 and extending into the larger opening 18 of said plate 15 is a retaining tongue, as 25, the purpose of which will be presently more fully set forth.

As shown more particularly in Figs. 3, 4, 5 and 7 of the drawings, the top 10 of the box or casing has suitably connected therewith, by having its one end-portion riveted or otherwise secured to said top, a pin or post, as 26, which extends downwardly from the said top 10 into and through the elongated hole or opening 17 in the movable plate 15, the said pin or post 26 having suitably connected or secured thereto, at its opposite end-portion, a suitably shaped back-plate or closing plate 27. The marginal configuration of this plate is such that it readily fits into the chambered part of the shell, box or casing of the bag-frame fastener, resting directly upon the free end-portions of the previously mentioned lugs or posts 16 of the plate 15, so that the said back-plate 27 will be properly retained in its closing relation to the other parts of the fastener, when the parts have been assembled and are secured in such assembled relation by means of the said pin or post 26. The said back-plate or supporting plate 27 is also formed with an opening 28, contiguous to which is an upwardly extending supporting lug or post 29. In communication with the opening 28 is a downwardly projecting hollow receiving lug or post-like element, as 30, extending through the previously-mentioned hole or opening 6 in the frame-section 1, as shown in Fig. 2 of the drawings, the said lug or post-like element 30 being closed, as at 31, and being provided with a guiding perforation or hole 32, as illustrated in Figs. 3, 4 and 6 of the drawings. Slidably disposed between the upper end-portion of the said supporting lug or post 29 and the lower convex surface-portion of the depression-wall 33 is the said finger or push-piece plate 15, as clearly illustrated in Figs. 3 and 4 of the drawings.

The reference-character 34 indicates the shank of a suitable locking bolt or post, said bolt or post being vertically disposed in the previously-mentioned hollow receiving lug or post-like element 30, said bolt or post having its lower end-portion extending into and through the guiding perforation or hole 32 of said hollow lug or post-like element 30, and being provided with a laterally extending stop-pin, as 35, or other suitably formed stop-means, which limits the upward movement of the said bolt or post when released from its normally lowered position by the movement of the said horizontally movable spring-controlled releasing finger or push-piece plate 15, in the manner to be presently more fully described. As shown, the shank 34 of the said locking bolt or post is provided upon its upper end with a flat yoke-shaped end-member, as 36, which extends upwardly into and through the previously-mentioned bolt-receiving and guiding opening or slot 13 with which the depression-wall 33 is provided, the said yoke-shaped end-member 36 having suitably mounted upon its projecting ends a push or finger-piece 37, the upper surface 38 of which is flat, or substantially so, so as to conform to the flat top 10 of the box or

casing of the bag-frame fastener, and its lower surface 39 being made convex, so as to conform to the concave depression 12, and to snugly fit in said depression when the locking post or bolt is in its depressed position shown in said Fig. 3 of the drawings. The said yoke-shaped end-member 36 and the said push or fingerpiece 37 thus provide an opening, as 40, for the reception of the retaining or holding tongue 25 with which the slidable plate 15 is provided, and which, when the parts are in their normally locked relation, will prevent a spiral spring 41 which encircles the shank 34 in the manner shown in Figs. 3, 4 and 6 from automatically bringing the vertically movable locking post or bolt into its raised position represented in Fig. 4, unless the said holding or retaining tongue 25 of the plate 15 has been withdrawn from its holding engagement with the edge-portion 42 of said yoke-shaped end-member 36 when the finger or push-plate 15 has been pressed inwardly in the direction of the arrow *z*, as will be clearly evident.

The manipulation and operation of the parts comprising the construction of the bag-frame fastener will be readily understood from an inspection of the several figures of the drawings, and especially from Figs. 3, 4 and 6, and briefly is as follows:— Suppose the frame-sections 1 and 2 have been brought into their closed relation, with the parts of the fastener in their relatively engaged positions and with the depressed locking post or bolt having its lower end-portion extending into the opening 4 of the hasp-plate 3, which prevents the separation or opening of the hinged frame-sections. Now, when the horizontal push-plate 15 is moved in the direction of the arrow *z*, see Fig. 3, the holding or retaining tongue 25 is withdrawn from its retained engagement with the yoke-shaped element 36. Immediately the compressed spiral spring 41, in expanding, causes the locking post or bolt 34 to move vertically into the position indicated in Fig. 4 of the drawing, whereby the lower end-portion of the said locking post or bolt is withdrawn from its holding engagement with the hasp-plate 3, so that the hinged frame-sections can be brought into their separated or opened relation. At the same time, the compressed coiled spring 23 causes the end-edge of the tongue 25 to bear against the shank of the locking post or bolt 34, and the various parts of the fastener are thus retained in their operated positions shown in said Fig. 4. When the two frame-sections 1 and 2 are again closed, the locking post or bolt is again depressed by the application of pressure upon its push or fingerpiece 37, thus compressing the spring 41, and bringing the lower end of the locking post or bolt 34 once more into its holding engagement with the hasp-plate 3 of the frame-section 2. Simultaneously therewith, the action of the spring 23 will move the plate 15 in the direction of the arrow *y*, see Fig. 3, so that the holding or retaining tongue 25 again enters into engagement with the yoke-shaped end-member 36 of the vertically movable locking bolt or post, to hold the latter in its depressed position and thus keeping the two frame-sections 1 and 2 closed with relation one to the other.

Of course, I am fully aware, that some changes may be made in the general arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, without departing from the scope of the present invention as set forth in the foregoing specification, and as defined in the clauses of the claim which are appended to the said specification. Hence, I do not limit myself to the exact arrangements and combinations of the devices and parts as described in the said specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

I claim:—

1. A bag-frame fastener comprising a casing provided in its top with a receiving depression and an opening in the wall-portion of said top which forms the said receiving depression, a vertically movable spring-actuated locking bolt in said casing, said bolt having a portion extending into and through the opening in the wall-portion of said depression, a push-piece mounted upon said projecting portion of the locking bolt, said push-piece being adapted to enter and register with said receiving depression, a horizontally movable push-plate within said casing, and means connected with said push-plate normally in holding engagement with said vertically movable locking bolt for retaining said bolt in its depressed relation.

2. A bag-frame fastener comprising a casing provided in its top with a receiving depression and an opening in the wall-portion of said top which forms said receiving depression, said casing being provided in one end with a fingerpiece-receiving opening, a vertically movable spring-actuated locking bolt in said casing, a yoke-shaped end-member connected with said bolt, said yoke-shaped end-member having portions extending into and through the opening in the wall-portion of said depression, a push-piece mounted upon the projecting portions of said yoke-shaped end-member, said push-piece being adapted to enter and register with said receiving depression, a horizontally movable push-plate within said casing, a fingerpiece connected with said push-plate and extending into and through the fingerpiece-receiving opening in the end of said casing, said push-plate being provided with

an opening into and through which the yoke-shaped end-member of the locking bolt extends, a retaining tongue connected with said push-plate normally in holding engagement with the yoke-shaped end-member of said movable locking bolt for retaining said bolt in its depressed relation.

3. A bag-frame fastener comprising a casing provided in its top with a receiving depression and an opening in the wall-portion of said top which forms the said receiving depression, a back-plate within said casing, said back-plate being provided with a tubular receiving socket, said socket having a perforated bottom-end, a vertically movable locking bolt in said socket, said bolt having its lower end-portion extending into and through the said perforated bottom-end of the said socket, and the said bolt having its upper portion extending into and through the opening in the wall-portion of said depression, a push-piece mounted upon the upper projecting portion of the locking bolt, said push-piece being adapted to enter and register with said receiving depression, a horizontally movable push-plate within said casing, a spring within said tubular receiving socket, said spring encircling the shank of said vertically movable bolt, and means connected with said push-plate normally in holding engagement with said vertically movable locking bolt for retaining said bolt in its depressed relation.

4. A bag-frame fastener comprising a casing provided in its top with a receiving depression and an opening in the wall-portion of said top which forms said receiving depression, said casing being provided in one end with a fingerpiece-receiving opening, a back-plate within said casing, said back-plate being provided with a tubular receiving socket, said socket having a perforated bottom-end, a vertically movable locking bolt in said socket, said bolt having its lower end-portion extending into and through the said perforated bottom-end of the said socket, a yoke-shaped end-member connected with said bolt, said yoke-shaped end-member having portions extending into and through the opening in the wall-portion of said depression, a push-piece mounted upon the projecting portions of said yoke-shaped end-member, said push-piece being adapted to enter and register with said receiving depression, a horizontally movable push-plate within said casing, a fingerpiece connected with said push-plate and extending into and through the fingerpiece-receiving opening in the end of said casing, said push-plate being provided with an opening into and through which the yoke-shaped end-member of the locking bolt extends, a spring within said tubular receiving socket, said spring encircling the shank of said vertically movable bolt, and a retaining tongue connected with said push-plate normally in holding engagement with the yoke-shaped end-member of said movable locking bolt for retaining said bolt in its depressed relation.

In testimony that I claim the invention set forth above, I have hereunto set my hand this 15th day of May, 1914.

WILLIAM C. RATH.

Witnesses:

GEORGE D. RICHARDS,

FREDERIC R. MULLENS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."