No. 894,335.

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M. D. MANSUR.

HASP FASTENER.

APPLICATION FILED OCT. 15, 1907.

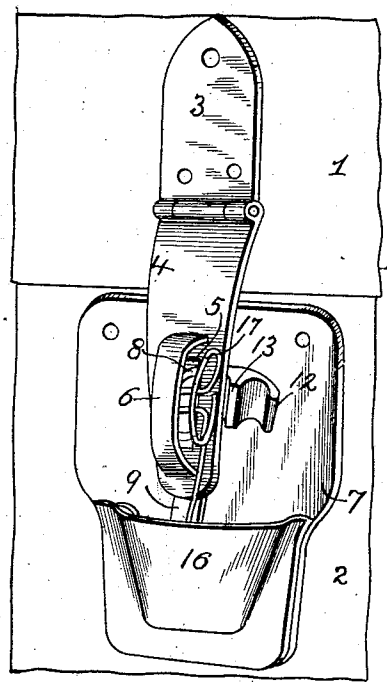


Fig. 1.

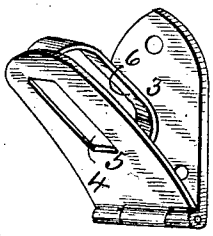


Fig. 2.

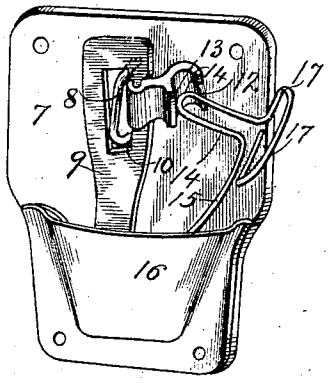


Fig. 3.

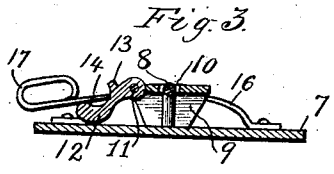


Fig. 4.

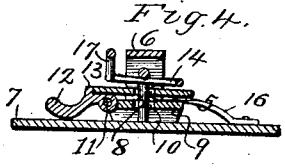
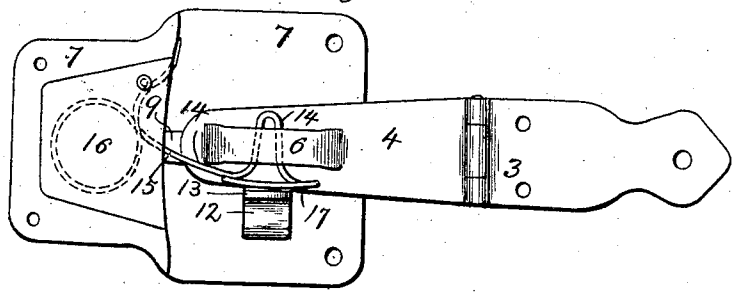


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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HASP-FASTENER.

No. 894,335. Specification of Letters Patent. Patented July 28, 1908.

Application filed October 15, 1907. Serial No. 397,570.

To all whom it may concern:

Be it known that I, MERTON D. MANSUR, citizen of the United States, residing at Ashland, in the county of Aroostook and State of Maine, have invented certain new and useful Improvements in Hasp-Fasteners, of which the following is a specification.

This invention comprehends certain new and useful improvements in that type of fastener which embodies a hasp, a keeper or staple therefor, and a lock or latch designed to secure the hasp to its keeper, and the invention has for its object an improved construction of hasp lock of this character which will be durable and simple and efficient in operation, and in which the parts are so arranged that the operation of swinging the hasp over upon the staple will effect the shooting of the latch into the staple to lock the hasp thereto, the manual releasing of the latch from the staple automatically effecting the casting off of the hasp therefrom.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements, and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of my improved hasp lock in closed or locked position; Fig. 2 is a similar view with the parts detached and open; Fig. 3 is a transverse sectional view of the device in unlocked position; Fig. 4 is a similar view of the device locked; and, Fig. 5 is a front elevation.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

While it is clear that my invention is applicable broadly to fasten together any two parts, for the purpose of illustration only, I have selected a box, or any other receptacle with a lid to illustrate the application and operation of my improved hasp lock.

Referring to the drawing, the numeral 1 designates the lid of any such receptacle, and 2 the body thereof.

3 designates a strap which is secured by rivets or similar fastening devices to the lid 1, and 4 designates the hasp which is hinged, as shown, to the attaching strap 3 and which is formed with a longitudinally extending slot 5, and an arched guard 6 extending over said slot, so as to protect the operator's fingers in the operation of the lock.

To the body 2 or other part to be fastened, a base plate 7 is riveted, or otherwise secured, and a keeper 8, which, in the present instance, is in the form of a staple and designed to coact with the slot 5, is formed on or secured to the base plate, as shown. A cast-off 9 which, in the present instance, is in the form of a flat or leaf spring is secured at one end to the base plate 7 and extends towards and in line with the hasp 4 with its free end normally spaced from the face of the base plate. Such end of the cast-off 9 is formed with a slot 10 through which the staple 8 projects.

The free end of the cast-off 9 is provided at one side of the slot 10 with a bar 11, and a detent 12 is pivotally connected at one end to said bar and projects laterally from the cast-off, as shown. The detent 12 is formed between its ends with a ridge or shoulder 13 designed for engagement with the laterally extending tongue 14 formed on one end of a spring latch 15. This latch in the present instance is formed of a single strip of suitably strong spring wire coiled between its ends, as shown, and mounted and held in a pocket 16 provided on the base plate, the open side of the pocket facing the staple. The free end of the spring latch 15 is also formed with a finger piece 17 for the manipulation of the latch.

In describing the operation of my improved hasp lock, or fastening device, let it be assumed that the tongue 14 has been retracted from the staple and moved outwardly until it is caught by the shoulder 13 of the detent 12. The latch will thus be held in an inoperative position by the detent, so long as the hasp is in open position. Upon the movement of the hasp over upon the staple or keeper 8, the operator will press inwardly upon the free end of the hasp and this will manifestly effect the depression of the free end of the cast-off 9 so as to rock the detent inwardly and free the latter from the tongue of the latch 15, whereupon the said tongue will snap through the staple and securely lock the hasp. In connection with this part of the operation, it is to be noted that the shoulder 13 on the detent is so spaced from the staple that the free end of the hasp on one

side of the slot 5 will fit between said shoulder and the staple. Consequently, after the hasp is first moved over the staple, the detent 12 will be rocked about its pivot point and slightly away from the face plate, as the end of the tongue is pressing against the shoulder, and the continued inward movement of the hasp against the detent after the hasp has fitted in between the shoulder and the staple so as to lie substantially flush with the detent, will effect the inward movement of the detent as a whole so as to permit the tongue to ride over the shoulder and snap through the staple over the end of the hasp. In this operation, the operator's fingers are protected from injury by the spring action of the latch, through the instrumentality of the guard 6 which extends over the staple, as shown.

In order now to release the hasp, it is only necessary to retract the latch from the staple, whereupon, the depressed free end of the cast-off will be permitted to exert its tension and automatically swing the hasp away from the staple, while, at the same time such movement of the cast-off will carry the detent away from the base plate and effect the engagement of the shoulder with the end of the tongue 14 of the latch as soon as the tongue has been sprung outwardly beyond the shoulder. Thus the tongue will be automatically caught by the detent and held in an inoperative position away from the staple until the hasp has been pressed again upon the cast-off.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very simple, durable and efficient construction of hasp lock in which the spring-shot latch to lock the hasp to the keeper or staple is automatically held restrained in an inoperative position, until the hasp has been moved over into engagement with the keeper and that such movement of the hasp will effect the automatic release of the latch from the detent and permit the latch to shoot home into engagement with the keeper to lock the hasp securely thereto. It will also be seen that in the reverse movement of the parts, the hasp will be automatically cast-off or swung away from the staple as soon as the latch shall have released the hasp, so that the fastener must be either rigidly locked or absolutely free. Hence, my invention provides not only a partially automatically acting lock of simple construction, but a lock that is to a certain extent a safety lock, as under no circumstances can the parts be partially secured together in a manner to deceive the operator.

Having thus described the invention, what is claimed as new is:

1. The combination with parts to be secured together, of a hasp connected to one of said parts, a keeper connected to the other of said parts and arranged for engagement by said hasp, an automatically movable latch arranged to lock the hasp to its keeper, means for holding said latch in an inoperative position against its automatic movement and out of engagement with the hasp and keeper, and means for releasing said latch from the holding means upon the engagement of the hasp with the keeper.

2. The combination of parts to be secured together, of a hasp secured to one of said parts, a keeper secured to the other of said parts and designed for engagement by said hasp, an automatically movable latch adapted to lock the hasp to the keeper, a spring cast-off arranged to swing the hasp away from the keeper, and a detent secured to and carried by said cast-off and provided with means for holding the latch in an inoperative position, the hasp being arranged to press the detent out of engagement with the latch upon the movement of the hasp into engagement with the keeper.

3. The combination of parts to be secured together, of a hasp secured to one of said parts, a keeper secured to the other of said parts and arranged for engagement by said hasp, a spring latch adapted to automatically move into engagement with said hasp and keeper to lock the same together, a detent adapted to hold the latch in an inoperative position out of engagement with the hasp and keeper, and a depressible support to which said detent is connected, said support being adapted to be depressed by the movement of the hasp on the keeper, whereby to release the detent from the latch.

4. A fastener of the character described, comprising a hasp formed with a slot, a base plate provided with a staple designed to project through said slot, a spring cast-off secured at one end to said base plate and having a free end formed with a slot normally spaced from the base plate and through which slot said base plate projects, a detent pivotally connected to the free end of said cast-off and extending laterally therefrom and formed with a shoulder spaced from the staple, and a laterally movable spring latch mounted on the base plate and formed with a tongue adapted to spring into the staple over the hasp, the tongue being designed for engagement by the shoulder of the detent, whereby the latch will be held in inoperative position until the hasp is pressed over the staple upon the cast-off so as to carry the same inwardly towards the base plate with the detent and free the latter from engagement with the latch.

5. The combination with parts to be secured together, of a hasp secured to one of said parts, a keeper secured to the other of said parts, and a spring latch adapted to snap into engagement with the keeper and hasp to lock the same together, said hasp be-

ing formed with an arched finger guard adapted to extend over the latch, as and for the purpose set forth.

6. The combination of parts to be secured together, of a hasp secured to one of said parts, a keeper secured to the other of said parts, and arranged for engagement by said hasp, a spring cast-off device secured to said last named part and adapted to extend underneath and be depressed by said hasp when the latter engages the keeper, said device having a tendency to swing the hasp out of engagement with the keeper, and a latch adapted to lock the hasp to the keeper.

In testimony whereof I affix my signature in presence of two witnesses.

MERTON D. MANSUR. [L. S.]

Witnesses:

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