Apr. 24, 1923. 1,452,839

W. A. LOTZ

BAG FRAME FASTENER

Filed April 22, 1921 2 Sheets-Sheet 1

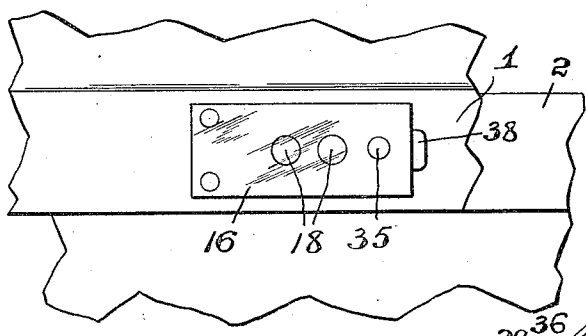


Fig. 1

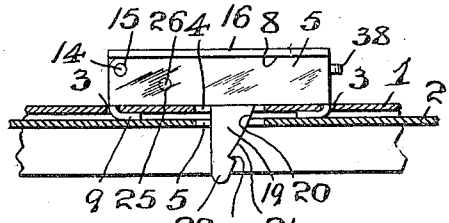


Fig. 2

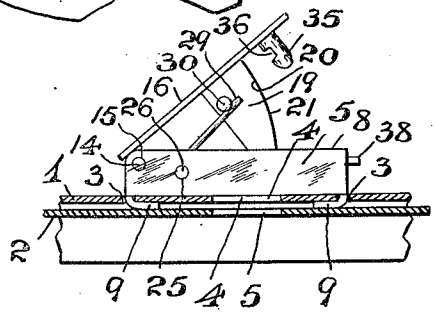


Fig. 3

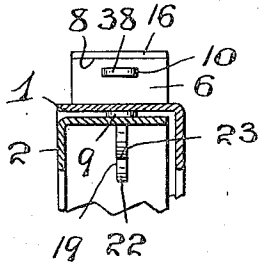


Fig. 4

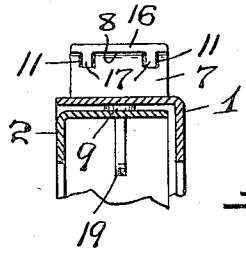


Fig. 5

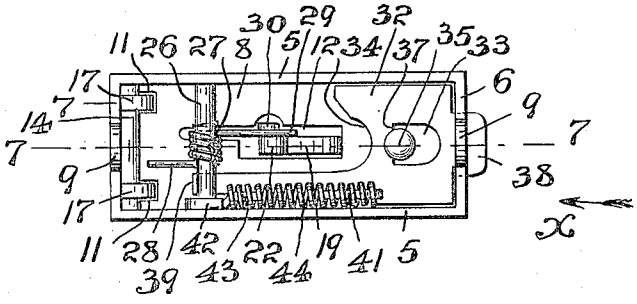


Fig. 6

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ATTORNEYS.

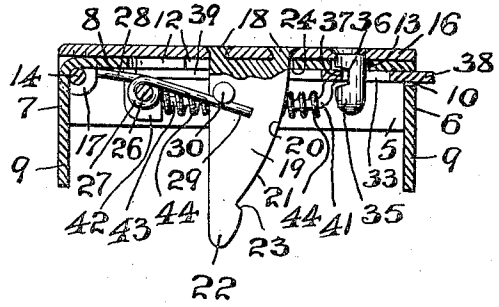
Apr. 24, 1923. 1,452,839

W. A. LOTZ

BAG FRAME FASTENER

Filed April 22, 1921 2 Sheets-Sheet 2

Fig. 7



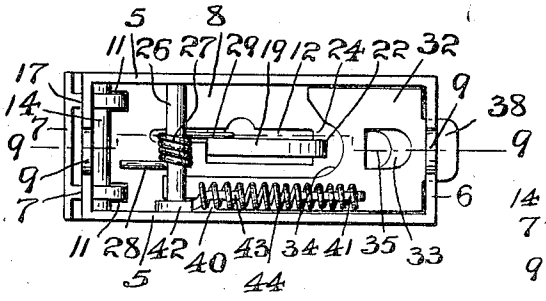


Fig. 8

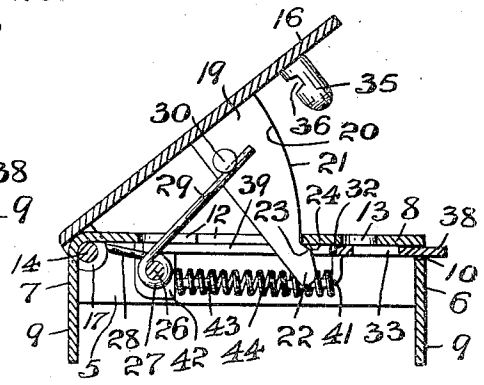
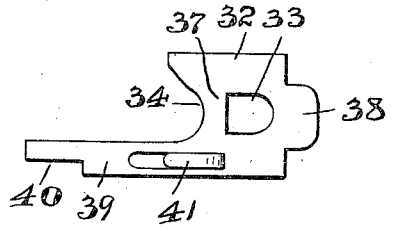


Fig. 9

Fig. 10



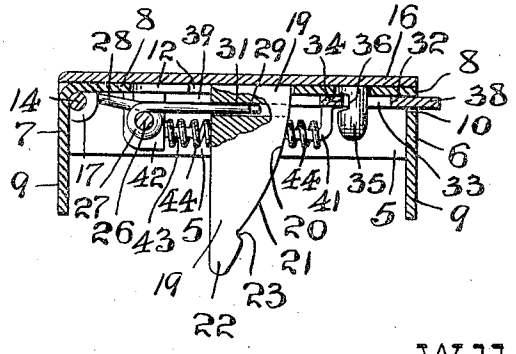


Fig. 11

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Patented Apr. 24, 1923. 1,452,839

UNITED STATES PATENT OFFICE.

WILLIAM A. LOTZ, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE R. NEUMANN HARDWARE CO., A CORPORATION OF NEW JERSEY.

BAG-FRAME FASTENER.

Application filed April 22, 1921. Serial No. 463,498.

To all whom it may concern:

Be it known that I, WILLIAM A. LOTZ, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, 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.

The present invention relates, generally, to improvements in bag-frame fasteners; and, this invention has reference, more particularly, to a novel construction of safety latch or lock for bag-frames, comprising a pair of hinged frame-sections for travelling bags, suit-cases, and the like, with a view of providing a simply constructed and positively acting construction, which can be readily manipulated so as to retain the hinged frame-sections in their closed relation, or for permitting the frame-sections to be brought into their separated or opened relation; and, furthermore, to provide a construction of bag-frame fastener in which the usual side-play between the hinged bolt-plate and the box or casing of the fastener is positively overcome.

The present invention has for its principal objects to provide a novel construction of bag-frame fastener or lock in which the bolt-operating mechanism is concealed in a box or casing, and the said box or casing being provided with a spring-controlled and hinged cover-plate with which the bolt is connected and moves, the parts being released from their normally locked relation by the manipulation of a push-piece connected with a release-plate or slide and extending from an end of said box or casing, and the said cover-plate being provided with a latch-stud adapted to be brought into holding engagement with the said release-plate or slide, for maintaining a closed relation of the several devices and parts.

The present invention has for its further object to provide a simple bag-frame fastener or lock of such construction, that the several parts may be brought into their opened or into their closed relation with a positive "snap"; and, furthermore, to provide a device in which any side-play between the hinged cover-plate and the box or casing is positively overcome.

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

With the various objects of the invention in view, the invention consists, primarily, in the novel bag-frame lock or latch 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 illustrated in the accompanying drawings, in which:—

Figure 1 is a top or plan view of a portion of the upper part of a bag and frame-sections, showing, also in top a plan view, a bag-lock made according to and embodying the principles of the present invention.

Figure 2 is a side-representation of the bag-lock and a longitudinal vertical representation of the frame-sections of the bag, the parts being shown in their normally locked relations; and Figure 3 is a similar view of the lock and frame-sections, with the hinged bolt carrying cover-plate shown in its raised position, to permit of the separation or opened relation of the bag-frame sections.

Figure 4 is a transverse vertical sectional representation of the closed bag-frame sections, and an elevation of the one end of the bag-lock or latch in its secured position upon one of said frame-sections; and Figure 5 is a similar sectional representation of the closed bag-frame sections, and an elevation of the other end of said bag-lock or latch.

Figure 6 is a bottom view of the bag-lock or latch, detached from the bag-frame section, said view being made on an enlarged scale, and the several parts of the lock-mechanism being represented in their normal initial positions; and Figure 7 is a longitudinal vertical section of the same, said section being taken on line 7—7 in said Figure 6.

Figure 8 is a bottom view of the bag-lock or latch, similar to that represented in said Figure 6, showing the spring-controlled bolt-releasing plate in its operated and released relation with the lock-stud; and Figure 9 is a longitudinal vertical section of the parts represented in said Figure 8, said section being taken on line 8—8 in said Figure 8. Figure 10 is a plan view of the release-plate or slide of the bag-frame fastener or lock; and Figure 11 is a longitudinal vertical sectional representation of a bag-frame fastener or lock of a slightly modified form of construction, but still embodying the principal features of the present invention.

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

Referring now to Figures 1 to 10 inclusive, the reference-characters 1 and 2 indicate the top-portions of the usual pivotally connected or hinged bag-frame sections, the frame-section 1 being provided with suitably-disposed lug-receiving holes or openings 3, and the frame-sections 1 and 2 being respectively provided with registering bolt-receiving holes or openings 4 and 5, as will be seen from an inspection of Figures 2 and 3 of the drawings.

The bag-lock or latch which is to be mounted upon the outer face of the upper frame-section 1 consists, essentially of a suitably shaped casing or box, comprising longitudinally extending sides 5, ends 6 and 7, and a top 8. Extending from the lower marginal edges of the said ends 6 and 7 are suitably formed fastening lugs 9, which are inserted in the lug-receiving holes 3 of the frame-section 1, and are suitably bent against the inner face of said frame-section, for permanently securing said casing or box in position upon the upper face of said frame-section. The end 6 of said casing or box is made with a finger or push-piece receiving opening, as 10, and in the upper portion of the end 7 and the top 8, at points near said end 7, are suitably formed openings, as 11, for the reception of suitable pivot-ears, in the manner and for the purposes to be presently set forth. The top 8 is made with a centrally disposed elongated bolt-receiving opening 12, and in alinement longitudinally with said bolt-receiving opening 12 is a lock-stud receiving opening 13. Extending laterally across the inner or chambered part of the casing or box, at a point beneath and in front of the openings 11 is a pivot-pin 14, said pin having its end-portions suitably secured in correspondingly disposed holes or perforations 15 in the respective sides 5 of the casing or box. Suitably disposed upon the upper face of the top 8 is a bolt-carrying plate 16 provided at one end with downwardly projecting and perforated pivot-ears or lugs 17 which extend into and through the openings 11 and are pivotally mounted upon the pivot-pin 14, for connecting said bolt-carrying plate 16 in a hinge-like manner with the upper surface of said top 8 of the casing or box. Suitably disposed and secured upon the lower face of said plate 16, by means of fastening lugs 18, or other suitable securing means, is a suitably formed bolt, as 19, said bolt extending into and projecting through the elongated opening 12 in the top 8, and being adapted to move in said opening 12, as will be clearly evident from an inspection of Figures 6, 7, 8 and 9 of the drawings.

The marginal edge-portion 20 of said bolt 19 is convexly curved, as at 21, and near its lower and preferably angularly pointed end 22, there is a suitably formed offset, as 23, which provides a stop and which is adapted to engage the under surface of the top 8 at a point 24, see Figures 8 and 9, when the bolt-carrying plate 16 has been brought into its raised position.

Extending laterally across the inner or chambered part of the box or casing, with its end-portions suitably secured in perforations 25 in the sides of said box or casing is another pin 26, upon which is suitably mounted a coiled spring 27, having one end-portion 28 bearing upon the under face of the top 8 of the box or casing, and having its other end-portion 29 extending upwardly through the elongated opening 12 and bearing forcibly against a pin, stud, or projection 30 which extends from the side of the bolt 19, as shown in Figures 3, 6, 7, 8 and 9 of the drawings, or which end-portion 29 may extend into a receiving socket or opening, as 31, with which the said bolt 19 may be provided, as illustrated in Figure 11, said spring having for its purpose to forcibly release the said bolt 19, and cause it and the said bolt-carrying plate 16 to assume the positions indicated in Figures 3 and 9, in the manner and for the purposes to be presently more fully described.

Slidably arranged within the said box or casing, and longitudinally guided between the inner faces of the opposite sides 5 is a release-plate or slide 32, said plate being provided with a hole or opening 33 and the marginal cut-away portion 34, the said hole or opening 33 being normally in registration with the previously mentioned lock-stud receiving opening 13. The bolt-carrying plate 16 is provided with a downwardly projecting lock-stud 35, which is adapted to enter said openings 13 and 33, and has a slotted or recessed part, as 36, which is adapted to be brought into retaining or holding engagement with a portion 37 of the said plate or slide 32, substantially as shown in Figures 6, 7 and 11 of the drawings. The above-mentioned cut-away portion 34 is located be-

neath the previously-mentioned bolt-receiving opening 12, the bolt 16 being movably disposed in said opening 12 and the said portion 37, as will be evident from an inspection of Figures 7, 8, 9 and 11.

At its edge, near the end 6 of the box or case, the said plate or slide 32 has a push or fingerpiece, as 38, which extends into and through the opening 10 in said end 6, so as to be manipulated from the outside of the box or case, to force the said plate or slide in a direction indicated by the arrow x, in said Figure 6.

As shown more particularly in Figure 10, the said plate or slide 32 is also provided with an extension 39, having a marginal cut-away portion 40, and 41 indicates a suitably formed spring-receiving finger which is forced out of said plate or slide, and projects downwardly therefrom and in a forward direction, as will be clearly understood from an inspection of the several figures of the drawings. Suitably mounted upon the previously mentioned pin 26, and substantially in alinement with said finger 41, is a block or member, as 42, which is also provided with a spring-receiving finger 43, and indisposed between the said fingers 41 and 43, with its respective end-portions mounted upon said fingers is a coiled spring 44, the purpose of which is self-evident from an inspection of the several figures of the drawings.

Under normal conditions, when the hinged plate 16 and its bolt 19, as well as its lock-stud 35, are in the positions indicated in Figures 6, 7 and 11, the recessed part 36 of said lock-stud is in holding or retained engagement with the edge-portion 37 of the release-plate or slide 32, so that the said bolt and hinged carrier or top-plate 16 will be prevented from moving outwardly. When the parts are in these relative positions, the bolt 16 prevents the separation of the two frame-sections 1 and 2; and, furthermore, the lock-stud 35 fitting snugly in the receiving opening 13, any possible and objectionable movement of the hinged bolt-carrying plate upon the top of the main box or casing is fully overcome, as will be evident.

When, however, pressure is applied upon the push or fingerpiece 38, and the plate or slide 32 is moved in the direction of the arrow x, then the said edge-portion 37 is removed from within and from its retaining engagement with the receiving recess 36, in the stud 35, and immediately the spring 27 causes the plate 16 and its bolt 19 and stud 35 to be forced outwardly into their released relation indicated in Figures 3, 8 and 9, with the stop 23 of the bolt in its arrested engagement with the edge-portion 24 of the top 8. At the the same time the compressed spring 44, as the operator takes his or her finger from the fingerpiece of the release-plate or slide, will cause the latter to assume its normal initial position. Also, the end 22 of the bolt 19 having been withdrawn from the openings 4 and 5 of the respective frame-sections 1 and 2, the hinged sections of the bag-frame can thereupon be brought into their separated or opened relation, as will be understood.

When the hinged bolt-carrying plate 16, and its bolt 19 and lock-stud 35 are moved from the position indicated in Figure 9 to the position represented in Figure 7, the lock-stud is again forced into holding or retaining engagement with the release-plate or slide 32, and the bolt 19 has entered into holding engagement with the closed bag-frame sections 1 and 2, so that the bag-frame can not be opened, until the bag-frame fastener or lock is again manipulated by the application of pressure upon the push or fingerpiece of the release-plate or slide 32.

Of course, I am fully aware, that changes may be made in the general arrangements and combinations of the several 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 claims 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 bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through said bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, a manually operated means connected with said casing adapted to be brought into retaining engagement with said lock-stud to maintain a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means within said casing and co-operating with said bolt for automatically raising said plate and bolt.

2. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through said bolt-receiving

opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, a manually operated and spring-controlled means connected with said casing adapted to be brought into retaining engagement with said lock-stud to maintain a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and a spring within said casing and co-operating with said bolt for automatically raising said plate and bolt.

3. A bag-frame fastener comprising a casing provided in its top with a bolt- receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through said bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, a manually operated means connected with said casing adapted to be brought into retaining engagement with said lock-stud to maintain a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and means within said casing and co-operating with said bolt for automatically raising said plate and bolt, and means connected with said bolt for limiting the outward movement of said plate and bolt.

4. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through said bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, a manually operated and spring-controlled means connected with said casing adapted to be brought into retaining engagement with said lock-stud to maintain a closed and locked relation of said plate and bolt with relation to said casing, but being adapted when operated to bring said plate and bolt into released relation, and a spring within said casing and cooperating with said bolt for automatically raising said plate and bolt, and means connected with said bolt for limiting the outward movement of said plate and bolt.

5. A bag-frame fastener comprising a casing provided with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, and means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing.

6. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and bolt-stud carrying plate upon the super surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing, and means connected with said bolt for limiting the outward movement of said plate and bolt.

7. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing, and a spring within said casing and co-operating with said bolt for automatically raising said plate and bolt.

8. A bag-frame fastener comprising a casing provided in its top with a bolt-receiv-

ing opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing, a spring within said casing and co-operating with said bolt for automatically raising said plate and bolt, and means connected with said bolt for limiting the outward movement of said plate and bolt.

9. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, a finger extending forwardly from said slide, a pin mounted in said casing, a block upon said pin, a finger extending from said block, a coiled spring mounted between said fingers, and means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing.

10. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, a finger extending forwardly from said slide, a pin mounted in said casing, a block upon said pin, a finger extending from said block, a coiled spring mounted between said fingers, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing, and means connected with said bolt for limiting the outward movement of said plate and bolt.

11. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, a finger extending forwardly from said slide, a pin mounted in said casing, a block upon said pin, a finger extending from said block, a coiled spring mounted between said fingers, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation of said plate and bolt with relation to said casing, and a second spring within said casing and co-operating with said bolt for automatically raising said plate and bolt.

12. A bag-frame fastener comprising a casing provided in its top with a bolt-receiving opening and a lock-stud receiving opening, a bolt and lock-stud carrying plate upon the upper surface of said casing and hinged thereto, a bolt extending downwardly from said plate and through the bolt-receiving opening, a lock-stud also extending downwardly from said plate and through the lock-stud receiving opening, said casing being provided in one of its sides with a fingerpiece receiving opening, a slide within said casing provided with a fingerpiece slidably arranged and extending from said fingerpiece receiving opening, said slide being also provided with an opening through which said lock-stud extends, a finger extending forwardly from said slide, a pin mounted in said casing, a block upon said pin, a finger extending from said block, a coiled spring mounted between said fingers, means connected with said lock-stud with which said slide is normally in retaining engagement for maintaining a closed relation

of said plate and bolt with relation to said casing, a second spring within said casing and co-operating with said bolt for automatically raising said plate and bolt, and means connected with said bolt for limiting the outward movement of said plate and bolt.

In testimony that I claim the invention set forth above I have hereunto set my hand this 19th day of April, 1921.

WILLIAM A. LOTZ.

Witnesses:

FRED'K C. FRAENTZEL,

EVA E. DESCH.