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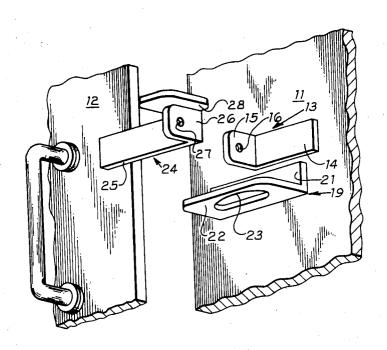
[54]	HIGH SECURITY LOCKING MECHANISM			
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[56]		References Cited		
	UNI	TED STATES PATENTS		
3,460,861 8,		69 Niilola 292/281		

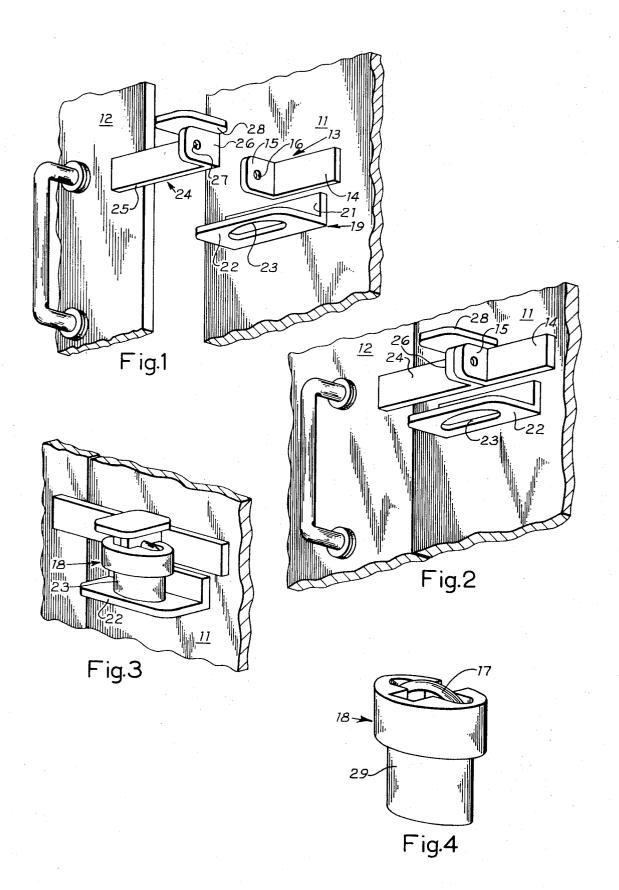
2,766,605 3,652,114		O'Brien			
FOREIGN PATENTS OR APPLICATIONS					
103,308	2/1964	Norway 70/56			
Primary Examiner—Robert L. Wolfe Attorney—R. S. Sciascia and Paul S. Collignon					

[57] ABSTRACT

A locking mechanism for securing one or two doors by using a padlock and having means preventing cutting or breaking said padlock. A keeper is attached to a first door element, and a hasp is attached to a second door element and has a shackle guard that prevents a cutting device from engaging a shackle of a padlock connecting the keeper and hasp. A lock guard is attached to the first door element beneath the keeper and protects the case of said padlock.

4 Claims, 4 Drawing Figures





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HIGH SECURITY LOCKING MECHANISM

BACKGROUND OF THE INVENTION

The present invention relates to a locking device for use with either one or two doors and more particularly 5 to a high security locking device having means for preventing cutting or breaking a padlock used as a locking means.

Padlocks are widely used to secure one door to a door jamb and to secure two doors together. A hasp 10 and keeper are normally provided and the padlock secures these two elements together. Various tools such as crowbars or hollow pipes can be used however to break either the lock or hasp. A long, hollow pipe, for example, can be inserted over a lock case and sufficient 15 leverage can be obtained to break a lock or hasp in a few seconds.

SUMMARY OF THE INVENTION

The present invention utilizes a hasp and keeper 20 which are attached to separate door elements and the shackle of a padlock is passed through apertures in the hasp and keeper to secure the two elements together. A shackle guard is attached to the top edge of the hasp and prevents access to the shackle of a padlock when 25 the shackle is engaged with the hasp and keeper. A lock guard is attached beneath the keeper for retaining the padlock case and this lock guard prevents a leverage tool, such as a crowbar or pipe from engaging and breaking the lock case.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view showing a pair of doors in an unlocked condition and one door being partly opened;

FIG. 2 is a perspective view showing the doors of FIG. 1 in a closed condition;

FIG. 3 is a perspective view showing the doors of FIG. 1 in a locked condition; and

FIG. 4 is a perspective view of a high security lock. 40

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawing, a preferred embodiment of the present invention is shown for securing two 45 door elements 11 and 12 which, as shown, are two hinged doors. Either door element, however, could be a door jamb and the invention would work equally well for a single door. A keeper 13 is attached to door element 11, and keeper 13 has a flat portion 14 which is 50 attached, as by welding, to door element 11, and an outwardly extending flange 15 which is substantially perpendicular to flat portion 14. An aperture 16 is provided in flange 15 for receiving the shackle 17 of a padlock 18. A lock guard 19 is provided on door element 55 11 and has a flat portion 21 which is attached, as by welding, to door element 11 and an outwardly extending flange 22. Flange 22 has an aperture 23 for receiving the case 23 of padlock 18.

A hasp 24 is provided on door element 12 and has a 60

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flat portion 25 which is attached, as by welding, to door element 12. Hasp 24 is provided with an outwardly extending flange 26 which is substantially perpendicular to flat portion 25. An aperture 27 is provided in flange 26 for receiving shackle 17 of padlock 18. A shackle guard 28 is attached, as by welding, to the top edge of hasp 24. As best shown in FIG. 2 of the drawings, when door elements 11 and 12 are in a closed relationship, flange 26 is adjacent to and parallel with flange 15 and apertures 16 and 17 in flanges 15 and 26, respectively, are in alignment.

Padlock 18 is preferably of the high security type shown in FIG. 4 of the drawing and case 29 forms a shroud to guard shackle 17. Preferably, shackle 17 disengages from case 29 in order to facilitate locking. In operation, assuming door elements 11 and 12 are in a closed relationship as shown in FIG. 2 of the drawing, the bottom portion of case 29 is inserted into aperture 23 of flange 22 and shackle 17 is passed through apertures 16 and 27 in keeper 13 and hasp 24. Shackle 17 is then mated with case 29 and these two parts become locked together. Flange 22 of lock guard 19 prevents a tool, such as a hollow pipe, from encircling case 29, thereby preventing any breaking of the lock and shackle guard 28 prevents any cutting or prying device to engage shackle 17. Upon unlocking padlock 18, shackle 17 can be removed from keeper 13 and hasp 24 and door elements 11 and 12 are free to be opened.

We claim:

1. A lock mechanism comprising,

a locking member having a case and a shackle,

a keeper adaptable to be attached to a first door element and having an aperture for receiving said shackle of said locking member,

a hasp adaptable to be attached to a second door element and having an aperture for receiving said shackle of said locking member,

a shackle guard attached to the top edge of said hasp for preventing access by a cutting element to said shackle when said shackle is engaged in the apertures of said keeper and hasp, and

a lock guard attached to said first door element and having an aperture for receiving said case of said locking member when said shackle is engaged in said apertures of said keeper and said hasp.

2. A lock mechanism as set forth in claim 1 wherein said keeper and hasp are each L-shaped and each have a flat portion adaptable for attaching to a door element and an outwardly extending flange having an aperture therein, said aperture in said hasp being in alignment with said aperture in said keeper whenever said first and second door elements are in a closed relationship.

3. A lock mechanism as set forth in claim 1 wherein said lock guard is L-shaped and has a flat portion adaptable for attaching to a door element and an outwardly extending flange having an aperture therein.

4. A lock mechanism as set forth in claim 1 wherein said locking member is a key-operated padlock.