

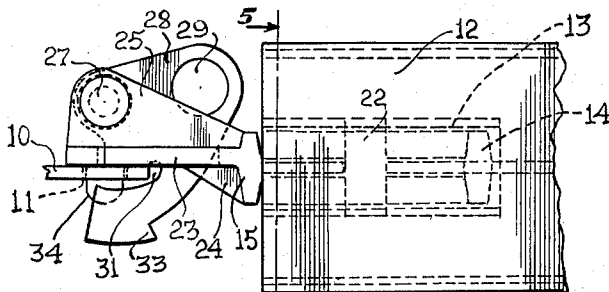
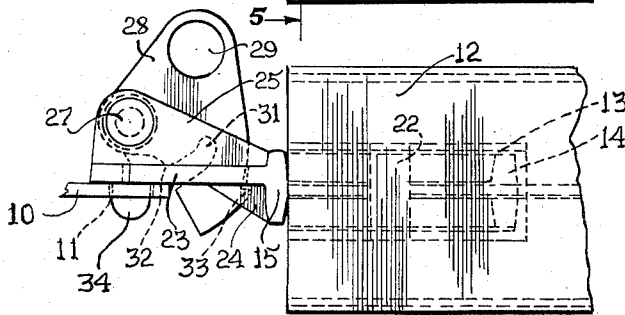
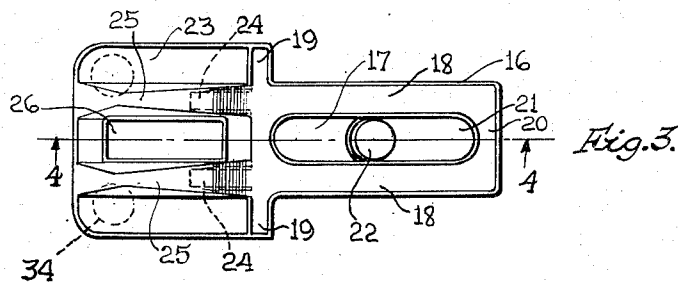
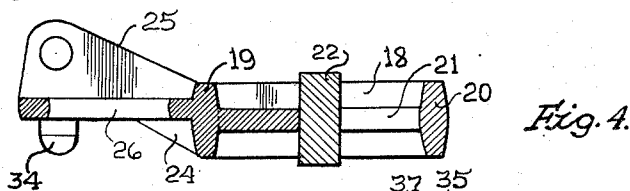
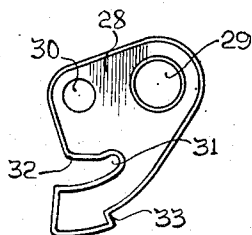
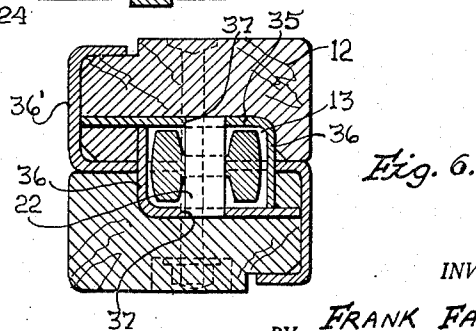
Dec. 24, 1957

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2,817,549

ATTACHING HEAD FOR A SUPPORTING CROSSBAR

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2,817,549

ATTACHING HEAD FOR A SUPPORTING CROSSBAR

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3 Claims. (Cl. 287—83)

This invention relates to a new and useful improvement in an attaching head for a supporting crossbar and has for its principal object the provision in a device of this character of a detachable head for attaching a supporting crossbar such as described and shown in my Patent No. 2,514,229.

Another important object of my invention is the provision of a device of this character for positioning and detachably latching said head to a supporting element provided by the side walls of a freight hauling vehicle.

Still another important object of my invention is in the provision of a device of this character of a pivotal latch lever manually operated and conveniently positioned for releasably latching the head to a suitable supporting element.

Another and equally important object of my invention is in the provision of a device of this character whereby the attaching head can be removably positioned within a suitable housing formed in the end of the supporting crossbar.

Still another important object of my invention is the provision in a device of this character whereby the attaching head is carried telescopically with respect to the crossbar.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a fragmentary side elevational view of my improved latching head in latching position;

Fig. 2 is a fragmentary side elevational view similar to Fig. 1, but showing the attaching head with the latching lever in unlatched position;

Fig. 3 is a top plan view of my improved attaching head separate and apart from the crossbar and without the latching lever thereof;

Fig. 4 is a side elevational detail sectional view taken on line 4—4 of Fig. 3;

Fig. 5 is a perspective view of my latching lever;

Fig. 6 is a detail sectional view taken on line 6—6 of Fig. 1.

My improved attaching head is adapted to be used in connection with a load supporting and bracing crossbar element such as shown and described in my Patent No. 2,514,229.

It is now common practice to provide freight cars of the box car type with some form of inner longitudinally extending support member to which can be readily attached a freight load supporting and bracing crossbar. These supporting members are usually perforated so as to receive pins carried by the attaching heads of the crossbar.

For the purposes of explanation of my invention, I show such a supporting member as at 10. Its construc-

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tion constitutes no part of the present invention and is shown only for the purposes of explanation. Such member 10 is usually provided with a series of apertures 11 formed throughout its longitudinal length.

One end 12 of a crossbar is shown in Figs. 1 and 2. This end 12 provides a socket 13 for the reception of a tail section 14 of my improved attaching head 15. The tail section 14 of the head 15 comprises an elongated body 16. The body 16 has the center portion 17 thereof recessed from both the top and bottom of the body 16, as shown in Fig. 3. The recessing at the center portion 17 of the body 16 produces side rails 18 terminating into a front wall 19 of a width greater than that of the body 16, and a rear wall 20 as shown in Figs. 3 and 4.

Formed in the recessing adjacent the rear wall 20 is an opening 21. This opening 21 extends longitudinally of such recessing but is of a length less than the center portion 17 as viewed in Figs. 3 and 4. Journalled transversely through this opening 21 is a stop pin 22. The purpose and function of pin 22 and opening 21 will be hereinafter made apparent.

Extending laterally from the front wall 19 is a substantially square plate 23 offset with respect to the center portion 17 of the body 16 as viewed in Figs. 1, 2 and 3. The square plate 23 on the bottom thereof provides structural support members 24 for maintaining the plate 23 in its lateral position with respect to the wall 19.

Vertically extending from the top of the plate 23 are a pair of spaced apart ears 25. These ears 25 are in substantially the same longitudinal plane as the side rails 18 of the tail section 14 as viewed in Fig. 3. Formed through the plate 23 between the ears 25 is an elongated opening 26.

Journalled on a pin 27 carried by the ears 25 in spaced relation to the plate 23 and which pin extends transversely of the opening 26 is a latch lever 28. This lever 28 is substantially triangular in shape. The apex of the triangle being arcuate and having a tool-engaging opening 29 formed therein. The base leg of the triangle terminates at one end in a circular line about an aperture 30 through which passes the pin 27. This base leg has a notch 31 formed therein. One side of the notch 31 ends in a flat nose portion 32 while the other side of the notch 31 ends in a stop finger 33. Carried on the bottom side of the plate 23 to either side of the opening 26 formed therein are depending positioning pins 34. When the latch lever 28 is journalled on the pin 27 and positioned on the ears 25, the lever 28 is pivotal through the opening 26 formed in the plate 23, as shown in Figs. 1 and 2.

In operation, the substantially square plate 23 is placed on the supporting member 10 with the positioning pins 34 thereof projecting in suitable apertures 11 formed in the supporting member 10. The latch lever is then rotated in a clockwise direction as viewed in Fig. 1, until a portion of the supporting member 10 is inserted into the notch 31 with the flat nose portion 32 thereof in engagement with the horizontal top portion of the supporting member 10 as viewed in Fig. 1. This then latches the attaching head to the supporting member 10. At the same time, the apex of the triangularly shaped lever 28 with the tool engaging opening 29 formed therein is fully exposed so as to readily accept a suitable tool for insertion therein. Such tool inserted into the opening 29 may be employed to unlatch the lever 28 and at the same time raise the crossbar off the supporting member 10. When the lever 28 is rotated upon its pivotal connection to the pin 27 in an anticlockwise direction as shown in Fig. 2, the stop finger 33 will engage a portion of the front wall 19 and arrest further pivotal movement of the lever 28 in such direction, as shown in Fig. 2.

It is a known fact that for ease of placement of the

load supporting bars into operative position, it is desired to have the attaching heads thereof telescopically connected to the bar. To accomplish this, I provide for frictionally fitting into the socket 13 formed in the end 12 of the crossbar a rectangularly shaped housing 35. This housing 35 is formed by joining together two L-shaped members 36 in an inverted position with respect to each other as shown in Fig. 6. The long legs of the L-shaped members extend laterally beyond the end of the housing as shown. The free ends of the legs of the members 36 are then welded the S-shaped shell member 36' of the bar, the bar being constructed in accordance with the disclosure of my Patent 2,514,229.

The housing 35 is provided in its top and bottom walls thereof with apertures 37. These apertures 37 are in vertical alignment and frictionally receive the stop member 22. This stop member 22 is adapted to pass through apertures 37 as well as the opening 21 formed in the section 17 of the tail section 14. By such arrangement, the attaching head may move longitudinally of the end 12 of the bar a distance equal to the length of the opening 21, as such attaching head is telescopically attached to the end 12 of the bar.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. An attaching head for a load supporting crossbar which has operative connection to a crossbar supporting member, said head comprising a substantially square flat

plate having vertically extending spaced apart ears on one side thereof, said plate having an elongated opening formed therein between said ears, a substantially triangularly shaped latching lever carried by said plate between said ears and movable through said opening, means for pivotally connecting said lever to and between said ears, said lever having a notch formed in one of its triangular legs with said notch being of a size to frictionally receive a portion of the crossbar supporting member when said lever is pivoted through said opening, a tool receiving opening formed at the apex of said lever for manually moving the same about its pivotal connection with said ears, means carried by the other side of said plate adjacent the opening formed therein for positioning said plate on a portion of the crossbar supporting member, and means for telescopically connecting said head to said crossbar.

2. The device as defined in claim 1 wherein the positioning means comprises a plurality of spaced apart depending pins carried by said head for engagement in suitable openings formed in the crossbar supporting member.

3. The device as defined in claim 1 wherein the telescopic connection means comprises a tail section carried by said head with said tail section having an elongated body formed with an opening therein, a housing carried in one end of said crossbar for freely receiving therein said tail section, a vertical stop pin carried by said housing and extending transversely of the opening formed in said tail section, said tail section movable in said housing a distance equal to the slot through which said stop pin extends.

References Cited in the file of this patent

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