Sept. 4, 1956 J. W. CANTRELL ET AL 2,761,394

HOOK HOLDER

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Fig. 1

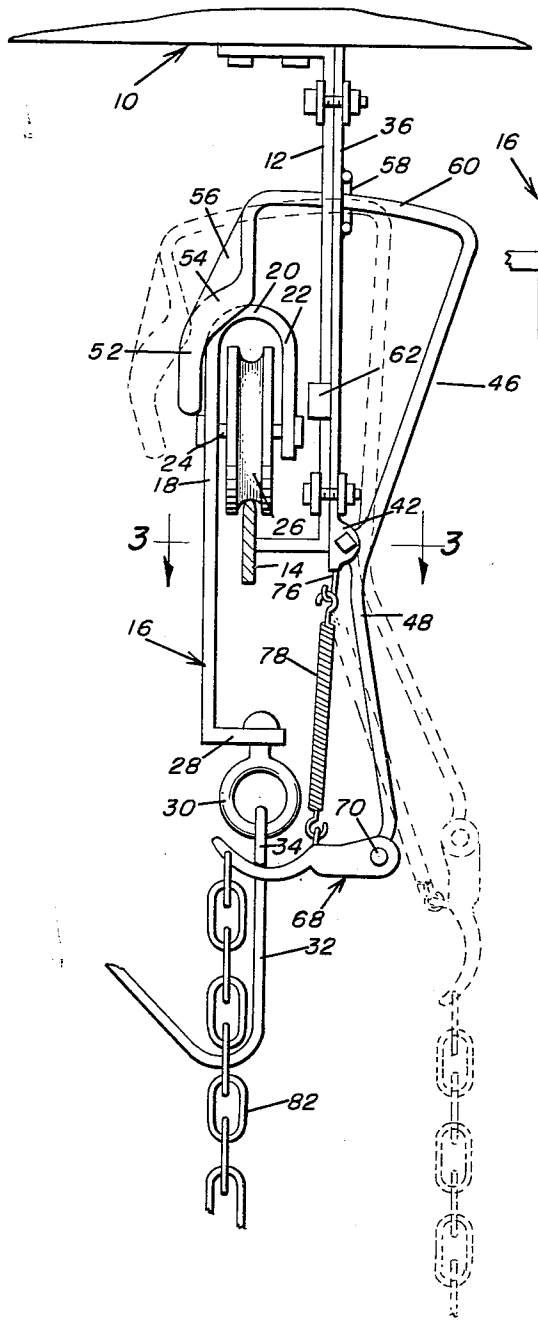
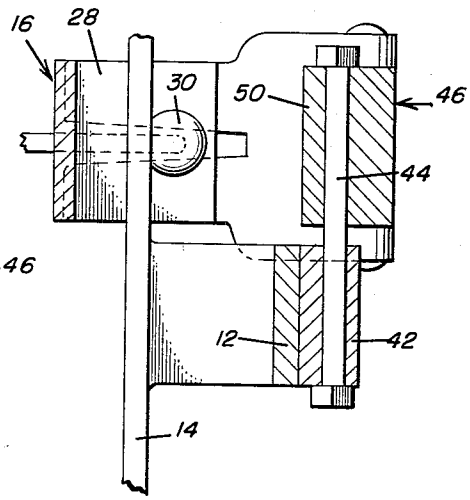


Fig. 3



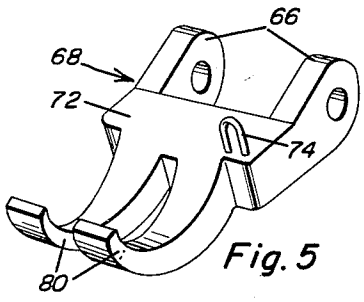


Fig. 5

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Fig. 2

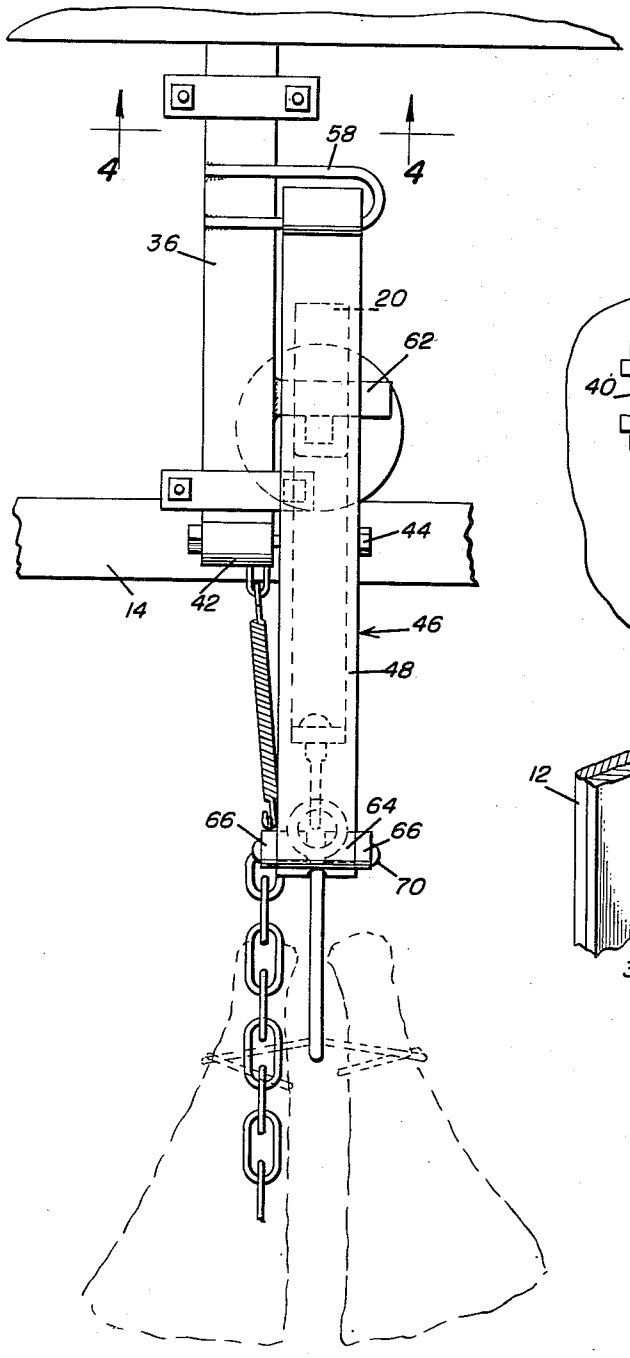
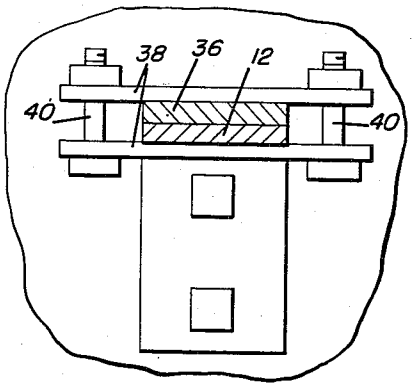


Fig. 4



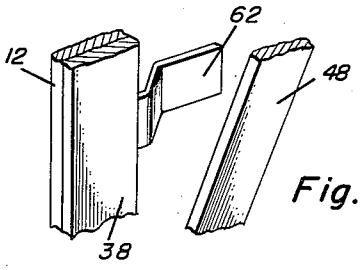


Fig. 6

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HOOK HOLDER

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Application February 4, 1954, Serial No. 408,277

2 Claims. (Cl. 104—89)

This invention relates to a steadying device for traveling hook assemblies and has for its primary object the provision of means for preventing a traveling hook and its associated carrier from being disengaged from the supporting rail.

A hazard encountered with use of traveling hooks is disengagement of the hooks and their carrier assemblies from their supporting overhead rails when a load is being placed on or removed therefrom, causing possible head or shoulder injuries to the user.

To overcome this hazard, the invention contemplates the use of a steadying device which, due to its construction, will normally hang in such a manner as to allow free and normal travel of the hook while preventing swinging of the hook, when the invention is engaged therewith, beyond a predetermined point, thus obviating the aforementioned hazard.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is an elevation of a traveling hook assembly showing the invention mounted in place and operatively connected thereto;

Figure 2 is another elevation of the assembly shown in Figure 1;

Figure 3 is a horizontal section taken along the plane of section line 3—3 in Figure 1;

Figure 4 is a horizontal section as indicated by section line 4—4 in Figure 2;

Figure 5 is a perspective view of the fork member; and

Figure 6 is a perspective view of a portion of the assembly.

Referring now more particularly to Figures 1 and 2, reference numeral 10 indicates a ceiling or other structure to which a series of hanger members 12 are attached which, in turn, support a horizontal rail member 14. A carrier member 16 has a vertical shank portion 18 and a U-shaped upper end presenting a bight 20 and a depending leg 22 disposed in spaced parallel relation to the shank 18. A roller shaft 24 is carried between the shank and the leg and a roller 26 is journaled thereon, the roller having a peripheral groove receiving the rail for guided movement therealong. The lower end of the shank 18 is provided with a horizontal ear 28 to which a depending eye member 30 is swivelled, the eye forming an attaching point for the traveling hook 32 by virtue of the eye 30 receiving the hook eye 34.

All of the above described assembly is conventional and well known. It is also well known that such assemblies have a tendency to pivot about the point of contact between the rail 14 and the roller 26 when a load is placed on or removed from the hook 32 which sometimes results in the roller leaving the rail and falling with its attached mechanism, to the ground.

To overcome this hazard, a strap member 36 is secured

in back-to-back relation to one of the hangers 12 at a convenient loading point along the rail, the strap being secured in place by any suitable means such as the clamping plates 38 and associated fasteners 40, in the manner shown most clearly in Figure 4.

The lower end of the strap is provided with an enlarged boss 42 having a horizontal bore carrying a pivot shaft 44 which projects laterally beyond the boss, see Figures 2 and 3.

A steadying arm member indicated generally by the reference character 46 is formed of inverted J-shaped configuration and an intermediate portion of its shank 48 is provided with an enlarged boss 50 journaled on the projecting end of pivot shaft 44.

The upper end of arm 46 crosses over the rail 14 and its downturned free end is provided with an offset depending finger 52 joined to the arm in the arcuate portion 54 conforming generally to the shape of the bight 20 of the carrier 16 and provided on its undersurface with a groove to receive a portion of the bight 20 as indicated most clearly in Figure 1. A portion of the free end of the arm is filled in as at 56 to add weight at this point, the purpose of this construction being presently apparent.

A horizontally disposed U-shaped guide member 58 is secured to and projects laterally from one side of strap 36 to surround the horizontal portion 60 of arm 46 and guide the same. An abutment member 62 is secured to the strap 36 in offset relation to the plane thereof toward rail 14 and in parallel relation to guide member 58 such as to provide a stop engageable with the carrier leg 22 to limit canting of that member toward the strap.

The lower end of the arm is formed with an enlarged boss 64 straddled by the spaced ears 66 of the fork assembly 68. The pin 70 projects through the ears 66 and boss 64 to effect a pivotal connection therebetween. The body 72 of the fork carries a staple 74 and a hook 76 is provided on the lower end of strap 36, the two elements supplying the anchor points for a tension spring 78, normally urging the fork into folded relation on the shank 48.

A pair of spaced upwardly curved fingers 80 extend from the body 72 of the fork oppositely of and generally parallel to ears 66. One of the fingers is provided with any suitable means for connection to one end of a depending chain 82.

Now it will be apparent that the weighted portion 56 of the steadying arm will normally maintain the device, when it is not engaged with the traveling hook, in a position such that the upper end portion of the shank 48 will engage against the guide 58. Thus, the steadying arm will clear the traveling hook as it is moved along its rail and permit the same to be used in the usual manner. To properly position the assembly for use, it is merely necessary to place the hook in the proper position, pull downwardly and over on the chain 82, and allow the fingers 80 to straddle the hook 32 and to engage upwardly with the eye 34 of the hook 32. This will cause the arcuate portion 54 to seat upon the bight 20 of the hook carrier under the action of the spring 78 and prevent the hook assembly from being disengaged from its rail when a load is being placed on or removed from the hook.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A steadying device for traveling hook assemblies

including an overhead rail, a plurality of hangers supporting the rail, an elongated vertical carrier having a roller journaled on its upper end and engaged on the rail and having a hook on its lower end below the rail having an eye, comprising: an inverted, generally J-shaped arm pivoted adjacent its central portion to one of the rail hangers and having its upper free end disposed on the opposite side of the rail from its point of pivotal connection to the hanger and engaging the carrier, a fork pivotally carried at the lower end of said arm and extending therefrom to straddle the hook, and a tension spring connected between the fork and the hanger urging the fork upwardly into engagement with the eye of said hook whereby the upper end of the arm is maintained in contact with the carrier by said spring.

2. A steadying device for traveling hook assemblies

including an overhead rail, a plurality of hangers supporting the rail, an elongated vertical carrier having a roller journaled on its upper end and engaged on the rail and having a hook on its lower end below the rail having an eye, comprising: an arm member pivoted adjacent its central portion to one of the rail hangers and having an upper portion disposed on the opposite side of the rail from its point of pivotal connection to the hangers, and spring loaded means pivotally connected to the lower end of the arm member for engaging upwardly against the eye of the hook to maintain the arm member in a substantially upright position wherein its upper end engages with the carrier.

No references cited.