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(54) Titre : MORAILLON EMPECHANT L'OUVERTURE ACCIDENTELLE D'UNE PORTE

(54) Title: HASP FOR PREVENTING ACCIDENTAL OPENING OF A DOOR



FIELD OF THE INVENTION

This invention relates to hasps for preventing openings in containers from accidentally opening and more particularly to a heavy duty hasp for preventing doors of large containers such as box-cars, sea-going containers and the like from accidentally opening.

BACKGROUND OF THE INVENTION

Box-cars of freight trains are subject to sudden violent jerks when the brakes of the train are applied or when the train is starting or stopping. The doors of box-cars run on tracks and when they are suddenly and violently jerked, they tend to slide back and forth. To prevent closed doors from sliding open, heavy duty hasps are attached to the doors and to the adjacent jambs of the box-car or to the adjacent doors where there are two doors which slide toward and away from each other.

Typically, the hasp is welded to the sliding door of a box-car and is attached to the adjacent jamb by means of a locking wedge and a seal. To open the door, the seal is broken so that the locking wedge can be removed. Once the wedge is removed the door can be opened.

Should the hasp become unusable through damage, prolonged exposure to the elements or otherwise, the weld must be broken so that the hasp can be removed from the sliding door. Once removed it must be discarded and replaced with a new hasp.

A hasp which is in common use is shown in the photographs numbered 2, 5 and 6 appended to this application. The hasp, generally 10, has a ring 12 at one end. The ring is made

up of a C-shaped fastener 14 having openings for receipt of a pair of pins 16 on the shank 18 of the hasp. The fastener is passed through an opening in a heavy-duty staple or hasp-fastener 20 on a backing plate 21. The plate is welded to the sliding door of a box-car.

The C-shaped fastener is welded to the shank once it is attached to the hasp-fastener so that the hasp cannot be removed from the fastener. The other end of the hasp is attached to the jam 22 of the doorway of the box-car. Once the hasp is attached, the door of the box-car can only be opened by fracturing the hasp.

Skilled labour is required to weld the C-shaped fastener to the shank. Welding often occurs under less than ideal conditions. The weather may be very cold or very wet and in such conditions, the weld may not be reliable and may break when the hasp is severely jerked. If it does break, the door will slide violently back and forth each time the train jerks. Such sliding can cause severe damage to the door or to the jamb.

Welding requires tools and equipment that are difficult to transport particularly in adverse weather conditions. For example, if there is a heavy accumulation of snow in the vicinity of the door of a box-car, it may be very difficult to transport the tools and equipment close enough to reach the hasp.

I have invented a hasp that does not require welding in order to attach it. Rather a bolt which interconnects the hasp to the door is simply dropped into openings in the hasp and is locked in position. Skilled labour is not required for this task. The possibility that the hasp may

not be installed properly is minimal unlike a conventional hasp where there is a very real possibility that it may not be correctly installed.

Despite the fact that only hand tools and very little time are needed to install my hasp, it is as effective at preventing accidental opening of a door as a conventional hasp.

SUMMARY OF THE INVENTION

Briefly the hasp of my invention comprises an intermediate portion and a terminal portion at each end thereof. One terminal portion is bifurcated into a pair of branches each having a hollow sleeve coaxial with the other sleeve. The sleeves are adapted to receive a bolt for removably securing the terminal portion to a staple attached to a door. The other terminal portion is provided with an opening adapted to receive the removable securing means.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The hasp of the invention is described with reference to the accompanying photographs in which:

Photograph 1 is an elevation of the hasp in conjunction with the door and side wall of a railway box-car;

Photograph 2 is an elevation of a known hasp in conjunction with a door and side wall of a box-car;

Photograph 3 is an elevation of the hasp together with a bolt and locking component;

Photograph 4 is a plan view of the hasp together with a bolt and locking component;

Figures 5 and 6 are an elevation and plan view, respectively, of a known hasp.

Like reference characters refer to like parts throughout the description of the photographs.

DESCRIPTION OF PREFERRED EMBODIMENTS

With reference to photograph 1, the hasp of the invention, generally 30, has an intermediate portion 32 and terminal portions 34, 36 at opposite ends of the intermediate portion.

With reference to photographs 1, 3 and 4, terminal portion 36 is bifurcated into two branches 40, 42. Each branch has a hollow sleeve 40a, 42a and the longitudinal axes of the two sleeves are aligned so that a bolt 44 can be passed through both sleeves and thereby close the opening 46 between the two branches. The longitudinal axes are marked 48-48 in photograph 3.

The bolt has a head 50 at one end and a locking component 52 at the opposite end. Once the locking component is connected to the bolt, it can be removed by means of a tool especially designed for this purpose. Such a tool is manufactured by E. J. Brooks and is identified as a Trans Rod, part no. 9254065. In the absence of such a tool the bolt can be removed by severing its shank or by removing its head or its locking component.

With reference again to photograph 1, the bifurcated end of the hasp is attached to a conventional heavy duty staple or hasp fastener 60 attached to the outer wall of the sliding door 62 of a box-car. The staple has a U-shaped wall which defines an opening through which bolt 44 passes when the hasp is attached to the staple as illustrated in photograph 1.

At the opposite end of the hasp, a ring 64 is formed on the outer end of terminal portion 34. Inwardly of that ring is a somewhat rectangular opening 66 formed in the hasp. The axis 68-

68 of the opening formed in the ring is oriented at 90 degrees relative to axis 70-70 of rectangular opening 66. The latter axis is roughly parallel to the axes 48-48 of the two sleeves.

With reference to photograph 1, a connector 72 is attached to the jamb 74 of the outer wall of the box-car. The connector has a pair of wings 76, 78 which are attached to the jamb and each wing has a recess for receipt of a wedge pin 80 which slides up and down in the recesses. The pin passes through rectangular opening 66 in the hasp in order to attach the hasp to the connector. Once attached, a seal 83 below the wedge pin prevents the pin from being removed from the opening in the hasp unless the seal is destroyed.

A handle 84 is pivotally attached at 86 to the lower wing 78. A pin 90 extends outwardly from the upper end of the handle and through ring 64 of the hasp. By means of the handle, the hasp may be drawn to the left in order to close the door of the box-car tightly against the jamb.

When the hasp is attached to the door and jamb of a box-car as illustrated photograph 1, its bifurcated terminal portion 36 is attached to staple 60 while its opposite terminal portion is attached to wedge pin 80. The hasp prevents the door from being slid open until it is disconnected from the jamb by breaking seal 83 and removing the wedge pin 80.

It will be understood, of course, that modifications can be made in the construction of the hasp of my invention without departing from the scope and purview of the invention as defined by the appended claims.

I claim:

1. A hasp for preventing the accidental separation of a door from an adjacent jamb, one of the door and the jamb having a staple and the other having means for removably securing the hasp thereto, said hasp comprising an intermediate portion and a terminal portion at each end thereof, one said terminal portion being bifurcated into a pair of branches each having a hollow sleeve coaxial with the other said sleeve, said sleeves being adapted to receive a bolt for removably securing said one terminal portion to said staple, the other said terminal portion being provided with an opening adapted to receive said removable securing means.
2. A hasp for preventing the accidental separation of a door from an adjacent jamb, the door having a staple and the jamb having means for removably securing the hasp to the jamb and a handle pivotally connected to the jamb, said hasp comprising an intermediate portion and a terminal portion at each end thereof, one said terminal portion being bifurcated into a pair of branches each having a hollow sleeve coaxial with the other said sleeve, said sleeves being spaced apart from each other and adapted to receive a bolt for removably securing said one terminal portion to said staple, the other said terminal portion being provided with an opening having an axis substantially parallel to the axes of said sleeves, said opening being adapted to receive said removable securing means.
3. A hasp for preventing the accidental separation of a door from an adjacent door, one said door having a staple and the other said door having means for removably securing the hasp

thereto, said hasp comprising an intermediate portion and a terminal portion at each end thereof, one said terminal portion being bifurcated into a pair of branches each having a hollow sleeve coaxial with the other said sleeve, said sleeves being adapted to receive a bolt for removably securing said one terminal portion to said staple, the other said terminal portion being provided with an opening adapted to receive said removable securing means.

3. The hasp as claimed in claim 2 wherein said other terminal portion further has a second opening for receipt of a portion of said handle such that rotation of said handle causes said hasp to pull said hasp toward said jamb with resulting drawing of said door tightly against said jamb.

Application number / numéro de demande: 2425675

Figures: _____

Pages: all pages (1 and 2)

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